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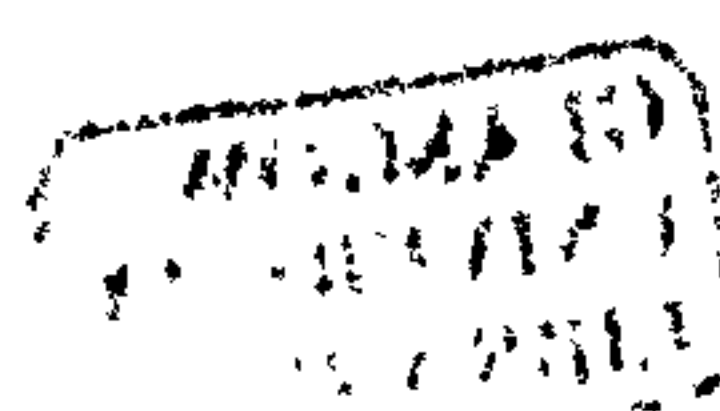
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The utility of the Theories of Change approach
within the evaluation of the Scottish National CHD
Health Demonstration Project
(Have a Heart Paisley).

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B.Ed (Hons), M.Ed, MPH.

Thesis submitted for the degree of PhD
Submitted to the University of Glasgow
Research conducted in the Division of Community-based Sciences

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Summary

Background

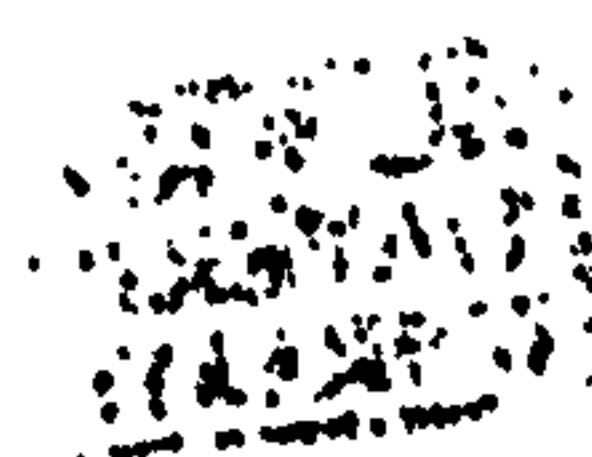
The Scottish Executive (SE), the administrative body for Scotland's devolved parliament, commissioned the first phase of a National Coronary Heart Disease (CHD) Demonstration Project, entitled Have a Heart Paisley (HaHP), in 2000. HaHP was a complex community-based partnership intervention. An independent evaluation of HaHP (phase one) was commissioned by the SE in 2001.

Aims and methods

This thesis presents the learning from the independent evaluation. It has two aims. The first aim is to identify the key implementation, evaluation and policy lessons to result from the evaluation. The second aim is to contribute to learning about how best to evaluate complex community-based interventions. The evaluation consisted of four approaches: a theory-based approach (the Theories of Change); the mapping of the context; a quasi-experimental survey; and, a range of integrated case studies. This thesis uses the programme logic (the intervention's Theories of Change) articulated by the HaHP stakeholders to integrate the results from each of the evaluation approaches.

Findings

HaHP (phase one) did not achieve significant changes in population level CHD risk factors, behaviours, morbidity or mortality. Like many previous community-based CHD interventions HaHP did not fully implement its intended Theories of Change. HaHP's activities were not consistently based on best practice (where such evidence was available). It did not articulate or implement clear strategies for addressing health inequalities. The project delivered mainly individually focussed, 'downstream' interventions and struggled to achieve wide-scale local service, policy and agenda changes. It did, however, make progress with regard to improving partnerships and jointly delivering interventions. HaHP made good progress at achieving community engagement, however this was mainly at an operational rather than a strategic level. The limited efficacy and quality of some of the interventions, coupled with their limited reach, restricted the degree to which the overall project penetrated its population and achieved changes in social norms or the culture of Paisley. Many of these outcomes were due to limitations in planning and implementation. However, they also resulted from systemic failures in the way that HaHP (like many other pilot initiatives) was established and commissioned. Expectations for HaHP were too great, the timescales too short, and the



national and local context was not conducive to achieving population behaviour and cultural change.

Conclusions

The findings from HaHP add to existing evidence that large-scale behaviour and cultural change will only be achieved through national action and the increasing use of 'upstream', legislative, or policy solutions, or changes in mainstream services and organisations. Activity in localised demonstration projects can add to such change rather than create it. Any future similar interventions should make better use of planning tools such as the 'RE-AIM framework' that fully consider issues such as the reach, efficacy, adoption, implementation fidelity and maintenance of interventions. The evidence-base for key areas of activity such as community-building and addressing inequalities needs to be further developed and the duration and intensity of the interventions need to be relative to the programme's aspirations.

A theory-based approach to evaluation can enhance the learning to result from the evaluations of complex community-based interventions. The Theories of Change approach claims to improve planning and implementation, enhance evaluation, and address attribution.

The approach (as it was applied within this evaluation) provided substantial amounts of formative feedback that was of use for improving programme implementation. This learning, however, was not always acted upon.

The approach also provided a suitable framework for guiding the development of the evaluation and for integrating the multiple methods used and the process and outcome data produced. The approach did enhance the internal and external validity of findings. Whilst the programme logic uncovered was used to guide and influence the prioritisation of evaluation questions and some aspects of the methodologies developed, it had only limited influence on the design and timing of the quasi-experimental survey. As a result of staffing and structural issues the approach did not fulfil its potential to support the internal evaluation processes within HaHP.

The Theories of Change approach made only a limited contribution to improving attribution within this evaluation. This potential remained unfulfilled due to the limited population based outcome data. This partly resulted from the approach not fully driving the selection and timing of methods in this instance. In addition there were major limitations in the quasi-experimental survey design and the response rate achieved within this. The approach has the capacity to

tell a more convincing story by aligning process information about the reality of the intervention's implementation with outcome data uncovered. It cannot, however, deal with attribution in the more traditional sense without high quality outcome data that can address the issue of the counterfactual and dismiss alternative explanations for change.

The experience of applying the Theories of Change approach within this evaluation highlighted a number of ways in which the approach might be enhanced within future evaluations. Consideration should be given to the most appropriate and efficient ways to articulate programme theories relative to specific purposes (e.g. to improve planning or address attribution) as well as to who should be involved in this process. Further insight is needed into the degree of specificity necessary. Logic models or other tools could be enhanced to deal with complexity and non-linearity. Additional criteria such as quality (including issues of reach and how intensive interventions are) could be added to, or made more explicit within, the existing criteria recommended for critiquing Theories of Change (plausibility, do-ability, testability). Greater focus should be put on articulating aggregated, as well as individual programme, timelines. More debate is needed on the extent to which it is feasible to uncover overall causal theory (rather than simply the implementation logic) for such complex interventions through this approach. Finally the role of context as a mediating variable in programme success should be further explored.

This thesis contributes to the fields of public health and evaluation by providing learning on how to enhance future community-based CHD interventions and how to improve the evaluation of complex community-based interventions.

Declaration of authorship

This thesis reports the findings from a multifaceted, multi-method, national evaluation. The author managed the overall evaluation. The majority of the empirical work reported in this thesis was designed, conducted, analysed and written up by the author, however the thesis also reports findings from aspects of the evaluation conducted by other researches but managed and influenced by the author. The full references and weblinks for the independent evaluation reports are detailed as part of Table six on pages seventy two to seventy five and are also listed in a separate reference list following the main references. The weblinks have not been listed after each individual citation of the HaHP independent reports due to the sheer number of reports and citations

Acknowledgements

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Thanks to those who provided supervision and advice. Thanks to Ken Judge, Principal Investigator and HPPU Director, for his support and for teaching me that it is 'better to seek forgiveness than permission'. Particular thanks go to Carol Tannahill for providing regular feedback, encouragement, and friendship throughout the thesis and much of my career. Thanks to Sanjeev Shridharan for inspiration in relation to the later stages of writing and reminding me that evaluation should be fun. Thanks to Margaret Reid for advice on the presentation of the qualitative data. Thanks also to Phil Hanlon for taking on the mantle of co-supervisor for the final few weeks. Thanks to Kay Munro and Nanette Mutrie for their advice on referencing, proof reading and especially for being great friends. Thanks to Margaret Ashton for her support and making sure I remembered to matriculate every year!

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Thank you all,

Avril.

Organisation of the thesis

This thesis presents the learning from the independent evaluation of the Scottish National CHD Health Demonstration Project Have a Heart Paisley (HaHP) and tests the utility of the Theories of Change evaluation approach that was used as part of the evaluation design. It is organised into three parts.

Part one sets the scene for the overall evaluation and contains the introduction (Chapter one), the literature review on the effectiveness of previous community-based CHD interventions (Chapter two), a review of literature on evaluation and the rise of theory-based evaluation approaches (Chapter three) and then details the design and methods for the thesis (Chapter four).

Part two contains the evaluation results. These are presented in five chapters that detail the findings from the application of the Theories of Change approach. Chapter five presents the results of the theory articulation process. Chapter six summarises the findings from the subsequent critique of the theory. Chapters seven and eight test the vital elements of the theory for the overall intervention (the cross-cutting outcomes). Chapter nine integrates the previous findings with the results from the quasi-experimental survey in order to assess the overall impact of the HaHP intervention.

Part three contains the discussion of the results (Chapter ten) and the conclusions and reflections on the experience of completing this thesis (Chapter eleven).

Contents

- Summary2
- Declaration of authorship.....4
- Acknowledgements5
- Organisation of the thesis6
- Contents7
- List of Figures and Tables10
- List of Appendices11
- List of Abbreviations12
- Part one: Setting the scene15
 - Chapter one: Introduction16
 - Introduction16
 - Have a Heart Paisley17
 - The context for the delivery of Have a Heart Paisley18
 - The independent evaluation of Have a Heart Paisley19
 - Why the Theories of Change approach?20
 - The aims of the thesis21
 - The objectives of the thesis.....21
 - Chapter two: The evidence-base for community-based CHD prevention projects.23
 - The literature review task23
 - The historical context of community-based CHD interventions25
 - Part (I): Key findings from reviews of community-based CHD interventions26
 - Part (II) Why Governments continue to fund CHD prevention programmes?....41
 - Part (III): Lessons concerning implementation and evaluation issues.....42
 - Chapter three: Evaluation and the rise of theory-based approaches.....55
 - Introduction55
 - Evaluation: its purpose, current status and historical influences55
 - The development of theory-based evaluation approaches60
 - The Theories of Change approach.....62
 - Chapter four: Evaluation design and methods69
 - Introduction69
 - The commissioning and early design of the independent evaluation69
 - Ethics approval70
 - The author’s role in the independent evaluation.70
 - Addressing process and impact in the evaluation of Have a Heart Paisley.....71
 - The aims and objectives of the thesis.....76
 - Why use the Theories of Change approach?77
 - The process of articulating Have a Heart Paisley’s Theories of Change.....78
 - Critiquing Have Heart Paisley’s Theories of Change84
 - Testing Have a Heart Paisley’s Theories of Change over the longer term.....85
 - The interviews used to articulate Have a Heart Paisley’s initial Theories of Change and test them in the longer-term87
 - Qualitative data management, coding and analysis.....89
 - Threats to the validity of the qualitative data92
 - The case studies.....93
 - The contextual analysis.....98
 - The survey98
 - The author’s epistemological and ontological position.....105

Part two: Findings from the application of the Theories of Change approach	107
General introduction to Part two	108
Chapter Five (Findings I): An explication of Have a Heart Paisley's Theories of Change.....	109
Introduction	109
Explicating HaHP's initial theories	109
HaHP's overview Theory of Change	111
Logic models produced for each setting and theme of Have a Heart Paisley ..	115
Uncovering the rationales and assumptions for Have a Heart Paisley's overall Theory of Change	118
Conclusion	124
Chapter six (Findings II): Critiquing Have a Heart Paisley's Theories of Change	125
Introduction	125
Plausibility	125
Doability	130
Testability	133
Conclusions	136
Implications for Have a Heart Paisley and the evaluation	137
Chapter seven (Findings III): Testing Have a Heart Paisley's Theories of Change – deviations in the theory and progress on delivering the cross-cutting outcomes (I)	139
Introduction	139
To what extent did Have a Heart Paisley deviate from its initial overall Theory of Change?	143
Did HaHP deliver evidence-based programmes?.....	145
Did HaHP reduce inequalities in health?	151
Did HaHP improve partnership working and joint delivery?	157
Did Have a Heart Paisley fully engage the community at all levels?	165
Conclusions	174
Chapter eight (Findings IV): Testing Have a Heart Paisley's Theories of Change - Progress in delivering the cross-cutting outcomes (II).....	178
Introduction	178
Ensuring that services and activities reach, and are adopted by, substantial proportions of the Paisley population	179
Changes in knowledge, practice, services, policies and agendas.....	183
Monitoring and internal evaluation.....	194
Conclusions	199
Chapter nine (Findings V): Assessing overall impact.....	203
Introduction	203
Summary of survey design and the methods and problems encountered.....	205
Data analysis	206
Survey Findings	207
Interpretation of the findings.....	207
The potential to integrate findings from the Theories of Change process, case studies, and the survey.	208

Part Three: Learning and knowledge generation	210
Chapter ten: Discussion of findings.....	211
Introduction	211
(I) Limitations in the methodologies applied within this thesis.....	211
(II) Uncovering the reasons for Have a Heart Paisley's limited success	215
(III) The utility of the Theories of Change approach.....	222
Personal reflections.....	243
Chapter eleven: Conclusions	245
Introduction	245
The conclusions with regard to Have a Heart Paisley.....	245
The implications for national policy (and future similar interventions)	246
The conclusions with regard to the utility of the Theories of Change approach.....	248
The implications for subsequent complex community initiatives and their evaluations.....	249
Concluding remarks	252
Main References	254
References from the reports of the independent evaluation	273

List of Figures and Tables

Table one: Prevention trials included in the Parker and Assaf (2005) review.....27

Table two: Interventions included in Merzel and D’Affitti (2003) not included in previous review detailed.....28

Table three: Additional interventions (to those included in the previously detailed reviews and Tables one and two) included in the Lundvall et al. (1999) review.29

Table four: Reviews included in the Elliot et al (2001) CHD multi-factorial interventions section of the nursing for health review.32

Table five: Outcomes for Ebrahim & Davey-Smith (2000) systematic review.....33

Figure one: Heart disease mortality trends in Finland.....38

Table six: Representation of the mixed methodologies applied72

Figure two: Illustration of mixed methods used to achieve triangulation of data.....76

Figure three; Steps in articulating Theories of Change78

Figure four: Flow chart of the Theories of Change articulation process for Have a Heart Paisley.....79

Figure five: Adapted logic model template.....81

Figure six: Example of coded text91

Table seven: The community case study methods and rationales.....95

Table eight: The primary care case study methods and rationales96

Table nine: The local authority case study methods and rationales.....97

Table ten: Intended samples for the quasi experimental survey at baseline102

Repeated Figure four: Flow chart of the Theories of Change articulation process for Have a Heart Paisley.110

Box A: Initial aims and objectives of Have a Heart Paisley111

Figure seven: A conceptual overview logic model of Have a Heart Paisley113

Figure eight: A more detailed overview logic model for the whole of Have a Heart Paisley114

Table eleven: Have a Heart Paisley programmes (settings and themes) and projects116

Figure nine: Logic model for the Heart Renewal Project (primary and secondary care setting).....117

Box B Have a Heart Paisley’s cross-cutting outcomes vital to success123

Figure ten: Cross-cutting outcomes vital to the successful delivery of Have a Heart Paisley124

Repeated Figure ten: Cross-cutting outcomes vital to the successful delivery of Have a Heart Paisley.....126

Table twelve: Examples of outcomes articulated that would be difficult to test135

Figure eleven: Cross-cutting outcomes vital to the successful delivery of Have a Heart Paisley II.....139

Box B (repeated): Have a Heart Paisley’s cross-cutting outcomes vital to success 140

Table thirteen: Breakdown of participants interviewed for revisiting the Theories of Change in years two and three.....141

Figure twelve: Partnerships – making substantial progress160

Figure thirteen: Partnerships – making some progress.....160

Figure fourteen: Partnerships – making limited progress.....161

Table fourteen: Breakdown of location and focus of Have a Heart Pasiley community funded projects (n=143)169

Table fifteen: Summary of process findings for the community programme.....174

Figure fifteen: Cross-cutting outcomes vital to the successful delivery of Have a Heart Paisley (III).....178

Table sixteen: Comparison of attendance at specific training components across professions in primary care*184

Table seventeen: A summary of the key outputs from primary care	188
Table eighteen: Key outcomes from primary care	188
Figure sixteen: Progress against the cross-cutting outcomes by the end of year three	203

List of Appendices

Appendix one: List of grant holders, staff, and roles and responsibilities of the thesis author	276 - 280
Appendix two: Example of search strategy	281 - 284
Appendix three: Studies included in the meta-analysis by Ebrahim and Davey-Smith 2000,	285 - 286
Appendix four: Ethics approval letters	287 - 290
Appendix five: The aims of the independent evaluation	291
Appendix six: Have Heart Paisley’s logic models and rationales	292 - 316
Appendix seven: An example of a schedule from each year of the Theories of Change interviews	317 - 323
Appendix eight: Examples of management team responses to recommendations from the theory critique	324 - 328
Appendix nine: Questionnaire for the primary care staff survey	329 - 335
Appendix ten: Questionnaire for leisure staff survey	336 - 341
Appendix eleven: Baseline questionnaires for population survey*	342 - 363
Appendix twelve: More detailed targets produced by Have a Heart Paisley	364- 365
Appendix thirteen: Extent of partnership working in primary care	366
Appendix fourteen: RE-AIM framework applied to the Health Promoting Schools programme	367 - 369
Appendix fifteen: Outputs from local authority funded projects	370 -371
Appendix sixteen: Examples of performance and process indicators developed after consultancy	372 - 373

* follow-up survey questionnaire was a shortened version of the baseline questionnaire so is not included in appendices

List of Abbreviations

BMI	Body Mass Index
BHF	British Heart Foundation
C	Case study (interviewee code)
CATCH	The Child and Adolescent Trail for Cardio-vascular Health
CBCIs	Community-based CHD interventions
CCIs	Complex community-based interventions
CDC	Centre for Disease Control (US)
CDSS	Clinical Decision Support System
CDR	Central Data Repository
CEO	Chief Executive Officer
CHAD	[Israeli] Community Syndrome of Hypertension, Arteriosclerosis and Diabetes programme
CHD	Coronary Heart Disease
CHI	Community Health Index
CI	Confidence interval
CMO	Chief Medical Officer
CMO	Context, Mechanism and Outcome
COMMITT	Community Intervention Trial for Smoking Cessation
COPC	Community Orientated Primary Care
CRD	Centre for Reviews and Dissemination
CRESR	Centre for Regional, Social and Economic Research
CRU	Central Research Unit of the Scottish Executive
CVD	Cardiovascular Disease
DEPCAT	Deprivation category
FC	Focus Group (interviewee code)
GP	General Practitioner
GCPP	German Coronary Prevention Programme

HaHP	Have a Heart Paisley
HaW	Health at Work
HAZs	Health Action Zones
HBW	Heart Beat Wales
HEBS	Health Education Board for Scotland
HISD	Health Improvement Strategy Division
HPHSF	Health Promoting Health Service Framework
HPPU	Health Promotion Policy Unit
HPS	Health Promoting Schools
I	Interview (Interviewee code)
IHD	Ischeamic Heart Disease
ISD	Information and Statistics Division (National Service Agency)
IMT	Information and Management Tecnology
LA	Local Authority
LHCC	Local Health Care Cooperatives
MGM	Management Group Member (interviewee code)
MHHP	Minnesota Heart Health Project
MI	Myocardial Infarction
NE	North East
NESS	National Evaluation of Sure Start
NGO	Non-Government Organisation
NHBLI	National Heart Blood and Lung Institute
NHS	National Health Service
NHS A&C	NHS Argyll and Clyde
NHSHS	NHS Health Scotland
NK	North Karelia (Project)
NW	North West
OP	Operational (interviewee code)
PATCH	Planned Approach to Disease Control

PHA	Paisley Heart Award
PHPD	Public Health Policy Directorate
PHHP	Pawtuckett Heart Health Project
PHIS	Public Health Institute of Scotland
RCT	Randomised Control Trial
REAIM	REAIM framework (Reach, Efficacy, Adoption, Implementation, Maintenance)
SCHHP	South Carolina Heart Health Project
SE	Scottish Executive
SE	South East (used only in table in Chapter seven)
SEHD	Scottish Executive Health Department
SFCP	Stanford Five City Project
SHAW	Scotland's Health at Work
SHS	Scottish Health Survey
SIP	Social Inclusion Partnership
SMART	Specific, Measurable, Achievable, Results Orientated and Time limited
STCP	Stanford Three City Project
SW	South West
TBE	Theory-based Evaluation
TPOP	Tobacco Policy Options for Prevention
UK	United Kingdom
US	United States

Note:

The term Theories of Change is used frequently within this thesis. It is used predominantly in the plural as, in most cases, more than one theory tends to be generated about an intervention. However, it is used in the singular within the thesis when referring to HaHPs overall integrating Theory of Change.

Part one: Setting the scene

- **Introduction (Chapter one)**
- **The evidence-base for community-based CHD interventions (Chapter two)**
- **Evaluation and the rise of theory-based evaluation approaches (Chapter three)**
- **Evaluation design and methods (Chapter four)**

Chapter one: Introduction

Introduction

In 1999 the devolved Scottish Government, the Scottish Executive (SE), published the public health White Paper *Towards a Healthier Scotland* (Scottish Executive/Office, 1999). In this White Paper the SE announced funding of £15 million for four National Health Demonstration Projects (NHDPs). These pilot initiatives were to be funded for three years, in the first instance, and were to address four priority health areas – heart health, child health, sexual health and cancer. The NHDPs were to be ‘test beds’ for the implementation of both evidence-based and innovative practice. They were to address health inequalities, ensure community engagement in all aspects of their development and delivery, and were to provide learning that would inform future policy development across the rest of Scotland (McVea et al., 2001).

Expressions of interest for NHDP funding were invited in May 1999. Over two hundred and fifty responses were received from a variety of statutory and voluntary bodies for three of the four NHDP topic areas (the fourth, a more clinical project addressing colorectal cancer screening, had been commissioned separately). A panel of senior civil servants from the SE's Public Health Policy Division (PHPD - now known as the Health Improvement Strategy Division [HISD]), the then Health Education Board for Scotland (HEBS, now NHS Health Scotland [NHSHS]), the Chief Medical Officer (CMO) and three independent experts considered these notes of interest and invited three local NHS Boards to progress their initial proposals. After further development of the initial project bids, and negotiations with the SE, the three successful bids were announced in February 2000. The three awards were made to Have a Heart Paisley, Starting Well and Healthy Respect. These projects addressed heart health, parenting and child health, and young people's sexual health in the localities of Paisley, two areas of Glasgow, and Lothian respectively (McVea et al, 2001).

In April 2000 the SE began a selective tendering process (inviting six academic groups to bid competitively) for the independent evaluations of the above NHDPs. This process received a poor response with many of the invited agencies declining the opportunity to bid due to a lack of capacity or concern over the ‘evaluability’ and concept of the NHDPs (NHDPs Evaluation Task Group, 2004). The SE encouraged the remaining invitees to submit bids (personal communication Prof Phil Hanlon, December, 2000). Only one bid was received for each NHDP (NHDPs Evaluation Task Group, 2004). In a similar process to the awarding of the NHDP contracts these bids were considered by a panel consisting of representatives from various sections of the SE (PHPD, Chief Scientist Office [CSO], Central Research Unit [CRU])

and HEBS. The various evaluation contracts were awarded towards the end of 2000 (NHDPs Evaluation Task Group, 2004).

The invitation to tender document requested evaluations that answered a broad range of objectives. The evaluations were asked to “determine how far the NHDPs met their own aims and objectives” and to judge their contributions towards the overall goals of the whole NHDP initiative (e.g. the learning across the four NHDPs). The evaluators were encouraged to develop methods that would provide an estimate of the success or failure of the NHDPs and to cover process and outcome elements in order to judge and explain project impact [Invitation to tender April (2000), quoted in NHDPs Evaluation Task Group, 2004, p4]:

“Each set of aims and objectives contains outcome as well as process elements and the evaluation must cover both, in order to describe and explain the projects’ impact. In addition each project is meant to improve health within its target population, and to demonstrate methods that could be adopted elsewhere. Both aims are relevant to the evaluation” [Invitation to tender April (2000) quoted in NHDPs Evaluation Task Group, 2004, p. 4].

In addition, they were expected to utilise mixed research methods and conduct primary and secondary data collection and analyses, and were requested not to overburden the NHDPs with regard to “sampling and other requirements” [Invitation to tender April (2000), quoted in NHDPs Evaluation Task Group, 2004, p. 4].

This thesis focuses on the learning that arose from the independent evaluation of one of the four NHDPs – Have a Heart Paisley (HaHP), and in particular on the use of a theory-based evaluation approach [The Aspen Institute’s Theories of Change (Fulbright-Anderson, Kubisch and Connell, 1998)] within that evaluation. A brief description of: HaHP; the context within which it was delivered; its evaluation; and, the reasons for adopting a Theories of Change approach within the evaluation will now be given.

Have a Heart Paisley

HaHP received £6 million from the SE to fund a three-year programme. It was the most expensive and largest of all the NHDPs. HaHP was a complex community-based, and area-based, initiative that aimed to reduce and prevent coronary heart disease (CHD) within the town of Paisley. HaHP was a strategic partnership between NHS Argyll and Clyde, Renfrewshire Council and local community and voluntary organisations. At the time that HaHP was commissioned, NHS Argyll and Clyde (NHS A&C) was represented by the

separate entities of the Acute Trust (The Royal Alexandra Hospital Trust), Renver Primary Care Trust, Paisley Local Health Care Cooperative (LHCC) and the Public Health Department of NHS A&C. HaHP consisted of seventeen separate but linked strands of activity (each containing multiple projects) addressing both primary and secondary prevention of CHD (e.g. preventing the onset of risk factors and CHD amongst those without disease and ameliorating or reducing risk factors and related conditions amongst those with existing risk factors and/or CHD) (Last, 1983). HaHP was influenced by, and hoped to emulate, the world famous Finnish community-based CHD programme the North Karelia Project (Puska et al, 1995). HaHP is still in existence as a NHDP. However, it is now in its second phase (from 2005–2008) having been granted funding for a transition year after which it submitted plans and secured funding for a more focused intervention concentrating on 45-65 year olds at high-risk of CHD.

The context for the delivery of Have a Heart Paisley

Paisley is Scotland's largest town and it is situated south west of Glasgow. Paisley was historically a weaving and mill town (renowned for the famous 'Paisley pattern'). Like many other Scottish towns this industrial heritage has long gone and the town has suffered from high unemployment and socio-economic deprivation. In 2001 it had a population of 76,355, however this was declining and there was a substantial amount of outward migration. The deprivation levels¹ in Paisley were much higher than the average figures for Scotland (Information and Statistical Division National Services Agency Scotland [ISD], 2003; Public Health Institute of Scotland [PHIS]/NHS SHS Community Profiles 2001). There were high levels of: working aged men who had never worked or were long-term unemployed (4.3%); adults of working age permanently unable to work (8.7%); lone parent households (12.2%); and, other similar indicators of deprivation relative to the Scottish average (ISD, 2003; PHIS/NHS SHS 2001). Although CHD trends in the area were improving, the CHD mortality and morbidity figures were similarly elevated. Paisley had experienced many previous government interventions aimed at reducing poverty and regenerating the area. At the time of the HaHP interventions there was a substantial housing regeneration project underway and a school rationalisation programme. There were also numerous government and non-government organisation (NGO) funded, time-limited, health related programmes ongoing in Paisley. Despite this level of health related activity, a major financial deficit existed within the local NHS board (NHS A&C). All of these issues were important in relation to the potential impact of HaHP. More information on the context for HaHP is available in Paterson and Ayana (2003).

¹ Deprivation scores are derived by combining variables (such as overcrowding, male unemployment, low social class and car ownership) taken from census data of small geographical areas. The scores relate to the populations rather than individuals within these localities and are used for measuring relative deprivation between areas (McLoone, 1994).

The independent evaluation of Have a Heart Paisley

The HaHP independent evaluation contract was won by grantholders from The University of Glasgow, NHS Greater Glasgow and the University of Paisley. The funding for this was received in January 2001. The evaluation was led by the Health Promotion Policy Unit (HPPU) within the Public Health and Health Sciences Section of the University of Glasgow. The Principal Investigator, the evaluation manager (the Thesis author) and the three grant-funded researchers were members of the HPPU². The overall grant awarded was £400,000. In order to address the challenges set out in the invitation to tender (to evaluate impact, outcomes and processes, to address issues of external validity and provide policy lessons) the independent evaluation design consisted of four separate but linked approaches (Hanlon, 2000). The four approaches were:

1. a theory-based approach (the Aspen Institute's 'Theories of Change');
2. the mapping of the social context within which HaHP took place;
3. a quasi-experimental pre and post survey; and,
4. a range of integrated case studies.

These approaches were used to gather data from a range of stakeholders and activities targeted at different groups (agencies, professionals, patients and the general public) and levels (strategic, operational and participant) across the HaHP intervention. The methods were also applied across different timescales. A fuller explanation of the methodologies can be found in Chapter four and in the interim and final evaluation reports [Blamey, 2001; Ayana, Blamey and Reid, 2002; Paterson, Blamey and Judge, 2002; Lawson, Paterson, Blamey, 2003; Ayana and Blamey, 2003; Blamey, 2003; Paterson and Ayana, 2003; Lawson, 2004; Lawson and Ayana, 2004; Blamey et al., 2004; Mackinnon and Blamey, 2004]. Data and findings from across the four approaches above are reported as part of this thesis. The thesis author's role and contribution in relation to each of these approaches is clarified in Appendix one and further detailed within Chapter four.

² For a full list and details of grantholders, and a complete description of the roles and responsibilities of the PhD author see Appendix one.

Why the Theories of Change approach?

The difficulties in evaluating complex community interventions (CCIs) such as HaHP have received significant attention from academics and policy makers from both Europe and the US in recent years (Auspos and Kubisch, 2004, Coote, Allen and Woodhead, 2004). The difficulties include: the complex and organic nature of the interventions; the range and varied expectations of the stakeholders involved; the long-term nature of the anticipated outcomes; the short-term funding, implementation, and evaluation timescales; various types of implementation failure; the complex social and political contexts within which CCIs are delivered; and, the multiple related policy interventions being simultaneously delivered (Sorenson et al. 1998; Koelen, Vaandrager and Colomer, 2001; Auspos and Kubisch, 2004; Coote, Allen and Woodhead, 2004). These problems make attribution difficult. In addition, the limitations of existing evaluation methodologies with regard to increasing knowledge about whether, how, why, and for whom, such complex initiatives work have also become apparent (Pawson and Tilley 1997; Connell and Kubisch, 1998; Sanderson, 2000; Koelen, Vaandrager and Colomer, 2001).

In response to these issues, attention has turned to considering the contribution that might be made by more theory-driven evaluation approaches (Chen 1990; Pawson and Tilley, 1997; Fulbright-Anderson, Kubisch and Connell, 1998; Judge and Bauld, 2001). These approaches attempt to gain a comprehensive understanding of the programme being evaluated and how it is expected to work from the perspectives of a range of stakeholders. Such approaches aim to improve programme learning and attribution by better linking data on process and outcome and by understanding the influence of context on the impact of the programme. The theory derived should influence the range of methods used and the focus taken within the evaluation. Such methods should be appropriate to address the main evaluation questions that the theory development process has prioritised (Chen, 1990; Pawson and Tilley, 1997; Fulbright-Anderson, Kubisch and Connell, 1998).

The two most publicised and influential theory-based approaches currently being applied in Europe and the United States (US) are The Aspen Institute's Theories of Change approach (Fulbright-Anderson, Kubisch and Connell, 1998) and Realistic Evaluation (Pawson and Tilley, 1997). The Theories of Change approach was designed to tackle multi-agency, complex community-based interventions (CCIs) and aims to explicate and test the programme theory as a means of improving planning, aiding evaluation design and addressing attribution. The interventions that it has been applied to have been multi-agency and complex (Fulbright-Anderson, Kubisch and Connell, 1998; Connell and Kubisch, 1998). HaHP is similarly complex and multi-agency. The applications of Realistic Evaluation have

focused on the 'most promising' elements of less complex interventions in particular contexts, rather than overall programmes (Pawson and Tilley, 1997; Blamey and Mackenzie, In Press). Given that the invitation to tender for the independent evaluation of HaHP encouraged consideration of the impact of the overall HaHP intervention, as well as elements within it, the Theories of Change approach appeared to offer more scope for dealing with HaHP's complexity.

The aims of the thesis

This thesis intends to make a particular contribution to learning in the following ways. It aims to contribute to learning about how knowledge of implementation plans, and their underlying theory, can improve both the implementation and evaluation of community-based interventions (in particular those focusing on CHD prevention). In addition it aims to add to the currently underdeveloped critiques of the Aspen Institute's Theories of Change evaluation approach.³ The early presentations of the Theories of Change approach that emanated from the Aspen Institute in 1998 expressed aspirations that the approach could improve programme implementation, aid evaluation design and data collection and, perhaps most optimistically, aid attribution. Through focusing on the application of the approach within the independent evaluation of HaHP, this thesis attempts to critique and test these key assertions and to highlight the potential uses and limitations of the approach as experienced in this context. By utilising the four approaches highlighted on page eight (theory-based approach, mapping the context, quasi experimental survey and integrated case studies) this thesis aims to:

- identify the key implementation, evaluation and policy lessons that result from the independent evaluation of the Scottish National (Coronary Heart Disease) Health Demonstration Project - Have a Heart Paisley; and
- contribute to learning about how best to evaluate Complex community-based interventions (CCIs).

The objectives of the thesis

This thesis has the following objectives:

1. to articulate and describe the stakeholders' theories underlying HaHP (and identify HaHP's 'Theories of Change');
2. to critique the initial articulation of the HaHP stakeholder's 'Theories of Change';

³ A parallel PhD has been submitted to test the application of the Theories of Change approach as it was applied in one of the other NHDPs (Starting Well) evaluated within the HPPU (Mackenzie, 2006).

3. to test the extent to which the priorities and cross-cutting objectives underpinning the HaHP stakeholder's overall 'Theory of Change' were successfully delivered within its initial three years of funding;
4. to identify the learning that resulted from the independent evaluation of HaHP with regard to community-based CHD interventions;
5. to reflect on the utility, strengths and weaknesses of the Aspen Institute's Theories of Change approach as it was applied in the independent evaluation of HaHP; and,
6. to identify learning from the application of the Theories of Change approach which can (if appropriate) improve its application within future CCI evaluations.

Chapter two: The evidence-base for community-based CHD prevention projects

The literature review task

The literature on the prevention and treatment of coronary heart disease (CHD) is vast and complex. This made conducting the literature review for this thesis a daunting task. The task was further complicated by the fact that HaHP was a multifaceted project that included both primary and secondary prevention activities and attempted to change behaviours, risks factors, services, policies and CHD related opportunities at both the individual and organisational levels and throughout a range of settings (HaHP Action Plan, 2001). HaHP also had a range of additional outcomes such as working in partnership, addressing inequalities, engaging the community and achieving agenda change, all of which required some knowledge of a range of different literatures. In addition, HaHP was strongly influenced by CHD prevention projects, such as the North Karelia Project (NK), that dated back to the 1970s.

As a result of the above issues it was difficult to set limits and boundaries within which to search the literature and to ensure that the above areas were considered in enough depth. Given the range and varying nature of the literature that it was necessary to access and review, advice was sought from professional librarian staff on how best to search appropriate data bases and sources that would allow access to the necessary range of materials, whilst ensuring each area was considered in enough depth. After consideration of these issues it was recommended that in a complex area, such as this, a pragmatic approach would have to be taken which set realistic limits on the range and depth that could feasibly be considered within the realms of a thesis. It was suggested that, rather than running one or two complex searches using mesh headings and with many potential limiting conditions, a larger number of smaller scale searches were conducted across a wide variety of data bases [e.g. Cochrane Library (and central register of controlled trials and database of systematic reviews) Embase, CINAHL, DARE, Ovid Medline and PsychINFO] using key words in different combinations and adding additional terms to limit the number of 'hits' in areas where the numbers accessed were unwieldy and/or materials accessed were inappropriate. In addition, it was recommended that where appropriate materials were sourced, that the reference lists of these sources were searched for similar articles and that future papers citing these publications were accessed. It was felt that these approaches were less likely to lead to the exclusion of important material compared to running larger scale searches using more complex mesh headings and setting possibly inappropriate limiting terms. Appendix two illustrates how the CHD literature was searched, what data bases and additional sources were accessed, and

gives an indication of the numbers of 'hits' achieved by various strategies and the relevance and success of the strategies used.

Limitations set for the literature search

For pragmatic reasons the following limits were set with regard to searches for this literature review. The predominant focus of the literature review is on large-scale community-based intervention projects aimed at the primary (but including secondary) prevention of CHD. In the main, review articles were relied upon. These were predominantly systematic reviews that indicated the boundaries of their searches and the inclusion and quality criteria used to select or exclude evaluations. This ensured the robustness of the review process (NHS Centre for Reviews and Dissemination-CRD, 2001). Although relying predominantly on systematic reviews, other papers have been included where they related to individual projects or publications of particular interest, or where they were especially influential in this field, or in the development of HaHP. It was also necessary to include reviews of CHD multiple risk factor intervention trials as such interventions were frequently one specific element of the entire community-based programmes. Many of these trials used a similar mix of educational and pharmacological approaches to HaHP. Unlike the large-scale community interventions these types of interventions were not delivered to entire communities but targeted at particular patients or employee groups. In most cases they targeted particular settings, such as primary care or workplaces. These interventions did not have wider aims such as achieving community building or partnership working.

Each of the groups of reviews or studies included has particular lessons with regard to the evidence-base of both the content and delivery of integrated community-based CHD interventions. The focus was not only on understanding whether these interventions did or did not achieve their overall outcomes, but also on their success in comparison to similar interventions and why this was the case.

The structure of this review

The review starts with some historical context for community-based CHD interventions and then is split into three key parts.

In Part (I) the initial section presents the main findings from the reviews of entire community-based CHD interventions. The second section of Part (I) details findings from a review of reviews on multiple risk factor intervention trials and then considers some of the more

relevant reviews from within this. The third section of Part (I) presents the key findings from the North Karelia Project that was the key inspiration for HaHP, and summarises the debates that arose from these findings. Conclusions are then drawn from Part (I) of the literature review.

Part (II) is a very short linking section that considers why, despite the limited evidence of effectiveness, governments are likely to continue to invest in community-based CHD prevention projects.

In Part (III) of the review, possible explanations are postulated for the limited success of community-based CHD interventions to date. These issues relate predominantly to problems with regard to implementation and/or evaluation. Conclusions are then drawn from this material. Finally a summary of how theory-based evaluation approaches may help to address some of these problems is presented. This area is then developed further in Chapter three.

The historical context of community-based CHD interventions

Since the 1970s there have been numerous large-scale interventions addressing primary (and in many instances secondary) prevention of CHD. Like HaHP, these interventions have attempted to target entire communities and to address multiple CHD related risk factors, behaviours, and in some instances, their wider determinants. These projects have attempted to use 'upstream' approaches (i.e. to address the conditions and wider factors that lead to risk related behaviours and conditions) to influence individual behaviours across large numbers of the population and create a shift in the distribution of risk, and the health related norms, within a population (Thompson et al., 2003). Such approaches are informed by the prevention paradox that emphasises the fact that most cases of CHD occur among the larger number of the asymptomatic population than from among the small number of high risk or symptomatic individuals (Rose, 1992). These interventions have delivered varied combinations of activities including clinical services and drug therapy, educational and media programmes, advocacy and community development activities and risk reduction programmes. In some instances they have also attempted to address issues of health related legislation and policy - such as food retailing (Merzel and D'Affitti, 2003).

Many of these interventions, such as the North Karelia Project (NK) (Puska et al., 1998) and the Stanford Three City Projects (STCP) (Farquhar et al., 1990), have been hugely influential in the establishment of subsequent interventions across the world (Parker and Assaf, 2005 and Sorenson et al., 1998). According to Sorenson et al. (1998) both NK and STCP were

influential in the United States (US) National Heart, Lung and Blood Institutes (NHLBI) decision to fund three subsequent large-scale community based trials [the Stanford Five City Project (SFCP) (Farquhar et al., 1990), the Minnesota Heart Health Project (MHP) (Luepker et al., 1994), and the Pawtucket Heart Health Project (PHHP) (Carelton, 1995)]. These early CHD community-based interventions went on to influence the US Centre for Disease Control's (CDC) subsequent programmes. This included programmes such as the Planned Approach to Disease Control [PATCH] projects initiated in the 1980s (Goodman et al., 1993) and the COPC (Community Orientated Primary Care) model (Parker and Assaf, 2005). These programmes extended their focus from chronic disease to HIV prevention in the 1990s. Similar interventions have taken place across Europe including the UK [e.g. Heart Beat Wales (Tudor-Smith et al., 1998)]. The sheer number of such projects meant that a variety of reviews have been conducted of different combinations of these interventions. The starting point for this literature chapter is, therefore, the key findings from the most robust of these reviews.

Part (I): Key findings from reviews of community-based CHD interventions

Several reviews were sourced, from the searches detailed in Appendix two, which considered the impact of integrated interventions, targeted at entire communities, and that were similar to HaHP. These reviews focused on large-scale CHD interventions although several also included community-based interventions targeting other types of disease or behaviour change to provide comparative learning.⁴

Parker and Assaf (2005) provided an historical review of eleven of what they identified as 'significant' community cardiovascular (CVD) programmes from 1971 to 1994 (see Table one).

⁴ The conclusions from these reviews are detailed below, however the key outcomes from the seminal papers for the most prominent and relevant of the interventions reviewed will be provided later to avoid repeated citation of these from each of the reviews. Similarly the lessons to result from these reviews will be integrated and discussed in part III of this chapter.

Table one: Prevention trials included in the Parker and Assaf (2005) review.

CVD PREVENTION TRIAL	DATES/ COUNTRY	KEY REFERENCE(S)
Israeli Community Syndrome of Hypertensions, Arteriosclerosis and Diabetes programme [CHAD]	1971–1981 Jerusalem	Abramson et al. (1994)
North Karelia (NK)	1972–1977 (aspects still ongoing) Finland	Pushka et al. (1998) Vartiainen et al. (1994)[a]
The Stanford Three City Projects (STCP)	1972-1975 US – California	Farquhar et al. (1990)
Franklin ME	1984-1994 US Maine	Record et al. (2000)
The Stanford Five City Project (SFCP)	1980-1986 US - California	Farquhar et al. (1990)
Minnesota Heart Health Program (MHHP)	1981-1988 US - Minnesota	Luepker et al. (1994)
Pawtucket Heart Health Program (PHHP)	1981-1994 US -New England	Carleton et al. (1995)
NORSJO Project	1985–1994 Northern Sweden	Weinehall et al. (1999)
German Cardiovascular Prevention Programme (GCPP)	Germany 1984-1991	Hoffmeister et al. (1996)
South Carolina CVD Prevention (SCHHP)	US Carolina 1987 -1991	Heath et al. (1995)
Child an Adolescent Trial for CV Health (CATCH)	1991 –1994 US (Several States)	Hoelscher et al. (2004)

Parker and Assaf (2005) provided commentary on the influence of NK, STCP and also the Israeli Community Syndrome of Hypertension, Arteriosclerosis and Diabetes programme (CHAD) on the development of subsequent US strategies for community action. Whilst detailing favourable outcomes reported by many of the first generation projects such as NK, CHAD and STCP, they noted that although the subsequent three NHBLI projects (SFCP, MHHP and PHHP) produced significant differences in knowledge and risk factors compared to their control communities, they failed to achieve significant differences in CVD morbidity

and mortality. They concluded that despite the proliferation of a range of similar initiatives across the world that:

“Overall, the community-based CVD prevention programs produced modest population-level changes in health risk behaviours and health outcomes” (Parker and Assaf, 2005, p. 875).

Parker and Assaf (2005) highlighted a number of reasons for such outcomes which related to limitations of the interventions, the strong secular decreasing trends in CHD and related risk factors that were occurring during these interventions, and a range of statistical and evaluation issues. These will be discussed in more detail later.

Merzel and D’Affitti (2003) conducted a systematic review of thirty-two community-based US prevention programmes (at least eleven of which targeted CHD behaviours or risks). Four of the eleven CHD related projects were similar to those considered by Parker and Assaf (2005) (MHHP, PHHP, SCHHP and SFCP). Table two illustrates those CHD related interventions considered that were not part of the Parker and Assaf (2005) review.

Table two: Interventions included in Merzel and D’Affitti (2003) not included in previous review detailed

INTERVENTION TRIAL	KEY REFERENCE(S)
Community Intervention Trial for Smoking Cessation (COMMITT)	COMMITT Research Group. Community Intervention Trial for Smoking Cessation (1995)
Neighbours for a Smoke Free North Side	Fisher (1998)
Project ASSIST	Stillman et al. (1999)
Tobacco Policy Options for Prevention (TPOP)	Forster et al. (1998)
Massachusetts Tobacco Control	Biener, Harris, and Hamilton (2000)
5 a Day Programme (nutrition focus)	Havas et al. (1995)
Kaiser Community Health Promotion Grants (various Health Issues inc CHD)	Wagner et al. (2000)

The programmes detailed in Table two, all used multiple interventions and targeted population level change. Merzel and D’Affitti (2003) also emphasised the influence of NK and STCP on subsequent interventions, although they were not included in their review since they were

initiated prior to 1980 and NK was a European intervention. The review did, however, include the subsequent NHBLI funded projects and several of the HIV prevention projects to arise from the CDC's Planned Approach to Community Health Programme (PATCH) (Goodman et al., 1993). The review highlighted that all of these interventions illustrated a shift away from more medically based health models, to interventions acknowledging the influence of social and environmental factors on health, lifestyles and disease prevention. In reference to the impact of CHD intervention projects, however, Merzel and D'Affitti (2003) stated that:

"Despite their strong design and conceptual foundation, the major community-based CHD prevention programs conducted in the 1980's resulted in limited population level change in health behaviours and health status outcomes" (Merzel and D'Affitti, 2003, p. 562).

Merzel and D'Affitti (2003) indicated that these findings were in contrast to those resulting from more recent community-based HIV interventions that achieved significant change in targeted behaviour at a population level. Reasons for limited success were suggested from the authors and included methodological limitations, secular trends and limited scope of the interventions. The lessons from this review, and from the comparisons between HIV and CHD interventions, will be highlighted in Part III of this chapter.

Lundvall et al (1999), on behalf of the Swedish National Institute for Public Health, published a systematic review of multiple risk factor population level interventions that focused predominantly on primary prevention of CHD. They included only those interventions that had been evaluated against a comparison or control group. The review process also included a discussion session with the key researchers involved in these interventions. Eight studies were included in this review. Six of these were considered by the previously detailed reviews (NK, STCP, SFCP, PHHP, MHHP and GCPP). The two trials included, which were not considered in the other reviews above, are detailed in Table three.

Table three: Additional interventions (to those included in the previously detailed reviews and Tables one and two) included in the Lundvall et al. (1999) review

INTERVENTION	KEY REFERENCE
Swiss National Research Project	Gutzwiller, Nater, and Martin (1985)
Kilkenny Project	Shelly et al (1995)

The Lundvall et al. (1999) review concluded that outcomes were negligible and that the differences seen between intervention and control sites were minor and did not show conclusive proof of benefits from the intervention activities. They summarised that:

“[T]here is no conclusive scientific evidence that would support starting new large scale community intervention programmes – such as those assessed here – aimed at preventing CV disease. The eight large community intervention projects reviewed in this report have not demonstrated any significant effects on risk factor levels or disease incidence beyond those observed in populations at large” (Lundvall et al., 1999, p. 9).

Sorenson et al. (1998) conducted a systematic review of selected US community-based intervention trials most (but not all) of which aimed to reduce CHD and/or related risk factors. The CHD related interventions were all included in the previously detailed reviews (NK, MHHP, SFCP, STCP, PHHP, COMMITT, TPOPS, ASSIST and the Kaiser grants). They considered interventions that attempted to achieve and measure population level change, rather than simply changes in programme participants, in three settings: entire communities; worksites; and schools. These trials also had control or comparison groups. In total, nine entire community trials, ten worksite trials, two reviews of school-based smoking prevention trials and two meta-analyses of school-based smoking prevention programs were included in this review. Some of the trials had multiple intervention sites. The Sorenson et al. (1998) review highlighted that the results of NK were influential in the establishment of the STCP and that both these interventions ‘set the stage for community-based intervention trials’ (p. 382). None of the above entire community trials were randomised control trials (RCTs) but they did have matched comparison groups. Sorenson et al. concluded that:

“[A]lthough the early community-based trials held promise for the potential of community interventions to promote population-wide health behaviour change, the level of change observed in the North Karelia and Stanford Three Communities studies has not been replicated in subsequent community-based intervention trials. In contrast to these community-based interventions, there were more significant findings in the worksite – and school-based intervention studies” (Sorenson et al., 1998, p. 387).

Finally, Winkleby, Feldman and Murray (1997) completed a meta-analysis of three US trials (SFCP, MHHP and PHHP) and found that the effects were in the expected and positive direction for nine of the twelve outcome comparisons (the outcomes considered were smoking, blood pressure, cholesterol, Body Mass Index and CHD mortality risk in both males and females). However, the overall results (using the pooled data from all three) were not statistically significant.

Whilst several other reviews were found (Shea and Basch, 1990; Schooler, Farquhar and Flora 1997; Pearson et al 2001; Thompson et al., 2003) they have not been included in detail as they did not cover any additional interventions or add anything new. The lessons emerging from these reviews, however, have been integrated into Part (III) of this chapter.

Conclusions with regard to the efficacy of community- based CHD interventions trials

The overall conclusions from these reviews are that complex community-based interventions addressing primary prevention of CHD in entire communities have, at best, achieved very modest and limited impact on population level change in disease, risk factors or behaviour status. Some of the earlier trials (NK, SFCP) were suggested to have shown more promise than the subsequent interventions that they encouraged (Sorenson et al., 1998; Merzel and D’Affitti, 2003). Several of the interventions achieved significant risk factor reductions compared to their controls but these were not always sustained in the longer term, nor were they consistently translated into population level changes in morbidity or mortality.

Such findings, without more detailed lessons and discussion, provide little help in guiding future action to improve primary prevention or in highlighting why various governments continue(d) to fund similar primary prevention interventions. In order to provide more clarity regarding what aspects of interventions may have worked better than others, evidence is now presented from review articles that considered the impact of multiple risk factor intervention trials (rather than more comprehensive interventions), some of which targeted particular settings or groups rather than whole communities.

Findings from reviews of multiple risk factor intervention trials

As highlighted earlier, it was thought necessary to include reviews of CHD multiple risk factor trials. Although such trials were not delivered to entire communities per se, the approaches they involved were sub-interventions within many of the comprehensive community-based programmes reviewed. This literature provides some understanding of the elements of the comprehensive interventions that have been relatively effective, as they have targeted particular settings or risk groups. In addition the interventions considered in the following reviews are important with regard to HaHP as they use a similar mix of educational and pharmacological approaches or targeted similar settings such as primary care or the workplace.

Elliot et al. (2001) published a report for the SE that presented findings from a 'review of systematic reviews' conducted in areas that were relevant to the role of public health nursing. This report drew its original reviews from four major databases (CINAHL; Embase; Medline; and Psychlit). The search was limited to English language papers published between 1989 and 1999. One section of this report focused particularly on reviews of large-scale multi-factorial interventions in the community, workplace or general practice settings that aimed to reduce or ameliorate CHD. Whilst these interventions were multi-factorial they tended to use behavioural or clinical interventions rather than social or ecological interventions (e.g. legislation, advocacy or social policy change) and they were not based on entire communities. A variety of techniques were included within the interventions reviewed (pharmacological interventions, education and cognitive techniques, one to one and group approaches). These aimed to address several risk factors (blood pressure, cholesterol) and behaviours (exercise, smoking and diet). The interventions considered lasted for varying time periods. The CHD section of the report reviewed seven individual reviews (see Table four) three of which were completed by the same two authors (Ebrahim and Davey-Smith). One of these three papers (Ebrahim and Davey-Smith, 2000) that was actually an updated version of an earlier meta-analysis (Ebrahim and Davey-Smith, 1997) is also included. In a fourth review considered, Ebrahim was again the lead investigator (Ebrahim, Lampe, and Wannamthee, 1998).

Table four: Reviews included in the Elliot et al (2001) CHD multi-factorial interventions section of the nursing for health review.

Topic	Author
Cholesterol and CHD	Ebrahim, Lampe, and Wannamthee (1998)
Worksite interventions	Wilson, Holman and Hammock (1996)
CHD prevention in older people	Ebrahim and Davey Smith (1996)
Heart health coalitions (partnerships for Tobacco control and accident prevention)	Kuhn, Doucet and Edwards (1999)
Multiple risk factor interventions for CHD (n=2)*	Ebrahim and Davey Smith (1997) (2000) CRD review
Review of theory-based behaviour interventions	Dobbins and Byers (1999)

The overall conclusions from the review of systematic reviews of large-scale multi-factorial interventions addressing CHD were that:

"[M]ultiple risk factor interventions in the whole population have no effect on mortality" (Elliot et al., 2001, p. 27).

The changes in risk factors that were found were modest and were not sustained over time. Greatest effects were found among groups at higher risk of CHD (e.g. with existing disease or risk factors) and older adults (many of whom were in the higher risk groups).

The meta-analysis by Ebrahim and Davey-Smith (2000), that updated an earlier meta-analysis (1997), is the only comprehensive meta-analysis of such wide-ranging interventions for primary prevention of CHD on the Centre for Reviews and Dissemination (CRD) database. This meta-analysis considered interventions that included counselling and or educational advice to adults among the general population, within occupational groups or in high-risk sub groups to encourage risk factor modification through adherence to prescribed drug therapy and/or behaviour change. Other reviews tended to cover either pharmacological or psycho-educational interventions alone, or focus on one risk factor such as cholesterol. The Ebrahim and Davey-Smith (2000) meta-analysis created significant debate in the academic press. It aimed to assess the effect of multiple risk factor interventions for reducing total mortality, CHD mortality and cardiovascular (CV) risk factors among adults. It included only trials with randomised designs that reported these key outcomes of interest. Trials that lasted less than six months were excluded. In the 2000 meta-analysis, eighteen primary trials were identified (see Appendix three), although only ten of these reported total and CHD mortality. The combined outcomes from these trials are detailed in Table five.

Table five: Outcomes for Ebrahim & Davey-Smith (2000) systematic review

<div>Statistics*</div> <div>Outcome</div>	Net Changes / Pooled Odds Ratios	95% Confidence Intervals
Total mortality* Pooled Odds Ratios	0.97	0.92 to 1.02
CHD mortality* Pooled Odds Ratios	0.97	0.88 to 1.04
Blood pressure: systolic	-3.9mmHg	-4.2 to -3.6 mmHg
Blood pressure: diastolic	-2.9mmHg	-3.1 to -2.7 mmHg
Cholesterol	-0.08mMol/l	-0.1 to -0.06 Mol/l
Smoking	-4.2%	-4.8 to -3.6%

*data shown only reported in ten trials
*Definition of a pooled odds ratios and confidence intervals. The further the pooled odds ratio is from 1 the greater the impact [positive or negative]. Since these figure are close to 1 there is little or no effect. Confidence intervals (CI) - these outcomes are only significant if the CI does not cross 0. Other figures show the net decrease (difference between intervention and control site) in the specific population means

Ebrahim and Davey-Smith concluded that these interventions had no effect on mortality given that the pooled effect for both CHD and total mortality was 0.97.⁵ They stated that:

"The pooled effect of interventions were statistically insignificant but a potentially useful benefit of treatment (about a 10% reduction in CHD mortality) may have been missed" (Ebrahim and Davey-Smith, 2000, p. 5).

The risk factor changes that occurred were relatively modest and the authors suggested that they may have been overestimated due to issues of measurement, analysis and study design (such as regression to the mean, inability to conduct intention to treat analyses, use of self report measures and habituation to measurement). There was substantial variability in outcomes with the modest changes achieved being related mainly to the extent of drug therapy. Any changes resulting specifically from educational or counselling interventions were predominantly among high-risk sub groups (e.g. hypertensive individuals). The authors' concluded that:

"The use of health promotion techniques of one to one or family orientated information and advice on a range of lifestyles (exercise, smoking cessation, diet) given to people at relatively low risk of a CV disease is not particularly effective in terms of reducing the risk of clinical events. The cost of such interventions are high and it seems likely that these resources and techniques may be better used in people at high risk of CV disease where the evidence of effectiveness is much stronger" (Ebrahim and Davey Smith, 2000, p. 24).

Kuhn, Doucet, and Edwards (1999) reviewed the impact of community-based coalitions (partnerships) aimed at addressing heart disease (but also included those addressing tobacco and injury prevention). Of the twenty coalitions reviewed, eight related to heart health and five to tobacco control. These were not randomised interventions. Most coalitions reported at least one significant improvement in health status, risk levels, policy or environmental adaptation. The heart health coalitions were weaker in impact than the other coalitions. The main conclusions from this review related to processes of partnership working.

The other reviews considered by Elliot et al. (2001) are not discussed further as they were either focused on one risk factor (Ebrahim, Lampe and Wannamthee, 1998), a single target group (Ebrahim and Davey-Smith, 1996) or setting (Wilson, Holman and Hammock, 1996) or their findings were considered not robust by CRD due to lack of inclusion criteria within their

⁵ Given the proximity of the pooled odds ratio for total mortality and CHD mortality (0.97) to 1 this would indicate no significant effect.

original papers (Dobbins and Byers, 1999). Given limited available space these factors made them less relevant to this review.

Conclusions from reviews of multi-factorial trials

The conclusion from these multi-factorial reviews, like those for reviews of 'entire community' interventions, suggested that there is no impact from these interventions in terms of total, or CHD related, mortality. At best there are only modest, short-term changes in risk factors and behaviours at the population level and these are most likely to be due to drug therapy and/or (if related to non-drug therapy) are found in high risk and/or older sub groups.

Considering the limited impact of the interventions in the above reviews, it is perhaps surprising that the SE chose to establish a CHD intervention project such as HaHP (NHDPs Evaluation Task Group, 2003). It seems likely, that the SE was influenced by the findings from one of the interventions that, from data contained in the reviews of interventions for entire communities, seems to have been the most successful and the most influential in inspiring subsequent interventions – the North Karelia project. North Karelia (NK) was cited as influential by many of the Stakeholders involved in the establishment of HaHP (Mackenzie, Blamey and Hanlon, 2006). This influence was reinforced by the fact that the NK project leader Pekka Puska formally addressed the SE prior to the development of the NHDPs and one of the key academics involved in NK, Erkki Vartanen, was a visiting scholar to Scotland funded by the SE during the establishment of HaHP. These relationships were also preceded by an informal alliance that existed between health professionals within Scotland and Finland.

Further consideration of key findings from the NK intervention will now be given. These data are not presented in order to dispute the overwhelming findings from the review data or to reintroduce any bias from individual interventions, but to illustrate why, when viewed as an individual intervention, NK may have ignited the imagination of policy makers in Scotland and elsewhere.

Findings from the North Karelia Project

The NK project was established in 1972 and is currently still in existence. North Karelia is a province of Finland that experienced particularly high rates of morbidity and mortality from CHD, compared to elsewhere in Europe and in Finland in the late 1960s and early 1970s. NK consisted of a comprehensive range of interventions which included: the involvement of all primary care professionals in addressing CHD risk factors; the engagement of local community activists by the project; mass media campaigns; worksite and school activities;

and national and local competitions to promote reductions in smoking and cholesterol. North Karelia also made substantial contributions to advocacy for wider policy adaptations leading to changes in the production and marketing of dairy produce (reducing fat and salt content) and the increased production and marketing of berries (Puska et al., 1989). The project was evaluated through five-yearly cross sectional population surveys comparing progress in NK to a neighbouring area of Kuopio (and later comparing outcomes to other areas within Finland and the whole of Finland). The local community was highly committed to the project as illustrated by the 80% participation levels maintained in the surveys at the ten-year point. NK has a widely publicised and popular practitioner study programme and has been extensively written about and promoted in the academic and non-academic press and media (Pushka et al., 1989). Given that NK has lasted for more than twenty years, a variety of other activities such as drug therapy and legislation changes occurred in Finland over that time.

Publications from the North Karelia project [Puska et al., 1989; Vartiainen et al., 1994a; Vartiainen et al., 1994b; Puska et al., 1998] listed an array of outcomes associated with the intervention. In terms of changes in clinical risk factors, the higher rates of hypercholesterolemia found in men in NK at the start of the intervention (compared to other regions) disappeared in later surveys. Cholesterol rates for women were only slightly higher than comparators in 1972, but these were similarly not found in later surveys. Sixty percent of men in NK had cholesterol levels of 6.4mmol/l or above in 1972, and this fell to 28% in 1992. Mean total cholesterol in males fell by 16% (1.07mmol/l) in NK compared to 12% (0.79mmol/l) in Kuopio from 1972-1992. For women the figures were 18.4% (1.25mmol/l) and 17% (1.13mmol/l) respectively. Mean systolic blood pressure fell in NK men by 4.8% (7.1mmHg) compared to 4.1% (6.0mm/hg) in Kuopio from 1972 to 1992. For women the figures were 11.3% (17.3mmHg) and 8% (11.7mmHg) respectively. Greater reductions were found in the first five years of the project. From 1972–1992 the proportion of the NK population with raised diastolic pressure (>95mmHg) fell from 40% (in both men and women) to 18% in men and 11% in women. The decline in mean diastolic pressure in NK was 13.9mmHg compared to 11.5mmHg in the comparator site from 1972-1992.

In relation to behavioural risk factors, 52% of men smoked in NK at the start of the intervention, this fell to 32% in 1992. The decrease in the comparator area was from 49% to 37%. The decline was more pronounced during the first ten years of the project. Smoking in women rose in both sites. BMI increased in males in the first 15 years of the project. It fell among women. Leisure time physical activity increased and inactivity (those reporting no moderate to intense regular activity) decreased from 30% to 20% in men and from 40% to 20% in women. Work-based activity levels, however, decreased. Shifts in the use of high fat dairy products towards low fat products were reported. Only 20% of men and 11% of women reported using full fat milk in 1992 compared to the majority (80%) of the population

consuming full fat milk in the 1970's. Similarly, full fat butter was used by 80% of residents of NK in the 1970's but only 12% of men and 10% of women in 1993. The daily saturated fat intake from milks and spreads dropped from 49g to 17g among men in NK (42 to 17g in Kuopio) and 27g to 8g per day in NK women (23g – 8g in Kuopio). Total fat, as a percentage of total energy, dropped in NK from 38% to 34% for men from 1972-1992.

In terms of overall CHD risk the percentage of men with none of the three risk factors (high cholesterol, high blood pressure or smoking) increased from 13% to 36% in NK (compared to 15% to 35% in Kuopio) during the twenty years of the project. The overall decline in CVD mortality for males (from 1969/71 to 1992) was 57% in NK and 52% in all of Finland. For ischaemic heart disease (IHD) the figures were 59% and 54% respectively. The decline in NK was greater among younger age groups. The relative decline was even greater among women. Stroke and lung cancer rates also declined markedly. It should be noted, however, that several of the above positive changes in NK compared to Kuopio were more pronounced in the earlier phases of the intervention and disappeared by the later stages. According to Puska et al., (1989):

“The findings show a marked decline in the mortality rate of the middle-aged population. The decline in IHD mortality started in North Karelia very soon after the intervention began. In the 70s there was significantly steeper decreases in North Karelia than in all Finland or Kuopio (Salonen et al., 1981), which corresponds with the clearly greater reduction in the risk factors there during the decade. Thereafter the trend somewhat levelled off in North Karelia and was soon caught up by the steeper decline in all Finland” (Puska et al., 1989, p.165).

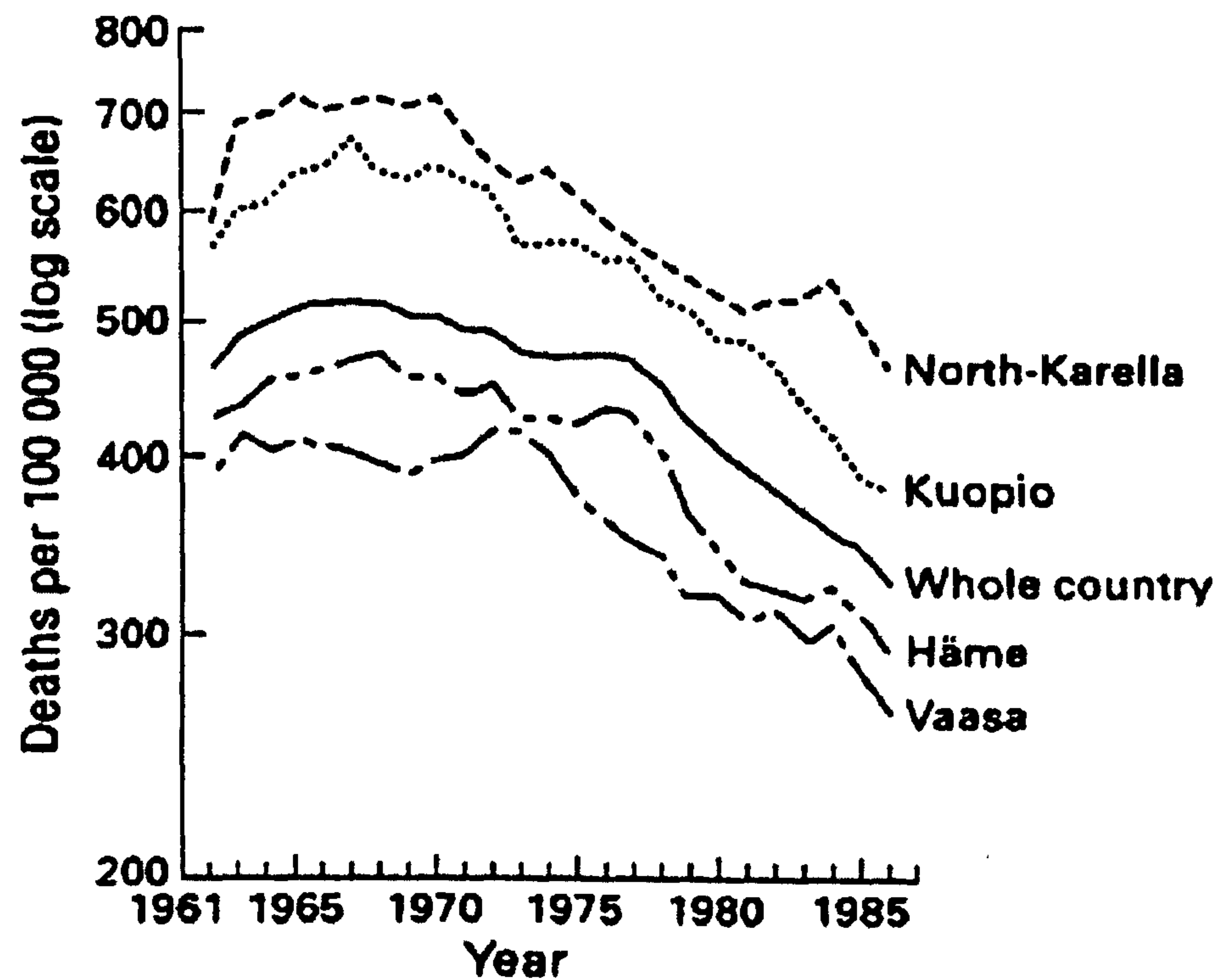
The North Karelia project authors attributed the reduction in risk factors (and subsequent mortality and morbidity) to the NK intervention (Puska et al., 1989). However, there was substantial debate in the academic press about the interpretation of the NK results when considered across the twenty-year timescales and against the different comparator groups used. For example, Lundvall et al. (1999) stated that the level of CHD mortality decline reported by NK was similar to that found in the rest of Finland and that this decline had started prior to the NK project. They went on to suggest that it was doubtful whether any significant effect could be attributed directly to the project. Similarly, Ebrahim and Davey Smith (2001a) in their examination of the secular trends in CHD mortality found in NK and its comparator areas, concluded that the areas showed similar patterns of reduction occurring at the same time when considered across a ten year period; they state that the data presented by Puska et al. (1998), that show a greater decline for NK than the rest of Finland, were flawed. Ebrahim and Davey Smith (2001a) indicated that the confidence intervals for the differences shown actually overlapped and were, therefore, not statistically significant. They

proposed that such reductions, if they existed, were an epiphenomena that were in fact related to the substantially higher rates of CHD found in many countries (and particularly areas such as Finland and NK) in the 1960s. They believed that the findings were an impact of more general reductions in CHD experienced across Europe, rather than as a result of the NK programme. In a response to the debate on this issues they stated:

"Examination of the trends in both risk factors and coronary heart disease mortality observed in North Karelia and comparison regions show similar patterns occurring at the same time, suggesting that interventions in North Karelia were not instrumental in causing the improvements observed. Indeed the North Karelia and similar projects may be viewed as an effect or epiphenomena, of the very high CHD mortality rates experienced in many countries in the 1960s "(Ebrahim and Davey Smith, 2001b, p. 1496).

These trends are illustrated in Figure one:

Figure one: Heart disease mortality trends in Finland



Finland ischaemic heart disease mortality trends 1961–1985, males aged 35–64 years. Figure one shows the declining trend in ischaemic heart disease mortality throughout counties of Finland and for the whole country. Presented in Ebrahim and Davey-Smith (2001a) p. 202, but taken from taken from Valkonen T. Trends in regional and socio-economic mortality differentials in Finland. *Int J Health Sciences* 1993;3 (3/4):157–66.

One of the NK project team (Salonen, 1987) also questioned the degree to which the mortality decreases seen in NK could actually be attributed to the risk factor changes observed in the NK project. More recently, similar findings have been uncovered regarding the association between decreasing trends in CHD mortality and morbidity and risk factor reductions. The MONICA project gathers and evaluates CHD trend and treatment information from across the developed world. A paper by Tunstall-Pedoe et al. (2000) suggested that more (two thirds) of the decline in mortality seen in the MONICA data had resulted from reduced coronary event rates (MI incidence) than from survival post MI (one third). This would suggest that prevention was a major cause of CHD reduction (including treatment of those at high risk of developing CHD or with existing CHD but pre event). However, Kuulasmaa et al. (2000) indicated that while improvements in coronary care treatment and secondary prevention explained 61% and 41% of the variance found in case fatality (survival post MI) for men and women respectively, and 52% and 30% of the variance in event (incidence) rates, that reductions in these end points are not as well explained by changes in risk factors. Kuulasmaa et al. (2000) indicated that:

"The apparent contribution of the classical risk factors to the trends in CHD over ten years across the WHO MONICA Project populations has been less precisely estimated than had been hoped. Estimates for women were less reliable than those for men because of greater imprecision in the estimation of trends in event rates. Estimates are low, with perhaps 15% in women and 40% in men of the variability in trends in coronary event rates [incidence] being 'explained' by trends in the major risk factors. How much of the remaining variance is attributable to other factors and how much to complexities in measurement, the time delay between risk factor change and changes in incidence cannot be estimated. The negative intercepts of the regression models suggest that a decline in CHD is occurring independent of the classic risk factors, which is supported by our accompanying paper on the effects of coronary care (Tunstall-Pedoe et al., 1999). [T]he larger changes in the incidence of CHD in many populations than expected from the risk factor changes suggests that there is a broader range of interventions potentially available that may not be already defined" (Kuulasmaa et al., 2000, p. 685).

However, not all CHD risk factors are monitored by the MONICA project. Smoking, hypertension and serum cholesterol are measured, but physical activity and diet are not included.

The claims and counter claims made in the academic press in relation to the NK results highlight the potential difficulties in interpreting the findings from such interventions. Whilst the results from individual interventions may look positive they need to be compared to

consistent comparator areas and interpreted in view of secular background trends and competing explanations. In addition, evidence needs to be gathered from across a range of interventions rather than from only the most positive. The above controversy illustrates why it might be difficult for policymakers, who are not necessarily skilled in statistical interpretation or critical review, to respond to the evidence in these areas. Such problems relate not only to whether reported changes in outcomes such as CHD mortality or morbidity have in fact occurred, but also whether such trends can be attributable to any changes in risk factors achieved, or indeed whether any of these are attributable to the actual interventions.

Conclusions on the effectiveness of community-based CHD interventions

A range of conclusion can be drawn from consideration of the above literature:

- combined community-based CHD interventions have shown no, or little, impact in terms of key outcomes, such as CHD morbidity and mortality, and long-term reductions in key CHD risk factors at population levels;
- there have been many areas where specific risk factors have shown significant change in a positive direction (small but significant reductions in blood pressure, cholesterol and smoking prevalence were found in some interventions), however, these have not been large or sustained enough to impact on morbidity or mortality and were found predominantly in higher risk populations;
- in a few cases, where long-term follow up was made, the above reductions led to sustained behaviour or risk factor change;
- there are many other risk factor areas where change was in a positive direction but not clinically significant;
- positive change was often related to drug therapy;
- educational or counselling interventions seem most successful amongst high-risk groups;
- although overall interventions had limited success some interventions/topics/settings were more successful than others; and
- whilst there was a general acknowledgement that pooled data showed that long-term, high level outcomes were disappointing, there was substantial debate among academics about the success of specific individual interventions.

Part (II) Why Governments continue to fund CHD prevention programmes?

Despite these conclusions it is unlikely that governments will stop investing in attempts at population level prevention. There are a variety of reasons for this. One is that evidence plays only a small part in policy making (and often it is only partial evidence that makes its way into the consciousness of policymakers) (Weiss, 1995; Nutley, 2003; Mackenzie, Blamey and Hanlon, 2006). Ebrahim and Davey Smith (2001b) warn about the need to consider the totality of evidence rather than focusing on any one individual intervention. By this they mean the need to consider evidence from meta-analyses and reviews rather than individual interventions results. They question:

“Whether we should carry on wearing the rose tinted spectacles of those authorities who fail to consider the totality of the evidence” (Ebrahim and Davey Smith, 2001b. p. 1497).

However, as illustrated above, the consideration of the evidence requires substantial skill and the interpretation of findings, particularly from individual studies, can be contentious. This is further complicated by the fact that evidence is a highly contested term and the processes by which evidence is generated, interpreted reviewed and disseminated are also debated (Speller, Learmouth and Harrison, 1992; Davey-Smith, Ebrahim, and Frankel, 2001; Goldenberg, 2006). Such processes are viewed as favouring evidence that is generated from medical settings and evaluated in a manner that uses more experimental and quantitative methods, or that favours more simplistic interventions (Speller, Learmouth and Harrison, 1992; Davey-Smith, Ebrahim, and Frankel, 2001).

Another reason that community-based CHD prevention projects are likely to be repeated is the substantial need to reduce the health impact and spiralling treatment and care costs associated with CHD. Even with improving secular trends in relation to CHD morbidity and mortality, CHD is one of the major causes of premature death and illness in the developed world. However, many of the risk factors and behaviours or conditions that lead to CHD are preventable via medication or behaviour change or surgical interventions (McPherson, Britton and Causer, 2002). CHD is a particular problem within Scotland. Scotland's CHD death rate is one of the highest in Western Europe. In 2006 there were 10,331 deaths from CHD in Scotland (ISD, 2006). Hospital discharge figures provide estimates of morbidity from major diseases and also indicate likely levels of service use resulting from various conditions. During the year 2005-2006, 8120 coronary artery bypasses/angioplasties and 17065 coronary angiography investigations were carried out within NHS Scotland (ISD, 2006). These levels of

mortality and morbidity have enormous emotional and social costs for sufferers and their families, and have substantial financial costs for the NHS and for the wider economy both in Scotland and in the UK. The British Heart Foundation (BHF Statistics database www.heartstats.org, 2006) estimate that CHD costs the UK health care system (including prescribing) almost £3, 500 million per year. Loss to the wider economy in terms of days off work due to death, illness and caring related to CHD are estimated at £4,400 million per year. It is estimated that yearly costs to the UK for CHD related mortality; morbidity and care are, therefore, in the region of £7,900 million per year (BHF Statistics database www.heartstats.org, 2006).

Preventing CHD is, therefore, a major priority for the health service and wider health improvement workforce within the UK. Two recent government reports both emphasised the need to focus on prevention and anticipatory care (Wanless, 2004; Kerr, 2006). Given this need to find alternative 'upstream' preventative solutions, the fact that some of these interventions showed modest effects for some groups and in some circumstances was of great interest to policy makers (Mackenzie, Blamey and Hanlon, 2006).

Given the need to find preventative solutions, further consideration of the reasons for variance in the success of individual (or groups of) interventions may help to advance our understanding of why some entire projects or elements of interventions had (or appeared to have) greater success than others. This information can be used to improve future incarnations of such interventions or to guide future upstream primary prevention policy and legislation activity. For these reasons consideration will now be given to the lessons that arose from the above literature with regard to why these interventions have had limited success and why some have had more success than others. These lessons relate to issues about both the implementation of the interventions and the evaluations of them.

Part (III): Lessons concerning implementation and evaluation issues

Lessons concerning implementation issues

A key lesson to arise from the literature was that, in many cases, the programmes of interventions delivered were not intensive enough (Sorenson et al., 1998; Merzel and D'Affitti, 2003). This was evidenced by the fact that many interventions managed to change a variety of risk factors in a positive direction but that the level of change achieved was not statistically significant (Winkleby, Feldman and Murray, 1997). Although this meant that such change may, therefore, have occurred for reasons outside the interventions, the fact that such

outcomes were found in so many of the projects adds some credibility to the assumption that the projects had some degree of impact (Tudor- Smith et al., 1998; Winkleby, Feldman and Murray, 1997).

The literature reviewed also suggested that the duration of many interventions (e.g. MHHP, PHHP, COMMITT) was not sufficient to change engrained social behaviour and norms (Merzel and D'Affitti, 2003). Although there were some exceptions (NK-20 years, NHLBI programmes 5-7 years) most interventions lasted for only two to five years (COMMITT, BHHPM, SFCP, SNRP, HBW). Taking into account the time required to establish a presence in communities and to engage participants, the actual length of exposure to the intervention was likely to have been substantially shorter. It is possible that there was a latent period from achieving changes in factors such as knowledge and engagement to when these become manifest as measurable behaviour or risk factor changes in larger numbers of individuals (Susser, 1995). An additional problem highlighted from the reviews was that of reach (Thompson et al., 2003). Several programmes were reported as having failed to 'touch' enough members of their populations. Susser (1995) and Merzel and D'Affitti (2003) emphasised that ensuring sufficient reach and penetration was key to achieving a community wide impact. They suggested that within the reviewed interventions the reach, intensity and overall dose were insufficient to produce changes against prevailing contrary health forces.

The reviews also highlighted that few studies actually reported participation rates (Thompson et al., 2003) and when they did, figures suggested that the highest rates were found for the activities that were least intensive (e.g. media campaigns and screening). Maximum penetration for even these activities was 60% (Merzel and D'Affitti, 2003). For example, activities such as exercise programmes reached an estimated 10% of the PHHP population over the entire seven years (Elder et al., 1986). In the PHHP about 59% of the population participated in one or more of the project's programmes and 55% received screening services (Elder et al., 1986; Merzel and D'Affitti, 2003). In terms of the MHHP, 60% of the adult population participated in screening and education programmes, with 30% involved in face-to-face interventions. Merzel and D'Affitti (2003), emphasised that even when relatively high exposure was achieved this needed to be set in the context of the degree of ongoing exposure to advertising and opportunities promoting messages contrary to health information (e.g. food and alcohol advertising). Fortmann et al (1995), reported that in the SFCP, participants were exposed to health promoting TV adverts equivalent to one hour per year whilst the average US adult is exposed to two hundred and ninety two hours of TV advertising per year. Sorenson et al. (1998) stated that:

"In response to the small effect sizes resulting from some community trials, investigators have postulated that the intervention dose or intensity may have been insufficient, or that participation rates were too low. Alternatively the dose of intervention may have been inadequate relative to other forces in the environments, such as an information environment already saturated with sophisticated advertisements and product promotions, promoting products from tobacco and fast foods" (Sorenson et al., 1998, p. 396).

The expectation of the degree and speed of change that was achievable by these projects was also suggested to be too great (Susser, 1995). Susser (1995) reflected on the way in which social change was achieved in relation to a single behaviour, such as smoking. He noted that the pace of change, since the dangers of smoking were first announced in the early 1950s, was slow and incremental. He noted that this change had taken action on many fronts (the development of brief interventions, the publication of many important reports –US surgeon general report and the Royal College of Physicians report, pricing and taxation policies, educational and media campaigns, cessation programmes, curbing advertising, and, only more recently, environmental legislation). Susser (1995) emphasised the effort needed to achieve such change by stating that:

"[T]he glacial pace of this initial change showed that it takes continuous effort and patience to build the momentum of a social movement that can halt and then turn back the epidemic; the long awaited decline (in smoking) followed two decades of unremitting campaigning" (Susser, 1995, p.158).

The literature illustrated that community-based CHD interventions frequently began with the intention of reaching large numbers of the population with a range of complex interventions that included attempts to change local and organisational policies and practice, retail opportunities, as well as individual behaviour (Sorenson et al., 1998). Such ecological interventions, it is postulated, are more likely to impact on whole populations (McInlay, 1993). Process evaluations of such programmes, however, often illustrated that influencing organisations and policies via such locally based projects was difficult and slow (Thomson et al., 2003). As a result the main scope and focus of programmes, given the limited time scales, tended to revert to individual behaviour change (Merzel and D'Affitti, 2003). The quotations below highlight these points:

"[T]he findings suggest wide variation in the degree to which health promotion programmes implement an ecological perspective and emphasize interventions that address upstream social influences" (Merzel and D'Affitti, 2003, p. 565).

"Few community based interventions trials have utilised policy interventions to promote change, although the exceptions are promising" (Sorenson et al, 1998, p.406).

In addition, lack of impact may have reflected not only the level of intervention (e.g. individual rather than policy), insufficient reach, intensity and dose, but actually may have related to the quality of the interventions delivered. Virtually no projects reported on, or evaluations measured, the quality of the interventions (Puska, 2000; Merzel and D'Affitti, 2003). The issue of quality is closely related to problems of model fidelity (Glasgow, Vogt and Boles, 1999). Many interventions that are evidence-based have been tested for efficacy under relatively strict conditions. That is to say that they were tested in defined settings with highly trained staff and high levels of support and resources. When such interventions are transferred to the 'real world' there is much less financial and delivery support for them, they are likely to be rolled out by more generalist people or volunteers and may be targeted at different groups or applied in less specific contexts and sites (Glasgow, Vogt and Boles, 1999). As a result their initial efficacy may be substantially reduced (Glasgow, Vogt and Boles, 1999). Another related issue highlighted in the reviews is the extent to which interventions were tailored to specific target groups. Attempts to cover the whole population often meant that standardised approaches were used that allowed little flexibility (e.g. COMMITT) or did not take account of expressed community needs (e.g. SCHHP) or failed to develop different strategies of action for different sub-groups (Merzel and D'Affitti, 2003; Thompson et al., 2003).

According to Koepsell et al. (1992), an additional barrier to the successful implementation of these projects was the lack of an overtly expressed theoretical framework underpinning the interventions. If such frameworks were overt they were often not sophisticated enough to conceptualise and integrate the links between the multiple levels and components of the intervention. According to Sorenson et al (1998), programmes generally were influenced by behavioural psychological theory but this was not necessarily sufficient to drive (or explain) influences that occurred in wider settings and contexts. This caused problems for implementation, as it was difficult to recognise the types of influencing, or change strategies, that should have been developed (Cheadle et al., 1997). In terms of evaluation, this meant that there was a lack of clarity over the types of outcomes and measures that were relevant to these issues (Merzel and D'Affitti, 2003). The only non-individually focused theories that were highlighted related to community development and engagement (Merzel and D'Affitti, 2003). Most programmes had strategies for community involvement, which in terms of health promotion values would seem necessary (WHO, 1986). However, Cheadle et al. (1997) and Thompson et al. (2003), suggested that such strategies were based more on faith than on strong evidence. Merzel and D'Affitti (2003), emphasised that such approaches take time and effort to develop and sustain, are complex and can lead to implementation difficulties, such as

disagreement and power struggles. Merzel and D’Affitti (2003) also highlighted a range of programmes (SCHHP, PHHP, ASSIST) that experienced such difficulties, struggled to achieve engagement across sites in the available time, and reverted to centrally delivered activities rather than those delivered by local community groups. They highlighted examples where, even when communities had been given substantial influence over the focus of the intervention (Kaiser Programmes), outcomes were still limited. Merzel and D’Affitti (2003) stated that:

“The apparent failure of most programs, even those with relatively strong participation components, to demonstrate an impact raises questions regarding how health promotion programs tend to define communities and community involvement. Every program examined used a geographic approach to identifying communities, which may not reflect social or political dimensions of community ” (Merzel and D’Affitti, 2003, p. 567).

Merzel and D’Affitti (2003) and Thompson et al. (2003) also indicated, however, that the restraints of such interventions rarely provided the opportunity to fully apply the principles of community involvement including building capacity and readiness to act. The community based HIV prevention programmes considered by Merzel and D’Affitti (2003) were thought to have been much more successful in terms of involvement of their target community and in achieving their outcomes. A range of additional factors may also have influenced the success of the HIV/AIDS prevention programmes. These factors included the proximity and level of the perceived risk involved. For example, HIV can lead to AIDS in a more imminent and direct fashion than CHD risk factors lead to CHD. Similarly it is possible to contract HIV through having unprotected sex on one occasion, whereas repeated exposures to risks lead to CHD. In addition HIV/AIDS tends to impact on younger adults. The smaller size of targeted communities (as a result of focusing on those at high risk) and the greater tailoring of the interventions (via formative research) were also thought to lead to greater success. Finally, the trajectory of the disease is also more predictable and the preventative behaviours were, to some extent, more easily adopted. Several of the above factors will be considered further in Chapter ten.

Lessons arising in relation to evaluation design and methodology

A variety of lessons were drawn from the above literature with regard to the way in which community-based CHD interventions were evaluated. The evaluations of the above interventions were complex and difficult and contained a number of limitations (Thompson et al., 2003). These limitations will now be considered in more depth as it is likely that part of

the lack of success in community-based CHD interventions relates to the fact that the evaluation designs, methods and tools available to evaluators were not adequate to deal with the complexity of such programmes (Puska, 2000; Koepsell et al., 1992). One example of this comes from a meta-analysis conducted by Sellers et al. (1997). This meta-analysis assessed the impact of the 'intervention design' and the 'evaluation design' as possible influencing variables on the outcomes (levels of success) of CHD community-based interventions. The analyses illustrated that the evaluation design factors showed a greater association with the success levels of the programmes than the implementation design factors (Sellers et al., 1997).

The above reviews illustrated that financial and practical constraints on evaluations have frequently limited the number of areas that interventions were delivered to, and also the number of areas (or individuals) that participated or were included in the evaluations (Sorenson et al., 1998). The sample sizes (whether number of individuals or sites) often limited the statistical power of the evaluation (Nutbeam et al., 1993). Given such evaluations generally aimed to detect change across a number of outcomes (knowledge, attitudes risks and behaviour) at various levels (individual, organisational and environmental) they were often underpowered (Merzel and D'Affitti, 2003). As a result they were able to detect changes only at levels substantially higher than were likely to be achieved in such complex and time-limited circumstances. As a result they may have contained Type II errors (suggesting lack of effect because the power was too low to detect small effect sizes) (Merzel and D'Affitti, 2003; Thompson et al., 2003). However, it should still be noted that even when data were pooled (Winkleby, Feldman and Murray, 1997) or where samples were larger (COMMITT) or sophisticated analysis was completed (Murray et al., 1995; COMMITT research group, 1995) that results were still disappointing.

Several authors have suggested that RCTs are often not feasible in community based CHD interventions (WHO, 1998; Koelen, Vaandrager and Colomer, 2001; Victora, Habicht and Bryce, 2004). This is due to issues related to costs and complexity, the evaluators' lack of control and influence over the intervention, and the fact that some aspects of the interventions are efficacious (such as drug therapy) and cannot ethically be withheld from individuals. In addition, such interventions are often intended to be community planned, influenced and driven and be responsive to community need. As such they are difficult to standardise across sites or over time (Sorenson et al., 1998; Merzel and D'Affitti, 2003). In fact such standardisation may have reduced their effectiveness if community engagement was a key mechanism of change (Koelen, Vaandrager and Colomer, 2001; Thompson et al., 2003). Community-based interventions are meant to be holistic and synergistic yet RCTs and traditional research methods are more reductionist (Koelen, Vaandrager and Colomer, 2001) and so may measure inappropriate or disaggregated programme components thus further

limiting their success. Finally RCT (and quasi -experimental designs) have limitations. For example, they may show overall effectiveness or lack of effect but rarely uncover the aspects of the intervention that have (or have not) contributed to any overall effect uncovered:

"The study designs employed do not permit us to disentangle the influence of individual intervention methodologies" (Sorenson et al., p. 387).

Most of the evaluations contained in the above reviews were quasi-experimental rather than RCTs (or randomised entire communities rather than individuals). As such, they were open to selection bias and confounding, either at the level of the individual or the historical/contextual issues within the communities (Merzel and D'Affitti, 2003). Repeat cohort surveys were often employed to detect individual change and cross sectional surveys employed to detect population change. The former showed the most positive results, but were more likely to include selection bias given those who participated over time were likely to be more motivated individuals. Low response rates and dropout further limited the power of studies, their representativeness and the subsequent learning achieved. Matching communities was also difficult to achieve, as was accounting for population migration (Merzel and D'Affitti, 2003).

Sorenson et al 1998 highlighted that there were secular trends in the targeted risk factors occurring generally across the developed world during the 1970's and 80's and these (larger than expected) trends may well have obscured some of the possible impacts of the interventions. Changes in intervention communities may have been obscured by changes in control communities (Sorenson et al., 1998). This meant that the interventions would have required levels of outcomes great enough to further any existing change occurring in CHD trends. Such change would also need to be measurable against the year on year variability hidden within such trends (Thompson et al., 2003). Luepker et al. (1994) suggested that the short timescales for intervention may have exacerbated this problem:

"These findings suggest that even such an intense program may not be able to generate enough additional exposure to risk reduction messages and activities in a large enough fraction of the population to accelerate the remarkable favourable secular trends in health promotion activities and in most coronary heart disease risk factors present in study communities" (Luepker et al., 1994, p. 1383).

In addition, Susser (1995) highlighted that those individuals most motivated to change could have already done so as part of ongoing wider health promotion activity. This would leave the less motivated or more behaviourally entrenched individuals (e.g. heavily addicted smokers,

or more socially excluded populations) to be impacted upon by the additional activity contained in community-based intervention programmes (Susser, 1995). It is also possible that the publicity surrounding projects led to diffusion, either through emulation of their programmes or due to migration or simultaneous country or state-wide health promotion activities, that may also have masked effects (Susser, 1995; Sorenson et al., 1998). This point was raised by Tudor-Smith et al. (1998) in relation to the limited impact of the Heart Beat Wales Project.

"[T]he diffusion of 'Heart Beat Wales' projects and programmes to the reference area was far faster and to a far greater extent than had been initially expected" (Tudor-Smith et al., 1998, p. 820).

The fact that similar levels of participation in activities (such as smoking cessation or exposure to media health messages) were found in control and intervention sites in projects such as MHHP strengthen this claim (Merzel and D'Affitti, 2003). Sorenson et al (1998) also suggested that it is feasible that some of the interventions themselves contributed to subsequent secular trends:

"The public health research agenda may have contributed to observed secular trends by placing behavioural risk factors on the social and media agendas" (Sorenson et al., p. 379).

Many of the evaluations cited above selected outcomes that were 'objective' and measurable through existing data collection systems or primary data collection (such as through questionnaires and medical examination). According to Susser (1995), failing to report on such outcomes would mean that such evaluations would not have been included in reviews or meta-analyses. They would not have been judged against what are viewed as 'gold standard' measures of impact of medical research (Susser, 1995). As a result the programmes are judged against their long or medium-term goals of reducing CHD morbidity or mortality or improving risk factors (Koelen, Vaandrager and Colomer, 2001). Such goals were frequently, however, not feasible to achieve within the timescales of the projects or the evaluations. As Susser (1995) and Puska (2000) highlight, a focus on such long-term outcomes can have limitations within short-term evaluations:

"[E]ffects might be deferred through a latent period and might not be observable in the short run of a few years" (Susser, 1995, p. 157).

"Shorter time periods of the evaluation may not be enough to show the effects of interventions. Longer follow-up may dilute the actual effect. Furthermore the ideal assessment period probably varies for the different end points: mortality, incidence, risk factors behaviours etc..." (Puska, 2000, p 562).

A dominant theme in the literature was that the evaluations often failed to take account of the interim (and wider ranging) outcomes that were required to be delivered, such as changes in self-esteem, individual and community confidence, attitudes and behaviours, social contexts (norms), policies, structures, health related opportunities and/ or environments (Puska, 2000; Koelen, Vaandrager and Colomer, 2001; Thomson et al., 2003). Several processes in these interventions may actually have been key mechanisms for success such as, community engagement and partnership working. Such processes would need to have been established prior to the achievement of behaviour and disease outcomes. These factors may, therefore, have been both processes and outcomes and this has added complexity to the evaluations (Koelen, Vaandrager and Colomer 2001; Thomson et al., 2003). Koelen, Vaandrager and Colomer (2001) emphasised this point in the following way:

"Hence, intersectional collaboration and community participation are embedded in the independent variable, but also have to be considered as outcome variables." (Koelen, Vaandrager and Colomer, 2001, p. 258).

As these authors pointed out, all outcomes in community interventions cannot be pre-specified, as they are developed during the interventions, in partnership with key stakeholders and communities. This again is problematic for evaluation design (Koelen, Vaandrager and Colomer, 2001). An additional problem that was evidenced in the above reviews was that there was a lack of detailed process information available for projects. This limited the extent to which judgements could be made in relation to whether or not the projects had been implemented successfully (Victora, Habicht and Bryce, 2004). This in turn meant that lack of impact might have been due to implementation failure (Type III error) as discussed above:

"Understanding which intervention strategies were uniformly implemented, which reached the intermediary agents who should conduct aspects of the intervention, or which were received by individuals were not high research priorities thus there was little impetus to develop a methodology to ascertain what was done as part of the intervention" (Thompson et al., 2003, p. 323).

Such lack of process information may also have limited the extent to which assessment could be made with regard to which elements of the overall interventions were responsible for any

levels of change achieved. Victora, Habicht and Bryce (2004) highlighted the need for process information that can add to the 'plausibility' of the argument that particular components have contributed to the outcomes achieved:

"In such interventions with many complex steps, information on intermediate causal steps is essentials for attributing the observed outcome to the interventions because a 'p level' alone will not convince a critical reader" (Victora, Habicht and Bryce, 2004, p. 401).

This lack of process information has implications for improving confidence with regard to attributing change to the programmes themselves, to explaining the lack of outcomes and for the generalisation and transfer of lessons to other settings. Even when process information is available, attribution in such complex interventions is extremely difficult. Individual interventions may interact with other activities and change the effectiveness of one or both of these. Koelen, Vaandrager and Colomer, 2001 state:

"Moreover it is almost impossible to isolate the contribution of single elements of the intervention to any observed change in outcome variables" (Koelen, Vaandrager and Colomer, 2001, p. 258).

A common finding in the literature was that many of the risk factors that required to be assessed were not easily measurable by objective means within large samples (e.g. levels of physical activity or nutritional changes) and so relied on self-report measures (Koelen, Vaandrager and Colomer, 2001). Although such measures have been validated they are still likely to suffer from bias in relation to over or under-reporting. More complex changes, such as those anticipated in terms of cultural, structural or policy changes, were common in the interventions discussed in the literature. These are also difficult to measure and standardised tools with which to assess these are not readily available or validated (Sorenson et al., 1998; Koelen, Vaandrager and Colomer, 2001). Although the interventions reviewed incorporated programmes that were often developed as a departure from the traditional bio-medical model (integrating community involvement and attempting wider social change) the focus of research approaches and methods used still tended to follow a bio-medical rather than ecological model (Sorenson et al., 1998). As Koelen, Vaandrager and Colomer (2001) indicated:

"In health promotion, however, outcomes also relate to changes at the social, political and environmental level, that is changes in actions that support healthy lifestyles, the establishment of networks for intersectoral collaboration and community participation and eventually the empowerment of people and communities. However, and given the fact that

most researchers are trained to produce quantitative data, changes in these spheres cannot easily be expressed in numbers, and sophisticated statistics are not applicable” (Koelen, Vaandrager and Colomer, 2001, p. 258).

Two contributors (Sorenson et al., 1998; Puska. 2000) suggest that whilst the outcomes from community interventions (in terms of risk factors change) were small compared to what was expected, the outcomes achieved might still have been of major public health significance. They perceived such outcomes would contribute to wider social change, ongoing secular trends, and ultimately to reducing CHD. They suggested that such changes may not be seen as clinically significant but may still make a contribution in terms of public health because of their prevalence rather than magnitude (Thomspon et al., 2003):

“Indeed critiques of the magnitude of these effects have too often ignored the difference between clinical relevance and public health significance. The impact of an intervention is a function of its efficacy in producing individual behaviour change, and its reach, defined as the penetration of the interventions within the population. The magnitude of the changes observed in community intervention studies is likely to have substantial public health implications when assessed in terms of overall impact, not just efficacy” (Sorenson et al., 1989, p. 401).

Conclusions with regard to lesson arising from the reviews

In summary, the explanations found in the literature for the limited impact of previous community-based CHD interventions can be split into two categories, those that relate to problems in programme implementation and those that relate to barriers to evaluation.

Limitations due to problems in programme implementation

Community-based CHD interventions (CBCIs) may have lacked impact because of a failure to reach enough of their targeted communities with activities of a sufficient quality, intensity and duration. The dose of intervention may, therefore, have been insufficient. The limited dose may not have been sufficient to counter existing activities which encouraged high risk behaviours or to tackle underlying issues that determine health such as mainstream services, social norms and structural or environmental issues. Few CBCIs included, or managed to sustain, more ecological interventions that may have impacted on underlying factors influencing health and behaviour. In addition, programme activities may not have been effective, particularly when applied to contexts and target groups beyond those in which their

initial efficacy had been demonstrated. Interventions were often not targeted or tailored sufficiently to key target groups. CBCIs tended to lack an explicit and sophisticated theory of action to guide their implementation. Programmes were frequently unclear with regard to their community involvement strategies and also lacked time to engage in a comprehensive fashion with their communities. The risk of CHD may be perceived to be too small and too far in the future to engender current action.

Limitations due to barriers to evaluation

Randomisation within CBCIs is both difficult and in many ways unfeasible or inappropriate, as it may disaggregate key aspects of the projects that are intended to act in a synergistic fashion. However, the lack of randomisation in some evaluations may have failed to account for potential confounding factors. The quasi-experimental designs were open to problems due to selection bias and other issues such as accounting for migration and loss to follow-up. The evaluations of many CBCIs were statistically underpowered. It is, therefore, feasible that effect sizes were smaller than had been anticipated and that these were not detected by the evaluations. Small effect sizes may have been missed amid the 'noise' of favourable secular trends in CHD and related risk factors. The outcomes selected for measurement were often inappropriate in relation to the timescales and were too far along the causal pathway (e.g. morbidity or mortality). Such outcomes tended to be mainly biomedical and important interim outcomes, such as partnership working and community engagement, were often unmeasured. Evaluations often failed to conduct or report detailed process issues related to implementation. This limited the extent to which any successes or failures uncovered could be explained by, or attributed to, the programme overall or elements within it. Contamination and early diffusion were also cited as possible reasons for lack of impact. There is a limited range and quality of tools available to detect population changes in key CHD related behaviours. The potential public health impact of the small effect sizes that were detected in some risk factors may have been underestimated.

The proposed solutions with regard to improving the design, implementation and evaluation of such interventions are the converse of the reasons for failure (e.g. a greater focus on upstream ecological solutions and improved evaluation power and design). These factors are not covered in detail here but, where relevant to HaHP, will be commented upon in subsequent sections of this thesis.

As part of the response to the limitations of previous evaluation efforts, the independent evaluation of HaHP adopted a theory-based element to the evaluation (the Theories of Change approach). As detailed in Chapter three the proponents of this approach claim that

the Theories of Change can help to address some of the limitations identified above (Fulbright-Anderson, Kubsich and Connell, 1998). They claim, for example, that such an approach can make explicit the theoretical framework for the intervention and that through the process of theory articulation and critiquing that programme plans can become more plausible and deliverable. They also claim that such an approach can improve the evaluation by providing improved process information to link to outcomes; so improving the chances of attributing change to the programme. The authors also suggest that the evaluation design and outcomes selected for measurement can be more sensitive to the reality of the programme stage and timescales.

One of the two aims of this thesis is to contribute to learning about how best to evaluate CCIs. A key objective is, therefore, to test the extent to which the key claims (improving planning, enhancing evaluation and aiding attribution) made for the use of the Theories of Change approach can be supported or refuted with reference to the use of the approach within the evaluation of HaHP. Give this, Chapter three provides a summary of the key literature that explains in more detail the reasons for the rise of theory-based approaches and the literature describing the Theories of Change approach in particular.

Chapter three: Evaluation and the rise of theory-based approaches

Introduction

This chapter defines the term evaluation and discusses the current role of evaluation in relation to the improvement of social programmes. It details how the historical development of evaluation, and the debates surrounding it, have influenced the development of different methodological approaches. It highlights how the limitations of existing methodological approaches for evaluating complex interventions, have led to the emergence of theory driven evaluation. Finally, it describes the theory-driven approach that was used in the evaluation of HaHP (Theories of Change) and discusses some of the strengths and weaknesses of the initial incarnations of this.

Evaluation: its purpose, current status and historical influences

Evaluation purpose

Weiss (1998) defined evaluation as:

"[T]he systematic assessment of the operation and/or the outcomes of a program or policy, compared to explicit or implicit standards, in order to help improve the program or policy" (Weiss, 1998, p.19).

Whilst sharing many of the elements and methods of other types of social science research, evaluation is different from these in that its primary purpose is that of judging and improving 'real life' programmes and policies (Rossi, Freeman and Lipsey, 1999). As such, the questions that evaluation addresses are derived directly from the programme, policy, or policy makers that it focuses on, and by which it is funded (Weiss, 1998; Rossi, Freeman and Lipsey, 1999). Within this overarching aim, evaluation can have many specific purposes including: to define and capture the complexity of the social problem being addressed; to establish the degree and quality of programme implementation; to assess its costs and compare its utility to other programmes with similar aims; and, of course, to judge the effectiveness and impact of the programme (Weiss, 1998; Rossi, Freeman and Lipsey, 1999; Owen and Rogers, 1999).

Philosophical treatise (e.g. those by Hobbes or Rousseau), literary and religious texts illustrate that people have always made judgements regarding the impact of society (and its constituent activities) on the human condition. Similarly, the domain of public health (and indeed crime and education) is strewn with historical examples of the application of evaluative inquiry to uncover the causes of ill health (or other social problems) (Weiss, 1998; Rossi, Freeman and Lipsey, 1999). Prime examples are the search for the causes of conditions such as scurvy and cholera and the assessment of outcomes from surgery and treatment (Weiss, 1998; Rossi, Freeman and Lipsey, 1999; Donaldson and Donaldson, 1993). Evaluative inquiry has developed along with the 'enlightenment' and can be traced back to the 1600s (Weiss, 1998). However, the start of commonplace, formal social experimentation and the subsequent purposeful evaluation of wide ranging programmes and policies by governments, came in the 60s and 70s, particularly in the US (Weiss, 1998; Rossi, Freeman and Lipsey, 1999). This era heralded a variety of renowned programmes such as the Negative Income Tax experiment (Kershaw and Fair, 1977; Weiss, 1998). The evaluation field continued to grow, particularly in times when new or innovative social programmes were being developed, and it is now a specific academic field that has numerous professional associations, and an expansive workforce in the public, private, academic and non academic sectors (Weiss, 1998).

The current status of evaluation

Evaluation has never been more prolific in the UK than since the current UK Labour government came into power in 1997. The Labour Party was elected in 1997 with a mandate to modernise public services. According to Martin and Sanderson (1999) this resulted in a:

"[T]orrent of new bills aimed at modernising schools, the health service, local government, social services, the criminal justice system and most recently the machinery of government itself" (Martin and Sanderson, 1999, p. 245).

Along with this modernising agenda came a 'pilot' culture that heralded a vast array of policy 'test beds' and demonstration projects with associated commissioned independent evaluations (Sanderson, 2002). This reflected the government's perception that policymaking should be driven by 'what works' rather than by ideology and that social policy can, and should, be evidence-based (Great Britain Cabinet Office, 1999; Sanderson, 2002). The Great Britain Cabinet Office (1999) stated that:

"This government's declaration that 'what counts is what works' is the basis for the present heightened interest in the part played by evidence in policy making. The White paper makes it clear that policy decisions should be based on sound evidence. Good quality policy making

depends on high quality information, derived from a variety of sources – expert knowledge; existing domestic and international research; existing statistics; stakeholder consultation; evaluation of previous policies; new research, if appropriate; or secondary sources, including the internet” (Great Britain Cabinet Office, 1999, Chapter 7,7.1).

Several authors have reflected on the feasibility and appropriateness of striving for, and achieving, evidence-based policymaking (Weiss, 1998; Walker, 2001; Sanderson, 2002; Nutley, Walter and Davies, 2003). Kogan (1999) suggested that in reality this approach is one of rhetoric with politicians marshalling evidence to suit their political and ideological positions. Others highlighted that in many areas there is a lack of appropriate evidence available and have suggested that evidence (particularly in its rationalist sense) is, and should be, only part of the knowledge required for effective policy making (Weiss, 1998; Perri 6, 2002; Nutley, Walter and Davies, 2003; Coote, Allen and Woodhead, 2004). They claimed that evidence from other sources, such as organisational, community, and tacit knowledge, should all legitimately have a part to play in the policy making process (Weiss, 1998, Perri 6, 2002; Nutley, Walter and Davies, 2003). Weiss (2004) also noted that policy-making, free from ideology, is not feasible given that evaluation itself is a political activity driven from a rationalist and hegemonic value base:

“[E]valuation tends to have an ‘establishment’ orientation but with a reformist slant. Evaluation tends to accept the world as it is. We accept agency structures, official diagnoses of social problems, and the appropriateness of certain ways to address them. Evaluation tends to question only the limited set of interventions that the program introduces” (Weiss, 2004, p.158).

It is increasingly accepted that evaluations and evidence influence policy in a limited and incremental, rather than in a radical, fashion. Learning ‘percolates’ into the policy environment and change is slow. This is referred to as ‘enlightenment use’ (Weiss, 2004). Alternatively, evaluation findings may more directly influence future practice by encouraging those more closely involved in the evaluative process to reflect and adapt their subsequent practice. This latter means of influence is referred to as ‘process use’ (Patton, 1997)

The policy areas that are being subjected to piloting and evaluation by government in the UK (and indeed by governments and other agencies in the US and Europe) are those trying to tackle intractable social problems such as health and social inequalities, educational attainment, employment, crime and housing. Pilot programmes and evaluations such as the Health Action Zone Programme (Bauld et al., 2005), Sure Start (NESS, 2004) and New Deal for Communities (CRESR, 2005) are three of numerous examples. These interventions were

complex community-based initiatives (CCIs) as they: involved multiple agencies in their delivery; targeted change at a variety of levels (individual, target groups, communities, organisations and strategic policy); tended to focus on addressing inequity; were required to involve communities in their design and delivery; and were to build community capacity for action (Fulbright–Anderson, Kubisch and Connell, 1998). They were organic and unstable entities being delivered in complex social circumstances with many factors out-with the control of the implementation partners (Connell and Kubisch, 1998; Coote, Allen and Woodhead, 2004). These are typical features of CCIs.

The sheer complexity of such recent and historical interventions cause substantial problems for evaluators (Auspos and Kubisch, 2004, Coote, Allen and Woodhead, 2004). The difficulties include: immature and unstable interventions; the varied and sometimes conflicting aspirations of the stakeholders; the long term nature of the anticipated outcomes; the short term funding, implementation, and evaluation timescales; various types of implementation failure; the complex social and political contexts within which they are delivered and the multiple related policy interventions being simultaneously delivered (Sorenson et al., 1998; Koelen, Vaanrager and Colomer, 2001; Auspos and Kubisch, 2004; Coote, Allen and Woodhead, 2004). All of these issues make attribution extremely difficult. Many of these issues were illustrated in Chapter two, in relation to community based CHD interventions.

Pawson and Tilley (1997) provided examples of the limited learning to result from a variety of previous evaluations conducted on such programmes and reflected that much of the evaluation activity of the past has had limited success:

“Self evidently there is still a problem in distinguishing between programme failure and programme success in even these stock in trade areas of policy making [policing, teaching, and health interventions]” (Pawson and Tilley, 1997 p.3).

This finding was also illustrated in Chapter two with regard to the success of community-based CHD interventions and the numerous evaluations related to these. The lack of clear outcomes may also explain the lack of policy impact and evaluation utility detailed by Weiss (1998/2004) and others (Coote, Allen and Woodhead, 2004).

Historical influences

The limited success of previous evaluation approaches has led to evaluators reconsidering the value and future of their discipline. In considering alternative approaches, evaluators have reflected on the historical debates and conflicts that have pervaded the development of social science more generally (that is, the paradigm wars between positivists and social constructivists) and how these have impacted upon existing evaluation approaches (Pawson and Tilley, 1997; Rossi, Freeman and Lipsey, 1999; van der Knaap, 2004). The writings on the paradigm wars focused on the polarities and provided caricatures of the protagonists. The experimentalists (positivists) were presented as believing in fundamental truths and were concerned only with causation, utilising randomised control trials (or quasi experimentation) and designing evaluations that removed all possible confounding variables so as to test one possible causal agent (Pawson and Tilley, 1997; Rossi, Freeman and Lipsey, 1999; van der Knaap, 2004). The constructivists were viewed as perceiving that all programmes were contextualised and rooted in, and influenced by, social behaviour and interaction. As such there is no fundamental truth but many possible truths. They promoted qualitative methods of inquiry and attempted to capture the views of stakeholders and each of their realities as well as the contextual complexities within which the programme was delivered. They produced textured information about one or more of these realities rather than searching for an overarching truth or causative agent (Pawson and Tilley, 1997; Rossi, Freeman and Lipsey 1999; van der Knaap, 2004).

The reality of evaluation development is of course much more complex, with protagonists assuming a range of positions along such a continuum and various offshoots and parallel developments emerging (Alkin and Christie, 2004). Reflections on the limitations of the polarised approaches (e.g. problems of internal validity for positivists and external validity for constructivists)⁶ [Rossi, Freeman and Lipsey, 1999]) have led to a range of approaches that have tried to find a more pragmatic standpoint. More pragmatic (Weiss, 1997; Patton, 1997; van der Knaap, 2004) and pluralist (Cronbach, 1980) standpoints have been developed that focus on the utility of the knowledge being generated rather than the epistemological nature of the knowledge (Pawson and Tilley, 1997; Rossi, Freeman and Lipsey, 1999; Alkin, 2004; van der Knaap, 2004). These approaches suggest the application of a wide range of methodological tools to deliver learning that is acceptable in terms of rigour *and* meaning in the general context (accounting for individual and structural issues) within which it will be applied (Pawson and Tilley, 1997; Alkin, 2004). The increasing acceptance of the complexities of the policy interventions being developed, and the intractability of the problems they try to address, has led to evaluators increasingly drawing on and combining a range of

⁶ The strengths and limitations of these approaches are much more nuanced and complex than inferred here. Many of the details of the limitations in the methods aligned to such approaches have been presented in the community based CHD interventions literature review and will be addressed in defence of methods used in the PhD as part of the methods chapter. As a result they have not been addressed here.

evaluation tools and methods that in the past may have been the preserve of methodologists representing either of the traditional polarities in the paradigm wars (van der Knaap, 2004). The use of multiple methods and the triangulation of the data arising from these is now commonplace (Pawson and Tilley, 1997; Rossi, Freeman and Lipsey, 1999; Alkin, 2004; van der Knaap, 2004). However, additional approaches have also been developed that attempt to ensure that understanding the context, complexity and theories of action of the programme is the key to the selection of the evaluation questions and the subsequent methods (Weiss, 1998; Pawson and Tilley, 1997). These approaches will now be discussed.

The development of theory-based evaluation approaches

Chen and Rossi (1983) proposed the initial outline of theory-based evaluation (TBE). They reflected that experimental evaluation, even when there was a clear assessment of efficacy, contributed little to the understanding of why the intervention worked (an idea illustrated in the Chapter two with regard to community-based CHD interventions) (Chen and Rossi, 1983; Pawson and Tilley, 1997; Stame, 2004). The key concept, therefore, in TBE is that there is a need to know what it is about any programme that actually achieves its impact. In order to uncover this it is necessary for evaluators to be knowledgeable about the programme itself and about the theory that underpins the programme (Weiss, 1996; Stame, 2004). Chen (1990) defined two particular types of theory. The first was the stakeholders' prescriptive assumptions or normative theory. This related to the programme activities that require to be put in place to deliver the programme successfully. The second was the descriptive assumptions or causative theory that detailed the causal links and processes that were expected to happen to achieve the programme outcomes (Chen, 2004, p 136-137). Weiss (1998) also provided two definitions of theory – implementation theory and programme theory. The former is analogous to Chen's prescriptive theory and focused on:

"[W]hat is required to translate objectives into ongoing service delivery and programme operation....the assumption is that if the activities are conducted as planned, with sufficient quality, intensity and fidelity to plan, the desired results will be forthcoming" (Weiss, 1998, p. 58).

The latter (programme theory) related to "the responses of the people to programme activities" (Weiss, 1998, p. 57) or how the programme was expected to effect change, more in line with Chen's descriptive or causative theory.

The common features of TBE approaches (Alkin and Christie, 2004, Stame, 2004; Blamey and Mackenzie, in press) are that they require a detailed understanding of the activities that

constitute the intervention under study, the expected outcomes, the context and the predicted timescales. They attempt to gain a comprehensive understanding of the programme being evaluated and how it is expected to work from the perspectives of the stakeholders who are delivering and are in receipt of it (Stame, 2004). They see understanding context as key to providing any explanation of programme success or failure. They are approaches rather than methods and as such require that theory generation should determine the evaluation framework, the subsequent design and the selection of methods (Fulbright-Anderson, Kubisch and Connell, 1998). In general, they are pragmatic or pluralistic in their use of methods provided the methods suit the evaluation's specific purpose and questions (Stame, 2004). TBE approaches are concerned with improving interventions and are, therefore, concerned with evaluating the process of implementation. They also attempt to improve attribution and address both internal and external validity in complex social programmes and so overcome some of the limitations of more traditional paradigms (e.g. positivism and constructivism). They are, therefore, interested in combining process findings with outcomes findings (Connell and Kubisch, 1998; van der Knaap, 2004; Stame, 2004). However, they perceive that this may require an accumulation of knowledge across longer-term individual, or multiple, interventions. They do not necessarily expect causality to be convincingly demonstrated within a single or short-term programme (Pawson and Tilley, 1997; Weiss, 1995; Alkin, 2004; Stame, 2004; Blamey and Mackenzie, forthcoming).

The two most common TBE approaches currently being applied within the European context are the 'Theories of Change' developed by the US Aspen Institute (Fulbright-Anderson, Kubisch and Connell, 1998) and the UK generated 'Realistic Evaluation' (Pawson and Tilley, 1997) (Stame, 2004). The former is more dominant in the US. Whilst these two approaches share many of the aspirations and elements detailed above, they are different in a number of ways (Stame, 2004; Blamey and Mackenzie, forthcoming). The Theories of Change examples detailed in the first set of the Aspen papers (Fulbright-Anderson, Kubisch and Connell, 1998) present examples of what is predominantly programme description and implementation logic or what Chen (1990) referred to as prescriptive theory. Realistic Evaluation, however, is more concerned with causative theory or what Chen (1990) referred to as descriptive theory.⁷ This important difference is reflected in the terminology used by the approaches and the likely focus and level at which they are applied within an evaluation (Stame, 2004; Blamey and Mackenzie, in press). Theories of Change uses terminology such as inputs, activities, outputs and outcomes and is concerned with the plausibility and logic of these (Fulbright-Anderson, Kubisch and Connell, 1998). However, Realistic Evaluation uncovers specific configurations of contexts (situational issues), mechanisms (responses to interventions that trigger action) and outcomes (the intended behaviour change) (shortened to CMOs) that result in causal change. Realistic Evaluation is concerned with the individual (or

⁷ Chen's definitions are used here as Weiss's term programme theory is easily confused with the same term used more generally in evaluation or performance management to describe elements of the programme (the implementation theory as Weiss would call it or the prescriptive theory according to Chen).

groups of) programme recipient's psychological and behavioural response to these CMOs (Pawson and Tilley, 1997). This issue of the type of theory generated by the approaches is important as it delineates the type of learning (e.g. learning about implementation failure or weaknesses in the underlying causal theory) that is likely to be achieved by the evaluation. This point will be revisited in relation to the utility of the Theories of Change approach within the HaHP evaluation in Chapter ten. The two approaches are also different in the extent to which they involve stakeholders in the articulation of the programme theory and the degree to which these stakeholders are involved in prioritising the focus of the evaluation (Pawson and Tilley, 1997; Fulbright-Anderson, Kubisch and Connell, 1998; Stame, 2004; Blamey and Mackenzie, forthcoming). Another key difference is that the initial incarnations of the Theories of Change approach (Fulbright-Anderson, Kubisch and Connell, 1998) suggested that Theories of Change could deal with highly complex interventions (multi-strand and multi-agency and sometimes multi-site). Realistic Evaluation is concerned with very specific CMO configurations and has tended to be applied to less complex interventions (Blamey and Mackenzie, forthcoming; Tilley, UKES presentation, London, 2005). It has been postulated (by the thesis author) that they differ in the way in which they attempt to address attribution (Mackenzie and Blamey, 2004; Blamey and Mackenzie, in press). Blamey and Mackenzie (in press) suggested that Realistic Evaluation is concerned with traditional causal attribution. Theories of Change, on the other hand, attempts to show that the outcomes measured, and the thresholds of activity and interim outcomes actually achieved, can be explained through the process information gathered about programme delivery. This integration of process and outcome is intended to 'convince' stakeholders of the programmes likely contributions to changes uncovered rather than provide incontrovertible evidence (Connell and Kubisch, 1998; Herbert and Anderson, 1998).

The Theories of Change approach

The key proponent of the Theories of Change approach is the Aspen Institute that published two volumes of papers entitled "New Approaches to Evaluating Community Initiatives" in the mid to late 1990s (Connell et al., 1995; Fulbright-Anderson, Kubisch and Connell, 1998). In the early volume of papers it was proposed that part of the difficulty in evaluating CCIs was that the 'Theories of Change' (the programme detail and underlying rationales and logic) that drive and make up CCI programmes were poorly articulated (Weiss, 1995). The later volume of papers was concerned with the application of the approach. Weiss (1995) described a Theory of Change as a theory of 'how and why the programme will work' (p.66). Connell and Kubisch developed this to state that a Theory of Change is:

"[A] systematic and cumulative study of the links between activities, outcomes and contexts of an initiative" (Connell and Kubisch, 1998, p.16).

The Theories of Change approach requires evaluators to engage a wide range of programme stakeholders in a process through which they jointly describe and represent the programme theory and logic underpinning their intervention. This requires the prospective articulation of intended outcomes, the activities to be implemented that will deliver these outcomes, and the contextual issues that may enhance or derail the delivery and impact on the success of the programme. The resultant theory is then critiqued to establish the extent to which it is 'plausible', 'doable' and 'testable' (Connell and Kubisch, 1998). These criteria respectively relate to the programme's evidence-base and logic, the resources (in the widest sense of the term) available to deliver it, and its 'evaluability'. Assessment should also be made with regard to the overall meaningfulness of the programme and whether it is a worthwhile investment. This process is ideally used to strengthen the programme theory and improve the intervention. The refined theory can then be revisited throughout programme delivery to guide implementation and to uncover where the prospectively articulated theory has, or has not been, successfully delivered and to capture the learning from this. In addition, the resultant 'Theory of Change' is used to develop an evaluation framework and to select appropriate methods and indicators and measures of its impact. Weiss (1995) states that:

"The concept of grounding evaluation in Theories of Change takes for granted that social programmes are based on explicit or implicit theories about how and why the program will work. The evaluation should surface those theories and lay them out in as fine detail as possible, identifying all the assumptions and sub-assumptions built into the program. The evaluators then construct methods for data collection and analysis to track the unfolding of the assumptions. The aim is to examine the extent to which program theories hold. The evaluation should show which of the assumptions underlying the programme breakdown, where they break down, and which of the several theories underlying the program are best supported by evidence" (Weiss, 1995, p. 66-67).

The process information gathered can then be combined with outcome data measured as part of the evaluation to improve the attribution of findings to the programme (Fulbright-Anderson, Kubisch and Connell, et al., 1998).

The three main reasons to use a Theories of Change approach in CCI evaluation are, therefore to: sharpen the planning and implementation of an initiative; facilitate the measurement and data collection elements of the evaluation (particularly in relation to complex areas such as community building); and, to "reduce but not eliminate" (Connell and Kubisch, 1998, p.17) problems associated with attribution. Strengthening attribution is dependent on the theory being articulated prospectively, with sufficient specificity and with a degree of consensus amongst key stakeholders. These latter two issues are acknowledged as being difficult to achieve (Connell and Kubisch, 1998). Weiss (1995) also suggested that

using this approach helps to focus limited evaluation resources on key priority areas of the programme. It also aids the aggregation of results into a broader theoretical framework of programme knowledge, which should increase the likelihood of influencing policy makers in the longer-term. The early papers (Fulbright–Anderson, Kubisch and Connell, 1998) suggested questions that should be addressed in the processes of articulating the theory. These concerned the identification of long, intermediate and short-term outcomes; the activities that would achieve these; and the inputs and resources available to do this. Stakeholders were encouraged to complete long-term outcomes first and to work from these backwards in time to the inputs. The result of this was a form of logical framework or logic model (see further explanation in Chapter four). The applied examples in the Aspen Institute's second volume of papers provided high-level (but relatively non-specific) representation of programme theories (Fulbright Anderson, Kubisch and Connell, 1998).

Concerns with, and reflections on, the application of the Theories of Change approach.

Those critiquing the approach, or attempting the early applications of Theories of Change, raised several areas of concern. For example, the Aspen Institute authors acknowledged that the process of articulating theory was not simple. They stated that:

"In our experience, surfacing and articulating a theory of change through collective and collaborative process is as fraught with difficulties as it is full of promise" (Connell and Kubisch, 1998, p.21)

It was also recognised that stakeholders found it easier to articulate their long-term goals compared to intermediate and earlier steps in the process, particularly where there was a lack of existing evidence to support links in the pathways (Connell and Kubisch, 1998; Judge and Bauld, 2001):

"Defining interim activities and interim outcomes, and then linking those to longer term outcomes, appears to be the hardest part of the theory articulation process" (Connell and Kubisch, 1998, p. 23).

Concerns were also raised about: whether the approach was too linear (Barnes, Sullivan and Matka, 2003; Mackenzie and Blamey, 2005); who should be involved in theory generation (Connell and Kubisch, 1998); how to reconcile possibly competing theories; and the implications for delivery and evaluation if several theories were progressed simultaneously

(Connell and Kubisch, 1998). Another key concern was the levels of specificity actually required for the theory and the extent to which a well-specified theory was feasible in terms of the time taken to articulate it, and the available evidence to support it. Connell and Kubisch (1998) reflected on the “tenuous nature of the causal linkages” (p23) in many of the CCI theories. Judge and Bauld (2001) also noted this in relation to Health Action Zone Project theories and Mackenzie et al. (2002) in relation to the early New Deal for Communities’ health domain action plans. Greater specificity was thought to aid the assessment of the plausibility, do-ability and testability of the theory. It was perceived that such specificity, combined with clarity regarding expected thresholds (of activity and change) and timelines of change in key outcomes, would strengthen the case to stakeholders that any change found was attributable to the intervention:

“At the most general level, the theory of change approach contends that the more events predicted by theory articulation actually occurs over the course of the CCI, the more confidence evaluators and others should have that the initiative’s theory is right” (Connell and Kubisch, 1998, p.34).

However, achieving such specificity early on in an initiative’s life was acknowledged to be difficult. Similarly the processes used to achieve this might actually reduce enthusiasm, involvement and ‘buy in’ of key stakeholders and, therefore, undermine the initiative (Connell and Kubisch, 1998; Coote, Allen and Woodhead, 2004). Connell and Kubisch (1998) suggested that stakeholders, in conjunction with evaluators, should decide the elements of the theory that are prioritised for evaluation. However, again this requires both participation and agreement from the wide number of stakeholders involved in CCIs.

Perhaps the greatest area of concern raised with regard to the early iterations of the Theories of Change was the extent to which it was feasible to address attribution (Granger 1998; Herbert and Anderson, 1998; Mackenzie and Blamey, 2005). The approach contended that stakeholders would have more confidence that the programme was responsible for outcomes achieved if: the prospectively articulated theory was well specified and plausible; activities were implemented at the levels and intensity predicted; the levels of change achieved were close to those anticipated; that the contextual analysis provided no alternative explanation for the change uncovered (Connell and Kubisch, 1998). It was acknowledged, however, that without the use of RCTs it could not be ‘scientifically’ shown that other confounding variables had not been responsible for any changes found (Granger, 1998; Connell and Kubisch, 1998).

A final issue that arose in these early volumes of the Theories of Change approach was the implications for the role of the evaluator. In this approach the evaluator is required to develop new skills in terms of building trust and sustaining ongoing engagement with key stakeholders, building community capacity, working at the interface between implementers and policy makers and achieving consensus on programme theory and evaluation priorities (Brown, 1995). This role may be seen as less 'objective' than more traditional evaluation approaches (Brown, 1995):

"By becoming so engaged in the planning and implementation process, the evaluator may not be able to assess outcomes with an open view or may encounter the danger of being used as a public relations tools. Perhaps more risky than the evaluator's own loss of objectivity may be a reduction in the credibility he or she is perceived to have in the eyes of some initiative constituencies" (Brown, 1995, p.213)

Continuing problems and future directions for CCI evaluations

More recent papers, written during the lifetime of the independent HaHP evaluation, (Coote, Allen and Woodhead, 2004; Kubisch et al., 2002; Auspos and Kubisch, 2004) considered the progress of CCIs and their evaluations, and commented specifically on the contribution of the Theories of Change approach. In terms of the ambitious social change programmes that constituted CCIs, the lesson was that while some progress had been made there was still much work to be done. The findings in relation to large scale CCIs mirrored many of the findings detailed in Chapter two with regard to CHD interventions. Such interventions had experienced some success but had not accomplished the ambitious task of community transformation that they set themselves. Kubisch et al. (2002) stated that:

"In the recent experience of CCIs, the challenge of tackling internal and external problems simultaneously has been so overwhelming that many confined themselves to what was possible: they focused almost exclusively on localized needs and did not address the major structural and institutional barriers that constrained their communities' ability to change" (Kubisch et al, 2002, p.4).

A key issue raised was the need for better theories of community change. Theories were needed that could describe what community change is and how it works. Kubisch et al. (2002) and Coote, Allen and Woodhead (2004) suggested that the programme theories were inadequate. This was due to: a lack of evidence of what works; limited experience in delivering such initiatives; the political and historical contexts of communities, their organisations and structures; and, the personalities within these structures. They reflected

that the evaluation approaches used refocused stakeholder attentions on the need for knowledge building and learning rather than necessarily on establishing absolute cause and effect. The evaluations, however, have also had mixed success. Kubisch et al. (2002) and Coote, Allen and Woodhead (2004) identified ongoing problems with regard to the lack of fit between the timelines of interventions, and their funding and evaluation timescales. Limited timescales for long-term outcomes, implementation problems and the sheer complexity of the interventions seemed still to prohibit the ability of Theories of Change to uncover adequate information about either overall effect or the elements of the programmes that worked for particular groups:

“Evaluators, therefore, have had to struggle to identify the important processes and components of initiatives, measure them and then link them to outcomes in a meaningful way. In the end the evaluations have turned out to be more descriptions of the feasibility of implementing CCIs than tests of the effectiveness of the approach” (Auspos and Kubisch, 2004, p. 5).

Auspos and Kubisch (2004) suggested that the ‘black boxes’ of such interventions are still very murky. They believe that whilst future evaluation efforts must produce learning for current programmes and practitioners, they must also be seen as part of a cumulative knowledge generation programme. They believe that future CCIs must have linked evaluations and that can build learning across countries, sites and contexts to allow:

“Systematic comparisons of how strategies, implementation, and outcomes vary according to, for example the history and trajectories of the neighbourhood, the local political and economic environment, the capacity of the organisations participating in the initiative, and the level of social cohesion among the residents of the neighbourhood” (Auspos, and Kubisch, 2004, p. 8)

Coote, Allen and Woodhead, (2004) suggested that common evaluative frameworks are needed across government departments and funding organisations. Further learning from these papers will be integrated into the subsequent discussion and reflection sections of this thesis (Chapters ten and eleven).

Assessing the utility of the Theories of Change approach within this evaluation

Chapters two and three have presented learning from the literature concerned with the implementation and evaluation of CCIs, and more specifically from community-based CHD

interventions. The literature showed that the implementation and evaluation of these programmes were ambitious and complex. It highlighted that, despite substantial effort from some of the leading experts in these areas across the world, the field has continued to struggle to produce either highly effective interventions or successful evaluations. Evaluations to date (whether theory driven or not) have, in general, failed to; convincingly measure impact; uncover the reasons for success and failure; or address what works for whom in what circumstances. It is against this background that the success and failures of both HaHP and its independent evaluation will now be presented.

Chapter four sets out the methods used to determine the success and failure of HaHP and provides details the how the Theories of Change approach was applied within this independent evaluation. The initial volumes of the Aspen Institute papers made numerous claims for the Theories of Change approach. This thesis will focus on testing the three main assertions made for the approach (that it can improve programme implementation, enhance evaluation and aid attribution). In addition, consideration will also be given to some of the actual practicalities in articulating and testing theories (the time and tools needed, the levels of specificity it is feasible to achieve; the barriers to articulating theory, the actual types of theory it is feasible to derive in such complex programmes; and the suitability of the criteria for testing theories).

Chapter four: Evaluation design and methods

Introduction

This chapter sets out the key evaluation approaches, methodologies and analyses undertaken to address the aims and objectives of this thesis. It justifies their selection, application, and the manner in which the data generated are presented and conclusions drawn. This cannot be done, however, without reference to the process, methodologies, aims, and objectives of the wider independent evaluation of HaHP, given that these two activities were so closely related.

Aspects of the population survey design and analyses were adapted as a result of early recognition that response rates would be limited. As a result, and to aid the explanation of these adaptations, the response rates to the population survey are included within this methods chapter. The numbers of participant's interviewed, involved in focus groups, and responding to the smaller surveys within the case studies, are also detailed to provide consistency. Summaries of the response rates are also included in the findings chapters.

The commissioning and early design of the independent evaluation

The independent evaluation of HaHP was awarded to a collaboration of grantholders from a range of institutions. It was led by the Health Promotion Policy Unit (HPPU) at the University of Glasgow. The thesis author was employed as a Research Fellow within the HEBS (now NHSHS) funded HPPU, after this award was made. This research fellow post was funded independently of the HaHP evaluation contract and the author was never employed directly by the HaHP evaluation grant. Three other researchers were employed full-time from the HaHP independent evaluation. The personnel in these posts, however, changed periodically and by the end of the project seven different research staff had been involved in various stages of the evaluation. The timing of the thesis author's recruitment meant that she was initially used in an opportunistic fashion to start to implement the independent evaluation and to prepare research tools according to the approved outline evaluation design and methods. This latter point is important to the understanding of this thesis as it highlights the fact that the outline evaluation design and methods were to an extent already selected and approved prior to the author's involvement with the evaluation and prior to the development of the thesis. The timing of the author's recruitment is also important as it highlights that the Theories of Change aspect of the independent evaluation was, from the very instigation of the project, not applied in a 'pure' sense. Had it been so, the theory articulation process would have taken

place at the very start of the development of HaHP and the resultant theory would have driven completely the independent evaluation design and methods. This did not happen for three reasons. The first is that the independent evaluation was not fully commissioned until four months after the official launch of the already developed HaHP. The second is that the Theories of Change approach was added to the independent evaluation proposal upon the arrival of Professor Ken Judge to the University of Glasgow and the research collaboration. Professor Judge brought the contract for leading the independent evaluation of Health Action Zones with him to Glasgow and this large-scale evaluation was applying a Theories of Change approach. This approach was, therefore, added to the developing collaborative evaluation proposal and its already fashioned outline methods. The third reason was that, as Theories of Change was a relatively new approach, it was felt to be unlikely that an application for funding would be accepted by commissioners if it left the selection of methods and foci for the evaluation fully undetermined until after theory articulation had occurred.

Ethics approval

Ethical approval was received from NHS Argyll and Clyde's local medical ethics committee for the overall project and for subsequent amendments (see Appendix four).

The author's role in the independent evaluation.

The author's early involvement in the evaluation led to her being asked, as part of her employment within the HPPU, to become the research manager for the overall independent evaluation of HaHP. At a later stage, due to the workload involved in the project and the contribution to redesigning elements of the evaluation, she also became one of the project grantholders. Appendix one contains a declaration of the contribution that the author made to the independent evaluation. It highlights her role in managing the overall evaluation, and provides a detailed description of the aspects of the evaluation design, selection of methods, fieldwork, data analyses and report writing completed and/or managed by her. This declaration was agreed and signed by the Principal Investigator and the other research staff involved in the independent evaluation. A list of grantholders is also contained in Appendix one.

Addressing process and impact in the evaluation of Have a Heart Paisley

Given that the range of evaluation questions being addressed by the independent evaluation included establishing the theory, evaluating the process and assessing the impact of HaHP, it was vital to adopt a multi-method approach (Rossi, Freeman and Lipsey, 1999). It was intended that a combination of methodologies in the study of the same phenomena would enhance both internal and external validity, provide an opportunity to triangulate the data and add strength to the findings uncovered through any individual method:

"[T]he use of multiple methods, often referred to as triangulation, can strengthen the validity of findings if results produced by different methods are congruent. Using multiple methods is a means of offsetting different kinds of bias and measurement error" (Rossi, Freeman and Lipsey, 1999, p.423).

A recent review of evaluations of complex community initiatives (CCIs) in the US and UK conducted by The Aspen Institute (Auspos and Kubisch, 2004) and the Kings Fund (Coote, Allen and Woodhead, 2004) recommended the integration of multiple methods for CCI evaluations. In order to address the aims of the independent evaluation the design consisted of four separate but linked elements that required the use of multiple methods (Hanlon, 2000). (The aims of the independent evaluation are detailed in Appendix five). The four elements were:

1. a theory-based approach (the Aspen Institute's 'Theory of Change');
2. the mapping of the social context within which HaHP took place (using analyses of secondary and primary data);
3. a quasi-experimental pre and post survey; and
4. a range of qualitative investigations (these were relatively unspecified in the initial proposal and later became the integrated case studies and included quantitative elements).

These methods were used with different stakeholders within HaHP, and were applied to activities targeted at different levels (strategic, operational and participant) across the intervention. They were also applied across different timescales. Table six summarises the methods and illustrates the stakeholders and levels that were the focus of each method. Figure two shows the different methods used and the intended scope for triangulation. The numbers shown are the final sample/interview numbers generated (the intended sample sizes for the population survey are detailed and discussed later in this chapter).

Table six: Representation of the mixed methodologies applied

The letters indicated in the first column under the methodology/approach relate to the key independent evaluation reports. The most relevant reports and weblinks aligned with these letters are detailed on the page following this table. Report E (the final report details a summary of all the methods). The full set of HAHP independent evaluation (and other related HaHP) reports are also detailed at the end of the reference lists.

EVALUATION COMPONENT AND KEY REPORT	FOCUS/TARGET GROUP/LEVEL	METHODS & SAMPLE/RESPONSE RATE
1:Theories of Change See reports A and B	Strategic/operational personnel in the HaHP partnership (*This represented the majority of key delivery/management staff involved in the HAHP partnership)	23 interviews in each of the three project years <ul style="list-style-type: none">In year one only 13 of these interviews were taped as the others were discussions focusing on constructing and adapting specific logic models. All 23 were recorded in subsequent years Seven of the above interviews/discussions each year were with multiple participants (five interviews with two participants, one with three and one with four). As a result 33* participants were interviewed/involved in each year. With the exception of 4 participants, who filled vacated posts, the interviewees were consistent over the three years
2:Contextual Analysis See report C	The area targeted by HaHP and the comparator site of Inverclyde	Analysis of secondary data sources and aspects of the data gathered for the Community setting case study (see below)
3 Quasi-Experimental Survey See reports D and E		
3.1 Baseline	Cross-section of Paisley & Inverclyde populations	Postal Questionnaire (Total N=743) [28% response rate] [N=386 in Paisley, N=357 in Inverclyde]

EVALUATION COMPONENT	FOCUS/TARGET GROUP/LEVEL	METHODS/RESPONSE RATE
3.2 Follow-up	Follow-up of baseline survey responders (cohort of all respondents)	Postal Questionnaire (N=556) [79% response rate] [N=276 in Paisley, N=280 in Inverclyde]
4: <i>Inter-related case studies</i> See reports F, G H, I and J		
4.1 Community	Community stakeholders	Interviews (N=16)
	HaHP Locality team	1 Focus Group (N=6)
	Paisley community members operationally responsible for community projects	1 Participative session (N=12); 1 Focus Group (N=4)
	Community representatives in strategy groups	Interviews (N=5)
4.2 Primary care	Primary care staff (all GPs, nurses given questionnaire)	Postal Questionnaire (N=122) [75% response rate]
	Cross-section GPs and key informants	Interviews (N=14) 2 Focus Groups (N=12)
4.3 Local authority	Strategic service managers with HAHP projects	Interviews (N=16)
	Staff in leisure services & community facilities (Renfrewshire)	Postal Questionnaire (N=73) [30% response rate]
	<i>Senior catering and care staff in community care establishments</i>	Interviews (N=21)
	<i>Head teachers and health/sport co-ordinators in all educational establishments⁸</i>	Postal Questionnaire (N=54) [76% response rate]
	<i>Cross-section of children/young people and parents of pre-fives in Health Promoting School Projects</i>	6 Focus Groups (N=35)

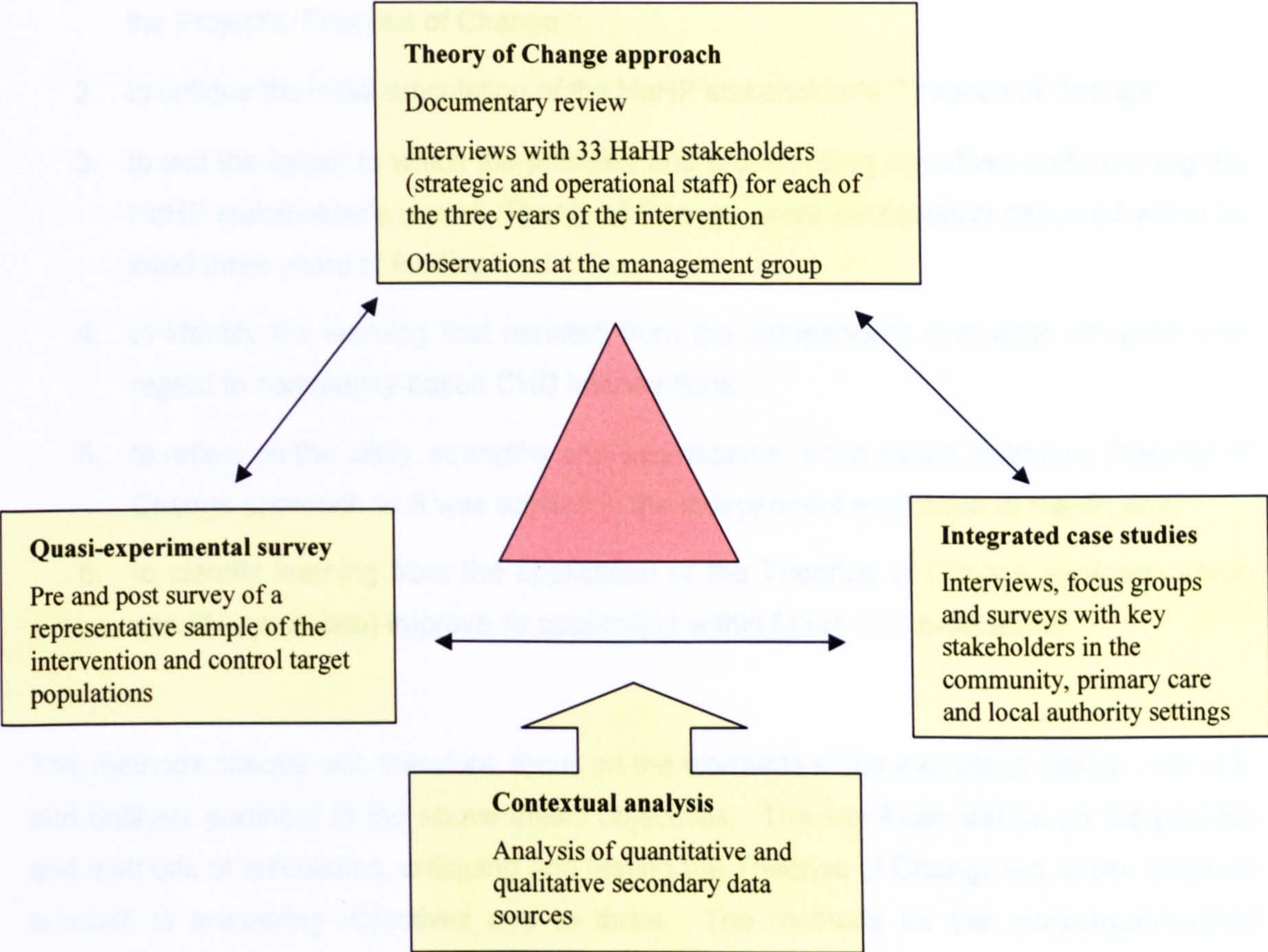
⁸ Those data sources italicised have not been used as part of the subsequent data analysis, or to inform the conclusions for this thesis. These sources have been excluded because the PhD author had little input into the design of the data collection instruments or in conducting the fieldwork. It is notable, though, that these sources added little new, and no contradictory, evidence to the other data.

Reports from the independent evaluation of HaHP corresponding to Table six

- A. Blamey, A. (2001) *Have a Heart Paisley: report on the theories of change development*. Health Promotion Policy Unit, Public Health & Health Policy Section, University of Glasgow, Glasgow. <http://www.phis.org.uk/hahp/key.asp?itemid=343> (Accessed, June 4th 2007)
- B. B Blamey, A. (2003) *Delivering on expectations?: Have a Heart Paisley's initial progress against their plans* Health Promotion Policy Unit, Public Health & Health Policy Section, University of Glasgow, Glasgow. <http://www.phis.org.uk/hahp/key.asp?itemid=342> (Accessed, June 4th 2007)
- C. Paterson, I. & Ayana, M. (2003) *Have a Heart Paisley contextual report* Health Promotion Policy Unit, University of Glasgow, Glasgow.
- D. Paterson, I., Blamey, A., & Judge, K. (2002) *The Have a Heart Paisley baseline survey* Health Promotion Policy Unit, University of Glasgow, Glasgow. <http://www.phis.org.uk/hahp/key.asp?itemid=339> (Accessed, June 4th 2007)
- E. Blamey, A., Ayana, M., Lawson, L., Mackinnon, J., Paterson, I., & Judge, K. (2004) *Final report - the independent evaluation of Have a Heart Paisley: a national health demonstration project* Health Promotion Policy Unit, University of Glasgow, Glasgow. <http://www.phis.org.uk/hahp/key.asp?itemid=332> (Accessed, June 4th 2007)
- F. Ayana, M., Blamey, A., & Reid, M. (2002) *History matters in community-based interventions: community involvement in Have a Heart Paisley*. Health Promotion Policy Unit, Public Health & Health Policy Section, University of Glasgow, Glasgow. <http://www.phis.org.uk/hahp/key.asp?itemid=345> (Accessed, June 4th 2007)
- G. Ayana, M. & Blamey, A. (2003) *Community involvement in Have a Heart Paisley: engagement at the operational and strategic level*. Health Promotion Policy Unit, Public Health & Health Policy Section, University of Glasgow, Glasgow. <http://www.phis.org.uk/hahp/key.asp?itemid=344>(Accessed, June 4th 2007)
- H. Lawson, L., Patterson, I., & Blamey, A. (2003) *Primary care stage one report: An overview of the impact of Have a Heart Paisley on organisational change in primary care* Health Promotion Policy Unit, Public Health & Health Policy Section, Glasgow. <http://www.phis.org.uk/hahp/key.asp?itemid=356> (Accessed, June 4th 2007)
- I. Lawson, L (2004) *Stage Two Primary Care Report: Have a Heart Paisley* Health Promotion Policy Unit. University of Glasgow <http://www.phis.org.uk/hahp/key.asp?itemid=357> (Accessed June 4th 2007)

- J. Mackinnon, J., Paterson, I. and Blamey (2004) *Leisure Service and Community Facilities in Renfrewshire: Staff Survey*. Health Promotion Policy Unit. University of Glasgow. www.phis.org.uk/hahp/detailt.asp?ID=283 (Accessed, June 4th 2007)
- K. Lawson, L., and Ayana, M. (2004) *Have a Heart Paisley, Health Promoting Schools Independent Evaluation* Health Promotion Policy Unit. University of Glasgow <http://www.phis.org.uk/hahp/key.asp?itemid=360>(Accessed June 4th 2007)

Figure two: Illustration of mixed methods used to achieve triangulation of data



As detailed above whilst the author played a major role in the management, redesign, fieldwork, analysis and write up of each of these elements (see Appendix one) her greatest time commitment and contribution were in relation to the theory-based approach and aspects of the case studies. As a result, whilst this thesis has substantial overlaps with the independent evaluation it has a predominant focus on the theory-based elements and (aspects of) the case studies whose design were informed by the theory articulation work. The aims and objectives of the thesis in particular are, therefore, restated below.

The aims and objectives of the thesis

This thesis aims to:

- identify the key implementation, evaluation and policy lessons that result from the independent evaluation of the Scottish National (Coronary Heart Disease) Demonstration Project - Have a Heart Paisley: and
- contribute to learning about how best to evaluate Complex Community Interventions.

This thesis has the following objectives:

1. to articulate and describe the stakeholders' theories underlying HaHP (and identify the Project's 'Theories of Change');
2. to critique the initial articulation of the HaHP stakeholder's 'Theories of Change';
3. to test the extent to which the priorities and cross-cutting objectives underpinning the HaHP stakeholder's overall 'Theory of Change' were successfully delivered within its initial three years of funding
4. to identify the learning that resulted from the independent evaluation of HaHP with regard to community-based CHD interventions
5. to reflect on the utility, strengths and weaknesses of the Aspen Institute's Theories of Change approach as it was applied in the independent evaluation of HaHP; and,
6. to identify learning from the application of the Theories of Change approach which can (if appropriate) improve its application within future CCI evaluations.

This methods chapter will, therefore, focus on the elements of the evaluation design, methods and analysis pertinent to the above thesis objectives. The key focus will be on the process and methods of articulating, critiquing and testing the Theories of Change e.g. those methods relevant to answering objectives one to three. The methods for the quasi-experimental survey and the integrated case studies will be presented because they are relevant to the process of testing the theories generated over time (addressing objectives three and four). Objectives five and six will be addressed through reflection on the process of conducting the independent evaluation and the thesis.

Why use the Theories of Change approach?

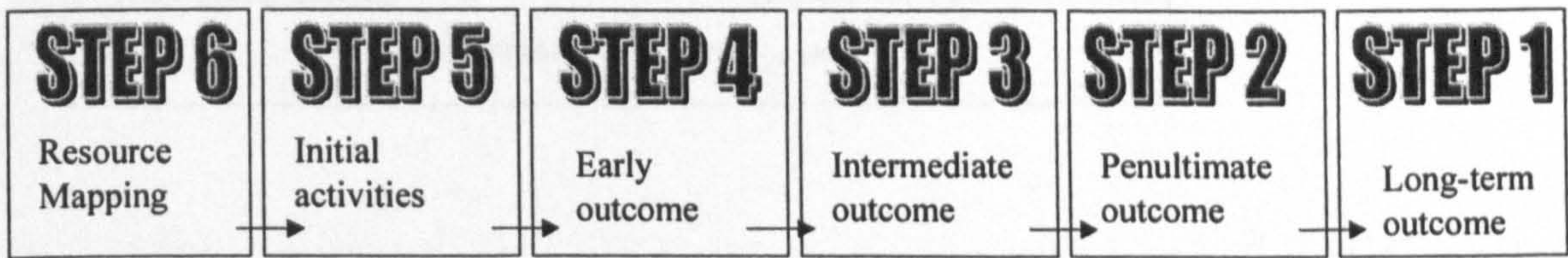
Chapter two highlighted many of the limitations of evaluations of community based CHD interventions and Chapter three highlighted that theory-based evaluation approaches have been developed that attempt to overcome some of these limitations. The key reasons to support the application of a theory-based evaluation, and the Theories of Change approach in particular, are its aspirations to: understand the complexity of community based programmes; sharpen the planning and implementation of an initiative; facilitate the measurement and data collection elements of the evaluation; and, aid attribution. This approach should also support the aggregation of results into a broader theoretical framework of programme knowledge, which should increase the likelihood of being able to replicate interventions and generalise learning and so influence future programmes and policies (Fulbright-Anderson, Kubisch and Connell, 1998).

The process of articulating Have a Heart Paisley's Theories of Change

Introduction to the process of articulating Theories of Change

Chapter three indicated that the early Aspen Institute papers suggested questions that should be addressed in the processes of articulating the theory (Fulbright-Anderson, Kubisch and Connell, 1998, Connell and Kubisch, 1998). These concerned the identification of long, intermediate and short-term outcomes; the activities that would achieve these; and, the inputs and resources available to do this. Stakeholders were encouraged to complete long-term outcomes first and to work from these backwards in time to the inputs. The result of this was a form of simplistic logic model as illustrated in Figure three:

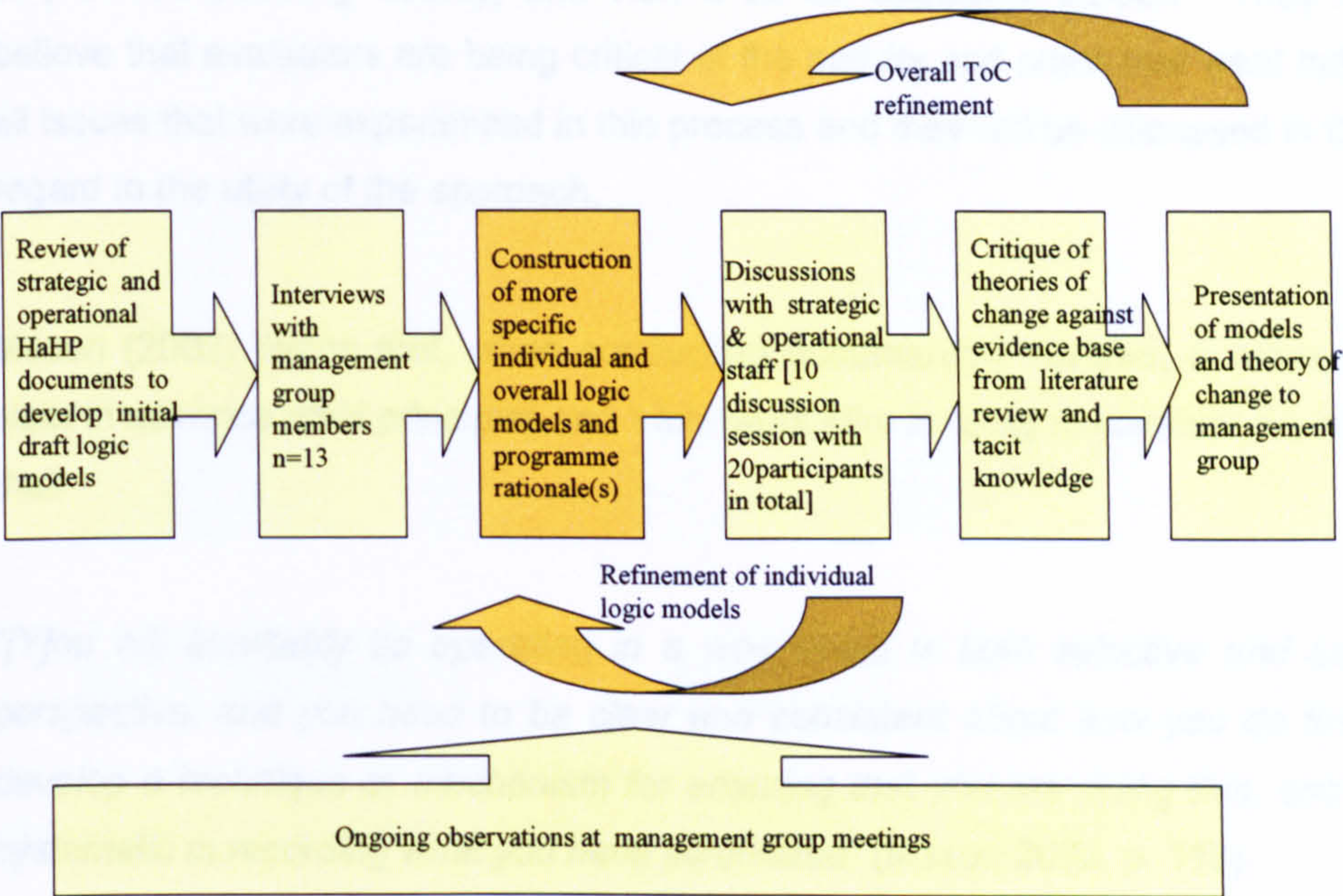
Figure three; Steps in articulating Theories of Change



Taken from Connell and Kubisch 1998, p22

Beyond this advice these early papers provided some examples of applied models that were relatively superficial representations of programme theories (e.g. provided the strategic level but were non-specific) (Fulbright-Anderson, Kubisch and Connell, 1998). These authors (Connell and Kubsich, 1998; Herbert and Anderson, 1998) gave some guidance on terminology to use or avoid, and on the possible means of articulating theories, such as by documentary review, individual or group interviews, or combinations of these. There seemed, however, to be no definitive tools or prescribed processes in the way that there are for more general research methods. As such, and armed with this general advice, the author embarked on the process of articulating HaHP's Theory of Change. The overall process followed is shown in Figure four and each element is described in the followings sections.

Figure four: Flow chart of the Theories of Change articulation process for Have a Heart Paisley.



Documentary review and framing the initial logic models

In accordance with the advice from the Aspen Institute papers (Fulbright-Anderson, Kubisch and Connell, 1998) a variety of activities were completed in order to uncover the HaHP stakeholders’ Theory of Change. The initial approach taken was to review existing documents and plans from the intervention. Herbert and Anderson (1998), suggested that reviewing such documentation is a good starting place and that, if such plans already exists, it ensures that previous planning activity is taken into account and valued by incoming evaluators. They state that:

“[T]o the extent that such documents have been formally approved by governing boards, they present ‘official’ consensus positions of influential stakeholders, at least in the short term” (Herbert and Anderson, 1998, p.129).

In relation to HaHP, documents accepted by the SE in awarding Paisley the demonstration project were available. Such documents included the full proposal, and subsequent iterations of the proposal, developed for the official launch of the project. In addition, a range of more

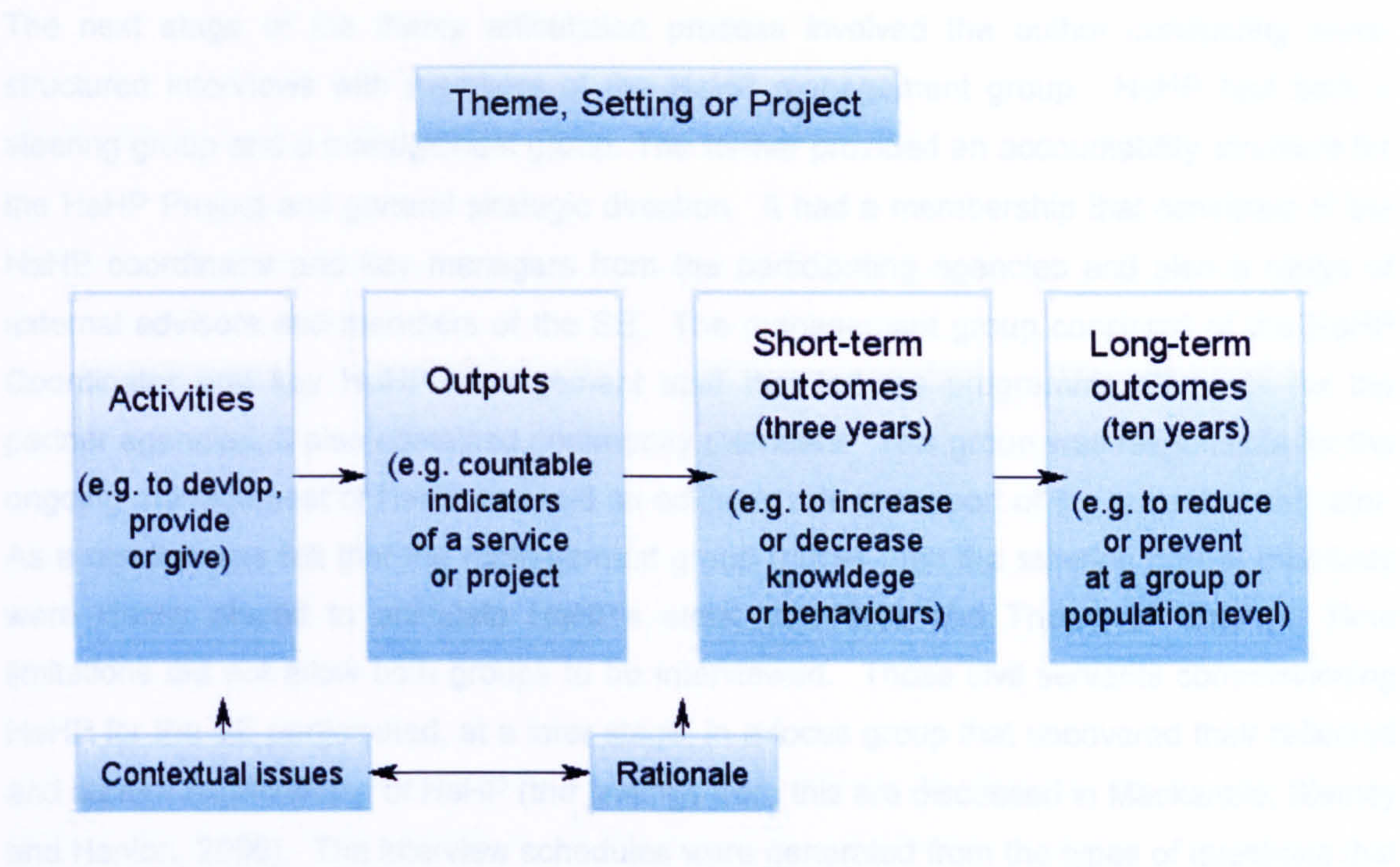
operationally focused plans for each of the project's strands and activities were in various states of development or completion. These documents were, therefore, sourced by the evaluator and reviewed. Herbert and Anderson (1998) also highlight that using existing documentation or conducting the theory generation exercise after plans are developed can have drawbacks. Implementers may perceive the theory generation process to be repetitive of previous planning activity, and view it as an additional burden. They may, therefore, believe that evaluators are being critical of the activity and plans that went before. These are all issues that were experienced in this process and they will be discussed in Chapter ten with regard to the utility of the approach.

Mason (2002) warns that, when conducting documentary reviews, a researcher should be clear in advance what principles and framework s/he is using to consider the data. She states that:

"[Y]ou will inevitably be operating in a way which is both selective and uses a particular perspective, and you need to be clear and consistent about how you do this. [Y]ou should develop a technique or mechanism for ensuring that you are doing this, and to help you be systematic in recording what you have scrutinized" (Mason 2002, p. 113).

In the process of conducting these reviews the author chose initially to use the model suggested by Connell and Kubsich (1998) as detailed above, to impose a framework on the various plans considered. However, after some initial attempts at using this model the evaluator made amendments to it so that it was more in line with logic models utilised by performance management and international development professionals (Coleman, 1987; Rush and Ogborne, 1991). These changes were made as the plans generally lacked clarity in relation to specific outcomes and timelines and so it was impossible to populate all four of the outcome boxes (steps six to three inclusive) in Figure three. In addition, the Connell and Kubisch (1998) model provides no obvious category within which to place outputs (rather than outcomes), that is tangible services or products such as reports, training courses etc. The logic model proffered by Rush and Ogborne (1991) required fewer distinctions between outcome levels and had a category for outputs, and so was adopted with some adaptation. Figure five illustrates the amended version of the logic model template. This shows that a decision was made not to incorporate the inputs (funding, staffing levels) into this model, as this would be considered in more detail at the point of scrutiny of the overall project models. Such information was mainly of a financial nature, or related to numbers of staff, and so was easily incorporated at a later stage. In addition, the rationales and contextual issues raised were detailed in narrative form as an additional element to both models.

Figure five: Adapted logic model template



This model shows the adapted version of the Rush and Ogborne (1991) logic model.

More recently a range of detailed toolboxes and guides on logic model development have come to the fore (Kellogs Foundation, 2001; Centre for Health Promotion, University of Toronto 2001; University of Wisconsin extension programme, 2006). Whilst the genesis of some of these were available before the start of the HaHP theory generation exercise (Kellogg Foundation, 1998), they were not known to the author at that point and were only accessed once these specific logic model guides became more widely available (2001).

In summary, the documentary review process considered a variety of existing and developing strategic and operational plans for HaHP. It reviewed the documents with a view to extracting data that could be inserted into the logic model adapted from that recommended by the Aspen Institute and Rush and Ogborne (1991). This resulted in draft initial versions of both strategic and operational logic models for HaHP as a whole, and for different elements of the intervention. The author then critiqued these draft logic models using the suggested Aspen Institute criteria. The models and the issues resulting from this critique were used to construct schedules for the subsequent individual and group semi-structured interviews. See Appendix six for a full set of the logic models produced.

Interviews with the management group

The next stage of the theory articulation process involved the author conducting semi-structured interviews with members of the HaHP management group. HaHP had both a steering group and a management group. The former provided an accountability structure for the HaHP Project and general strategic direction. It had a membership that consisted of the HaHP coordinator and key managers from the participating agencies and also a range of external advisors and members of the SE. The management group consisted of the HaHP Coordinator and key HaHP management staff that led the programme elements for the partner agencies. It also contained community members. This group was responsible for the ongoing management of HaHP and had an advisory role in support of the project coordinator. As a result it was felt that the management group (rather than the steering group) members were ideally placed to articulate HaHP's aims, objectives and Theory of Change. Time limitations did not allow both groups to be interviewed. Those civil servants commissioning HaHP for the SE participated, at a later stage, in a focus group that uncovered their reflected and current expectations of HaHP (the findings from this are discussed in Mackenzie, Blamey and Hanlon, 2006). The interview schedules were generated from the types of questions that the Aspen Institute (Connell and Kubisch, 1998; Herbert and Anderson, 1998; Brown, 1998) recommended and from the more specific questions generated by the documentary review process and the initial attempts at establishing logic models. Visual representations of the draft logic models were taken to the interviews as prompts for use by the interviewer (the author) and specific questions about the gaps in the models or links between elements of these were asked (see the schedules presented in Appendix seven). In total ten interviews were conducted with the HaHP management group and three additional stakeholders selected due to their strategic role in leading clusters of HaHP programmes. This represented all members of the management groups/strategic staff for HAHP. Although this activity could have been conducted as a group process, the author felt that more honest, open responses and more clearly specified project data would be gained about the overall and individual elements of HaHP by conducting one-to-one interviews (further justification for the use of interviews is given later). These were conducted as traditional semi-structured research interviews. They were recorded and transcribed and then coded according to the headings from the logic model. In a more inductive manner, themes were also generated from the interview data itself (Bowling, 2002). The resulting coded texts were collated, re-read and where consistent themes were found, these were utilised to amend the overall and individual project Theories of Change (logic models and accompanying text). Where discrepancies were found these were verified with the key individuals responsible for delivering the project, checked in discussion with operational staff and if unresolved were highlighted in the later report to the management group. The coded data were, therefore, used to construct more detailed logic models. These were then used as prompts and as a means of generating additional questions for the subsequent discussions with operational

staff. More detail of data management and analysis for these and additional interviews conducted, is provided in later sections of this chapter.

Discussions with strategic and operational staff

All staff responsible for a setting, programme or individual project were invited to meet with the evaluator. These meetings were conducted as focused discussions rather than traditional research interviews. Discussants were asked to reflect and comment on the outline that the logic models provided. They were encouraged to amend them where appropriate and to articulate the theory behind the amended plans as well as the rationale for the activities chosen and the links made. These discussions followed the recommendations of Philiber (1998), who stated the following in relation to articulating and refining Theories of Change:

"As these processes and outcomes are being described, we disallow 'vague speak'... we employ some simple guidelines in getting the theory of change on paper. These include: state one process or outcome at a time... [U]se specific verbs like 'increase and decrease' rather than vague words like 'promote or encourage'...keep it simple and emphasise the important elements" (Philiber, 1998, p.90).

Amendments to the models were annotated on the paper versions and in accompanying notes, along with any other important issues raised. In several instances more than one operational staff member was involved in discussions in connection with one project (this was not planned but simply occurred due to circumstance). These discussions were not recorded as they focused in detail on the draft logic models and defining amendments to these. As such it was thought that the transcriptions of the ensuing verbal interaction might make limited sense without the visual aid of the logic model. In addition the amendments and key issues, instead of being recorded, were annotated on the draft logic models.

Observations at management group meetings

In addition to the above, the evaluator attended the HaHP management group meetings as an observer. This approach was not intended to be a formal observation methodology but simply allowed the author to take notes from these meetings and the formal minutes as a means of both validating, and adding contextual information to, the logic models and the subsequent research findings.

Although the above approaches proved particularly time consuming for the evaluator, few other options were available to gain the degree of detail and specificity necessary. These approaches provided a level of operational clarity and focus that was necessary to aid the evaluation in the early stages of the demonstration project.

Critiquing Have Heart Paisley's Theories of Change

The Theories of Change constructed for HaHP overall, and for the settings and themes, were scrutinised by the evaluator with a view to testing their plausibility, do-ability and testability (Connell and Kubisch, 1998). The refined models and the questions that arose from the scrutiny process were presented initially to the HaHP management group. As detailed earlier, plausibility relates to whether or not there is an evidence-base for the activities. If there is no formal evidence-base then the activities should at least have some inherent logic that links the activities delivered to the thresholds of change in the outcomes expected. Do-ability relates to the feasibility of delivering the plan in the timescales and with the resources available. Testability relates whether the interventions are evaluable and the extent to which the theory is articulated in a manner that allows evaluation and measurement (Connell and Kubisch, 1998). For example, the testability would be influenced by the extent to which there are SMART (specific, measurable, action orientated/agreed, realistic and time limited) objectives and thresholds of change expressed. The scrutiny process for HaHP was conducted by the author reflecting on both the evidence-base from the available literature and her own tacit knowledge of CHD prevention activity (having worked in the field of CHD prevention for nearly twenty years) and comparing this to the articulated theory. In addition, this process involved reflection on a number of potential and typical flaws found in such theories. Philiber (1998) states that there are common problems within a project's Theory of Change. For example, she suggests that some models are lists of processes rather than outcomes, or that too many outcomes are listed rather than the most important ones. When flaws are found she suggests that:

" Generally the flaw can be traced to an intervention plan that is not strong enough, intense enough, or well enough targeted to produce the hoped for outcomes" (Philiber, 1998, p. 92).

The findings from this scrutiny process are presented in Chapter six. The management group and leads for specific settings and projects were asked to reflect on findings from the scrutiny process. They were asked to judge the quality of the Theories of Change models and assess the predicted timescales and the feasibility of gathering the range of potential monitoring and evaluation indicators identified in the logic models. (See Chapter six for details of questions

raised and critiques made). The management group was given eight weeks to comment on the scrutiny process findings and to add to the specificity of the generated Theories of Change.

The above process of engaging the management group in improving the articulated theory had only limited success (see example of invitation and responses provided in Appendix eight). This was most likely due to time pressures faced from both within the project and other occupational responsibilities, and to the fact that several of the management group did not actually have responsibility for the direct delivery of settings programmes or projects within HaHP. These latter issues meant that some of the management group were not actually in the position of being able to clearly specify in detail the exact output and outcomes of the many projects that made up HaHP. Several individuals felt that the Theories of Change were already quite comprehensive and, as this was a new approach to articulating plans, were unsure how to add to it. This initial process however, did seem to stimulate further discussion and refinement of the "common vision" of HaHP overall, if not the detailed plans. An example of such change was the integration of several of the activities within primary care into a more coherent programme.

Despite the time and effort dedicated to explicating the HaHP plans, the final Theories of Change had substantial gaps in terms of the specificity of the logic models and the mechanism for gathering monitoring data (see the examples of logic models in Chapter five and all models in Appendix six). For example, in many areas timescales or targets had not been set or thresholds for change established. After consultation with the management group, the materials generated as part of the theory articulation process were submitted to the SE in the form of an initial Theories of Change report (Blamey, 2001, <http://www.phis.org.uk/hahp/key.asp?itemid=343> ,Accessed, June 4th 2007).

Testing Have a Heart Paisley's Theories of Change over the longer term

As indicated earlier in this chapter, the Theories of Change approach attempts not only to improve the articulation of plans but, through the provision of formative feedback to project staff, aims to improve the intervention's implementation. Philiber (1998) states that:

"We counsel programs to re-examine their theories regularly, and certainly to re-examine them every time they have data in hand with which to check. Thus creation of a theory of change does not end with the first draft, particularly for initiatives that have the luxury of

interactive evaluations, which ideally function more like smoke detectors than like autopsies” (Philiber, 1998, p. 94).

In addition, through revisiting the Theories of Change throughout the lifetime of a programme it is hoped that feedback to improve the project can be given at several interludes and that this process also aids the internal and external validity of the evaluation. By checking that the project is being delivered as planned, evaluators ensure that they are in fact evaluating the programme reality rather than the 'intended' programme. As well as providing formative feedback, knowledge of why certain aspects of the programme have been successfully delivered and others have not can be gathered and such knowledge provides vital learning for future attempts at replicating initiatives:

“[T]he explicit revisiting and revision of the theory appears to be one of the basic methods through which stakeholders derive lessons regarding possible improvements and evaluators learn about the community change process ...” (Herbert and Anderson, 1998, p.139).

In addition to the reasons detailed above, concerned with programme improvement and model fidelity, revisiting Theories of Change also ensures that detailed process information is available to link with outcome data to improve attribution. The more that a theory unfolds as predicted and achieves anticipated thresholds of activity and corresponding changes in outcomes, the more likely key stakeholders are to be convinced that the intervention has led to such change (Connell and Kubisch, 1998). However, the extent to which a theory is adapted may have implications for attribution in its more positivist sense. If the initial hypothesis changes too much or too late in the process, this may invalidate the methods selected to assess whether or not it has been achieved. Whilst some elements of an evaluation should adapt to become more sensitive to the unfolding interventions (and this is one key reason to use a theory driven approach), it is perhaps naive to assume that evaluation plans can change too readily (Herbert and Anderson, 1998). For example, the time and resources required to establish comparison or control conditions or large scale surveys, means that such elements may simply be invalidated by changes in theory and implementation. In such cases as Herbert and Anderson indicate:

“[T]he ability to infer attribution will be directly dependent on the degree of consistency found between the original hypothesis and reality as the intervention unfolds” (Herbert and Anderson, 1998, p.140).

For the reasons detailed above, the author decided to check progress against the Theories of Change at two additional time points, one year after the initial articulation process, and a year

further on (year three) towards the end of the programme's initial funding period. This meant there were three sets of Theories of Change fieldwork conducted in total. The first of these was to articulate the theory. The subsequent two were to assess progress against the theory with regard to fidelity to the initial plans, and to provide process information to be linked with the impact findings from the survey and aspects of the case studies. The second and third sets of fieldwork involved repeated semi structured in-depth interviews with the key stakeholders who had been interviewed initially (and those who had recently joined the management group or implementation team as new or replacement members). The author also continued to be an observer on the management group to provide additional insight and contextual information.

In addition to the methods used to revisit the Theory of Change, a range of other methods were employed within the independent evaluation of HaHP to test whether or not HaHP had achieved its intended impact (in effect had it delivered on its Theories of Change). These included three case studies involving questionnaires, interviews and focus groups, an analysis of secondary and primary data relating to context, and a quasi-experimental survey aimed at measuring relevant changes in individuals engaged in the HaHP programme and/or the overall population of Paisley (see Table six earlier in this Chapter).

The next sections provide more detail of the methods selected for revisiting and testing the Theory of Change, assessing implementation progress and measuring context and impact. They also detail why the methods were selected and the subsequent analysis conducted on the data.

The interviews used to articulate Have a Heart Paisley's initial Theories of Change and test them in the longer-term

As detailed above, semi structured interviews were used to articulate the overall and project Theories of Change, revisit them and to test them in the longer term. Interviews were selected as they are an appropriate method by which to generate data about relatively complex issues or processes. They allow detailed and tailored questions to be asked and provide an opportunity to probe or clarify short or ambiguous answers (Bowling, 2002). In addition, they are best suited to areas where an individual may wish to confide or share politically sensitive or personal information. Whilst such interviews are time consuming they were felt necessary. The political status of the NHDPs and the fact that they relied on partnership working led the author to conclude that relatively sensitive and complex information might be uncovered in considering the plans and theories for such an intervention.

In total sixty-nine interviews were conducted over the three years specifically in relation to the Theories of Change process. Twenty-three interviews were conducted each of the three years. Several of these involved multiple interviewees (five interviews with two participants, one with three and one with four in each year). This meant that in each year twenty-three interviews were conducted covering thirty-three interviewees. It was not intentional, nor ideal, that some interviewees were with more than one interviewee. This was, however, unavoidable as some interviewees requested to be accompanied by other members of their team, or by previous incumbents of their post. Most interviews were recorded. However, ten discussions that were used to focus in detail on the articulation of the logic models were not recorded. Data for these interviews was annotated on the logic models themselves as detailed above. One other interview was also not recorded as a participant requested that notes were taken instead (as they felt the tape recording intrusive and anxiety provoking). In this case detailed notes were taken. All members of the management group and all those in HaHP with a key strategy or lead operational role were included in the interview process. In this way, the sampling of implementation stakeholders was comprehensive. Due to loss of staff, not all of the interviewees were consistent across the three years. However, only four changes in interviewees occurred over the time span. The author personally conducted all of the Theories of Change interviews.

Interviews lasted between thirty minutes and one hour fifteen minutes. All participants approached agreed to be interviewed. Given they were all engaged in HaHP, it is likely that they may have discussed their interview experience or content with colleagues. This, however, was not thought to have substantially impacted on the validity of the data given that the focus was on programme content and theories and that such exchanges would have gone on prior to interviews in the early planning stages of HaHP. In addition, interviewees were asked about their specific roles, as well as the overall programme, and so these specific areas were possibly less likely to have been discussed with colleagues.

By the second round of interviews the future of HaHP was still unknown. However, by the third set of interviews HaHP had been granted an extension to its funding for a transition year. During this transition year plans were to be drafted and submitted for a potential further three years of funding. This had an impact on the information provided in the last round of Theories of Change interviews as participants were focused on the future planning activity rather than on reflecting on the initial funding phase. More will be said about this in Chapter ten when the results of these interviews are detailed.

Qualitative data management, coding and analysis

All of the recorded interviewees were given a unique identifying code ensuring anonymity. The independent evaluation team's secretary then transcribed them verbatim. Once these transcriptions were received they were saved as text files (any additional contextual information that was likely to identify the interviewee was removed) and they were then loaded onto Atlas-ti, a computer assisted qualitative data analysis package. There were large numbers of interviewees, multiple methods being used, and limited time scales for the overall evaluation. In addition the author was responsible for other projects as part of her post. As a result of these demands individual interviewees were not given the opportunity to review each of their own transcripts prior to analysis. However, all draft reports and conclusions were submitted for review by the stakeholders (grantholders, funders, implementers-including the interviewees, and other members of the evaluation team). Where any concern was raised in connection with interpretation, these were taken into account (if felt to be appropriate after discussion with grantholders and the wider evaluation team and on reconsidering appropriate data). Any changes that were made as a result of this were in relation to the tone of some of the conclusion rather than the substance.

Ritchie and Spencer (1994) in their 'Framework' approach recommend a number of steps when analysing qualitative data. The first step involves the researcher re-reading and familiarising themselves with the data and the issues it contains. This process allows the identification of an emerging thematic framework from the data. Aspects of such a framework are likely to have already been formulated from the process of conducting a literature review, framing the research questions, designing the tools and conducting the fieldwork. However, the subsequent step requires the researcher to identify and 'abstract and conceptualise' from the data *a priori* themes and concepts and also identify themes emerging from the data itself. These themes are then used to code (or index) areas of transcribed text. If appropriate, areas of texts can be coded according to multiple themes and codes and then aligned to higher-level themes and/or split into sub themes. The researcher can then look for similarities and differences within and across themes. This process is further developed to allow mapping and identification of the varying experiences, opinions and accounts of issues contained in the data, which then illustrates where patterns or exceptions exist. This in turn allows the development of a coherent picture of findings to emerge across the relevant data.

The author adopted this framework when analysing the qualitative data within this evaluation. She familiarised herself with the data and began to apply an outline framework (informed *a priori* by the literature review and the fieldwork). For example, when considering the Theories of Change interview data, the programme elements of logic model templates influenced the interviews schedules and coding framework (e.g. what were the key activities, outputs and

outcomes). When considering these and the subsequent data, issues relating to project success, such as saturation and community engagement (taken from the literature reviews), also informed the conceptual framework. The framework was further developed through the familiarisation process. For example, the issue of innovation was added to the existing concept of evidence use and concepts such as 'additionality' (i.e. HaHP contributing to and adding value to existing activity rather than only developing new activities).

The next step involved coding sections of the transcripts according to the themes (both *a priori* themes and those arising from the data itself). An example of an emerging code was 'perceptions of success'. This was linked to many other related and sub-codes such as 'synergy' or 'catalyst to other monies'. Another emerging code was 'barriers to delivery' and this had sub codes such as 'lack of leadership' or 'limited time'. Any piece of text could be linked to one or more codes as appropriate. Some codes were discrete, some overlapping (Mason, 2002) (see Figure six).

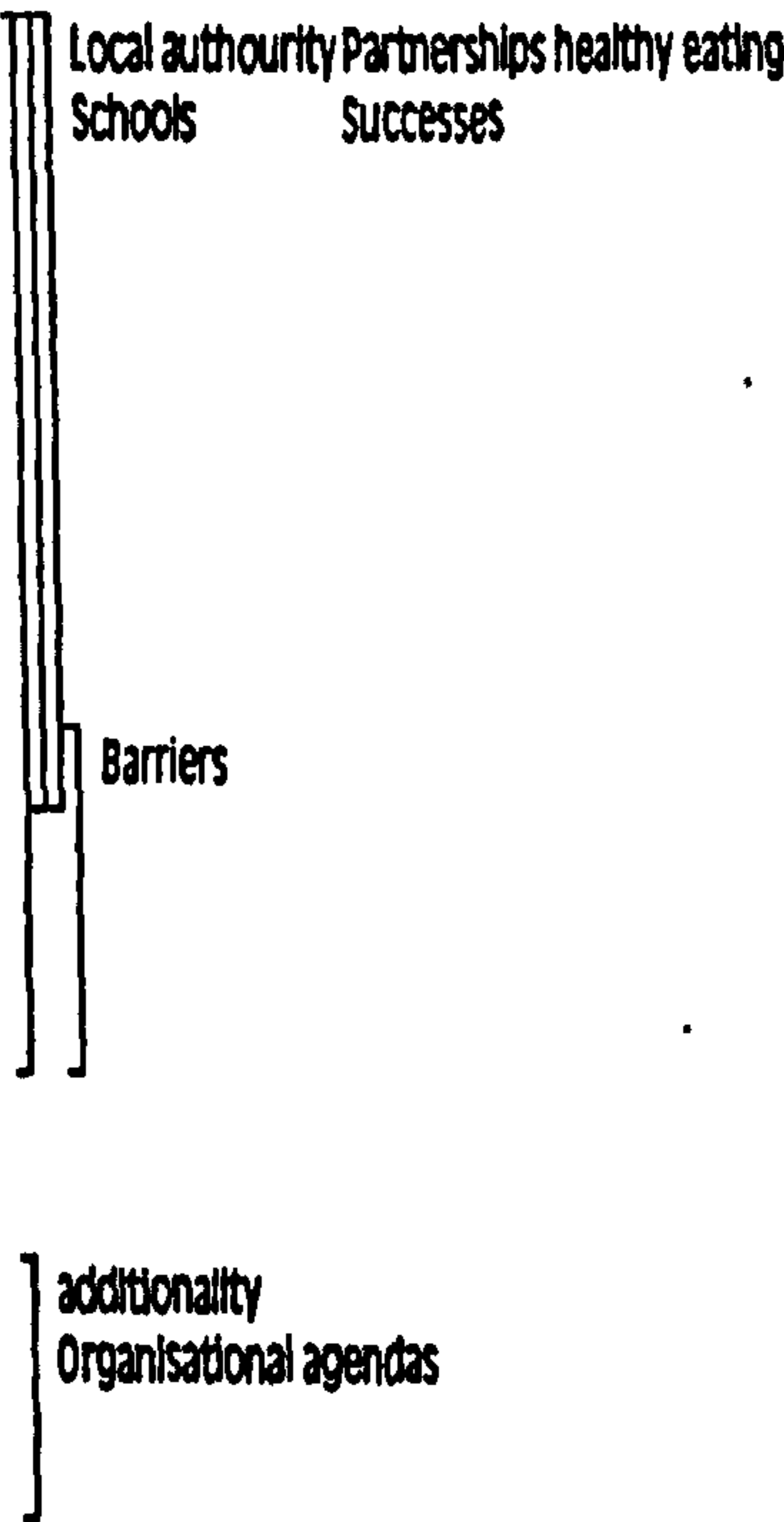
Figure six: Example of coded text

Date: 24/07/06

P 4: Man3.txt

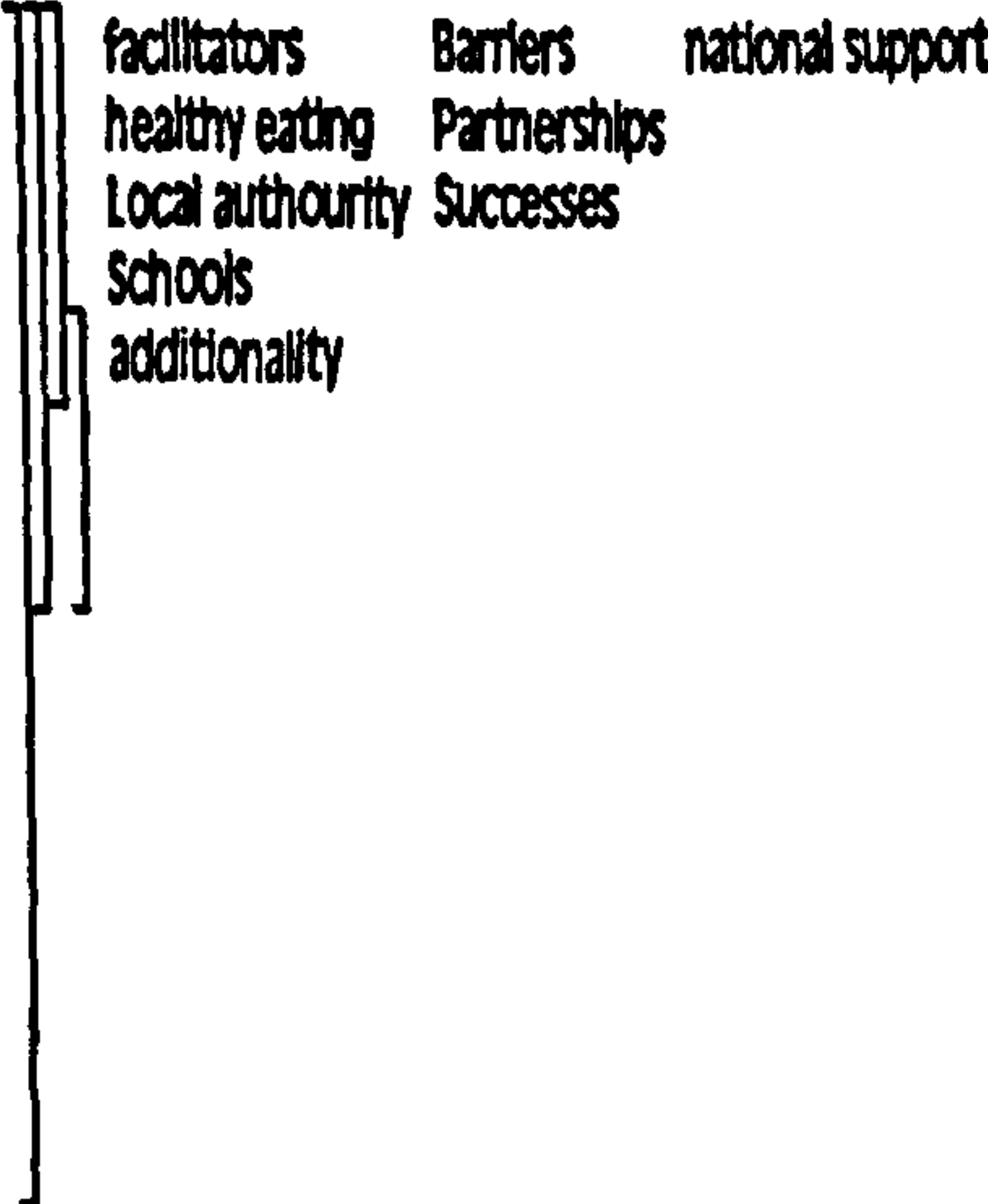
Page: 1

M3. Well I think I don't really know in detail about it but I think the business of the em the schools meals and we kind of didn't really want to commit ourselves to it to em in terms of when we were putting the bid in for Have a Heart we did not put something in for school meals because it seemed em you know it wasn't clear exactly what we would be able to do, where as I think that although we have not achieved you know been given additional money to do with school meals em there has been em developments there em I mean I think and more understanding I think there was perhaps a lack of understanding about the way that the set up works and the constraints upon us but at the same time a willingness. So I would think that em I mean I don't know the detail of it but you know I have set in place I mean so that can be kind of written up if you like, even though you know it will be to a certain extent evaluated even though its not one of our particular em objectives at the moment, but for me that's the kind of thing that been effective.



A. And that change has happened because of Have a Heart rather than because of other national initiatives going on or?

M3. Well yes and no I mean I think the you know there is a lot of nationalised initiatives going on they were all discussing last week or so about em free school meals and things like that and it's brought attentions to school children and diet but I think that em the that the you know the Have a Heart has assisted in that in terms of nutritional input and things like that and also to em I think I really don't know in detail but some of the staff come to the implementation group and I think whilst the I think perhaps the issue is a lack of understanding about what each you know about what they em Have a Heart staff were about and what catering staff were about I think that has improved.



As codes were assigned to the text they were automatically recorded within the analysis software and so could be assigned (if appropriate) to areas of subsequent transcripts. Codes were used to indicate factual data (such as relating to the local authority or healthy eating – see above) and more interpretative or inferential data (such as a statement that might infer 'barriers' or 'facilitators' to the project –see Figure six). Once all the transcripts were initially coded the earliest completed transcripts were reconsidered against the full list of codes

generated by the end of the first round of coding. This ensured that codes generated by later transcripts could (if appropriate) be assigned to aspects of the texts within the earlier transcripts. This ensures that inductive themes are considered across all the relevant data as well as a priori themes. These latter processes are recommended by Mason (2002) and Cresswell (1998).

Once coding was complete, the data relevant to each code was collated and considered separately. At this time codes that were repetitive or redundant were removed and codes that were of a similar nature were gathered into more general themed areas (Ritchie and Spencer, 1994; Creswell, 1998). For example, text relating to codes such as 'limited participants in projects', 'delays in establishing projects', projects being 'extensions rather than new' were themed under higher levels codes such as 'reach' or 'likely saturation'. In some instances, codes were expanded rather than themed where more than one concept might actually have been being discussed. For example, separating out codes about 'targeting' into sub codes on targeting by geographical or social group. Finally, the themes were considered for further patterns and related theories that emerged. Key concepts within the data were identified (such as implementation failure), phenomena or relationships identified (such as strong or weak partnerships) and emerging explanations sought (such as lack of progress being made due to limited leadership). During this phase areas of general consensus (such as the over ambitiousness of plans) were collated, as were areas of conflict (such as disagreements over the success of projects or partnership relationships). Ritchie and Spencer (1994) refer to these latter steps as mapping and interpretation.

Threats to the validity of the qualitative data

One problem faced by the author was that, due to her close proximity to the project (conducting previous interviews and observation in the management group), there were times in the interview process when she was questioned about her own views. Where feasible she declined to express these and explained why. However, to some extent those interviewees from the management group were familiar with some of the views of the interviewer, as the Theories of Change process had required the critiquing of the initial theory and the provision of formative feedback on progress. Whilst this may have affected the views expressed by these participants this is an inherent problem with the Theories of Change approach (discussed further in Chapter ten). In many ways however, the relationship and trust established between the author and the management group meant that the interviewees were very open and appeared honest in their responses. Contradictions between views provided in the interviews and those expressed in the management group meetings would also have become apparent to the author had this been a substantial problem. However, these contradictions were not apparent.

The case studies

Full details of the justification and methods of analysis for the case studies are available within the independent evaluation reports (Ayana, Blamey and Reid, (2002); Ayana and Blamey, 2003; Lawson, Paterson and Blamey, 2003; Blamey et al., 2004). The concept behind using case studies was to attempt to gather more in-depth data pertaining to some of the key settings and organisations that made up HaHP. Marshall and Rossman (1999) suggest that case studies *"Examine a bounded system of a program, and institution or a population"* A decision was made, in conjunction with stakeholders, to focus on 'bounded systems' that comprised of two settings (community and primary care) and one organisation (the local authority). The reasons for the selection of these case study areas, the methods used and the focus of the investigations are detailed in Tables seven, eight and nine. Yin suggests that:

"[T]he case study allows an investigation to retain the holistic and meaningful characteristics of real life events – such as individual life cycles, organisational and managerial processes, neighbourhood change, international relations and the maturation of industries" (Yin, 1989, p.14)

The main focus was on the strategic and operational levels in these settings rather than on the participants within the programmes. Processes such as policy development, agenda or service change were also considered in detail. Tables seven, eight and nine illustrate that the case studies utilised both qualitative and quantitative methods and detail the rationales for the selection of these settings. The community case study was selected to gauge the extent of community engagement and consisted of twenty-one interviews with community stakeholders and representatives of HaHP strategic groups, two focus groups with community volunteers running HaHP funded programmes, and a focus group with the HaHP Locality Team members (who were key to community engagement). The primary care case study was selected as primary care was anticipated to be a conduit between primary and secondary prevention and was expected to have a key role in preventative treatment and lifestyle change. It consisted of a postal survey of staff (n=122), interviews with fifteen GPs and two focus groups with other primary care informants responsible for championing HaHP. A copy of the questionnaire is contained in Appendix nine. The local authority case study was selected as this organisation provided mainstream services and, therefore, was expected to be a major influence in terms of wider agenda change and addressing inequalities. It consisted of interviews with strategic managers of key services (n=16), interviews with catering managers and care staff in community care, a postal questionnaire of leisure service staff (n=54) and key school staff (head teachers and sports/health coordinators), and focus groups with children and young people and parents of pre fives within the health promoting

school projects.⁹ A copy of the questionnaire used with leisure staff is contained in Appendix ten.¹⁰ The data were managed and analysed in a similar manner to the data from the Theories of Change interviews. Questionnaire analysis was done using basic descriptive statistics. The case studies were designed to provide data that could be triangulated within and across case studies and across other aspects of the evaluation.

⁹ As detailed in the chapter seven and eight data from the school survey and focus groups and from interviews with catering managers were not used in the analysis for this PhD as they added nothing additional or contrary to the findings already established.

¹⁰ Copies of all of the interview and focus group schedules are not presented in the appendices to contain the size of this thesis. They are available in the final reports and/or from the author if the readers/examiners wish to see them.

Table seven: The community case study methods and rationales

THE COMMUNITY CASE STUDY			
Justification for selection	Participants	Methods/Response Rate	Focus of investigations
<p>HaHP was designed to be a community intervention and so should have made an impact on the communities (and particularly the more deprived communities) of Paisley. The project was to be delivered in partnership with the community and the processes used intended to strengthen community structures. If lasting change was to occur then the community should have perceived that HaHP had supported change, that was relevant to health and CHD improvement, for individuals, services and organisations within Paisley. Such change should have been based on actual need identified within target groups and communities and resultant activity should have addressed genuine service gaps.</p>	Community stakeholders	Interviews (N=16)	To gauge the local community views on HaHP, their perceived needs and likely barriers and opportunities for the HaHP community programme;
	Locality team	1 Focus Group (N=6)	Processes used to engage the community
	Paisley community members operationally responsible for community projects	1 Participative session (N=12); 1 Focus Group (N=4)	<p>. Participation in community funded and run programmes.</p> <p>Support provided to establish projects</p> <p>Sustainability and influence on mainstream services</p>
	Community representatives in strategy groups	Interviews (N=5)	Influence on different levels of HaHP (strategic, operational). Influence on mainstream services

Table eight: The primary care case study methods and rationales

THE PRIMARY CARE CASE STUDY				
Justification for selection	Participants	Methods/Response Rate	Focus of investigations	
Fully engaging the GPs and wider primary care staff was regarded as fundamental to achieving the aims of the primary care component of HaHP. Primary care was the key link between the Health Service and the community. It should have played a key role in terms of the prevention and treatment of CHD and relevant risk factors, and was key to addressing the new public health agenda in terms of public health nursing and re-orientating services. It was also an important link in the care pathways for patients moving between primary care and the acute sector.	Primary care staff Cross-section of GPs and key informants who responded to the survey	Postal Questionnaire (N=122) [75% response rate] Interviews (N=14) 2 Focus Groups (N=12)	Concerning their perceptions and levels of engagement with the project. The influence of HaHP on practice and wider agendas To gain more detail regarding their engagement and HaHP's influence on their practice and wider service agendas	

Table nine: The local authority case study methods and rationales

THE LOCAL AUTHORITY CASE STUDY			
Justification for selection	Participants	Methods/Response Rate	Focus of investigations
<p>The funding contribution of HaHP to the local authority was small in the context of mainstream local authority funding. However, in combination with the range of other government and non-governmental funds for health (detailed in the introduction) that was being provided to local authorities. HaHP money was meant to act as a catalyst to strengthen their public health role The local authority was both a major employer and the major provider of services in Paisley so had enormous potential to influence a wide range of the population. The new public health agenda was focusing on enhancing public health roles and skills for those outside the NHS. HaHP partners hoped that some of the key local authority services (education, health related behaviour and) would, through HaHP's influence, have an increased impact in relation to CHD in terms of healthy public policy (e.g. provision of catering services, leisure services, social services for high risk patients, smoking policies etc)..</p>	Strategic managers of key services (e.g. Leisure, Education, Community care).	Interviews (N=16)	Uncover the extent to which hosting a HaHP project influenced their service area: perceptions of success of their projects
	Staff in leisure services & community facilities (Renfrewshire)	Postal Questionnaire (N=73) [30% response rate]	Gauge the impact on their practice from the Healthercise programme
	Senior catering and care staff in community care establishments	Interviews (N=21)	To establish the impact of the community care project on their service and wider agendas
	Survey of head teachers, school sports/health coordinators in all educational establishments	Postal Questionnaire (N=54) [76% response rate]	To establish their knowledge of and participation in HaHP funded activity in their school.
	Cross-section of children/young people and parents of pre-fives in health promoting school project	6 Focus groups (n=35)	Influence on wider school agendas and pupil activity.

The contextual analysis

The findings from the literature review (Chapter two) highlighted the importance of understanding the context within which interventions are delivered. Context has a part to play in: determining the relevance of the interventions to specific population subgroups and their needs; establishing baseline measures for follow-up; and identifying secular trends and competing or overlapping initiatives that may confound or reinforce the interventions (Gambone, 1998). These latter issues are vital to attempts to attribute the effects of the interventions.

In order to understand the context within which HaHP was delivered, the evaluation team mapped a picture of the Paisley area and the chosen comparison site of Inverclyde. This was done using secondary CHD prevalence data for Scotland (and for relevant local areas where this was available), documentary review of existing research conducted in the relevant areas and additional primary data collection via the baseline survey (detailed below) and early interviews (n=16) carried out with key community informants within Paisley. It was not possible to do this prior to the establishment of HaHP as the evaluators were not commissioned until six months after HaHP was launched. The key findings from this contextual work were detailed in the introduction and are referred to in the findings and discussion chapters of this thesis (Paterson and Ayana, 2003).

The survey

Detailed information on the methods and findings of the quasi-experimental survey are available in the independent evaluation reports (Paterson, Blamey and Judge, 2002; Blamey et al., 2004). A summary of the main justifications for the design and methods within the survey are, however, given below. It should be noted, however, that the survey methodology was not (as might have been expected) designed as a result of the information gathered via the Theories of Change approach. The survey design was agreed prior to the decision to include a theory-based approach in the overall evaluation.

Why use a quasi experimental survey?

The independent evaluation was tasked with establishing the overall impact of HaHP (Invitation to tender for NDHP evaluations, 2000 cited in NHDPs Evaluation Task Group Review, 2004). Rossi, Freeman and Lipsey (1999) define impact as the net effect of a social programme and state that this is:

"The effects of an intervention that can be attributed uniquely to it, that is with the influence of confounding effects from other sources controlled or removed" (Rossi, Freeman and Lipsey, 1999, p.234).

As detailed in Chapter two, the generally acknowledged ideal method to establish impact and attribute it to an intervention with a degree of confidence (particularly within the medical setting) would involve conducting a randomised controlled trial (RCT) (Rossi, Freeman and Lipsey, 1999). However, the reasons why RCTs are difficult to conduct in relation to complex community interventions (CCIs) such as HaHP, and why they are not in fact the 'ideal' evaluation design have been established previously in Chapters two and three. The key reasons are summarised by the following quote from Smith (1994) cited in Weiss (1998):

"Random assignment is the design of choice in evaluation when questions concern the attribution of outcomes to the intervention program. But there are situations when it is probably not desirable. One is when a program is not well developed and well specified.... Similarly programs that depend on local initiative and opportunistic interventions do not make desirable random assignments candidates. Community level interventions are often of this type... Another case ...is when time is of the essence. If a particular type of intervention is being considered for immediate adoption" (Smith 1994, in Weiss, 1998, p. 228).

All of these issues were pertinent to HaHP and so it was not thought feasible or appropriate to conduct an RCT of HaHP. However, some measure of impact was still necessary. The evaluation needed to show that changes found in outcomes could feasibly be explained by the HaHP activities and were not simply an artefact, part of secular trends or could not be explained by some other activity or intervention. As a result a quasi-experimental approach rather than an RCT was progressed. This involved the use of postal questionnaires, combined with medical examinations covering objective indicators such as blood pressure, cholesterol and body mass index (BMI) in both the intervention and a matched control site. The method selected required to reflect the fact that the longer-term outcomes for HaHP (expressed as decreasing CHD mortality and morbidity) were unlikely to be achieved within the three years funding period of the intervention and so needed to focus on possible interim measures such as risk factor changes (e.g. reduced hypercholesterolemia or high blood pressure) and/ or compliance/adherence to the behaviours and treatments that would lead to such change (e.g. physical activity, smoking cessation, cardiac rehabilitation). In addition to considering risk factor change, and given the limited timescales available to the intervention and the evaluation, it was also necessary to measure factors that may be precursors to such change such as increases in health related knowledge and attitudes, or 'readiness to change behaviour'. If, in the longer term, CHD morbidity and mortality was to decrease then it was

likely that such changes would need to occur first in both targeted individuals and groups, and only afterwards (if at all) in the wider population. As a result, therefore, the evaluators required to apply methods that could measure such wide ranging changes at both the individual and population levels. The limited funds available to the evaluation, and the range of purposes it was serving, also determined the selection of this approach. The questionnaire developed is included in Appendix eleven..¹¹

The comparator site

The survey was conducted in the intervention site of Paisley and a comparator site. The comparator site of Inverclyde was chosen as both it and Paisley were part of Argyll and Clyde NHS Board and it had similar levels of CHD and socio-economic deprivation to Paisley. Information about programmes and services in the areas was accessible to the evaluators, as Board employees were knowledgeable about activities in both Inverclyde and Paisley local authority areas. However, whilst these factors helped in terms of matching the two sites, their close proximity meant there was potential for contamination. The problem of contamination, however, was likely to be an issue anywhere in Scotland and so the proximity of the site was thought to have more benefits than limitations.

The survey design

The survey was designed to provide four samples of specific age, sex and deprivation categories that were representative of the Paisley population. It was intended that three cross sectional samples and a fourth cohort sample of a similar size would be drawn at baseline and repeated/followed up at the end of the evaluation period. The cross sectional target sample in each of the three groups would have allowed a difference in the mean change between any two groups of 0.3 of a standard deviation to be detected with 80% power at the 5% significance level for a range of outcome variables. The cohort sample was expected to provide greater power (e.g. to detect up to 0.2 of a standard deviation).

Once recruitment was under way, however, it became apparent that early response rates were substantially lower than expected (Paterson, Blamey and Judge, 2002). At this point there was concern that initial targets might not be met, particularly in terms of recruiting participants from younger age groups and from higher deprivation categories (those more deprived). In response to this, it was agreed that the cohort group would be drawn from within the cross sectional samples rather than selected, in addition to, them. This was to

¹¹ The survey public information sheets, invitation letters, health examination protocols and recording sheets, referral letters, coding manual, nurses training schedules and other similar materials have not been included to limit the size of this thesis. These are available from the author if readers/examiners wish to view them.

ensure that any respondents from younger age groups or more deprived areas that did respond could be located within the cohort.

The evaluators, therefore, aimed to randomly recruit a total sample of 1620 participants split between Paisley (n=810) and Inverclyde (n=810) from the Community Health Index (CHI).¹² The aim was to draw this sample to provide three equal grouping (n=270 x 3) from neighbourhood areas based on deprivation categories (using the Carstairs and Morris DEPCAT scores).¹³ These groupings were: group one neighbourhoods with DEPCATS scores 1,2,and 3; group two neighbourhoods with DEPCATS 4 and 5; and group three neighbourhoods with DEPCATS scores of 6 and 7. The samples drawn from within each of these groups were to provide equal numbers of males and females across a range of age bands (20-29, 30-39, 40-49, 50-59 and 60-69). Table ten provides details of the intended sample and the breakdown of these groups.

¹² The CHI contains all those registered with a GP in Scotland and as such has a number of limitations. Those not registered with a GP are missing from the sampling frame (approx 5%) and those who are itinerant e.g. students or refugees are sometimes difficult to track due to outdated contacts. The CHI, like other sampling frames has a number of missing or wrong addresses. These problems are not likely to be greater than similar other possible sampling frames such as the voters register. The characteristics of respondents were also checked against GRO(S) (General Registry Office for Scotland) small area population estimates

¹³ Deprivation scores are derived by combining variables (such as overcrowding, male unemployment, low social class and car ownership) taken from census data of small geographical areas. The scores relate to the populations rather than individuals within these localities and are used for measuring relative deprivation between areas. The distribution of scores for postcode sectors have been divided into seven categories called DEPCATS. Level 1 indicates a relatively affluent area whilst level 7 illustrates the highest levels of deprivation. For more information see McLoone P, 1994

Table ten: Intended samples for the quasi experimental survey at baseline

Total Sample intended for Paisley and Inverclyde (n=1640)	Neighbourhood type	Age bands	Gender
810 (x2)	1,2,&3 n=270	20-29 n=54	Male n=27
			Female n=27
		30-39 n=54	Male n=27
			Female n=27
		40-49 n=54	Male n=27
			Female n=27
		50-59 n=54	Male n=27
			Female n=27
		60-69 n=54	Male n=27
			Female n=27
	4 & 5 n=270	As above	As above
	6 & 7 n=270	As above	As above

A representative cohort sample was to be drawn from within the above cross sectional sample

During the first year of the independent evaluation, a substantial amount of time was spent gaining ethical permission, recruiting appropriate staff, designing and piloting questionnaires and implementing the quasi-experimental survey. Confidentiality issues meant that those selected randomly from the CHI had to be invited through the Director of Public Health (DPH) to “opt in” to the survey before they could be directly contacted via the research team. Those indicating a willingness to take part could only then be approached directly by the research team to arrange an appointment to attend a nurse led examination, or to return their questionnaire directly if they were not participating in the examination. The examinations (where objective health measures were gathered) were conducted on alternate months in the control and intervention sites during the period from March to September 2001. The health examinations were not repeated at follow-up. Those attending a medical were asked to bring their questionnaires with them so they could have support to complete them if needed, and so they could be checked over by the nurses for completeness. Those indicating a ‘no’ response received no other communication and those not responding received a second mail-out of the invitation letter several weeks after the initial mail-out.

The response rate

Various attempts were made to ensure recruitment of the intended sample sizes including: over-sampling, issuing second invitations to non-respondents and repeated follow-up of those failing to attend appointments. Despite these efforts the survey only achieved a response rate of 28% and 27% respectively for the intervention and control sites. This gave a total of 743 fully participating respondents. The major drop-off in response rates was at the point of the initial invitation. Once individuals had agreed to participate (n=830) the response rate remained relatively high with 747 (90%) participating in some fashion. Full explanations of these issues are available in the Baseline Survey Report (Paterson, Blamey and Judge, 2002). Whilst this response rate was disappointing, response rates to other surveys had also been relatively low. Argyll and Clyde NHS Board's own lifestyle survey conducted in 2001 had a 39% response rate. This was a shorter questionnaire and it did not require a medical examination.

The low response rate, however, reduced the power further. Even with a good response rate, the evaluation team were aware that small changes in many of the wide range of CHD related behaviours and risk factors that might result from the HaHP interventions might be missed. The poor response rate meant that targets for each of the DEPCAT and age/sex sub samples were not reached. It also meant that the evaluators could not have confidence that the survey was fully representative of the people, risk factor status and behaviours that they wanted to measure. Older groups and lower DEFACTS (e.g. the more affluent) were over represented among respondents compared to the Paisley and Inverclyde populations. The samples achieved in the intervention and control site were, however, very similar in terms of age range, gender, levels of affluence and key measures of CHD risk factors and behaviours (Paterson, Blamey and Judge, 2002).

The follow-up survey

The SE was kept closely informed of these issues and a series of discussions took place to consider various options (including boosting the Paisley and Inverclyde samples for the national Scottish Health Survey (SEHD, 2000) to supplement the baseline. The evaluation team was reluctant to repeat the planned follow-up survey in the initially agreed timescales (two and a half years). Their concerns related to the effect of the low response rates on the study power and that there were delays in project implementation (shown in the Theories of Change field work) that made it unlikely that changes of any significance had been achieved by individuals let alone subgroups or populations. Despite this, the SE requested that the original timetable and plans be adhered to. Due to this, and given the similarities of the intervention and control samples, it was agreed that respondents would be followed-up on a

range of specifically chosen indicators at the end of the funded evaluation period. It was agreed, however, that follow-up would use all of the limited number of respondents as a cohort and that the health examinations would not be repeated at the follow-up. The repeat questionnaire was, therefore, a shortened version of the baseline questionnaire and the indicators selected focused on areas where change was most likely to occur based on the formative evaluation findings. All key risk factors were still included but fewer questions were included. The follow-up survey was conducted as late in the evaluation period as feasible. Even this timescale, however, meant that the cohort was followed-up during the period of October-November 2003, leaving a gap of only about two to two and a half years from baseline. This was a very short period within which to expect substantial changes in entrenched behaviour and risk factors to occur. The follow-up survey was sent to all previous responders to the baseline survey and a 78% response rates was achieved (n= 556).

Validity and reliability of the survey

All steps were taken to ensure that the validity and reliability of measures and research activities were maximised. The questions and measures used in the survey were, wherever possible, selected from previously validated questionnaires or scales. The questionnaire was piloted and adaptations made to the final questionnaire content and layout. The nurses were given training to ensure consistency in measuring techniques and that recommended protocols were adhered to. The survey manager checked medical logbooks and surveys were cross-checked and coded by the research team. The Robertson Biostatistics Institute at the University of Glasgow completed data input, following agreed protocols. Where appropriate, participants were referred on to their GP if found to be at risk in relation to blood pressure or cholesterol. Whilst this was a potential bias in relation to the outcomes measured, ethical clearance demanded that such procedures be followed.

The analysis of data

Responders and non-responders and their individual and group characteristics were compared using independent t-tests and chi square tests. An analysis of paired data was conducted for individuals who responded to both surveys (n=556), illustrating the magnitude and direction of changes in key variables between the Paisley and Inverclyde samples. Chi square tests were used to test the significance of any associations found. A further comparison was conducted of those within the Paisley sample who had engaged with HaHP (n=54) compared to those who had not (n=220). A process was repeated (similar to that described above for the population level) investigating the existence, magnitude and direction of any changes in key variable within and between the two groups.

The author's epistemological and ontological position

Chapter three emphasised that evaluation, whilst being based on principled action and attempting to apply 'objective' or 'transparent' approaches to uncovering and interpreting data, is inherently a political and value-laden activity (Weiss, 1998). Madaus, in a personal communication to Alkin (2004), suggested that:

"[I]t is the worldview of a[n] [evaluation] theorist that shapes how they see evaluation and what they do and how they do it. This split extends not only to their view of 'truth' and 'knowledge' and science but also to differences in social and political values" (Madaus in Alkin, 2004, p. 383).

Given that such issues are key to how an evaluator constructs and conducts an evaluation, the author's own perspectives on such issues should be made transparent to the reader (Mason, 2002). Only then can her activity be considered in the light of the lenses she has used to gather, view and interpret her data.

The author's personal position, in terms of her value base and the methodological debates, is that she inhabits neither of the extreme ends of the continuum between positivism and phenomenology. She neither believes that all knowledge is relative and subjective, nor that we live in a world awash with fundamental and objective truths. Instead she views people as individuals whose perspectives and actions have been influenced and shaped through their social relationships and circumstances and the organisations and systems within which they exist. Whilst some of these experiences create knowledge and understandings that are common and shared, and so may be seen as objective, some are more subjective and require to be viewed within the contexts in which they have been constructed. In this sense the author inhabits a more 'realist' evaluation position (Pawson and Tilley, 1997) where complexity is acknowledged and viewed as important but where an attempt is made to unearth a common understanding of, or response to social phenomena where this is feasible. As Pawson and Tilley state:

"[R]ealism has sought to position itself as a model of scientific explanation which avoids the traditional epistemological poles of positivism and relativism. Realism's key features is its stress on the mechanics of explanation, and its attempts to show that the usage of such explanatory strategies can lead to a progressive body of scientific knowledge" (Pawson and Tilley, 1997 p.56).

In evaluation terms her concern is, therefore, about uncovering how and why programmes succeed or fail rather than simply if they do so. This leads the author to favour the use of multiple methods within evaluations, provided these methods are appropriate to the different questions, purposes and contexts under study. It is also vital that such methods are used to optimise the validity (internal and external) of the knowledge generated and minimise the inherent biases in any individual or group(s) of methods.

In terms of values, the author believes that whilst evaluation methods are important, evaluation should also be concerned with accessing knowledge from a wide range of stakeholders, not simply those in a privileged position (House, 1993). Similarly, evaluators should judge evidence in a deliberative manner, conscious of the impact of any findings on particular social groups and of the potential for both use and misuse by those in power (House, 1993). The author believes that the intended use of an evaluation should influence the evaluation process but not to a greater extent than factors such as ensuring validity and reliability and not to the extent that it is likely to fail to capture the views of important (and/or under represented) stakeholders. This stance on values, utility, and methods means that she perceives the evaluator's role as one which engages with commissioner, implementer and recipients of programmes and evaluation (House, 1993; Owen and Rogers, 1999).

She is of the opinion that evaluation findings and research evidence should ideally influence the development of social policy, but that it does not have primacy over ideology or principles such as social justice (House, 1993; Weiss, 1998). The author accepts the view of scholars such as Weiss (1998) that the use of evaluation is likely to be limited and a relatively slow and incremental process.

An individual's work experience and tacit knowledge may also influence the way s/he conducts an evaluation or interprets data. It is, therefore, important to detail such experience. The author has spent her career to date between academic and practitioner posts in a university, a local and a national health board. She has held a variety of posts within these institutions both in terms of delivery and management. However, whilst in all of these posts she has had a particular interest and role in the use of evaluation to improve practice and the use of practice to inform evidence.

Part two: Findings from the application of the Theories of Change approach

- **An explication of HaHP's Theories of Change (Chapter five)**
- **Critiquing HaHP's Theories of Change (Chapter six)**
- **Testing HaHP's Theories of Change - Deviations in the theory and progress on delivering the cross-cutting outcomes I (Chapter seven)**
- **Testing HaHP's Theories of Change - Progress in delivering the cross-cutting outcomes II (Chapter eight)**
- **Assessing overall impact (Chapter nine)**

General introduction to Part two

Chapters five to nine present the findings from each stage in the application of the Theories of Change approach. They attempt to build a picture for the reader of the findings as they developed during the evaluation. Each chapter provides further detail and corroboration of the earlier findings. A brief outline of what is contained in each of the findings chapters is set out below.

Chapter five presents the initially articulated Theory of Change. It does this by presenting the logic models that were constructed from the data gathered in the theory articulation process during year one of HaHP. It then goes on to present the stakeholders' underlying rationales and assumptions that underpinned these models and the overall intervention. From these it identifies the most vital elements of the overall theory that required to be addressed to ensure success for HaHP. These vital elements (or cross-cutting outcomes) then become the focus for the rest of the evaluation findings.

Chapter six presents a short, early critique of the articulated overall theory. It assesses the theory's plausibility, do-ability, and testability. In order to conduct the critique the articulated theory was compared to the available evidence-base for CHD community-based interventions. This early critique was shared widely amongst HaHP stakeholders for the explicit purpose of programme development.

Chapters seven and eight, test the implementation of HaHP's overall Theory of Change. They present findings about the extent to which the vital components of the overall theory (the cross-cutting outcomes) were refined (in response to the critique) and implemented over the course of HaHP year two and three. These chapters draw on the year two and three Theories of Change interviews as well as elements of the integrated case studies.

Chapter nine is the final findings chapter. It presents the key findings from the quasi-experimental survey that aimed to measure the interim impact of HaHP. Chapter 3 highlighted that the Theories of Change approach should attempt to improve attribution by integrating later outcome data with earlier process (and outcome) data. Chapter nine also presents, therefore, a brief account of the independent evaluation's attempt to integrate the findings from the Theories of Change and the survey methodologies (the process and impact findings).

Chapter Five (Findings I): An explication of Have a Heart Paisley's Theories of Change

Introduction

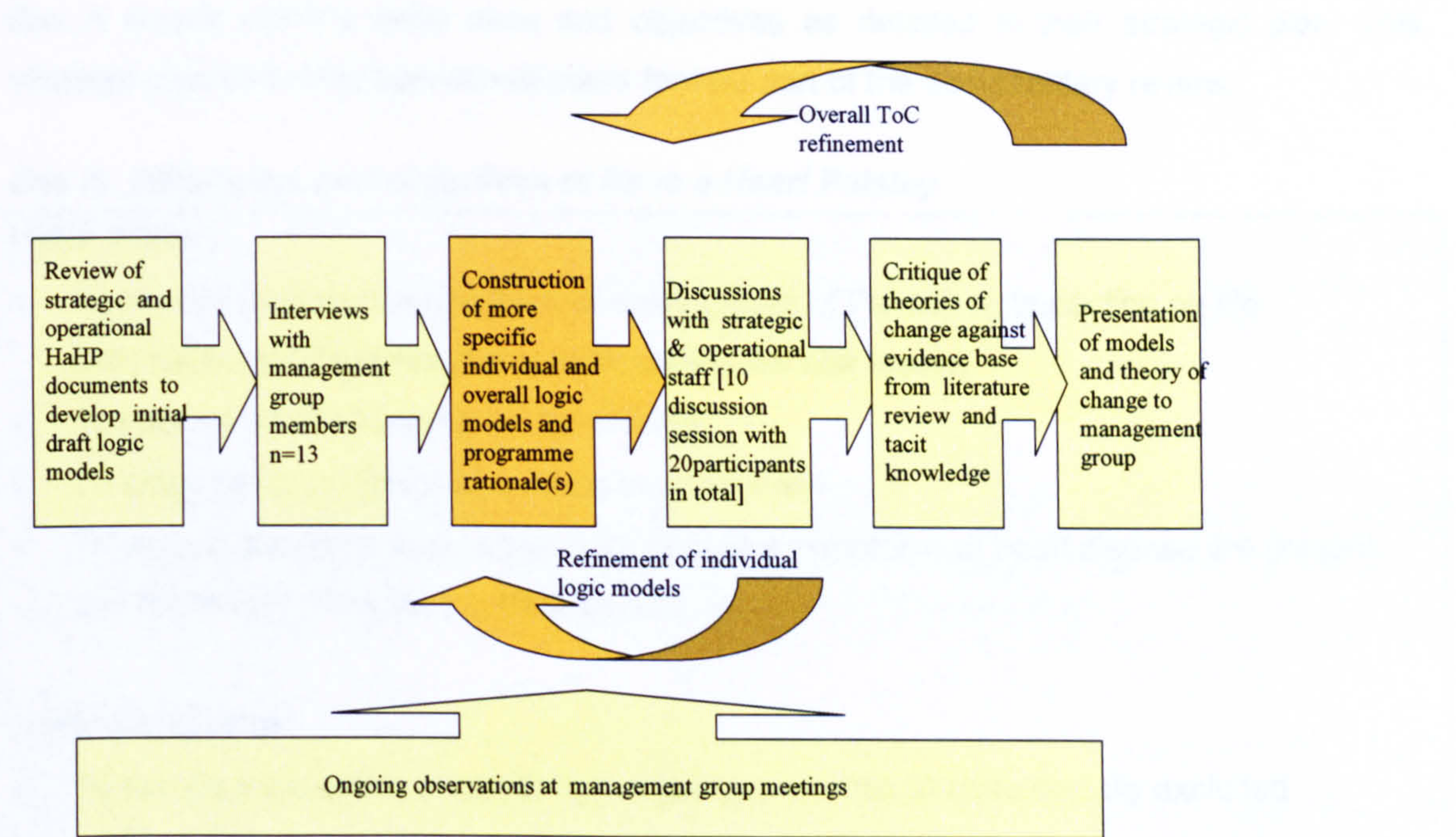
Chapter five presents HaHP's initially articulated Theories of Change. It presents the logic models that were constructed from the data gathered in the theory articulation process during year one of HaHP. It then details the stakeholders' underlying rationales and assumptions that underpinned these models and the overall intervention. It identifies the most vital elements of the overall theory that required to be addressed to ensure HaHP's success.

Explicating HaHP's initial theories

Complex community interventions (CCIs) are developed to tackle intractable social problems such as poverty, lack of community cohesion and health inequalities. The evidence-base for such interventions is poorly developed. This means that the theory for such activity is frequently not available *a priori*, and so tends to be absent, or poorly articulated, in most CCI funding proposals. This causes difficulties for both the subsequent implementation and evaluation of such programmes. A key reason for the use of theory-driven evaluation approaches is to encourage the stakeholders involved in proposing and delivering these interventions to prospectively articulate their plans and to justify why these activities are expected to deliver their intended outcomes (Fulbright-Anderson, Kubisch and Connell, 1998). These plans and underlying rationales are taken as the project's underlying theories and can then both guide implementation and be refined and tested as part of the intervention's evaluation. The first step in the process of evaluating a CCI is, therefore, to uncover and articulate these theories. This chapter presents the findings from the theory articulation process within the evaluation of HaHP. As such it addresses the first thesis objective - to articulate and describe the HaHP stakeholders' theories (their Theories of Change).

The chapter presents the findings (in the form of the articulated logic models) from the theory articulation process. The results are derived from the analysis and integration of the data from the documentary review process, the thirteen in-depth interviews with the management group and the discussions on the draft logic models (ten discussions with twenty participants in total) held with the strategic and operational staff from HaHP during year one. Where appropriate, quotations from the in-depth interviews are presented to illustrate and support the conclusions drawn and theory articulated. This Theories of Change articulation process (as described in Chapter four) is illustrated in Figure four (repeated from Chapter four).

Repeated Figure four: Flow chart of the Theories of Change articulation process for Have a Heart Paisley.



Codes that have been included beside quotations from the Theories of Change interviews denote whether an individual has a strategic management role (denoted as MGM plus a number 1-13) or an operational/individual project management role (denoted as OP number 1-20). All quotes are from the year-one theory articulation interviews.

HaHP's overview Theory of Change

Box A shows HaHP's initial aims and objectives as detailed in their strategic plan. This strategic plan and other operational plans formed part of the documentary review.

Box A: Initial aims and objectives of Have a Heart Paisley

HaHP Aims:

- To change lives and perceptions of every citizen of Paisley by impacting on life circumstances, lifestyles and specific cardiovascular issues
- To prevent heart disease from developing
- To delay the progression of existing heart disease
- To ensure access to appropriate care once the symptoms of heart disease are present and to prevent them from getting worse

HaHP Objectives:

- To reduce inequalities in health by weighing resources to more socially excluded communities
- To demonstrate environmental change through the implementation of appropriate policies by a range of agencies
- To increase awareness, knowledge and skills in relation to heart disease risk factors in the Paisley population
- To increase the number of people adopting healthy lifestyles
- To increase the number of people (professionals, volunteers and the community) accessing appropriate training
- To establish a risk factor database and disease register for CHD
- To establish risk factor profiles for people at risk from CHD
- To improve the delivery of CHD prevention by effective implementation of national clinical guidelines
- To ensure effective evaluation of programme components through defining intermediate indicators as well as appropriate outcome measures

Taken from HaHP's submitted (and accepted) proposal for funding for the Scottish National CHD Demonstration Project

The management group interviewees reinforced these aims and objectives and as shown below indicated that HaHP was intended as an holistic, integrated and comprehensive initiative. Some quotations, illustrative of intended action and anticipated outcomes, are provided below:

I would like to see reduced incidence of CHD...improved mortality from CHD, improved lifestyles of the Paisley inhabitants with regards to total risk factors; I would like to see some improvement in life circumstances (MGM 4, year one).

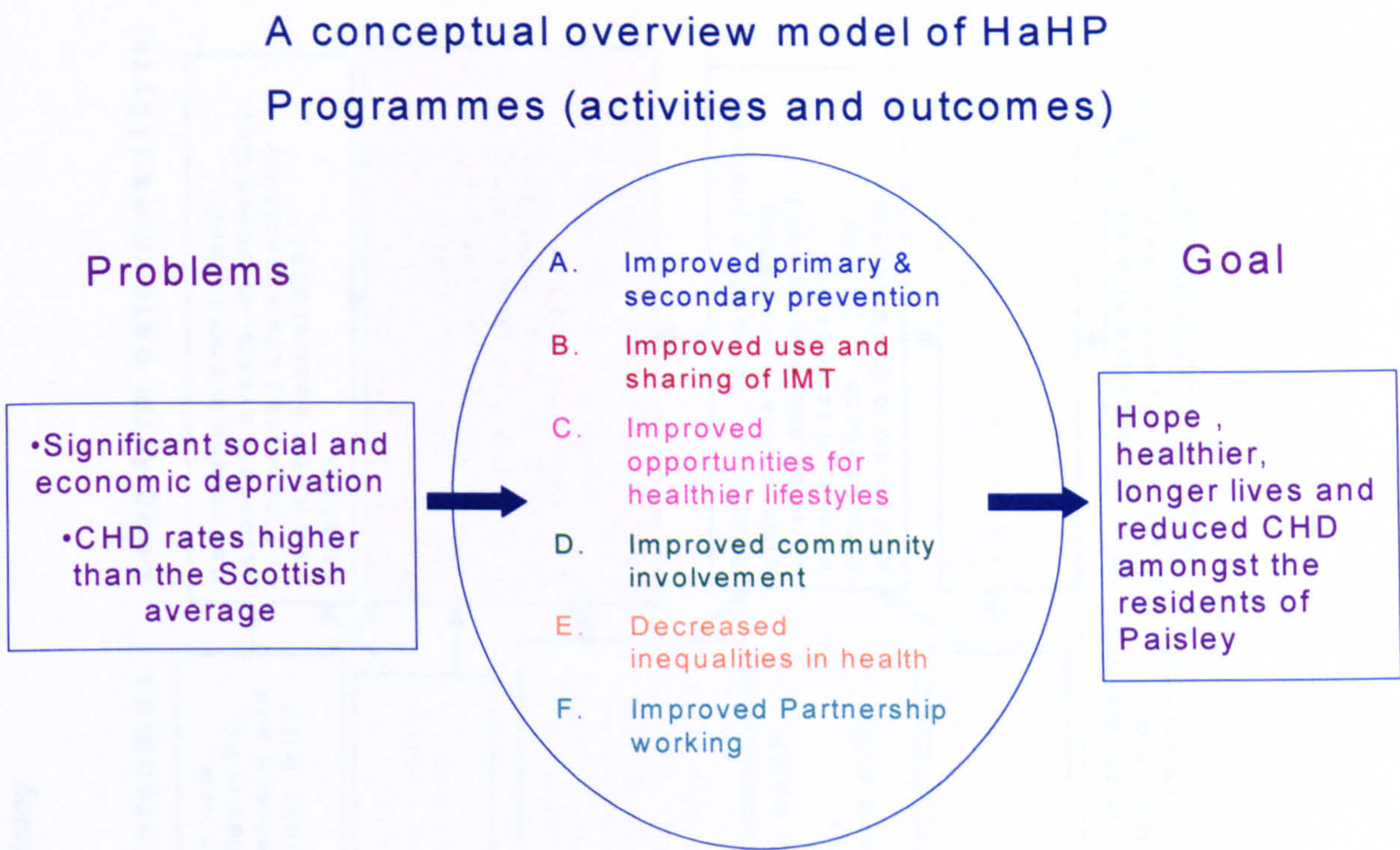
[A] big thing would be people in communities taking responsibility, being involved, or having an influence over their own health and lifestyles (MGM 3, year one).

Fundamentally the aim of the project is to reduce morbidity and mortality arising from CHD, but what it will achieve is much more wide ranging and perhaps less tangible than that. We are looking for it to achieve improvements in team working in terms of different agencies being able to work in harmony (MGM 7, year one).

[T]o have a good system between primary and secondary care, for fast treatment, for effective transfer of information. Greater awareness in the population in terms of lifestyle factors, and the infrastructure to help people make those changes such as access to leisure facilities and healthy food (MGM 1, year one).

The sheer size and complexity of HaHP made it difficult to represent all aspects of the project in one model. In an attempt to convey the overall concept of HaHP a very simplistic representation of what the project hoped to achieve was developed. Figure seven shows this conceptual overview Theory of Change. It identifies the problems that HaHP hoped to address, the key work programmes (activities and outcomes) which the implementation team intended to deliver to tackle these problems, and the long-term (ten year) aspirations/goal for Paisley. Although ten years was well beyond HaHP's funding timescales, logic modelling encourages a longer-term view as a means of aiding the articulation of appropriate interim measures of success within intervention funding periods.

Figure seven: A conceptual overview logic model of Have a Heart Paisley

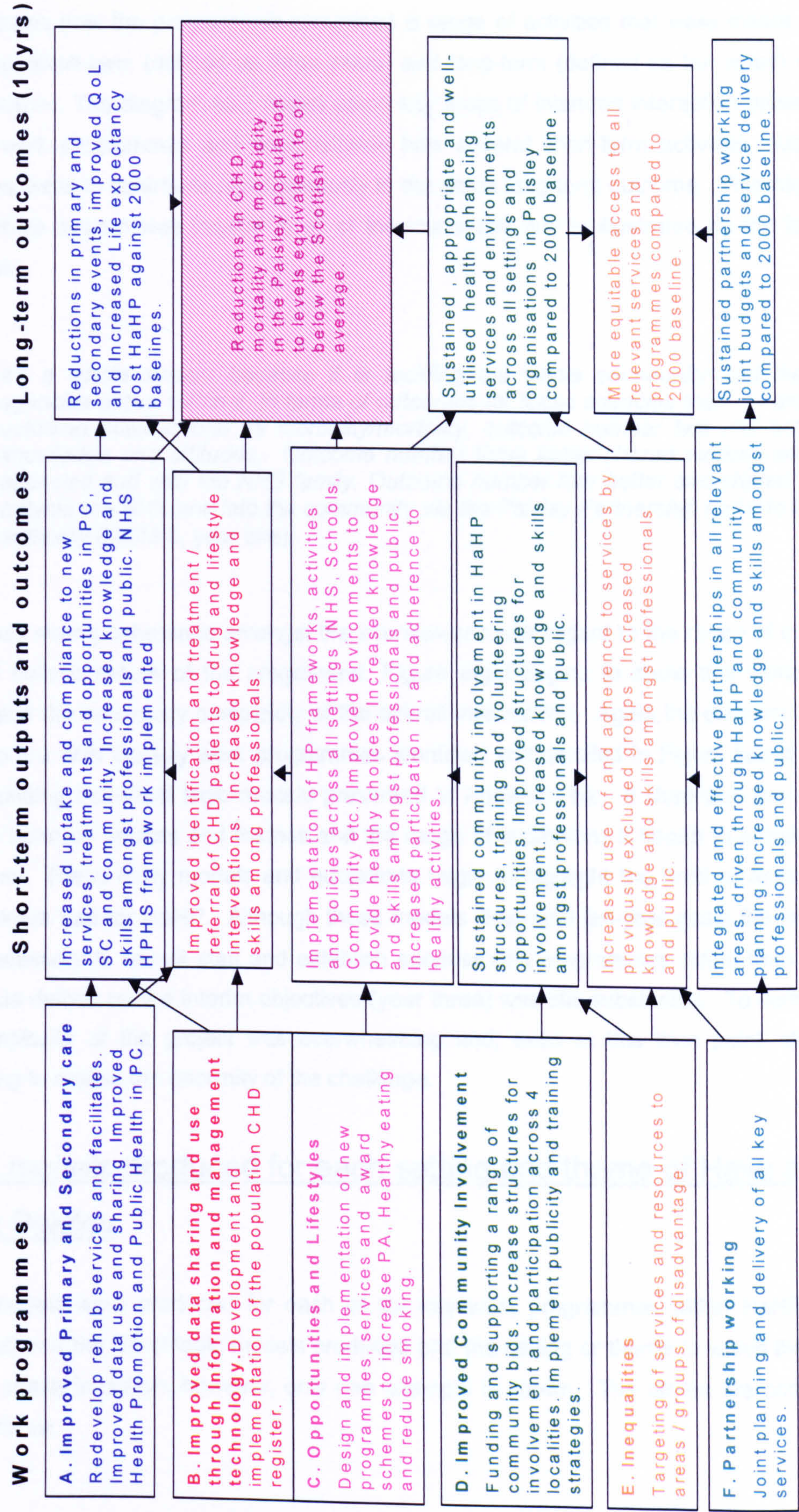


IMT = Information Management and Technology

The key work programmes¹⁴ that were detailed in the plans are colour coded in the above model so that the direct linkages and implications for each of these headings can be followed through, as they appear in the subsequent more detailed logic models (see overleaf and Appendix six). Figure eight illustrates a more detailed logic model for HaHP overall, integrating many of the outcomes expressed in the previous, and subsequent, quotations. The goal presumes a ten-year timescale.

¹⁴ The work programmes are expressed here as anticipated outcomes but had related programmes of activity attached (shown on subsequent models). These activities and outcomes related to both settings and key themes.

Figure eight: A more detailed overview logic model for the whole of Have a Heart Paisley



The logic model in Figure eight provides a more detailed overview of HaHP's overall Theory of Change than that shown in the conceptual model (Figure seven). It should be noted that all logic models are hypothetical and depict the anticipated route that the project will take. It demonstrates how the programmes comprised a range of activities that were meant to lead on to both short-term (defined as three-years) and long-term (defined as ten years) outputs and outcomes. The diagram also shows some key areas of intended interaction between the various work programmes and demonstrates how several short-term activities, outputs or outcomes, were to contribute simultaneously to the same long-term outcome. This interaction of the whole system was implied in all of the interviews and is illustrated by the following quotation:

It's a whole system because it is tackling the whole community and the major agencies active within it. In terms of outcomes for these agencies then ...I would see outcome number one as morbidity/mortality, outcome number two risk behaviour, knowledge and attitudes. Outcome number three better-shared working with other agencies and with the NHS family. Outcome number four better and shared working outside the NHS and into the community via the Paisley Partnership and into the local authority (MGM 5, year one).

There was strong coherence amongst the interviewees with regard to the range of outcomes and the holistic nature of the programme. Figure eight begins to show this more holistic picture and the necessary complexity of the overall intervention. Again the diagram is colour coded to link with the key work programmes identified and detailed in Figure seven and the corresponding individual logic models presented in Appendix six. It illustrates the need for synergy between sectors and themes and the range of aspirations it hoped to achieve in the long-term. These early models and quotations begin to highlight the level of ambition that stakeholders had for HaHP. Although these models illustrated ten-year goals the amount of work necessary to recruit staff and establish services and programmes (often from scratch) that could deliver on the interim objectives (year three) was still substantial. To some extent the complexity of the project was overwhelming and, even at this time point, staff were beginning to realise the enormity of the challenge.

Logic models produced for each setting and theme of Have a Heart Paisley

Logic models were produced for each of the key work programmes within HaHP. Table eleven shows the list of logic models produced and the setting or theme to which they relate. Due to space limitation, however, only one example is shown. The others are contained in Appendix six.

Table eleven: Have a Heart Paisley programmes (settings and themes) and projects

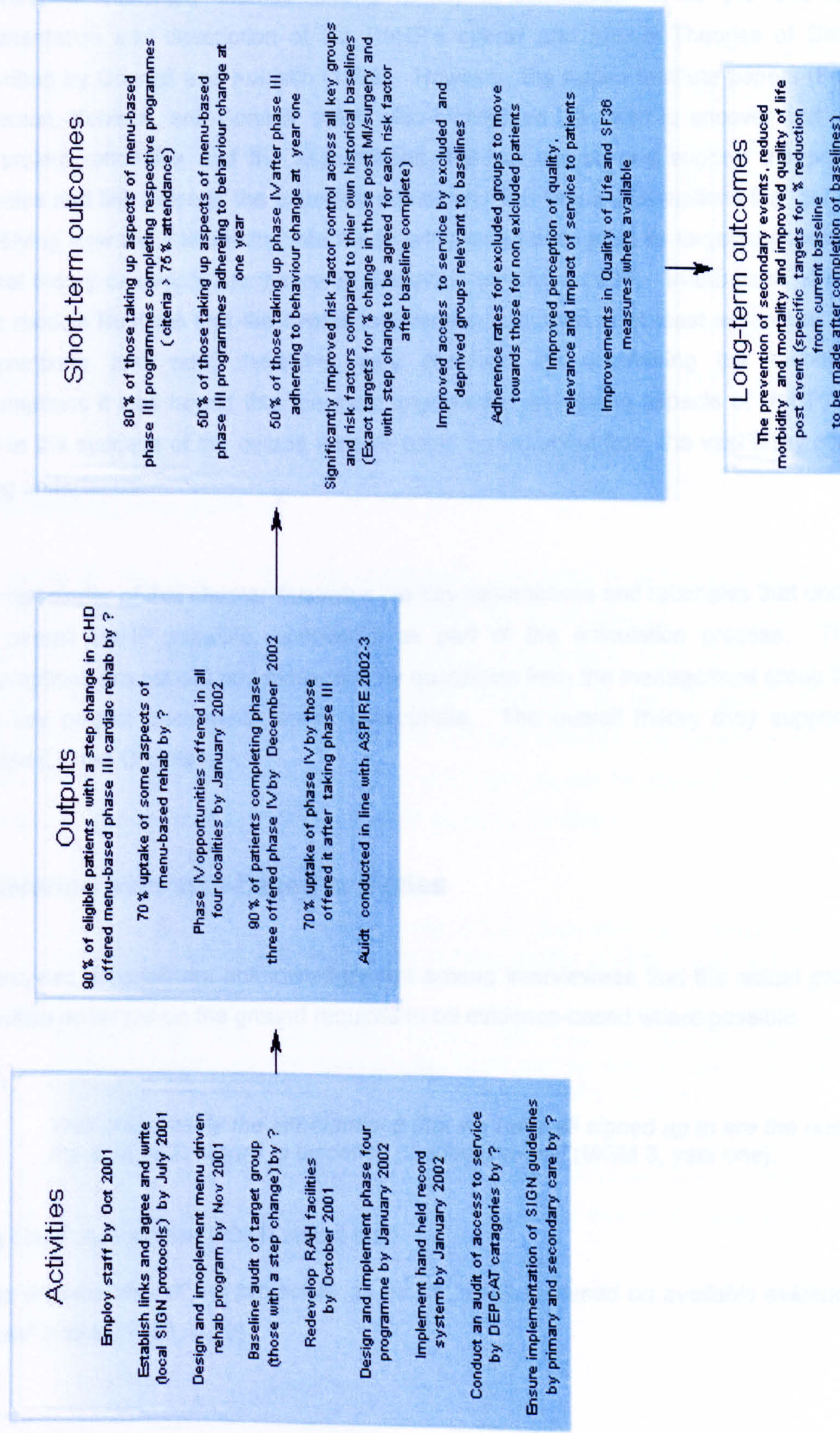
PROGRAMME	
Setting ¹⁵	Projects
Improved primary and Secondary Care	Healthy at Heart Rehabilitation centre
	Health Promoting Health Service Work; Care Pathways; and Secondary Prevention Guidelines
	CHD Register/Improved IMT (information management technology) ¹⁶
Local authority	Health Promoting Schools
	Healthercise
	Healthy Eating in Community Care
	Healthy at Work
Theme	Themed strategies (included multiple projects)
Opportunities and Lifestyle (many delivered in the community setting)	Healthy Eating Strategies
	Tobacco strategies
	Physical Activity Strategies
Tackling inequalities	No individual projects linked to range of above
Community Involvement	Strategic engagement activity and Community Chest projects
Improved Partnership working	No individual projects linked to range of above

Figure nine shows *one example* of the individual project logic models compiled through the above methods. It is worth noting that this logic model was relatively well specified compared to others. It had relatively well specified targets, target groups and expected thresholds of change. The activities were logically linked to the anticipated outputs and outcomes. More commentary is made on the quality of the other models generated within the subsequent theory critique (Chapter six).

¹⁵ The marketing and learning and development programmes were not included as in the first iterations as they were viewed as support activities.

¹⁶ The CHD register is coloured separately from the other primary care and secondary care projects, as it was a key link project between the joint setting.

Figure nine: Logic model for the Heart Renewal Project (primary and secondary care setting)



Uncovering the rationales and assumptions for Have a Heart

Paisley's overall Theory of Change

Figures seven, eight and nine illustrate the logic models for HaHP overall and for the range of programmes (settings, themes and projects) it contained. This provides a visual representation and description of the HaHP's overall and project Theories of Change as described by Connell and Kubisch (1998). However, the Aspen Institute papers (Fullbright-Anderson, Kubisch, and Connell, 1998) also highlighted the need to uncover and articulate the project rationales and the assumptions that cut across and support the programme activities and link these to the expected outcomes. It is these assumptions that get closer to identifying how the intervention intends to bring about change in its targeted population (the causal theory or descriptive theory as described by Chen, 1990). In the case of HaHP the logic models illustrate that the overall intervention consisted of at least seventeen individual interventions and was, therefore, very complex. By uncovering the rationales and assumptions it was hoped that the most important cross-cutting aspects of HaHP that were vital to the success of the overall venture could be extracted from the vast array of activities being undertaken.

The remainder of this chapter illustrates the key assumptions and rationales that underpinned the overall HaHP initiative, uncovered as part of the articulation process. These key assumptions are set out and evidenced by quotations from the management group interviews and key project documents where appropriate. The overall theory they support is then critiqued in the Chapter six.

Delivering evidence-based activities

There was a consistent acknowledgement among interviewees that the actual projects and activities delivered on the ground required to be evidence-based where possible:

Well presumably the interventions that we have all signed up to are the ones that are the best [with regard to evidence of effectiveness] (MGM 3, year one).

The HaHP Action Plan (2001) stated that:

"The development of the project is, as far as possible, based on available evidence of what works" (HaHP, 2001, p.10).

Again it was a requirement of the SE funding that the NHDPs apply evidence-based practice. The strategic plan objectives (detailed earlier in this chapter) emphasised the need to implement the Scottish Intercollegiate Guidelines Network guidelines (SIGN, 1999) with regard to the evidence-based treatment of CHD in Primary and Secondary Care [Guidelines 40 and 41]. Where evidence of effectiveness was not available the stakeholders believed they should then take the opportunity to test innovative approaches:

[I]t is a demonstration project, we are a test bed for some new ideas. [B]ut if we indulge in nothing but innovation then such a portion of that is going to go belly up that the overall project would have a bad feel about it. I think we have to incorporate a few winners and hopefully some quick winners to sustain the morale of the project (MGM 7, year one).

This balancing between applying the evidence and innovating was reinforced in the initial bid document, which stated as one of its underlying principles that the project would:

"[C]onsider both evidence-based and innovative approaches" (HaHP, 2000, p. 7).

Addressing inequalities

An additional vital element that was consistently presented in both the documents and the interviews was the need for HaHP to address life circumstances and health inequalities. Again this was a prerequisite of the SE funding. Interviewees expressed this as a need to avoid reinforcing the inverse care law (where those less in need of treatment have both greater access to it and benefit from it) and to target activities and opportunities to those in more deprived circumstances. Whilst this was seen as key by many of the interviewees, it was also acknowledged as difficult for HaHP alone to achieve:

I would see it [HaHP] as contributing to that [reducing inequalities] I don't see it as being the only thing that would lead to those things (MGM 3, year one).

Whether we can specifically narrow the gap in mortality associated with disadvantage? I do not believe that HaHP will be able to overcome disadvantage despite what is said in the project document (MGM 5, year one).

As well as ensuring that activities were both evidence-based and targeted to address inequalities, interviewees also highlighted that it was vital that HaHP was delivered through partnership working.

Working in partnership and joint delivery

The key issues that arose in uncovering what would be necessary for HaHP to deliver a comprehensive and holistic programme was the need for various agencies, and the key actors within these agencies, to work in partnership. This was expected to lead on to joint, and simultaneously delivered, activities and services. Interviewees on the whole believed that synergy was needed between the projects and across the HaHP work programmes:

I think the major change is that there is actually a role for everybody and the rule is that everybody has to work together on it. I don't think anybody feels that it is only theirs and that it can only be tackled by them...it is so useful for us to say right well here are the different sectors and this is how we can make a difference for the people that are working for us or the people that we have contact with. What we have got the opportunity to do is to link with others so that we are putting everything in place in a logical order. [T]he change has to occur within the organisations at all different levels; for them to realise that it is a joined up problem (MGM 1, year one).

The Paisley residents were seen as a necessary, and perhaps the most important, partner. As such interviewees felt that both partnership working and fully engaging the community in the planning and delivery of HaHP were essential cross-cutting objectives.

Fully engaging the community

It was highlighted in Chapter two that the SE, in establishing the NHDP for CHD, had been influenced by the publicity and the perceived success of the North Karelia project and that they had established links with key stakeholders in the North Karelia programme. The Theories of Change generation process also highlighted that the North Karelia project had influenced the design of HaHP:

North Karelia is one of four projects of its type that showed a very positive result – the other three projects, particularly the American ones – didn't show the same improvement in say CHD mortality. Karelia was successful because of the community empowerment, the community involvement, the government backing of the project, the publicity it achieved, and other things surrounding the project...there seemed to be a great improvement in North Karelia (MGM 4, year one).

HaHP's Action Plan (2001) stated that:

"HaHP builds on the experiences of other projects internationally, and in particular the North Karelia project in Finland" (HaHP, Action Plan 2001, p.5).

In this sense much of the rationale underlying HaHP was developed from the North Karelia experience and from stakeholders' perceptions of the need to achieve community 'buy in', structural and social change (see Chapter two).

When discussing their rationales the interviewees commonly stated that to achieve their outcomes they needed to bring about cultural change in the way that had been achieved in North Karelia. When questioned about what such change would look like and how it could be achieved the interviewees tended to define such change as adapting social norms in relation to CHD risks behaviours. This issue is illustrated by the following quotations:

What I hope that Have a Heart Paisley will have achieved is that we will change the culture of Paisley in that acceptance of high rates of morbidity and heart disease are not acceptable in the same way that we have changed the culture to do with drink driving and smoking to some extent (MGM 8, year one).

I think that by and large people are aware of things but it is getting from the stage of people being aware but it not quite being done to actually making changes in your lifestyle, to go on from there to achieve that cultural change that actually makes it not only an acceptable thing to adopt a different lifestyle but more like the norm to adopt a different lifestyle. Where there is actually peer pressure at every level to do so (MGM 7, year one).

Evidence from North Karelia suggested that joint delivery with the local community was key to addressing such social norms (Puska, 1989). Community engagement was also a prerequisite of the SE funding. This led to key community advocacy agencies being involved in the development of the initial proposal and the organisation of HaHP around locality network coordinators linked into four localities covering the whole of Paisley. The need for community involvement and engagement was a strong theme throughout the interviews and discussions with stakeholders. An example of how such involvement was expected to benefit the community is detailed below:

I hope it [community engagement] will be a catalyst to achieve other things as people begin to get involved in it. The whole idea of community development is self confidence and beginning to look at self-development, and so on (MGM 13, year one).

Part of the justification presented for working in partnership and engaging the community was to ensure the appropriateness and reach of interventions. It was felt that social norms would only be changed in a positive fashion if HaHP reached sufficient proportions of the Paisley residents and delivered activities that were intensive enough to result in behaviour change. To achieve such outcomes it was felt that individual activities alone would not suffice but that

the agendas and services of key agencies would require to support such change and encourage an environment that would sustain health related behaviours.

Ensuring HaHP reaches substantial proportions of the Paisley population

Chapter two highlighted that it is important for community-based projects to reach large numbers of their population if they are to achieve wide-scale behaviour change and influence social norms. Part of the rationale for HaHP being delivered through partnerships and in conjunction with the community was to ensure that activities reached large numbers of residents within specific target groups and in the wider population. The wide range of outcomes listed by each of the interviewees also illustrated HaHPs desire to saturate Paisley with health enhancing opportunities:

It's [HaHP] an exploration of using a whole system approach to reducing coronary vascular/cancer mortality in a defined population through giving it a big kick. A big dose of intervention (MGM 5, year one).

Changing environments, services and agendas

Stakeholders hoped to achieve behaviour change in individuals but also to create service, structural and environmental changes that would support such positive changes in the longer term so contributing to future social norms:

I want people in Paisley to be able to have the healthy choice if they want to do that and to be well informed to be able to make that choice. I want them to go into shops where they can buy healthy food at reasonable prices. I want them to be in smoke free environments. I want them to be able to exercise, enjoy fresh air when we get it, and to make it easy for them to have access to leisure and sport activities that are good for their health (MGM 8, year one).

These rationales are further evidenced by the objectives concerning achieving changes in key services, agendas and in the wider environment (see HaHP objectives detailed earlier in this chapter). This underlying rationale was stated clearly by most of the interviewees and was not refuted by any.

Summary of the HaHP assumptions and rationales

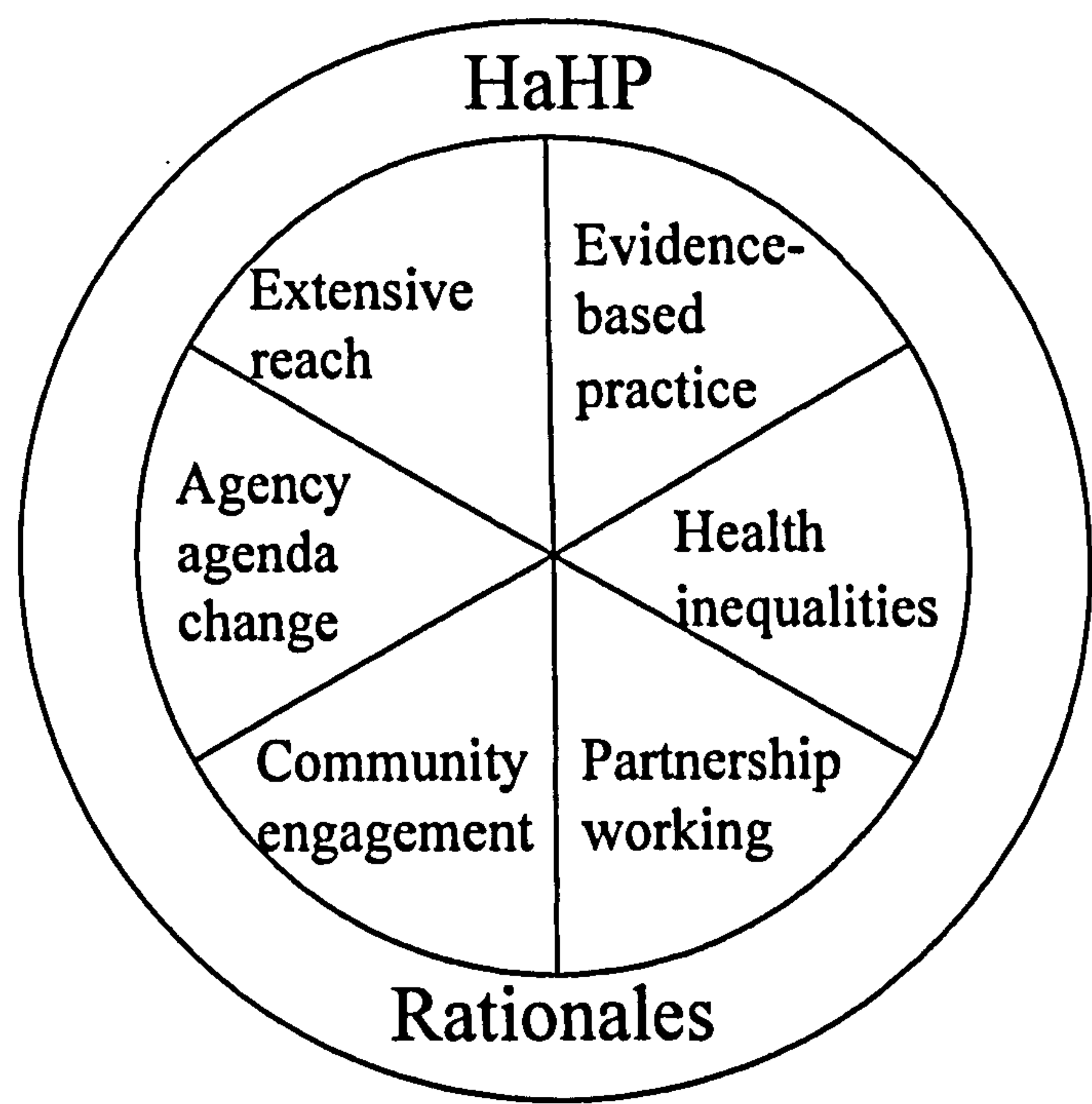
In trying to uncover the assumptions and rationales that were driving the design and implementation of the HaHP programmes it became evident, from the interviews, documentary review and from the observation of the management group, that there were six *cross-cutting outcomes* which it was absolutely necessary for the project to deliver if it was to be successful. HaHP was to be strategically planned in such a way as to ensure that activities were evidence-based and would address inequalities in health. In addition, the project was to be delivered through partnership working and with the full engagement of the community of Paisley. The final two cross-cutting outcomes were that HaHP's activities should reach and influence sufficiently large numbers of Paisley residents to change social norms and that HaHP should drive agenda and service change within its partner agencies to create an environment that would encourage and sustain long-term behaviour change. These key cross-cutting outcomes are vital elements of HaHP's underlying overall Theory of Change. They are detailed in Box B below and represented as part of the holistic HaHP endeavour in Figure ten.

Box B Have a Heart Paisley's cross-cutting outcomes vital to success

In order to succeed HaHP will require to

- apply evidence-based practice;
- address health inequalities in relation to CHD;
- improve partnership working to jointly deliver synergistic programmes;
- fully engage the community at all levels of the programme
- achieve agenda and policy change in the key agencies responsible for service delivery; and,
- ensure that services and activities reach and are adopted by sufficient number of the Paisley population to achieve cultural change/changes in social norms

Figure ten: Cross-cutting outcomes vital to the successful delivery of Have a Heart Paisley



Of all the objectives and processes listed in the early plans and documentation these cross-cutting outcomes were emphasised during the theory articulation process as vital for the success of the whole integrated HaHP intervention. They were to be delivered within/through each of the individual settings and themed areas (and the projects within these).

Conclusion

This chapter set out HaHP’s overall, and individual project, Theories of Change as articulated in the theory generation process. It has identified the key activities, outputs and outcomes that constituted HaHP as planned by the implementation team during year one of HaHP. In addition, it has highlighted the most vital cross-cutting outcomes that were perceived as necessary for HaHP to deliver on its ambitions. What became apparent as a result of this process was the ambitious nature of HaHP given its duration and considering the limited impact of previous similar interventions. Chapter six considers the feasibility of HaHP’s general ambitions and attempts to critique these early Theories of Change using the key criteria suggested for this purpose by the Aspen Institute. Chapters seven and eight present the results from the revisiting of the Theories of Change during years two and three and report on the progress achieved specifically with the vital cross-cutting outcomes shown in Box B and Figure ten.

Chapter six (Findings II): Critiquing Have a Heart Paisley's Theories of Change

Introduction

Proponents of the Theories of Change approach (Fulbright-Anderson, Kubisch and Connell, 1998; Brown, 1998) suggest that there is much utility in conducting a critique of a programme's Theories of Change once they have been articulated. This provides formative feedback so that the theories and the programme can, if appropriate, be strengthened and refined prior to implementation. A prospectively articulated Theory of Change is, by its nature, hypothetical and as such can be improved in response to learning from this process. The Aspen Institute recommended that articulated theories are critiqued to establish the extent to which they are 'plausible', 'doable' and 'testable' (Connell and Kubisch, 1998) (see Chapter three). These criteria respectively relate to the programme's evidence-base and logic, the resources (in the widest sense of the term) available to deliver it, and its 'evaluability'. This chapter, therefore, addresses the second objective of this thesis, that is, to critique the initial articulation of the HaHP stakeholders' Theories of Change.

The author critiqued HaHP's early theories (as depicted Chapter five) through reflecting on their congruence with both the evidence-base from the available literature and her own tacit knowledge of CHD prevention activity (having worked in the field of CHD prevention for nearly twenty years). In addition, this process involved reflection on a number of potential and typical flaws that the literature indicated might be found in such theories (Philiber, 1998).

This process resulted in the following observations being made about HaHP's Theories of Change. Due to space restrictions the lessons from the critique process focuses primarily on the overall HaHP rationales rather than each of the settings or projects. Examples from the work programmes and individual projects, however, are used to illustrate the issues relevant for HaHP overall.

Plausibility

Logical links between activities and outcomes

According to the Aspen Institute, if a Theory of Change is plausible then the links between the planned activities and anticipated outcomes should be logical:

“[E]vidence and common sense suggest that the activities, if implemented, will lead to the desired outcome” (Connell and Kubisch, 1998, p.19).

Many complex community initiatives (CCIs) have been criticised for developing plans that fail to provide logical links between their long-term aspirations, the outcomes that arise from these, and the activities they have put in place to achieve these (Bauld and Judge, 2001; Mackenzie et al, 2002). In many ways, however, HaHP had selected a range of activities that were linked by relatively clear logic to their long-term aims. They planned to deliver activities that would address the key risk factors for CHD, and to tackle social and environmental determinants that influence behaviour related to these risk. In addition, it was evident from the cross-cutting outcomes identified in the Chapter five [see repeated Figure ten below] that HaHP hoped to address many of the areas that were highlighted in the community-based CHD literature as crucial to the success of such interventions. These areas included: changing organisational agendas and structures; targeting key groups; reaching large numbers of the population with intensive activities; and, engaging the community (Susser, 1995; Sorenson et al., 1998; Merzel and D’Affitti, 2003).

Repeated Figure ten: Cross-cutting outcomes vital to the successful delivery of Have a Heart Paisley



However, consideration of the more detailed settings, themes and project level logic models highlighted several areas of concern, regarding the extent to which their activities and intended impacts would contribute to these overall cross-cutting outcomes. The key areas of concern in relation to the plausibility of the individual elements and how these would aggregate are detailed below.

Applying evidence-based practice

Whilst many of the individual logic models illustrated that programmes were, when compared to the existing academic evidence, employing strategies and interventions that would result in the expected outcomes (e.g. the use of pharmacological interventions such as statins to reduce hypercholesterolemia in primary care, or the expansion of cardiac rehabilitation to wider patient groups), there were several areas where this was not the case. These tended to be less clinical areas where evidence of effectiveness (in terms of how to change behaviour) is relatively less well developed (Kelly, 2004). There were some activities where planned programmes were described as 'novel' or 'innovative' but which had been shown in previous efficacy trials to have achieved only limited impact. One example of this was the local authority workplace programme (see relevant logic model in Appendix six). This project aimed to reduce CHD risk factors amongst local authority employees resident in Paisley from lower paid grades via a few short-term counselling sessions. This type of activity targeted at general employees has been shown through previous good quality randomised controlled trials (RCTs) to be of only limited efficacy (Hanlon et al 1995; Sorenson et al., 1998; Ebrahim and Davey-Smith and Bennet, 2000,)¹⁷.

Similarly, many of the early projects, whilst delivering topics that were relevant for the prevention of CHD, were in contexts that might limit the participants' adherence to the activities. For example the exercise referral scheme run by the local authority was very much gym/facilities based. Exercise adherence evidence would indicate that such programmes are more costly and no more (perhaps less) likely to produce long term adherence amongst participants than less structured programmes such as walking (Hillsdon and Thorogood, 1996; Hillsdon et al., 2003; Blamey and Mutrie, 2005). One of the management group highlighted their concerns over the evidence-base for some of the individual projects:

Whether what the other sectors of the project are particularly doing would be regarded as evidence-based, I'm not entirely qualified to say...the local authority for example. I do have some anxieties that the finance portion of the budget that they

¹⁷ Although Sorenson 1997 suggested more significant results in workplaces, the impact with regard to the design of this specific programmes was likely to be much less.

have taken actually is simply duplicating or extending existing work. They could probably point to primary care and say the same thing (MGM 7, year one).

Addressing inequalities through targeting

Many projects had very clear target groups (e.g. the care pathway targeting those with existing CHD, the rehab programme reaching those with a step change in their condition or cessation programmes targeting smokers). However, others had less defined target groups. There were debates about whether local projects should only provide services for those living in deprived areas, and it was unclear whether any of the school programmes would target specific children (e.g. those overweight or inactive). Some activities targeted groups that, even if they achieved change, were unlikely to lead to a reduction in CHD related morbidity or mortality. An example was the frail elderly living in social care homes. Strategies for targeting or addressing inequalities seemed unclear in the early-articulated plans. This is illustrated by the contrasting quotes below:

I do not believe that within the time and budget we will be able to tackle inequality per se. We do not have a housing policy and a transport policy....I always had a problem with the original project which starts with tackling policies before it even mentions cardio-vascular risk factors..I lost that battle with the steering group (MGM 5, year one).

It's hard to say at this stage, whether we will have any nice surprises in terms of social services and life circumstances in the first year or not ...you might find life circumstance issues, social services, job generation, business involvement in communities, all sorts of other things occurring in that 3-5 year period (MGM 2, year one).

Issues relating to reaching sufficient number of the Paisley community and achieving changes in social norms

Reach

An issue that related to the plausibility of many of the individual project logic models was the concept of reach (Thompson et al., 2003). This concerned whether sufficient numbers of participants could be reached, engaged and retained within individual projects to the extent that the overall project could achieve some degree of penetration¹⁸ within the population of Paisley.

¹⁸ The concept of penetration relates to issues of an intervention's dose. This relates to its reach within a given population, its adoption by a range of agencies and the frequency with which it is delivered. The quality of the activity delivered and how intensive it is also matter.

In some areas, such as smoking cessation, the reach of the programmes seemed feasible. For example, the ten-year target was to reduce smoking by 2% amongst specific groups (women, low income groups and children – see relevant model in Appendix six). This was not a particularly ambitious target given that there is decreasing background trend in smoking of around 1% per year (McNeil et al., 2005). However, such trends are not necessarily within the key target groups detailed above.

The main HaHP smoking cessation programme established in year one was set in the pharmacy sector and aimed, at best, to provide cessation advice and NRT to 800 patients each year. This type of intervention is likely to get between 5 –10% of smokers to quit at the 12-month point (West, McNeill and Raw, 2000). This would mean an estimated 2,400 patients could be seen within pharmacies over the three years of the programme and, at best, around 240 quitters would result. Given that there were an estimated 21,750 (approx 29% of population) smokers in Paisley this would potentially result in a 1% decrease in three years amongst the general population assuming the best possible outcomes. Were the pharmacy programme to be sustained, it is feasible that further decreases would occur beyond the three year periods. This target might in fact have been possible to exceed due to the secular trends and the fact that a range of other smoking cessation activities were also planned, some of which were likely to have an equal or greater level of success once established (e.g. group smoking cessation in primary care) (Judge et al., 2005) and improved policies on tobacco in the local authority and workplaces.

Although the anticipated reach for this project was feasible there were many logistical problems to overcome before the projects actually got up and running (see issues discussed under do-ability below). Additional issues that existed about the achievability of this target were that the smoking rate among some of the target groups (e.g. those living in deprived circumstances) was probably nearer to 45% and the likely success might be reduced, as they would be a more highly addicted and a harder to reach group (Chesterman et al., 2005, Judge et al., 2005).

In other projects, the low numbers of anticipated participants meant that HaHP would experience difficulty in reaching enough people to make any population impact. In the workplace project (see relevant model in Appendix six) the actual numbers being recruited were so small (n=50 each year) that the programme was likely to have very minimal impact on the health of local authority staff in general (n= 9000) never mind the wider Paisley population.

Similarly, many of the community chest funded activities (Ayana and Blamey, 2003) were very small-scale local exercise classes or diet groups with perhaps 10-30 attendees. Even if the large numbers of projects established in the early phases (n =80) focused on one topic such as exercise, this would only impact on a maximum approximately between 800 and 2,500 individuals, presuming that they attended regularly. This is still a relatively small number of the 75,000 residents in Paisley. The hope that such activities would actually impact on the population risk factors for CHD in Paisley overall, even when considered as an integrated whole, was again perhaps ambitious.

Delivering Intensive interventions

At this early stage in the project it was difficult to uncover the quality of the interventions, how intensive they would be, or the frequency or duration of exposure they would provide for participants. In clinical areas this was perhaps slightly less of an issue due to the existence of clinical guidelines and protocols. However, this issue was greater in some of the more community-based activities or health promoting school activities. For example, the projects concerning food provision in the local authority social care homes were at this stage simply planning to provide ad hoc taster/educational sessions for their target groups and domestic equipment such as juicers rather than commercial or industrial blenders that would provide healthy options for greater numbers of the home residents. Similarly, much of the activity initiated at this point in schools tended to be once weekly after school classes or healthy tuck-shops. There was, however, no guarantee that the participants would access these facilities on a regular basis or for long periods. Several interviewees raised concerns about these issues:

There seems to be so much and yet you don't know how much of it is actually real and going to happen and actually going to impact (MGM 8, year one).

I don't presume that this little healthy eating project here and a little thing here or there will do much. (MGM 5, year one).

Doability

According to the Aspen Institute, do-ability relates to the extent to which a project has the technical skills, human resources, finance, partnership support and time to deliver on its theory (Connell and Kubisch, 1998). The following elements (commitment, partnership and joint delivery, achieving community engagement, skills, time and finance) of the critique are relevant to this criterion.

Issues relating to partnership working

Individual and organisational commitment

Even at the early stages of the project there were concerns raised that some of the key agencies were not fully committed to the overall HaHP interventions. The local authority, as an example, was seen as a reluctant partner by other agency staff. They were perceived to have chosen projects that lacked the capacity to radically change services. Concern was raised whether staff from various sectors would actually implement the planned activities or come fully on board with the project. For example, although HaHP had initially been led by the LHCC, during year one there was scepticism about the commitment of many of the local GPs with regard to becoming fully involved even the primary care activity:

Really getting GPs on board I see that as fairly fundamental. The rest of the primary health care team I am very impressed with the work that they have done. Great people involved championing the project at all levels particularly at the lead level in the LHCC....I think all that could count for rather less if we can't keep the GPs on board (MGM 7, year one).

[W]ell it's the old saying that trying to get GPs to do things is like herding cats (MGM 5, year one).

Joint delivery/partnership

Only some projects were already impacting on the ground at the time that the initial Theories of Change were articulated e.g. the community projects. Others were further behind. The health promoting health service framework, health promoting schools work, and others were still clarifying their target groups and scope. This raised concern over synergy and whether the intensity of the whole programme would be great enough in the timescales available.

At the earliest stage of the project there were several concerns raised about some of the partnership relationships within HaHP. In particular, there were concerns about the degree that the local authority projects were truly integrated with the area wide health topic groups who were meant to provide them with topic related support. Similarly, there were areas within the NHS that still required much more integration (e.g. primary and secondary care). The following quotations illustrate some of these tensions:

My worry is that this is disaggregated, that is my worry, and it is a big big project (MGM 8, year one).

I am saddened that the local authority projects are so disjointed and detached from the rest of the project, because they aren't integrated intellectually or in terms of delivery. They can't stand alone (MGM 5, year one).

Achieving community engagement

The early plans aimed to achieve community 'buy in' to HaHP at various levels (participants, volunteers and at a strategic level). However, by the time the initial interviews were carried out some strategic HaHP groups did not yet have community representatives. There were also issues raised concerning the extent to which HaHP, with its disease focused agenda, would be viewed as a priority by those most in need within Paisley given they faced other more pressing problems such as, poverty, being re-housed or unemployment (see Paterson and Ayana, 2003).

Skills

Staff in certain programmes were highly trained in the specific areas of project work undertaken. For example, the cardiac rehabilitation programme was delivered by physiotherapists/nurses trained in cardiac rehabilitation in accordance with professional guidelines. There were other areas, however, where staff were working in completely new areas with little or no health related training. For example, the discussion session with the human resources staff designing (and to some extent delivering) the health at work programme uncovered that these staff had received no specific training in areas such as motivational interviewing or in the evidence-base surrounding workplace-screening programmes. The community programme's reliance on volunteers also meant that those running the projects might not necessarily have had the appropriate skills or training. These issues, again, highlighted potential problems over the extent to which programmes were likely to be delivered in accordance with best practice from the literature or with fidelity to models that had been tested in previous efficacy trials (Glasgow, Vogt and Boles, 1999). Many staff also lacked the skills and knowledge to deliver on the monitoring aspects of their programmes.

Timescales

Many of the timescales articulated in the hypothesised Theories of Change seemed overly ambitious. The smoking cessation programme, for example, had to be developed from nothing, as previously the focus of the A&C NHS Board's work in that area had been in Inverclyde (the comparator site for the quasi-experimental survey). Work programmes such as the Health Promoting Schools project (HPS) were still in the very earliest stages of development when the Theories of Change were articulated, despite the fact that HaHP had been in operation for seven months by that stage. Again, the staggered nature of the development meant that the ultimate dose of intervention might not be delivered

simultaneously within the three-year initial funding period. Many of the interviewees reflected, even at this early stage, that the timescales were not nearly long enough. Several expressed concern that the slow start to the project was an additional problem in terms of making an impact within the three years:

[T]he project has now been going for six months. I think the start has been slow, but I think that is natural in this respect and right now we are over that phase and things are beginning to happen and we need to start to deliver what we said we'd deliver otherwise we are not going to achieve what we want in a three year period (MGM 4, year one).

My fear is that it is the life of the project that is too short (MGM 1, year one).

Finance

The funding for most of the programmes was perceived to be sufficient:

I think it [the budget] is sufficient for each year. I think we can do and make a difference for that (MGM 1, year one).

There was, however, an acknowledgement that the more clinical interventions, and in particular the refurbishment of the rehabilitation centre, would consume a relatively large proportion of funding compared to the other projects. In several areas it seemed likely that funds may have been spread too thinly and that this might impact on both the intensity and quality of interventions. An example of this was in the community chest funded projects. Even in the early stage of HaHP there were fifty or more projects, many receiving only very small amounts of money. This had potential implications for the bureaucracy of HaHP in terms of both supporting and evaluating such a large number of small-scale interventions.

Testability

According to the Aspen Institute a Theory of Change should be testable, meaning that it should be expressed in a specific and complete enough fashion that progress can be tracked. The documentary review that was conducted in order to establish the logic models in their first iteration highlighted many issues with regard to the specificity of the plans and subsequent logic models. Examples of how outcomes were expressed in a fashion that would make them difficult to monitor or measure are illustrated in Table twelve. Even after the logic models were presented to, and discussed with, strategic and operational staff many individuals found it difficult to supply outcomes or timescales for activities expressed in anything approximating

a SMART (specific, measurable, action orientated, realistic and timeous) fashion. This is evidenced from the many gaps that still existed in the final refined logic models presented in Appendix six. It should be noted that these logic models were, in the author's opinion, much improved on the initial plans contained in the initial bid document.

At this early stage there was also lack of clarity over whether individual interventions were innovative and so would be tested for efficacy, or were evidence-based and so were being tested in this particular context (e.g. effectiveness) (Glasgow, Vogt and Boles, 1999). As such, it was contested whether projects should be evaluated or simply monitored. Additionally, there were concerns over HaHP's capacity for internal monitoring and evaluation. At the start, HaHP had only one internal evaluation officer employed at a junior level (Grade 6 Whitley Council)¹⁹. They also had small amounts of time 'in kind' from a Consultant in Public Health to help guide the internal evaluation plans. More evaluation resources had, however, been secured in the secondary care strand of the project due to relationships between the cardiologists and university academic departments, and as a result of accessing additional external funds for this purpose. The role of the internal evaluation and its relationships to these other posts and the external evaluation was unclear at this point. Concerns were raised about such issues, however, by only two interviewees:

They are all measurable in some way in terms of the activity that is going on. Whether the effectiveness is measurable is questionable for some of them (MGM 1, year one).

I have got a lot of misgivings about internal evaluation so I am not quite sure what I am evaluating. I don't think anybody has got a clear idea. What is left is something called internal monitoring ...I don't want to be a management monitoring function I wasn't trained in that (MGM 5, year one).

¹⁹ Whitley Council scales re the pay grades used within the NHS

Table twelve: Examples of outcomes articulated that would be difficult to test²⁰

EXAMPLES OF OUTCOMES	SOURCE	PROBLEMS FOR TESTABILITY
'Increased use and uptake compared to baseline of health education and physical activity materials by 2003'	Local authority community care programme	No baseline study of use of these material had been conducted nor was planned
'Increased awareness of key physical activity messages [presumably among x% of target group in X localities by?']	Local authority Healthercise programme	General outcomes were initially expressed without thresholds of change, number of localities or timescale identified
'Suitable levels of attendance at programmes at the 6 month point to sustain 70% of those projects started'	Community theme	No threshold for suitable level of attendance identified for any of the projects. Each project (n= 50 by six months) likely to require differing levels of attendance to achieve financial sustainability and health impact Attendance may be high but adherence by individuals low. Project may therefore be maintained but little health impact achieved.
'Increased added value to services led by individual agencies by 2003 as a result of direct involvement from another partner'	Partnership working	Concept of added value or involvement is not defined
'Increased patient care'	Primary care Health promoting Health Service work	No identified parameters of care or care standards made explicit

²⁰ These were problems that still existed after the theory articulation process had improved the models substantially from the initial written plans. Despite further questioning and encouragement to address these problems the models were never fully specified.

Conclusions

This chapter set out to address objective two of this thesis, that is, to critique the HaHP stakeholders' Theories of Change.

The critique of HaHP's Theories of Change was done with a view to highlighting conceptual problems in the early written plans. However, given that the project had been launched by this stage, the critique also drew on the early implementation experiences of the stakeholders. These early theoretical and practical lessons were intended to be used to refine the Theories of Change and to improve any areas of project implementation that were highlighted as potentially problematic.

The critique highlighted the ambitious nature of the overall intervention. It identified some potential problems relating to the plausibility, do-ability and testability of specific project level Theories of Change and more specifically the overall cross-cutting outcomes. Whilst those managing the project had a reasonably congruent theory for HaHP at a strategic level, there were inconsistencies in the way the theory was implemented at operational levels.

In terms of plausibility, some aspects of HaHP at the operational level were shown either to lack a sufficiently strong evidence-base, or to be applying that evidence in contexts that might limit its effectiveness. Not all projects had clearly identified target groups and HaHP overall was unsure as to how it would address inequalities. Similarly, many of the projects might potentially have limited reach. Finally, there was evidence that the quality of the planned interventions was unknown and they might not be intensive enough to achieve the anticipated behavioural change outcomes. In combination these factors, if not addressed, had the potential to limit the extent to which HaHP could address inequalities or change social norms.

With regards to do-ability, there were concerns over: the extent to which some staff had appropriate skills and support to deliver their intended programmes (or the monitoring and evaluation of these); whether all key agencies and professional groups were genuinely committed to the HaHP's processes and outcomes; and, whether the projects would actually be delivered simultaneously. Concerns were also highlighted with regard to the timeframes suggested for the delivery of several projects. There were few concerns with regards to finance.

In relation to testability, there were concerns over the lack of specificity in many outcomes and little detail as to what was meant in terms of issues such as community involvement or

health inequalities. There was a lack of existing baselines for comparison. In addition, measurement and monitoring tools were often not identified or limited. Early in the project there was little clarity over the roles and responsibilities of the internal evaluation function and the one internal evaluation staff member employed was at a junior level.

Implications for Have a Heart Paisley and the evaluation

The Aspen Institute suggests that the Theories of Change approach can both improve programme implementation and shape and enhance the evaluation design and methods. The initial critique was shared widely with HaHP stakeholders (including funders). The evaluators hoped that the HaHP management group would use this early critique to refine their ongoing plans. The extent to which this occurred is addressed in Chapters seven and eight.

The theory articulation and critique process did stimulate debate. Stakeholders felt that the limitations identified should, where feasible, be addressed and that given the importance of the cross-cutting outcomes they should become the focus of the next stages of the independent evaluation. This resulted in the cross programme outcomes thought to be vital to HaHP's success (see Figure ten) becoming the agreed focus for the subsequent theory-based aspects of the evaluation and the integrated case studies.

It was also agreed that the independent evaluation would have only a limited focus on the secondary care aspects of HaHP as this element had a relatively well defined internal evaluation plan and evidence-base. Stakeholder discussions also resulted in the theory-based and integrated case study elements focusing predominantly on the community, local authority and primary care settings/organisation (for more detailed justification of this see Chapter four). This meant that the subsequent independent evaluation focus would be on the overall HaHP project and the cross-cutting outcomes, rather than on the impact of any of the individual HaHP projects such as, smoking cessation, Healthy at Work, the care pathway or cardiac rehabilitation.

The predominant focus of Chapters seven and eight is, therefore, on the findings obtained from revisiting HaHP's Theories of Change over years two and three of the intervention. The chapters are concerned with the progress made in relation to the cross-cutting outcomes that were seen as necessary to the successful delivery of HaHP. The cross-cutting outcomes should be seen as the integrated framework supporting the whole of HaHP. However, due to the wide range of data sources used to triangulate the data across years two and three of HaHP, it was not feasible to contain the findings within one chapter. The findings in relation to

these cross-cutting outcomes are, therefore, split into two chapters. Chapter seven will consider progress in relation to applying evidence-based practice, targeting to address inequalities, partnership working, and community engagement. Chapter eight will consider progress with regards to achieving agenda/service change and reaching sufficient numbers of the population to change social norms. Chapter eight will also comment on the progress made with regard to HaHP's internal monitoring and evaluation function, as this was key to the 'testability' of the articulated theories and so of relevance to the independent evaluation. Chapters seven and eight consider the progress against these cross-cutting outcomes generally and with regard to progress within the key settings of primary care, the local authority and the community.

Chapter seven (Findings III): Testing Have a Heart Paisley's Theories of Change – deviations in the theory and progress on delivering the cross-cutting outcomes (I)

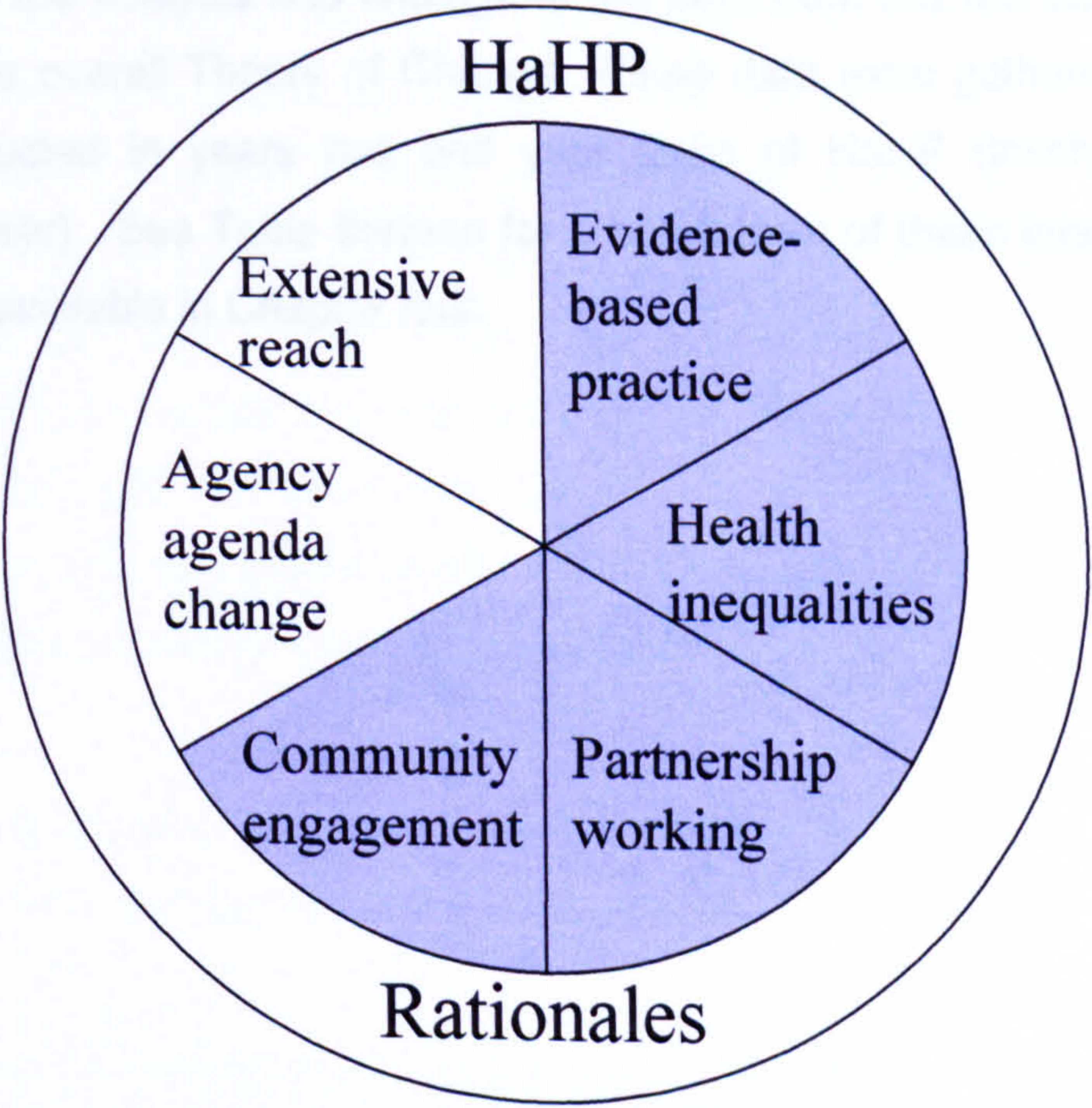
Introduction

This chapter, along with Chapter eight, addresses objective three of the thesis:

- to assess the extent to which the key priorities and cross-cutting objectives underpinning HaHP's stakeholders' overall Theory of Change were successfully delivered within the project lifespan (the initial three years of funding).

In uncovering the stakeholders' underlying rationales and assumptions the theory articulation process, described in the Chapter five, identified that for HaHP to be successful it needed to make substantial progress within its initial funding period in relation to its cross-cutting outcomes shown in Figure eleven²¹ (and further detailed in repeated Box B).

Figure eleven: Cross-cutting outcomes vital to the successful delivery of Have a Heart Paisley II



²¹ Figure eleven is similar to previous figure ten but highlights the cross-cutting outcomes to be considered specifically in this chapter

Box B (repeated): Have a Heart Paisley's cross-cutting outcomes vital to success

In order to succeed HaHP will require to

apply evidence-based practice;

address health inequalities in relation to CHD.

improve partnership working to jointly deliver synergistic programmes

fully engage the community at all levels of the programme

achieve agenda and policy change in the key agencies responsible for service delivery;
and,

ensure that services and activities reach and are adopted by sufficient number of the Paisley population to achieve cultural change/changes in social norms

This chapter briefly considers the overall HaHP Theory of Change and reports on any deviations that were uncovered in relation to the delivery of this during years two and three of HaHP. It then reports on the progress made with regard to delivering on four of the above cross-cutting approaches over the same time period. The shading on Figure eleven highlights the four outcomes considered in this chapter. The progress against the other two outcomes is discussed in Chapter nine.

This chapter draws on the analysis and findings of the data from the two sets of interviews conducted to revisit the overall Theory of Change. These data were gathered from twenty-three interviews conducted in years two and year three of HaHP (involving thirty-three interviewees in each year). See Table thirteen for a breakdown of these interviewees -more detailed information is available in Chapter four.

Table thirteen: Breakdown of participants interviewed for revisiting the Theories of Change in years two and three.

Participant category	No of interviewees	No of interviews
HaHP management group and those leading a strategic theme	N=13 Denoted in text as (MGM)	N=11
Operational; (This included core HaHP staff and included some staff with a strategic role in managing individual projects or programmes rather than strategic role in HaHP overall)	Local authority n=8 Core HaHP staff n=5 NHS =7 Denoted in text as (OP)	N=12
Totals	33 interviewees each year	46 interviews (23 each year)*

*One of the strategic and six of the operational interviews each year were with multiple interviewees –at the request of the interviewees. See chapter four for more details.

This chapter also draws on the data from the integrated case studies. The community case study data were gathered through a variety of methods [Interviews with sixteen community members in the Paisley localities and five interviews with the community members/activists who sat on HaHP strategic decision-making groups; focus groups with members of the community running community chest funded projects; and a focus group with members of the HaHP locality team staff]. The primary care and local authority case study data were gathered via two small-scale postal surveys with staff in these settings (GPs, nurses and pharmacists; and leisure staff) and two focus groups [with primary care staff] and fifty-one interviews with strategic and operational staff across these settings²² (see Chapter four for further detail of these and the author's role within these).

A decision was made to present the above data from across years one,²³ two and three of the evaluation in an integrated fashion rather than year by year. This was done for several

²² Whilst there were other elements included in these case studies (a school staff survey and school focus groups) the findings from these were not included above, as they did not provide data that further developed or changed the above findings. In addition the PhD author had less involvement in the design of the tools or fieldwork for these elements.

²³ Some of the case study data was from year one was incorporated above (e.g. the community representative interviews) but only years two and three of the Theories of Change interviews are presented here (year one Theories of Change interviews were presented in the chapter five).

reasons. The key reason was that there was little difference in relation to progress against the cross-cutting approaches between years two and three found within the data from the Theories of Change revisiting interviews. By the time of the year three interviews HaHP had been awarded funding for a transition year that was to be used to plan a revised intervention (using lessons from the evaluation to date). This was submitted for consideration for a subsequent three years of funding. This meant that interviewees' attention had moved onto the future design of phase two of the project rather than on completion of phase one. As a result, the year three data were perhaps more limited than the year two interviews in terms of the degree to which participants reflected on the initial HaHP theory. The decision to present the findings in this integrated fashion was also made as it allowed the data from years one, two and three of the case studies to be used to validate the findings from the theory articulation and testing interviews.

Given the range of issues, settings and projects covered, the wide variety of data sources used, the fact that the data was gathered over a three-year period, and the complexity of the project, only a limited number of quotations from each of the sources and timescales can be presented. Further examples of supporting quotations and much more detailed discussion of each of the sources and issues are available from the specific and overall project reports [Blamey, 2001; Ayana, Blamey and Reid, 2002; Paterson, Blamey and Judge, 2002; Lawson, Paterson, Blamey, 2003;. Ayana and Blamey, 2003; Blamey, 2003; Paterson and Ayana, 2003; Lawson, 2004; Lawson and Ayana, 2004; Blamey et al., 2004; Mackinnon and Blamey, 2004].

In a few instances, where something particularly controversial is raised, it has been necessary to remove identifying factors such as topic areas, geographies or other identifying features. This has only been done when necessary, as the contextual information is important to the experiences or perceptions being expressed. A reminder of the codes used for the quotations is detailed in the footnotes²⁴

These findings identify key aspects of the HaHP programme that made particular progress or where progress was slower, or more limited, than anticipated and provide possible reasons and explanations for this. In most of the areas discussed there was a mix of both success and

²⁴ Codes that have been included beside quotations from the Theories of Change interviews denote whether an individual has a strategic management role (denoted as MGM plus a number 1-13) or an operational/individual project management role (denoted as OP number 1-20). These quotes will also denote whether the data were taken from year two or three interviews. Quotations from the case studies will indicate the case study (C, PC, or LA), the interviewee number within the case study element (1-16), whether the quotation came from an interview (I) or focus group (FG) and the project year that the data was collected. For example, a code of [PC (16) I year one] would indicate that the quotation came from an interview with participant number 16 in the primary care case study interviews conducted in year one.

more limited progress. Comment is, therefore, made in relation to the balance of activity and progress within any specific area.

To what extent did Have a Heart Paisley deviate from its initial overall Theory of Change?

In order to answer the above question it was necessary to capture and present any deviation that occurred in the implementation of HaHP during year two and three from the intended overall Theory of Change articulated in 2001. The Theories of Change interview data from years two and three showed that there were no *major* changes from the original plans and overall HaHP logic model in relation to the activities delivered between the start and the end of the intervention. However, there were many changes in relation to the individual projects. Across virtually every individual project there were examples of where prospectively specified outputs or outcomes had been adjusted and refined with the benefit of experience and hindsight. In the vast majority of cases this meant that timescales were increased and/or thresholds and targets reduced. Examples of such changes that took place during year two are illustrated below:

I think that the targets I gave you [re the Theories of Change process] were to a certain extent off the top of my head, and weren't necessarily reflecting the number of staff that we had and the challenges that we had ahead, and they were probably over optimistic. I think the new targets we've got are realistic and that we should achieve those targets and hopefully go beyond them (MGM 9, year two).

I mean in one sense it could be regarded that all pupils in Paisley are participating. I think that's why we've had a look at some of the outputs there, and ...changing some of the wording there... it's been difficult to define what is meant...If it's hard to define a participating pupil then how do we define 20% of that. So I think that's why we looked again at it (OP 11, year two).

The failure to meet initial expectations was believed to be due in part to contextual issues such as staffing problems. HaHP faced a variety of staffing problems that included having to replace the overall HaHP project coordinator, the community locality team leader, the nutrition specialist, the internal evaluation officer, and several other staff who had left during year two. HaHP was unable to recruit into the vacated internal evaluation post for an eight-month period. When more evaluation posts were created, later in year two, internal bureaucracy (due to deficits within the NHS) delayed the recruitment processes. As illustrated below such problems persisted over the three years of HaHP:

Over ambition, in as much as there was a kind of notion that we would have, well, that we should have people in post immediately. They would be clambering to be employed by HaHP. The reality is that it has been quite difficult to employ and fill some posts (MGM 7, year two).

I've still not got my evaluation officer in post this is what February ? (MGM 10, year three).

There were managerial problems [factors that led to the loss of staff, including the initial coordinator]. There were obviously major managerial problems then (MGM 12, year three).

These staffing issues were not peculiar to HaHP. They were also experienced in the other National Health Demonstration Projects (NHDPs Evaluation Task Group, 2003). It is likely that the short-term nature of the contracts, coupled with the high levels of scrutiny and political sensitivity related to the NHDPs, played some part in the staffing turnover:

By the time we reach the period of stability, the end of year two, we will be already on the downward slope...At the start of year three what happens, a terrible situation, that people then say 'I have only got a year left of this job' and anything that's tempting they are going to jump to, so there's a big haemorrhage of staff (OP 1, year two).

Many interviewees suggested that the changes to the initial plans resulted from implementers and funders overly ambitious aspirations of what could be achieved in three-years. The over-ambitious nature of such expectations was also highlighted in a paper derived from the findings from two-focus groups with NHDP funders (Mackenzie, Blamey and Hanlon, 2006). Most interviewees reflected (in year two and three) that a year to set up the project, prior to launching it, would have resulted in more realistic plans and ultimately an improved project:

The Scottish Executive demonstration steering group should actually have the experience to know that something of this scale needed a years set up. [I]t's gone a long way to compromise things now (MGM 9, year two).

If I was starting this project again I'd have allocated the money, but I would have said that you're not starting your project for eighteen months. You're going to give me your baseline, you're going to give me where your people are working, and you're going to tell me what people you're recruiting. What grade they're going to be, what equipment they need, who they're interacting with (MGM 10, year three).

After the euphoria we sank into reality and got quite depressed. It was that the expectations of the project were beyond what could be delivered in that time. A frustration that we needed to produce outcomes in what we saw as too short a time and, therefore, to be judged as a failure. That was very frustrating (MGM 12, year three).

Many operational, and some strategic, staff had limited experience of setting appropriate targets. In addition, those senior staff with planning experience did not have enough protected time within their existing roles to devote to detailed scrutiny of their own projects or other agency plans:

I think we were all a wee bit naive in the early days. [T]his was the first time I'd been involved in anything like this, and hindsight is a great thing. If we were starting all over again, I mean I would do more planning (OP 4, year two).

I would have asked HaHP [management group] to actually look at what the bid was, because HaHP gave the money over without actually understanding what it [local authority sub project] was all about (OP 9, year two).

In many ways the above findings confirm what was uncovered by the initial critique of the Theories of Change – that the initial plans were highly aspirational and overly ambitious given the timescales for delivery.

Did HaHP deliver evidence-based programmes?

The application of evidence-based practice

A key factor highlighted in critiquing the plausibility of the initial Theories of Change (see Chapter six), was that whilst the overall concepts and activities for HaHP appeared to be evidence-based, some of HaHP's individual projects were not. Some individual projects were based on approaches or were being implemented in a way that had previously been shown to be relatively ineffective or not cost effective. Some had inappropriate target groups. As such, some projects were neither evidence-based nor particularly innovative. This section considers the degree to which the use of evidence-based practice improved across years two and three.

At both subsequent interview periods (two and three years into HaHP) the degree to which HaHP had implemented evidence-based practice still seemed to vary across different areas and aspects of the programmes. Most respondents were still confident that the general or strategic areas of the programmes were plausible in relation to the existing evidence. However, some of the management group interviewees continued to be unconvinced that that the practical implementation during years two and three was following best practice:

[T]here's evidence-based and there's applying the evidence-base in a local situation (MGM 8, year two).

All the strands make sense re tackling CHD and what should be done. They are all plausible, but not sure on the degree to which the actual practice and delivery on the ground can be assured as evidence-based (MGM 1, year two).

In interviews with staff from the local authority little mention was made about evidence during questioning about drivers for current and future HaHP programmes:

My understanding is the Councillors have got their ideas and there's some sort of marrying with what all comes in from the Executive about what they would like to see taken forward (OP 18, year three).

There were, however, indications that some projects had attempted to make better use of existing evidence during year two. For example, the two local authority programmes criticised for their lack of consideration of the evidence in year one (Healthercise and Health at Work - HaW) did attempt to address some of the concerns that were raised. The Healthercise programme attempted to widen its provision to become more than gym-based opportunities. It included swimming and other sports and activities. Some of the money for this programme was also used to part-fund an access officer post with matched monies from Scottish National Heritage. As a result of this, the programme developed increased links with the council's access strategies and walking programmes. Similarly, the behavioural support provided in the HaW programme was improved. There was a greater focus on voluntary participation rather than targeting those with poor attendance, there were clearer referral routes (e.g. to smoking cessation) and, evidence about counselling techniques such as 'motivational interviewing' (working with those who wish to and are ready to change) had been taken on board:

Certainly in terms of HaW. They are much more focused on the voluntary nature and the follow through and all that kind of thing, so I think they have been learning as they go along (MGM 3, year two).

However, the fundamental design and targeting of the HaW project was still based on relatively poor evidence (Hanlon et al., 1995 and Sorenson et al., 1998). Similarly the local authority community care nutrition programme maintained its focus on the frail elderly, who were not a key target group for CHD prevention of this nature. The rationale for the community chest funded programmes (e.g. community involvement) was addressing a key SE directive and was reinforced via learning from North Karelia, and elsewhere (see Chapter

two), but there was little sense that the actual community activities being delivered were evidence-based:

I think we have gone on what people have said is best practice or they wanted to be there. In terms of checking with the literature, I am not confident [stated in relation to the community bids projects] (MGM 4, year two).

Whilst some aspects of the projects previously criticised had improved their application of evidence during year two, there was no further refinements made during year three in relation to the evidence-base.²⁵ As a result many of the initially identified weaknesses in the implementation of evidence-based practice remained to the end of HaHP.

Why was evidence applied variably across HaHP?

When explanations for the variability of evidence-based practice were discussed, a variety of potential reasons were highlighted. The opinions of the majority of interviewees seemed to indicate that the more clinical and/or pharmaceutical health service areas (e.g. rehabilitation, disease register, smoking cessation) had given more priority to evidence-based practice than less clinical areas (e.g. the community or local authority). This is perhaps unsurprising given the concept of evidence-based practice originated within the medical field (Marks, 2002). In addition, there is currently stronger evidence available in clinical areas of health improvement than in community-based or preventative intervention areas (Ebrahim and Davey-Smith, 2000; Kelly, 2004). The existence of this evidence, and its translation into guidelines, appeared to provide those who have access to it with increased authority to drive change. This was emphasised by the following interviewee:

[T]here is almost a sense of duty that supports the changes that are being put in place [SIGN guidelines], Everybody recognises the strong evidence for secondary prevention. I think they would feel something just short of negligence if they didn't act on their awareness of somebody with CHD who was not receiving the best care. So that has a lot to do with it and that's a strong driver for change (MGM 7, year two).

Some HaHP partners had only recently become engaged in 'formal' health improvement activity. One interviewee felt that what was perceived as innovative by one agency was 'reinventing the wheel' for another:

²⁵ During year three HaHP received funding for a transition year in which to address learning from the first three years of the Project and submit plans for a possible additional three years of funding. This award meant that the focus of the discussion and responses during the third Theories of Change interviews was on the next phase of HaHP (which had a more refined set of interventions) rather than on the completion of phase one. This limited the usefulness of these final interviews for reflecting on some of the issues contained in this chapter.

I think what is happening within the council is innovative for the council, but I am not sure that it's at the cutting edge of the research, but I don't think we ever could be or intended to be (MGM 3, year two).

Several interviewees suggested that people relied on their own experience to select interventions rather than seeking out evidence from needs assessments and reviews of the primary literature:

I'm not sure how much it was a balance of research into good practice etc., and experience of what they thought would be good or an imbalance perhaps towards experience (MGM 3, year two).

Several interviewees also suggested that consideration of the available evidence played a very minor part in the selection of projects by key agencies. Some of the justifications given to the interviewer for the selection of activities corroborated this:

[T]he original projects ...were put forward because the agencies knew that they could deliver. It was something they were interested in, they had their own agenda, it fitted in with their existing priorities (MGM 8, year two).

It's [HaW programme] been another useful aspect of our maximising attendance policy that the council are currently working on. I mean we are trying to assist people to improve their lifestyle and hopefully by doing this it will have an impact on attendance (OP 4, year two).

This reinforces lessons from Weiss (1998) and Nutley (2003) that there are many other legitimate factors that will influence policy and practice in addition to scientific evidence. These factors might include community needs, partnership improvement, and political imperatives (as highlighted above).

Another barrier to implementing the evidence-base was that staff within key agencies had insufficient time available to consider evidence and plan effectively. One individual indicated that:

I'd heard of HaHP...but I wasn't that aware that we were able to submit a bid until the very last minute. By the time that got to me, I don't just remember exactly how long [she had to prepare a bid], but it was very quick without a great deal of thought (OP 10, year two).

There were examples (e.g. Healthercise) where more strategic staff had designed programmes without input from operational staff and thus had developed programmes that did not take account of current evidence or of actual practical issues that would be faced in implementation. Several interviewees indicated that once projects had been designed and accepted, HaHP as a whole, and individual workers, felt under pressure to get activities up and running as fast as possible. This detracted from time and opportunity to consider the literature available with regard to implementation:

[I]t needed to be done immediately...so there wasn't any time to really relax and to do a little more background reading, so that was missing (OP 2, year two).

One respondent indicated that the HaHP steering group should have played a greater role in ensuring that activity was evidence-based:

[I]t is one area [implementing evidence-based practice] where I think as a steering group [local HaHP steering group] certainly we have lacked academic input (MGM 9, year three).

Tensions between evidence-based practice and innovation

There were tensions in the partnership between ensuring evidence-based practice and allowing the generation of innovative activities:

I think there has been a developing culture of 'oh it's got to be evidence-based, everything's got to be evidence-based'. Counter to that is 'you've got to have innovation, you've got to allow it then we can evaluate'. So it's been trying to balance it. I think certainly the evaluators have helped (I'm being quite honest) in moving us towards really thinking why does that relate to that (MGM 12, year two).

There was also substantial evidence of tensions between addressing a top down and bottom up agenda. Needs assessments, or local perceptions of need, did not always coincide with recommendations from centralised or 'objective' evidence sources. An example of this was HaHP's refusal (despite community demand) to use acupuncture, or laser or hypnotherapy to aid smoking cessation.

As indicated above, the clinical areas of HaHP gave greater priority to the role of evidence. They attempted to do this in selecting both interventions and more specific tools. The quote

below indicates concern over a tool which was based on knowledge of best practice but which had not been evaluated:

It came from Glasgow -the 'My Heart Book' - but it hasn't been evaluated and we felt we couldn't go down that route with something that hadn't been evaluated. So what we have chosen to do is that ...I had brought some documentation with me from [place] which was for cancer patients, which had been evaluated and had been rolled out to other areas. We are going to use that template of a model of patient health records (OP 5, year two).

The above dilemma, however, illustrates the complexity of the problem of applying evidence-based practice. At what point is something evidence-based? When it has been based on and developed from best practice available, or only when the exact tool or intervention has been evaluated? It also illustrates the role of personal experience in influencing such decisions and raises the issue of adaptation of interventions to fit with local circumstances and what implications this might have for effectiveness (Glasgow, Vogt and Boles, 1999). For example, will a tool evaluated on cancer patients be effective for CHD patients? If it is used as a template, will it be further adapted, and will this impact on its subsequent effectiveness?

Additional complexities existed in relation to implementing evidence from previous projects. Both the HaHP implementation team and the commissioners (Mackenzie, Blamey and Hanlon, 2006) cited the North Karelia CHD prevention project (Puska et al., 1995) as influential in the development of HaHP. The literature review illustrated that there was substantial controversy in the academic literature about the actual success of this project. Whilst the influence of North Karelia on HaHP was widely acknowledged, a few of the interviewees were keen to argue that comparisons between the two projects required to be viewed in context. One in particular expressed the feeling that the North Karelia project was successful due to the strong backing received from local and national government in structural areas such as changing the production of dairy produce and encouraging fruit production. Such backing was thought to be absent within Scotland at the time of interview (2003). However, one respondent indicated that the substantial time since the start of the North Karelia project in the early seventies meant that not only the political context, but also the technological and pharmaceutical context, had changed dramatically:

Well in 1972 or 75 or whatever it was in North Karelia, what is the relevance to what we are doing (or North Karelia) in 2002? Can you actually compare that? [S]omething as basic as the presence of statins completely changes the way that we would run that project. To drive a project like that, which had a large nutritional component (the focus of it was on reducing cholesterol), we would have large cholesterol screening, if we followed what was going on there. Frankly that would be in my view, a disaster...it would trigger a disastrous cost implication. That simply

would be political suicide for one thing, and would it be in the best interests of the population? (MGM 7, year two).

Did HaHP reduce inequalities in health?

How can inequalities in health be addressed?

There are still many gaps in knowledge concerning how best to tackle health inequalities (Machenback and Barker, 2002). However, research evidence highlights that there are a variety of ways that inequalities in health are created and maintained. Both individual and area-based factors are associated with inequity. An individual's race, gender and stage of life course can discriminate against their health chances, and are in addition strongly associated with key determinants such as employment and income (Graham, 2001). Similarly, area based issues such as access to services and transport or availability of greenspace can impact on health and can multiply the effect of individual factors. The solutions to tackling health inequalities are, therefore, likely to lie in addressing such general mechanisms (e.g. income and access) and also targeting support, or delivering services differently, to those experiencing multiple forms of exclusion and discrimination (Graham, 2001). Much of this activity is likely to require an upstream focus (Macintyre, 2001; Shaw, Davey-Smith and Dorling, 2005) to relieve poverty or provide better access to employment, education and housing for those currently socially excluded (Dorling, Shaw and Brimblecombe, 2001; Graham, 2001). It is likely that improvement can still be achieved if services are marketed and tailored to the actual needs and lived experiences of specific groups. Such targeting may need to be done on both a geographical and an individual basis. For example, smoking cessation programmes that have been specifically targeted to those living in deprived circumstances or geographies can increase engagement amongst the normally 'hard to reach', heavily addicted, long-term smokers (Chesterman et al., 2005). Similarly activity levels have been shown to be associated with limited access to (inside and outside) leisure facilities and parkland of an appropriate quality (MacIntyre, Mciver and Sooman, 1993). The likely solution also lies in improving such structural issues.

HaHP, like the other NHDPs, was tasked by the SE to address inequalities. This became a key cross-cutting outcome for HaHP.

Did HaHP develop a clear strategy for addressing health inequalities?

Clearly defining what reducing inequalities involved in terms of a CHD community-based intervention was problematic for HaHP. As highlighted in the early critique, stakeholders

disagreed as to whether HaHP could contribute to addressing CHD related inequalities or inequalities in health generally within three years.

During years two and three there was a gradual acceptance that HaHP, with its topic-based (and predefined top-down) agenda, was not in a position to change many of the wider determinants of health such as housing, employment and educational attainment that were included in its early aspirations:

The lets tackle the whole agenda of inequalities' was probably too ambitious to be quite honest (MGM 7, year two).

I don't think inequalities has been an issue in the project I am involved in ... I think the overall HaHP inequality objective was ill framed (MGM 10, year three).

During year two numerous activities were expected to contribute to reducing inequalities in relation to CHD. These activities were, however, often expressed in very general terms and predominantly (although not exclusively) seemed to rely on targeting areas of deprivation rather than specific excluded groups or individuals. This is illustrated by the following quote:

We are decreasing inequalities in health by increasing accessibility to the health service and that's coming through primary care, locality networks developing new services. We're talking about targeting the manual workers with the health promoting health service, but also through the workplace stuff. Actually allowing the primary care groups to focus on those people with the lowest postcodes because that'll be part of the disease register. [Shown later not actually to have been agreed] ...The other thing is actually also improving availability to lifestyle opportunities. ...The last thing would be trying to increase social capital but that's a bit harder to kind of pin down. But that's more about the self-esteem part of the Paisley Heart Awards. Using the food van to help get the message out and transferring skills and expertise as best we can. So there's a picture there, you know, and you could count, I guess the amount of money that goes towards these things (MGM 8, year two).

The locality network team attempted to address inequalities by establishing community projects predominantly in geographical areas of disadvantage and focusing work in areas identified as Social Inclusion Partnerships (SIPs) (areas targeted by government for special funds and support due to their levels of deprivation):

[T]he vast majority of our projects [community chest projects] were in SIP areas and I'd still say it's probably around 60%, 60-70% I think. Which I think is a good figure to have (OP1, year two)

This approach, however, was problematic given that there is often substantial deprivation outside SIP areas and not everyone living in such an area is actually economically deprived (PHIS, 2001). The locality team had, however, made some attempts to cover some areas that were deprived but outside of SIP structures, and several small-scale projects had attempted to target specific excluded groups. However, this was acknowledged to have had only limited success.

Are we getting at the hard to engage? We've done some projects directly with, for example, kids with the Kibble residential school and then the new directions project at Reid Kerr College, which is for kids who are expelled. We've also done a lot of work with groups on learning disabilities and mental health...a lot of work with special schools, for example. Probably more could be done...But we know that we're not getting the folk who are stuck in their houses, and who don't engage in the local community, because we deal with groups not individuals (OP 1, year two).

The Health at Work (HaW) local authority programme, in a similar fashion, targeted employees from lower staff grades. However, these individually targeted projects were established to accommodate only relatively small numbers. They also often failed to provide the intensive support likely to be needed by individuals suffering from multiple discrimination or exclusion. Existing research evidence also indicates that long-term adherence and behaviour change would be relatively low within such hard to reach groups (Ebrahim, Davey-Smith and Bennet, 2000). These activities, therefore, were unlikely to make a major contribution to reducing inequalities within Paisley in the anticipated timescales.

By the end of year two there was an increasing consensus that HaHP should be predominantly concerned with reducing inequalities specifically in relation to CHD or related risk factors for particular areas, individuals and groups (rather than wider determinants). However, the means by which this should be done still seemed to be somewhat unclear. Confusion around potential approaches in year two included debate on whether greater overall population health impact might be seen through achieving high smoking cessation rates amongst the better off, or achieving lower cessation rates but amongst the more deprived social groups. The latter approach might have achieved lower cessation rates overall but reduce health inequalities. A further example of this lack of clarity was that primary care practices were left to decide their own methods for achieving HaHPs target of identifying and appropriately treating 90% of those with, or at substantial risk, of CHD (25% risk over 10 years). Those managing this programme had not prescribed how GPs should utilise the CHD register data, call in patients, or establish clinics. Interviewees were asked if inverse care might not be exacerbated if practices focused purely on clinical risk, rather than on clinical risk in combination with socio-economic status? In response, one interviewee suggested that selecting on socio-economic background in addition to clinical risk had not

been considered. Another felt that clinical risk had to be the overriding issue and that this would automatically lead to prioritising those in deprived circumstances:

The way it's done is something that I am not prepared to be prescriptive about. ...If it is done by alphabetical or date of birth means then I suppose that you know there's a kind of general legality to that then I suppose that, if we wanted to go a step further and positively discriminate and picked out the postcode areas then that would be something we would consider doing. I just don't think we have thought about it (MGM 7, year two).

It hasn't been discussed or agreed but it is an axiomatic principle of secondary prevention that one targets those with the greatest absolute clinical risk although that tends to be found in deprived communities (MGM 12, year three).

During both the year two and three interviews, interviewees seemed unclear as to whether these targeting issues had been resolved. This situation may reflect confusion at a national level in terms of the demands of the SE that health improvement activity be targeted at both improving general population health and addressing inequalities (Scottish Executive, 2003a). It is only now, during 2006, that socio economic status is being added into CHD risk calculation equations for national use (anticipated SIGN guidelines in 2007). Similarly, it is only now that greater resources are being provided within primary care for general practices with high proportions of deprived patients via the new General Medical Services Contract (GMS) and the Prevention 2010/Keep Well Project (Healthscotland.com, 2006).

There were some instances where structural barriers to access such as transport were targeted. However, this tended to be on a one-off basis for particular events or exercise activities. Many of the operational and strategic staff in year two highlighted that transport was a key barrier for access to ongoing services that HaHP had not successfully addressed.

To what extent were HaHP's attempts at addressing inequalities successful ?

A concern about whether the whole of HaHP services were actually reaching those most in need was raised by several people:

I suppose I am less confident of the fact that, you know, there are still people out there who have not accessed the courses, and the van [health on wheels van] and it's how we get to them... I don't think we have turned the inequalities agenda on its head (OP 6, year two).

Year two data from the 'Call it Quits' [smoking cessation] programme suggested that those from deprived areas were accessing smoking cessation (HaHP, 2002). However, because the full denominator (all patients accessing the service) was not used for the analysis the true reach and impact remained to be demonstrated. One positive finding regarding targeting from the primary care case study survey was that twice as many referrals were made to smoking cessation in deprived practices relative to less deprived practices in Paisley (Lawson, Paterson and Blamey, 2003). The number of smokers in these practices, however, would also be almost double. However, at the least this might indicate that inverse care (in relation to referrals – not necessarily attendance or treatment outcomes) was not exacerbated by the project.

By the end of year three there were at least one hundred and forty nine community-based projects up and running under (at least in part) the auspices of HaHP. If these projects were being well attended by those living in the key areas of deprivation, where most of the projects were based, then it might be fair to assume that those previously excluded were increasing their access to nutrition and physical activity based programmes. However, the attendance figures (as detailed in Chapter eight) submitted were neither of an appropriate quality nor coverage to demonstrate that this was actually the case.

Few programmes (with the exception of the secondary care/rehabilitation work) had established data collection systems or measures that would fully illustrate whether the activities that they were engaged in would exacerbate the inverse care law (treating those who needed it least) nor their scope to do harm as well as good. This meant that it was difficult to accurately demonstrate (using postcodes or other analyses of attendance records) that those accessing services within the deprived areas were truly those living in deprived areas and /or circumstances. Although this lack of progress could not be confirmed in the absence of appropriate data, by the end of year three interviewees themselves seemed unconvinced that they had fully engaged their intended target groups:

I think to be entirely honest the people that have come through are those who have an interest and have more knowledge about the subjects we are talking about, they are interested in their health ...they have an interest in their health and physical activity (OP 9, year three).

What were the barriers faced in addressing inequalities?

The extent of deprivation across Paisley was a key influence for HaHP taking a population wide and geographical (rather than individual or group) focus with regard to addressing inequalities. Eight of the eleven Paisley postcode sectors are in deprivation categories five and six (e.g. suffer from high levels of deprivation) [see context section in the introduction and Paterson and Ayana, 2002]. During early stages of HaHP no specific targets were set with regard to reducing inequalities in mortality within areas of Paisley or with regards to individual factors such as gender, age, or ethnicity.

Targets in relation to individual factors are difficult to set, as data for individual level deprivation are difficult to access and aggregate. In addition, Paisley also has few minority ethnic residents and so this may also have limited the feasibility of targeting these particular minority groups. Even in the more clinical areas such targets were difficult to set and measure, due to limited existing baseline information. This was a problem even in well-established services with data management support, as well as in newer community outreach services:

[Name] took a download from our system, 400 000 patients that are in our area. I think it's the whole Health Board that we've got access to, and found within that pass there were 120,000 who had no postcodes, so [Name] couldn't do deprivation on them...So we managed to get a hundred names from a 120,000 missing postcodes (MGM 10, year two).

It is likely that the lack of appropriate general baseline figures reinforced the lack of clarity and specificity about the targets, indicators, and thresholds for the HaHP inequalities objectives across the programme.

The SE (after the initial Theories of Change report – Blamey, 2001) requested that all the NHDPs produced more specific targets on addressing inequalities. In response, HaHP produced more specific targets for structural and policy changes and improving access to services for deprived groups (see Appendix twelve). These targets, however, seemed to have come too late to actually influence the individual agency projects and to highlight clear direction for this theme (see sections on agenda, policy and service change in the subsequent chapter). As a result of this many existing or newly established services were never redesigned, adapted or skewed towards prioritising or supporting specific excluded groups.

The secondary care programmes, through the Central Disease Repository (CDR) development and monitoring tools, had access to more detailed data on those accessing their services and those likely to require such services. Those involved in these projects believed that the CDR would, in future; begin to address inequalities in access:

We know that the lowest uptakes of health care interventions to reduce cardiac risk in secondary prevention are to be found amongst the most deprived in our population and that by making these, one more accessible, and two by having a form of automated follow-up, we will be doing our best to increase penetration of interventions amongst those groups where the uptake is least (MGM 2, year two).

As an example there were gender and age inequalities uncovered with regards to uptake and completion of cardiac rehabilitation and these could be tackled within the next phase of HaHP.

A paper from the external evaluation team explored the benefits and drawbacks of different measures of inequalities in relation to CHD mortality using data drawn from within Paisley prior to the establishment of HaHP (Paterson and Judge, 2003). This was provided to aid discussion over what measures of health inequalities could or should be used for future phases of HAHP.

Did HaHP improve partnership working and joint delivery?

A key assumption in HaHP's Theories of Change was that the intervention would be delivered in partnership between the key agencies within Paisley and that this would result in joint and simultaneous delivery of activities. The rationale underpinning this element of HaHP was that the projects would achieve more in tandem than the sum of their individual efforts. This section presents the progress made against these intentions. The Theories of Change critique (Chapter six) highlighted that staff delivering projects in non-NHS agencies, were likely to require increased support from health specialist staff. It also raised concerns regarding HaHP's capacity to deliver programmes in synergy, given many activities were delayed in operational terms during year one. This section explores HaHP's response to these problems and other related partnership issues during years two and three.

Contextual issues

As highlighted in the introduction to this thesis, the political and partnership context within which HaHP was trying to deliver an integrated multi-agency project was complex. HaHP was operating in a context where concern over the management of NHS Argyll and Clyde resulted in SE intervention, the resignation of the Health Board Chief Executive Officer (CEO), and the identification of major budgetary deficits (Mcdemid, 2002). This happened during year two of HaHP but led, in the longer term, to NHS Argyll and Clyde being dissolved and split between two neighbouring Boards (SE announcement made in 2005, dissolution in 2006).

Did partnership working improve within HaHP?

Despite the difficult local circumstances, the majority of the interviewees in the second and third round of Theories of Change interviews suggested that improved partnerships were one of HaHP's successes. This was illustrated through factors such as increased joint operational delivery and improved skills at conflict resolution:

I work corporately and that's where you really notice the changes. I think there has been improved partnership working both at the strategic and kind of operational level. I think a lot of the strategic stuff in a sense is still to come to fruition but the foundations are there for that and some of the operational stuff is on the way already (MGM 3, year two).

Certainly the ability to resolve the conflicts is easier (MGM 4, year two).

It's definitely created networks both formal and informal that have led to greater collaboration across sectors and agencies (OP 11, year three).

There were, however, several stakeholders who, even in year three, still expressed concern about partnership relationships. One interviewee, for example, made the following rather extreme comment regarding his/her perception of the commitment of the local authority:

I think with the local authority, we might as well put a bomb under them and just blow them up (MGM 10, year three).

Even amongst those who thought partnerships had improved there were still concerns about projects not being truly jointly delivered. Several interviewees suggested that some projects were still seen as the preserve of one agency. Others suggested that things were not as well

integrated as they could have been which reduced the potential synergy of the intended outcomes.

Synergy specifically overall I think it's been missing. I am still looking for that, that draws everything together (MGM 4 year two).

There has been some disappointments there (local authority) they have funded things that are not evidenced-based and they are not building on what HaHP are doing, people at operational levels have gone 'sorry' (OP13, year three).

Which partnerships were perceived to work well together?

Figures twelve, thirteen and fourteen illustrate where partnership working across HaHP and other agencies was described by various sources in the year two interviews as having made: substantial progress; some progress; or having been slow to progress. The figures only detail those partnership relationships that were explicitly mentioned in the interviews and so many partnership links were not highlighted and could not, therefore, be classified in any fashion. Similarly, a partner's perceptions of another partner may not have been evident or reciprocated by that partner. Some partners had been identified as proving more difficult to work with by a number of other partners, others by only one. Such difficulties might have arisen because of the sheer numbers of partnerships being sustained. For example, marketing had only one key worker but every strand of HaHP had marketing issues to consider. This individual might have had an unrealistic number of partnerships to sustain. Alternatively difficulties might have been due to issues such as the bureaucracy involved in particularly large and/or hierarchical organisations such as the education directorate of the local authority. It should also be noted that these difficulties could only have arisen in areas where there was some joint and synergistic work actually being developed. Projects that were still operating independently were unlikely to experience partnership difficulties. Figures twelve, thirteen and fourteen should, therefore, be seen as a 'rough guide' to show some key areas of perceived progress in partnership working and some areas where some difficulties had been experienced by mid way through HaHP. Those partnerships linked by arrows were the ones that have been described as making substantial progress (Figure twelve), making some progress (Figure thirteen), or making slow progress (Figure fourteen).

Figure twelve: Partnerships – making substantial progress

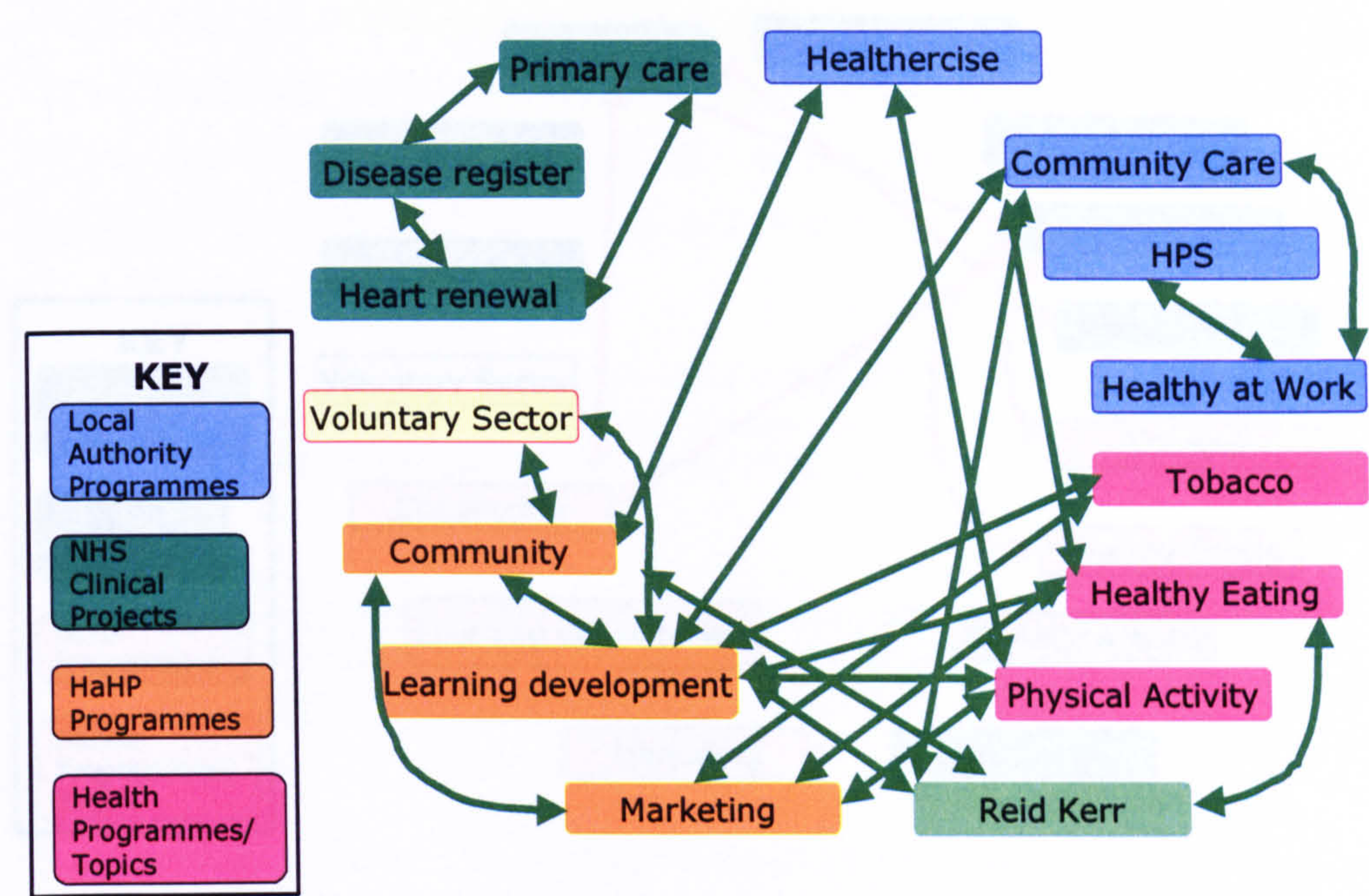


Figure thirteen: Partnerships – making some progress

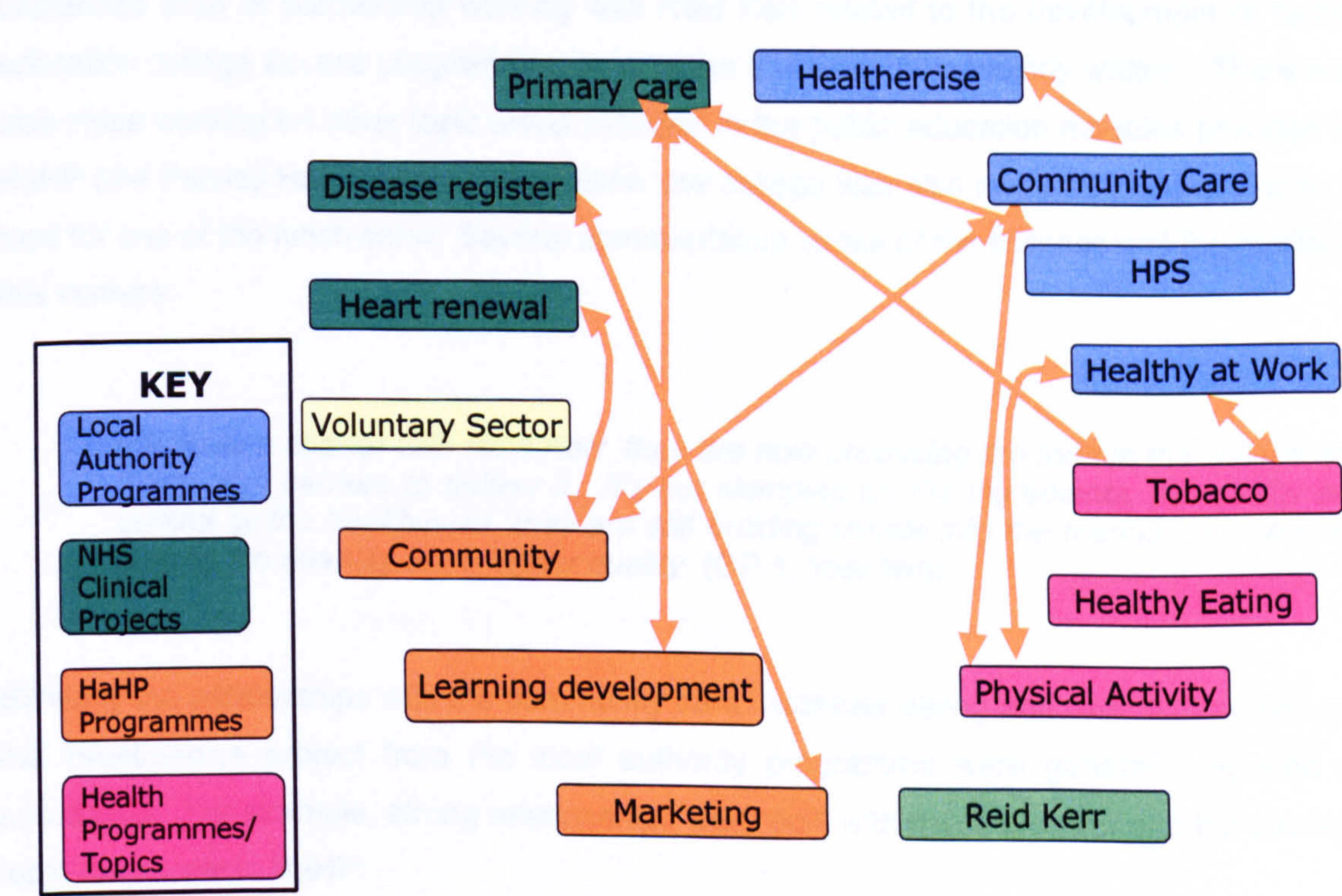
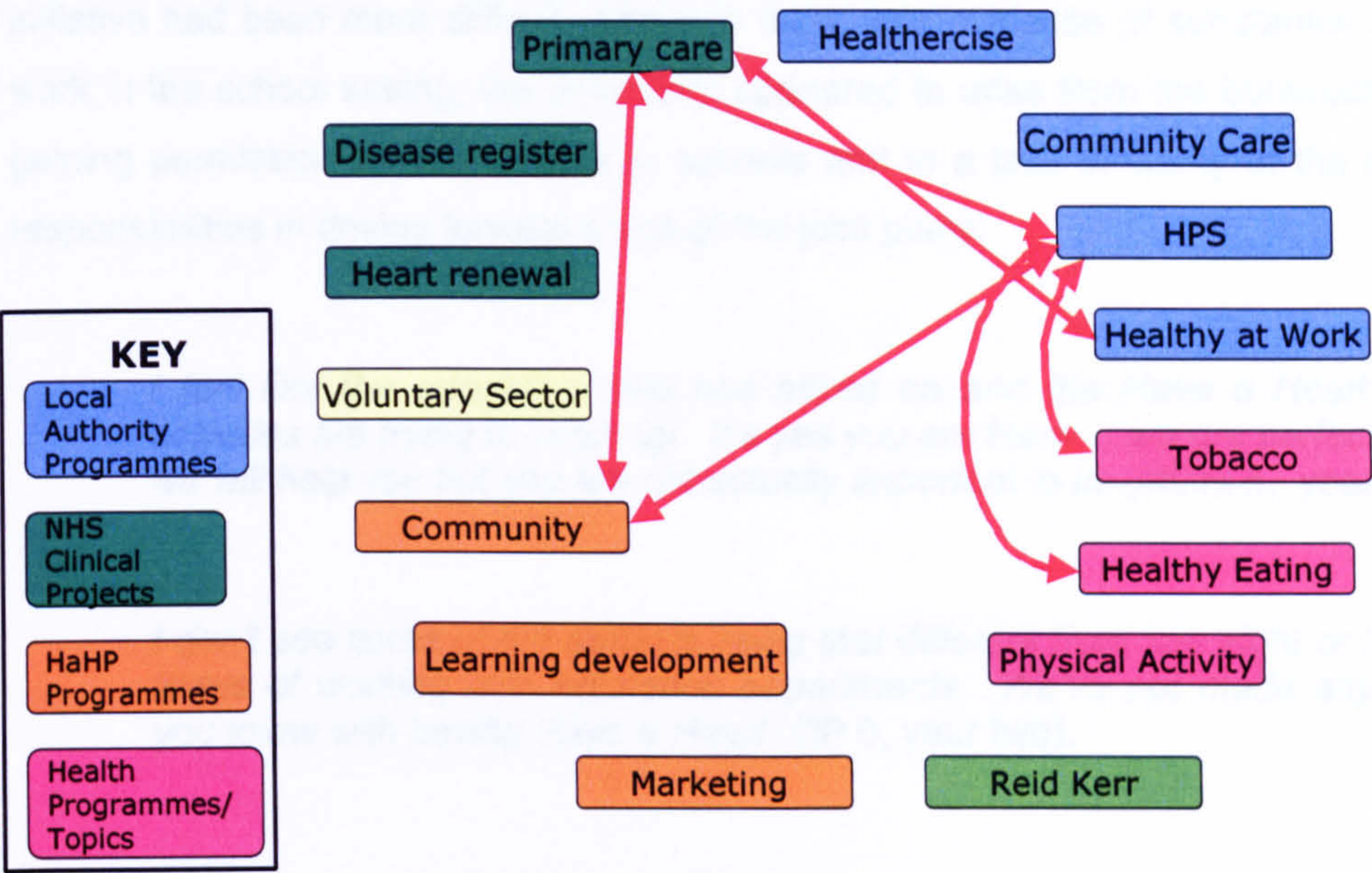


Figure fourteen: Partnerships – making limited progress



Examples of the information that informed the above models are given below.

One example of a particularly fruitful partnership was between Reid Kerr College and the nutrition, learning development, community care and community aspects of HaHP. One unplanned area of partnership working with Reid Kerr related to the development of further education college access programmes on nutrition that were being jointly written. There was also close working on other topic areas included in the public education modules provided by HaHP (the Paisley Heart Award). In addition, the college was also involved in the provision of food for one of the lunch clubs. Several commentators spoke of the success and the quality of this venture:

We have a charter with Reid Kerr, they are now producing the food in the college and using cam carriers to deliver it...It's not skimping on the ingredients, the quality and control or the healthiness, they are still building choice into the menus. You are still getting the quantity but a higher quality (OP 1, year two).

Similarly the partnerships with the community care (healthier eating and exercise) project and the Healthercise project from the local authority programme were generally reported as successful. For example, strong relationships were built with these projects and the strategic topic teams within HaHP:

There are some examples of some really good work [between healthercise and health topics]. I think what we didn't anticipate was the success of all the walking initiatives (OP13, year three).

In contrast, several of the projects reported that dealing with the health promoting school initiative had been more difficult. Although there was evidence of substantial successful joint work in the school setting, the difficulties appeared to arise from the bureaucracy involved in gaining permission to deliver work in schools and to a lack of clarity of the exact roles and responsibilities in driving forward some of the joint plans:

I feel like the education ship has sailed on and the Have a Heart Paisley health activities are trying to catch up. It's yes you are there ...we are perfectly pleasant and we will help you but you are not actually important to us (MGM 6, year two).

I don't see some of the barriers being that different from say eight or ten years ago in terms of working with education departments...We've not made any great in roads you know with having Have a Heart (OP 6, year two).

Despite the data from the Theories of Change interviews indicating that there had been some improvement in the relationships between primary care and the community by year two, the data from the primary care case study survey conducted later the same year (Lawson, Paterson and Blamey, 2003) suggested that partnership working in primary care was still predominantly with secondary care (and particularly in relation to cardiac rehabilitation). This latter partnership showed evidence of both groups having an enhanced understanding of each other's role. Staff from primary and secondary care worked closely together on the development of the care pathway and rehabilitation programme. In the primary care survey, respondents were asked to assign a score to the 'extent of their partnership development' with different agencies (the higher the score the stronger the joint working). Primary care nurses scores were highest in relation to secondary care. The lowest scores were associated with partnerships with local authority projects (see Appendix thirteen for the relevant data). There was only limited evidence of new partnerships being developed outside the NHS. Examples included community nurses linking to the community through the care pathway or supporting HaHP community events (see quotation on next page). In addition, pharmacists were involved in delivering the smoking cessation programme to the public and were keen to further their non-NHS links. The case study survey and interview data, however, showed that GPs had limited enthusiasm for becoming involved in wider (non-NHS) partnerships. The only common contact was through referrals made to the smoking cessation or physical activity programmes (Healthercise or the pre-existing exercise referral class Living Plus). No referrals had been made to the community run activities. This is emphasised by the following quotation from a GP in the case study interviews in year three:

A lot of the money has gone into community projects, but because general practice is not particularly tied to the community, unless you have an interest in sort of going out to the community, so we haven't got involved that much (PC, 1, No 2, [GP], year three).

This may have been due to either a lack of knowledge or concern over quality of provision (see Chapter eight).

The community activity directory, developed early in the life of HaHP received a mixed response from primary care staff with half of GPs and two third of nurses identifying it as very useful or useful. A level of dissatisfaction was identified in the interviews also. An illustration of this is detailed below:

I was looking to Have a Heart to actively manage, all the various voluntary and semi-voluntary groups involved in exercise and so on. It seems to be that what they have done is publish the occasional list of all the activities going on but they haven't taken command of them in order to rationalise them or promote them (PC, 1, No 3, [GP], year three).

Latterly, community nurses had some increased involvement with the Education Directorate of the local authority in relation to physical activity provision in pre fives and provided some limited support to one or two community projects. However, the weakest partnerships reported across all primary care staff in the case study survey were with the local authority and the voluntary sector.

What were the barriers to partnership working?

Part of the frustration around partnerships in relation to the Education Department, and the local authority in general, appeared to have developed from the historical issue that some of the other agencies' staff were disappointed in the range of activities selected by the local authority for action. Many of the partners felt that these areas were more peripheral to the local authority's agenda than other problems that could have been tackled. Key examples of more central issues that could have been tackled were the school meals, and the council's tobacco policy. It was thought that these areas would have made a more substantial impact on health. It should be noted that despite school meals not being selected as a topic to be addressed by the local authority, by mid way through HaHP this issue began to appear on the joint agenda between the agencies. This seemed partly due to improved partnership working, the synergy between different projects in HaHP, and perhaps more so, because the national agenda in this area had been pushed forward through the national diet action plan:

[I]n terms of the local authority pushing them along that public health agenda, it [Hungry for Success –part of national diet action plan] will have made it easier for them to get things on the agenda such as healthy eating in schools. There is no doubt that we have moved on that. They just didn't want to talk about it at all at the beginning, where as now it's acceptable (MGM 4, year two).

Many within HaHP reported being disappointed that for political, commercial and contractual reasons the local authority had not taken the opportunity to be ahead of the rest of Scotland by tackling these issues as their initial contribution to HaHP:

The other big problem that I've got with HaHP is the lack of public health measures to support it, which could have made a massive difference such as smoke free zones and free school meals that type of thing (MGM 9, year three).

The school programme may also have been slow in progressing joint work as a result of the time taken to recruit the school co-ordinator post.

Additional factors that were raised, as potential barriers to partnership working, were the problems of personality clashes, time limitations, leadership styles, and different grades and authority structures across organisations. The leadership role had proved challenging as a result of grade and status structures in partnership organisations. For example, the HaHP coordinators (both the initial and replacement coordinator) were trying to manage staff who were at higher grades, were senior within their own organisation, or who had higher status through their professional position. By the end of year one the CEOs of the key agencies (NHS and local authority) no longer met specifically to discuss HaHP and there was a belief that this might have led to a slowing of momentum in terms of structural, policy, environmental and agenda changes. Again, this may have been due to wider difficulties taking precedence (e.g. the SE intervention and the financial deficit).

Which topics were promoted most by the partnerships?

The topic area, which was promoted most over the course of HaHP was physical activity. This was partly related to the number of local authority projects that focused on this area (schools, Healthercise, community care and, to a degree, HaW). Physical activity was also a key component of cardiac rehabilitation. In addition, physical activity was seen as acceptable within the community (Ayana and Blamey, 2004) as it is a positive health behaviour which people are encouraged to take up, unlike smoking which requires the cessation of an existing activity. Nutrition was seen as particularly positive in terms of partnership working because, for the first time ever, there were nutrition specialists in each of the key agencies. However,

the primary care survey data showed that referrals for smoking cessation support were, the most common link to HaHP from primary care (Lawson, Paterson and Blamey, 2003).

Did Have a Heart Paisley fully engage the community at all levels?

Community engagement was highlighted during the theory articulation phase of the evaluation as a cross-cutting outcome key to achieving community 'buy in'. Such 'buy in' was thought necessary to ensure that the programmes and services developed would be appropriate and would be promoted, supported and sustained by the residents of Paisley themselves. It was hoped that this would lead to changes in the social norms and culture within the town. The issues relating to community engagement were important in terms of the plausibility and do-ability of the articulated theory. The early critique of the theory raised concerns about the limited number of strategic community representatives involved during year one and also highlighted issues about the potential quality of some of the community volunteer delivered projects. This section considers the findings with regard to these issues and to the general progress made on engaging the community across years two and three.

Types of community engagement that were developed

There were two main ways that Paisley residents could become engaged in HaHP beyond simply participating in an HaHP activity, being in receipt of a service or exposed to media about the project. One was to seek funding to run a health-enhancing project as a community volunteer. The second was to become involved with the strategic decision making processes within HaHP by being a community representative within the HaHP management group (or one of the strategy groups).

Historical and contextual issues of relevance to the community engagement process

The initial interviews carried out as part of the community case study (n=16) in year one attempted to establish some of the historical and contextual issues that might impact on the success of the community engagement aspirations of HaHP. These interviews established that the HaHP locality team was confronted with a number of barriers in relation to community involvement. These are summarised below.

For operational reasons HaHP divided the town of Paisley into four geographical locality areas. Some of these areas had little or no developed community structures and networks

prior to HaHP, whereas other areas were more advanced in terms of the opportunities and support available from agencies, or having a history of community development:

Each locality was very different, some were ready to go with HaHP because they had structures. Other localities, specifically the North East is what I call a virgin locality because there was no sort of previous community involvement... It was quite difficult to get that started (C, FG, LC3, year 2).

Some of the barriers uncovered in these areas included: negative past experiences of community interventions resulting from a range of previous initiatives that had not addressed their needs²⁶; a lack of facilities and venues in which to host activities; and a lack of crèche provision for those parents wanting to attend activities. One community representative stated that:

I was very wary of any other agency walking through the door because I felt then I was never going to be put in that position again where everybody was let down and I felt it was me, it was my fault. So I was very wary (C, I, No6, year one).

Territorialism and community politics were also reported as preventing people from participating in community activities and using facilities or venues in neighbouring areas. The community-based workers in HaHP attempted to work in a manner that encompassed the principles of health promotion and community development but had experienced difficulties achieving this within a topic based, predominantly top down, agenda (see previous section on evidence-based practice):

You cannot force smoking and healthy eating down people's throats, and if it's a way forward with physical activity then we'll go and maybe try and get healthy eating and smoking issues on through that agenda. We are supposed to be getting people to change their lifestyles through things they want to do (C, FG, LC 3, year two).

This top down agenda did not appear to have prevented volunteer engagement at a community project level, but may be part of the explanation for difficulties experienced in trying to achieve full-scale strategic community involvement or in gaining mass participation. The locality staff also experienced barriers to accessing those people un-represented in existing community structures and activities as indicated by the following quotation:

[T]here are members in some of the community groups, people like gatekeepers and they are blocking the real interaction between us and the real community. They

²⁶ Paisley (and particular sites within it) had previously been the site of numerous other government regeneration programmes over the last twenty years (e.g. Social Inclusion Partnerships, Priority Partnership Areas, Areas of Priority Treatment etc)

become the community and decide which community. That appears to be happening (OP 2, year two).

A key potential barrier identified was that tackling CHD was not a main concern for many people in the community. Wider determinants such as housing and area regeneration, the environment in which people lived, drug problems, safety issues, unemployment and poverty were, perhaps not surprisingly, priority issues for local people. There were major regeneration and re-housing projects ongoing as HaHP was being delivered. Such projects were in some of the key target areas for addressing CHD (e.g. Ferguslie Park). The following quotation illustrates this point:

I think a lot of people have lived lives that have knocked the stuffing out of them and what the project offers doesn't really meet the fundamental needs of people. It's nice to get a massage and it's nice to get a plate of healthy food but I don't think it is really addressing the issue which is the crappy housing that people live in, the poverty and the stigma that's attached to people living in [place]. Certainly with what is happening in the area at the moment with people's houses probably going to be coming down, and the huge uncertainty about where they are going... It's hard for people to connect with Have a Heart when they don't know where the bloody hell they're going to be living (C, I, No12, year one).

How successful was HaHP at establishing projects that were identified and run by the community?

The data from the focus groups with the locality staff, and later internal project reports, confirmed that HaHP had funded one hundred and forty three community projects in total from their 'community chest' by year three. The majority of these projects, however, existed in some form prior to HaHP. The locality team estimated that approximately thirty percent were newly established projects:

Most of them are pre-existing and we've just kind of added some kind of value (C, FG, LC5, year two).

The focus group data from volunteer community members responsible for running these projects confirmed the view of the locality team that there had been good engagement of community members at this 'operational level' and that substantial activity had taken place to build the capacity of volunteers seeking funding and running projects:

Sometimes groups aren't as good as others and they need particular help in seeing how you can evaluate things or more guidance on setting objectives (C, FG, LC5, year two).

They work along side you. They don't just come in and say, 'we are from Have a Heart and we are going to do this and we are going to do that and if you don't like it, it is too bad'. They will sit down and say, 'look do you see this as a problem in the area? If it is a problem in the area then we will address it (C, I, No 6, year one).

This had resulted in projects being reasonably well spread across the geographical localities including in the North East locality where previously (according to the data from the interviews conducted in year one of the community case study-see above) few health related opportunities had existed prior to the establishment of HaHP.

The locality team suggested that the level of support given to the volunteers was greater than that usually provided by other funding agencies. This support was believed to be especially good for groups less experienced in applying for funding. Again the volunteers confirmed this:

They didn't just say here's the money there you go, they were instrumental in providing PR and ...getting more people to help out (C, FG, No 7, year three).

The majority of community projects submitted to the community chest were successful in gaining funding. It was suggested that the level of bids gaining success was, therefore, greater than that found in other similar funding sources. This was perceived to be a result of the support provided by the locality network coordinators who spent substantial time and resources ensuring that submissions were tailored to the funding guidelines and expectation of the community bids decision makers group. Again, this was confirmed from both the case study focus groups (with volunteers and team members) and the Theories of Change interviews:

This [getting funds] was a more open and less cumbersome process (C, FG, No1, year three).

It's about 85% that have been funded and from my experience and from other people's experience that's roughly double what most community funds would fund... I would judge this to be an indicator of success in the way we work 'cause our committee can be quite tricky with us (OP1, year two).

We know the jargon that's looked for, the buzzwords the two officers look for. That sounds quite corrupt but you get to know the kinds of things they go for and look for (C, FG, LC 3, year two).

The numbers of projects established, and the limited numbers refused funding, were viewed as a success. However, the quality and sustainability of these projects also needed to be assured for HaHP to achieve a longer-term impact (see Chapter eight).

What types of activities/projects were volunteers engaged with?

Table fourteen provides a breakdown of the number of projects that were established across the localities and the main focus of their activity.

Table fourteen: Breakdown of location and focus of Have a Heart Paisley community funded projects (n=143)

LOCALITY AREA (TOTAL)	PHYSICAL ACTIVITY	HEALTHY EATING	SMOKING	MIXED FOCUS
NW (34)	25	6	0	3
NE (42)	29	8	1	4
SE (26)	18	2	0	6
SW (26)	16	6	0	4
Area wide projects (15)	12	1	0	2

The data in Table fourteen were established from the focus groups with locality team staff and confirmed via focus groups with community members responsible for running these projects

The vast majority of community projects established were physical activity based. This was perhaps no surprise, given the lack of physical activity and leisure facilities, other than the one centre-based programme at the Lagoon Leisure Centre in Paisley (evidenced from the contextual analysis). In contrast, smoking appeared not to be an issue that community activists or groups wanted to tackle. It was not part of the mixed topic projects and only one single topic community project addressed smoking. There was also a lack of projects that were successful in appealing to adult men:

The other side that has been a disappointment has been engaging adult males. It's probably no surprise, I found that really frustrating and really difficult to do. We've been taken around. We've been to visit a number of other projects but most of the men's health projects are not community-based (OP, year two).

The Health on Wheels (food) project was the most ambitious of the community projects and received the largest grant, £86,535. The project required substantial amounts of support from the locality team (e.g. to ensure that environmental health and safety standards were being met). Despite this support the project was closed down during year three of HaHP. It was closed down for a variety of reasons. The project had not consistently provided only 'healthy' foods to its community customers but had sold burgers and other less healthy options. There was a degree of unrest among some community members concerning the geographical areas that the van serviced and the extent to which it was a widely owned community project. An additional problem encountered was that the van itself was 'held-up' and a member of the workforce injured. This data came from the Theories of Change interviews (year three, and observations at the management group), it was not confirmed via the volunteers, as representatives from the food van project did not attend the volunteer focus groups. These experiences highlight the levels of support required to establish and maintain a project of this size and complexity run by the community alone. On reflection, and given problems with volunteer recruitment, retention and training, one member of the locality HaHP staff suggested that it may have been more appropriate for such a large project to have been run by a statutory or private service, albeit with a management committee comprising of community members:

I had the unenviable task of closing that down. They were losing two grand a month, so financially it wasn't viable...and they weren't keeping proper records...There's a lot of nepotism ...The sheer amount of support that was given to that group. I think the lesson to be learnt is that we shouldn't have given them the amount of support that we did. We should have pulled the plug sooner...There would be back up from having an agency behind it. You really need somebody driving it rather than community reps who all have their own agenda (OP 4, year three).

The large number of community projects funded was perceived as a success. However, there was a lack of systematic collection of monitoring information and demographic details by the internal (implementation or evaluation) team (see Blamey, 2003 and Chapter eight). It was, therefore, not possible to understand much about the reach or quality of the interventions, how intensive they were or the number of people attending. The lack of such data also meant that it was impossible to know how many of those attending were people new to the activity, or how many had adhered to programmes to an extent that they would benefit their health. As a result, most of the case study information gathered related to process issues and outputs rather than outcomes.

For a large number of projects, financial sustainability appeared to be a key issue in the final HaHP funded year. This was anticipated by one volunteer at the start of HaHP:

[B]ut realistically a lot of these things won't be sustainable. You're talking about an aerobics group where, they've got funding from HaHP; it pays their Let, it pays their

tutor and it pays their music, know what I mean? So what is sustainable about that (C, I, No2, year one)?

Despite the locality team having worked closely with HaHP partnership agencies, they reported having little influence over whether these agencies would take on the running or funding of the newly established or expanded community activity:

I keep going back to the council; they've got a role to play. They are charging exorbitant rates for hall lets. They have got a part to play in giving reduced lets or instructors (C, FG, LC3, year two).

Strategies for deciding which projects had future potential, and making these community projects sustainable, were still being developed during the HaHP transition phase (year four). Such strategies were undermined by the lack of good quality monitoring data. However, those working in the community programme believed that some of the projects would be sustainable:

There's obviously some projects that are still ticking along, they're sustainable, they have enough money to pay their hall hires and instructors. There are other projects where they just were never going to be sustainable, they were just flogging a dead horse and they have naturally come to an end (OP4, year three).

What levels of engagement were achieved at the strategic level?

In contrast to community participation at the operational level, sustained engagement of community representatives at a more strategic level was relatively unsuccessful:

It's [strategic involvement] not been as good as it could have been. it's been difficult to recruit people (C, FG, LC6, year two).

HaHP interpreted community involvement at a strategic level as having representatives from the community attend and fully participate in strategic groups. The project acknowledged that involving community members at a strategic level was difficult and attempted to overcome this by drawing on the expertise of existing community organisations. Nevertheless, many strategy groups were well established before attempting to get community representation. The locality team provided support for some community representatives involved at this level but overall it had limited strategic involvement and undertook no formal recruitment drive nor ongoing training and support for all such strategic team members.

I don't think we have undertaken a sustained dedicated recruitment drive...its just kind of an ad hoc kind of thing (C, FG, LC 6, year two).

There has been no formal training but there have been briefings [one hour at start] (C, FG, LC3, year two).

According to interviews with the few people who were involved at the strategic level (n=5), their role as community representatives, or even the role of their group in the wider HaHP structure, was never explained. In some cases community representatives were raising community issues in these groups only to be told these issues were inappropriate in the context of that meeting:

I've not been able to feed anything back to the communities here because of the way it's been just kind of almost shunned in the meetings (C, I Rep 2, year three).

I am still not sure where [the subject of the group] fits with the structure of Have a Heart (C, I, Rep 3, year three).

We are really just being informed, we don't really have any input, we don't have a choice in the matter (C, I, Rep 1, year three).

These quotations suggest that even if representatives were briefed, the meetings were managed in such a way that they did not feel they could meaningfully contribute. This made them feel like 'token' group members. The findings suggested that community representatives worked best in the strategy groups that dealt with community issues and where the representatives knew and were engaged in the topics being discussed. For example, the community bids committee and the subsequently developed community capacity sub-group.

An attempt was made to overcome the potential shortcomings in the community programme by establishing regular briefing systems for the representatives on HaHP strategy groups. These briefings were, however, discontinued due to time commitments of the locality network staff. In response, a contract was set up with the local Renfrewshire Community Health Initiative to establish a mechanism whereby various community groups could be approached as a "sounding board" for future activities and policy developments within the statutory agencies. However, this service was never actually developed (Management group minutes third quarter of year three).

What other ways could residents influence the delivery or engage with HaHP?

Another area of HaHP where community participation was strong was in the learning and development programme (Paisley Heart Award-PHA)²⁷. A variety of participatory appraisal approaches were used to inform work in relation to the PHA and linked to nutrition and physical activity programme work. There were many other examples where the community had been consulted in relation to programmes. For example, information from patient focus groups had been used to inform the design of the cardiac rehabilitation programme and aspects of the patient pathway. Feedback on the new rehabilitation programme was gathered as part of the secondary care evaluation and was used for future programme development. Similarly, the access strategy conducted in Glenburn (partly funded by HaHP) consulted local residents on plans for walking route developments and there were plans to involve parents in the health promoting schools programme. However, there was limited evidence to demonstrate a consistent approach to such involvement or whether such involvement had gone beyond consultation to more intensive involvement in the redesign of large-scale, mainstream, statutory services or programmes:

We have had some patient representation in the IT database side of things which was actually quite useful, but given that this is not community-based interventions it's difficult to say quite the extent of community involvement one should have in it (OP, 3, year two).

Council wise, the difference is the contact with the council and the council people are willing to listen to you ...I am no' too sure about the health board (MGM 11, year two).

[T]here was a patient representative in the implementation group and the working group, but to be honest it has been top down (MGM 9, year two).

Table fifteen illustrates the main processes undertaken and outputs achieved under the banner of community engagement. The analysis of the data from both the Theories of Change interviews and the case study, showed consistent findings in relation to the above issues. There were no areas where the two sets of data were in conflict with each other. At most, any lack of congruence was due to a slightly more positive or negative interpretation of an issue.

²⁷ This was a modular programme that provided gold, silver and bronze awards for those completing learning programmes on CHD related topics and activities

Table fifteen: Summary of process findings for the community programme

KEY PROCESS FINDINGS FOR THE COMMUNITY PROGRAMME
The context in which the HaHP project was established was important
Barriers to community involvement included, negative past experiences, a lack of facilities and venues to host activities, a lack of crèche provision, territorialism and community politics.
Wider health determinants (such as housing and employment) were the key concerns for local people – not CHD.
The locality team provided good support for community project bid development.
HaHP was perceived primarily as a source of financial support to run local activities by community members/activists.
Physical Activity was a popular topic for community projects.
Community groups did not prioritised tackling smoking.
There was good engagement of the community at an operational level resulting in 143 expanded, or new, community run CHD related projects
Despite the number of community projects funded by HaHP the actual impact of such projects could not be measured due to the lack of good monitoring systems being established with HaHP and across the community programme
The sustainability of the 143 projects was in question due to a lack of monitoring data and a difficulty in influencing the mainstream budgets of local agencies (some of wich were in financial crisis –NHS Argyll and Clyde).
Engagement of the community at a strategic level has not been successful.
There was no evidence of a strong community advocacy role in relation to influencing agencies, polices or services

Conclusions

This chapter has presented the data, findings and discussion about whether and how HaHP deviated from its overall Theory of Change. It has also presented data that illustrate the degree to which HaHP achieved its intentions of delivering on the cross-cutting outcomes of delivering evidence-based practice, addressing inequalities in health, improving partnership working and engaging the community.

In terms of the overall Theory of Change articulated in 2001 (see Chapter five), there were no *major* deviations from the original plans and overall HaHP logic model during the three years of funding. However, across virtually every individual project there were examples where prospectively specified outputs or outcomes had been adjusted and refined with the benefit of experience and hindsight. In the vast majority of cases this meant that timescales were increased and/or thresholds and targets were reduced. This suggests that the initial Theories of Change critique was accurate in its assessment that the HaHP plans were overly ambitious and unrealistic given the available timescales and the potential practical and contextual barriers faced. The fact that no major changes were made to the overall project plan highlights that the critique did not result in HaHP making any radical decisions with regards to reducing the number of projects planned or removing those that were highlighted as having potentially limited impact. The consequence of this appears to be that whilst all of the projects were delivered they made less progress, reached fewer people and were likely to have been less intensive than had been intended within the initial plans. This would suggest that many of the outcomes anticipated by stakeholders from the initial HaHP plans were unlikely to have been achieved.

Most HaHP programmes were evidence-based at a strategic level, but some were less so at an operational level. A variety of other influences (such as experience, existing programmes and community demands) competed with evidence in influencing programme development. Whilst there were some attempts to respond to the initial theory critique and improve the use of evidence throughout the lifetime of the project, this was done by making slight improvements to existing projects rather than by halting or completely redesigning individual projects. There were tensions between evidence-based practice, addressing community demand and promoting innovation. When considering these findings readers should keep in mind that there is a lack of practical evidence available for some of the areas addressed by HaHP such as community building and engagement. Limited timescales for planning hindered both the use of evidence in selecting suitable interventions and the subsequent selection of realistic and well-specified outcomes for these. The lack of consistency in the application of evidence across the projects at an operational level would likely limit the impact of both individual projects and the overall integrated intervention.

HaHP did not articulate clear definitions, targets, thresholds and measures for the reduction of inequalities in relation to CHD despite these issues being highlighted as a concern in the early critique. This lack of clarity was due in part to a lack of baseline information on service access and perhaps also due to a lack of national clarity about the balance the NHDPs were expected to take between seeking population health improvement and addressing inequalities. With regard to targeting, HaHP did not fully consider the extent to which socio-economic deprivation should have been used as a means of prioritising service delivery or

improving access, other than to try to site activities in, or channel funding to, deprived areas. There were few specific services or projects tailored specifically to those suffering multiple deprivation (e.g. as a result of gender, race or unemployment). Again it was not possible to determine the effect that most HaHP activity was having on inequalities due to the limited monitoring processes. These issues to suggest that HaHP would fail to show tangible progress in addressing health inequalities within its initial funding period, or demonstrate changes in health outcomes in specific health inequalities target groups.

By year three there was clear evidence of increased and improved partnership working across the agencies within HaHP. There were several areas where activities were being jointly delivered (some across health and non-health agencies) as well as jointly planned. Areas previously viewed as contentious were beginning to be discussed more fruitfully between the partners. This might, in part, have been due to national agenda changes, as well as to further improvements in local relations. There was scope for the more clinical aspects of the NHS to further improve links to both the local authority and community. Partnership working was the cross-cutting outcome perceived to have made the greatest progress. It might, therefore, be expected that HaHP had created some of the conditions to influence agency, service and policy changes (this will be considered in the Chapter eight). These finding would suggests that HaHP has made progress with its intention to deliver projects in a joined-up and synergistic fashion.

HaHP was successful at engaging the community at an operational level. It was, however, less successful at the strategic level (a concern raised in the initial critique). Whilst there were many completely new community projects funded through HaHP, many of the projects were expansions or adaptations of existing programmes. Whilst this may have speeded up HaHP's capacity to deliver in the three-year period, it may also have limited reach and penetration (see Chapter eight). The majority of community led activities were physical activity focused, fewer were nutrition focused and one was concerned with tobacco. The quality of most could not be assured. The lack of coverage of specific topics, such as smoking, may not have been important since other aspects of HaHP addressed these activities. However, the issues of quality (whether or not interventions were intensive) and level of exposure are likely to have impacted on participant health and behavioural outcomes. It would seem that HaHP did get some way to achieving community 'buy in' but this remained very much at an operational rather than a strategic level. The lack of strategic input might impact on the influence that HaHP achieved with regard to mainstream service redesign and policy change (see Chapter eight).

More detailed findings and evidence to support all of these issues are available in the key evaluation reports (Ayana, Blamey and Reid, 2002; Ayana and Blamey, 2003; Lawson, Paterson and Blamey, 2003; Blamey et al., 2004; McKinnon and Blamey, 2004).

This findings chapter has confirmed that the overall HaHP initial plans and theories were overly ambitious. HaHP has, at best, achieved only limited success with regard to achieving the cross-cutting outcomes of delivering evidence-based activities, addressing health inequalities and engaging the community. HaHP made more progress, however, in relation to improving partnership working and achieving joint delivery.

Chapter eight addresses the extent to which HaHP delivered on its other cross-cutting outcomes (reaching sufficient proportions of the residents and achieving changes to mainstream services, agendas and policies). Chapter eight will also consider issues relating to the internal monitoring and evaluation programme.

Chapter eight (Findings IV): Testing Have a Heart Paisley's Theories of Change - Progress in delivering the cross-cutting outcomes (II)

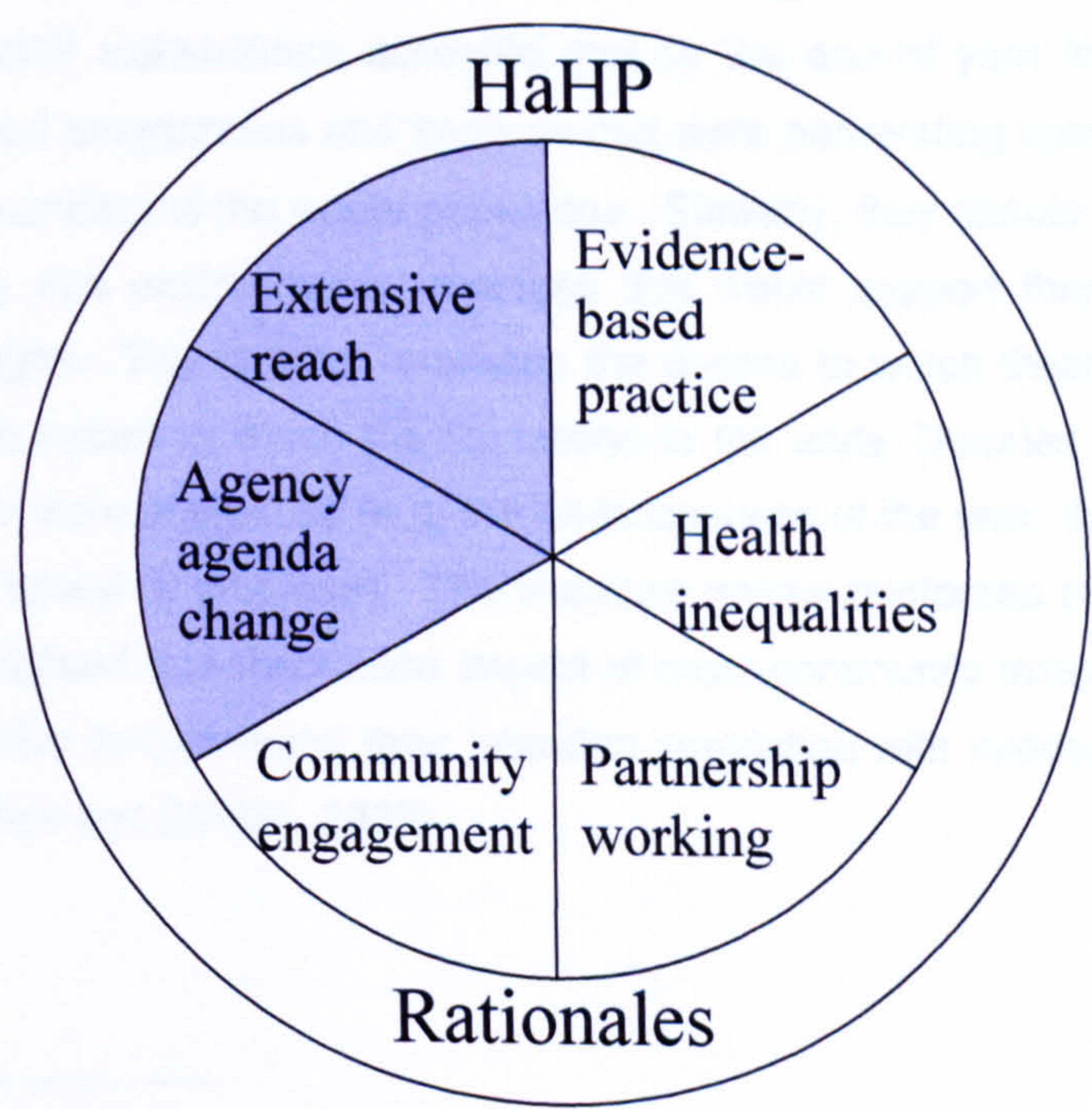
Introduction

Like the previous chapter, this chapter addresses thesis objective three which was

- to test the extent to which the priorities and cross-cutting outcomes underpinning HaHP stakeholders' overall Theory of Change were successfully delivered within the project lifespan

This chapter presents findings on the progress made with regard to the two remaining cross-cutting outcomes identified in the theory articulation process (ensuring that services and activities reach and are adopted by sufficient numbers of the Paisley population to influence social norms; and achieving changes to mainstream services, agendas and policies). These cross-cutting outcomes are highlighted in relation to other outcomes addressed in Chapter seven in Figure fifteen. This chapter will also consider the role and success of the internal monitoring and evaluation programme as this had important consequences for the assessment of the reach and quality of intervention.

Figure fifteen: Cross-cutting outcomes vital to the successful delivery of Have a Heart Paisley (III)



The following findings are drawn from the two sets of interviews conducted to revisit HaHP's Theories of Change in year two and three. They are also informed by data from the integrated case studies conducted in the community, primary care and local authority settings. The community case study data were gathered through a variety of methods. These were: interviews with sixteen community members in the Paisley localities; five interviews with the community members/activists who sat on HaHP strategic decision-making groups; two focus groups with members of the community running community chest funded projects; and, a focus group with members of the HaHP locality team staff. The primary care and local authority data were gathered via two small-scale postal surveys with staff in these settings (73% response rate in primary care; 30% response rate in leisure), two focus groups [with primary care staff] and fifty-one interviews with strategic and operational staff²⁸ (see methods chapter for further details of these and the authors roles within these). The full details of the supporting evidence and the analysis for the case studies can be found in the following reports [Blamey et al., 2004, Ayana, Blamey and Reid, 2002; Lawson, Paterson and Blamey, 2002, Lawson, 2004; Ayana and Blamey, 2004; McKinnon and Blamey, 2004]. Quotations are coded as per the description in the previous chapters. Again, results from the three years of data collection are presented in an integrated fashion (see Chapter seven for full justification for this).

Ensuring that services and activities reach, and are adopted by, substantial proportions of the Paisley population

HaHP hoped to improve culture and social norms over the long-term (ten years). However, to make this feasible HaHP stakeholders accepted that by the end of year three they would need to have developed programmes and services that were penetrating specific groups and reaching substantial numbers of the whole population. Similarly, they should have been able to demonstrate policy and environmental changes that would support those beginning to make behaviour changes. This chapter assesses the degree to which these early changes were in place and the extent to which the limitations in the early Theories of Change with regard to these factors were addressed (e.g. the ambitiousness of the task, the limited design of initial projects and speed of progress). The literature review reinforced the importance of this outcome. It highlighted that the limited impact of most community interventions was, in part, due to their inability to 'penetrate' their intended population with intensive interventions (Sorenson, 1998; Merzel and D'Affitti, 2003).

²⁸ It should be noted that there were some limitations in these methods. For example only twelve out of fifty five possible GPs (representing nine out of a possible thirteen practices) agreed to be interviewed. This may have been a biased sample with particularly positive or negative views on HaHP. Similarly only 30% of leisure staff responded to the survey.

To what extent had HaHP achieved sufficient reach and delivered intensive interventions by the end of year three?

Some HaHP programmes had the potential to reach substantial numbers of individuals within the Paisley population on a frequent basis. For example, the health promoting school project could have impacted on large numbers of young people if all schools in Paisley had adopted high quality interventions and delivered them to sizeable groups (e.g. whole year groups) on a frequent basis (daily or several times per week). However, in many areas of HaHP, projects could not feasibly reach large numbers of their target groups. For example, many projects in the local authority or community setting had been established to recruit relatively small numbers into their activities (e.g. Healthy at Work n=150, Lunch clubs n=40 x6). There were only two areas of HaHP where the number of groups established, or individuals participating in programmes, had been greater than anticipated in the planned timescales. The first of these was the community chest funded programme. At the end of year three, there were one hundred and forty three groups that had received funding from HaHP to establish or expand existing activities. The second was the learning and development programme where two hundred and eighty participants had engaged in educational opportunities by the end of year three. These figures exceeded HaHP's initial expectations.

The RE-AIM framework (Glasgow, Vogt and Boles, 1999; Dzewaltowski, Estabrooks and Glasgow, 2004) was applied to the programmes within HaHP to test out the extent to which they were reaching large numbers of their intended target groups or the wider population. The independent evaluation team used available monitoring data to address the RE-AIM questions. RE-AIM was devised as a means of considering the public health impact of health promotion interventions. The framework allows comment on the extent to which interventions are: reaching enough participants; effective; adopted by a sufficient number of organisations; implemented according to available best practice; and, are capable of being maintained (Glasgow, Vogt and Boles, 1999; Dzewaltowski, Estabrooks and Glasgow, 2004). As an example, the key questions used to assess public health impact using the RE-AIM framework are applied to the HAHP health promoting schools programme in Appendix fourteen. This example illustrates that although some monitoring information was available for the school programme there was insufficient quality data available by the end of year two to make conclusions about the success or potential of the programme at penetrating their potential population. For example, service development projects, such as tuck shops or the provision of playground equipment, often reported that the whole school (e.g. n=400) were using the services. Whilst these services may have been available to the whole school, they were not necessarily influencing the eating or physical activity habits of all children. Similarly, few programmes could detail the number of children regularly attending after school classes.

The problems experienced in assessing the available school data against the RE-AIM framework was repeated across other areas it was applied to. By the end of year three there were still virtually no reliable monitoring data available for any aspect of HaHP out-with secondary care. This meant that it was not possible to assess (or re assess) reach, even in the areas of HaHP where substantial penetration was hypothetically feasible to achieve. As well as a lack of quantitative monitoring data there was limited information available with regards to the quality of the interventions (e.g. within the community and school programmes).

The majority of interviewees also suggested that sufficient reach had not been achieved (rather than that it had been achieved but not confirmed by the available monitoring data) during years two and three. They indicated that although HaHP staff had worked hard to deliver a wide range of programmes they felt that they had not managed to immerse Paisley in health opportunities and services:

I still feel I could be seeing more of it. This is not plastered across the community as much as I would have liked (MGM 1, year two).

[Y]ou know whether there are good things happening, there is just not enough of it, it's not intensive enough and it's not impacting (MGM 5, year two).

I think we've done a lot for a small number of people I'm not sure if we've done a small amount for a large number of people, I'm not sure that we've changed population risk factors I'm pessimistic about that within the group that we deal with. We thought at the beginning you know we have 85,000 people we could get to them all, and I think we've got to them all in terms of awareness. Whether we've got... the behaviour change through to all of them I would doubt (MGM 9, year three).

Independent research, commissioned by HaHP, into the coverage and reach achieved by the marketing programme reported high levels of awareness of HaHP (80%). However, this failed to translate into engagement (George Street Research Ltd., 2003).

Why has large-scale reach been difficult to achieve?

A number of explanations were given by interviewees for HaHPs failure to reach more people within the Paisley population. There was an acknowledgement that many of the programmes were given too little funding to achieve any degree of saturation and had, therefore, never set out to engage large numbers of their target groups:

I think certainly the schools will have achieved some measure of saturation. A hundred and fifty employees though [HaW] is nowhere near saturation and Healthercise again, I mean if you think about the funding that's gone to some of these projects it's really very small. So probably not saturation (MGM 4, year two).

Similarly, programmes such as cardiac rehabilitation or the care pathway had a defined number of patients eligible and so the overall Paisley population impact of such programmes was limited.

There were additional areas where, although it had been hoped that HaHP might reach large numbers of individuals, very little progress had been made. For example, the upgrading and approval of the local authority's tobacco control policy, which might have impacted on larger numbers, was stalled mid way through the project and was only given full approval by council during year three of HaHP. Work with the retail sector and businesses had been very limited, as had policy development in workplaces through the healthy choices and Scotland's Health at Work (SHAW) programmes:

You know when we talk about food and health awards it just hasn't taken off here at all (OP 8, year three).

The time delay in establishing programmes was also highlighted as a problem in relation to this. Some programmes were only starting to roll out their service late in year two or in year three (e.g. the care pathway and the youth physical activity programmes in the community). Given these time delays, it was unlikely that these projects would reach large numbers by the end of year three. The findings in Chapter two suggested that even without the time delays it was probably unrealistic for stakeholders to expect to be able to achieve large scale saturation of the Paisley population within a three year period. This is particularly the case given that HaHP was establishing many new services and had to recruit an additional workforce to implement these. These issues will be considered further within Chapter ten.

Some HaHP activities, such as the rehabilitation programme, had made substantial progress with regard to their anticipated timescales but were working to full capacity by year two. Another problem raised in the interviews (and also highlighted within the literature) was that of trying to impact on activities where external forces, such as tobacco advertising or commercial forces had greater resources and more influence. For example, attendance at voluntary sector lunch clubs was reported as having declined due to competition from private retailers, such as department stores, who were providing cheap but not necessarily healthy meals.

Achieving substantial reach within particular target groups and deprived areas was vital for addressing inequalities. Even if wide penetration of Paisley were not possible in the three-year time-scale, the ideal scenario would have been to maximise activities and opportunities amongst selected target groups, topic areas or localities, yet it was not evident that even this had been achieved.

Changes in knowledge, practice, services, policies and agendas.

Achieving practice, policy and agenda change within the key service delivery organisations in Paisley was also identified as a vital cross-cutting outcome. It is closely linked to issues of organisational commitment and joint delivery and was also a key factor in relation to ensuring the reach of HaHP and achieving population level change.

The complex partnership context made it difficult to identify where HaHP had contributed to positive changes in wider service agendas. This was identified as a key challenge in the initial theory critique (Blamey, 2001). A variety of other programmes promoting very similar agendas were delivered simultaneously in Paisley. These included: the national New Community Schools programme; the appointment of public health practitioners in primary care; the recruitment of health improvement officers in local authorities; Hungry for Success, part of the National Diet Action Plan; and, projects funded through additional sources such as New Opportunity Fund monies, Quality of Life monies and Better Neighbourhood Services. More detail regarding the complexity of this context, and the variety of potentially confounding mainstream and ring-fenced programmes being delivered, can be accessed in the contextual analysis report (Paterson and Ayana, 2003).

Some of the more detailed information with regard to service, policy and agenda change resulted from the case studies in the primary care and local authority settings. As a result, these issues are discussed separately for each of these settings. This information was triangulated with the corresponding data from Theories of Change interviews.

Changing professionals knowledge and practice in primary care

The uptake and influence of training in primary care

The survey within the primary care case study, demonstrated that by year three HaHP achieved a generally high uptake of training opportunities and that these opportunities had influenced primary care staff knowledge and practice in particular areas.

The LHCC lead GP, two other GPs and several senior nursing and HaHP staff were immersed in HaHP activity and acted as strong advocates of additional CHD prevention activity within this setting. These people formed the primary care implementation group. They developed the training materials, local guidelines, the care pathway and the primary care input to the Chronic Disease Repository [this was the centralised chronic disease register]. They also developed a range of other mechanism to drive change through primary care such as nurse champions who worked with GPs to promote improved CHD prevention activity.

Training offered generally across primary care included multi-disciplinary workshops on secondary and primary prevention and more specific training such as the use of CDSS (Clinical Decision Support System), the potential of the Health Promoting Health Service Framework (an integrated planning and development tool for the NHS to aid the integration of preventative work) and activities for weight management. CDSS is a piece of computer software that aids professionals in making clinical decisions. It is used in various areas of Scotland. The majority of primary care survey respondents had attended a range of training provided by HaHP. Table sixteen ranks the most well attended training courses according to profession. The patient care pathway and secondary care training were particularly well attended. This reinforces the Theories of Change findings that partnership were strongest within the NHS.

Table sixteen: Comparison of attendance at specific training components across professions in primary care*

Rank re number attending	% of Nurses (n=70)	% of GPs (n=38)	% Pharmacists (n=10)
1	Patient pathways 83% (n=57/69)	Smoking cessation 92% (n=35/38)	Smoking cessation 100% (n=11)
2	Secondary Prevention 71% (n=49/69)	Secondary prevention 79% (n=30/38)	Behaviour change models 70% (n=7)
3	Nutrition 68% (n=47/69)	Primary prevention 76% (n=29/38)	CHD risk assessment 70% (n=7)
4	Physical activity/smoking cessation 65% (n=45/70)	CHD risk assessment 71% (n=27/38)	

*Overall response to survey was 75% n=122 only 118 responded to the questions detailed in Table sixteen (70 nurses, 38 GPs, 10 pharmacists)

Attendances at training for other elements of HaHP were, however, generally lower and more variable across practices. For example, there was a wide range in the proportion of staff from specific practices attending inequalities training (range: 22% -71%).

Training was reported as having made a greater impact on increasing knowledge and awareness than on practice. Certain areas of training had, however, impacted on the practice of particular professional groups. For example, sixty five percent of GP respondents (who had attended training) indicated that risk assessment training had impacted on their practice but only forty seven percent of nurses reported such changes. Training on secondary prevention and smoking cessation also influenced GPs' practice. The greatest impact on nurses' practice was reported to be from training on HaHP project information, primary and secondary prevention, the patient pathway and nutrition. Smoking cessation training influenced pharmacists' practice. Limited practice influence seems to have occurred in relation to health inequalities and the Health Promoting Health Service Framework training across any of the professions.

Despite the relatively positive response to training noted in the questionnaire, several of the GPs who volunteered to be interviewed (NB: not a representative sample) were more sceptical about the influence of training and HaHP in general:

They [workshops] were a good talking shop...but I wouldn't have said they were hugely educational (PC, 1, GP 10, year three).

Well I know that I am aware of HaHP on the periphery but I'm aware that my knowledge of it is actually very poor given how much is going on, so I suppose from that point of view perhaps I don't really think my practice has changed much. Maybe it would have required more leadership, more involvement from GPs but then of course that's more meetings (PC, 1, GP 2, year three).

Reasons cited for this lack of engagement included: a lack of awareness of events; alternative clinical interests; being sceptical about the project from its initiation; being disappointed in the range of opportunities for engagement; and a lack of financial or other incentives:

I think some GPs thought when it first started that there would be quite a lot of money coming into the practices for them to set stuff up. I think there's been £1,200 per GP over three years which in medical terms is not a huge sum of money in the practice (PC, 1, GP 2, year three).

Several interviewees indicated that it was more appropriate for other members of their Practice (e.g. nurses) to be involved. There was evidence of much greater engagement generally across HaHP from community nurses as the following quotation indicates:

The community groups, I'm thinking Blackhall, where we've done a lot of work, we've got involved with and made links with the RCHI and the voluntary sector (community nurse) (PC, FG, Nurse 3, year three).

This wider involvement in community issues was perhaps assisted by national strategic activity in the form of the new Nursing for Health agenda and report (Hall and Elliman, 2003). Nurses reported that they were more likely than GPs to take into account the socio-economic status of the patient when assessing their CHD risk (primary care survey data). Forty two percent of nurse respondents reported doing this compared to twenty percent of GPs. There were no differences in the risk assessment process used between practices in deprived areas compared to those in less deprived areas.

Influencing services and agendas in primary care

HaHP provided initial funding for the development of CHD registers in all practices. CHD registers have significant potential in terms of the secondary prevention of CHD, as well as for improving patient recall and treatment follow-up. The case study interview data illustrated that this was the area that most GPs saw as the link activity between HaHP and primary care:

For our own personal CHD register, it (HaHP) has made us tighten it up a bit and get rid of people who don't actually have CHD and it's probably done a bit more case finding...so it's a bit more tight (PC, I, GP10, year three).

However, there were technical problems associated with setting up and using the registers efficiently and their linkage to the CDR [a central chronic disease register established by HaHP]. Discussions around the registers and attempting to solve the problems, took up much of GPs' time. Similarly, there were problems with the hand-held computers that community nurses were equipped with to gather data relevant to the patients' treatment and referral along the care pathway. Data from these could not be transferred because there was no parallel development in the GPASS system. Only by the end of HaHP's initial funding period was the CDR fully populated from GP practices and from additional secondary care datasets (e.g. diabetes, cardiac rehabilitation) and so able to be used to identify patients with conditions that were untreated or required improved treatment. As a result of the above issues and delays, however, the CDR was not used in a proactive fashion (to alert GPs and /or patients) until the start of phase two of HaHP (year five):

[T]hey [HaHP] said 'we'll do such and such', and we thought by the end of the year we would have everybody in Paisley on the system and we would do comparative data for the next two years, but by the end of three years we still don't have the thing up and running (PC, 1, GP 5, year three).

HaHP also purchased twenty-four hour blood pressure monitors for all practices. These were being used by practices to increase the identification and monitoring of patients with suspected hypertension. Several of the GP interviewees suggested that although HaHP had helped them advance their secondary care systems, such changes were likely to have occurred in the near future irrespective of the existence of HaHP:

Focusing attention on ischaemic heart disease, incentives to improve our database and reviewing our patients. We may have done that without it (HaHP), but it certainly is an incentive that has allowed us to focus on it (PC, 1, GP 3, year three).

During 2004 GP practices were expected to improve their CHD risk reduction activity as part of the new General Medical Services (GMS), General Practice contract (launched in April 2004). Although the content of the new GMS contract for primary care was not known at the point that the primary care elements of HaHP were designed, these programmes acted as an 'accelerator' in establishing CHD registers and secondary prevention clinics prior to the launch of the new contract. Many primary care staff were, therefore, more systematic and audit focused in recording data than would have otherwise been the case. This alignment with national activity was also highlighted in the Theories of Change interviews:

The systems have developed and of course the appearance of the GMS contract is now a significant driver for a lot of the stuff that we in the early days were struggling to get accepted and to introduce into practices. So suddenly – in the space of a year – from there being an inherent general resistance, we are in the situation where people are almost falling over themselves to do exactly what we were trying to get them to do; albeit in the context of the GP contract. The reason as much as anything is that it's become a fundamental underpinning of the pay structure for general practice (MGM 7, year three).

Attributing the changes found within this setting directly to HaHP activity was, therefore, made more difficult as a result of wider SE activity in primary care (such as the new GMS contract and a new national CHD strategy encouraging primary and secondary prevention of CHD) (Scottish Executive, 2003b).

Table seventeen and eighteen indicate the key outputs and outcomes delivered by primary care during the first three years of HaHP.

Table seventeen: A summary of the key outputs from primary care

KEY OUTPUTS FROM PRIMARY CARE
A range of training courses delivered/attended
The establishment of a range of Fora/working groups to improve CHD prevention and treatment Champion's forum Heart health promoters Patient pathway group
The establishment and population of the Central Data Repository (This CDR operated as a Paisley wide chronic disease register for CHD and diabetes etc) with secondary care to improve treatment and proactively contact those not receiving optimum treatment
The establishment or further support of secondary CHD prevention clinics
The development of local guidelines for secondary and primary CHD prevention
The introduction of handheld computers, design of their database and provision of training for their use to improve patient data transfer and treatment via the CHD care pathway
The design and implementation of an integrated care pathway for CHD patients (aimed at improved treatment and seamless care of those with, and at risk of, CHD)
The purchase and use of 24 hour blood pressure monitors in each practice
The promotion of – BP testing, smoking cessation, health related window displays in pharmacies

Table eighteen: Key outcomes from primary care

KEY OUTCOMES FROM PRIMARY CARE
Increased knowledge and greater impetus amongst a range of professionals for secondary prevention of CHD.
HaHP facilitated a changed role for community nurses (e.g. involvement in Patient CHD Care Pathway).
Further engaged a wider range of staff in CHD prevention e.g. training, development of new services (smoking cessation services in pharmacy shops).
"Accelerated" changes expected by GMS contract and CHD strategy and Managed Clinical Networks within area

The above findings suggest that there has been some good progress with regards to improving CHD prevention knowledge, practice and services within primary care in HaHP's first three years. However, it was acknowledged by one interviewee that the NHS had only begun to recognise its health promoting potential:.

[L]et's not pretend that means we have got a health promoting health service, there is a lot of work to be done on the back of that (Health promoting health Service Framework) to develop that (MGM 7, year two).

The local authority setting

The uptake and influence of training

The main training opportunities provided for staff working in the local authority were nutrition training provided for catering managers in care homes,²⁹ and support/training on promoting physical activity for pre five staff in educational establishments.³⁰ There was little evidence, in either the Theories of Change or case study data, of other training opportunities or wider uptake of more general training, as was the case in primary care.

Influencing services and agendas in the local authority

The local authority is a large complex organisation and the extent to which HaHP had an impact within it, and beyond it through its services, was variable. There was evidence from the case study that HaHP had facilitated partnership working in certain areas within the organisation (e.g. between environmental health services [catering function] and social work) and within departments:

The one thing I noticed, which this [HaHP] assisted was, in my own service, there was a lack of coordination between my personnel team and my health and safety team (LA, I, No6 year three).

Furthermore, there was evidence of improved external partnership working between particular departments and NHS staff (as detailed previously):

²⁹ The impact of this training on the practice of caterers in care home was investigated as part of the local authority case study but is not discussed here due to limited space and the fact that this target group was not a key group for the reduction of CHD risk factors.

³⁰ The impact of the training was assessed as part of the local authority case study but was not included as the PhD author played only a minor part in the research process (a managerial role)
Neither of the above sources conflicted with the findings presented and reports on them can be viewed on the heart Health Learning website [PHIS.org].

At one point we had sixteen people around the table, it was everybody and their granny, you know dietitian, primary rep, secondary rep, school nurses, health promotion unit, you know the whole bit. We had really good meeting and we were all just sharing our information, kind of you know collaborative working (LA, 1, No5 year three).

There has been a problem with the NHS and this particular authority and I do know that partnerships are improving (LA, 1, No 2 year three).

The existence of HaHP, to some extent, had led to an increased awareness of health issues among the local authority managers who were involved. By year three the council had established a range of groups and mechanisms that were likely to be beneficial to ongoing health work:

Our leisure strategy indicated that we should establish two fora and we are working towards that. One is an internal forum where the various departments of the council and its agencies can work strategically to coordinate these services (health related services across directorates] The other working with external partners. That had not been done. I think probably the representatives that HaHP brought together were the forerunner to what we required in order to make application to bodies such as NOF (LA, 1, No 6, year three).

The existence of HaHP had also, it was claimed, further facilitated the role of health improvement on the community planning partnership (which would be responsible for the future planning and delivery of all local services).

It's certainly different in Paisley, Renfrewshire than any other...where you have got a focus, I think in having Have a Heart, there is this effortless shared premise from where you are coming (MGM 12, year two).

HaHP had, however, been facilitating this change alongside an increasingly supportive climate in local authorities. All thirty-two Scottish local authorities had recently funded a specialist health improvement post (from ring-fenced SE funding) and were increasingly receiving a range of ring-fenced government and charitable monies (e.g. NOF/lottery monies) for health related activities. There were also many new government mechanisms introduced that encouraged joint planning and more integrated health and local authority funding such as Joint Health Improvement Plans and Regeneration Outcome Agreements that had health as a key delivery focus.

The findings from the case study and Theories of Change interviews generally showed little evidence that, by the end of year three, the individual local authority projects had any

significant impact on the practice of staff, other than those formally involved in running the projects or who were specifically targeted for training (e.g. catering managers and pre five staff). The survey of leisure staff (30% response rate) reinforced this as it showed very low awareness of, and impact on practice from, the Healthercise project that was hosted within their locality and directorate. Of those working in Paisley who responded (n= 61), twenty-nine (48%) reported being 'not aware' or 'not very aware' of healthercise (Mackinnon, Paterson and Blamey, 2004). There were examples, detailed below, where one or two of the local authority projects had potential to influence their wider host service and future related policies, however, much of this did not come to fruition within the first three years.

During year two and three the walking and access-based programme, which formed part of the overall Healthercise project, created closer links between the planning and leisure services directorate. The programme led to these departments successfully seeking funding to employ a new access officer through the 'Paths for Health' national programme funding. This was the first access officer with a defined remit for health in any council in Scotland. This development had the potential to encourage leisure services to further expand beyond facility-based programmes and to build links between planning and health. The Council, during the HaHP transition year (2004-5) funded a senior post that would integrate all health related (ring-fenced funded) activity across the local authority.

There were some service areas where there was the genesis of change, however, the initial investment required to allow the necessary infrastructure to be developed was too great to see this through:

They are looking at free-swimming lessons for adults and children... but it's just the upgrading of the 'Leisure Most' system to allow these cards to be basically put into force that's causing the problem (OP 9, year two).

Similarly, the HEAL project introduced catering staff to CORA Menu Planning (e.g. menus reflecting healthy and balanced eating) and implemented changes to food provision in care homes:

What they have moved onto now are CORA menu planners. It's an off the shelf system and PC package. It is full of hundreds of menus all compliant with the Caroline Walker Trust (nutritional guidelines). We will put a PC into every residential home and load up the menus and you can check the nutritional balance of everything selected that day (LA, I, No 7, year three).

However, at the end of year three the project was still trying to ensure access to computers and training to ensure the ongoing use of these menus. Training was developed in conjunction with nationally accredited programmes. If fully supported (via access to PCs and training), this activity had the longer term potential to influence, not only catering provision in relation to care homes, but also the rest of the council's catering services (Meals on Wheels services and school provision). A formal nutrition policy for all relevant areas within the council was also drafted during year two but had made no substantial progress to committee by the time interviews were conducted in year three.

After substantial deliberation the local authority held a scrutiny board (in late 2004) that investigated the implementation of a more comprehensive smoking policy for the council. The policy was finally implemented in late 2004. Much of the delay, and barriers to the development of this policy, came from elected members. A council interviewee noted:

I think it is perhaps embarrassing that we haven't [approved the new smoking policy] but I think that is just the reality of it. You are dealing with a very sensitive issue ...It will raise a lot of opposition from certain people. ...From what I have picked up on it's the elected members [who were opposing it] (CS, 1, No3, year three).

Despite these examples of possible future influence, there were few formal changes to policy within the local authority that could be clearly identified as a specific result of HaHP during its first three years. A summary of the key outputs resulting from the local authority programmes is provided in Appendix fifteen

Possible reasons for the limited impact on mainstream local authority services achieved by HaHP

HaHP funding awarded to the local authority was used at a project and operational level and some of these projects were minor deviations from existing services rather than radical attempts to reduce CHD through local authority services. The local authority HaHP funded projects reached relatively small numbers (perhaps with the exception of Health Promoting Schools-HPS) and were not particularly intensive (see section on reach in previous chapter). For example, the Healthy at Work programme only aimed to reach 250 employees in three years. Similarly, whilst some schools chose to use their funding more strategically (using it to influence curriculum work or wider school health programme developments), many funded limited one-off activities or programmes targeting only a small number of pupils. Many interviewees suggested that several local authority projects were still seen as peripheral rather than actually becoming integral to service delivery:

I feel that the health agenda has been bolted onto the school instead of it being integral. The health stuff is coming along kind of on the margins (MGM 6, year two).

There was, however, an acknowledgement by those making such comments that many of these directorates had other primary agendas (e.g. education rather than health), and that they had substantial contextual issues to contend with such as a school rationalisation programme.

There were also a number of other agendas being driven forward simultaneously with HaHP, which may have impacted on the local authority's selection of HaHP projects, and on their capacity to deliver and sustain these. The impact of the McCrone Inquiry (McCrone, 2000), for example, outlining new roles and responsibilities for teaching staff in schools, had negative implications for the longer-term role of health coordinators within educational establishments. There were many overlaps between the HaHP HPS project and the extension of the national Integrated Community Schools programme [previously New Community Schools] and the adoption of the national Health Promoting School Framework. The Joint Futures Agenda in social work and health has also required much focus and attention.

An additional issue that seemed to limit such impact was that directorates with commercial interests (e.g. the service delivery arm of the council) were viewed by staff (internal and external to the authority) as having competing agendas:

I am not meaning to make criticisms of other services but environmental health [in charge of school meal provision] are very much financially driven and profit making and best value driven (LA, I, No 5, year three).

The devolved nature of some of the services (e.g. the devolved power to local school head teachers) made it difficult for central staff to be able to influence the speed and type of delivery. Similarly, the committee cycle within the council and local democratic structures made it difficult to achieve agenda change over short periods of time. Local authority staff also expressed concern that NHS staff were not fully aware of the restrictions they faced as a result of these factors:

Fundamentally it is the council who make decisions via the elected members. Sometimes folk outside the council, and within it, don't grasp the fact that if a decision is to be made on spending we require to have that approved by the council. Reports need to go to committees and the relevant Board meeting on a six weekly cycle so that can build in delays (LA, I, No4, year three).

As a result of the above issues, the pilot projects seemed to have difficulty impacting on their wider service agendas. A lack of understanding of some of these contextual factors in the council led to early difficulties in partnership working:

It was badly handled. It just landed on our desk. People were coming along to us and saying you'll need to change all your menus. We sort of took umbrage at it and it slowed down the coming together between our department and HaHP. For about six months we spoke to each other only at arms length (LA, I, No7, year three).

There were a few examples where it had not been feasible to achieve change in services or organisational ethos or environments, because of competing wider structural agendas. For example, some HaHP staff raised concerns with their local authority partners with regard to plans to establish a new rail link. This rail link meant the removal of playing fields in a deprived area with limited outdoor resources. The plans remained, however, due to the local authority view that the economic implications were of greater importance in this instance. In addition, there were instances where community facilities had been closed in an area where 'additional outreach programmes' were simultaneously being developed.

Virtually all short-term funding sources require local authorities and their partnership organisations to compete for specific funding sources and to participate in bureaucratic administration, monitoring and accountability processes. Few of these processes are aligned or consistent. These arrangements were reported as having impacted on the responsibilities of both managerial and operational staff, and on the time available to plan and deliver HaHP funded services. These problems further exacerbated existing complexities in partnership working across organisations, such as their own varied accountability and management structures.

The above examples demonstrate the problems of competing agendas and the need for the health and other impacts of any policy decision to be fully considered prior to implementation. These issues also highlight the importance of contextual information for the evaluative process of such complex interventions. This was emphasised in the literature review (Gambone, 1998).

Monitoring and internal evaluation

In addition to independent evaluation data, an important potential source of evidence concerning the early and longer-term impact of HaHP, was the data to be collected via internal monitoring processes (e.g. gathering service output and uptake data for projects). Such data

would have been an important indicator that the HaHP management group were taking a strategic approach to planning and programme learning. The stakeholder influenced decision to focus the resources of the independent evaluation on the cross-cutting outcomes, rather than on any individual strand, meant that the internal monitoring processes (and any additional evaluation conducted by the internal team) would be the only potential source of detailed data on the impact of different 'down the line' work programmes.

It would not have been feasible for an external team to collect monitoring information for all projects and be present at all the times that such information would have been gathered. For example, registers would have needed detailed demographic data of participants at all of the community classes, school tuck shop sales would have needed to be recorded, as would treatment data in care settings. The best that could have been provided by the limited number of the independent evaluation staff was support to help identify the monitoring activity, advice re prioritisation of the internal evaluation activity, and then help to build suitable monitoring systems or evaluation designs. The theory articulation process and the early critique were an attempt to help with the first of these two processes. After the critique was presented, the author also made a variety of suggestions with regard to ways of gathering such data. For example, a ticketing/access pass system was suggested as a possible means of monitoring attendance at the community activities. It was not, however, feasible for the independent team to establish such systems given the existing demand to conduct the quasi-experimental survey and deliver on the Theories of Change and integrated case study methodologies. As a result, the responsibility for establishing monitoring systems, and prioritising and conducting internal evaluation, remained with the internal HaHP staff and management team. These responsibilities tended to be given to the internal evaluation officer(s) (when in post) or to be assigned to the organisation managing the pilot project (e.g. the local authority or primary care). The following section highlights some of the problems that arose in terms of internal monitoring and evaluation.

Definitions of evaluation and respective evaluation roles

From early on in HaHP there was confusion and disagreement, over the role of the internal evaluation and about the necessity for both internal and external evaluation (see Chapter five). Some of this uncertainty remained throughout years two and three and related to confusion between monitoring and evaluation, particularly in relation to the internal role:

Well all of that, but also [we need] some guidance from the Executive about what the role of the external evaluators is and what the internal is (OP1, year 2).

I have always had a lot of concerns about this evaluation in that I never understood what the role of the internal evaluation is, nor do I (MGM2, year two).

This confusion remained despite various attempts by the external evaluation team (at management meetings and joint evaluation team meetings) to share their evaluation design and plans and despite many of the decisions about evaluation focus being decided with stakeholders. Respondents from both the Theories of Change interviews and the local authority case study reflected on the problems with evaluation in year three stating:

There was little thought given to evaluation at the start (OP 20, year three).

I only started six months ago and it is hard to work out who is doing what between the internal external evaluation team (LA, I, No 3, year three).

Several interviewees suggested that because funding was provided for an internal evaluation post, that the operational staff and programme managers had thought that this relieved them of monitoring responsibilities:

I really do think that everybody here should be prepared to evaluate or should be inducted into it...I think what's happened is evaluation has been made into a kind of monster. Planning is part of the evaluation and vice versa and we have been relying on one body, one person or two, to come in and do that...I don't know that that's actually been very valuable (OP2 year, two).

Prioritisation of evaluation issues

The above confusion led to an overburdening of the internal evaluation post. This was a junior position and several interviewees felt that the post holder was pulled in many directions across HaHP. Strategic decisions had not been made in the management group with regard to the specific foci of the internal evaluation (or staff responsibilities with regard to monitoring) and so an attempt was made to evaluate all aspects of the individual projects.

Obviously with seventy projects [reflecting on year one but rising to 143 in year three] the projects are smaller than expected which has obviously given us a much larger burden in terms of applications, administration and evaluation. And I mean they are starting to recruit the grade six evaluation officer again, that'll make a big difference (OP1, year two).

Those of us who are from a background that hasn't required that level of monitoring and evaluation would [with hindsight]. I think have approached it differently. Perhaps we would have done less in a sense but examined the things we did more carefully

and been more conscious of what we needed to set up before we put something into practice (OP11, year three).

The community projects had ranged in cost from a few hundred pounds to eighty-six thousand pounds. The tendency was to attempt to evaluate them all (n=149) in some fashion rather than a selection of them (e.g. the larger or more innovative). The methods of gathering baseline information across the community projects had been controversial. The internal evaluator designed baseline questionnaires but these were felt by community staff to be too detailed, cumbersome, and complex for the community volunteers and participants. Many of the HaHP staff felt that community volunteers would be reluctant to complete them:

The internal evaluation did attempt to get baseline stuff, away at the very beginning. The community groups were voting with their feet. It was too complicated (OP6, year two).

These baseline questionnaires were not completed and/or not collated or analysed at the point of the year two interviews, and the final monitoring and evaluation reports were still not available at the end of year three. Whilst some interim reports were available the quality of data and analysis was very poor.

The co-ordination and timing of the monitoring and evaluation work

There appeared to be continued confusion into year two as to whether the coordination of the internal evaluation responsibility lay with the NHS board, the management group or the project coordinator. After a period of time the responsibility seemed to come to rest with the management group:

It was mostly driven by the management team of HaHP. Probably rightly so because they too had spotted that the internal evaluation, so called, was a monitoring function and hence was better managerially led (MGM 2, year two).

This confusion, in both use of terms and respective roles, meant that early support for the new HaHP organisation from the existing agencies (e.g. NHS Board] was not forthcoming. This left the new organisation without a clear direction with regard to evaluation. The early work by the external evaluation team (the Theories of Change process) was viewed positively by the HaHP implementation team. One respondent felt that it would have been more useful had it been completed even earlier in HaHP's lifespan:

We have all commented over the time that the iterative process of the 'Theory of Change' model provided has been useful, teasing out some of that [outcomes focus] (MGM 4, year two).

The work that you did in the research there [Theories of Change articulation] was actually extremely helpful, extremely painful but extremely good. If I was doing this again, I would use it again, even outside evaluation (MGM 8, year three).

The initial Theories of Change report submitted to the SE highlighted the need for greater focus and the development of appropriate performance management indicators. This influenced the provision of some time limited additional performance management training and the re-development of the HaHP Action plan. However, even with this support, performance indicators were still relatively poorly specified (see examples in Appendix sixteen). Clear decisions with regard to the focus and priorities of the internal evaluation were still, therefore, not addressed by the middle of year two, other than in the areas of rehabilitation and the CDR. The secondary care aspects of HaHP had identified clear priorities and had recruited evaluation staff from both HaHP funding and other funding sources (University of Glasgow and British Heart Foundation). These plans were underway at the end of year two and ongoing information from focus groups and the CDR were being used to refine the rehabilitation programme and the register. Several interim reports had been produced (www.phis.org.uk/hahp).

Barriers faced in the delivery of the monitoring and internal evaluation functions

The above problems were exacerbated by the fact that the internal evaluation post holder left HaHP for another post in February 2002. HaHP was unable to recruit into this post and eventually put in place a variety of short-term measures to cover the role, such as using existing NHS staff or commissioning independent private contractors to conduct small elements of this programme. The independent evaluation team came under pressure to provide leadership to the internal monitoring and evaluation function during this time. The independent team had already established and chaired a schedule of regular internal/external team meetings. However, greater involvement from the independent evaluation team was neither feasible nor appropriate in terms of maintaining objectivity. As a result of these issues the project ran out of time to establish monitoring systems that could feed into an internal or external evaluation process. Any final reports on monitoring and/or internal evaluation that were eventually collated were process orientated and of relatively poor quality.

Some of the problems experienced by both internal and external evaluation teams, in terms of selecting indicators and areas for evaluation, related to difficulties in accessing valid data to establish baselines or comparators. Existing secondary data, such as the Scottish Health Survey [SHS] (SE HISD, 2000), cannot be broken down to town or local authority level. The lowest level that the SHS data was could inform HaHP was at the combined NHS Board area of Forth Valley and Argyll and Clyde. The health surveys conducted by Argyll and Clyde NHS Board had tended to cover wide-ranging health issues and areas, and also had limited response rates (39%). This meant that such existing sources could not be used for evaluation purposes.

An additional problem for HaHP, and both the internal and external evaluation, had been the poor response rate to the external evaluation baseline survey (see Chapter four and nine and Paterson, Judge and Blamey, 2003):

If there had been more of a scoping exercise in the beginning, planning, detail, the survey had worked [external evaluation baseline survey], If we had higher qualified people within the[internal] team and if we had been very strongly connected to the Health Board [the internal evaluation would have been better], but it didn't happen (MGM 8, year two).

Virtually none of the monitoring data, that were collected in the few (non-clinical) projects that had designed collection systems, was available or analysed at the end of year three. Interviewees suggested limited time and lack of identified support were partly responsible for this:

So half of that data is still lying in a plastic bag, the other half is being scrutinised by myself a couple of evenings a week at home and there is still a good bit of work to be done there (OP2, year two).

Well the problem is that we have asked the projects to keep note of that, eh but I don't think and again because there has not really been anybody internally to keep on top of that, I don't think we've got any really good figures. Some projects are better than others (OP8, year two).

Conclusions

This chapter focused on the progress across years two and three in relation to the cross-cutting issues of programme reach and adoption, and achieving mainstream practice, service and agenda change. The chapter also considered the role and success of the internal monitoring and evaluation programme that was a key issues relating to the testability of HaHP.

In most of the HaHP programmes information about the reach, quality, dose, adoption of, and adherence to, the interventions was either not available, or was not gathered in a fashion that would allow such analysis. It was, therefore, not possible to establish the extent to which the HaHP programmes that were delivered achieved sufficient reach to create changes in the health culture and social norms within Paisley. Good quality monitoring data was only available for the secondary care elements of the programme. The data gathered from the Theories of Change interviews and integrated case studies, however, suggested that (even in the absence of such monitoring data) it was unlikely that HaHP achieved high levels of reach and adoption. HaHP projects were generally slower to develop than anticipated, the reach of many projects was limited (often as a consequence of their initial design, limited funding, or the care groups they were targeting), and as such did not add up to an integrated intervention that could penetrate substantial numbers of the Paisley population. Many of the activities that did have the potential to reach large numbers were superficial rather than intensive in nature or provided limited frequency and duration of exposure to their participants. The project had also made very limited progress in areas such as workplace and retail policies or environmental changes which may have provided greater reach. Greatest progress was made with individually focused interventions than with those at a more organisational or legislative level. The extent to which it was ever feasible for HaHP to establish multiple projects with the potential to reach large numbers of the population simultaneously, and to show progress against this in three years, was questionable and will be considered further in the discussion section.

In terms of changing practice, services and agendas, HaHP achieved some success within primary care by year three, although it did not fully achieve the progress it intended in terms of the benefits of its IT developments. HaHP established a dedicated core multidisciplinary group that acted as champions within primary care and that drove the programme activity forward within this setting. The primary care survey data indicated that there was a high uptake of training from professionals within primary care and suggested that this training had impacted on areas of practice such as risk assessment, use of the CDSS template, referral to smoking cessation and secondary care across GPs, nurses and pharmacists. Training in areas related to the Health Promoting Health Service Framework, and to inequalities, was less well attended and impacted less on practice. The data from the interviews with GPs presented a more sceptical view of the impact of HaHP on primary care with regards to training and practice. It highlighted barriers that limited GPs engagement. These included limited funding, other clinical interests and the fact that nurses rather than GPs were seen to have a greater role to play in much of the HaHP activity. It should be noted, however, that only 12 of a possible 55 GPs could be recruited (via self-selection from general invitations) for interview and so this sample was not representative.

In terms of service influence, the data suggested that HaHP activity encouraged primary care practices to improve the identification and monitoring of those at risk of, and with existing, CHD. It also led to a more seamless patient care pathway with increased links between primary and secondary care. Some of these potential service improvements, however, were hampered by problems encountered in the IT systems used to support the patient pathway and CDR (developed through secondary care). These problems meant that linkage between practice registers and the central register was slow and that the CDR could not be used in a proactive fashion (to identify and alert GPs to patients with sub-optimal treatment) until HaHP phase two. The improvements made in terms of risk assessment and improved monitoring of patients has meant that GP practices in Paisley are well placed to respond to the CHD prevention activities that are tied to the new GMS contract. HaHP activity has accelerated the speed at which local GPs can respond to these new demands.

Attribution of impact within this programme was problematic. In part, this was due to the fact that national activity, such as the new GMS contract and the CHD strategy for Scotland, was promoting activity similar to HaHP in the later stages of the demonstration project (Scottish Executive, 2003b).

In relation to achieving agenda change in the local authority setting, HaHP appears to have remained on the periphery of the organisation and made only some contribution to the wider community planning agenda. Knowledge of the specific programmes funded by HaHP had not spread widely through the local authority, and in several instances had not particularly influenced the department or service that they were hosted within. There were several areas of work within HaHP that had progressed to a stage where they could positively impact on organisational or professional agendas, and subsequently on the health behaviours of substantial target groups. However, the policy routes by which such changes could be achieved were often blocked (e.g. papers not being seen by committee or being delayed or limited funds available). In general, operational staff struggled to influence policy development within their specific services or within the wider council due to limited access to decision makers or lack of control over commercial interests. Some key services were willing to make changes to service delivery but lacked the infrastructure and/or finances to deliver such change. The national health agendas (e.g. National Diet Action plan and the New Community Schools programme) appeared to be providing an increasingly supportive environment in which to achieve greater levels of agenda change. It was also difficult to demonstrate the impact of the local authority projects because of the number of competing agendas and confounding activities. These findings reinforce a common theme found in the literature review that CHD prevention projects, despite their initial intention, find it difficult to address upstream solutions and tend to revert to more individually focused interventions. This issue will be considered further in the Chapter ten.

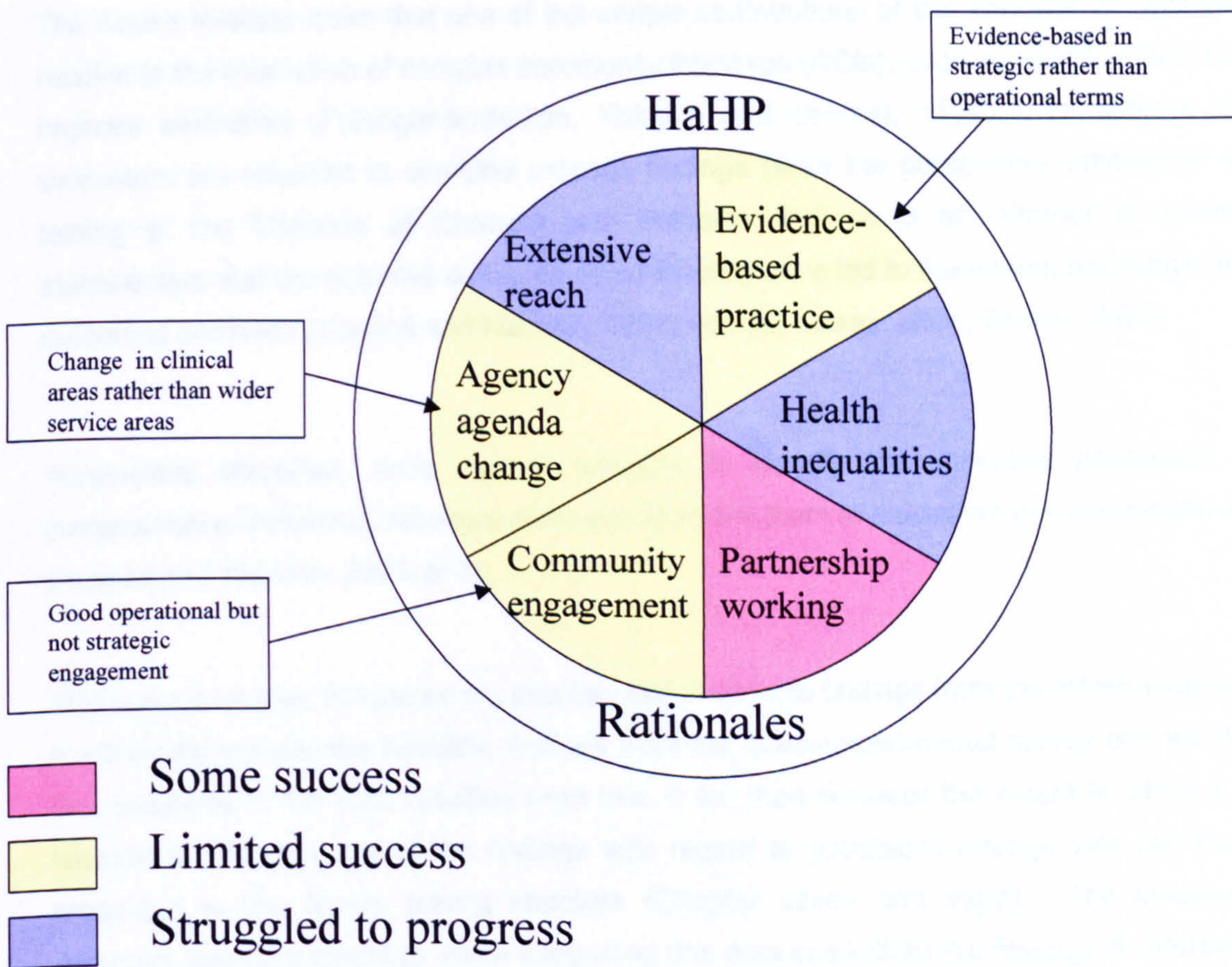
There were substantial problems with regard to the internal evaluation and monitoring within HaHP. These problems existed from early in the life of HaHP (identified during the theory articulation) and continued through to year three. They impacted on the HaHP's ability (and the evaluation's ability) to establish the success, or otherwise, of the intervention in relation to issues such as general impact, achieving reach, and reducing inequalities. There was confusion over the roles of internal and external evaluation, and about concepts of internal evaluation and monitoring. Monitoring was seen as the role of the internal evaluator instead of project leads. The initial management arrangements for the internal evaluation were unclear. Comprehensive monitoring plans were developed for only a few areas of HaHP by the end of year three. The secondary care elements of HaHP had comprehensive internal evaluation procedures in place. Issues such as the vacancy within the internal evaluation post, and failing to identify evaluation priorities, added to the delay in designing monitoring or evaluation systems and accessing useful monitoring information. Lack of initial baselines and the limitations in the external evaluation population survey exacerbated these difficulties.

Chapter nine (Findings V): Assessing overall impact

Introduction

Chapters seven and eight assessed the extent to which HaHP delivered on its overall Theory of Change and the cross-cutting outcomes that its stakeholders considered vital to the intervention's success. These chapters reported on the findings from the testing of HaHP's Theories of Change as they developed over the three years of the demonstration project. They drew on the analysis and triangulation of data from the two sets of Theories of Change interviews and from aspects of the integrated case studies.³¹ Figure sixteen below highlights the findings with regard to the limited success achieved by HaHP

Figure sixteen: Progress against the cross-cutting outcomes by the end of year three



³¹ The full details of the supporting evidence and the analysis for the case studies can be found in the following reports [Blamey et al 2004, Lawson, Paterson and Blamey 2002, Lawson 2004; Heart health learning network website PHIS.org].

The findings suggested that HaHP had some success in improving partnership working, and mixed success in terms of applying evidence-based practice, engaging the community, and changing practice and agendas in primary care. They also indicated that HaHP struggled to: address inequalities; achieve changes in non-clinical services, policies and agendas; or, to achieve sufficient reach with high quality interventions. In many ways HaHP appears, therefore, to have failed to overcome the limitations found in previous CHD prevention programmes.

Chapter three discussed the literature surrounding the developments of theory-based evaluation and the Theories of Change approach in particular. It highlighted that the Theories of Change approach is:

"[A] systematic and cumulative study of the links between activities, outcomes and contexts of an initiative" (Connell and Kubisch, 1998, p.16).

The Aspen Institute claim that one of the unique contributions of the Theories of Change in relation to the evaluation of complex community initiatives (CCIs), such as HaHP, is that it can improve attribution (Fulbright-Anderson, Kubisch and Connell, 1998). To achieve this, evaluators are required to combine process findings (from the prospective articulation and testing of the Theories of Change) with outcome findings in an attempt to convince stakeholders that the activities delivered could feasibly have led to the interim and longer-term outcomes achieved (Connell and Kubisch, 1998; van der Knaap, 2004; Stame, 2004):

"Evaluators, therefore, have had to struggle to identify the important processes and components of initiatives, measure them and then link them to outcomes in a meaningful way" (Auspos and Kubisch, 2004, p. 5).

This current chapter integrates the process and outcomes findings from the HAHP evaluation. It will briefly present the headline findings from the quasi-experimental survey and will detail the limitations in the data resulting from this. It will then consider the extent to which it was feasible to integrate any of the findings with regard to population change with the findings presented in the theory testing chapters (Chapter seven and eight). The chapter will comment upon the extent to which integrating this data strengthen the findings or address the question of attribution. In this sense this chapter contributes to thesis objective three (in that it ultimately tests whether HaHP's Theories of Change did achieve their intended interim outcomes by considering the outcome data from the survey). The presentation and attempted integration of these findings allows subsequent discussion of the contributions to

learning that have been made by the different methods within the evaluation (see Chapter ten).³²

Summary of survey design and the methods and problems encountered

The detailed methods utilised to conduct the quasi-experimental survey and the response rates were presented in Chapter four. A summary of the key methods and response rates is repeated below to aid understanding of the current findings.

The independent evaluation of HaHP conducted a quasi-experimental survey of a randomly selected stratified sample within specific age, gender and deprivation categories from the Paisley and Inverclyde (the comparator site) populations (see methods Chapter four). Questionnaires were used to gather self-report information on risk behaviours and related knowledge and attitudes (see Appendix eleven). This was combined with objective health measures of key risk factors gathered via health examinations at baseline. The survey was initially designed to provide samples of specific age, sex and deprivation categories that were representative of the Paisley population. It was intended that both cross sectional and cohort samples could be drawn at baseline and would be followed-up at the end of HaHP. Early response rates were lower than expected and, as a result, it was agreed (with stakeholders) that the cohort group for follow up would be drawn from within the cross sectional sample rather than selected independently of them.

Various attempts were made to ensure the recruitment of the intended sample size (see Chapter four). Despite these efforts the questionnaire survey only achieved a response rate of 28% and 27% respectively for the intervention and control sites. This gave a total of 743 fully participating respondents. The original cross sectional sample in each of the three groups would have allowed a difference in the mean change between any two groups of 0.3 of a standard deviation to be detected with 80% power at the 5% significance level. The cohort sample was expected to provide greater power (e.g. to detect up to 0.2 of a standard deviation). The low response rate, however, reduced the power. Even with a good response rate, the evaluation team were aware that small changes could be missed in many of the wide range of CHD related behaviours and risk factors that might result from the HaHP interventions. The survey had not been set up to measure change at multiple (more than two)

³² Whilst data from the contextual analysis is not presented fully in any of the findings chapters, the key information from the analysis was summarised in the introduction to this PhD. Issues about context were also raised in each of the findings chapters where they were believed to have influenced the findings (chapter five to nine) and will also be highlighted again within the discussion. More detail about context can be found in Paterson and Ayana (2004).

time points and so this would also limit the power of the survey and the possibility of assessing individual participants' trajectories of change. The evaluation team were reluctant to repeat the planned follow-up survey in the initially agreed timescales (two and a half years). However, despite concerns raised by evaluators (over low response rates, slow programme implementation and limited time within which change could have occurred) the SE requested that the original timetable and plans be adhered to. It was agreed, however, that follow-up would use all of the limited number of respondents as a cohort and that the health examinations would not be repeated at the follow-up. The follow-up questionnaire was a shortened version of the baseline questionnaire (see Appendix eleven). The indicators selected focused on areas where change was most likely to occur based on the formative evaluation findings. The time from baseline to follow-up was between two, to two and a half years. This was a very short period within which to expect HaHP to employ staff and establish new intensive services that would be functioning at a level that could change entrenched behaviour and risk factors at a population rather than an individual level. The follow-up survey was sent to all previous responders to the baseline survey and a 78% response rate was achieved (n= 556).

Data analysis

Responders and non-responders, and their individual and group characteristics, were compared using independent t-tests and chi square tests. An analysis of paired data was conducted for individuals who responded to both surveys (n=556) illustrating the magnitude and direction of changes in all recorded key variables (n=36) between the Paisley and Inverclyde samples. Chi square tests were used to identify and test the significance of resulting associations. A further comparison was conducted of those within the Paisley sample who had engaged with HaHP (n=54) compared to those who had not (n=220). A process (similar to that described above) investigating the existence, magnitude and direction of any changes in key variables within and between (n=36) the two groups was repeated.

Survey Findings

A full explanation of the findings from the surveys (baseline and follow-up) can be viewed in the independent evaluation reports (Paterson, Blamey and Judge, 2002; Blamey et al., 2004). Only the headline findings are detailed below.

The analysis of paired data for those individuals who had responded to both surveys (n=556), illustrating the extent and direction of changes in all of the key variables (n=36) between the Paisley and Inverclyde samples, uncovered only one variable that showed a significant association. This showed a significant change in knowledge of the number of portions of fruit and vegetables that should be eaten each day to stay healthy. Although knowledge increased in both areas, a greater positive change in knowledge was found in the Inverclyde sample compared to the Paisley sample. No other significant associations were found.

The comparison of the direction and magnitude of changes found between those in the Paisley sample who had engaged with HaHP, compared to those who had not, found only one significant association. This indicated that those who had engaged with HaHP reported a greater improvement in the numbers of portions of vegetables eaten per day than those not engaged with HaHP. No other associations were found to be significant.

Given the number of tests of association carried out (tests on at least 36 variables both between sites and between those engaged or not engaged with HaHP) it is perhaps surprising that more positive findings did not occur even by chance. However, it should be noted that the evaluators could not say with confidence that there were only the two above associations. Other changes may have occurred that were not measurable due to the limitations in survey design, the limited time between follow-up and baseline, the low response rates and problems in the representativeness of the samples.

Interpretation of the findings

Given the resources and time and effort that went into the quasi-experimental survey, the above results, and the learning achieved with regards to the impact of HaHP on population or individual level change, are limited and disappointing. The extent to which these limitations could have been anticipated will be considered in Chapter ten. The discussion will consider the contribution of different methodologies to the learning produced. It should be noted that the lack of impact findings from the limited survey did not prevent future funding from being provided for a transition year and a second three-year phase of HaHP.

The potential to integrate findings from the Theories of Change process, case studies, and the survey.

Given the limitations of the survey there was little potential benefit in attempting to integrate the process and population level outcomes. Any such attempt at integration would have had to carry a substantial 'health warning' in terms of the validity of its conclusions. In addition, the few associations found meant that there were limited positive end-outcomes uncovered that could be linked to the process data from the Theories of Change interviews in order to tell a convincing story with regards to attribution.

The impact data from the survey was not robust in terms of representativeness of the sample, the study power, the use of self-report (in the follow-up survey) rather than objective measures, and the limited time to follow-up. Had it been more robust, the lack of changes achieved across the range of survey measures³³ might have been explained/confirmed by the limited progress made by HaHP in implementation and delivering on their Theories of Change. The slow pace of programme implementation, the relative failure of HaHP to reach large numbers of the population of Paisley with high quality, intensive and evidence-based activities; the limited engagement of the community at a strategic level; and, the failure to change mainstream services and agendas would together have suggested that population level change would not have occurred. For example, even in behaviour areas heavily promoted by HaHP (such as physical activity) there was no evidence of mass participation contained within the process data and correspondingly no change was found in relation to this variable the survey data. Whilst the Theories of Change findings were validated through triangulation across many data sources, methods and timescales, they too were limited to the extent that they could not be further validated (in terms of findings related to reach or appropriateness) against good quality project monitoring data (which was unavailable - see previous chapter) or against the survey data.

In summary, the limitations in the validity and robustness of the survey data diminished any benefits that could be gained with regard to further validating the Theories of Change and case study findings. These limitations also reduced the possibility of improving attribution through integrating the independent evaluation's process and outcome data (Fulbright-Anderson, Kubsch and Connell, 1998).

³³ Changes in knowledge, and self report indicators of attitudes, intentions to change, health behaviours, and health or disease status were all included in the survey

This thesis set out to evaluate HaHP and to assess the utility of the Theories of Change approach for evaluating CCIs (and in particular to explore the Aspen Institute's claims that such an approach can improve programmes, enhance evaluation and improve attribution). The conclusions for each of these objectives are presented in Chapter eleven. It is disappointing that neither robust end-outcome nor monitoring data were produced by the evaluations (internal or external) to allow integration of process and outcome data to ultimately test the effectiveness of HaHP or the Aspen Institute's claim that the Theories of Change approach can aid attribution. It is also disappointing that the early formative theory-based evaluation findings and limited survey response rates did not dissuade stakeholders from continuing with the survey given that the likely limitations in the resulting data were predictable. This perhaps reflects the extent to which theory-based approaches can (in a political policy area and in a dynamic context with multiple stakeholders) actually drive the selection of methods. These issues regarding the impact of HaHP and the utility of the Theories of Change approach (in this context and more generally) and the extent to which it truly delivers on the claims made for it by the Aspen Institute are considered in more detail within the subsequent discussion and conclusion chapters (Chapters ten and eleven).

Part Three: Learning and knowledge generation

- Discussion (Chapter ten)
- Conclusions (Chapter eleven)

Chapter ten: Discussion of findings

Introduction

This chapter serves several purposes and is split into three sections. Section (I) will summarise the key limitations in the methodologies applied within this thesis. It will then consider, in the light of these, the extent to which the findings (presented in Chapters five to eight) are a true representation of the success of HaHP as a community-based CHD prevention programme. Section (II) will highlight the potential reasons for the limited success of HaHP. It will identify lessons relevant for future community-based CHD prevention programmes (addressing thesis objective four). Section (III) will focus on the utility of the Theories of Change approach as it was applied herein and more generally (addressing thesis objectives five and six). Learning for the evaluation of future community-based CHD, and other CCI programmes, will be identified. These discussions will be conducted with reference to the literature reviews (Chapters two and three) and the wider relevant literature. Improvements that should have been made to the HaHP evaluation, given the benefit of hindsight, will be identified. The relative contributions to learning made by the different methods used will be considered. The chapter will finish with some general reflections on the experience of conducting this thesis.

(I) Limitations in the methodologies applied within this thesis

The methodology chapter (Chapter four), and aspects of the finding chapters (Chapters five to nine), provide detail of the limitations of aspects of the methodologies used within this thesis. What follows below is a short summary of these.

Limitations in the general design or process

As a result of the size and complexity of the independent evaluation of HaHP a number of researchers were necessarily involved in the data gathering, analyses and write up. There is a danger that the data has been gathered, analysed and interpreted in an inconsistent fashion or that data collection tools have not been used in a reliable/replicable fashion. To limit any inconsistencies of this type, the author had day-to-day management responsibility for the overall project and she approved all data collection tools. Similarly, all key design and analysis issues were considered at team meetings and consistent approaches to these were encouraged. Subsequent findings were checked by at least two team members. Although each interviewee did not check their qualitative transcripts, all draft reports were submitted to

stakeholders (who were the interviewees) for comments, and amendments made where necessary and/or appropriate to ensure validity.

Whilst the integration of both qualitative and quantitative approaches has become extremely common and encouraged (Cronbach, 1982; Weiss, 1998; Mark and Shotland, 1987) there are some authors (Guba and Lincoln, 1989) who suggest that such integration is problematic as a result of the different (conflicting) epistemological and ontological stances of the approaches (see Chapter three). To minimise difficulties in integrating the data the author used HaHP's Theories of Change (informed by the stakeholders and the literature) as a common theoretical framework. The Theories of Change approach encourages the use of multiple methods and the integration of process and outcomes data in an attempt to improve attribution. Qualitative methods were used throughout the project to gather predominantly formative and process information and only at later stages in the project, once interventions were further progressed, were more quantitative approaches utilised to measure outputs and outcomes.

Limitations in the quasi-experimental survey

There were many limitations in both the design and execution of the survey. Even with the initially intended survey design, the statistical power of the survey was likely to be limited given the range of variables being measured and the potential variation in levels of change anticipated. The study power was also limited by the fact that only two data collection points were intended and that individual participant trajectories of change over various time-points could not be gathered (due to limited funds). The power was further reduced by the relatively low response rate. Any possibility of extrapolating the findings to the wider community were also limited as a result of this and the fact that, although similar, the two samples were biased in favour of older and more affluent residents. Again, the use of only self-report (rather than more objective measures) in the follow up survey further weakened the survey findings. As a result of these issues the initial more complex analysis (multi-variate analysis) could not be conducted and instead only basic tests of association, direction and magnitude of change were conducted. All of these factors meant that the evaluation team could not say with any certainty that there were only two significant associations (only one in the desired direction). It is feasible that change happened which was not picked up by the limited sensitivity or power of the survey or that the two changes found were spurious and due to statistical artefacts or chance.

Limitations in the integrated case studies

There were various limitations within the integrated case study data. The first of these was that a representative sample of GPs could not be recruited into the primary care interviews. Another was that the leisure survey received only a thirty percent response rate. Several key projects (such as the Health on Wheels van) were not represented among the focus groups participants in the community case study, and this same case study had difficulty in recruiting both community strategic representatives for interviews in year three and local community representatives during year one. Where these limitations existed they have been made explicit and attempts were made to avoid generalising beyond the scope of data.

The limitations in the Theories of Change process

The Theories of Change approach was added to the design of the independent evaluation of HaHP after the arrival of Professor Judge who was concurrently using the approach within the national evaluation of Health Action Zones in England (Judge et al., 1999). The outline evaluation design was developed by the grant-holders and approved by the funders, prior to the appointment of the author as evaluation manager and in advance of the identification of the focus of this thesis. This arrangement (and the commissioning of the evaluation after the official launch of the National Health Demonstration projects [NDHPs]), meant that the Theories of Change approach was not applied to the evaluation of HaHP in the format ideally envisaged by the Aspen Institute (Fulbright-Anderson, Kubisch and Connell 1998). It deviated from the ideal because the articulation process started virtually six months after HaHP was launched rather than simultaneously with the project planning process. The degree to which the approach allowed theory to drive the selection of methods and/or design was also more limited than the ideal. Whilst the application of the approach did influence decisions with regard to focusing on the subsequent revisiting interviews and the case study methods, it had only limited influence on the survey, failing to delay or prevent the survey follow-up. It did, however, influence the content of the follow-up survey.

The Theories of Change approach, which requires close working with the stakeholders, could also be seen as reducing evaluators' objectivity. The author, however, took care to delineate her role in critiquing the Theories of Change and advising on the relevant evidence-base from that of making programmes decisions wherever this was feasible. The Theories of Change encourages a democratic approach and so most decisions about the direction of the programme and evaluation were influenced but not fully directed by a wide range of relevant stakeholders. More detailed discussion on these issues will follow later in this chapter.

The Theories of Change data may have been further enhanced had more service recipients been included (see later comments on this matter). However, given the resource and time limitations of the evaluation, a wide range of stakeholders were involved in the process, including those recipients involved in service design and delivery. The population survey also focussed on HaHP participants. Some of the year one interviews, conducted for the theory articulation process, were not recorded. However, the key findings were integrated into the logic models as well as the subsequent critique and analysis of these. These interviews were recorded in subsequent years. In some instances (often at the request of the interviewee) multiple people were interviewed together. Whilst this may have limited the openness of responses in some of these interviewees, there was little that could be done by the researcher to change this situation as individuals either selected this option or were requested to participate by their seniors. Where this happened these issues were taken into account in the interpretation of the data. In relation to these interviews, any data that was perceived to have been influenced by the presence of other interviewees was checked for consistency with other sources and omitted from the analysis if found to be inconsistent. Finally, the sheer number of interviews undoubtedly limited the extent to which very detailed and sensitive data analysis could be conducted. However, analysis was conducted according to appropriate and accepted techniques. The wide range of opinions sought, and the triangulation of data sources and methods, should have compensated for any loss of nuance and depth.

More detail about these deviations and limitations in the Theories of Change approach and their potential implications will be discussed in section III of this chapter. These issues should be borne in mind when generalising the findings with regard to the utility of the Theories of Change from this study to the approach in general. Whilst there were several limitations in the approach, the discussion supports the conclusion that the data gathered from the approach within the thesis are valid.

Are the findings presented in Chapters five to nine real?

Despite the above limitations, the author is very confident that the findings presented in the previous chapters (five to nine) are accurate and valid representations of HaHP's progress against its cross-cutting outcomes and longer-term processes and outcomes. The sheer range of data and the extent of triangulation across sources, methods, timescales and researchers showed very consistent and congruent findings in all but a few cases (which, are detailed where relevant). The observations at the management group meetings also continually reinforced lessons and findings. In addition, the findings are congruent with the those from previous community-based CHD interventions and from other complex community interventions (CCIs). As such, the author feels confident in the findings presented and will

now discuss the learning to arise from them with regard to the implementation and evaluation of future community-based CHD interventions and other CCIs.

(II) Uncovering the reasons for Have a Heart Paisley's limited success

Limited reach, intervention dose and quality?

Insufficient population reach, too little exposure, and a lack intensive interventions were highlighted as a key reasons for the limited outcomes achieved by previous community-based CHD interventions (CBCIs) (Susser, 1995; Sorenson et al., 1998; Thompson et al., 2003). Sorenson et al. stated that:

"[I]nvestigators have postulated that the intervention dose or intensity may have been insufficient, or that participation rates were too low" (Sorenson et al., 1998, p. 396).

It seems likely, from the data presented in Chapter eight, that HaHP similarly failed to penetrate the Paisley population. Thompson et al. (2003) noted the importance of intervention reach. Most of the HaHP programmes that achieved a reasonable level of reach (such as the 143 community chest funded programmes) were those that were less well evidenced [those promoting behaviour change (Marks, 2000; Kelly, 2004)]. They were also likely to have been of poorer quality (given they were run by volunteers with relatively little training) (Glasgow, Vogt and Boles, 1999). In addition, they were infrequent, mainly funded to take place only once a week, and/or were not intensive e.g. school tuck shops, cooking skills events, lunch clubs) (Sorenson et al., 1998). Those interventions where fidelity to evidence-based approaches could be assured and that were delivered by more highly trained staff, tended to have less reach (e.g. the rehabilitation programme and healthercise). Reach and subsequent penetration figures for community based CHD interventions (CBCI) activities that were reported in the literature review showed maximum reach to be 60% for programmes such as media activity or screening, and closer to 10% for more intensive activities such as exercise programmes (Merzel and D' Affitti, 2003). Market research commissioned by HaHP confirmed that 80% of the Paisley population were aware of the HaHP brand and knew about HaHP (George Street Research Ltd, 2003). This level of awareness would seem a highly successful outcome relative to previous interventions. This awareness, however, in the same piece of research was not shown to have translated into engagement with the HaHP (George Street Research Ltd, 2003) reinforcing the findings in Chapter eight.

Limited programme duration

Many of the previous programmes (e.g. Minnesota Heart Health Project, Pawtucket Heart Health Project and project COMMITT) were perceived to have had too limited a period of time in which to establish their programmes and enthuse their communities prior to being evaluated (Puska, 2000; Merzel and D'Affiti, 2003). This limited time scale is particularly pertinent given the longer term outcomes against which such programmes are judged (Puska, 2000; Susser, 1995). The HaHP stakeholders felt strongly that the timescales they had to deliver within were too short and the consequent goals they had identified [and had been encouraged towards by funders (Mackenzie, Blamey and Hanlon, 2006)] were overly ambitious and unrealistic. The time taken to establish complex projects (such as the refurbishment of the rehabilitation centre, and solving the IT problems with the Central Data Repository) was severely underestimated and this further limited the actual time that target participants were exposed to the fully operational interventions.

The short duration of projects also caused problems with regards to the evaluation. For example, it is feasible that short programmes and slow implementation further exaggerates any existing lag time between when a participant is exposed to the interventions, when they feel confident and able to change their behaviour, and when that might lead on to measurable changes in risk factors or disease states (Susser, 1995). Given the short timescales between the pre and post evaluation measures in most evaluations, it is feasible that change that does occur happens after the evaluation has finished. Timescales are, therefore, often unrealistic for the evaluations as well as the interventions. HaHP stakeholders believed that the independent evaluation was of too short a duration.

The NHDPs were expected to deliver on a wide range of topic specific indicators (CHD, child health, sexual health) (see Mackenzie, Blamey and Hanlon, 2006). They were also expected to: address health inequalities; improve partnership working; deliver innovative and evidence-based practice; and provide lessons for early national rollout. This was all expected to be delivered within three years (McVea et al., 2001). The persistence of such high and unrealistic expectations from funders continues irrespective of the mounting evidence from both the CHD and evaluation literature of the difficulty and unfeasibility of delivering on such outcomes (Martin and Sanderson, 1999; Sanderson, 2002; Susser, 1995; Auspous and Kubish, 2004; Coote, Allen and Woodhouse, 2004; Bauld et al., 2005; CRESR, 2005; Mackenzie, 2006; Judge and Bauld, in press).

Lack of exposure compared to alternative commercial influences

The literature review also emphasised that the intensity and exposure to campaigns should be viewed against the likely impact of ongoing opposing marketing activity and non-healthy influences in wider society (such as food, tobacco and drinks promotions and car advertising) (Fortmann et al., 1995; Merzel and D’Affitti, 2003). As Sorenson et al. (1998) put it:

Alternatively the dose of intervention may have been inadequate relative to other forces in the environments, such as an information environment already saturated with sophisticated advertisements and product promotions, promoting products from tobacco to fast foods” (Sorenson et al., 1998, p. 396).

HaHP reported similar findings with regards to drop-off in attendances at their lunch clubs resulting from competition from local department store cafeterias. Similarly, the experience of their local food van (which itself started to sell burgers!) was similar in terms of competition from large-scale supermarket monopolies sited in centralised venues and discounting bulk buy 'unhealthy' foods.

Lack of upstream interventions

A key criticism made of previous CBCIs was that, despite initial intentions to design upstream interventions that would change structural and policy issues, they tended in reality to revert to delivering small scale, individually focused, topic and lifestyle interventions (McInlay, 1993; Sorenson et al., 1998; Merzel and D’Affitti, 2003). The evidence cited in Chapters seven and eight suggested that HaHP also failed in these respects. HaHP’s inability to substantially influence mainstream services and agendas within the local authority, their failure to progress the implementation of the smoking and nutrition policies, or to improve access to healthy food in workplace or retail settings, all illustrate these issues. Unlike North Karelia, HaHP did not fully achieve community ‘buy in’ and had limited influence on services (Puska et al., 1998). This may have been due, in part, to differences in intervention duration and context. North Karelia lasted for twenty years and was situated in a context and timescale (started in the 1970’s) more conducive to centralised solutions and state involvement. The time and effort taken to achieve such upstream legislative and ecological change was emphasised by Susser (1995) and Sorenson et al. (1998), in relation to smoking:

“[T]he glacial pace of this initial change showed that it takes continuous effort and patience to build the momentum of a social movement that can halt and then turn back the epidemic; the

long awaited decline (in smoking) followed two decades of unrelenting campaigning" (Susser, 1995, p.158).

The availability and application of evidence and model fidelity

Whilst HaHP's overall Theory of Change was supported relatively well by evidence, this was less true of some of its operational interventions (such as HaW, Healthercise and some of the community chest funded projects). It is likely that this lack of fidelity to evidenced models (where they existed) also led to a lack of impact. This issue is, however, not a straightforward one since in many of the areas that HaHP hoped to achieve change there was a limited or contested existing evidence-base (Auspous and Kubish, 2004; Coote, Allen and Woodhouse, 2004; Mackenzie and Blamey, 2005). This was true for areas such as community building and engagement, addressing inequalities and influencing mainstream services (Merzel and D'Affitti, 2003; Judge et al., 1999; Auspous and Kubish, 2004; Coote, Allen and Woodhouse, 2004; Barnes et al., 2005). Cheadle (1997) for example, suggested that attempts to engage and involve communities were necessarily based more on 'faith than evidence'. The lack of such evidence limits the capacity of programmes to clearly articulate outcomes and select appropriate activities to address them. HaHP struggled to fully achieve its activities and ambitions with regard to community involvement and to agree definitions or identify actions with regard to inequalities. In turn, this impacts on a project's evaluability, which subsequently further limits the progression of evidence with regard to what works. This 'catch 22' situation is to some degree exacerbated by the Theories of Change approach which encourages articulation of plausible and testable outcomes (see later in this chapter) (Auspous and Kubish, 2004; Coote, Allen and Woodhouse, 2004; Mackenzie and Blamey, 2005; Sullivan, Barnes and Matka, 2002).

The use of evidence is further complicated when one considers that the literature also recommends that activities should be designed to be appropriate and acceptable to communities and tailored to suit different target-groups (Thompson et al., 2003; Merzel and D'Affitti, 2003). Finding evidence-based interventions in many areas is a difficult task (Kelly, 2004). Ensuring that such interventions maintain fidelity to their tested protocols, whilst adapting them to suit communities and sub groups, encouraging their adoption by multiple organisations (in a range of settings), and ensuring their delivery by trained practitioners, however, is a somewhat more difficult task (Glasgow, Vogt and Boles, 1999). HaHP struggled with some of these challenges and their resulting dilemmas (e.g. refusing to use laser therapy for smoking cessation, ensuring standardised interventions in pre five establishments and attempting to ensure quality in volunteer led projects). Given these factors, it is perhaps not surprising that some of the operational projects were less than evidence-based.

Proximity and severity of risk

Merzel and D'Affitti (2003), in their comparison of the success of HIV/AIDS and CHD interventions, highlighted that the perception of the risk involved in the disease that is targeted might influence intervention success. They also suggested that peer educational approaches were successful in projects that had relatively well defined primary risk groups (e.g. for HIV/AIDS those engaging in unprotected sex and/or with multiple partners). They suggested that the proximity (in terms of time from exposure to illness), severity (death or increasing risk) and the number of times that an individual is exposed before the disease is established (e.g. having unprotected sex only once might result in contracting HIV, whereas inactivity over long periods may lead to CHD) might all influence the success of programmes. The marketing campaigns promoted by HaHP attempted to focus on early benefits that would result from risk behaviours (e.g. psychological effects of activity), however they were, in the main, dealing with a disease that has a long developmental period and results from prolonged exposure to multiple small scale common behaviours (e.g. fat intake and inactivity). HaHP used peer educational approaches through the learning and development 'public health award' scheme and the community chest. However, HaHP had a much larger and more diffuse target group exposed to the risk factors and the disease. As such, changing social norms through activity such as peer education would possibly be more difficult with regards to CHD than HIV/AIDS.

Salience and importance of the issue to the population

As well as facing problems in terms of the diffuse nature of the at-risk population and the proximity of risk, HaHP was being delivered in a context where other issues were more imminent and pertinent to their audience (both members of the public and professionals). The extent to which the residents of Paisley responded to, and engaged with, the opportunities provided by HaHP was likely to have been influenced by their current circumstances and previous experiences. Many of the Paisley population were living in relative poverty, were possibly incapacitated or unemployed, may have been in the middle of being re-housed or had a range of caring responsibilities. CHD and its long-term effects were unlikely to be their key priority. As implied by Merzel and D'Affitti (2003), the longer-term risk of CHD was possibly not imminent, nor salient enough, given these other issues. In addition, Paisley residents may have had reservations about engaging with another short-term area-based initiative when previous projects may not have addressed their needs. HaHP was tasked with engaging the community in the design and implementation of its programmes and made a positive effort at achieving this (given the lack of available evidence on how to do this [Cheadle, 1999; Auspous and Kubisch, 2004]). However, the Theories of Change and case study data clearly indicated that HaHP, given its clear focus on CHD, was still perceived as having a top down agenda by its implementers, recipients and funders (Mackenzie, Blamey and Hanlon, 2006).

Contextual barriers to implementation

The importance of context in influencing the delivery of CCIs provided a strong rationale for uncovering contextual factors as part of the Theories of Change (Fulbright-Anderson, Connell and Kubisch, 1998; Gambone, 1998). A range of contextual factors were reported as having acted as barriers to HaHP's implementation (Chapter seven and eight). HaHP was hosted in NHS Argyll and Clyde. Throughout the lifespan of HaHP, NHS Argyll and Clyde was in major financial deficit and, although the funds were ring-fenced for use by HaHP, the resultant environment was reported as hindering HaHP in relation to a range of issues. Partnership relationships between the NHS and the local authority were acknowledged to be strained. The initially established monthly meetings between the local authority and NHS CEO's were halted during year one of the intervention. During the second year of HaHP the NHS Board CEO was removed and replaced with an interim CEO. As HaHP moved into its second stage of funding (the first year of phase two), NHS Argyll and Clyde was disbanded and split between neighbouring NHS Boards. These contextual issues were likely to have contributed to the projects limited success. The findings highlighted a lack of leadership for HaHP within the wider NHS, particularly in relation to issues such as evaluation and impacting on mainstream services. These factors may also have reduced the scope for both strategic planning and influencing mainstream services.

The cluttered policy and intervention environment

The range of other ring-fenced pilot activity that was being bid for, or delivered, during the implementation of HaHP was also likely to have diminished the degree to which HaHP could be at the centre of partnership agencies' agendas. Examples of such programmes included Better Neighbourhood Services Funds and New Opportunities Funding for physical activity, Cancer, CHD and Healthy Living Centres. Similarly, there was a range of mainstream policy work and service restructuring in areas such as Hungry for Success (school nutrition), a school closure programme, the General Medical Services contract (GMS) in primary care, and the development of integrated service delivery structures such as Community Planning Partnerships and Community Health Partnerships. Whilst in an ideal world such activity should build on existing programmes and add value, the reality is that these programme and restructures place additional pressure on managers and operational staff in mainstream services in terms of bidding for the funds and managing and integrating developments with mainstream budgets and activities. All of this diminishes time to commit to partnership working and to maximise learning for policy and service improvement. Political instability and cluttered policy contexts have been shown in other recent CCI evaluations to cause similar difficulties for implementers (Mackenzie et al., 2005; Sullivan, Barnes and Matka, 2002)

A further limitation of previous CBCIs was that they lacked an overt theoretical framework (Koepsell et al., 1992; Merzel and D'Affitti, 2003). Frameworks that were uncovered were often not sophisticated enough to guide implementation and evaluation, particularly in relation to attempting to achieve upstream structural solutions and addressing health inequalities (Koepsell et al., 1992). Part of the purpose of applying the Theories of Change approach within the HaHP evaluation was to uncover the project's theoretical framework and to overcome such limitations. Commentary on the extent to which this was achieved will be provided in section (III) of this discussion.

Summary of factors influencing the perceived limited impact of HaHP

The discussion above presents evidence to support the claim that HaHP had repeated many of the failures that were evident in previous CBCIs. It might, therefore, be assumed that the author is citing implementation failure as the reason for limited impact. However, whilst implementation failures occurred, some of the limited impact is also due to factors that were out with the control of the implementation team. Many of them represent systemic failures that have been (and are likely to continue to be) widespread. They relate to issues such as the continued commissioning of projects (and indeed evaluations) with over ambitious aims and objectives relative to their resources and the current available evidence-base to address such intractable social problems.

Such systemic failures are also reflected in the contexts in which these projects exist. These contexts, and more importantly those attempting to work within them, are flooded with and overcome by, multiple policy interventions, pilot projects, and ring fenced monies that have similar (or sometimes conflicting) aims and objectives (Sullivan, Barnes and Matka, 2002; Mackenzie et al., 2005). These projects have inconsistent reporting mechanisms and accountability structures. Many have at their heart a longer-term aim to modernise and increase the effectiveness of mainstream services, yet they often hamper (and are hampered by) the delivery of these very services (Mackenzie et al., 2005). Whilst demonstration projects such as HaHP come with funding to employ core staff, they require enormous commitment and time from staff employed to deliver these mainstream services. Generally, it is these staff that work to win the funds in the first place, recruit core staff, and oversee the implementation, monitoring, evaluation and subsequent mainstreaming of these programmes. This is generally expected to be achieved alongside their core responsibilities to deliver mainstream services. Given these factors it is perhaps not surprising that HaHP and many other similar initiatives have failed to deliver on their potential.

The subsequent section discusses key issues in relation to utility of the Theories of Change approach within the independent evaluation of HaHP and the implications of the resultant lessons for the evaluation (rather than the implementation) of CCIs.

(III) The utility of the Theories of Change approach

Whilst some of the limitations with regard to the application of the Theories of Change approach in this evaluation are summarised above, these will now be considered in more detail. This is done to address objectives five and six of the thesis which were to:

- reflect on the utility, strengths and weaknesses of the Aspen Institute's Theories of Change approach as it was applied in the independent evaluation of HaHP; and,
- to identify learning from the application of the Theories of Change approach that can (if appropriate) improve its application within future CCI evaluations.

The following section will draw out lessons relating to (a) the theory articulation process, (b) the theory critique and (c) the theory testing

(a) Lessons from the theory articulation process

The timing of the theory articulation process

As indicated above, the Theories of Change approach should be used as early in the programme planning process as feasible. This was not the case within the evaluation of HaHP. This scenario, however, is not unusual (Connell and Kubisch, 1998; Sullivan, Barnes and Matka, 2002). As Philiber highlighted:

"It is a luxury when this process can take place before a new program begins" (Philiber, 1998, p. 97).

Within HaHP, the process began nearly six months after the launch of HaHP and it took six months for the initial theory to be articulated and agreed. Herbert and Anderson (1998) warned that such delays could cause difficulties for evaluators if they are seen as being critical of previous planning processes and plans. This was not the author's experience (possibly due to the intensive manner in which the articulation was conducted and trust built with the programme staff). One of the intended benefits of the approach is that it can improve programme planning and implementation (Fulbright–Anderson, Connell and Kubisch, 1998). Its scope to do this, however, is contingent on formative feedback being available early

enough to be capable of influencing the programme plans and implementation (Sullivan, Barnes and Matka, 2002; Mackenzie and Blamey, 2005). Whilst every attempt was made to make feedback available to the HaHP management group, as early as feasible and on a monthly basis, several stakeholders did indicate that the approach would have been more useful earlier in the planning process.

The tools available to explicate and represent the Theories of Change and the current limitations of these

In Chapter four (and elsewhere -Mackenzie and Blamey, 2005) the author detailed that, other than the explication questions and the basic model provided in the initial Aspen papers, there was a lack of tools to aid the articulation process (Fulbright-Anderson, Kubisch and Connell, 1998). For this reason the author utilised and adapted logic models as proposed by Cole (1999) and Rush and Ogborne (1991). However, these tools are not without their limitations. Several authors have reflected that logic models (and Theories of Change models) are too linear to deal with the dynamic and iterative realities of CCIs (Barnes et al., 2003; Earle, 2003; Davies, 2004; Mackenzie and Blamey, 2005; Mackenzie and Benzeval, 2005) and are attempting to adapt these and develop other models for use with multi-site and complex interventions (Davies, 2004, Milstein et al., 2002).

The output from logic modelling or theory articulation, however, should ideally both represent complexity and be simple enough to allow non-specialists to contribute to their development. They also require to be designed so that they can be used effectively as communication, management, evaluation and reporting tools (Kellogs, 2002; Dearden, 2005). Anderson et al., (2003), reflected that examples of public health programmes that use logic models are available, but often evaluators fail to report on the process of using them, thus limiting improved applications.

An additional problem is the extent to which the demand for plausibility, and evidence to substantiate the links between activities and outcomes, privileges programmes with an existing evidence-base (in the case of HaHP more clinical interventions). This negatively reinforces the evidence generation process as programmes without an existing evidence-base produce less plausible theories that are more difficult to reconcile with outcomes. Innovative interventions are, therefore, further disadvantaged (Sullivan, Barnes and Matka, 2002; Mackenzie and Blamey, 2005).

The Aspen Institute has now provided much more detailed support and guidance for those attempting to utilise the approach (www.theoryofchange.org/Actknowledge). Such a resource was not, however, available at the time of conducting this evaluation:

"A number of tools and resources have been developed in recent years to help this endeavour including a growing pool of skilled and experienced individuals who can facilitate the process and train others to do so. There are also several how to guides and manuals" (Auspos and Kubisch, 2004, p. 15).

The time, methods and effort required to articulate the theory

The initial theory articulation process in HaHP took nearly six months. This was partly to do with the methods used (documentary review, in depth individual interviews/discussions and reporting to the management group) and the number of stakeholders involved (thirty seven in total – thirty three of whom were interviewed each year). The Aspen Institute authors suggest that a variety of methods can be used (Fulbright- Anderson, Kubisch and Connell, 1998). Philiber (1998) and Milligan et al. (1998), for example, suggest small group interviews can be conducted and can provide an outline theory speedily and can build group relations. However, the author used interviews (due to their methodological advantages in uncovering sensitive information³⁴ and building trust) (Bowling, 1998), and to develop strong relationships with stakeholders (Brown, 1998). Many of the Aspen CCI examples were multi-site. HaHP was a single site and the author thought that intensive methods with a single site would increase the specificity of the theories developed (Philiber, 1998).

There are likely to be benefits and drawbacks to using more or less intense explication methods. Group sessions will be less time consuming, may quickly highlight conflicts and inconsistencies and may increase shared understanding (Milligan et al., 1998). However, they may lead to a lack of specificity and be less open and democratic (Sullivan, Barnes and Matka, 2002). This latter issue was experienced in some of the multiple interviews within HaHP, where senior personnel dominated proceedings (e.g. the HaW interviews). The approaches used in the thesis were time consuming but allowed a wide range of voices (operational and strategic and professional and volunteer) to be heard.

There are, therefore, many ways to articulate a theory. Some approaches may be more appropriate and feasible depending on the project size, number of sites, domain area and mix

³⁴ This decision was reinforced by observations at the management group, that highlighted that members of the group had different levels of confidence and authority due to their senior professional status, and some were likely to dominate the proceedings in a group session (particularly in relation to community representatives).

of stakeholders. If time is limited probably only a group approach is feasible. This may bring with it many benefits but it also has potential limitations. The democratic nature of the endeavour, and the timescales and resources available, will all be relevant to decisions regarding how to articulate the theory. From the author's experience with HaHP and that of other CCI evaluators, the time, cost and effort it takes to explicate well-specified and agreed theories is substantial and should not be underestimated by evaluators or funders (Judge and Mackenzie, 2001; Sullivan, Barnes and Matka, 2002; Mackenzie and Blamey, 2005). This point was reinforced in the more recent papers by Auspous and Kubisch (2004):

"Helping stakeholders to develop good theories is a time consuming, resources intensive process that requires several iterations, good facilitation, and access to information. Stakeholders need to be guided through the process of thinking systematically about change, drawing connections to establish causality, identifying the possible effects of their actions, and understanding the potential interactions among components of their initiative" (Auspous and Kubisch, 2004, p.15).

Who should be involved, and how to deal with inconsistent or competing theories?

The Aspen Institute papers encourage evaluators to engage with a wide variety of stakeholders but state that:

"Beyond the general frame, however, much has to be determined locally. Who participates in the conversations? How, when and where would these conversations take place? These questions must be resolved within the community setting" (Connell and Kubisch, 1998, p. 23).

Whilst this is understandable, evaluators may need to establish how such decisions can be made whilst: protecting the democratic principles underpinning the approach; ensuring the engagement of those who can change the initiative if appropriate; conducting the activity within budget and timescales; and providing feedback appropriate to all those engaged in the process.

Within the HaHP evaluation there was benefit in interviewing both operational and strategic personnel. Chen (1990) notes that strategic planners are often unaware of how programmes are operationalised. This was reinforced in the HaHP and Health Action Zones evaluations (Judge and Mackenzie, 2002; Mackenzie et al., 2005). The HaHP strategic staff had clearer concepts of the overall theory while operational staff supplied specificity and important

contextual detail. Many inconsistencies in the theories (e.g. in relation to evidence and timescales) were highlighted through including both groups.

The greater the number and backgrounds of stakeholders, the more substantial the time, costs and the potential for disagreement with regards to the programme theory. This brings with it an additional problem - how to deal with such disagreement? Whilst early proponents of the Theories of Change approach commented on the problem of dealing with multiple and sometimes competing theory, no clear guidance resulted. Some proponents, for example, indicated that there may be multiple theories within CCIs and that stakeholders may actually be operating towards different and competing theories (Connell and Kubisch, 1998; Weiss, 1995). Weiss (1995) and Connell and Kubisch (1998) suggested that competing theories should be surfaced and that it may be feasible to move forward with multiple theories and to track these within an evaluation. Connell and Kubisch (1998) however, also stated that such theories need to be 'integrated' (the same as reconciled?) at the points of resource allocation and evaluation:

"CCIs that remain inclusive enough accommodate these multiple theories cannot avoid integrating the theories at two points: the allocation of resources and the evaluation" (Connell and Kubisch, 1998, p. 30).

Given that resource allocation usually occurs early in the life of a CCI, it would seem that theories do need to be resolved in some fashion quite early in the process. Connell and Kubisch (1998) suggested that resolving such conflicts is a political process and the experience of HaHP would confirm this. One disagreement within HaHP was in relation to the interpretation of evidence-based practice within the workplace (HaW) programme. This issue was never fully resolved, partly due to the political difficulty of halting one of a key partner's (the local authority) projects and damaging partnership relationships. Sullivan, Barnes and Matka (2002) highlighted that the need for agreement on potentially competing theories within deadlines may reduce the range and types of stakeholder engaged in the process and so limit the democratic nature of the approach or the intervention:

"The need for all stakeholders to agree in order to meet externally defined deadlines may paradoxically result in fewer stakeholders being engaged in the process This requirement almost certainly prefers those stakeholders that are involved from an early stage, have an established place at the table and understand 'the rules of the game' to those who are less well organised, less well served by current arrangements and more likely to be disadvantaged as services users and communities. Thus Theories of Change may appear to be consensual because dissenting voices have not been included in the process of their generation or

because the pressure to articulate a coherent theory has closed down the exploration of difference” (Sullivan, Barnes and Matka, 2002, p. 209).

The lack of community/volunteer stakeholders in HaHP and the relative consistency in the theories at the strategic level in theory articulation interviews perhaps reinforces this issue. Similarly, members of the SE (as funders) were not included within the formal HaHP theory articulation process. In retrospect this was a mistake, and during the second year of the project a separate focus group was conducted to gather the funders' theory for the project (Mackenzie, Blamey and Hanlon, 2006).

Whilst the ideal scenario might be to involve as many stakeholders as feasible, the pragmatic reality is that limits must be placed around whom to involve and how long the process should take. At a minimum, evaluators should make such decisions explicitly and should lay them open to public scrutiny both in advance and as part of the dissemination of findings.

(b) Lessons from critiquing the theory

How good are the Aspen Institute criteria for critiquing a Theory of Change

Critiquing HaHP's initial theory, using the Aspen Institute's criteria of plausibility, testability, and do-ability, highlighted significant problems in the plans. Many authors have highlighted that CCIs have difficulties in linking activities to interim and long-term outcomes and consequently set highly ambitious outcomes (Judge and Bauld, 2001; Mackenzie et al., 2001; CRESR, 2005). Whilst this was the case in HaHP an additional, and more specific problem, was gauging the timescales required to achieve outcomes. Timescales for outcomes to be delivered were requested during initial interviews in an attempt to provide more specificity in the individual logic models [e.g. SMART objectives (specific, measurable, action orientated, realistic, time limited)]. On reflection, not enough attention was paid to the expected timeline of impact for the overall HaHP intervention and its underpinning theories. There was, in particular, a lack of specificity in relation to issues such as: when sufficient numbers of different target groups or the general population would be reached by HaHP's interventions; when enough agencies would adopt a policy or programme; or, how long individuals or agencies would need to remain engaged with the programme. Had a more specific timeline been developed for the overall intervention, it would have been easier to delineate more clearly progress with regard to issues such as reach. In turn, it might have been more feasible to delay or refocus the follow-up survey and improve the outcome evaluation. Shridharan, Campbell and Zinzow (in press) suggest that implementers can identify feasible timescales when supported to do so, and propose a number of possible

methods to encourage this. A more explicit emphasis on an overall intervention timeline of impact might further improve the existing Aspen Institute criteria.

Merzel and D' Affiti (2003) highlighted the lack of available information on the quality of activities in community-based CHD programmes and how this limits assessments of, and explanation for, their impact. An explicit criterion for checking the quality of activities is also missing from the Theories of Change critiquing process. Aspects of 'do-ability' cover quality in respect of the qualifications and skills of staff or the amount of resources required. However, in activities not delivered by 'professionals' or where guidelines are not commonplace, judging these criteria may be particularly problematic. Planning and evaluation frameworks such as RE-AIM (see RE-AIM.ORG) promoted by Glasgow, Vogt and Boles (1999) (which consider how interventions tested for efficacy under controlled conditions can be translated to 'real life' situations) may have something to offer in such instances. Such frameworks consider issues such as 'model fidelity' and what aspects of a programme can be changed or diluted without an intervention losing its efficacy. Clarke and Anderson (2004)³⁵ emphasise that the Theories of Change approach differs from logic models in that it requires detail of the causal pathways and should, therefore, uncover issues about the required dose (e.g. frequency, length and intensity) of exposure. This seemed less obvious in earlier Theories of Change papers. Whilst issues of dose may be uncovered this still does not fully address the problem of ensuring quality. More generic measures of quality perhaps need to be developed and added as an independent criterion to the existing Aspen list.

How well specified does a Theory of Change need to be?

Mackenzie and Blamey (2005) highlighted concern over the lack of clarity within the initial Aspen Institute papers regarding the levels of specificity required within a Theory of Change. Enough specificity is required to identify potential thresholds of change and timescales that could be linked to outcomes to improve attribution, however, little else is said with regards to levels of specificity (Philber, 1998). Connell and Kubisch (1998) warned of leaving theories too ambiguous, resulting in stakeholders "projecting their own preference" (page 30). Given the complexity of such initiatives and the multiple interventions (and often sites) that they may incorporate, evaluators need to think carefully about the degree of specificity needed and the trade off between time and specificity. This issue is particularly pertinent given that this approach is utilised generally to capture the holistic CCI rather than to select the most promising theories (as is more the case in Realistic Evaluation).

³⁵ In a presentation to AES conference Atlanta 2004

Some additional guidance has been provided in more recent Aspen papers (see paper on Scope –www.actknowledge.org). This site suggests that the degree of specification should be directly relevant to the purpose of the theory being generated (whether it is being generated for planning or evaluation) and whether it is generated prospectively or retrospectively. It suggests that well specified theories would tend to have fewer assumptions accompanying them and provides various definitions of differently scoped theories (e.g. from 'narrow and shallow' to 'broad and deep'). The reader is still left with the dilemma that:

"[T]he less detailed your theory, the fewer uses you can put it to" (Paper on Scope – www.actknowledge.org, 2006, Final page).

Evaluators could easily be swamped by the task of continually returning to refine and further specify an endless range of outcomes (as highlighted below):

"Theories of change need to be created with an eye to change. Replaceable, disposable paper, not stone tablets, is the appropriate medium on which to record them. We counsel programs to re-examine their theories regularly, and certainly to re-examine them over time and any time they have data in hand against which to check. Thus, creation of a theory of change does not end with the first draft, particularly for initiatives that have the luxury of interactive evaluations" (Philliber, 1998, p. 94).

If the utility of the approach is dependent on a level of specificity then sufficient funds must also be assigned to the task.³⁶ Key questions, therefore, remain with regard to how much detail is required for the overall and individual elements of CCIs if the theory is meant to deliver on all of the Aspen Institute claims (improving planning, enhancing evaluation and aiding attribution).

The type of theory generated by the Theories of Change process within HaHP

In their reflections on the Theories of Change approach Kubisch et al. (2002) state that:

"It is possible to specify the components of Theories of Change and the relationship among them, even for the complex and multifaceted community change efforts. 'Theory' in our

³⁶ In the case of HaHP the PhD author's time was never directly costed into the research proposal. Her post was funded through the Health Education Board for Scotland (now NHSHS – a key stakeholder in the NHDPs) and they approved the use of a substantial proportion of her post for this purpose. Given that this involved the theory articulation and testing processes as well as generally managing the evaluation this would have substantial costs in other circumstances.

context is not abstract; it is a concrete statement of plausible, testable pathways of change that can both guide actions and explain their impact" (Kubisch et al., 2002, p. 75)

Despite the effort that went into articulating HaHP's Theories of Change, the resultant theory that emerged from the articulation process was theory about the programme plans. This theory described the intended and actual implementation actions (e.g. Chen's prescriptive or Weiss's implementation theory as detailed in Chapter three). It did not explain the intended impact of the plans in a more causal sense [e.g. Chen's (1990) descriptive or Weiss's (1998) programme theory]. With the possible exception of some theories about professional or agency responses to the planned interventions (e.g. changes in professional knowledge and practice or agenda change), little was uncovered with regards to the Paisley residents'/professionals' motivations to engage with, and adhere to, the new opportunities and treatments provided. This is an important point as it limits the type of learning from the application of the Theories of Change approach in this evaluation. It has provided learning about the process of implementation, such as applying evidence or achieving reach. Whilst such learning is valuable, and to some extent generalisable as it relates to the overall cross-cutting approaches that underpin many similar initiatives, it is still about implementation rather than underlying generative mechanisms or middle range theories (as described by Pawson and Tilley, 1997). Such causal theories in HaHP, for example, could have uncovered why certain services or opportunities were taken up more by specific target groups or agencies than others? The application of the Theories of Change approach in HaHP has, therefore, at best further refined future evaluation questions (such as the contextual and systemic influence on CCIs) or added some further weight to previously articulated arguments (such as the potential importance of proximity and imminence of risk with regard to CHD). Whilst this is disappointing it does not appear to be unusual. Despite the ambition, in the early Aspen papers and in their 2002 reflections, that casual theory could be articulated through the Theories of Change approach, more recent commentary highlights such hopes maybe too inspirational. Although numerous CCIs have now been evaluated using the approach:

"In the end the evaluations have turned out to be more descriptions of the feasibility of implementing CCIs than tests of the effectiveness of the approach" (Auspos and Kubisch, 2004, p 5).

Similar findings have resulted from for the key UK evaluations applying the approach (Sullivan, Barnes and Matka, 2002; Barnes et al., 2005; Mackenzie and Benzeval, 2005; CRESR, 2005). Given her experience of the theory articulation process in HaHP, the author would question the feasibility of generating 'causal theory' (in terms of psychological or motivational mechanisms) or explaining individual or group responses in interventions of this size and complexity (Blamey and Mackenzie, forthcoming). The examples in the evaluation

literature where such generative casual mechanisms have been developed tend to be in less complex initiatives (Pawson and Tilley, 1987; Blamey and Mackenzie, forthcoming). Given that many applications of the Theories of Change approach are in complex multi-site interventions, it remains to be seen whether both implementation and casual theory can be generated and tested with a view to improving attribution within evaluations.

To what extent does the formative feedback actually lead to project improvement?

One of the three main proposed benefits of using the Theories of Change approach was to provide formative feedback and to improve programme planning and implementation. The author's experience, however, was that, despite being viewed as virtually an implementation team member, and although the Theories of Change feedback was welcomed (Evaluation Task Group Review, 2003), these factors did not ensure that such feedback was acted upon. The author provided ongoing feedback to the HaHP management group and there were multiple interim reports with strong recommendations. However, many of the problems highlighted during the theory articulation actually remained throughout the three years of the project. Whilst feedback was later than was ideal, there were most likely other reasons for the lack of significant improvement detailed previously. The more systemic and contextual problems faced by the project (e.g. loss of staff including the coordinator and internal evaluator, and the financial deficit) probably also hindered corrective action.

An additional problem is that whilst the Theories of Change approach can raise issues it cannot necessarily always suggest appropriate 'real time' solutions. For example, raising concerns over the lack of clarity with regards to definitions of community building and health inequalities and reflecting on the fact that there is limited evidence available to guide such activities does not actually solve this problem for the project (Aupous and Kubisch, 2004; Coote, Allen and Woodhead, 2004). Similarly, highlighting limitations in monitoring and a lack of internal evaluation capacity did not resolve the lack of available staff or skills in these areas.

On a more positive note, the early Theories of Change critique did have some influences. Where feasible tools, guidance and support to make changes was provided (e.g. HaHP were encouraged and supported to utilise the RE-AIM framework [RE-AIM.ORG] to improve project reach). Some of this guidance and support was used to develop the phase two plans. Similarly, some of the issues raised through the critique process were responded to by the SE to the extent that they encouraged the NHDPs to work with a commissioned performance management trainer for a short period to help them to further improve plans and refine the specification of key outcomes. The Executive also requested that the projects submit key

outcome grids reflecting on the lessons within the theory articulation report (Blamey, 2001). However, neither of these processes ensured that HaHP actually tackled the key concerns raised. Perhaps the greatest contribution of the Theories of Change approach, as it was applied to HaHP was through the Evaluation Task Force review (see details below). The findings from the reflections of the use of the approach within the review have impacted on the commissioning processes and the more general evaluation support activity within NHS Health Scotland (NHSHS - the special health Board responsible for guidance and implementation on Executive public health policy). For large-scale evaluations, NHSHS now routinely encourages commissioned research teams to utilise logic models or aspects of the Theories of Change approach to inform the design of their evaluation. The commissioning process now requires only an outline bid to be submitted at the tendering process with clear information as to how the project theory will influence the future design. Coupled with this, NHSHS's Policy Appraisal and Evaluation Team are undertaking logic modelling and theory critiquing with all key Public Health policies as part of their agreed support to the Executive (NHSHS, 2006, Evaluation Strategy).

Stakeholder buy in

The lack of action on the recommendations from the critique may also have been partly as a result of the way that HaHP was constituted. Whilst the project had ring-fenced money and was hosted as part of a larger organisation, it was (like most CCIs) a partnership. As a result, it seemed that HaHP did not have the appropriate organisational structures to address the weaknesses uncovered. Alternatively, this may have been partly due to the fact that the co-ordinator's post was at a more junior grade than most of those within the management group. Consequently, she had limited scope to influence other individual and organisational practices and decisions. Such influence would need to have come from a united management group who were as motivated and interested in HaHP as a whole as they were in their own particular discipline or organisational area within HaHP. On reflection, whilst the management group were highly motivated they were not all fully engaged with the detail, nor were they prepared, and politically able, to intervene in wider partnership project issues. It is unlikely that HaHP was unique in this sense. Given that CCIs by their nature require to be delivered by partnerships, the problem of stakeholder 'buy in' to the Theories of Change process is of general concern. The parallel NHDP Starting Well evaluation conducted by the HHPU (Mackenzie, 2006) also utilised a Theories of Change approach and experienced similar problems. Whilst some action was taken in response to issues raised, the key stakeholders within this evaluation were less welcoming of feedback from the process than the HaHP stakeholders (Mackenzie, 2006 and Evaluation Task Group Review, 2003), and were surprised when the evaluator, who had worked closely with them, then proceeded to write a report that had critical elements within it.

Who owns the articulated theory and who, therefore, influences project adaptation.

Whilst in the Theories of Change approach the evaluator is viewed as facilitator and tester of the theory (Herbert and Anderson, 1998), the extent of influence they may have might be much greater. The experience in HaHP was that stakeholders began to refer to the author as the 'expert' on the generated theory. This extended to asking for advice on how to improve areas of programme implementation and the focus and management of the internal evaluation resources. This raises the issue of the importance, or otherwise, of evaluators having relevant substantive academic and domain knowledge for evaluations with which they are engaged (Brown, 1998; Blamey and Mackenzie, forthcoming). Whilst Brown (1998) discusses the implications for the role of evaluators in the Theories of Change approach, this point is not dealt with in great depth. The issue, however, is an important one that also relates to potential concerns about the objectivity of evaluators and their capacity to judge programme success when they have contributed to the programme development.

Can objectivity be maintained when the evaluator may both influence and judge the evaluand?

Kubisch et al. (2002) stated that in the Theories of Change approach:

"Evaluators are more engaged with initiatives at the outset than in the past, the line between evaluation and technical assistance blurs. They are left in the awkward position of evaluating something they have helped to create" (Kubisch et al., 2002 p. 72).

The blurring of such roles perhaps requires evaluators to have increased skills regarding relationship building and the theoretical and practical domain (sector and topic) knowledge (Brown, 1998; Philiber, 1998). A review of the evaluation approaches used across all the NHDPs (Evaluation Task Group Review, 2003) also raised the issue of evaluator objectivity with regard to the approach. They stated that the approach was:

"[A] departure from the usual scientific principle of independence and might in various ways compromise the implementation of DPs [demonstration projects]" (Evaluation Task Group Review, 2003, p 19).

They suggested that the approach could compromise both the evaluand and the evaluation in a variety of ways. The examples they provided included evaluators having too great an influence on the project or the implementers becoming dependent on them - issues also

raised by others with regard to the approach in general (Brown, 1998). Their concerns here presumably related to a possible loss of objectivity on the part of the evaluators that might invalidate findings or to a blurring of roles that could reduce replicability or generalisability of findings to other contexts where evaluators played a lesser role. The Task Group authors suggested that the utility of the approach, therefore, lay in it being applied early for formative feedback, prior to the launch of the project and the start of the more summative evaluation process. They also raised concerns over the process of the approach placing an additional burden on programme implementers.

Whilst the above report raises a variety of valuable issues, some of which (the reliance on the evaluator and an additional burden on implementers) were borne out in the HaHP evaluation, they are not ones that are easily solved. To be of use as a means of formative feedback, the approach does require additional commitment and participation from implementers. In the case of HaHP, the process was seen as somewhat arduous but was reported by many as valuable (see Chapter eight) and indeed was detailed as such in the Evaluation Task Group review paper (2004):

“The theory of change proved particularly useful for HaHP because of the major difficulties faced in its early stages. [T]he approach was very well received by the HaHP project team, who appreciated the support and direction it enabled the team to develop” (Evaluation Task Group review paper, 2004, pp. 22-23).

The NHDPs Evaluation Task force recommendation that the approach is used in only the early stage of an intervention fails to acknowledge the intention of the Theories of Change approach to revisit theories and assess implementation progress and provide lessons from this. The report also fails to acknowledge that impact evaluations should be integrated with the process evaluation and, therefore, may benefit from being completed by the same evaluators. If these elements of the approach were missing the scope for both programme refinement and the improvement of attribution would not exist.

The need for improved planning

As detailed previously, many authors have highlighted that the plans for CCIs or similar initiatives are relatively poor in terms of their logic and specificity (Judge and Bauld, 2001, Judge and Mackenzie, 2002; Mackenzie at al., 2005, Bauld, Judge and Bishops Consulting, 2005). In particular, the process of logically linking longer-term outcomes with appropriate activities seems particularly problematic (Connell and Kubisch, 1998; Judge and Bauld,

2001). According to Kubisch et al., 2002, this is partly due to a lack of evidence in such complex areas as community building and to a variety of other contextual issues:

"Inadequate theory, a dearth of empirical evidenced and limited experience undermines the pathways mapping process. Moreover defining the route that a comprehensive initiative will follow has political dimensions that are effected by neighbourhood history, capacity, personalities power arrangements and negotiating skills" (Kubisch et al., 2002, p 71)

It is also perhaps due to the perception that such planning is of limited value in extremely complex contexts where dynamic systems make it difficult to predict and control outcomes (Sanderson, 2000). However, there may be other reasons for such findings. In a context that is becoming increasingly focused on accountability, programme implementers may be reluctant, or lack confidence to identify appropriate but challenging thresholds or targets (Blalock, 1999; Mackenzie and Blamey, 2005). However, it is often the case that such targets are over rather than under optimistic. Alternatively, there may simply be a real lack of planning and evaluation capacity within the public (and other) sectors. The lack of capacity for planning and evaluation are issues commonly raised in both audit reports and needs assessments within the local government and health environments (Audit Scotland, 2006; Bauld, Judge and Bishops Consulting, 2005). Kubisch et al., (2002), highlighted that US CCIs had identified the need for 'technical assistance' in a range of areas such as designing, managing, implementing and evaluating projects, organisational development, information about public and private systems and the process skills of community building.

Within Scotland and the rest of the UK there is a movement towards partnership delivery of most cross-cutting service areas such as health and regeneration (Scottish Parliament, 2003). If such a movement is to improve service delivery then further consideration is needed as to how greater 'buy in' can be achieved across agencies (with differing motivation, accountabilities and reporting structures) with regard to acting on lessons from the scrutiny of plans or evaluation. This also raises questions about how scrutiny is conducted. Ideally, the scrutiny process should be that of a 'critical friend' and should be followed by negotiation rather than be punitive (Bauld, Judge and Bishops Consulting, 2005). NHSHS and Communities Scotland are currently undertaking consultancy work to establish mechanisms to improve such planning processes and the appropriate types of scrutiny and support required from government and national agencies (NHSHS, 2006, 2006, local government programme).

(c) Lessons from theory testing

Does the Theories of Change approach aid attribution?

The early Theories of Change papers postulated that attribution could be strengthened through the process of stakeholder agreement. The authors suggested that if intended outcomes were achieved in accordance with anticipated thresholds and timelines, and provided the programme had been delivered as intended, then attribution would be improved. As Granger (1998) commented:

"The theory of change approach goes beyond simple involvement to using credibility among stakeholders as the touchstone for assessing a theory" (Granger, 1998, p. 230).

In terms of testing the Theories of Change over the longer term within HaHP the revisiting interviewees provided much (but not all) of the detail needed to establish whether or not HaHP had delivered on their intended activity. This information was vital given the limitations of the survey. However, it would have been more useful in terms of contributing to attribution had changes in individual or population level outcomes actually been identified from the quasi-experimental survey and had the survey data been robust enough to allow integration and triangulation.

The experience of HaHP suggests that whilst the process of articulating and revisiting the Theories of Change can begin to identify possible contributions that the project has made to the intended outcomes, it does not diminish the challenge of actually being able to measure such outcomes and indeed to assure that such outcomes were not the result of other confounding programmes or processes. The two recent related reports by the Aspen Institute and the Kings Fund (Auspos and Kubisch, 2004; Coote, Allen and Woodhead, 2004) reflect on the success of a range of US and UK CCI programmes and their evaluations, with regard to attributing change. Interestingly those they claim were most successful (despite not using RCTs) still employed evaluation designs that had strong comparator populations and could address the issue of the counterfactual. In relation to these evaluations Auspos and Kubisch state that:

"Being able to develop evidence that supported a grounded theory of change was important to making the causal case, but it was not sufficient; evaluators devoted considerable effort to developing a counterfactual so they could measure the change that occurred where the initiative was in place. The difference could be identified as the effect of the initiative" (Auspos and Kubisch, 2004, p. 17).

The authors go on to state that the programmes evaluated in these instances were more narrowly focused than many CCIs. It appears from the later versions of the Theories of Change literature that the problem of attribution is still a thorny issue; the solution to which lies in integrating the Theories of Change approach with more traditional evaluation designs that address the counterfactual (what would have happened in the absence of the programme). This reinforces the view expressed by Granger (1998) within the early Aspen papers and is supported by Coote, Allen and Woodhead (2004) through their reflection of UK CCI evaluations. The more recent papers also suggest that there may be a need for more prioritisation on key elements of CCIs and where evidence is most needed, not only within each CCI evaluation but also across such future evaluations. These authors call for more coordinated and integrated evaluation approaches and frameworks across future CCIs to improve and share learning.

Perhaps the main contribution made by the Theories of Change approach, therefore, is not to have toppled the RCT or quasi-experimental design from its 'gold standard' pedestal but to have raised valuable questions about the utility of such designs for CCI evaluations if they are not driven by, and integrated with, detailed programme theory. The limited findings from the HaHP survey, and the increasing difficulty in achieving participation in large-scale surveys (Seller et al., 1997), highlights the need for the integration of such approaches. In raising such questions they have also forced policy makers and evaluators to reconsider the standards of proof that it is feasible to achieve in terms of attributing the outcomes of CCIs. As Auspos and Kubisch state:

"[T]he appropriate standard of judgement should not be 'Do they prove their case beyond a shadow of a doubt with incontrovertible scientific evidence?' but instead 'Do they make a strong enough case that the preponderance of evidence would permit reasonable people to conclude that the initiative made a difference? And 'Is the evidence convincing enough to warrant continuing the initiative or adopting it in other locations or on a larger scale'" (Auspos and Kubisch, 2004, p. 17).

Leaving aside the issue of attribution, there are two other issues worth discussing with regard to revisiting the Theory of Change. The first of these is the optimum number of times that projects' Theories of Change are revisited throughout an initiative's lifespan. Within HaHP the Theories of Change were revisited twice after they were articulated, once in year two and then again in year three. The author feels that the last of these visits was of limited use with regard to programme learning. This might have been due to HaHP's particular circumstance, as it had received funding for a transition year and was focusing on adapting the programme for this purpose and submitting a further bid for a three-year extension. This new focus

distracted participants from considering the current status of the phase one project and so limited the value of this data. Given the resources required to revisit and test the Theories of Change the author felt this was not a good use of time. The process did however, confirm that only limited progress had been made between year two and three and this reinforced the key findings and allowed triangulation with the case study data. In an evaluation that did not have the case study elements the third set of data may have been more useful.

The second issue regarding the revisiting of the Theories of Change relates to the impact on the evaluation if the project has deviated substantially from its initial plans. Given that the above literature is reinforcing the likelihood that relatively complex designs, that test counterfactuals, are likely to be required for future CCI's this raises the possibility that deviation uncovered in the programme could derail such designs. This is an important issue within CCIs given that they are designed to be iterative and organic processes. As highlighted in the community-based CHD literature review restrictive evaluation designs could impact on project effectiveness (Sellers et al., 1997). Interestingly, issues of this nature are being raised within the phase two HaHP evaluation, which is employing an RCT design for one element of the programme. As programme implementers are becoming more informed about their own theory and the requirements of their target groups they are expressing concern that they cannot respond to these issues whilst maintaining the stability of the programme required for completion of the RCT (Personal communication -Logic modelling sessions for HaHP phase two, March 2006).

The role of context

A complication with regard to understanding 'context' within CCIs is that many CCIs intend to change their contexts as part of their initiatives; as such, these factors then become outcomes rather than contexts (Mackenzie and Blamey, 2005). An example of this in HaHP was partnership relationships. These were both part of the context and an intended area for improvement as a result of project activity. Gambone (1998) suggests that:

"[D]ynamics directly targeted by the CCI are treated as outcomes, and that only those not directly targeted are treated as contextual factors. These factors should be measured on a continuous basis over the course of a CCI" (Gambone, 1998, p. 160).

Whilst an attempt to record such issues was made within the HaHP evaluation as part of revisiting the Theory of Change, this could become an endless task given the wider ranging contextual issues that tend to be targeted by many CCIs (poverty, housing, income advocacy

etc). Gambone (1998) also suggests that those other contextual factors (not targeted for change) but that have potential impact on the CCI are also recorded. She suggests that these can be thought of as:

"[C]ritical events; that is discrete, powerful events that can directly or indirectly effect the progress of a CCI by changing ongoing dynamics in a community" (Gambone, 1998, p 160).

Again, these were captured as part of the contextual analysis in the HaHP evaluation (Paterson and Ayana, 2004). It is likely that these wider contextual issues within which HaHP was delivered played a substantial role in determining its lack of success, (whether in relation to the alternative influences on HaHP or individual residents, the NHS deficit, or the crowded policy and intervention contexts within the public sector). The contextual analysis within the evaluation helped to identify these issues and propose them as potential factors that had facilitated or hindered HaHP. However, the ideal scenario would be to respond to such contextual issues where feasible in a more proactive fashion so that those factors creating barriers could be minimised or facilitating could be optimised. The extent to which this was done within the evaluation was, however, limited. This is another area where limited advice is provided from the Theories of Change proponents, and is a potential area for development within the approach. The evaluators for the phase two HaHP evaluation and NHSHS are attempting to take a more proactive response to such issues (BHS HS, 2006, HaHP phase two evaluation). An example of this is attempting to ease the integration of HaHP phase two into the newly established NHS Board structure that has arisen from the dissolution of NHS Argyle and Clyde.

Commissioning phased evaluations

In an ideal world, formative feedback should be provided at the earliest opportunity. However, unless funders commission evaluations in tandem and contemporaneously with their interventions it will remain impossible to provide feedback in the early phases of projects (Judge and Mackenzie, 2002; Mackenzie and Blamey, 2005; Coote, Allen and Woodhead, 2004). Similarly, unless the timescales for both interventions and their evaluations escape the confines of three to four year political and policy cycles (Martin and Sanderson, 1999; Coote, Allen and Woodhead, 2004), and the funding increases, it will be impossible to phase evaluations to accommodate theory generation and testing, and process and impact evaluations. Phasing of evaluation in ways similar to this is recommended by a variety of authors/organisations (MRC, 2000; Wimbush and Watson, 2000).

Some recent UK-based programmes have made valiant attempts to address some of the above issues (e.g. New Deal for Communities, Health Action Zones). The New Deal Community Programme (run by the UK government neighbourhood renewal unit- NRU) for example, simultaneously commissioned implementation and evaluation projects that would last over a ten-year period. They also provided feedback from academics on the feasibility of the early plans and subsequently procured technical advisors for local areas to address issues raised from this scrutiny process. These technical advisors were independent of the evaluators. In addition, the evaluation attempted to articulate overall programme theories and integrated both process and outcome data. The reports from the first phases of these projects still, however, highlight difficulties in establishing and attributing outcomes (CRESR, 2005). Similarly, the national evaluation of Health Action Zones attempted to build local evaluation capacity through the use of the Theories of Change approach at a national and local level (Sullivan, Barnes and Matka, 2002, Barnes et al., 2005). This approach also achieved only limited success in terms of both capacity building and measuring and attributing outcomes (Sullivan, Barnes and Matka, 2002, Barnes et al., 2005; Mackenzie and Benzeval, 2005; Judge and Bauld, forthcoming).

The commissioning process

The Evaluation Review Task force (2003) commented that the SE should be commissioning evaluations from specialists beyond those based in Scotland. They also remarked on the lack of capacity locally to conduct large-scale CCI evaluations. Whilst there is undoubtedly a need to expand local capacity to evaluate CCIs³⁷ this is probably a more complex problem than it first appears. A key issue is that many of those within Scotland, and indeed in the UK, who have appropriate skills are employed in the academic sector. The numbers of publications achieved in high-ranking academic journals drives success in this sector. Real world interventions tend to be delayed, or are unstable, compared to interventions designed purely for research purposes. As such, they are less readily evaluated using experimental methods, tend to be more complex to evaluate and require more time and stakeholder involvement:

"Complex, community based initiatives are hard to evaluate because of their size and the speed with which they re being rolled out, and because they are trying to address multiple problems within shifting political environments...For example politicians favour quick wins, while senior civil servants seek clear results that satisfy ministers. Researchers, meanwhile prefer to pursue academic credibility and profile, and practitioners in the field want to secure funding and get help with improving practice " (Coote, Allen and Woodhead, 2004, p. xi).

³⁷ NHSHS have struggled to recruit staff with such experience and subsequent national evaluation that have been commissioned have placed substantial demands on local evaluation resources with such experience.

In other words, CCIs are not easily evaluable. As a result many of those who may have the 'appropriate' methodological skills have neither the will nor the motivation to become involved in such endeavours. In addition, they may lack the experience of delivering such interventions and may not always be sympathetic or aware of the problems and political contexts faced by implementers. The fact that many of the key institutions approached to evaluate the NHDPs showed no interest is testament to these problems. Those academics who do engage with such projects are often as aware of their lack of 'evaluability' as those who decline the opportunity. They may, however, be more motivated to tackle 'real life' projects and to support those involved in the complex world of implementation. Often such academics are within Units (such as the HPPU) that have core funding from NGOs or Quangos. The HPPU was, at the time of the evaluations of the NHDPs, partly funded from HEBS (now NHSHS). The existence of such funded units perhaps reflects the lack of interest from traditional academic departments in key implementation and policy areas such as health.

The recommendation of the Evaluation Task Group (2003) was possibly over simplistic in that whilst calling for 'invitations to tender' to be disseminated more widely they also emphasised the need for more formative evaluation with enhanced relationships between implementers and evaluators. Such relationships, and conducting formative evaluation generally, requires that evaluators commit substantial time and effort in getting to know the programme and the personalities involved and to be on site. This requires substantially increased evaluation funding or necessitates the involvement of local evaluators. It would also demand greater evaluation capacity and an appetite for involvement in long-term difficult projects among both academics and policy makers. The reports by Aupous and Kubisch (2004) and Coote, Allen and Woodhead (2004) also suggest the need for new ways of commissioning and integrating future evaluations. One of their government interviewees suggested that:

"Unless and until they (government ministers) can be persuaded to take a longer view and invest in capacity building and be more patient about outcomes, evaluations will be unsatisfactory" (Coote, Allen and Woodhead, 2004, p. 50).

Summary of the utility, strengths and weaknesses of the Theories of Change approach

The above discussion has highlighted a range of issues pertinent to the utility of the Theories of Change approach as it was applied within the independent evaluation of HaHP. Many of these factors have implications for future use of the approach in other evaluations.

In summary, the Theories of Change approach, as it was applied within HaHP, did fulfil two of its three intended purposes to at least some extent and failed to deliver on the third.

With regard to improving programme implementation the approach provided substantial amounts of formative feedback on the plausibility, do-ability and testability of the HaHP Theories of Change. Whilst some of this feedback was acted upon by a range of stakeholders (the project, the funders and the independent evaluation team), many aspects of the feedback and recommendations were not acted upon within the phase one project implementation period. It should, however, be noted that there were some areas where issues were highlighted but where simple solutions were not available (such as lack of evidence for addressing inequalities). It should also be recognised that there were capacity and systemic problems in the way in which the HaHP partnership and core team had been established that meant that it was not easy for project coordinators or members of the management team to easily influence other individuals and agencies. Finally, there are several areas where the use of the approach has contributed to an improved design for the Phase two HaHP intervention, improved commissioning processes for the Phase two and similar national evaluation programmes and wider public health policy planning within the SE. Whilst the approach can, therefore, contribute to programme improvement the environment and structures within which it is applied need to be conducive to such learning. 'Buy in' from implementers and policy makers is also necessary and may take longer than the evaluation lifespan.

The Theories of Change approach did contribute to enhancing the independent evaluation in some ways. The lessons from the theory articulation process and critique did inform the subsequent design of all aspects of the independent evaluation. It had a major influence on the use of the subsequent resources within the evaluation. The cross-cutting outcomes became a key focus of the case studies and it was agreed that the evaluation manager's time (although not funded by the evaluation contract) was utilised on revisiting and testing the Theory of Change. The approach only partly influenced decisions with regard to the content of the follow-up survey but failed to influence the timing or redirection of resources relating to it. The Theories of Change approach had the potential to aid the internal evaluation and monitoring. However, due to a range of factors this ambition was never fulfilled.

In terms of attribution, the approach made only a limited contribution by way of identifying the extent and reality of programme delivery. The scope to contribute to attribution was limited by the lack of both internal monitoring data and the limitations in the survey methodology. The approach did allow the evaluators to deal with the HaHP intervention and evaluation in a relatively holistic fashion and it provided a useful theoretical framework for integrating the various sources of evaluation data. In this sense it provided more than would normally be

offered by a similar process evaluation and gave insight into the reasons for success and failure that the survey alone would not have uncovered. Like other recent CCIs evaluations, the author's reflections reinforce that a design that attempts to provide robust outcome data taking cognisance of counterfactuals, is still necessary to attribute outcomes to the intervention. The approach, in the absence of such a design, can help tell a more convincing story (than a simple process evaluation) but will not provide scientifically robust attribution.

Personal reflections

Whilst many of the author's personal reflections are contained in the above discussion the following factors are additional to these. For a relatively novice evaluator (in terms of CCIs evaluations) the attempt to apply the Theories of Change approach (and indeed to manage the overall evaluation) within a CCI evaluation at a national level within Scotland, with all the scrutiny and policies involved in that process, represented a steep learning curve. The difficulty of this was increased by the fact that the approach was at a relatively early stage of development and that no other team members had applied the approach before (although some associates were applying it contemporaneously in other evaluations -Starting Well and Health Action Zones). The process was helped immensely by the fact that one colleague and co-author of several related papers (Mhairi Mackenzie) was conducting a parallel evaluation of the NHDP Starting Well. This allowed us to learn about the approach and grapple with the practicalities of applying it together.

On reflection the author feels that, were she repeating the process, she would spend less time seeking detailed specification from each element of the intervention and would focus more on defining thresholds and timelines for the overall project from both implementers and funders and those in receipt of programmes. She would also, where feasible, utilise more group approaches rather than predominantly using in-depth interviews. She would only revisit the theory once during the mid to later stages of the three-year intervention and would conduct the initial articulation as early as was feasible in the design of the intervention. In terms of the case studies (whilst the author was not the main field researcher for these), she would have attempted to have involved more of HaHP actual beneficiaries and target groups. A wide range of stakeholders was included in the overall evaluation, but more involvement of actual recipients would have enhanced the democratic nature of the approach and possibly increased the utility of the findings. Key funders would also have been involved in the articulation process more formally (as in this instance they participated in a separate focus group- see Mackenzie, Blamey and Hanlon, 2006). In addition, she would have attempted to be more prescriptive with regards to the monitoring information and how the internal evaluation team might gather this. This may have lessened the limitations from the lack of monitoring and outcome data from the internal evaluation and the quasi-experimental survey

and so aided attribution. Ideally, the approach would have had greater influence over the survey and alternative methods for gathering outcome data through existing national surveys would have been further explored. In an ideal world the approach would have been only a first stage of a longer more appropriately phased evaluation and the lessons from it could have fully driven the selection of all the relevant methods.

While it would have been encouraging to see greater use of the learning within the timescale of the project the author has reconciled herself to Weiss's (1998) view that most evaluation learning takes time to percolate into the thinking of policy-makers and that it has only a small part to play in the policy process. It is perhaps reassuring that the evaluation lessons have made some small contribution to NHSHS commissioning processes and the work of their evaluation team. The author also hopes that the four published papers and the various reports from the evaluation that have resulted to date (and any that may come in future) can help other fledgling evaluators to avoid the mineshafts and to further refine some of the theories and approaches presented in the above discussion and previous literature review chapters.

Chapter eleven: Conclusions

Introduction

This chapter presents the main conclusions for the two aims of this thesis:

- to identify the key implementation, evaluation and policy lessons to result from the independent evaluation of HaHP; and,
- to contribute to learning about how best to evaluate complex community interventions

The conclusions with regard to Have a Heart Paisley

Scotland's National Health Demonstration Project, Have a Heart Paisley (HaHP), like most of its predecessors, did not manage to achieve significant or sustained changes in the CHD related knowledge, risk factors, behaviours, morbidity or mortality at the population level in its initial phase of funding. The independent evaluation focused on uncovering changes in population health indicators. It did not follow the trajectories of any individuals engaged with, or who adhered to, the more evidence-based services within HaHP. There may have been positive health changes among these individuals; however, these were not measurable by the design and methodologies employed by the independent evaluation. Only the secondary care programme within HaHP provided robust evidence of such changes.

HaHP repeated many of the mistakes of previous community-based CHD prevention interventions (CBCIs) by failing to fully implement their intended Theories of Change, and as a result of the unrealistic ambitions that such theories contained. Whilst there is limited good practice evidence available for many of the areas that HaHP attempted to address, like previous CBCIs, HaHP failed to ensure that its interventions were consistently based on evidence of good practice where such evidence was available. Similarly, whilst there is still substantial debate about how best to address inequalities, HaHP did not have clear strategies for this area of their work nor did it sufficiently target or tailor interventions to those most likely to be suffering from multiple discrimination or exclusion in relation to CHD services or health enhancing opportunities. As has happened in most CBCIs, HaHP delivered predominantly individually focused interventions rather than programmes that addressed more upstream policy, agenda, service or environmental change that would encourage and sustain greater behaviour change. The limited efficacy (and in some cases quality) and the individual focus of interventions restricted their penetration of, and impact on, the Paisley population. As well as having limited reach, many of the projects were not intensive or frequent enough to provide a large enough dose or great enough exposure to the interventions to overcome competing influences on health related behaviour or entrenched habits. HaHP did make good progress

with regard to engaging the community, however, the community were not engaged sufficiently at a strategic level and so the intervention remained a 'top down' intervention rather than becoming a community movement. Similarly, although partnership working improved, this did not occur quickly enough or to such an extent that key partner agencies radically improved their services and policies. Whilst many of these factors occurred due to problems with project planning and implementation, they also resulted from systemic failure in the way that HaHP (like many other similar pilot initiatives) was established and commissioned.

The contextual and historical issues faced by HaHP in terms of the poverty and existing social problems within Paisley, meant that CHD was far from a key priority or salient risk for those targeted and that many residents were sceptical of yet another locally based social intervention. HaHP faced additional contextual issues as a result of the SE intervention in the local NHS Board due to large-scale financial deficits and the resultant partnership tensions. Similarly, the cluttered policy context containing multiple pilot and ring-fenced initiatives placed substantial pressures on those expected to deliver the HaHP interventions.

The limited intended duration of the initial HaHP intervention, the lack of planning time and the limited critical scrutiny and direction at the point of commissioning also severely restricted HaHP's capacity to 'hit the ground running' and ensure that services were established early enough and were of a quality to maximise the intervention impact.

The implications for national policy (and future similar interventions)

HaHP repeated many of the mistakes of previous CBCIs. This was disappointing and raises the question of whether, given the mounting evidence of limited impact, such demonstration projects should be abandoned. There seems little doubt from the evidence contained within this thesis and the wider literature (such as that relating to tackling smoking internationally) that much greater health impact can be assured from national action and, in particular, from legislation on both the wider determinants of health and the commercial influences on health related behaviour, than can ever be attained from community-based interventions. It is difficult, however, to establish whether legislative policies such as national tobacco bans, would now be in place had previous community-based CHD interventions not been tried and not succeeded. It is also difficult to uncover the role such programmes played in raising public awareness of these health issues and creating the genesis of behaviour change that triggers the slow process of more effective upstream social and political action. Given the constraints on the range of activities that those in the prevention field are sanctioned to

deliver, and the difficulties in advocating and achieving appropriate political action, these interventions should be recognised perhaps as well intentioned (if over ambitious) attempts at achieving some impact on such intractable social problems.

Due to the continuing social and economic costs to society of CHD, it would be naive to believe that similar CBCIs will not be commissioned and implemented in the future. The fact that the SE has funded phase two of HaHP, and continues to develop similar initiatives in other settings and topic areas, is testament to this. If such interventions continue to be developed then the lessons from HaHP and the wider literature should be taken into account.

Where feasible within local (rather than national) action, interventions should focus on changing local mainstream services and policies rather than establishing new and alternative smaller scale activities. Frameworks such as RE-AIM and logic models should be used as planning tools to emphasise the importance of the key factors that will enhance efficacy and effectiveness and maximise reach, adoption and maintenance of the designed interventions. Greater reference to the existing evidence-base should be made at the point of commissioning an intervention design and during implementation. Those problems for which there is a limited evidence-base available (e.g. addressing inequalities and community building) need to be the focus of future funding and evaluation. Greater effort needs to be placed generally within evaluation on strengthening the evidence for those key areas and processes as they underpin most CCIs. Projects should be subject to improved scrutiny and technical support to ensure the funders' and implementers' aspirations are more realistic. The duration of such projects needs to increase beyond the three-four year political cycles and to reflect the time required to plan and establish interventions and to achieve reasonable levels of intervention dose, intensity and exposure. The contexts within which such interventions are delivered should be more stable and/or supportive and the key influencers must be truly committed to such interventions. The grading and pay of senior staff in such projects should be at a level that provides them with a greater parity with other local senior officials that they are expected to influence. Management groups for such projects should be encouraged to be accountable for, and have authority over, the entirety of the intervention and to have mechanisms in place to manage all elements of the intervention or partnerships.

The conclusions with regard to the utility of the Theories of Change approach

The Theories of Change approach, as it was applied in the independent evaluation of HaHP, successfully fulfilled two of its three intended functions.

The approach helped to clarify the intended plans of HaHP and provided substantial formative feedback for both programme implementers and funders with regards to the plausibility, testability and do-ability of HaHP overall and individual Theories of Change. Although it did provide such feedback, only some of the recommendations were acted upon and this, therefore, limited the extent to which the approach improved programme implementation. This lack of action probably reflected the limitations in the way that the demonstration project had been constituted and was managed rather than particular limitations in the Theories of Change approach itself. However, this highlights the fact that providing formative feedback alone is not sufficient to ensure programme improvement and a greater learning culture is needed within government and statutory and voluntary agencies.

The Theories of Change approach also provided a framework to integrate and guide the evaluation. The learning from the theory articulation and critique informed the subsequent design of, and use of resources within, the independent evaluation. This led to the cross-cutting outcomes and particular settings (primary care, community and local authority) becoming the key foci for the subsequent evaluation. The approach was less successful at influencing the timing for the follow-up survey although it did influence the content. The approach did not fulfil its potential to improve the internal evaluation process. However, this again may have been due to the staffing structure and management processes within HaHP rather than limitations in the approach per se.

In terms of attribution the approach made only a very limited contribution. The scope of the approach to address attribution was limited by the failures in internal monitoring and the external survey design and response rate. The approach did provide opportunity for the evaluation to treat HaHP in a holistic and integrated fashion and it provided a framework for the integration and triangulation of the various data sources and so did enhance the validity of the findings. In this way, it contributed more than a traditional process evaluation would have done. The findings suggest that, irrespective of the use of the approach, attribution in the traditional scientific sense will only be provided by a design and methods that provide robust outcome data and that address the issue of counterfactuals. In the absence of such a design the approach can help tell a more convincing story but will not fully address the problem of attribution.

Although the approach did not fulfil all of its potential within this evaluation, this may in part have been due to limitations in the way it was applied in this instance. The approach was not used as early as possible and the theory articulation and critique was only completed towards the end of the first year of implementation. It did not fully drive the selection of evaluation methods. Whilst involving a wide range of stakeholders some, such as the funders, were not included early enough. Others were not involved to a great enough extent (service recipients). The articulation process required substantial time commitment from both evaluators and stakeholders in addition to that involved in more traditional evaluation activity.

The implications for subsequent complex community initiatives and their evaluations

General lessons regarding future CCIs

If CCI interventions are to be improved they will require substantial improvements in both their planning and evaluation. This will consequently increase demand for the availability of planning and evaluation skills. In turn, this will require substantial resources and time committed to increasing the capacity for planning and evaluation within the statutory and voluntary sectors and as part of degree courses in Higher and Further Education. Greater incentives will be needed to encourage those with existing relevant skills to become involved in the evaluation of such policy endeavours.

General lessons regarding the utility of the Theories of Change approach

Despite the relative merits in utilising the Theories of Change approach, there is substantial scope for the approach to be improved and for clearer guidance to be provided for its application to future CCIs.

Improving the theory articulation process

Further work is needed to identify the most appropriate ways of articulating interventions' Theories of Change in particular circumstances and for different types of subsequent use. Similarly, better tools to support this process are needed. Existing tools should be developed to enhance their potential to deal with complexity and the non-linearity of programmes. The tools also need to remain accessible for use by a wide range of stakeholders. Evaluators need to give substantial consideration to the range and number of stakeholders involved in

theory generation. If stakeholder engagement is limited the implications for the future utility of findings must be considered. The feasibility of delivering or evaluating interventions with multiple or competing theories requires greater discussion. The means by which competing theories can be aligned or addressed by evaluators (or funders or implementers) also needs elaboration.

Improving the theory critiquing process

More information is needed on the levels of specificity that are necessary for different purposes (communication, programme improvement, outcomes evaluation and attribution) and the proportionate benefits that result from increased time and effort spent on articulating such detailed theories. More debate is also required on the role of the evaluator in terms of encouraging the application of learning from the theory critiquing process and how funders can further facilitate such learning and general 'buy in' to the process. The theory critiquing process may be improved by increasing the number of, or the emphasis on, the different criteria used to judge the theory. For example, the addition of a criterion related to the quality (with regard to whether activities are intensive and provide sufficient exposure) might improve the learning. Similarly, a greater focus on the timelines anticipated for outcomes, particularly in relation to the overall integrated intervention, would also both improve formative feedback and enhance attribution (if aligned to a suitable robust outcome evaluation). The extent to which the Theories of Change approach can actually uncover causal theory [programme rather than implementation theory in Weiss's (1998) terms] and then go on to test it within such multifaceted and complex interventions should be further debated. The experience within this and other recent evaluations would suggest that such theory could only be articulated for individual aspects of CCIs or for simpler interventions. In this respect, evaluators using theory driven methods need to be more realistic about their intentions and claims.

Improving the theory testing and attribution

The Theories of Change approach does have the potential to improve attribution through accurately reflecting the extent of implementation of the theory that has taken place and through providing a theoretical framework to triangulate and integrate data. However, the best it can achieve alone is to tell a slightly more convincing or credible story to stakeholders. The more traditional concept of attribution (as showing that the programme caused the outcomes) will still only be feasible with the use of well-designed outcome evaluations that take account of counterfactuals. Any contribution to attribution will depend on the theory not only being generated and critiqued, but also by it being revisited at the end of the programme

(if not during the programme). Again, it would be useful to identify the number of times that a theory should be revisited and tracked during the lifetime of the intervention to aid the attribution process. This should perhaps only be done at junctures when outcome data are available to be aligned with the process lessons. A final issue regarding the testing of the theory relates to the role that context plays in judging the success or failure of an intervention, or the extent to which contextual issues can be addressed as part of the intervention. Given the complexity of the social and policy context within which CCIs are delivered, it is likely to be rare that theories will be delivered as expected or that context will not subvert the interventions.

Implications for evaluators

Further consideration of the suitability of the Theories of Change approach for interventions delivered in single or multiple sites and with varying degrees of complexity would be beneficial. The approach undoubtedly has implications for the skills and knowledge needed by evaluators and this should be taken into account by those attempting to utilise it. It requires excellent relationship and negotiation skills and its use might be enhanced by domain knowledge and practical experience of delivering the interventions that evaluators are assessing.

Final thoughts on the Theories of Change approach

The Theories of Change approach can undoubtedly enhance more traditional method-driven evaluations, and can provide formative feedback to intervention stakeholders to guide programme improvement and implementation. If such benefits are to be achieved, however, those commissioning evaluations will need to ensure adequate funding and time to allow for the theory to be articulated and critiqued, and for interventions to respond to the feedback from these processes. Evaluations should be commissioned contemporaneously with interventions to maximise the benefits for planning and to allow for the development of a more stable intervention that can then be evaluated using mixed-methods and techniques that test for the net effect of interventions against comparison groups or populations. Such complex evaluations will not uncover 'what works, for whom, in what circumstances' unless they are commissioned in a manner that encourages the development of promising generalisable theories and mechanisms of change. These theories will need to be further refined in subsequent interventions and evaluations across different policy domains and timescales.

Concluding remarks

The evaluation reported in this thesis makes a contribution to the field of public health in two ways. Firstly, through the evaluation of HaHP' it contributes to the learning and literature about how community-based CHD prevention activity can be enhanced. Secondly, through using what was, at the time that the thesis began, a relatively novel approach to evaluation the thesis contributes to learning about how the evaluation of such programmes can be improved and comments on the utility of the Theories of Change approach in particular.

This dual aim made this already complex evaluation harder to conduct and the thesis more difficult to write. However, given the inextricable link between the poor results of previous community-based CHD interventions, limited techniques for the evaluation of these interventions, and our consequent lack of learning about the reasons for success and failure, there was no option but to be ambitious and to address both issues of implementation and evaluation in an integrated and holistic way.

The journey has been an interesting one and the author has been disappointed, frustrated and inspired along the way. The disappointment came from the fact that HaHP had only limited success and that the evaluation input to the process did not dramatically improve the implementation or impact of the intervention. The frustration related to the seeming lack of institutional learning from the past and continued commissioning of overly ambitious interventions in contexts and with structures that often hindered rather than facilitated delivery. The inspiration came from the fact that, with limited available evidence, many people were striving to do their best to improve the health of those most in need. Despite the complexity small successes were achieved along the way. Successes included the learning generated from across the NHDPs, improvements made to the commissioning of future evaluations and being able to contribute in a small and incremental way to the literature on (and hopefully the application of future) theory-driven evaluations.

Reaching the end of this journey the author is realistic (but still enthusiastic) about what public health, evaluation, and she herself can contribute to the betterment of the human condition. Weiss (1998) represents these reflections in a more informed way:

"Evaluation will never provide all the answers. What it can do – and this is no minor contribution is help to rally support for effective programs, identify innovative programs that are making advances over current service, and expose the failings of existing programs – along with indications of the kind of change that would make them work...At one point I

bemoaned this slow and indirect approach to social change and yearned for bolder contributions. In recent years, however, I have come to appreciate how difficult social change is and how resistant social problems are to intervention. I am more impressed with the utility of evaluation findings in stimulating incremental increases in knowledge and in program effectiveness. Over time cumulative increments are not such small potatoes after all" (Weiss, 1998, p. 319).

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Appendix one: List of grant holders, staff, and roles and responsibilities of the PhD author

Table A below lists the grant holders for the independent evaluation of Have a Heart Paisley.

Table B details all the research staff employed by the SEHD evaluation funding that worked on the independent evaluation of Have a Heart Paisley.

These tables are followed by a declaration that was agreed and signed by the evaluation team that delineates the specific roles and responsibilities of the PhD author in relation to the colleagues described in Table B.

Table A: Grantholders for the Independent evaluation of Have a Heart Paisley

Name	Designation	Organisation
Professor ken Judge	Principal Investigator (PI)/ Professor of Health Policy	Health Promotion Policy Unit, University of Glasgow
Avril Blamey	Research Manager / PhD author/ Research Fellow	Health Promotion Policy Unit, University of Glasgow
Dr Caroline Morrison	Consultant in Public Health Medicine	NHS Greater Glasgow
Professor Phil Hanlon,	Professor of Public Health (Previous PI until moving to Public Health Institute for Scotland [PHIS])*	Public Health and Health Sciences, University of Glasgow *Was Head of PHIS during periods of the evaluation
Professor Margaret Reid	Professor of Public Health	Public Health and Health Sciences, University of Glasgow
Professor Mary Gilhooly	Professor of Gerontology and Health	University of Paisley
Professor Ian Ford	Involved only during the early stages on the survey and baseline analysis	Robertson Bio-statistics Unit University of Glasgow

Table B: Staff employed at varying times during the Independent evaluation funding

Name	Designation	Main role	Approximate period of employment
Mulu Ayana	Research Associate	Qualitative work and community case study	Four years (4/5ths contract)
Louise Lawson	Research Associate	primary care case study	Two years
Iain Paterson	Research Associate	Contextual analysis and analysis of baseline survey and	One and half years
Jane Mackinnon	Research Associate	Conducted follow-up survey and leisure survey for local authority case study	One year
Alison McMillan	Research Associate	Conducted baseline survey	Ten months
Janet Ferguson	Research Associate	Contributed to design of questionnaire and organization of survey and health examinations	Six months
Freda Robertson	Research Administrator	Organisation for health examinations and baseline survey	Six months
Karen Sinclair, Margaret McNamee, and Carol Dunn	Research Nurses	Conducted health examinations	Eight months
Karen ward	Project Secretary	Administration and transcribing	Two years

The following declaration delineates the PhD author's roles and responsibilities and was signed by colleagues in the independent evaluation team at the end of the evaluation.

The external evaluation of Have a Heart Paisley (HaHP), was a large scale multi-method research study involving a range of grantholders from a variety of institutions and a team of researchers based within Public Health and Health Policy in the University of Glasgow. The full list of participants involved in the project are detailed elsewhere in this submission.

Substantive components of the data deriving from this evaluation forms the primary data element of a PhD currently in preparation by Avril Blamey. The attached table summarises the contribution of Avril Blamey to the various component parts of the project and to the overall project design and management. Avril is both a grantholder and researcher on the evaluation and has been responsible for the day-to-day management of the overall project. The attached note is signed by co-members of the reseach team.

Project area	Lead person	Others involved	Responsibilities of AB
Overall Project design/ management			
Overall project and staff management.	Avril Blamey.	Input from Principal Investigator (PI) (Prof. Ken Judge and grantholders as necessary).	Day to day management of research associates*/ administration staff# (four - but with changes of personnel during process). Management of project budget. Day to day liaison with HaHP implementation and commissioning team. Participated in staff recruitment.
Initial design and submission for grant.	Prof Phil Hanlon (original PI).	Team of grantholders.	Nil.
Resubmission/ redesign of the substantial qualitative aspects after ToC and baseline survey were completed.	Avril Blamey.	Ken Judge and grantholders.	Redesigned methods and target groups according to articulation of early plans. Consultation with PI and grantholders, HaHP and commissioners.
Ethical approval.	Avril Blamey/ Louise Lawson.*	Alison McMillan,* Louise Lawson,* Mulu Ayana.*	Completed initial application and oversaw additional applications/amendments.
Quasi-experimental survey			
Baseline questionnaire design.	Avril Blamey.	Input from Janet Ferguson,* Freda Robertson#, Ken Judge and grantholders	Identification of potential questions and layout, managed staff conducting piloting and printing.
Nurse training /organisation of medicals / nurse selection and management.	Janet Ferguson,* Research nurses, Alison McMillan.*	Input from Avril Blamey, Freda Robertson# June Lang# and Dr. Caroline Morrison (grantholder)	Conducted nurse recruitment and management of JF,FR,JL, AM. Agreed protocols for onward referrals.
Sample selection, management of mail out and maintenance of data bases.	Alison McMillan.*	Input from Avril Blamey, Ken Judge, Grantholders A&G Health Board	Involved in sample selection, liaison with A &G Health Board, Caldicott Guardian
Data input.	Robertson Institute.	Alison McMillan*, Avril Blamey.	Liaison with Robertson Institute re coding.
Analysis of baseline data	Prof Ken Judge and Iain Paterson*	Grantholders	Input to discussion on analysis.
Presentation of baseline results/report	Iain Paterson.*	Ken Judge, Avril Blamey,	Input to writing of baseline report.

		grantholders	
Questionnaire redesign and follow-up mail-out and data management.	Iain Paterson.* Jane MacKinnon.*	Karen Ward	Checked proofs, managed key staff.
Data input for follow up	Robertson Institute.		
Analysis of follow-up data	Prof Ken Judge and Jane MacKinnon.*		
Presentation and write up of follow-up results,	Jane MacKinnon.*	Ken Judge, Avril Blamey.	Input to discussion re analysis and integration of results into final report.
Theory of change (ToC)			
Observation of management team.	Avril Blamey.		Attended monthly management team meetings /field note taking /consideration of minutes /input re evaluation updates.
Interviews, group-work and development of logic models and ToC with HaHP and commissioners (3 rounds of interview with n=33 in each) 1 focus group and additional meetings.	Avril Blamey	Mulu Ayana,* Karen Ward#	Personally completed all interviews/focus group data collection, analysis and write up of two reports plus integration into final report. Transcription completed by Karen Ward# and additional commercial secretarial staff
Contextual analysis			
Accessing, analysing and presenting secondary quantitative data and secondary and primary qualitative data to provide a context for the project.	Iain Paterson*. Mulu Ayana*.	Avril Blamey, Ken Judge Jane Mackinnon	Input into discussions on content. Comments on report and management of staff.
Inter-related studies			
<i>Community</i>			
Baseline interviews with community stakeholders (n=16). Focus group with locality team (n=6). Analysis and write up of community baseline report.	Mulu Ayana.*	Avril Blamey Margaret Reid (grantholder) and Karen Ward#.	Management of Research Associate, input to report writing, commented on schedule and sample selection.
Interactive session with volunteers running groups (One group session n=12 and one focus group n=4)	Mulu Ayana.*	Louise Lawson,* Avril Blamey, Karen Ward#. Iain Paterson.*	As above
Interviews with HaHP strategic community representatives (n=5)	Mulu Ayana.*	Karen Ward#	Management of Research Associate.
<i>Primary Care</i>			
Staff survey (n=122, 75% response rate).	Louise Lawson.*	Iain Paterson.*	Management of Research Associate, input to report writing, commented on questionnaire design and sample selection.
GP interviews /key informant interviews (n=12) and focus groups (2, n=12)	Louise Lawson.*	Karen Ward#.	Management of Research Associate.
<i>Local authority</i>			
Interviews with strategic staff (n=16).	Avril Blamey	Karen Ward#.	Personally conducted and analysed interviews wrote up results
Leisure staff survey (n=73, 76% response rate).	Jane MacKinnon.*	Iain Paterson,* Avril Blamey.	Input to questionnaire design and liaison with HaHP staff. Management of Research Associate.
Education staff survey (n=54, 76% response rate)	Louise Lawson.*	Avril Blamey	Input to gaining LA agreements and commenting on questionnaire.
Focus groups with children and parents (6 groups, n=35).	Mulu Ayana.* Louise Lawson.*		Management of researchers
Interviews with catering and care managers (n=21).	Mulu Ayana.*		Management of researcher

I denotes the secretary funded by the HESD grant

The PhD author was not funded by the HESD grant but was funded by the HESD funded Health promotion Policy Unit

Appendix two: Example of a search strategy

Project liaison			
Liaison with HaHP and internal evaluation.	Avril Blamey.	Mulu Ayana,* Louise Lawson,* Jane Mackinnon,* Grantholders	Main contact for project
Liaison with SE	Ken Judge, Avril Blamey		Responsible for updates re progress and budgetary issues
Formative dissemination activity	Avril Blamey.		Presented project updates to SE and liaised over report writing and submission.
Links to SE CHD learning network	Avril Blamey	Mulu Ayana,* Louise Lawson,* Jane Mackinnon,*	Sit on Executive groups for CHD learning network. Agreed extensions for existing staff to disseminate findings and support HaHP.
Writing of final report	Avril Blamey	Mulu Ayana,* Louise Lawson,* Jane Mckinnon,* Iain Paterson,* Ken Judge. (Above are additional authors) Grantholders	Lead author.

Signed :

Prof. Ken Judge (Principal Investigator)

Date:

Ms. Mulunish Ayana (Research Associate)

Date:

Ms. Louise Lawson (Research Associate)

Date:

Ms. Jane Mackinnon (Research Associate)

Date:

Dr Iain Paterson (Research Associate)

Date:

* denotes the research staff funded by the Health Improvement Strategy Division (HISD) evaluation grant.

denotes the secretary funded by the HISD grant

The PhD author was not funded by the HISD grant but was a Research fellow in the HEBS funded Health promotion Policy Unit

Appendix two: Example of a search strategy

The following pages contain an example of the type of search strategy applied consistently across the range of social and life sciences databases/sites [e.g. Cochrane Library (and central register of controlled trials and database of systematic reviews) Embase, CINAHL, DARE, Ovid Medline and PsychINFO, google scholar, BHF, HDA and CDC websites] in order to ensure appropriate references were sourced. Where large numbers of papers were uncovered additional specific terms were added or search terms confined to reduce the number of hits (e.g. search number 11,12 and 20). Where particularly relevant papers were uncovered searches were made for similar materials (see search 21 and 39) and the citation lists of these papers were also searched or their key words included in subsequent searches. For methods of excluding papers or setting limits see strategy described in Chapter four.

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Ovid MEDLINE(R) In-Process, Other Non-Indexed Citations, Ovid MEDLINE(R)

Change Database | Contact a search specialist | Help | LOGOFF

#	Search History	Results	Display
1	heart disease.mp. [mp=ti, ot, ab, nm, hw]	83282	DISPLAY
2	prevention.mp. [mp=ti, ot, ab, nm, hw]	197029	DISPLAY
3	intervention.mp. [mp=ti, ot, ab, nm, hw]	146503	DISPLAY
4	community.mp. [mp=ti, ot, ab, nm, hw]	181542	DISPLAY
5	"community based".mp. [mp=ti, ot, ab, nm, hw]	15351	DISPLAY
6	evaluation.mp. [mp=ti, ot, ab, nm, hw]	676705	DISPLAY
7	CHD.mp. [mp=ti, ot, ab, nm, hw]	8703	DISPLAY
8	"risk factor".mp. [mp=ti, ot, ab, nm, hw]	53298	DISPLAY
9	"disease prevention".mp. [mp=ti, ot, ab, nm, hw]	3976	DISPLAY
10	"behavioural risks".mp. [mp=ti, ot, ab, nm, hw]	18	DISPLAY
11	1 and 2 and 4	372	DISPLAY
12	1 and 2 and 5	86	DISPLAY
13	from 12 keep 10, 23, 27, 29, 31, 37...	27	DISPLAY
14	1 and 2 and 4 and 6	49	DISPLAY
15	from 14 keep 7-9, 14-16, 20, 25-27, 34-36, 38-40...	20	DISPLAY
16	from 14 keep 44-45, 47, 49	4	DISPLAY
17	1 and 2 and 4 and 6	49	DISPLAY
18	from 17 keep 20	1	DISPLAY
19	5 and 6	2532	DISPLAY
20	9 and 19	51	DISPLAY

find similar to Demonstration projects in community-based

21	prevention.	Details	305	+ DISPLAY
22	from 20 keep 9-10, 18, 20, 22	Details	5	+ DISPLAY
23	from 21 keep 27-28, 41-42, 85, 101-102, 116-117, 121...	Details	16	+ DISPLAY
24	22 or 23	Details	21	+ DISPLAY
25	heart disease demonstration projects.mp. [mp=ti, ot, ab, nm, hw]	Details	0	-
26	3 and 4	Details	10758	+ DISPLAY
27	1 and 26	Details	229	+ DISPLAY
28	2 and 3 and 5 and 6	Details	207	+ DISPLAY
29	"community intervention research".mp. [mp=ti, ot, ab, nm, hw]	Details	5	+ DISPLAY
30	from 28 keep 1-10	Details	10	+ DISPLAY
31	find similar to Community interventions for cardiovascular disease.	Details	575	+ DISPLAY
32	from 30 keep 2	Details	1	+ DISPLAY
33	from 31 keep 22, 25, 54, 57	Details	4	+ DISPLAY
34	32 or 33	Details	5	+ DISPLAY
35	"community intervention trials".mp. [mp=ti, ot, ab, nm, hw]	Details	22	+ DISPLAY
36	find similar to Contested ground: how should qualitative evidence inform the conduct of a community intervention trial?	Details	1	+ DISPLAY
37	find similar to Implications of the results of community intervention trials.	Details	3278	+ DISPLAY
38	from 35 keep 1, 3, 6, 18	Details	4	+ DISPLAY
39	find similar to Contested ground: how should qualitative evidence inform the conduct of a community intervention trial?	Details	1	+ DISPLAY
40	find similar to Methodologic advances and ongoing challenges in designing community-based health promotion programs.	Details	0	-
41	find similar to Methodologic advances and ongoing challenges in designing community-based health promotion programs.	Details	0	-
42	find similar to Community intervention trials: reflections on the Stanford Five-City Project Experience.	Details	0	-

43	find similar to Contested ground: how should qualitative evidence inform the conduct of a community intervention trial?	Details	1	DISPLAY
44	find similar to Evaluation of community-intervention trials via generalized linear mixed models.	Details	48	DISPLAY
45	from 38 keep 3	Details	1	DISPLAY
46	1 and 35	Details	1	DISPLAY
47	demonstration projects.mp. [mp=ti, ot, ab, nm, hw]	Details	359	DISPLAY
48	1 and 47	Details	6	DISPLAY
49	6 and 47	Details	98	DISPLAY
50	2 and 5 and 47	Details	8	DISPLAY
51	3 and 5 and 6	Details	619	DISPLAY
52	37 and 51	Details	108	DISPLAY
53	health promotion.mp. [mp=ti, ot, ab, nm, hw]	Details	30042	DISPLAY
54	1 and 5 and 6 and 29	Details	0	-
55	6 and 53	Details	3967	DISPLAY
56	5 and 55	Details	307	DISPLAY
57	1 and 56	Details	13	DISPLAY
58	2 and 35 and 53	Details	0	-
59	47 and 53	Details	28	DISPLAY
60	"population health".mp. [mp=ti, ot, ab, nm, hw]	Details	0	-
61	"population health".mp. [mp=ti, ot, ab, nm, hw]	Details	1669	DISPLAY
62	47 and 61	Details	0	-
63	5 and 6 and 61	Details	4	DISPLAY
64	logic models.mp. [mp=ti, ot, ab, nm, hw]	Details	22	DISPLAY

Combine Searches Delete Searches Save Search/Alert Remove Duplicates

Appendix three: Studies included in the Meta-analysis by Ebrahim and Davey Smith 2000

Table C: Studies Included in Ebrahim and Davey Smith 2000 Meta-analysis

Study
Abingdon
CELL Study
Family Heart Study (Men) & (women)
Finnish men
Gothenburg Study
HDFP trial
Hellenius
Johns Hopkins
MRFIT
Oslo Diet and Exercise
Oxcheck
Stamler 89
Swedish RIS
Take Heart
The Oslo Study
Tromso (Men)
Tromso (Wives)
WHO factories

The references for the studies/papers reviewed are detailed below

Baron J, Gleason R, Crowe B and Mann J. Preliminary trial of the effect of general practice based nutritional advice. British Journal of General Practice. 1990; 40:137-141. 90321680

Lindholm LH, Ekborn T, Dash C, Eriksson M , Tibblin G Scersten B. The impact of health care advice given in primary care on cardiovascular risk. BMJ 1995; 310:1105-1109. 95261214

Family Heart Study Group. Randomised controlled trial evaluating cardiovascular screening and intervention in general practice: principal results of British family heart study. BMJ 1994;308:313-320

Miettinen T, Huttunen J, Naukkarinen V, et al. Multifactorial primary prevention of cardiovascular disease in middle-aged men. Risk factor changes, incidence and mortality. JAMA 1991;266:1225 -1229. 91333101.

Strandberg T, Salomaa V, Naukkarinen V,et al. Mortality after 5 –year multifactorial primary prevention of cardiovascular diseases in middle aged men. JAMA 1991;266:1225-1229.91333101.

Strandberg T, Salomaa V, Vanhanen HT, et al. Mortality in participants and non participants of a multifactorial preventions study of cardiovascular diseases: a 28 year follow-up of Helsinki Businessmen Study. Br Heart J. 1995;74:449-454.96095992.

Wilhelmsen L, Berglund G, Elmfeldt D, et al. The multifactor primary prevention trial in Goteborg, Sweden, European Heart Journal 1986;7:279-288. 86247180.

Hypertension Detection and Follow-up Program Cooperative Group, Five-year findings of the Hypertension Detection and Follow-up Program. 1. Reduction in mortality of persons with high blood pressure, including mild hypertension. JAMA 1979;242:2562-2577. 97144577.

Hellenius M-L, de Faire U, Berglund B, et al.. Diet and exercise are equally effective in reducing risk for cardiovascular disease. Results of a randomized controlled study in men with slightly to moderately raised cardiovascular risk factors. Atherosclerosis 1993;103:81-91.94107385.

Morisky D, Levine D, Green L, et al.. Five-year blood pressure control and mortality following health education for hypertensive patients. American Journal of Public Health 1983;73:153-162. 83098083.

Multiple Risk Factor Intervention Trial Research Group. Multiple Risk Factor Intervention Trial. Risk factor changes and mortality results. JAMA 1982;248:1465-1477. 82269405.

Multiple Risk Factor Intervention Trial Research Group. Mortality rates after 10.5 years for participants in the multiple risk factor intervention trial. Findings related to a priori hypotheses of the trial. JAMA 1990;263:1795-1801. 90189406

Anderssen SA, Haaland A, Hjerman I, et al.. Oslo diet and exercise study: one year randomized intervention trial. Effect on haemostatic variables and other coronary risk factors. Nutr Metab Cardiovasc Dis 1995;5:189-200.

Imperial Cancer Research Fund OXCHECK Study Group. Effectiveness of health checks conducted by nurses in primary care: results of the OXCHECK study after one year. BMJ 1994;308:308-312. 94169708.

Stamler R, Stamler J, Gosch F et al. Primary prevention of hypertension by nutritional hygienic means: final report of a randomized controlled trial. JAMA 1989;262:1801-1807. 89382481.

Agewall S, Wikstrand J, Samuelsson O, et al. The efficacy of multiple risk factor intervention in treated hypertensive men during long-term follow up. J Int Med 1994;236:651-659. 95081756.

Glasgow RE, Terborg JR, Hollis JF, Severson HH, Boles SM. Take heart: results from the initial phase of a work-site wellness program. American Journal of Public Health 1995;85(2):209-16.

Hjermann I, Holme I, Leren P. Oslo Study Diet and Antismoking Trial. American Journal of Medicine 1986;80(suppl 2A):7-11. 86127401.

Holme I, Hjermann I, Helgeland A, Leren P. The Oslo Study; diet and antismoking advice. Additional results from a 5-year primary preventive trial in middle-aged men. Preventive Medicine 1985;14:279-292. 86042569.

Knutsen S and Knutsen R. The Tromso Survey: The Family Intervention Study – The effect of intervention on some coronary risk factors and dietary habits, a 6-year follow-up. Preventive Medicine 1991; 20:197-212. 91279734.

World Health Organisation European Collaborative Group. WHO European collaborative trial in the multifactorial prevention of coronary heart disease. Copenhagen: World Health Organisation, 1989. 91122807.

World Health Organisation European Collaborative Group. European collaborative trial of multifactorial prevention of coronary heart disease: final report on the 6-year results. Lancet 1986;i:869-875. 86173760.

World Health Organisation European Collaborative Group. Multifactorial trial in the prevention of coronary heart disease: 2. Risk factor changes at two and four years. European Heart Journal 1982;3:184-190. 82210760.

Appendix four: Ethics approval letters



Direct Line: 0141 842 7266
Direct Fax: Karen Harkins
0141 842 7308

Your Ref:

Our Ref:

LREC 93/00

Date:

11th December 2000

Professor P. Hanlon
Dept. of Public Health
University of Glasgow
1 Lilybank Gardens
GLASGOW
G12 8RZ

Dear Professor Hanlon

'HAVE A HEART PAISLEY' PROJECT SURVEY

Thank you for submitting the Protocol for the above study.

The Argyll and Clyde Local Research Ethics Committee considered your request at its meeting on 6th December 2000 and I can confirm that there is no objection on ethical grounds to the proposed study and I write to give you our approval to proceed on the understanding that: -

- The Patient Information Sheet be amended to state that audio tapes from interviews will be stored securely and destroyed at the end of the study.
- All patients recruited to the study will be interviewed by the Clinician responsible for the conduct of the trial or a member of the Clinical Team who will obtain consent. This will not be delegated to an external agency.
- You submit a progress report to this Committee one-year from the date of this letter.

In reaching the decision the following documents were reviewed:-

Application Form
Patient Information Sheet
Patient Consent Form
Patient Invitation Letter
Questionnaire
C.V.

A list of Committee Members present on the above date is appended.

Yours sincerely

J.J. Morrice F.R.C.S.
Chairman

LOCAL RESEARCH ETHICS COMMITTEE

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Ross House, Hawkhead Road, Paisley PA2 7BN
Tel: 0141 842 7200 Fax: 0141 848 1414



26 JUN 2001

Direct Line: 0141 842 7266
Direct Fax: Karen Harkins
0141 842 7308

Your Ref:

Our Ref: **LREC 93/00**

Date: 20th June 2001

Professor P Hanlon
Dept. of Public Health
University of Glasgow
1 Lilybank Gardens
GLASGOW
G12 8RZ

Dear Mr Hanlon

Dear Professor Hanlon

'HAVE A HEART PAISLEY' PROJECT SURVEY

I refer to correspondence from Avril Blamey dated 15th June 2001 requesting approval to re-contact those people who did not respond to your initial letter. The Executive Sub Committee considered this at their meeting on 18th June 2001 and are happy to grant approval.

A list of Committee members present on the above date is appended.

I enclose a copy of an Amendment Report Form and would be grateful if this could be completed and submitted with any future amendments for consideration by the Committee.

Yours sincerely

J.J. Morrice F.R.C.S.
Chairman

LOCAL RESEARCH ETHICS COMMITTEE

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Ross House, Hawkhead Road, Paisley PA2 7BN
Tel: 0141 842 7200 Fax: 0141 848 1414



Direct Line: 0141 842 7266
Karen Harkins
Direct Fax: 0141 842 7308

Your Ref:

Our Ref:

LREC 93/00

Date:

7th August 2001

Ms Avril Blamey
Dept. of Public Health
University of Glasgow
1 Lilybank Gardens
GLASGOW
G12 8RZ

Dear Ms Blamey

'HAVE A HEART PAISLEY' PROJECT SURVEY

I refer to your correspondence dated 20th July 2001 outlining amendments to the follow-up letter and procedures for non-respondents of the above survey. The Committee considered this at its meeting on 1st August 2001 and is happy to grant approval.

A list of Committee members present on the above date is appended.

We also note that Professor Ken Judge is the new Principal Investigator for the above study.

Yours sincerely

J.J. Morrice F.R.C.S.
Chairman

LOCAL RESEARCH ETHICS COMMITTEE

\\ARGYLL\VOL2\COMMON\NURSING\KHARKINS\ETHICS\LETTERS\2001\August\01400700.doc

Ross House, Hawkhead Road, Paisley PA2 7BN
Tel: 0141 842 7200 Fax: 0141 848 1414

Argyll & Clyde NHS Board

Local Research Ethics Committee
Ross House
Hawkhead Road
Paisley
PA2 7BN
Telephone 0141 842 7266
Fax 0141 842 7308
www.show.scot.nhs.uk/achb/index.htm



Professor P Hanlon
Dept of Public Health
University of Glasgow
1 Lilybank Gardens
Glasgow
G12 8RZ

Date 6 October 2003
Your Ref
Our Ref **LREC 93/00**
Enquiries to Evelyn Jackson
Extension 7266
Direct Line 0141 842 7266
Email Evelyn.Jackson@achb.scot.nhs.uk

Dear Professor Hanlon

LREC REF.	93/00
STUDY TITLE	HAVE A HEART PAISLEY PROJECT SURVEY

Many thanks for submitting the papers relating to the next phase of above study. The Committee reviewed this on 1 October 2003 and noted that the amendment was more correctly an extension to the study, however the Committee granted its approval, and also drew the investigator's attention to several typing errors on pages 7 and 8 of the Heart of Scotland Questionnaire 2003, which used the word "agree" where correctly it should be "disagree".

A list of Committee members present on the above date is attached.

The Committee is fully compliant with the International Conference on Harmonisation/Good Clinical Practice (ICH GCP) Guidelines for the Conduct of Trials involving the participation of Human Subjects as they relate to the responsibilities, composition, function, operations and records of an Independent Ethics Committee/Independent Review Board. To this end it undertakes to adhere as far as is consistent with its Constitution, to the relevant clauses of the ICH Harmonised Tripartite Guideline for Good Clinical Practice, adopted by the Commission of the European Union on 17 January 1997.

Yours sincerely

Dr R Brown
Chairman – Local Research Ethics Committee



Headquarters
Ross House
Hawkhead Road, Paisley PA2 7BN

Chairman: John G Mullin
Chief Executive: Neil Campbell

Argyll & Clyde NHS Board is the common name of Argyll & Clyde Health Board

Appendix five: The aims of the independent evaluation

The aims of the independent evaluation (Hanlon et al., 2000), rather than the PhD per se, were:

1. to evaluate the intervention e.g. to describe the various interventions that comprised HaHP, define their rationale, processes and intended consequences on target groups and settings.
2. to evaluate the impact of the intervention e.g. to measure and detect changes over time at the individual and population level (in relation to wider determinants, disease, risk factors awareness, behaviours and readiness to change) and at the level of settings, organisations and communities.
3. to integrate the results of the evaluation into the international literature and policy context

Appendix six: HaHP logic models and rationales

The following pages contain all the logic models and accompanying rationales articulated in the first round Theories of Change interviews (except the one from cardiac rehabilitation that is contained in the main text). The gaps and question marks denote areas where interviewees and documentation did not supply specified information or outcomes.

Work theme: Improved primary and secondary care.

The health promoting health service (HPHS).

Context

The context for this programme lies in the belief that the potential for primary care and the wider NHS to work towards a more social model of health (for both patients and employees) is still substantially underdeveloped. The plan is, therefore, to maximise links between community-based services and primary care and to provide training and support for NHS staff to further develop their public health roles. The Health Promoting Health Service Framework should be developed through all of the NHS in Paisley so this is in a sense an objective that goes beyond primary care.

Rationale/assumptions

By developing training opportunities and improving partnership working and links, that NHS staff will feel more confident to broaden their roles. It is thought that by providing information on activities within the communities and linking primary care and community staff that cross referral, joint working, and development will occur.

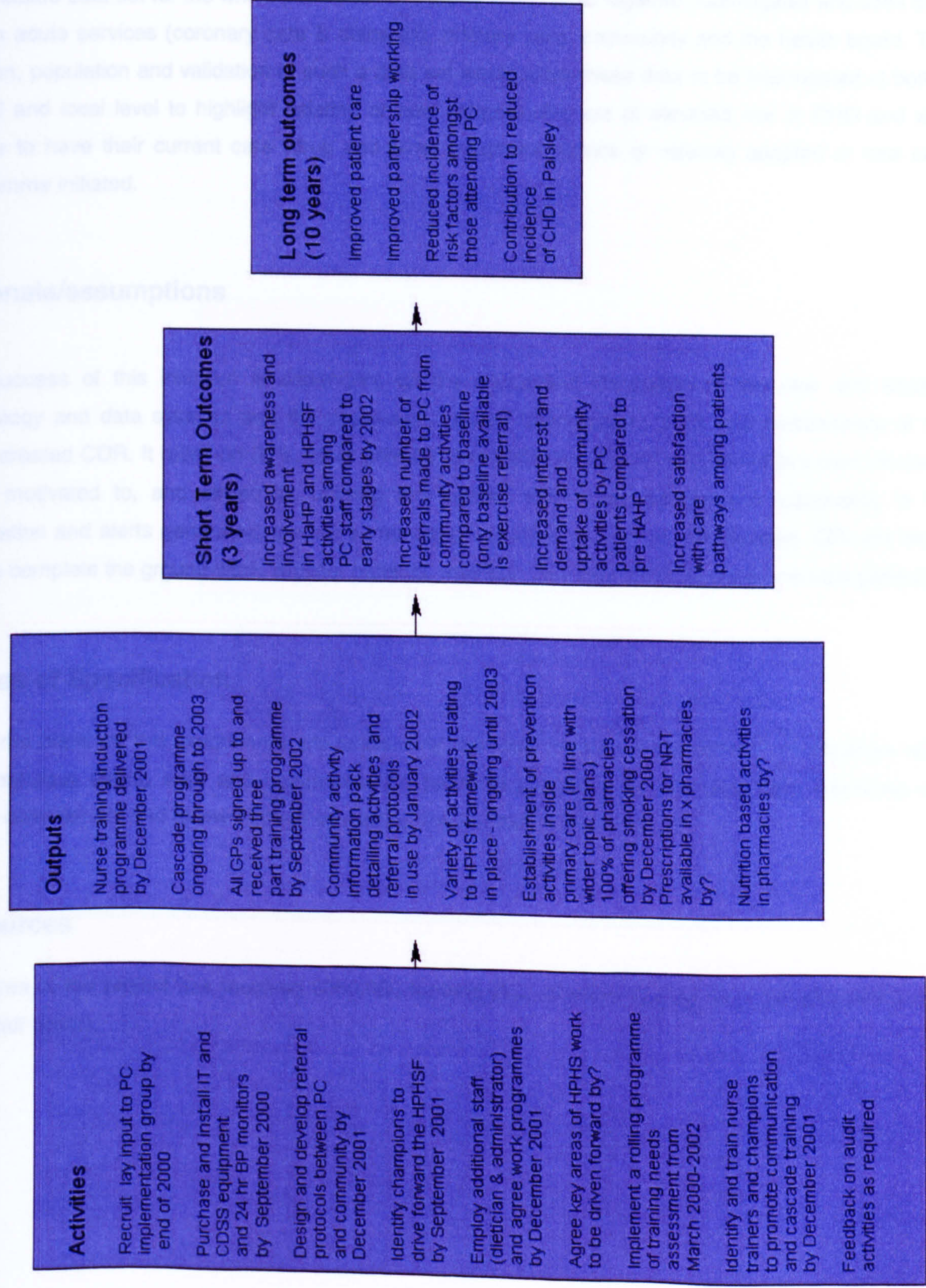
Degree of Specificity

More detailed plans may emerge once all of the training needs assessment are complete and once the staff assigned to progressing the Health Promoting Health Service Framework and nutrition issues within primary care are in post for longer.

Resources

£660,000 plus one staff member, this money is also linked to the development of the population CHD register from the primary care perspective?

Logic model for Improved primary and secondary care: Health promoting health service work (HPHSF).



Work theme: Improvements in information management technology. The Central disease repository (also referred to as the central disease register)

Context

The context behind the improved sharing and use of data is that there is currently no comprehensive CHD related data set for the whole population of Paisley which pulls together, interrogates and uses data held in acute services (coronary care & diabetes), primary care, community and the health board. The creation, population and validation of such a data set would allow these data to be interrogated at both a central and local level to highlight existing or new patients who are at elevated risk of CHD and who require to have their current care (drug and other treatment, advice or referral) adapted or new care programme initiated.

Rationale/assumptions

The success of this initiative is dependant on the successful integration of the new and existing technology and data systems and the population, regular interrogation, audit and maintenance of the newly created CDR. It relies on GPs, other primary care staff and primary and secondary care clinicians being motivated to, and skilled in, utilising the system and in all practitioners responding to the information and alerts generated, therefore improving treatment as well as identification. GPs are being paid to complete the ground-work, register patients, maintain their own CHD registers and treat patients.

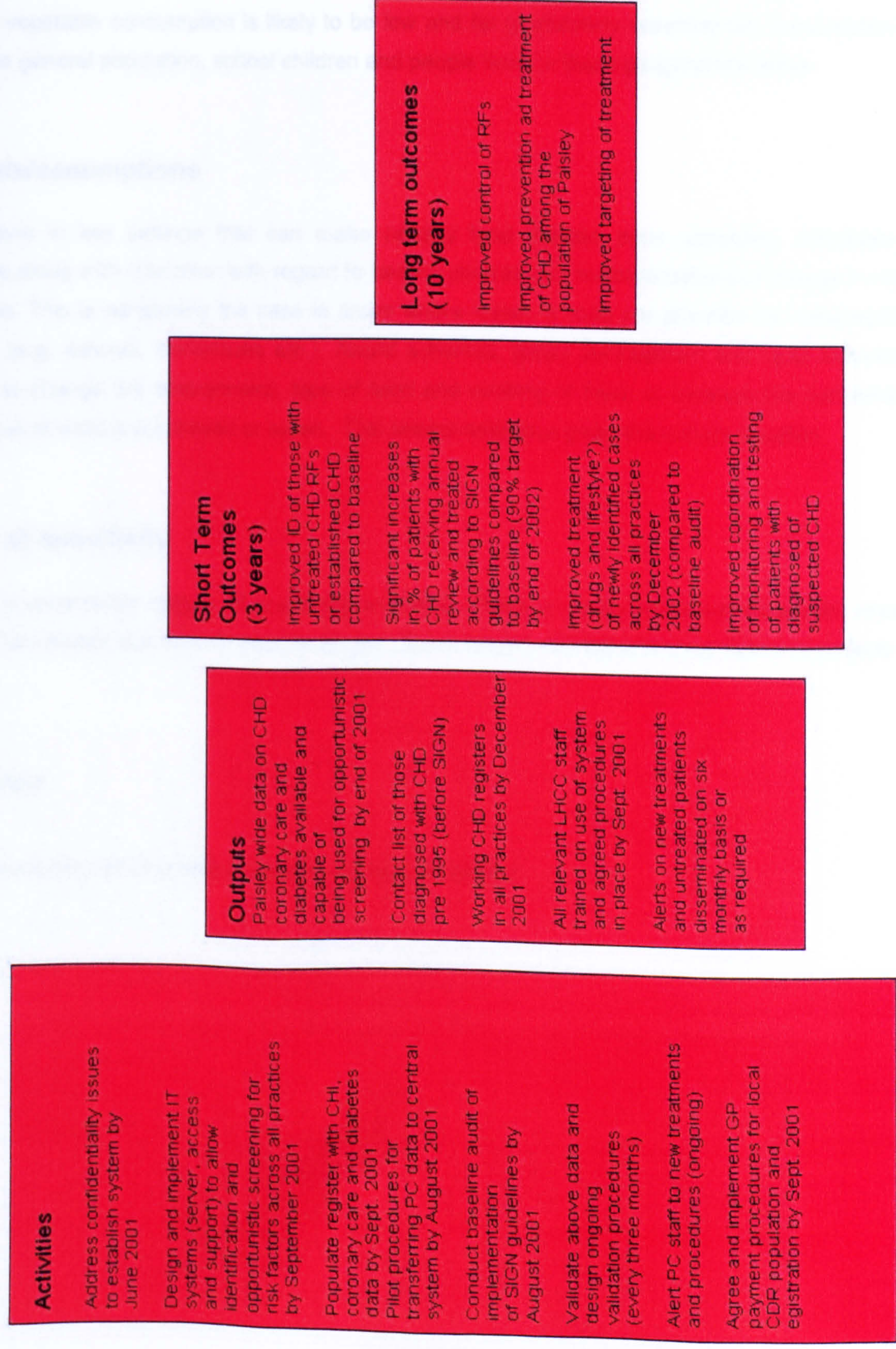
Degree of Specification

While the plans for this programme are reasonably specified the successful delivery of outcomes relies on continuous strong links and communication between primary and secondary care interfaces and strong commitment and follow-through by each of the professional groupings.

Resources

This area of the project has received £350,000 funding (this includes funding for 1 full-time and 3 part-time staff posts).

Logic model for: Improved use of information and management technology (IMT)/CDR (disease register)



Work Theme: 'Opportunities and lifestyles' - Paisley wide strategies.

Healthy eating programmes

Context

There are key areas of Paisley where easy access to an affordable balanced and healthy diet is limited. Fruit and vegetable consumption is likely to be low and fat (particularly saturated fat) consumption high among the general population, school children and people living in these geographical areas.

Rationale/assumptions

Interventions in key settings that can make healthy food choices more appealing, affordable and accessible along with education with regard to healthy choices can motivate behaviour change in relation to nutrition. This is particularly the case in areas where meals or food are provided for consumption or purchase (e.g. schools, workplaces etc.). Award schemes, policy development and retail interventions can help to change the environment, type of food and cooking of food, to increase the nutritional and health value of what is purchased or eaten. This seems ambitious given the current situation.

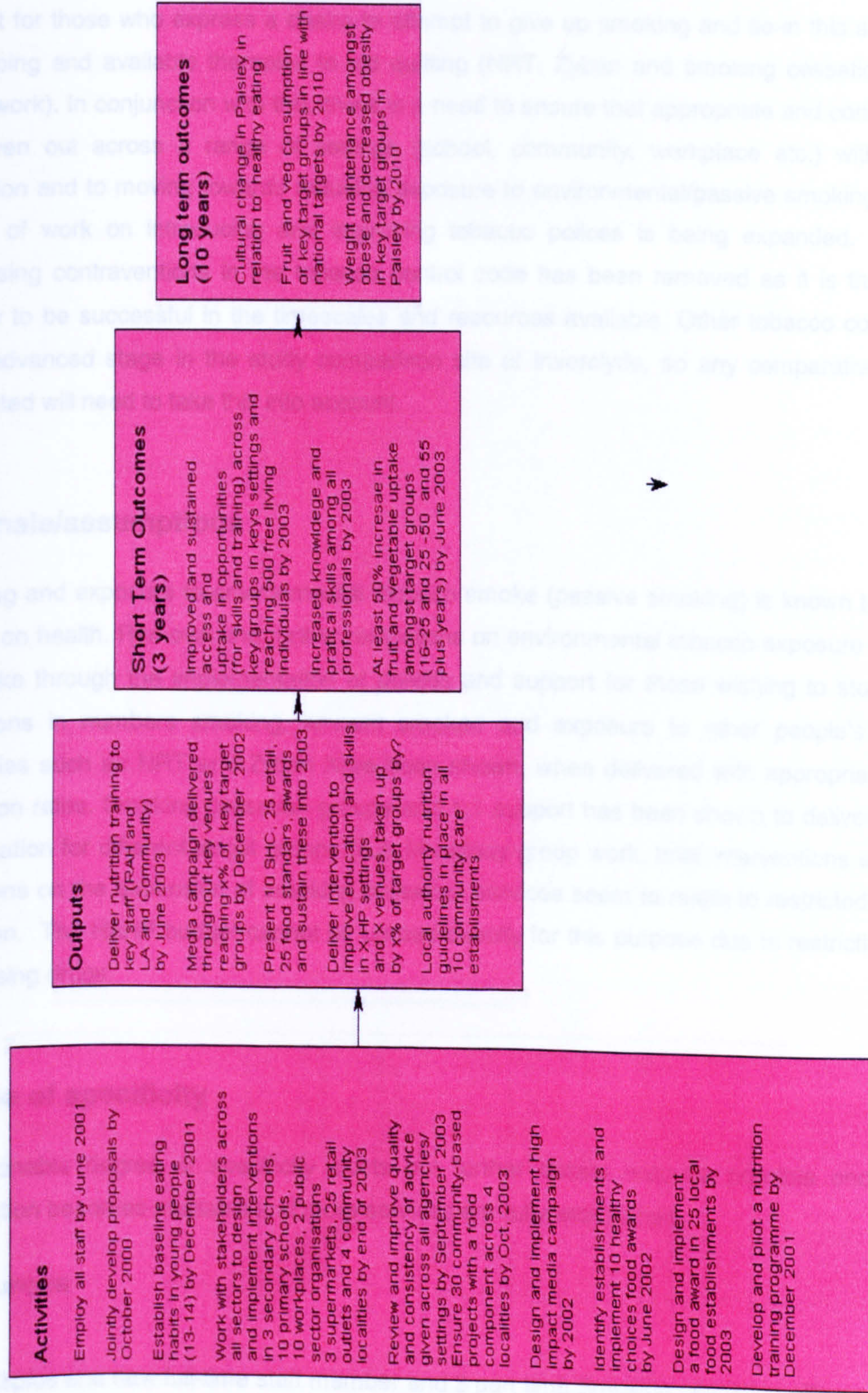
Degree of specificity

There is a reasonable degree of specificity available. There is scope for future refinement once the Nutrition Coordinator has been in post for longer. Some targets overlap with Local Authority projects.

Resources

£229,000 including employment of Healthy Eating Coordinator.

Logic model for Paisley wide strategy: Healthy eating



Work Theme: Opportunities and lifestyles Paisley wide strategy.

The tobacco programme

Context

The services for smoking cessation within Paisley are at an early phase of development. Given that education and knowledge about the dangers of smoking is relatively high, it is now necessary to provide support for those who express a desire to attempt to give up smoking and tie-in this support with newly developing and available therapies to aid quitting (NRT, Zyban and smoking cessation support 1:1 or group work). In conjunction with this, there is a need to ensure that appropriate and consistent messages are given out across a range of settings (school, community, workplace etc.) with regard to both education and to moving towards reducing exposure to environmental/passive smoking. On this basis a variety of work on introducing and improving tobacco policies is being expanded. Original work on addressing contraventions in the tobacco control code has been removed as it is thought that this is unlikely to be successful in the timescales and resources available. Other tobacco control work is at a more advanced stage in the study comparison site of Inverclyde, so any comparative analysis that is conducted will need to take this into account.

Rationale/assumptions

Smoking and exposure to environmental tobacco smoke (passive smoking) is known to have enormous impact on health. Removal and further restrictions on environmental tobacco exposure and opportunities to smoke through the implementation of policies and support for those wishing to stop should achieve reductions in numbers smoking, amount smoked and exposure to other people's tobacco smoke. Therapies such as NRT and Zyban have been shown, when delivered with appropriate support, to aid cessation rates. Smoking cessation groups and 1:1 support has been shown to deliver increased levels of cessation for different target groups (e.g. Maudslayi group work, brief interventions etc). Some of the limitations on the expansion of smoking cessation services seem to relate to restricted budgets for NRT provision. The HaHP budget cannot be utilised directly for this purpose due to restrictions on its use for purchasing drugs.

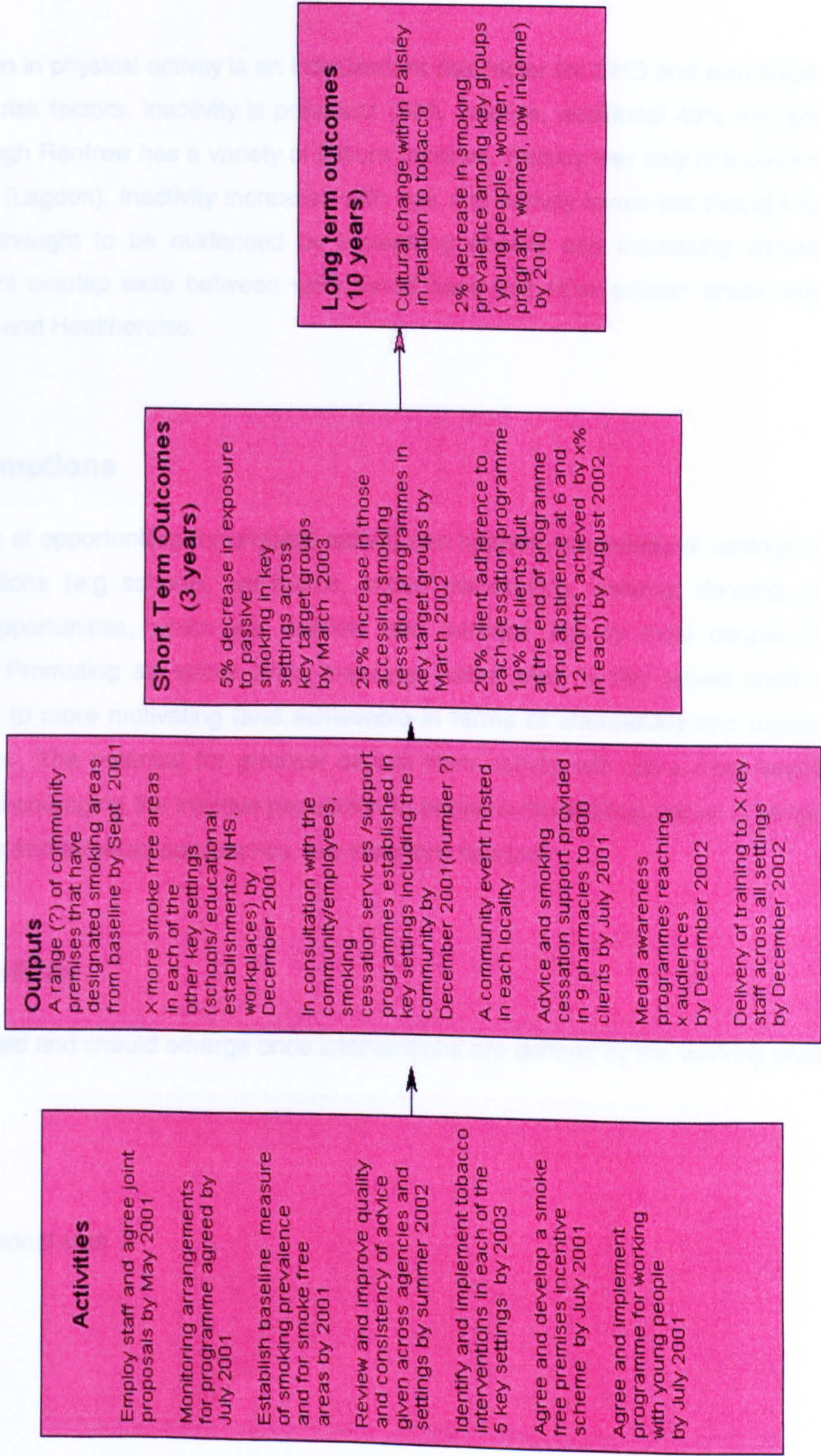
Degree of specificity

A reasonable degree of specificity exists but further details may be possible once more baseline information becomes available and more services are fully established.

Resources

£80,000 plus one new full-time staff member and 3 part time Smoking cessation officers

Logic model for Paisley wide strategies: Tobacco programme



Work Theme: Opportunities and lifestyles Paisley wide strategies.

The physical activity programme.

Context

Regular participation in physical activity is an independent risk factor for CHD and also helps to reduce or control other CHD risk factors. Inactivity is prevalent (30% inactive, additional 40% not reaching targets in Scotland). Although Renfrew has a variety of leisure facilities, Paisley has only one swimming pool and gym leisure facility (Lagoon). Inactivity increases with age and activity levels are thought to be reducing in young people (thought to be evidenced by increasing obesity and increasing interest in passive pursuits). Significant overlap exists between work listed here and other project areas, such as Health Promoting Schools and Healthercise.

Rationale/assumptions

Increased provision of opportunities for physical activity can happen in a variety of settings and through a variety of interventions (e.g schools, workplace, active commuting, walking, dancing, home-based). Increasing local opportunities, which are defined and perhaps led by local people, may improve uptake/adherence. Promoting an active living message rather than facility based sport and exercise message may lead to more motivating (and achievable in terms of affordability and access) targets for individuals to reach. The potential for greatest benefit from activity will come from targeting high-risk groups as well as encouraging the inactive population to become moderately active. A range of methods, including population and targeted approaches, are therefore needed.

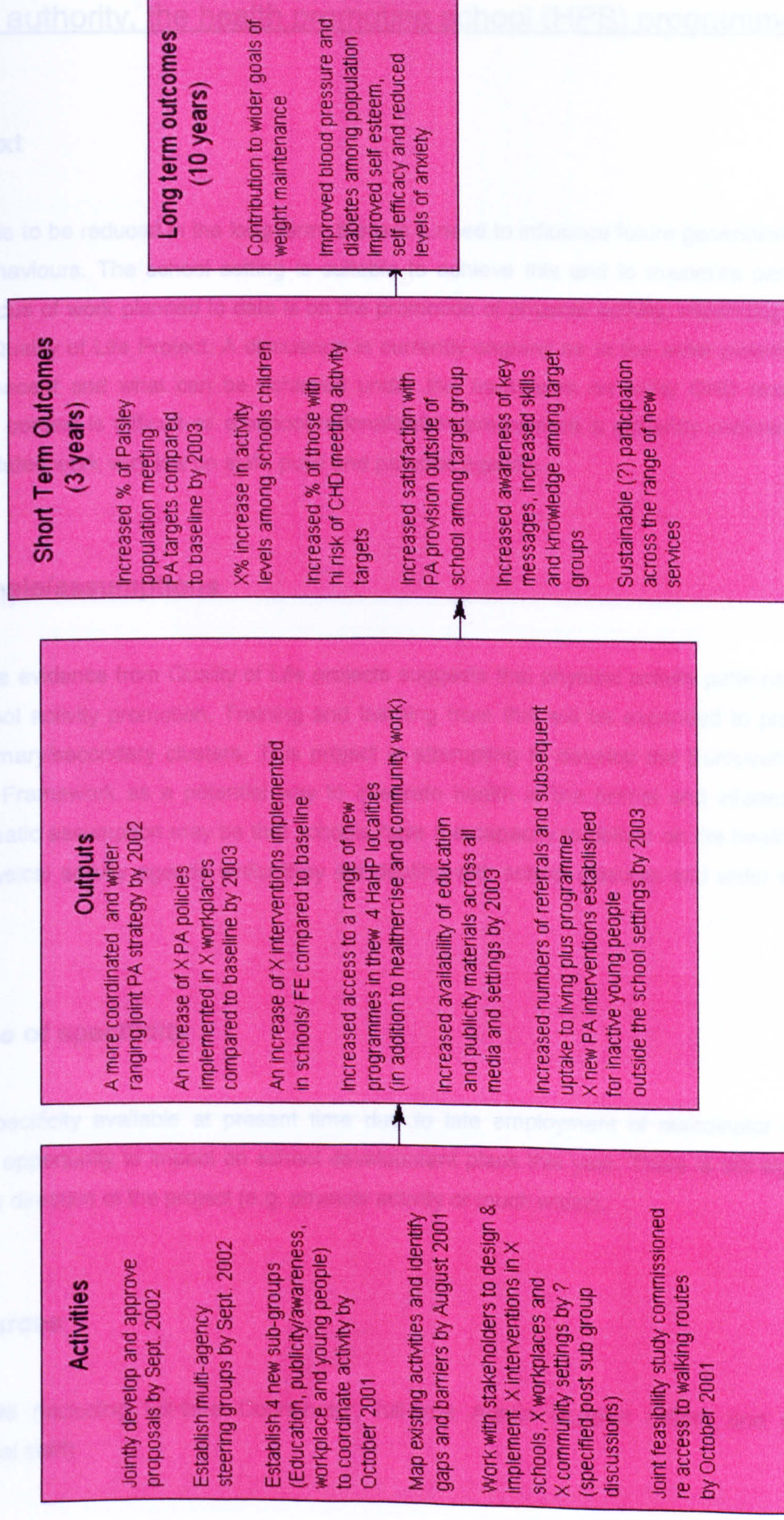
Degree of specificity

More clarity is needed and should emerge once interventions are defined by the working groups.

Resources

£157, 000. No additional staff

Logic model Paisley wide strategies: Physical activity



Work theme: Opportunities and lifestyles

Local authority, the health promoting school (HPS) programme

Context

If CHD is to be reduced in the long-term, there is a need to influence future generations beliefs, attitudes and behaviours. The school setting is suitable to achieve this and to maximise parental involvement. Main focus of work planned to date is on the promotion of physical activity, expanding work done as part of the Quality of Life Project. A discussion is currently ongoing as to the wider potential influence of the HPS concept and what can be achieved under this framework on wider CHD related activities. The general context is difficult as a school rationalisation programme is currently underway, this may make CHD related work very low on staff, pupil and parental agenda.

Rationale/assumptions

Previous evidence from Quality of Life projects suggests that physical activity patterns can be influenced by school activity promotion. Training and learning from this will be expanded to pre-5 establishments and primary/secondary clusters. This project is attempting to develop the European Health Promoting School Framework as a potential way to integrate health in the formal and informal curriculum. One problematic assumption may be that schools have the capacity to deliver on the health promoting school and physical activity agenda whilst they are dealing with school closures and wider education pressure issues.

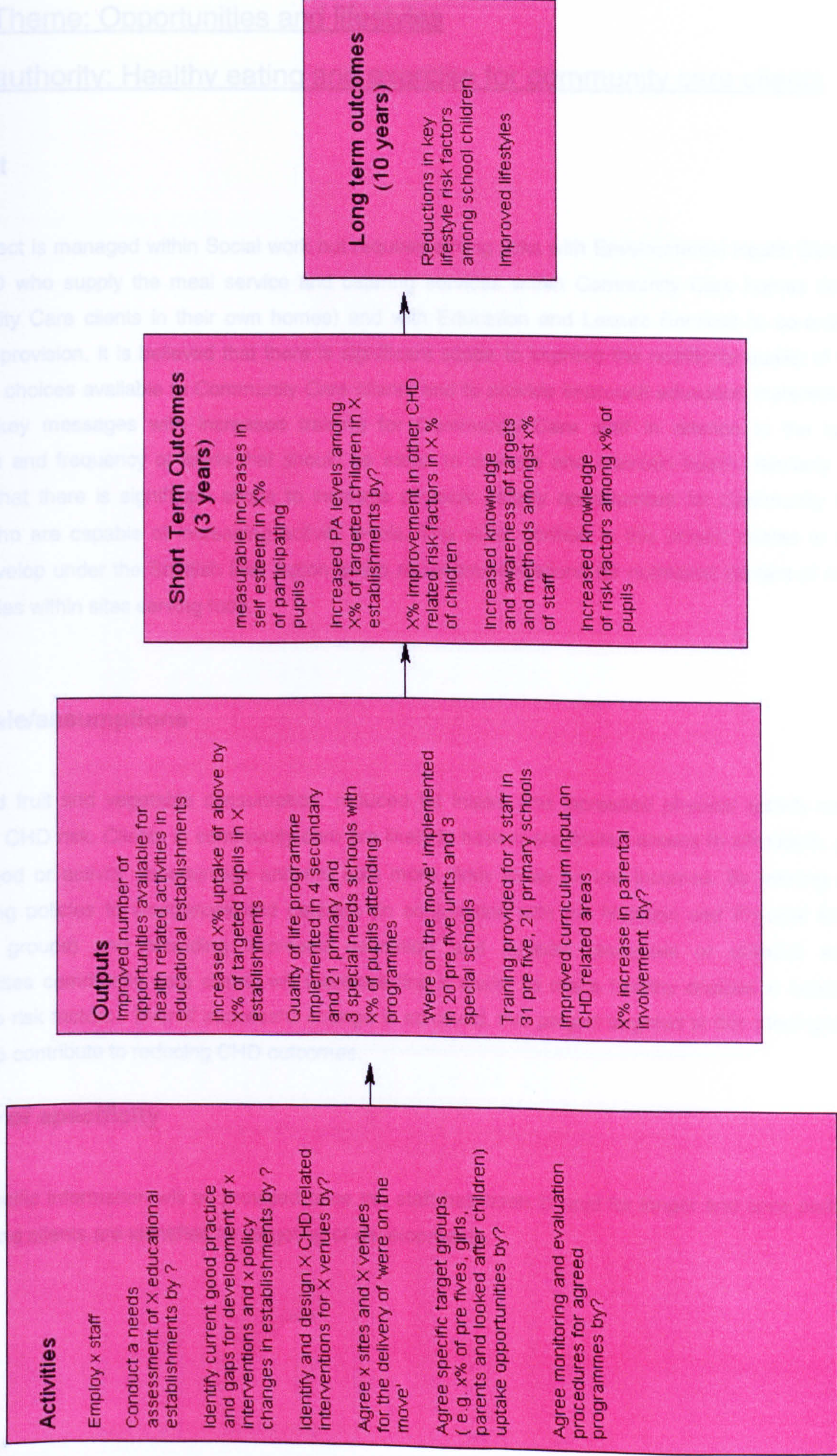
Degree of specificity

Little specificity available at present time due to late employment of coordinator and a consequent missed opportunity to impact on school development plans this year. There is still significant discussion over the direction of the project (e.g. physical activity or much wider).

Resources

£441,796 (including full-time Coordinator, full-time Admin Support Officer and range of part-time sessional staff)

Logic model: Local authority - the health promoting school (HPS) programme



Work Theme: Opportunities and lifestyles

Local authority: Healthy eating and exercise for community care clients

Context

This project is managed within Social work but requires strong links with Environmental Health Services (the DSO who supply the meal service and catering services within Community Care homes and to Community Care clients in their own homes) and with Education and Leisure Services to co-ordinate exercise provision. It is believed that there is significant scope to improve the nutritional quality of food and food choices available to Community Care clients and to provide improved education materials and support key messages with increased training for Community Care staff in relation to the types, quantities and frequency of foods that should be eaten to improve and maintain health. Similarly, it is thought that there is significant scope to increase physical activity opportunities for Community Care clients who are capable of increasing activity levels. The wider context in this project relates to work being develop under the Scottish Diet Action group re recommendations for nutritional content of meals and policies within sites serving food.

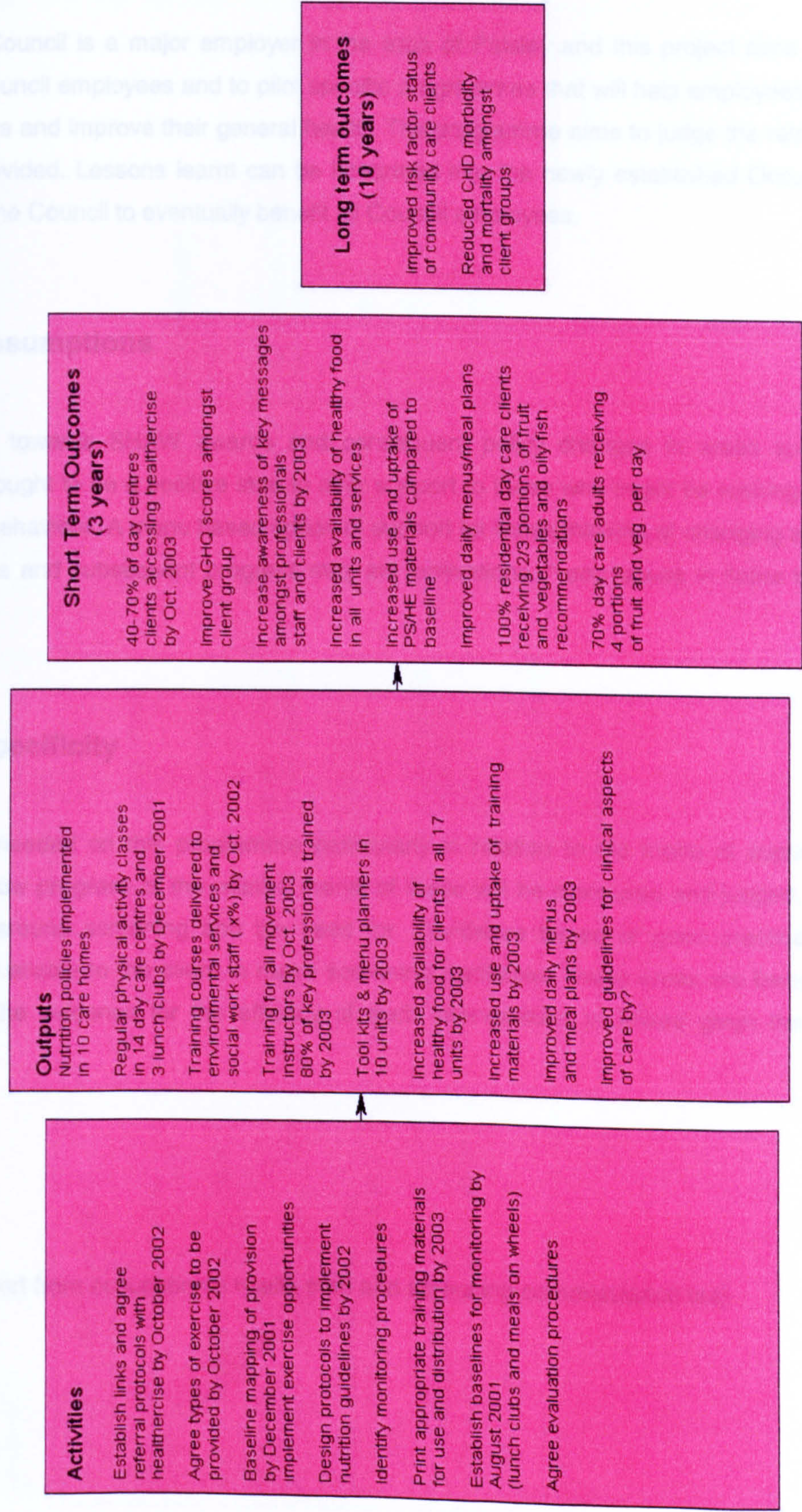
Rationale/assumptions

Increased fruit and vegetable consumption, reduced fat intake and increased physical activity can all influence CHD risk. Clients in community care are likely to have more limited access to affordable, good quality food or activity opportunities and are also more likely to be on low incomes. By training staff, introducing policies to workplaces and caterers (in conjunction with the Nutrition and Physical Activity Strategy groups) and providing improved education and support resources or physical activity opportunities community care clients will therefore find it easier to make healthy choices in relation to these two risk factors. Even if successful change is achieved, this project targeted at this client group is unlikely to contribute to reducing CHD outcomes.

Degree of specificity

More specific information will be provided once the staff has been in post for longer and once particular venues and clients are identified for targeting of developments.

Logic model: Local authority – healthy eating in community care



Work Theme: Opportunities and lifestyles

Local authority: Health at work programme

Context

Renfrewshire Council is a major employer in the area of Paisley and this project aims to improve the health within council employees and to pilot specific programmes that will help employees to reduce their CHD risk factors and improve their general health. The programme aims to judge the relative success of the support provided. Lessons learnt can be integrated into the newly established Occupational Health Service within the Council to eventually benefit all Council employees.

Rationale/assumptions

Whilst working towards SHAW awards and consequent policy changes in areas such as smoking policies, it is thought to be a positive step to offer support to those who might be wishing to change their health related behaviour. A menu based option of support for those thinking of changing and screening to gauge baselines and subsequent progress may aid motivations. * see issues in italics below related to rationale.

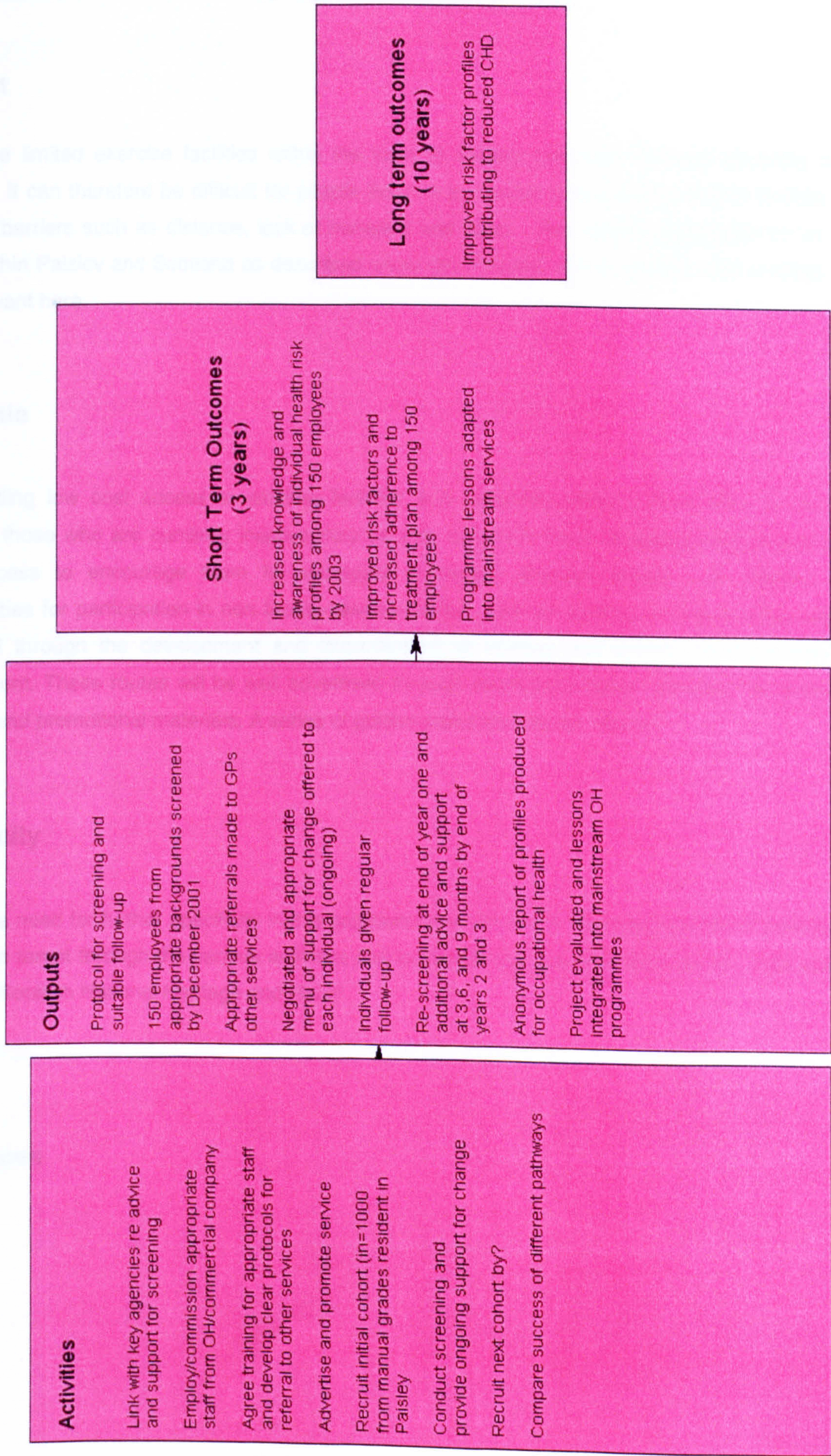
Degree of specificity

More detail is needed on this programme particularly in relation to the menu of support and options available and how progress or the relative merits of these will be measured and judged. There are also ethical issues around screening and the need for “evidence based or good practice” interventions/ options to be available to the client to make screening justifiable. These areas are being considered at the moment. The evidence for the efficacy of such interventions is limited given the design of this initiative.

Resources

£ 73,500 (support from occupational health staff and screening commissioned out)

Logic model: Local authority – health at work programme



Work theme: Local authority Healthercise project

Context

There are limited exercise facilities within the town of Paisley (although Renfrew generally is better served). It can therefore be difficult for people living in key areas to access the limited facilities due to potential barriers such as distance, lack of transport and costs. The general description of low activity levels within Paisley and Scotland as described under the Physical Activity Paisley-wide strategy work is also relevant here.

Rationale

By providing low cost access to existing facilities and creatively utilising down time in council run facilities, those who are currently inactive may be able to benefit from increased support and reduced price access to encourage them to participate in regular physical activity. In addition to this, opportunities for participation in non facility-based activities such as walking are being encouraged and promoted through the development and improvement of walking and cycling routes in the Paisley environment. These routes will be well advertised through community based links and the development of maps and promotional materials. A series of guided walks will also be offered.

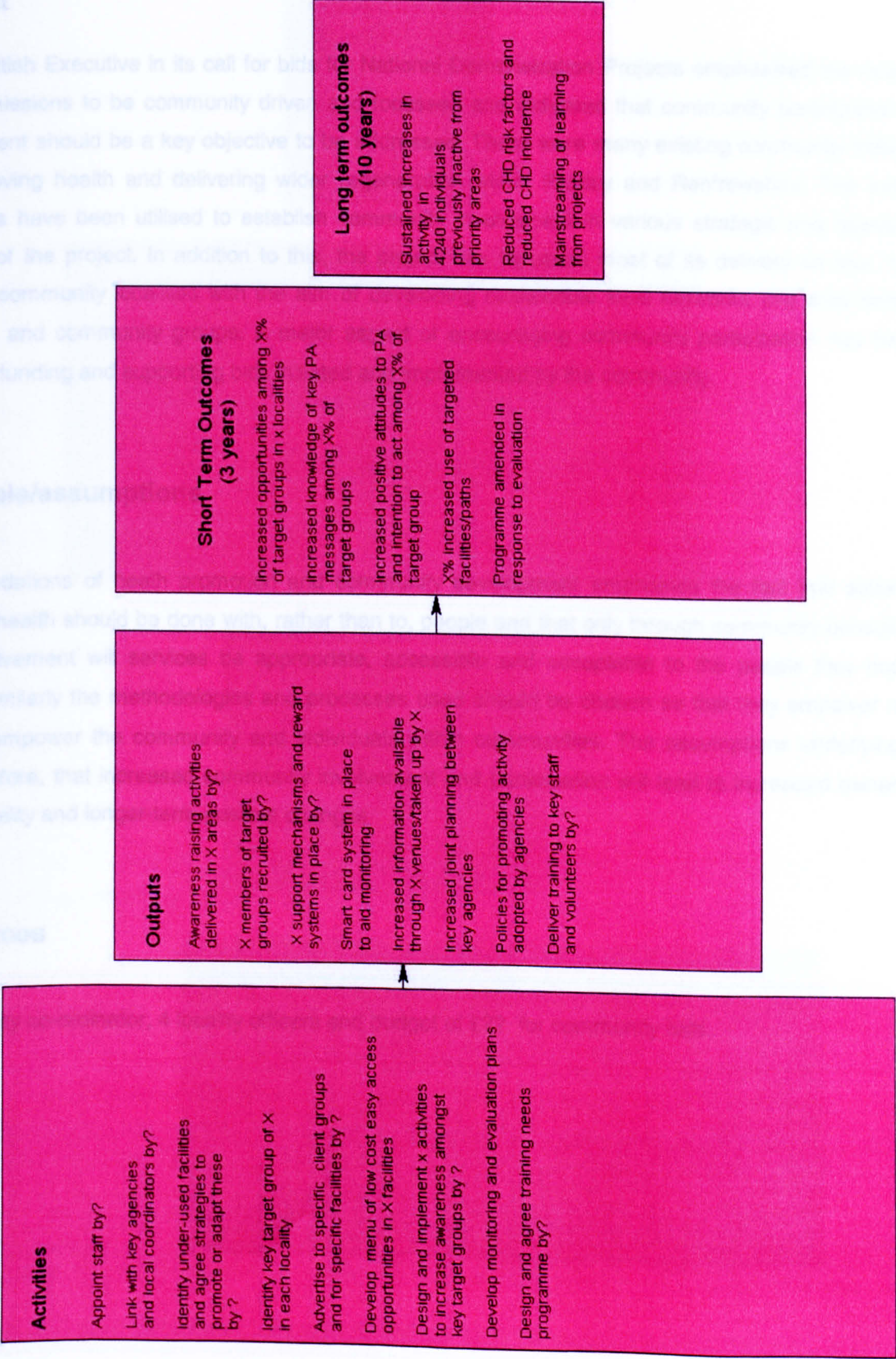
Specificity

There is a need for further specificity in this programme in relation to the likely number of individuals it is feasible to target through the various activities and to the overlap and links between the work sponsored jointly by Scottish National Heritage and HaHP

Resources

??

Logic model: Local authority - Healthercise project



Main theme: Improved community involvement:

HaHP wide but also locality networks focus

Context

The Scottish Executive in its call for bids for the submissions to be community driven. Community involvement should be a key objective for projects for improving health and delivering wider benefits. Structures have been utilized to establish the various aspects of the project. In addition to the defined, community agencies and community focus on funding and

Rationale/assumptions

The foundations of the project are based on the assumption that health should be done with, rather than for, the community. The project is based on the assumption that the community will be involved in the project and that the project will be a success. The project is based on the assumption that the community will be involved in the project and that the project will be a success. The project is based on the assumption that the community will be involved in the project and that the project will be a success.

Main theme: Improved community involvement:

HaHP wide but also locality networks focus

Context

The Scottish Executive in its call for bids for National Demonstration Projects emphasised the need for the submissions to be community driven and focussed and indicated that community participation and involvement should be a key objective to be addressed. There were many existing community initiatives for improving health and delivering wider regeneration within Paisley and Renfrewshire. The existing structures have been utilised to establish community involvement in various strategic and operational aspects of the project. In addition to this, the project has focussed most of its delivery on four, newly defined, community localities with the aim of developing sustainable local networks and links between agencies and community groups. A major aspect of encouraging community participation has been a focus on funding and supporting bids initiated and implemented by the community.

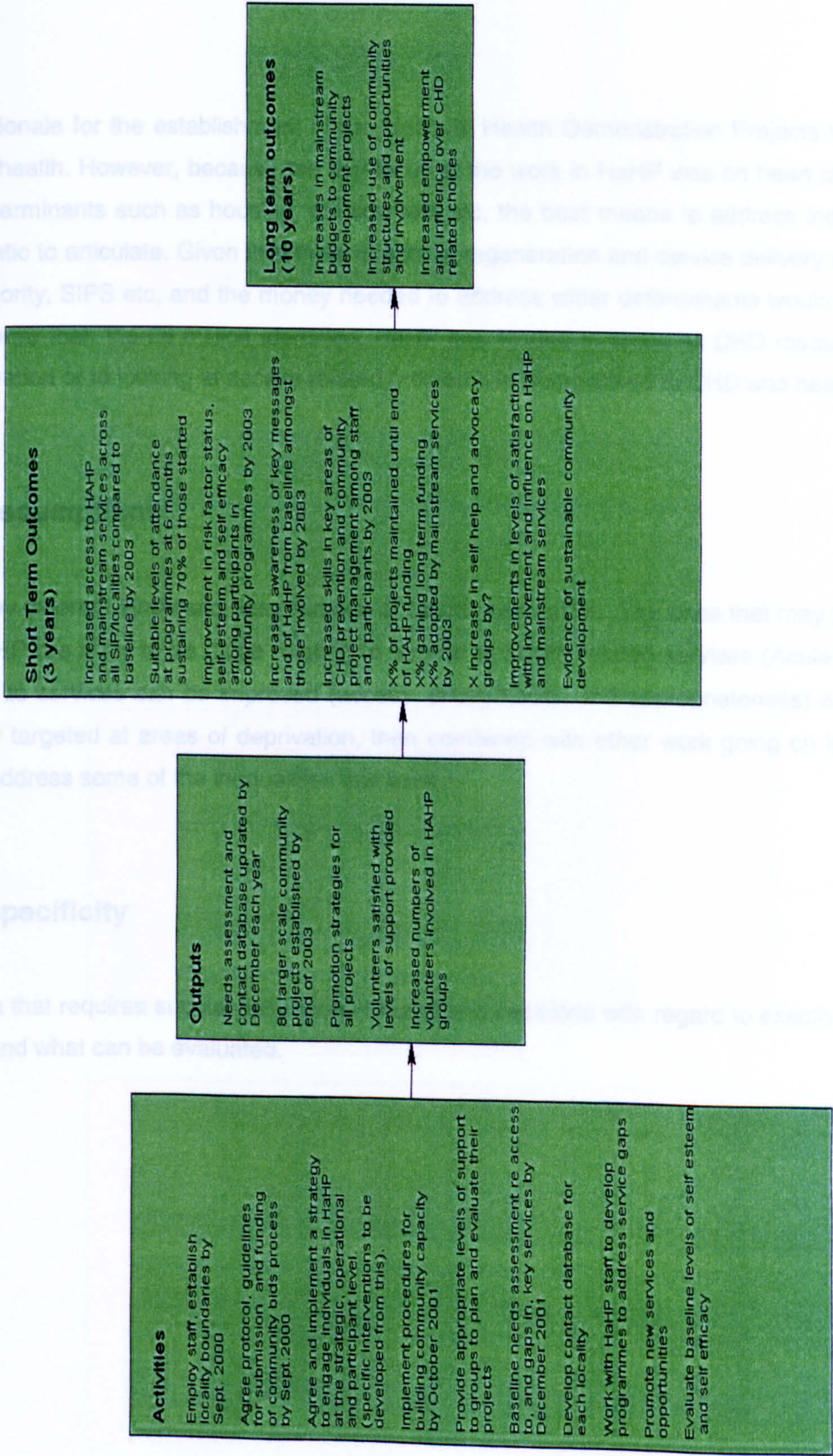
Rationale/assumptions

The foundations of health promotion and community development emphasise the fact that actions to improve health should be done with, rather than to, people and that only through community consultation and involvement will services be appropriate, accessible and acceptable to the people they hope to serve. Similarly the methodologies and processes used should be chosen so that they empower rather than disempower the community and individuals within communities. The assumptions underlying this are therefore, that increased community involvement and participation will lead to increased ownership, sustainability and longer-term positive changes

Resources

Community co-ordinator, 4 locality officers and budget of £?? for community bids.

Logic model: Improved community engagement



Work theme: Tackling inequalities

Focus for all of HaHP

Context

Part of the rationale for the establishment of the National Health Demonstration Projects was to tackle inequalities in health. However, because the key focus of the work in HaHP was on heart disease rather than wider determinants such as housing, employment etc, the best means to address inequalities has been problematic to articulate. Given that there is a lot of regeneration and service delivery work done by the Local Authority, SIPS etc, and the money needed to address wider determinants would likely require substantially more than the £6 million identified, HaHP has tended to focus its CHD resources towards areas of deprivation or to looking at access related problems in areas linked to CHD and health services.

Rationale/assumptions

There are many different kinds and determinants of health inequalities. The ones that may be tackled as a result of HaHP are likely to be those relating to access to health related services (Acute, PC, Leisure etc). If access to services can be improved (access, acceptability, and appropriateness) and resources are particularly targeted at areas of deprivation, then combined with other work going on in Paisley this may begin to address some of the inequalities that exist.

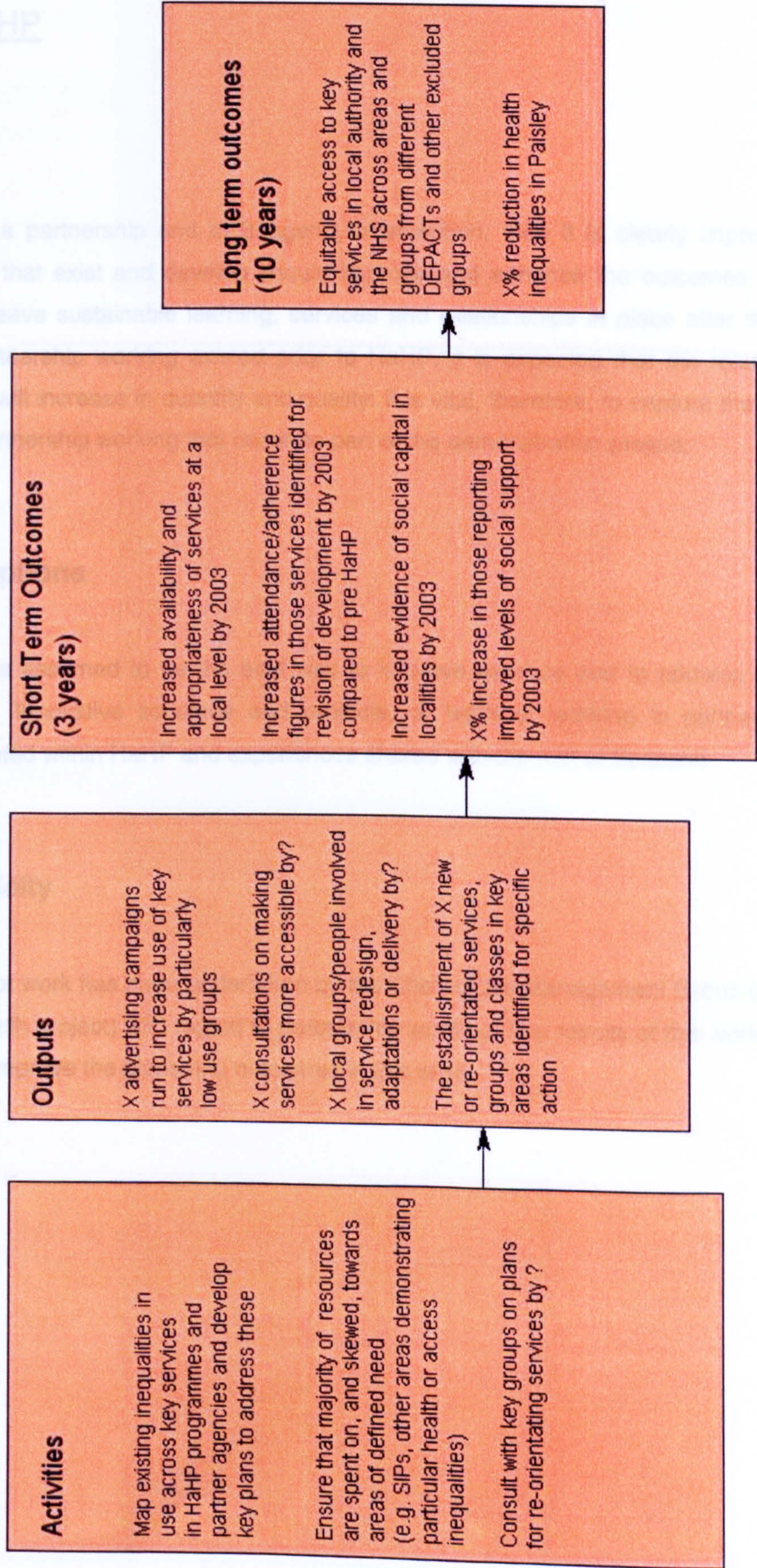
Degree of specificity

This is an area that requires substantially more thought and decisions with regard to exactly what actions can be taken and what can be evaluated.

Resources

?

Logic model: tackling inequalities



Work Theme: Partnership working

Focus of all HaHP

Context

Given that HaHP is a partnership and multi-agency intervention, then it is clearly important that the partnership activities that exist and develop should improve and enhance the outcomes of the whole HaHP initiative and leave sustainable learning, services and relationships in place after the three-year project. Although partnership working existed prior to HaHP, it is expected that the relationships and amount of joint work will increase in quantity and quality. It is vital, therefore, to capture the advances in, and lessons about partnership working that occur as part of the demonstration project.

Rationale/assumptions

Partnership working is assumed to be the best way to improve services and to address health issues such as inequalities. Innovative schemes and projects, or ways of working in partnership can be developed and evaluated within HaHP and experiences shared with the rest of Scotland.

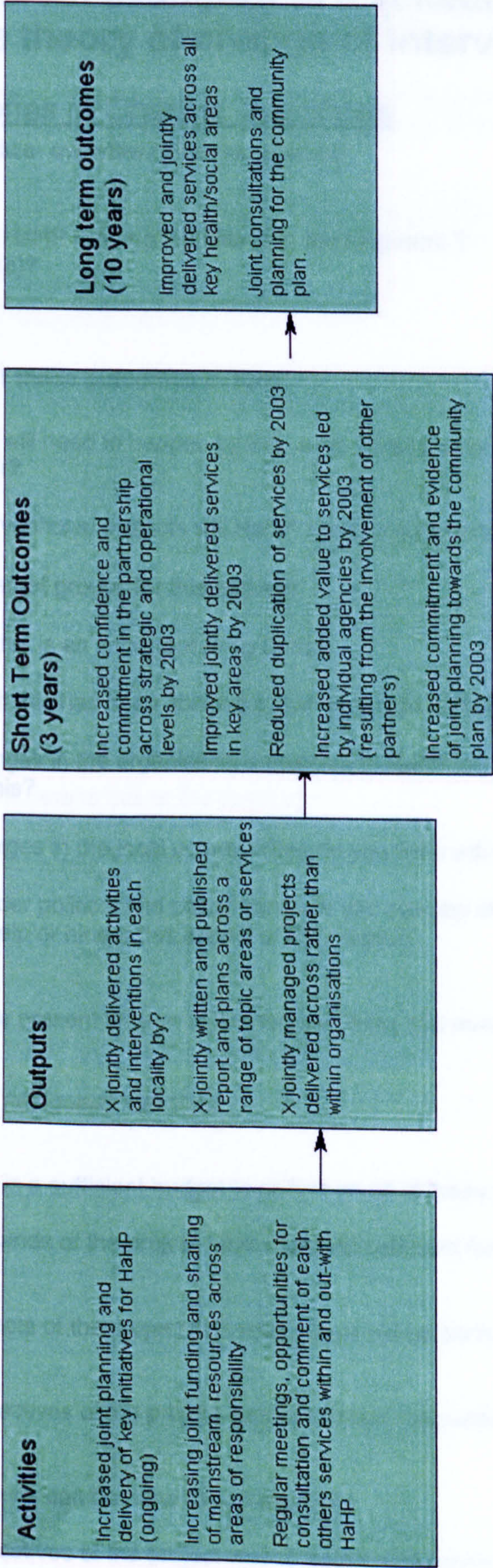
Degree of specificity

A significant amount of work has been undertaken by the Chair of the Management Group (as part of her Masters in Public Health project) with regard to partnership working. The results of this work may be able to be used to further improve the plans and outcomes in this area.

Resources

?

Logic model: Improved partnership working



Appendix seven: An examples of a schedule from each year of the theory of change of interviews

First round of Theories of Change interviews

(Management group schedule- overview rather than specific)

1. What do you think HaHP is trying to achieve in the long-term ?
(10 or 15 years time)?

If we can take each of these outcomes in turn

2. What do you think will need to happen by 3-5 years time to allow X (long-term outcomes) to occur?
 - What sorts of interventions/ projects will HaHP need to put in place to achieve this?
 - Who are the key target groups for this activity?
 - Why do you think this is an important thing to do?
 - How will we know if this has been achieved / (what can be measured)?
 - What sorts of changes in the organisations involved in HaHP do you think will have to occur to achieve this?
 - What sorts of changes in the local communities do you think will need to take place?
 - What about the wider political and policy front can you see any changes that could occur that would help or hinder this aspect of the project?
3. Coming back to the present time what are the key tasks that need to be year one goals

(Take through key goals) identified.

4. Do you think there is a sufficient budget to deliver on all of these goals?
5. Do you think all strands of the project have received sufficient funding to deliver what they are planning?
6. Are there any aspects of the project that you believe will be particularly difficult to implement?
7. One of the key objectives of the project was to address inequalities with regard to CHD?
 - What do you think can be done to achieve this?
8. One of the key objectives of the project was to address environmental issues with regard to CHD?

- What do you think can be done to achieve this?
9. Another key part of the project was to ensure that the community are central in the design, development and evaluation of the project?
 - What structures does the project have in place to achieve this?
 - Are there other things that need to be done to increase community involvement?
 10. If you were forced to choose two main aspects of the project that you think will make the biggest impact on the heart health of the population of Paisley which aspects would you prioritise?
 11. What are the main responsibilities of your workgroup?
 12. Are there any tasks which your work group can progress independently
 13. Which of the interventions planned by your workgroup are dependant on the work of another
 14. Which of the other workgroups do you think your group will have to work most closely with?
 15. What other areas of crossover do you see as being important between other workgroups?
 16. What can be done to ensure the groups work together to achieve the overall aims?
 17. Can you see any barriers to this at the moment?
 18. Do you have any other comments on HaHP you would like to make?

Second round theory of change interviews *(Central Disease Repository schedule, specific)*

1. In what areas of your programmes do you feel you have made the greatest progress to date?
 - a. Why have these areas been successful/
2. What areas have made less progress than you had expected?
 - a. Why is this so?
3. Are there any areas where you feel your project has deviated from the original plans?
 - a. What were the reasons for this deviation?
4. Does the register now contain population data, subset data from the clinical registers (CHD and diabetes) and was it available for opportunistic RF identification by end of 2001
5. How were the confidentiality issues overcome?
6. Was the contact list of those diagnosed within secondary and primary care pre 95 completed?
7. Was the baseline audit completed?
8. Was the register working in all GP practices by December 2001?
9. Have all relevant LHCC staff been trained with agreed procedures in place by Sept 2001
10. Have any 6 monthly alerts on new treatment info or untreated patients been disseminated yet?
11. Has the register started to improve the identification of those with untreated RF or established CHD
12. What baseline is being used to measure this change?
13. Have procedures for annual patient reviews been agreed between secondary and primary care
 - i. Have these been implemented yet?
14. Will the comparative audits take place across all GP practices as planned for Dec 2002 (to lead to improved treatment of new and existing CHD cases)?
15. How has /will the DR impacted directly on patient care so far?

16. What aspects of the DR work will provide learning for the rest of Scotland
 - a. IT
 - b. Processes
 - c. Training
 - d. Will the system be integrated with SCI and GPASS/other Scottish wide systems?
17. What mix of professionals will have direct access to the database?
18. Will the DR actually improve non-clinical management as well as clinical?
19. Do you believe the DR will go on to report on, compare and influence GP performance re guidelines ?
20. What were the key areas of integration with the rest of HaHP?
21. Areas where work has not been integrated?
 - a. Reasons
22. What have been the key barriers to the delivery of your programme?
23. What things have made the delivery easier?
24. Are you secure that all the DR activity will be spread through all Paisley practices and sustained beyond HahP?
25. What impact has this had on knowledge and skills of professionals
 - a. How measured?
26. Evidence of changes in individual practice?
 - a. How measured?
27. Has your budget been under or over spent at any time?
 - a. Why was this so?
28. Is the activity making a difference to the patients with the greatest need (clinically and in terms of deprivation)?
29. Have the patients been actively involved in the design of the new activities?
30. Are the activities being monitored effectively/
31. Has the monitoring information been used to refine the plans?

32. What do you think are the key lessons to emerge from your programme and HahP to date?
33. With the benefit of hindsight what would you do differently?
34. Any other areas that us as evaluators should be involved in.

Third round Theories of Change interviews

(Community schedule)

HaHP Generally

1. Now that the initial three-year funding period has been completed what are HAHPs key achievements?
2. Why have these areas been particularly successful?
3. What areas have you been disappointed with or have been less successful?
4. Why have these areas been poorer?
5. Your specific area
6. What are the key achievements in your particular area?
 - Why were these successful?
7. What areas have made less progress than you had expected?
 - Why have these been successful?
8. What unexpected outcomes have been achieved?
9. What still needs to be achieved?
 - Quality of the community interventions
 - Engagement of community at participants, operational and strategic levels
 - Sustain 70% of individuals started
 - Increase in mainstream budgets flowing to community
 - Increase structures for involvement
 - Sustainable networks
10. Is there demonstrable evidence of the changes that have been produced?
11. Has programme addressed inequalities?
12. What partnership links have been improved?
 - How were these improved?
13. What relationships/partnership still need further development?
14. What have been the key barriers to the delivery of your programme?
15. What things have made the delivery easier?

16. What aspects of the programme have been mainstreamed, or sustained?
17. What aspects of the programme have had the greatest impact on the participants?
18. What aspects have had the greatest impact on professionals?
19. In terms of budget have you had any under or over spend?
20. Key lessons to arise from any formal evaluation
21. Transition phase and phase two
22. What existing activities are priorities for phase two?
23. What activities have been/will likely be dropped?
24. Will you change the target groups you are aiming at during the next phase?
 - Why was this decision made?
25. How could more people be reached/touched by the programme?
26. How could the programme be made more effective or evidence based?
27. Could more staff deliver the programme or organisations support it?
 - Which staff?
28. How long would the programme require to run?
29. Does it need to be more or less intense?
30. Any negative effects from the programme that could be addressed this time
31. Could the programme be more upstream: e.g. Change
 - Policy
 - Environment
 - Services

Any other comments?

Appendix eight: example of management team response to recommendations from the theory critique

The invitation sent to members of the management group inviting comment is detailed below followed the only tow responses that were formally received prior to the meeting.

Responses

Invitation to comment

Dear colleagues,

Please find enclosed some documentation for our discussion re the "Theories of Change" work that is planned for the Have a Heart Paisley meeting on Monday the 19th. I would appreciate it if you could find some time to familiarise yourself with the materials before coming to the meeting as this will help us get through as much as possible in the limited time that we have.

What is enclosed is a diagrammatic version of what I think, from looking at your documentation and interview transcripts, you are trying to achieve within Have a Heart. What is shown is necessarily superficial, as I have had to try and capture the essence of the whole programme rather than the specific detail of any one work-stream. At this point I want to focus on getting clarity and agreement from you, as a management group, about what you see as the change pathways for the whole project. If, after the meeting, we clarify and refine this initial picture, and / or identify the need for me to focus on one or two particular work-strands then we can get into much more detail with regard to the specificity of outcomes, measures, performance indicators and targets. For the moment there should be enough detail here to get us all to discuss and think about:

- What HaHP will achieve as a whole and how will it do this?
- What are suitable measures of outcome and process that will demonstrate the success of the whole project?
- Given we cannot measure everything which of these possible measures should we prioritise to give an overall view?
- Who is contributing to, gathering, interpreting and presenting these measures?

In order to answer the above we will use my interpretation and representation of your documents and interviews merely as a starting point for you to agree with, pull apart, or change in any way you see fit. I have detailed below a set of questions to go with the enclosed diagrams to encourage you to be critical of my interpretations of your outcomes and measures, so please come along with ideas on how to refine and tighten up this picture of what the project is trying to achieve.

Look forward to seeing you on Monday.

Best wishes

Avril

Questions to consider with the attached diagrams:

The following diagrams are colour coded (it might be best if you look at them on screen at least initially) to show to some degree what early and intermediate outcomes will influence the longer-term outcomes. These are not exclusive to each other but link the main "pathways of change". Blue represents the links for secondary prevention outcomes, red for primary prevention outcomes, pink for inequality specific outcomes and green for community involvement outcomes.

Please consider the following questions:

1. Does page 1 accurately reflect the key outcomes/outputs and processes that HaHP is trying to achieve?
2. Are the timescales for these outcomes accurate?
3. Have any key overall pathways to change been missed out or links not been made clearly enough (keeping in mind that we are after an overall picture and that more precise pathways can be written up for each work-strand specifically)?
4. Page 2 show some possible measures that you could apply to demonstrate the

achievement of the outcomes on page one, do you think these are the correct measures?

5. Can you suggest any better, alternative measures?
6. Can you actually set any performance indicators or targets for the measures that you agree with? (e.g. 80% of schools with after school exercise clubs by 2003, or a 5% decrease in the number of secondary MI by 2008)
7. Page 3 shows some of the people who will be interested in different types of outcomes. Are these the key people who HaHP should be answering to? If not who are they?
8. Once you have thought about who HaHP is answering to, what kind of result/ outcome and measure will these people need to have?
9. How can we select the right balance of outcome measure to keep most of these people happy? Do we have the capacity to gather his information? Who should do what to contribute to this?

Best wishes

Responses

Avril, at long last a response from me. I decided not to put this into the powerpoint presentation and just say where I suggest the amendment.

Your first 3 questions relating to page 1 I would reply in the positive i.e. yes this is an accurate reflection of the key outcomes etc. and that the timescales look right to me. Nor would I change any of the links.

On page 2, I would add in a couple of measures but not take out any of those you have documented. I would suggest that we attempt to measure the increase in knowledge in the primary care teams in health promotion interventions e.g. GPs knowing effective smoking cessation advice to be giving and across the whole team improving knowledge and actually doing heart disease management and prevention.

Although not a gauge to how effective it is, I would also "count" the amount of media coverage. I would put all of these in the short term measures. In the long term measures I would add that the local press continuing to highlight health issues in a positive manner as an achievement.

On page 3, I would amend the "Community" box slightly. Instead of improved access to local services, I would suggest improved access to local public services and improved choice in commercial/profit making businesses for the healthy option e.g. restaurants, supermarkets.

I would agree that the players that you have identified are the correct ones and they would look at the measures on the previous sheet as pertinent to them. However they will also want it made clear what role they played in all of it (if HaHP is successful). I think the capacity question needs a joint discussion.

Hope this helps

In summary with a range of heart health issues and a range of barriers and enablers, it is hoped that in changes to policy and service provision they are not what the Council is looking for as part of the health plan.

Therefore at this time we do not have the data or evidence to support being addressed via HaHP.

- Establish and extend work of SHS in schools
- Maximise opportunities for role of school improvement
- Ensure smoking education and cessation programmes integrated in formal curriculum

In terms of the intermediate and long term outcomes, the Council would hope that many of these will come about, although many will need to be a result of HaHP. I would not like to make a judgement about the outcomes.

In terms of process there should be more resources to support the work, particularly at ground level. This should really be an integrated approach - in the short term in terms of new activities and initiatives within the Council because they are collaborative, with services being provided in close partnership with the combined resources. In terms of intermediate outcomes, it would be to support HaHP in the more limited way in which we understand it would be linked to the Community Plan and the Health Plan for this area.

Question 4 - measures to demonstrate achievement

Following on from what has been said above, the Council would hope to see commitment to the short term measures - measures in schools and in the community.

re: HaHP Strategy/Implementation April 2021

Comments on Theory of Change paper

Questions 1, 2, 3 page 1 accuracy in terms of outcomes/outputs and processes

There are a number of outcomes referred to in column 1, which while supported in principle by the Council are not part of our agreed commitment to HaHP. This is particularly true for some which imply a role for education services. Our Education & Leisure Services department is leading on the Moving Forward with health promoting schools component. This has an emphasis on physical activity and while there may be some reference to smoking cessation, healthy eating etc as part of this component and, indeed these issues are addressed, elsewhere in the curriculum, they will not be the focus of the work, nor will they be measured in the same way as they physical activity outcomes/outputs etc. In addition to the components of HaHP for which the Council has been funded, we are also participating in the healthy eating, smoking cessation and physical activity working groups and may commit additional staff resources to initiatives developed by these groups but as yet these have not been formalised and therefore cannot be proposed as outcomes at this stage.

In summary while a range of heart health issues are being pursued under other banners and will hopefully result in changes to policy and service provision, they are not what the Council is addressing as part of the demonstration project.

Therefore at this time we do not anticipate the following early outcomes in column 1 being addressed via HaHP

- Establish and extend work of SNAGS in schools
- Maximise opportunities for role of school meal provision
- Ensure smoking education and cessation opportunities integrated in hidden and formal curriculum

In terms of the intermediate and long term outcomes listed, the Council would hope that many of these will come about, although many not necessarily as a result of HaHP. I would not like to make a judgement about the timescales.

In terms of process there should be more reference to partnership working, particularly at ground level. This should really be an anticipated outcome - in the short term in terms of new activities and initiatives which are better because they are collaborative, with services being provided in new ways that make best use of our combined resources. In terms of intermediate outcomes it would be hoped that HaHP (in the more limited way in which we understand it) would contribute to the Community Plan and the Health Plan for this area.

Question 4 measures to demonstrate achievement

Following on from what has been said above, the Council would not have a commitment to the short term measure - Numbers of schools with SNAGS.

regen;HaHP;theoryofchangeresponse4april2001

Appendix nine: Questionnaire for primary care staff

15/04 '01 14:47 01418403349

Renfrewshire Cnl -->93303315

ECM Pg. 03/03

Again many of the intermediate and outcome measures are related to developments which cannot be solely attributed to HaHP.

Questions 5 & 6

The Council has proposed short, medium and long-term outcome objects for all of its components and is currently developing measures and performance indicators for each of these upon which it will consult with partners. It is anticipated that this will include measures of the kind you suggest.

Question 7

The categories of stakeholders seems about right. Suggest you could add under scientists/clinicians something about new approaches which have been demonstrated to work effectively to bring about these changes. Innovation under key partner agencies could be extended to specifically include new methodologies etc.

Question 8

Have always assumed that a demonstration project will demonstrate a better way to do things and the outcomes would be about these better ways having been identified, disseminated and put into practice by the relevant agencies.

Question 9

As indicated under 5 & 6 above, it would be our intention to develop measures and performance indicators which will demonstrate the success (or otherwise) of Council-led HaHP interventions. We would also contribute to the development of same for any other sub-group led initiatives in which we participated.

Draft

Have A Heart Paisley Professional Development Opportunities

We are now interested in the professional development opportunities you have realised since the start of Have A Heart Paisley (HaHP) on 1.10.99. Please read these instructions before completing the grid overleaf.

Using this grid, please can you indicate if you have attended any training or received structured information in the topic areas indicated that relate to coronary heart disease (CHD) since the start of Have A Heart Paisley. For those areas where you have attended training or received information, we are interested in the impact it has made to your professional knowledge and practice. Please respond to these statements using the following scale where:

1 = to no extent and 5 = to a great extent

Appendix nine: Questionnaire for primary care staff survey



Primary Care Survey For nursing staff



UNIVERSITY
of
GLASGOW

Background Information

This first section is to gather some information about your role in primary care.

1. **Your occupation** *please tick appropriate box*

Practice nurse

☐ grade ____

District nurse

☐ grade ____

Health visitor

☐ grade ____

Other

☐

please can you specify your role.....

2. **Do you work full-time or part-time?** *please tick appropriate box*

Full-time

☐

Part-time

☐

3. **In your work, do you have any of the following responsibilities or specific interests?** *please tick all/any that apply*

Primary prevention of CHD

☐

Secondary prevention of CHD

☐

Smoking Cessation

☐

Nutrition/healthy eating advice

☐

Physical activity

☐

Audit/evaluation

☐

Training responsibilities

☐

Other, *please specify*

☐

(e.g. Nurse trainer/promoter)

.....

Have A Heart Paisley Professional Development Opportunities

4. We are now interested in the professional development opportunities you have received since the start of *Have A Heart Paisley (HaHP)* on 1.10.00. Please read these instructions before completing the grid overleaf.

Using this grid, please can you indicate if you have attended any **training** or received **structured information** in the topic areas indicated that relate to coronary heart disease (CHD) since the **start of Have A Heart Paisley**. For those areas where you have attended training or received information, we are interested in the impact it has made to your awareness, knowledge and practice. Please respond to these statements using the following scale where:

1 = to no extent and 5 = to a great extent.

Please circle your responses

	Attended training or received information?	State type of training or info e.g. workshop, event, training course/session, support materials	Overall, through this training my <u>awareness</u> has been raised (1=to no extent & 5=to a great extent)	Overall, through this training my <u>knowledge</u> has improved (1=to no extent & 5=to a great extent)	Overall, through this training my <u>practice</u> has changed (1=to no extent & 5=to a great extent)
HaHP Aims and Objectives	YES NO		1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
HaHP CDSS template	YES NO		1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Patient pathways	YES NO		1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Health inequalities	YES NO		1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
CHD primary prevention	YES NO		1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
CHD secondary prevention	YES NO		1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
HaHP CHD Register	YES NO		1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Ambulatory BP monitoring	YES NO		1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Health Promoting Health Service Framework	YES NO		1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Smoking cessation	YES NO		1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Nutrition	YES NO		1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Physical activity	YES NO		1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Behaviour change models	YES NO		1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
CHD risk assessment	YES NO		1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

Primary and Secondary CHD Prevention

5. Have you received a copy of the Paisley LHCC Guidelines for Prevention of CHD? *please tick appropriate box*

Yes ☐ No ☐

6. Thinking about primary prevention, on what basis do you target groups, or individuals, at potential risk of CHD? *please tick all that apply*

Age ☐
 Gender ☐
 Family history ☐
 Socio-economic status ☐
 Area of residence ☐
 Clinical risk - absolute risk ☐
 Clinical risk - co-morbidity ☐
 Behavioural risk e.g. smoking, nutrition ☐
 Other, *please specify*..... ☐

7. In the practice where you work, are you able to identify patients at high risk of developing CHD? *please tick appropriate box*

Yes, I can identify all patients at risk of CHD ☐

Yes, I can identify some but not all at risk of CHD ☐

No, I rely on referrals (from GPs or other health professionals) or through opportunistic screening ☐

Don't know ☐

8. In the practice where you work, are you able to identify patients with established CHD? *please tick appropriate box*

Yes, I can identify all CHD patients currently on our practice register ☐

Yes, I can identify some but not all CHD patients ☐

No, I rely on referrals (from GPs or other health professionals) or through opportunistic methods ☐

Don't know ☐

9. Where do you document your contact with CHD patients? *please tick all that apply*

GP written notes ☐

Computerised record ☐

Patient held record	<input type="checkbox"/>
Health visiting notes or Documents for post MI patients	<input type="checkbox"/>
Specific practice nurse notes or records	<input type="checkbox"/>
Other , please specify.....	<input type="checkbox"/>

Have a Heart Paisley CHD template

10.
Have you used the HaHP CDSS template, or equivalent, in your practice?

Yes
☐
No
☐
please go to question 15

11.
For what purposes have you used the HaHP CDSS template (or equivalent)? please tick all that apply

To calculate patient's risk of CHD

Patient recall

Patient review

For information about treatment options

For implementation of management guidelines

Part of clinical audit

Other , please specify.....

☐

☐

☐

☐

☐

☐

☐

12.
How confident do you feel in using this template? please tick appropriate box

☐ Very confident

☐ Quite confident

☐ Not very confident

☐ Not at all confident

13.
How satisfied are you with the technical support you have received for this template? please tick appropriate box

☐ Very satisfied

☐ Quite satisfied

☐ Not very satisfied

☐ Not at all satisfied

14.
How satisfied are you with the support materials you have been provided with for this template? please tick appropriate box

☐ Very satisfied

☐ Quite satisfied

☐ Not very satisfied

☐ Not at all satisfied

Treatment and Referrals

15.
How would you describe your level of awareness of the following areas? please use the scale below to rate your level of awareness and circle your response

Not at all aware
1
Not very aware
2
Quite aware
3
Fully aware
4

HaHP activities and programmes
Community projects available through HaHP
The new patient pathway approach for cardiac rehab

1

2

3

4

1

2

3

4

1

2

3

4

HaHP CHD Register

1 2 3 4

16. How useful has the HaHP community projects directory been in relation to the following areas? *please use the scale below to rate usefulness and circle your response*

Not at all useful 1	Not very useful 2	Quite useful 3	Very useful 4
'Referral' information for patients with identified CHD risk factors	1	2	3 4
Requests from patients about healthy eating/diet issues	1	2	3 4
Requests from patients about exercise	1	2	3 4
Requests from patients about stopping smoking	1	2	3 4

17. In the past month, approximately how many patients have you advised to attend the following projects or services?

Project or service	Approx no. of 'referrals' over last month
Smoking cessation – pharmacy based	
Smoking cessation – practice based	
Smoking cessation – community nurse led group	
'Call It Quits'	
Living Plus Scheme	
Healthercise Prescription for Life Scheme	
Other community based physical activity projects	
Community food projects	
Community dietician	
Other community based project, please specify	

18. Where do you document advice given about, or referrals to, community projects? *please tick all that apply*

GP written notes	<input type="checkbox"/>
Computerised record	<input type="checkbox"/>
Patient held record	<input type="checkbox"/>
Health visiting notes or Documents for post MI patients	<input type="checkbox"/>
Specific practice nurse notes or records	<input type="checkbox"/>
Other, <i>please specify</i>	<input type="checkbox"/>

Developing wider links and networks

This final section focuses on the wider partnerships and networks that have been established since the start of *Have A Heart Paisley*.

19. What professional links within the health service have you established since the start of *Have A Heart Paisley* and how were these developed?

Link	How developed

20. What professional links outwith the health service have you established since the start of *Have A Heart Paisley* and how were these developed?

Link	How developed

21. To what extent do you feel that you have developed partnerships with the following where 1 = to no extent and 5 = to a great extent. *Please circle your response*

Secondary care	1	2	3	4	5
Locality networks	1	2	3	4	5
Voluntary sector	1	2	3	4	5
Local authority - Leisure	1	2	3	4	5
Local authority - Education	1	2	3	4	5
Local authority - Community Care	1	2	3	4	5
Local authority - Workplace Health	1	2	3	4	5
Healthy Eating Strategy (HAHP)	1	2	3	4	5
Tobacco Strategy (HAHP)	1	2	3	4	5
Physical activity strategy (HAHP)	1	2	3	4	5

22. Please state how much you agree or disagree with the following statements along the following scale where 1 = strongly disagree and 5 = strongly agree. *Please circle your response*

Since the start of *Have A Heart Paisley*:

- A.

I have increased awareness of the contribution that my role in primary care can offer to other sectors (e.g. local authority, voluntary sector)

12345
- B

I have increased awareness of the contribution other sectors (e.g. local authority, voluntary sector) can make to my role in primary care

12345
- C.

I can see the benefits of developing broader links within the health service

12345
- D.

I can see the benefits of developing broader links outwith the health service

12345

- E.

I would like more opportunities for developing networks within the health service

12345
- F.

I would like more opportunities for developing networks outwith the health service

12345

Thank you for completing this questionnaire



Leisure Service and Community Facilities in Renfrewshire: Staff Survey



Appendix ten: Questionnaire for leisure staff survey

Background Information

1. Within which of the following organisations or facilities do you work? Please tick appropriate box

The Lagoon	<input type="checkbox"/>	Harpers	<input type="checkbox"/>
Community Resource Centre	<input type="checkbox"/>	Other	<input type="checkbox"/>
Sports Development (Section of Renfrewshire Council)	<input type="checkbox"/>	Please specify

2. Which of these best describes your occupation at present? Please tick appropriate box

Senior manager/officer	<input type="checkbox"/>	Reception/admin assistant	<input type="checkbox"/>
Duty manager/supervisor	<input type="checkbox"/>	Lifeguard/recreation/fitness asst	<input type="checkbox"/>
Sports development officer	<input type="checkbox"/>	Other	<input type="checkbox"/>
		Please specify:

3. Do you work full-time or part-time? Please tick appropriate box

Full time	<input type="checkbox"/>	Part time	<input type="checkbox"/>
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4. In your work, do you have any of the following responsibilities or specific interests? Please tick all that apply

Organisation/planning of sports activities	<input type="checkbox"/>
Provision of nutrition/healthy eating advice	<input type="checkbox"/>
Teaching physical activity/sport	<input type="checkbox"/>
Audit/evaluation	<input type="checkbox"/>
Staff training responsibilities	<input type="checkbox"/>
Strategy development for sport/physical activity opportunities	<input type="checkbox"/>
Other (please specify below)	<input type="checkbox"/>
.....	

Awareness of Have a Heart Paisley/ Local Authority projects

We are interested in your awareness, knowledge and involvement in Have a Heart Paisley activities in general and specifically those delivered by Renfrewshire Council.

5. How aware are you of the following activities? Please use the scale below to rate your awareness. Please circle the appropriate response.

Not at all aware 1	Not very aware 2	Quite aware 3	Very aware 4
Have a Heart Paisley (HAHP) in general			1 2 3 4
Healthercise			1 2 3 4
Feeling Fitter/Community Walks			1 2 3 4
Healthy At Work, Healthy for Life (for council staff)			1 2 3 4
Healthy Eating Active Living (HEAL) (for community care clients)			1 2 3 4
Health Promoting Schools			1 2 3 4

6. How much practical knowledge do you have of these programmes? Please use the scale below to rate your knowledge level. Please circle the appropriate response.

None 1	Not very much 2	A fair amount 3	A large amount 4
Have a Heart Paisley (HAHP) in general			1 2 3 4
Healthercise			1 2 3 4
Feeling Fitter Community Walks			1 2 3 4
Healthy At Work, Healthy for Life			1 2 3 4
Healthy Eating Active Living (HEAL)			1 2 3 4
Health Promoting Schools			1 2 3 4

7. How involved have you been in the running/delivery of these programmes? Please use the scale below to rate your involvement. Please circle the appropriate response.

Not involved at all	Not involved very much	Quite involved	Very Involved
1	2	3	4
Have a Heart Paisley (HAHP) in general			1 2 3 4
Healthercise			1 2 3 4
Feeling Fitter Community Walks			1 2 3 4
Healthy At Work, Healthy for Life			1 2 3 4
Healthy Eating Active Living (HEAL)			1 2 3 4
Health Promoting Schools			1 2 3 4

8. In what capacity have you been involved in this/these programmes? Please use the space below to give the names of the projects and details of involvement (e.g. at a participatory, organisational or teaching level). *If you have had no involvement at all, please go to question 12.*

E.g. Healthercise – Teacher.....

9a. Have you received training in relation to any of the programmes?

Yes ☐ No ☐

If yes, please give brief outline below:

9b. Have you received training in relation to any of the following?

	Yes	No
First aid training	<input type="checkbox"/>	<input type="checkbox"/>
British Association of Cardiac Rehabilitation Phase 4 Training	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>

Please specify:
.....

Impact of Have a Heart Paisley/Local Authority projects

10. How much has your involvement in the activity/activities impacted on your work practice? Please circle your response

No impact	Not very much impact	Some impact	Great impact
1	2	3	4

If you answered 3 or 4, please give details of how your work has changed:
.....
.....
.....
.....

11. Has the client group/target group you work with changed following your involvement in the programmes?

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

If Yes, please explain how:
.....
.....
.....
.....

Developing wider links and networks

This section focuses on the wider partnerships and networks that have been established since the start of *Have A Heart Paisley*.

12. Have you developed partnerships with any of the following since the start of the *Have A Heart Paisley* programmes such as Healthercise? Please tick appropriate box

	Yes	No
Health Promotion Unit (NHS Argyll and Clyde)	<input type="checkbox"/>	<input type="checkbox"/>
Primary care (GPs/pharmacies)	<input type="checkbox"/>	<input type="checkbox"/>
Secondary care (hospitals)	<input type="checkbox"/>	<input type="checkbox"/>
Locality network co-ordinator (HAHP)	<input type="checkbox"/>	<input type="checkbox"/>
Voluntary sector	<input type="checkbox"/>	<input type="checkbox"/>
Local authority - Education	<input type="checkbox"/>	<input type="checkbox"/>
Local authority - Community Care	<input type="checkbox"/>	<input type="checkbox"/>
Local authority - Workplace Health/Human Resources	<input type="checkbox"/>	<input type="checkbox"/>
Healthy Eating Strategy (HAHP)	<input type="checkbox"/>	<input type="checkbox"/>
Tobacco Strategy (HAHP)	<input type="checkbox"/>	<input type="checkbox"/>
Physical activity strategy (HAHP)	<input type="checkbox"/>	<input type="checkbox"/>

13. Please give details of the links you have established with partners outside the leisure services or community facilities and how they were developed.

Link	How developed

Physical activity, heart disease and health

We are interested in your knowledge and awareness about the main causes of heart disease, and where physical *inactivity* stands compared with other risk factors.

14. Which of the following factors are of greatest importance in preventing coronary heart disease (CHD) among the population of Scotland, rather than an individual person? Please list your choices in order, where 1 = most important and 5 = least important.

	Write number here
Increasing physical activity	
Reducing blood pressure	
Reducing blood cholesterol	
Tackling obesity	
Stopping smoking	

15. What is the minimum amount of *moderate intensity* physical activity (such as brisk walking, gardening) that someone needs to do to help them stay *healthy*?

Number of Days per week _____ Total minutes per day _____

Thank you for your time in completing this questionnaire.

Please place your survey in the pre-paid envelope provided and return it to the researcher by December 31st.

Appendix eleven: Baseline questionnaire for population survey

What follows is the baseline survey questionnaire. The version below is the one that was used for the intervention (Paisley) population as it contains some question relating to knowledge of HAHP. This was needed as HaHP had been launched and was delivering some activities prior to the baseline survey. This allowed identification of those already involved with HAHP. The baseline questionnaire used for the control population (Inverclyde) was identical but did not contain section eight

The follow-up questionnaire has not been included in the appendices as it was predominantly a shortened version of this questionnaire with some additional question added for those who identified themselves as having engaged with HAHP. Again the follow-up questionnaire for the control site was identical but without any questions relating to engagement with HAHP

For each question:

The Heart of Scotland Evaluation Questionnaire

Version 1.0

1. Over the last twelve months:

- ☐ Good
- ☐ Fairly good
- ☐ Not good

2. Do you have any difficulties?

Please complete this questionnaire. If you have any difficulties with any parts of it then you can ask the nurse for help when you come for your examination. Your answers will be treated with the strictest confidence.

- ☐ Yes (please say where)
- ☐ No

If yes, please list:

INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE

Each group of questions comes with instructions and most of them need you to clearly tick a box in answer to a question. If you wish to change your answer, put a large cross through it and clearly tick your preferred answer. Try to answer every question (unless told to skip one), as a blank answer cannot be used.

Thank You.

3. Do you ever have pain in your chest or back?

- ☐ Yes
- ☐ No (If no go to question 4)

4. Do you get this pain and difficulty?

- ☐ Yes
- ☐ No

5. Do you get it when you walk or move?

- ☐ Yes
- ☐ No

6. When you get pain or difficulty, what do you do?

- ☐ Slow down
- ☐ Stop
- ☐ Continue as normal

7. Does it go away when you rest?

- ☐ Yes
- ☐ No (If no go to question 8)

8. How soon does it go away?

- ☐ 10 minutes or less
- ☐ More than 10 minutes

For Office Use Only:

Study No.
<input type="text"/>
CHI
<input type="text"/>
Gender
<input type="text"/>
Examination No.
<input type="text"/>
Examiner Code
<input type="text"/>
Depcat
<input type="text"/>
Sample No.
<input type="text"/>
Age
<input type="text"/>

SECTION 1 YOUR HEALTH

For each question below unless otherwise stated, please tick ONE box clearly:

1. Over the last twelve months would you say your health has on the whole been?

- ☐ Good
☐ Fairly good
☐ Not good

2. Do you have any long-term illness, health problem or disability that limits your daily activities or the work that you can do? (Include problems that are due to old age)

- ☐ Yes (please list below)
☐ No

If yes, please list

- a) _____
b) _____
c) _____
d) _____
e) _____
f) _____

3. Do you ever have pain or discomfort in your chest?

- ☐ Yes
☐ No (*If no go to question 11*)

4. Do you get this pain and discomfort when you walk uphill or hurry?

- ☐ Yes
☐ No

5. Do you get it when you walk at an ordinary pace on the level?

- ☐ Yes
☐ No

6. When you get pain or discomfort in your chest, what do you do?

- ☐ Slow down
☐ Stop
☐ Continue at the same pace

7. Does it go away when you stand still?

- ☐ Yes
☐ No (*If no go to question 9*)

8. How soon does it go away?

- ☐ 10 minutes or less
☐ More than 10 minutes

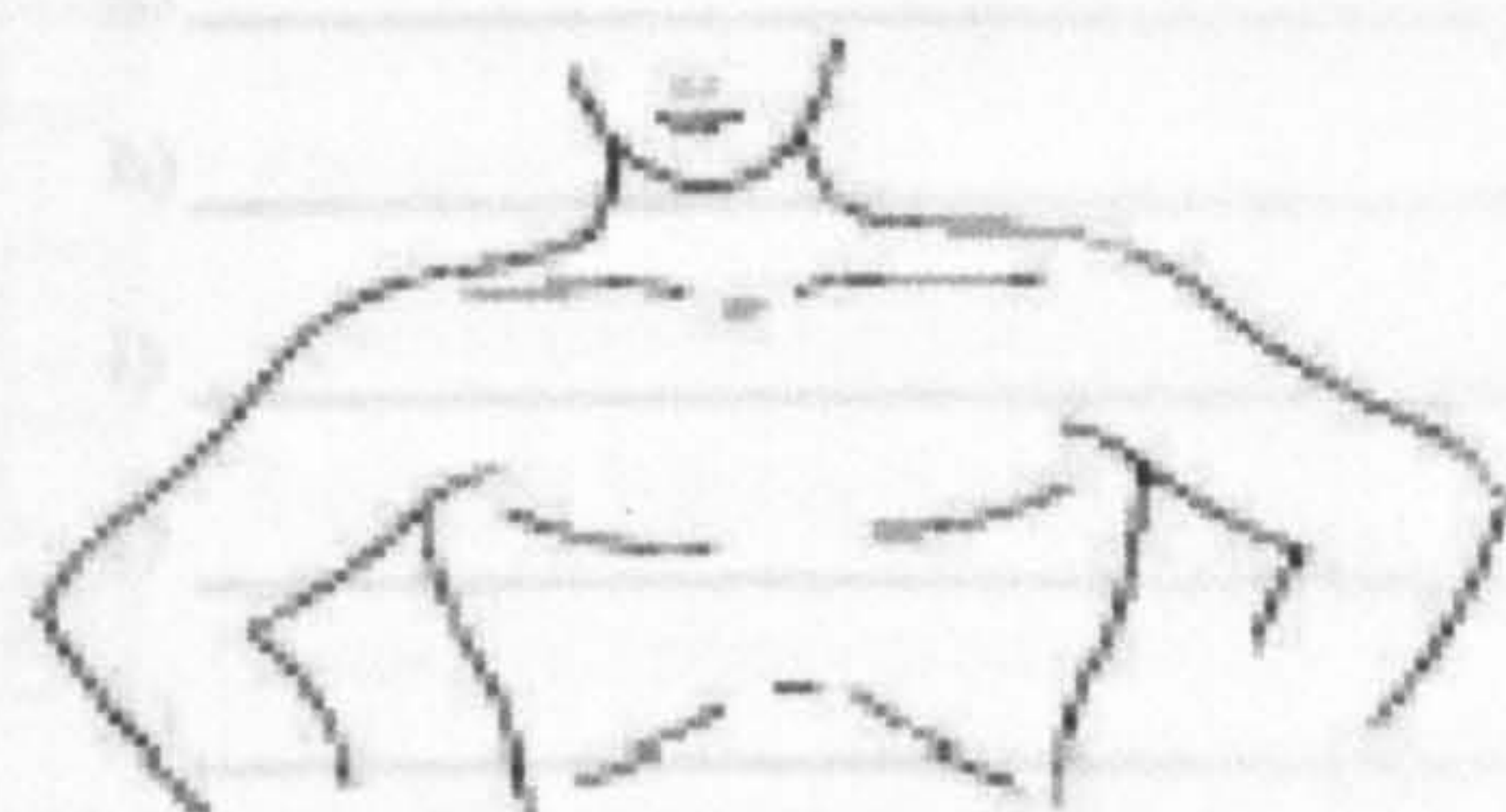
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in this column.

☐
☐

☐
☐
☐
☐
☐
☐

9. Where do you get this pain or discomfort?

Mark with an X



10. Have you ever had a severe pain across the front of your chest lasting for half an hour or more?

- ☐ Yes
☐ No

11. Has a doctor ever told you that you have now, or once had any of these?

Tick yes or no for EACH of them.

- | Yes | No | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Angina |
| <input type="checkbox"/> | <input type="checkbox"/> | Coronary artery bypass graft (CABG) |
| <input type="checkbox"/> | <input type="checkbox"/> | Coronary angiogram |
| <input type="checkbox"/> | <input type="checkbox"/> | Coronary angioplasty (Balloon angioplasty) |
| <input type="checkbox"/> | <input type="checkbox"/> | Heart attack/coronary thrombosis/myocardial infarction |
| <input type="checkbox"/> | <input type="checkbox"/> | Heart failure |
| <input type="checkbox"/> | <input type="checkbox"/> | High blood pressure |
| <input type="checkbox"/> | <input type="checkbox"/> | Stroke |
| <input type="checkbox"/> | <input type="checkbox"/> | Diabetes |
| <input type="checkbox"/> | <input type="checkbox"/> | High Cholesterol |

12. Are you taking any medicine for high blood pressure (hypertension)?

- ☐ Yes, (please list below)
☐ No, I do not take any medication for high blood pressure.
☐ Don't know

If you have answered yes, please list the medication you take for high blood pressure. (Please copy the names written on your pill bottles/boxes):

- a) _____
 b) _____
 c) _____
 d) _____
 e) _____
 f) _____

continued over the page

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☐ R.A. Chacona
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continued

12. Which of the following statements best applies to you? (Select one)

- ☐ a) I have never smoked tobacco (or I have only smoked tobacco once or twice)
- ☐ b) Question 12
- ☐ c) I have given up smoking tobacco (for a period of 30 days)
- ☐ d) I smoke tobacco some days
- ☐ e) I smoke tobacco everyday

13. How much do you smoke per day?

- ☐ a) Cigarettes

13. a) Are you taking insulin for diabetes?

- ☐ Yes
- ☐ No

b) Are you taking any other medicine for diabetes?

- ☐ Yes
- ☐ No

c) Are you on a special diet for diabetes?

- ☐ Yes
- ☐ No

14. Are you taking any other medicines for any conditions? (For example: Pills, bottles, tablets, inhalers, patches, sprays).

- ☐ Yes, (please list below)
- ☐ No, I do not take any medication at all

If you have answered yes, please list any medication you take.

(Please copy the names written on your pill bottles/boxes):

- a) Question 14
- ☐ b) I am going to stop smoking in the future (within 12 months)
- ☐ c) I have stopped smoking during the last 12 months
- ☐ d) I have never smoked tobacco
- ☐ e) I have given up smoking tobacco (for a period of 30 days)
- ☐ f) I smoke tobacco some days
- ☐ g) I smoke tobacco everyday
- ☐ h) I have never smoked tobacco (or I have only smoked tobacco once or twice)

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SECTION 2 YOUR LIFESTYLE

15. Which of the following statements best applies to you? (*Tick one box only*)

- ☐ I have never smoked tobacco (or tried smoking only once or twice). (*Go to Question 21*)
- ☐ I have given up smoking tobacco (*Go to Question 20*)
- ☐ I smoke tobacco some days
- ☐ I smoke tobacco everyday

16. How much do you smoke per day?

- Cigarettes _____ number per day
- Cigars _____ number per day
- Hand rolled cigarettes _____ ounces per week
- Pipe _____ ounces per week

17. In the last 6 months has the amount of tobacco/cigarettes you smoke stayed...?
(*Tick one box only*):

- ☐ The Same
- ☐ Increased
- ☐ Decreased

18. What age were you when you started smoking on a regular basis?

_____ years old.

19. Which one of the following statements best applies to you? (*Tick one box only*)

- ☐ I do not intend to stop smoking (*Go to Question 21*)
- ☐ I am thinking about stopping smoking in the next six months (*Go to Question 21*)
- ☐ I am going to stop smoking in the next month (*Go to Question 21*)
- ☐ I have stopped smoking during the last 6 months and have not started again **see below*
- ☐ I have not smoked for more than 6 months **see below*

**If you no longer smoke, how long ago did you stop?*

Years _____ Months _____ Days _____

- ☐ Rarely exposed to smoke
- ☐ Up to 30 minutes a day
- ☐ 31-60 minutes per day
- ☐ 1-2 hours per day
- ☐ 3-4 hours per day
- ☐ More than 5 hours per day

*For Office Use Only.
Please do not write
in this column.*

☐

☐

☐

For Office Use Only.
Please do not write
in this column.

20. Which of the following helped you give up smoking,
(Tick yes, no or never for each question. You can have one or more yes answers)

Helpful	Unhelpful	Never had or used	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Advice from a doctor
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Advice from a nurse
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Advice and support from the pharmacist
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Nicotine replacement therapy (patches, gum, inhaler)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Zyban
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Taking up exercise or another hobby
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	My spouse/partner stopping with me
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A "stop smoking" group
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Individual counselling
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other <u>Please state</u> _____

☐ 10
☐ 11
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☐ 18
☐ 19
☐ 20
☐ 21

21. How often in an average week are you exposed to smoke from other smokers in
the following places (whether or not you are a smoker)?
(Tick one box for EACH place)

	6-7 days	3-5 days	1-2 days	Rarely /never
At home				
At work				
On public transport				
In pubs/clubs				
In other public places, <i>please describe</i> _____				

☐ 22
☐ 23
☐ 24
☐ 25
☐ 26
☐ 27

22. Does your spouse, or any person that you live close to, smoke?

- ☐ Yes
☐ No
☐ Does not apply to me

☐ 28

23. On average how many hours in a day are you exposed to other people's tobacco
smoke?

- ☐ Rarely exposed to other people's smoke
☐ Up to 30 minutes per day
☐ 31-60 minutes per day
☐ 1-2 hours per day
☐ 3-4 hours per day
☐ More than 5 hours per day

☐ 29

24. With regard to the next question:

"Regularly Physically Active" means:	
EXERCISE	For example: weight training, aerobics for 2-3 times per week; hillwalking for at least 2 hours/ once per week.
OR	
SPORT	For example: golf, hockey, football, netball, athletics, swimming, for 2-3 times per week.
OR	
GENERAL	For example: walking, cutting the grass, vacuuming, washing the car accumulating to at least 30 minutes/ 4-5 times per week.

Please tick the ONE box for the statement that best describes your physical activity over the last 6 months:

- ☐ I am not regularly physically active and do not intend to be so in the next 6 months.
- ☐ I am not regularly physically active but am thinking about starting to be so in the next 6 months.
- ☐ I do some physical activity but not enough to meet the description of regular physical activity given in the box above.
- ☐ I am regularly physically active but have only begun to be so in the last 6 months.
- ☐ I am regularly physically active and have been so for longer than 6 months.

☐

25. Thinking now of the exercise/physical activity you have taken over the last 6 months. In an average week, on how many days do you take at least 30 minutes of moderate physical exercise such as brisk walking? It doesn't have to be 30 minutes all at once. Please circle the number of days shown below.

0 1 2 3 4 5 6 7

26. In an average week (over the last 6 months), on how many days do you spend at least 20 continuous minutes doing vigorous exercise (enough to make you sweaty and out of breath). Please circle the number of days shown below.

0 1 2 3 4 5 6 7

27. What do you usually spend your leisure time doing?

- ☐ Browsing the Internet
- ☐ Watching TV
- ☐ Reading
- ☐ Gardening
- ☐ Shopping
- ☐ Other

27. In the last 6 months have you tried to make any of the changes listed below (even if only for a short time)? *(Please tick ONE box for each statement)*

*For Office Use Only.
Please do not write
in this column.*

Yes	No	Not relevant to me
-----	----	-----------------------

Yes	No	Not relevant to me
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Eating less

Eating more

Eating less fatty or fried foods (such as crisps or chips)

Eating more fruit and vegetables

Eating less processed and convenience foods

Eating less sugar and food containing a lot of sugar (such as cakes, biscuits, sweets and soft drinks).

Eating more foods containing fibre (such as whole meal bread or breakfast cereals).

Using low fat foods such as skimmed or semi-skimmed milk, low fat spread or low fat cheese.

Something else. *Please state* _____

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28. How would you describe your weight at the moment? *(Please tick ONE box only)*

- ☐ Very underweight
- ☐ Slightly underweight
- ☐ About the right weight
- ☐ Slightly overweight
- ☐ Very overweight
- ☐ Don't know

☐

SECTION 3 WHAT YOU EAT

29. What kind of bread do you usually eat? *(Please tick ONE box only)*

- ☐ White
- ☐ Brown, Granary, Wheatmeal
- ☐ Wholemeal
- ☐ Do not eat bread

☐

30. What do you usually spread on bread? *(Please tick ONE box only)*

- ☐ Butter
- ☐ Hard margarine
- ☐ Polyunsaturated margarine e.g. Sunflower/Soya/Olive oil based
- ☐ Reduced fat spread
- ☐ Don't spread fat on bread

☐

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in this column.

31. How much of the following do you usually eat in a day? Tick one box in each line:

	Less than 1	1	2-3	4-5	6 or more
Slices of bread or rolls					
Biscuits including chocolate biscuits					
Cakes/scones/sweet pies/pastries					

☐
☐
☐

32. What kind of milk do you usually use for drinks in Tea/Coffee and Cereals etc?
(Tick ONE box only)

- ☐ Whole Milk
☐ Semi-skimmed
☐ Skimmed
☐ Do not use milk

☐

33. How many portions of fruit (fresh or tinned) do you usually eat in a day?
(Tick the most appropriate box)

- ☐ None
☐ 1-2
☐ 3-4
☐ 5 or more

☐

34. How many portions of vegetables (fresh, frozen or salad) do you usually eat in a day (excluding potatoes)? (Tick the most appropriate box)

- ☐ None
☐ 1-2
☐ 3-4
☐ 5 or more

☐

35. At the table do you? (Tick one box)

- ☐ Usually add salt to food without tasting first
☐ Taste food and then usually add salt
☐ Taste food but only occasionally add salt
☐ Rarely / never add salt at table

☐

36. How often do you eat these meals in a week? Please tick one box on each line:

	Never	1-3 times per week	4-6 times per week	7 or more times per week
Breakfast				
Midday snack/meal				
Evening meal				

☐
☐
☐

37. How often do you eat these foods? Please complete the table below by ticking only one box on each row for the number of times you eat each type of food.

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in this column.

	More than 5 times a day	4-5 times a day	2-3 times a day	Once a day	More than once a week	Once a week	Less than once a week / Never
Breakfast cereal							
Chips							
Potatoes, pasta, rice							
Meat							
Meat pies, sausages, burgers etc							
Poultry							
White fish							
Tuna, mackerel, sardines, herring, kippers							
Fried foods							
Restaurant, cafe meals or take-aways							
Cheese							
Soya, beans or pulses							
Sweets or Chocolates							
Sweet puddings, ice cream							
Crisps, savoury snacks							
Fruit juice (NOT squash)							
Soft fizzy drinks - Non Diet							
Soft fizzy drinks - Diet							
<u>Sweetened</u> hot drinks							

☐

11.4

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13.4

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13.5

☐

13.6

SECTION 4 YOUR PERSONAL LIFE

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in this column.

38. Other than adult relatives living with you, do you have any close relatives whom you speak to or see regularly?

- ☐ Yes
☐ No

☐

39. Do you have any close friends whom you speak to or see regularly?

- ☐ Yes
☐ No

☐

40. If you had a serious personal crisis how many people do you think you could turn to for help?

- ☐ No one
☐ 1-2 people
☐ 3-4 people
☐ 5-10 people
☐ More than 10 people

☐

41. Can you say which, if any, of the following you have done in the past two weeks?
(Please tick Yes or No for each question)

- | Yes | No | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Visited relatives/been visited by relatives |
| <input type="checkbox"/> | <input type="checkbox"/> | Spoken to relatives on the phone |
| <input type="checkbox"/> | <input type="checkbox"/> | Visited friends/been visited by friends |
| <input type="checkbox"/> | <input type="checkbox"/> | Spoken to friends on the phone |
| <input type="checkbox"/> | <input type="checkbox"/> | Spoken to neighbours |
| <input type="checkbox"/> | <input type="checkbox"/> | Spoken to a health professional (e.g. a Doctor, nurse, midwife, health visitor). |

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42. Can you say which, if any, of the following you have done in the past two weeks?
(Please tick Yes or No for each question)

- | Yes | No | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Attended an adult education or night school class |
| <input type="checkbox"/> | <input type="checkbox"/> | Participated in a voluntary group or local community group |
| <input type="checkbox"/> | <input type="checkbox"/> | Participated in community or religious activities |
| <input type="checkbox"/> | <input type="checkbox"/> | Went to a leisure centre |
| <input type="checkbox"/> | <input type="checkbox"/> | Went to a social outing or social club |

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in this column.

43. Please tick the box that most closely describes how you feel about the following statements?

a) I am satisfied with the amount of control I have over decisions that affect my life.

- ☐ Absolutely agree
- ☐ Somewhat agree
- ☐ Cannot say
- ☐ Somewhat disagree
- ☐ Absolutely disagree

☐

b) I can influence decisions that affect my neighbourhood.

- ☐ Absolutely agree
- ☐ Somewhat agree
- ☐ Cannot say
- ☐ Somewhat disagree
- ☐ Absolutely disagree

☐

c) I feel that it is impossible to reach the goals I would like to strive for.

- ☐ Absolutely agree
- ☐ Somewhat agree
- ☐ Cannot say
- ☐ Somewhat disagree
- ☐ Absolutely disagree

☐

d) The future seems to me to be hopeless and I can't believe that things are changing for the better.

- ☐ Absolutely agree
- ☐ Somewhat agree
- ☐ Cannot say
- ☐ Somewhat disagree
- ☐ Absolutely disagree

☐

47. I get a sort of highness/feeling of excitement when I am out in the open.

- ☐ Very distinctly so
- ☐ Yes but not too much
- ☐ A little, not too much
- ☐ Not at all

☐

43. I can laugh and see the funny side of things.

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in this column.

44. Please ring the letters that represent how you feel about each of the statements below e.g. Circle 'SA' if you strongly agree or 'D' if you disagree:

Strongly Agree		Strongly Disagree		
SA	A	D	SD	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	On the whole, I am satisfied with myself
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	At times I think I am no good at all
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I feel that I have a number of good qualities
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I am able to do things as well as most other people
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I feel I do not have much to be proud of
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I certainly feel useless at times
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I feel that I'm a person of worth, at least on an equal plane with others.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I wish I could have more respect for myself
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All in all, I am inclined to feel that I am a failure
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I take a positive attitude toward myself

☐
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45. I feel tense or 'wound up':

SECTION 5 YOU'RE MOTIONS

Tick only one box in each section. Don't take too long over your replies: your immediate reaction to each item will probably be more accurate than a long thought-out response.

45. I feel tense or 'wound up':

- ☐ Most of the time
☐ A lot of the time
☐ Time to time, occasionally
☐ Not at all

☐

46. I still enjoy the things I used to enjoy:

- ☐ Definitely as much
☐ Not quite so much
☐ Only a little
☐ Hardly at all

☐

47. I get a sort of frightened feeling as if something awful is about to happen:

- ☐ Very definitely and quite badly
☐ Yes but not too badly
☐ A little, but it doesn't worry me
☐ Not at all

☐

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in this column.

48. I can laugh and see the funny side of things:

- ☐ As much as I always could
- ☐ Not quite so much now
- ☐ Definitely not so much now
- ☐ Not at all

☐

49. Worrying thoughts go through my mind:

- ☐ A great deal of the time
- ☐ A lot of the time
- ☐ From time to time but not often
- ☐ Only occasionally

☐

50. I feel cheerful:

- ☐ Not at all
- ☐ Not often
- ☐ Sometimes
- ☐ Most of the time

☐

51. I can sit at ease and feel relaxed:

- ☐ Definitely
- ☐ Usually
- ☐ Not often
- ☐ Not at all

☐

52. I feel as if I am slowed down:

- ☐ Nearly all the time
- ☐ Very often
- ☐ Sometimes
- ☐ Not at all

☐

53. I get a sort of frightened feeling like 'butterflies' in the stomach:

- ☐ Not at all
- ☐ Occasionally
- ☐ Quite often
- ☐ Very often

☐

54. I have lost interest in my appearance:

- ☐ Definitely
- ☐ I don't take so much care as I should
- ☐ I may not take quite as much care
- ☐ I take just as much care as ever

☐

SECTION 4 YOUR UNDERSTANDING OF WHAT YOU FEEL

55. I feel restless as if I have to be on the move:

- ☐ Very much indeed
- ☐ Quite a lot
- ☐ Not very much
- ☐ Not at all

56. I look forward with enjoyment to things:

- ☐ As much as I ever did
- ☐ Rather less than I used to
- ☐ Definitely less than I used to
- ☐ Hardly at all

57. I get sudden feelings of panic:

- ☐ Very often indeed
- ☐ Quite often
- ☐ Not very often
- ☐ Not at all

58. I can enjoy a good book or radio or TV programme:

- ☐ Often
- ☐ Sometimes
- ☐ Not often
- ☐ Very seldom

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in this column.

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SECTION 6 YOUR UNDERSTANDING OF HEALTH AND ILLNESS

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in this column.

59. How important do you think the following things are in reducing the risk of heart disease?

Very important	Fairly important	Not very important	Don't know		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Taking regular exercise/activity	<input type="checkbox"/> 126
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Limit the amount of salt eaten	<input type="checkbox"/> 126
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Eating a healthy balance of different foods	<input type="checkbox"/> 127
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Control weight	<input type="checkbox"/> 126
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Give up / cut down on smoking	<input type="checkbox"/> 126
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Avoid other peoples smoking	<input type="checkbox"/> 126
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Stop drinking or limit the amount of alcohol drunk	<input type="checkbox"/> 126
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reduce your levels of stress / pressure	<input type="checkbox"/> 127
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Eat plenty of fruit and vegetables	<input type="checkbox"/> 127
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Limit the amount of fat eaten	<input type="checkbox"/> 124
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Limit the amount of tea or coffee drunk	<input type="checkbox"/> 127
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Avoid food additives	<input type="checkbox"/> 126
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Eating oily fish regularly e.g. mackerel, herrings, tuna	<input type="checkbox"/> 127
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have regular checks on blood pressure	<input type="checkbox"/> 126
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have regular checks on cholesterol levels	<input type="checkbox"/> 126
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have regular chest X rays	<input type="checkbox"/> 126

60. Having high blood pressure is known to increase your chances of coronary heart disease and stroke. How important, in your opinion, are the things listed below that people can do to keep their blood pressure down?

Very important	Fairly important	Not very important	Don't know		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have regular check ups	<input type="checkbox"/> 126
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Exercise regularly	<input type="checkbox"/> 126
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reduce alcohol intake	<input type="checkbox"/> 126
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Avoid stress	<input type="checkbox"/> 124
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reduce fat intake	<input type="checkbox"/> 126
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reduce cholesterol levels	<input type="checkbox"/> 126
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reduce salt intake	<input type="checkbox"/> 127
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lose weight	<input type="checkbox"/> 126
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Eat healthily	<input type="checkbox"/> 126
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Stop smoking	<input type="checkbox"/> 126
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Take medication / tablets / pills	<input type="checkbox"/> 126
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other, please state _____	<input type="checkbox"/> 126

SECTION 7 ABOUT YOU

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in this column.

61. What is the minimum amount of *moderate intensity* physical activity (such as brisk walking, gardening) that someone needs to do to help them stay healthy?

Days per week _____ Total minutes per day _____

<input type="text"/>	<input type="text"/>	days
<input type="text"/>	<input type="text"/>	minutes

62. Do you think that drinking tea or coffee makes any difference to your risk of developing heart disease? (Tick ONE box only)

- ☐ Yes
☐ No
☐ Don't know

☐

63. Which one of the following is most likely to increase your risk of developing heart disease? (Tick ONE box only)

- ☐ Having large hips
☐ Having a large chest
☐ Having a large waist
☐ Don't know

☐

64. How many portions in total of fruit, vegetables (excluding potatoes) and salad should we eat each day to help us stay healthy? (Tick ONE box only)

- ☐ None
☐ 1-2
☐ 3-4
☐ 5 or more

☐

65. How many cigarettes a day do you think someone can smoke without it affecting their health? (Tick ONE box only)

- ☐ None
☐ 1-10
☐ 11-20
☐ 21-30
☐ 31-40
☐ 40+

☐

Other Ethnic Group

Please write _____

SECTION 7 ABOUT YOU

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in this column.

66. a) Which of the following best describes your marital status? (Tick ONE box only)

- ☐ Single (never married)
- ☐ Married (1st marriage)
- ☐ Re-married
- ☐ Separated (but still legally married)
- ☐ Divorced
- ☐ Widowed

b) Are you currently living with your spouse or partner?

- ☐ Yes
- ☐ No

67. Which of the following best describes your ethnic origin?

Choose one section from A-E, then tick one box only within that section:

A. White

- ☐ Scottish
- ☐ Other British
- ☐ Irish
- ☐ Any other white Background

B. Any Mixed Background

Please state: _____

C. Asian or Asian Scottish or Asian British

- ☐ Indian
- ☐ Pakistani
- ☐ Bangladeshi
- ☐ Chinese
- ☐ Any other

D. Black or Black Scottish or Black British

- ☐ Caribbean
- ☐ African
- ☐ Any other Black group

E. Other Ethnic Group

Please state: _____

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Please do not write
in this column.

68. Which of the following statements describes you at present?
(Please tick only one box)

- ☐ In employment or self-employed (full-time)
- ☐ In employment or self-employed (part-time, more than 30 hours per week)
- ☐ Unemployed and looking for work
- ☐ Sick or disabled and unable to work (temporarily)
- ☐ Sick or disabled and unable to work (permanently)
- ☐ Retired (drawing state pension)
- ☐ Retired (taken early retirement - not yet drawing state pension)
- ☐ In full time education or training
- ☐ In part time education or training
- ☐ In employment and in part time education or training
- ☐ Looking after the home or family
- ☐ I am doing something else. Please give details _____

☐ ☐
211

69. Which of the following qualifications do you have?
(Tick all that apply or if not specified tick the nearest equivalent)

- ☐ Lower, O grades, standard grades, intermediate 1, intermediate 2, GCSE, CSE, Senior Certificate or the equivalent
- ☐ Highers, Higher Grades, CSYS, Scottish Group Award at Higher, A levels, As levels, Advanced Senior Certificate or the equivalent
- ☐ GSVQ/SVQ level 1 or 2, SCOTVEC/NC modules, BTEC First diploma, City and Guilds Craft, RSA Diploma, or equivalent
- ☐ GSVQ/SVQ level 3, ONC, OND SCOTVEC Nat Diploma, City and Guilds Advanced Craft, RSA Advanced Diploma, or equivalent
- ☐ HNC, HND, SVQ Level 4 or 5, RSA Higher Diploma, or equivalent
- ☐ First Degree or Higher Degree
- ☐ Professional Qualification (e.g. teaching, accountancy)
- ☐ None of these

☐ 211
☐ 214
☐ 214
☐ 216
☐ 217
☐ 218
☐ 219
☐ 220

70. How many people (including yourself) live in your home?
(Write in the number)

Adults: _____ aged 16 or over (include yourself)

Children: _____ aged (0-15) (if you have no children please write 0)

☐ ☐ Adults
221
☐ ☐ Children
222

- ☐ Council (Local Authority or Scottish Housing)
- ☐ Housing Association / Housing Corporation / Registered Social Landlord
- ☐ Private landlord or letting agency
- ☐ Employer of household member
- ☐ Relative or friend of household member
- ☐ Other please state _____

For Office Use Only.
Please do not write
in this column.

71. a) What type of accommodation does your household occupy?

(Tick one type only)

A whole house or bungalow that is:

- ☐ Detached
☐ Semi detached
☐ Terraced (including end terraced)

OR

A flat maisonette or tenement that is:

- ☐ In a purpose built block of flats or tenement
☐ Part of a converted or shared house (including bed-sits)
☐ In a commercial building (e.g. office or hotel or over shop)

OR

☐ A Mobile or temporary structure

b) Is it self contained?

- ☐ Yes (all rooms are behind a door that only our household can use)
☐ No

72. How many rooms do you have for use by your household?

(Do not count bathrooms, toilets, halls or landings or rooms that can only be used for storage such as cupboards.

Do count all other rooms e.g. kitchens living rooms, bedrooms, study or utility rooms. If 2 bedrooms have been converted into one count them as one room.)

☐ Yes
☐ No
Number of rooms _____

73. Does your household own or rent the accommodation? (Tick ONE box only)

- ☐ Own outright (go to Question 75)
☐ Own with mortgage (go to Question 75)
☐ Pay part rent, part mortgage (shared ownership)
☐ Rent
☐ Live here rent free

74. Who is your landlord? (Tick one box only)

- ☐ Council (Local Authority or Scottish Homes)
☐ Housing Association / Housing Cooperative / Registered Social Landlord
☐ Private landlord or letting agency
☐ Employer of household member
☐ Relative or friend of household member
☐ Other, please state _____

75. How many cars or vans are owned, or are available for use, by you or any member of your household? (Tick the appropriate number below. include any provided by employers if normally available for private use by you or members of your household)

- ☐ 0
☐ 1
☐ 2
☐ 3
☐ 4 or more, please state number _____

76. How well would you say you yourself are managing financially these days? Would you say you are —? (Please tick ONE box only)

- ☐ Living comfortably
☐ Doing alright
☐ Just about getting by
☐ Finding it quite difficult
☐ Finding it very difficult
☐ Don't know

77. Would you say that you yourself are better off, worse off or about the same financially than you were a year ago? (Please tick ONE box only)

- ☐ Better off
☐ Worse off
☐ About the same
☐ Don't know

78. Looking ahead, how do you think you yourself will be financially a year from now? Will you be —? (Please tick ONE box only)

- ☐ Better off than you are now
☐ Worse off than you are now
☐ About the same
☐ Don't know

SECTION 8 WHAT YOU KNOW ABOUT THE HAVE A HEART PAISLEY PROJECT (for Paisley people only)

79. Have you heard of the *Have a Heart Paisley Project*?

- ☐ Yes (If yes please answer Questions 80-83)
☐ No. Thank you for your cooperation you have finished the questionnaire.

For Office Use Only.
Please do not write
in this column.

☐
128

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Appendix twelve: More detailed targets produced by HAHP

The targets and performance indicators detailed below were developed by HAHP in response to a request from the Scottish Executive that followed the submission of the Theories of Change critique report.

HaHP'S KEY OUTCOMES & POTENTIAL DEMONSTRATION ASPECTS

Grid 1(a)

Health outcomes

- H1 – To reduce CHD mortality in the Paisley population to levels equivalent to or below the Scottish average (L+)
- H2 – To reduce CHD morbidity in the Paisley population (i.e. to reduce the incidence of symptomatic CHD) (M)
- H3 – Better quality of life for people with CHD (S)

Risk factors

- R1(i) – To increase awareness of CHD, risk factors, support available (e.g. smoking cessation support) (S)
- R1(ii) – To increase intention to change behaviour in rehabilitation patients (S)
- R1(iii) – To increase knowledge of primary care and education and community care staff regarding risk factors and support available (S)
- R1(iv) – To increase self-confidence with participants in community groups (S)
- R2 – To increase the number of people adopting healthy lifestyles in key target groups (i.e. community groups and pre- and school-aged children) (S)
- R3 – To increase the number and proportion of rehabilitation patients adopting healthy lifestyles (S)
- R4 – To increase the number of sustainable community-based projects delivering 'risk factor' activities (S)

Underlying determinants

- D1 – To increase the number of health-related policies and evidence of structural change (e.g. walk ways) within the Local Authority and the health service (S/M)
- D2 – To increase community participation and involvement in activities and structures related to health and CHD (S)
- D3(i) – To increase access to rehabilitation services for eligible patients (i.e. those seen in secondary care setting with a step change in CHD). This service will also increase access for disadvantaged groups (categorised through postcode, gender and age) (S)
- D3(ii) – To increase access to leisure services for those people previously physically inactive. This service will also increase access for disadvantaged groups (categorised through postcode) (S)
- D3(iii) – To increase access to fresh fruit and vegetables for those people living in disadvantaged geographical areas (S)
- D4 – To improve partnership working i.e. improved joint working, joined up services and increased influence of the community within HaHP partnership (S/M)

Service developments

- S1 – New developments: disease registers providing support for clinicians in primary care as regards risk factor management seamless service between primary and secondary care (S)
- S2 – SIGN/HaHP guideline implementation (S)
- S3 – The use of evidence-based/best practice across the project (S)
- S4 – Changed ways of working: more health improvement activity by partners, more community involvement, better joint working (S/M)

leading to



A step change in heart health in Paisley.

HaHP'S KEY OUTCOMES & POTENTIAL DEMONSTRATION ASPECTS

PERFORMANCE INDICATORS OR TARGETS.

Grid 1(b)

Health outcomes

- H1 – As long as present service is maintained, to reduce the CHD mortality from an SMR of 108 to 100 or below. Within this the greatest contribution will be in deprived areas
- H2 – To reduce CHD morbidity by: a measurable decrease in non fatal cardiac events, hospitalisation for cardiac disease, symptoms and improved quality of life
- H3 – To achieve reported improvement in the quality of life experienced by patients who have completed their prescribed rehabilitation programme

Risk factors

- R1(i) – Achieve 1% of target audience attending specific events (e.g. when an event targets the whole town, attendance of 850 people would be the aim). Achieve an increased awareness of CHD issues through the local press coverage with the aim of 4 articles in print locally each month
- R1(ii) – Increased intention to change behaviour as derived from systematic longitudinal self-report data (secondary and primary care)
- R1(iii) – Reported increase in knowledge of primary care, education staff and community care staff regarding risk factors and support available
- R1(iv) – Increased self-confidence reported in the evaluation reports from community groups
- R2(i) – Achieve a measurable increase in CHD positive health related behaviours, thus reducing risk factors i.e. physical activity and health eating, for participants in community groups and pre-5 and school children
- R2(ii) – Achieve 500 people per year accessing smoking cessation support service with 20% of those accessing the pharmacy service having a experience of quitting for 4 weeks and 30% of those accessing the Call Quits service having an experience of quitting for 6 weeks
- R3 – Achieve an increase in accessibility to rehabilitation across eligible patients and in target groups
- R4 – 25% of community (risk factor) projects successfully gain longer term funding or are adopted by mainstream services

Underlying determinants

- D1 – Achieve a measurable increase in the numbers of health-related policies and awards (e.g. SHAW) within the Local Authority and the health service. Demonstration of knowledge of these policies by staff.
- D2 – Measure the numbers of continued and new participants in community projects. Measure the numbers of people becoming involved in delivery of the project overall
- D3(i) – Compare the medical conditions of patients, previously and now, referred to cardiac rehabilitation services. Achieve a figure of 70% of patients referred, taking up and adhering to their prescribed rehabilitation programme. Achieve a greater % of patients from disadvantaged geographical areas accessing this service (categorised by postcode, gender and age)
- D3(ii) – Achieve a measurable increase in the numbers of health exercise, community care and health promoting school "clients" being physically active. Achieve a greater % of participants from disadvantaged geographical areas accessing these services (categorised by postcode)
- D3(iii) – Achieve a measurable increase in the accessibility of fresh fruit and vegetables to those living in disadvantaged geographical areas (categorised by postcode)
- D4 – Achieve a measurable increase in joined-up services. Achieve reported improvement in joint working and increased influence of the community within HaHP partnership

Service developments

- S1(i) – 90% of patients on disease register (minus exceptions) offered annual review (Exceptions would include individuals for whom intervention is contraindicated e.g. terminally ill or who have opted out or declined/repeatedly defaulted from intervention.)
- S1(ii) – <1% of fields containing inadequate data after one year, at least 75% of surveyed users satisfied with disease register
- S2 – Identified CHD patients being treated according to SIGN/HaH guideline
- S3 – Comparison of project plans to evidence-based review
- S4 – Development of the LHCC and Local Authority as public health organisations

leading to



A step change in heart health in Paisley

Appendix thirteen: Extent of partnership working in primary care

Table D shows nurses and pharmacists mean scores regarding the extent of their partnership development activities with various HAHP partnerships. They were asked to score their level of development from 1-5 (with one being no development and 5 being substantial development)

Table D extent of partnership development

	Nurses Mean score	Pharmacists Mean score
Secondary care	2.85	2.45
Locality network co-ordinators	2.30	3.10
Voluntary sector	1.75	1.50
Local authority - leisure	1.90	1.45
Local authority - education	1.90	1.45
Local authority – community care	2.25	1.20
Local authority – workplace health	1.60	1.40
Healthy eating strategy	2.70	2.60
Tobacco strategy	2.70	3.40
Physical activity strategy	2.65	1.50

Table E shows the key messages about partnership development in primary care

<p>Key messages</p> <ul style="list-style-type: none"> ○ Partnership development between primary care and the local authority and voluntary sector was reported to have been weakest. ○ Nurses reported developing strongest partnerships with secondary care and the healthy eating and tobacco strategies. ○ Pharmacists reported developing strongest partnerships with the tobacco strategy and locality networks. ○ Nurses would like more opportunities for developing networks within and outwith the health service. ○ Pharmacists, compared to nurses and GPs, could see the benefits of developing broader links within the health service. ○ GPs were more resistant to developing wider partnerships and approximately half were largely indifferent (based on saying they neither agreed nor disagreed) to opportunities for developing wider networks within and outwith the health service. ○ Many of the examples provided of partnership working refer to individual contacts and group membership rather than jointly delivering work.
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Appendix Fourteen: RE-AIM applied to the HAHP Health Promoting School Programme

Table F: An illustration of the RE-AIM Framework using information from the health promoting schools project (playground games and activities).

DIMENSION	CONCEPTUAL DEFINITION	POSSIBLE EVALUATIVE QUESTIONS	EXTENT OF ANSWERS AVAILABLE FROM CURRENT HAHP MONITORING DATA (AUGUST 2002)
Reach	The proportion and representativeness of the individuals who participate in the intervention		
		Who is eligible and reasons for criteria?	All primary aged children in area who would benefit from increased physical activity. Likely to be majority given guidelines of at least one hour a day of activity
		Who is excluded and reasons for exclusion?	No one unless physical issues prevent participation, likely to appeal to younger children
		What is the total number of potential participants?	N=approx 6,500 pupils
		How many decline participation?	Numbers not participating not known 5 schools (n= approx 2050) have selected to participate in alternative healthy activities/programmes
		How many actually participate?	16 schools have chosen to promote playground games and activities as either their key intervention or one of two activities. They claim to be targeting (n= 3932) by this strategy. Most have target group as whole school but some specify P1-5 or P1-2.
		What is the participation rate?	Actual pupil participation rate is unknown at least as yet. Many schools claim that observations will be made, other say numbers monitored but these were not available at the time of interviews. Unlikely to be all of school but no figures for percentages of target groups actually participating
		Are participants similar to eligible non-participants on basic demographics and primary outcomes?	No knowledge of whether those using equipment, engaging in activities are similar to those not participating (e.g. already active pupils, overweight pupils, socially isolated, high achievers etc).

Table F: continued

DIMENSION	CONCEPTUAL DEFINITION	POSSIBLE EVALUATIVE QUESTIONS	EXTENT OF ANSWERS AVAILABLE FOR CURRENT HAHP MONITORING DATA (AUGUST 2002)
Efficacy	The degree to which the primary outcome changed?	Did the target behaviour change?	Likely that equipment and activities having some impact but again specific numbers and activities not known.
		Were there adverse effects?	Any accident / injury increases not known/ impact on socialisation/ bullying etc not known
Adoption	The proportion and representativeness of the settings, organisations or agents that use the interventions	What organisations are eligible and reasons for criteria?	All primary schools in area (n=22) and special schools (n=5) e.g. those schools with primary aged children requiring opportunities for regular physical activity
		What is the total number of potential organisations?	If successful could be extended to all 22 primary schools and 5 special schools with primary aged children likely to enjoy/participate in organised games or utilise equipment. Ideally targeting particularly inactive children/overweight/socially isolated
		How many declined participation?	As above 5 schools and 5 special schools chosen alternative activities
		How many were contacted? How many were not contacted/	All encouraged to select relevant activities to their needs. 16 schools selected this intervention None
		How many agreed to participate?	16 selected intervention. All 16 schools indicate that they are providing equipment, painting playground games or promoting activities. Actual implementation and quality re range and type of activity/leadership not known
		How many actually participate? What is the adoption rate?	Should be all 16 who volunteered but checks required Thought to be 100% of schools
		Are those organisations participating similar to non-participating in level of resources?	Given numbers likely to be so. Not known if non-participating schools already have playground equipment and activities.

Table F: continued

DIMENSION	CONCEPTUAL DEFINITION	POSSIBLE EVALUATIVE QUESTIONS	EXTENT OF ANSWERS AVAILABLE FOR CURRENT HAHP MONITORING DATA (AUGUST 2002)
Implementation	The level of fidelity to the interventions protocol	Were intervention components delivered as intended?	Given no specific model of implementation /evidence-based practice identified, model fidelity not known
		What was the timeliness of the delivery?	Likely timeliness varied depending on level of equipment and baseline situation. Claimed to be delivered throughout the HaHP lifetime. Not known if activities provided daily or otherwise, nor if led by teacher or otherwise.
		Was the protocol adapted?	No standardised protocols used. Physical activity packs given out to pre fives but not to primary
		To what extent did the participants receive the intervention components?	See above intensity and receipt not known
		To what extent did the participants enact the intervention	No participation or adherence rates available
Maintenance	The level of sustained use of the intervention at the organisational level and the sustained participation in the behavioural the individual level	Individual: What were the long-term effects (6-12months) What was the attrition rate?	Not known due to lack of information re activity levels of target group participants or those adhering to regular activity through this intervention Not known
		Organisational level: To what extent were different intervention components continued or institutionalised? Was the original program modified	Again not yet known Again not yet known No original common programme being implemented.

Appendix fifteen: Outputs from the local authority funded projects

Table G: Local Authority HaHP funded projects and their outputs

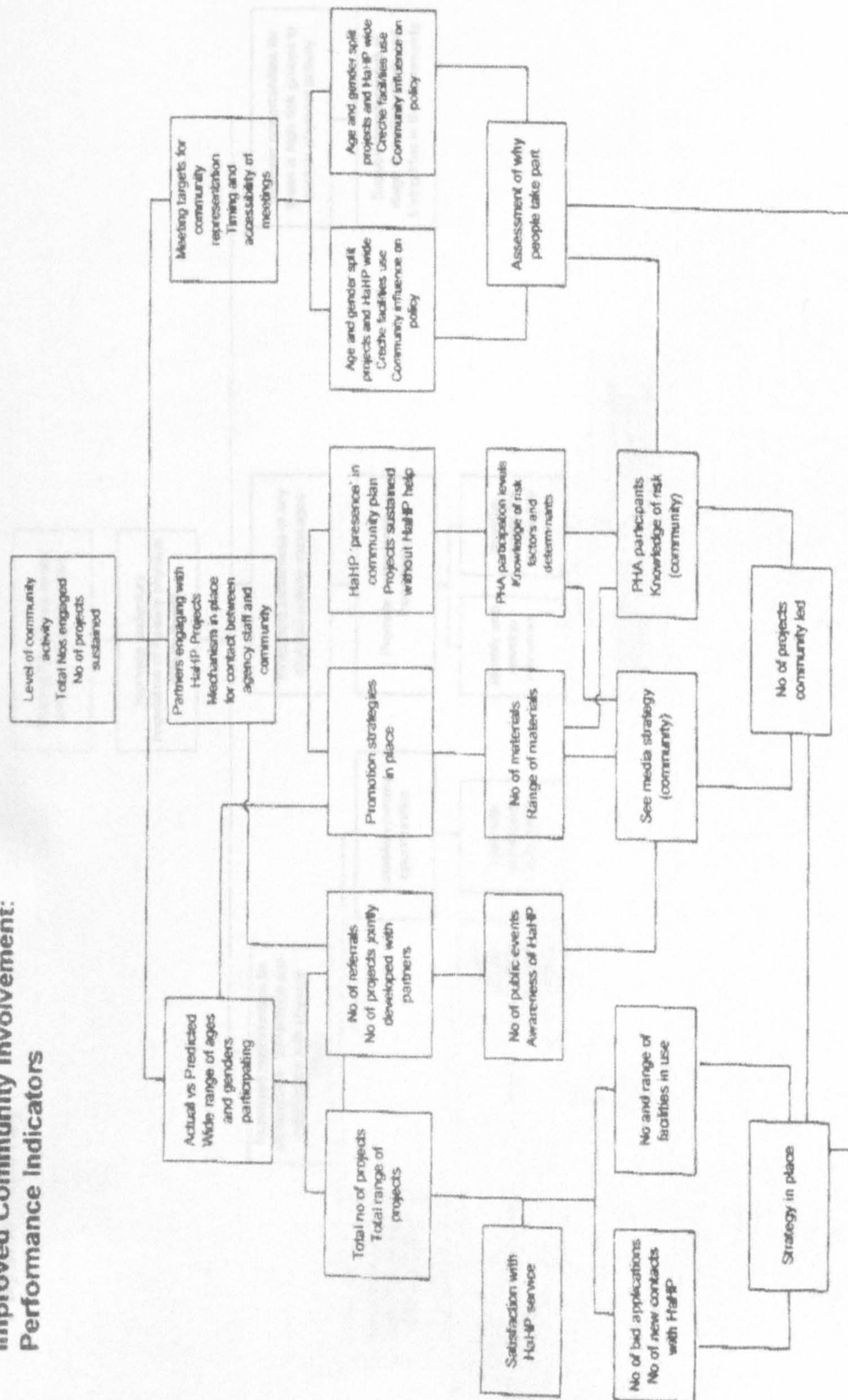
Project Title	Host Service	Target Group or Focus	Core activities funded	Examples of outputs funded from non staff costs
Health Promoting Schools (HPS)	Education and Leisure	Educational establishments – pupils, staff & parents in primary secondary and pre five schools/nurseries	The integration and coordination of a range of HPS activities leading to at least one new health promotion activity in each educational establishment in Paisley. Also involved the coordination of the free fruit in school provisions (programme actually funded from elsewhere) and the funding of cover for teachers who could then devote part of their remit to activity or health promotion or pre five activity promotion	<p>Painting playground games in school grounds</p> <p>Funding one-off events such as sports fairs</p> <p>Pump priming the installation of healthy vending machines (later funded from elsewhere)</p> <p>Jointly delivering the Smoke Free Me initiative in Schools</p> <p>Development and delivery of pre five activities and training</p> <p>A range of touring or targeted interventions in a variety of schools such as theatre productions and ‘Smoke-Free Me’ programmes (Paisley pupil designed CD and videos and posters distributed to schools)</p> <p>Training and provision of activity packs for pre five establishments and parents of pre five children.</p>

Table G continued onto next page

Healthcise and Walk for health	Education and Leisure	Inactive residents	<p>A gym-based exercise programme offering twelve free activity sessions (spread over six weeks) to approximately 1000 Paisley residents;</p> <p>The provision of led walks for a range a residents and employees in paisley and the training of community walk leaders to increase opportunities for walking</p>	<p>Funding promotional materials</p> <p>Funding access to gym time in franchised gym within Lagoon Centre</p> <p>Design and printing maps and information for walking routes</p> <p>Funding training of walk leaders</p> <p>The development of awards scheme to encourage leisure time walking;</p>
Healthy Eating Active Living (HEAL)	Social work	Community care clients and staff	<p>The provision of healthy eating and menu advice to catering managers and the purchase of small pieces of catering equipment to increase the provision of fruit and fruit-based products within community care homes.</p>	<p>Purchasing equipment such as juicers and blenders for care establishments</p> <p>Providing access to CORA menu training</p> <p>Designing training</p>
Healthy at Work	Human Resources	Council employees	<p>A CHD screening programme with signposting for support for subsequent behaviour change</p>	<p>Producing materials for screening programme. Supporting the implementation of the contracted Minerva screening programme</p>

Appendix sixteen: Examples of performance and process indicators developed after consultancy

Improved Community Involvement: Performance Indicators



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Physical Activity

