COMMUNITY ANTENATAL CARE IN THE EAST END OF GLASGOW

BY

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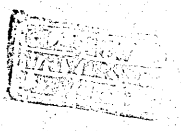

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Summary

Chapter I: Introduction

Antenatal screening has existed in Glasgow for 70 years. Since the 1930s recommendations of a government committee concerning the pattern and content of antenatal care (1) have been followed.

In the 1970s and early 1980s consumers and clinicians began to question the format of antenatal care (2)(3)(4) and in 1982 The Royal College of Obstetricians and Gynaecologists made recommendations for change.(5)

The study described here reviews the community antenatal service in the East End of Glasgow in relation to three of these recommendations on antenatal care.

Chapter II: The Study

The study had four components:

1. Ascertainment of the obstetric, medical and socio-economic status of the study population.

2. Description of the variation in provision and use of the community antenatal clinics.

3. Identification of women's views and preferences for the antenatal care they received.

4. Relation of the above findings to the recommendations of the Royal College of Obstetricians and Gynaecologists.(5)

There were three sorts of data collection:

1. Antenatal and postnatal patient questionnaires.

2. Non participatory observation study.

3. Routinely collected information.

Sample and Inclusion Criteria

All women who lived in the East End of Glasgow who subsequently booked for delivery over a 15-month period and who delivered at Glasgow Royal Maternity Hospital were eligible for inclusion in the study.

The sample population consisted of 583 women who answered both antenatal and postnatal questionnaires.

The clinic sample consisted of all 26 community-based antenatal clinics to which staff from Glasgow Royal Maternity Hospital had input.

Analysis of Data

Analysis and linkage of data except that from the observation study was undertaken by computer using the Statistical Package for Social Scientists.

Response Rate

98% of women invited to answer the antenatal questionnaire as part of a larger survey agreed to do so. The 583 women in the study were also requested and agreed to answer a postnatal questionnaire.

Representativeness of the Sample

The sample was representative of the target population except that bias was shown in terms of adverse outcomes for the baby.

Chapter III: The Women

Many women in the study were young, unmarried and often unsupported. These women were likely to be dependent upon state benefits. The high unemployment levels, however, meant that many older multiparous women were also dependent upon state benefits or low incomes and in some instances the money women received from part-time work was the only earned income available to a family. A large proportion of women smoked more than 10 cigarettes a day. Alcohol was not a problem.

The women in the sample were generally healthy, medically and obstetrically. The vast majority had a good outcome to their pregnancy.

Chapter IV: The Community Antenatal Service

There were several forms of community antenatal care available to women in the community. Midwives and general practitioners undertook clinical antenatal care and some women were able to attend for specialist obstetrician led care in the community. These women with normal pregnancies did not attend the hospital at all except for ultrasound scanning.

Clinics varied in the type of facilities available to women. Waiting times could sometimes be long although generally shorter than at hospital clinics.

The pattern of care recommended in the 1929 report (1) was followed. Most women had between 11 and 14 visits. Little or no heed had been paid to the recommendations and studies concerning fewer visits for a specific purpose.(4)(6) Nearly all women attended for their antenatal visits and defaulting was rare. Continuity of care was better at community-based clinics.

Chapter V: The Views and Preferences of Women with an Optimum Outcome to Pregnancy

In general terms women were well satisfied with the antenatal care they received no matter who the provider and the place they attended. In certain aspects the community clinics were judged to be more convenient, however, the only marked area of dissatisfaction was with long waiting times. Answers to specific questions were more revealing. Most women did not think that their questions were answered adequately or all procedures explained. Few thought they received any emotional support during their pregnancy. Over three-quarters of women did, however,

feel reassured by their antenatal visits. Women would have liked a shorter wait at antenatal clinic, more opportunity to ask questions and better explanations and information. A large majority of women would have liked more information, about care of their baby, to be given at clinic visits despite only a few of the women attending parentcraft classes.

Approximately half of the women preferred to attend community clinics.

Continuity of care both during pregnancy and including labour and delivery was also thought to be important. Continuity of care with a midwife was mentioned by most women. Fewer antenatal visits was considered to be important by slightly less than a quarter of women.

Both the birth of their baby and their postpartum stay in hospital were perceived as being as expected or better than expected for all but a few women.

Chapter VI: Discussion and Conclusions

The aims and objectives of the study were met.

Antenatal care in the East End of Glasgow was reviewed in relation to the Royal College of Obstetricians and Gynaecologists report.(5) The components of the study were fulfilled.

Community antenatal care was widely available in the East End of Glasgow and there was variation in the type of care experienced by the women.

Midwives were giving clinical antenatal care. Women were, however, not in a position to choose what type of care they would like or what was appropriate for their needs.

There was little choice in the pattern of antenatal care. Generally, the recommendations of the 1929 report on antenatal care (1) still applied.

Changes in delivery of antenatal care in the East End of Glasgow have been limited. In response to the findings of the study recommendations for a way forward are made.

CHAPTER I

Introduction

i) The Historical Perspective

Antenatal care has been provided in Glasgow for more than 100 years. Before describing the East End study it is relevant to trace the origins of antenatal care and its relationship with the present day service.

The first antenatal clinic in Glasgow began as an out-patient dispensary, at Glasgow Royal Maternity Hospital in 1868 in response to an earlier recommendation.(7) Its purpose was to give advice and treatment for any condition relating to pregnancy. It was concerned with giving palliative treatment only.

A more formal clinic, which recognised the need for routine antenatal care in a preventative form was begun in 1915, in response to an earlier annual report of Glasgow Royal Maternity Hospital.(8) This report had noted that "there was a marked increase in the number of women referred by their doctors for advice, to the antenatal dispensary". The clinic was organised by Professor Munro Kerr and Dr Robert Jardine. Earlier in Edinburgh, Dr Ballantyne had

begun a formal system of in-patient antenatal care and this was developed further by Dr Haig Ferguson who established an out-patient clinic run on similar lines to the Glasgow clinic. Edinburgh is credited with being the first city to provide routine antenatal care.(9)

The Glasgow clinics were advertised in the local newspaper and at first were opened two mornings per week. Very soon four clinics were in operation.(10) A formal system of record keeping was established and a woman's antenatal record was available when she went into labour. Routine antenatal appointments were given as a matter of course.

The aim of antenatal care was described in a hospital report (11) as: "the prevention of serious results which follow on the complications of pregnancy and prejudice the safety of the patient."

Antenatal care was, however, child-centered and the same report went on to say that "the conservation of child life was of claimant importance."

This was in keeping with the values of the day and the high infant mortality rate led to other social reforms concerning mother and child health. It was recognised

that a child's life was dependent upon his mother's life. In 1908, therefore, food depots were established in Glasgow where pregnant and nursing mothers could buy a dinner for one penny.(12) The aim of this service was to ensure that the mother was adequately nourished so that she would then be able to breastfeed her child successfully.

The first Government response to the poor state of health of mothers due to poverty in the childbearing years and the associated high infant mortality, was the National Insurance Act, passed by the Lloyd George administration in 1913. This gave women a maternity grant of 5 shillings to use as they saw fit for their confinement. Letters to the Women's Co-operative Guild at the time testify how much this was appreciated and what effect it had on the wellbeing of mother and child.(13)

The antenatal clinic at Glasgow Royal Maternity Hospital was proving a success in terms of attendance and in 1919, 1750 women were seen there.(14) The infant mortality rate for the City of Glasgow fell to 106/1000 births in 1921 (15) compared to an average of 143/1000 for the years 1909-1912.(12)

Due to the success of the hospital-based clinic, local authority clinics were established in the community. This was the realisation of a plan first put forward in 1915 by A K Chalmers, Medical Officer of Health for Glasgow 1892-1925.(12) He recommended "the development of specific functions by the Royal Maternity Hospital, the Nurses Training Home, Govan and the Royal Hospital for Sick Children, to form units in a local authority scheme for the care of mother and child in the antenatal period, and until the nursing period is over."

The first local authority clinic began in Govan in 1920 and by 1923 two more were operating in Bridgeton and Cowcaddens. These were among the poorest areas of the city. The clinics were staffed by medical officers employed by the local authority who saw women recommended by midwives.(12)

Midwives were delivering at home 75% of all babies born in the poor areas of the city and since the Certification of Midwives Act of 1915 nearly all the births were supervised by a trained midwife. There was a financial incentive for the midwife to refer a woman to the local authority clinics. This was to compensate the midwife for loss of a delivery fee should a woman be referred to hospital for

confinement. Over a fifth of such hospital referrals in the 1920s were due to deformity of the pelvic bones caused by rickets in childhood.(14)

The practice of midwives referring women to local authority clinics annoyed general practitioners who saw their role in the delivery of antenatal care as threatened (they would also receive a fee for administering antenatal care). Legislation, however, to empower local authorities to make necessary antenatal provision took place in 1921 (12) and in the 1930s the Central Midwives Board ruled that: "If there had been a problem with a previous pregnancy then the midwife should urge a woman to seek advice from a medical practitioner, for the current pregnancy."(16) Since local authority clinics were free the majority of women were referred there rather than to a general practitioner. In 1933 over 13,000 women attended clinics run by the local authority in Glasgow.(14)

Around this time the pattern for antenatal care, which is still widely accepted today, was laid down. A Departmental Committee on Maternal Mortality and Morbidity issued a Memorandum on Minimum Standards in Antenatal Care.(1) One of their recommendations was that there should be a first visit at 16 weeks

gestation and then four-weekly visits until 28 weeks followed by two-weekly visits until 36 weeks and then weekly until term.

The clinical screening programme of urine testing, measurement of height and weight, estimation of blood pressure, abdominal palpation and listening to the fetal heart through a Pinard's stethoscope was also established at this time and the subject of the same Memorandum. Except for the introduction of more sophisticated equipment, the clinical content of antenatal care remains the same today.

Antenatal care was viewed as a great success nationwide, in terms of a reduction in infant mortality. Dr Janet Campbell, Senior Medical Officer for Maternity and Child Welfare, Ministry of Health also saw antenatal care as the crucial step in preventing maternal mortality and believed there was an inverse association between the amount of antenatal care and the level of maternal deaths.(17) In 1930 50% of pregnant women living in Glasgow had attended for antenatal care and the infant mortality had dropped by a third since 1915.(14)

The assumption that maternal mortality would fall was not borne out by fact. The maternal mortality rate was higher than 80 years previously (9/1000 births compared to 6/1000).(15)(12)

This increase in maternal mortality was thought to be due to more women being delivered in hospital. They were referred there during the course of routine antenatal care and thus exposed to a greater risk of puerperal sepsis, still uncontrolled in the 1930s.(18) Others also expressed concern and disappointment about the effectiveness of antenatal care and a critique of antenatal care was published in 1934.(19) One of the criticisms was that antenatal care could lead to misdiagnosis of disproportion leading to unnecessary interference putting both mother and child at risk. Interestingly this point was again mentioned when referring to the amount of antenatal care given in 1980.(4)

A Scottish report on Maternal Mortality and Morbidity (20), however, supported the current belief about the benefits of antenatal care for mother and child. It noted that defaulters and non-attenders had a significantly higher mortality rate and the earlier a

woman attended and the more often the better. There is, however, no evidence that studies used to support this statement standardised for gestation.

Glaswegian women were despaired of at this time because of their reluctance to visit the clinic before 24 weeks gestation although the majority attended regularly thereafter. The reasons for this have not been investigated but there was no reliable laboratory aid to diagnosing early pregnancy and women may have waited until they were sure they were pregnant before presenting them themselves for care.

Further expansion of the local authority antenatal service took place during the late 1930s and early 1940s but concern was still expressed about maternal mortality. The major breakthrough in bringing about a significant fall in maternal mortality was due to a number of factors but principally the introduction of antibiotics in the 1940s. Other factors were the introduction of safe blood transfusion techniques and of food and vitamin supplements to mothers during the Second World War. The effect of routine antenatal care on maternal mortality in statistical terms was not quantified.

Baird questioned the role of antenatal care in preventing premature births (21) as was claimed in the report of a large maternity survey carried out in 1946.(22) He pointed out that over 50% of women who had a premature baby had had "adequate" antenatal care and went on to say: "How could 9 visits to a crowded antenatal clinic with waits of up to three hours on hard benches and examination of urine and blood pressure estimations and abdominal palpation and a general exhortation to drink milk, orange juice etc prevent prematurity?" Baird believed that the key to good obstetric outcome for mother and child lay not only in good obstetric care but also in improvement in the standard of living, with the single most important factor being a good diet. To a certain extent a better standard of living and for many people, a better diet had been achieved during the war years.(23)

Before the beginning of the National Health Service in 1948 the major problems of childbearing had been alleviated and maternal mortality in Glasgow had fallen dramatically to 1.6/1000 births.(15)

With the introduction of the National Health Service changes in the administration of antenatal services also occurred. Care was now free to all, no matter

where they attended and whom they saw. The role of the general practitioner increased and local authority clinics declined as did the number of home confinements. Shared antenatal care, which had begun in the 1930s between the hospital and the local authority clinics now occurred between the hospital and the general practitioner.

By the late 1950s and early 1960s there began a shift away from community-based antenatal care towards care from the hospital alone. Formal support for hospital-based care came from a Scottish report.(24) One of its recommendations was that care of women during their pregnancy and labour should be by the same team. In 1960, however, Professor Sir Dugald Baird drew attention to the advantages of antenatal care being provided in the community, but recommended that it should be by a hospital-based team.(25) By 1967 66% of women who delivered at Glasgow Royal Maternity Hospital, received all or most of their antenatal care at the Hospital.(26) Following reorganisation of the Health Service in 1974 the pattern of shared care between general practitioner and hospital became firmly established and local authority clinics were closed.

Another development in the care of childbearing women which began in the late 1950s and early 1960s was the start of a consumer movement led by the National Childbirth Trust (formed in 1956 as The Natural Childbirth Trust) and the Association for Improvement in Maternity Services formed in 1961.

Consumer interest expanded greatly in the 1970s. It was in part due to increasing dissatisfaction with the induction of labour - up to 50% in some hospitals.(27) This coincided with the innovation of sophisticated antenatal screening procedures such as ultrasound scanning and alpha-fetal protein estimation. Women began to question the advantages of technological care and also to voice their dissatisfaction with the organisation of antenatal care.(28)

Some in the medical and midwifery professions also began to question the role of antenatal care in its modern day context and in 1971 Cochrane pointed out that antenatal care is a multiphasic screening programme that has never been evaluated.(29)

A layman's opinion can be summed up by Illich's statement that lack of evaluation in the preventative field of medicine as a whole "has allowed the salesman

of prevention to foster unsubstantiated expectations."(30) It was at this time that obstetricians too began to review their clinical practice.

ii) Background to the East End Antenatal Study

The professional and public awareness of the problems concerning antenatal care has continued into the 1980s.

The focus of public awareness has, however, centered on the quality of the service offered to women. Hall, MacIntyre and Porter have shown particular interest in this change (28) and suggested that the women's movement and more interest in consumer affairs generally have made women more ready to voice their dissatisfaction and bring about improvement in maternity services. Supporters of pressure groups have also produced reports which highlighted the impersonality of hospital-based clinics (2)(31), although this had been known and criticised for decades.(32)

The situation was aptly summed up by McIlwaine whilst giving evidence for the Short Report.(33) She stated: "It amazes me that women come for antenatal care at

all. They sit in these clinics for two hours to be seen for two minutes with someone laying on their hands, and then they leave. We should be looking at why they come at all."

One of the major problems of the service as it existed by the 1970s was the impersonality of the clinics, and Professor Huntingford of the London Hospital stated: "Much obstetric dogma has been formulated at the expense of individuals."(34)

Women, while accepting the need to attend for 12 to 14 antenatal visits, became less willing to tolerate the conditions they experienced at hospital clinics. Antenatal clinics had begun and continued along the lines that the providers of care had thought best. This "provider perspective", a phrase coined by Reid and McIlwaine, was no longer appropriate for women. A study had been undertaken in Glasgow, to establish what the consumer thought and wanted.(35) One of the recommendations of the study was the establishment of peripheral consultant clinics.

In 1978 such a clinic began in the East End of Glasgow and was compared with a routine hospital clinic.(36) One of the conclusions of this comparison was that "the peripheral clinic has considerable advantages to

women and should continue." There was less travel involved, shorter waiting times and women were generally more satisfied with the care they received.

Antenatal care had turned a full circle from a community-based scheme in the 1920s to a community-based scheme in the 1980s.

The obstetric population in the 1980s has, however, changed. The role and effect of antenatal care have been questioned by Parboosingh and Kerr.(3) They emphasised that in order to serve the needs of modern women the approach to antenatal care needed to be reconsidered. They defined the "roles and goals" of antenatal care thus:

1. The detection of disease.

2. Prediction, prevention, detection and management of complications.

3. Amelioration of minor complaints.

4. Preparation for childbirth and childbearing.

5. Preventative health education.

Their conclusion was that while it was appropriate to emphasise the first three goals in the 1930s when maternal mortality was so high, now integration of the baby into the family together with wider social and psychological issues must take priority.

Other obstetricians began to question established clinical practice. In Aberdeen Hall, Chng and McGillivry undertook a case review study which analysed the productivity and predictive value of antenatal clinic visits.(4) Their conclusion was that productivity (ie the number of abnormalities discovered at routine visits) was low and the majority of antenatal admissions were for conditions which had occurred despite frequent antenatal visits and were not detected or prevented by routine antenatal care. The review showed that pre-eclampsia presented for the first time in labour in 30 per cent of cases and intrauterine growth retardation was detected by the clinician in less than half the cases. They recommended a change in the pattern (number and

frequency) of visits and suggested fewer visits each with a specific purpose. Their plan for a normal multigravidae is:

1. Full medical examination at approximately 12 weeks gestation - to arrange booking for care and confinement and also to clarify dates.

2. Obstetric examination at approximately 22 weeks gestation to detect multiple pregnancy and to establish the baseline for later weight gain analysis.

3. An examination at 30 weeks gestation to attempt clinical diagnosis of intrauterine growth retardation.

4. An examination at 36 weeks gestation to detect malpresentation.

5. An examination near term to discuss delivery and assess if induction advisable.

For primigravidae whose risk of developing hypertension of pregnancy is greater they suggested extra blood pressure estimations and urine analysis from 34 weeks onwards.

The above pattern of visits compares with the 12 to 14 visits recommended in 1929 (1) and still followed in many units.

At the same time as the Aberdeen Study an experimental scheme was introduced in the Sighthill district of Edinburgh.(6) The prime reason for this community-based scheme was to overcome late booking and defaulting by women who lived in a socially disadvantaged part of the city, some distance away from the hospital. With the aid of an "at risk" check list and the education and devolution of some responsibility to the women using the scheme, the number of visits has been reduced. Women are given their own antenatal records with clear instructions about possible problems and how to contact a doctor or midwife immediately. They are also encouraged to "drop in" at the health centre if they have any worries or questions - a midwife is there every morning for this purpose.

Analysis of the data collected over a five-year period found that the perinatal mortality rate had fallen considerably since introduction of the scheme. Moreover, the majority of women received part or all of their antenatal care from midwives. After the

introduction of an ultrasound scanner, based at the health centre and operated by the midwives, no visits to the hospital were necessary.

The Royal College of Obstetricians and Gynaecologists has also shown an interest in the organisation of antenatal care. A working party set up to examine antenatal and intrapartum care included the following recommendations in its report (5):

1. Antenatal care centred in the community should be developed more widely. (Recommendation 10; Ch.3)

2. Midwives should take more part in the antenatal care of low risk pregnant women and should provide antenatal care as part of the team of the obstetrician or general practitioner. (Recommendation 12; Ch.4)

3. The amount of antenatal care required should be tailored to each woman and different patterns of care should be tried out. Arrangements should be flexible and not rigid. (Recommendation 13; Ch.4)

Thus by the early 1980s the "accepted package" approach based on the same number of visits at the same gestational intervals and following the same pattern of clinical care for everyone had been questioned and recommendations made for change.

At Glasgow Royal Maternity Hospital the Obstetricians and Senior Midwives endorsed the Royal College of Obstetricians and Gynaecologists working party recommendations and an opportunity for implementing change arose, because of the opening in the East End of Glasgow of 6 new health centres between 1981-1984. Several forms of community-based antenatal care were already in existence and due to the new health centres the community service was expanding.

Antenatal care was offered at 26 community-based clinics in the East End some run by general practitioners, some by midwives, some by both general practitioners and midwives and some by consultants. Twenty were based at health centres and 6 at general practioners' surgeries, usually situated in the ground floor flat of a tenement block.

All the health centre clinics had some form of liaison with a consultant but this varied from consulting by telephone to holding a peripheral consultant clinic.

Before recommending any change in the function or organisation of antenatal care already available in the area an evaluation of the different forms of care operating in the East End of the city was requested. Such a survey was designed and permission to undertake the work given by the Area Ethical Committee. This study based on that survey took place between 1984 and 1987. It is concerned only with the women for whom there was antenatal and postpartum information.

The overall aim of the study was to review the community antenatal service operating in the East End of Glasgow in relation to three recommendations on antenatal care of the Royal College of Gynaecologists working party that:

1. Antenatal care centred in the community should be developed more widely. (Recommendation 10; Ch.3)

2. Midwives should take more part in the antenatal care of low risk pregnant women and should provide antenatal care as part of the team of the obstetrician or general practitioner. (Recommendation 12; Ch.4)

3. The amount of antenatal care required should be tailored to each woman and different patterns of care should be tried out. Arrangements should be flexible and not rigid. (Recommendation 13; Ch.4)

The objectives of the study were:

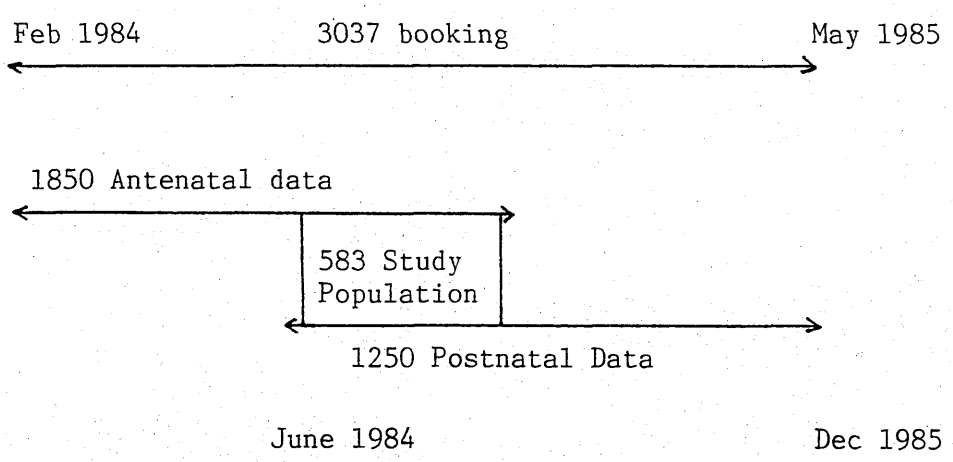
1. To define the obstetric, medical and socio-economic status of the population.

2. To determine the variation in provision and use of the community clinics.

3. To ascertain the users' views and preferences concerning the antenatal care they received.

4. To relate findings to Royal College of Gynaecologists recommendations.

Fig.1 Make up of study population



CHAPTER II

The Study

The collection of data for the study took place between February 1984 and December 1985.

i) Sample and Inclusion Criteria

The target population for the study consisted of women who lived in the geographically defined area known as East End of Glasgow (see Appendix I) who booked for delivery between February 1984 and May 1985 and who delivered at Glasgow Royal Maternity Hospital between June 1984 and December 1985. A total of 3037 women booked for delivery, however, no further information was available for 17% of these women.

Those women who answered both antenatal and postnatal questionnaires within the time period formed the sample population of 583 women - **Fig.1 (opposite page) details of make up of study population.**

The clinic sample consisted of all 26 community-based antenatal clinics to which staff from Glasgow Royal Maternity had input.

ii) Methods and Materials

There were three sorts of data collection:

1. Patient questionnaires.

2. Non participatory observation study.

3. Routinely collected information.

1. Questionnaires

The main source of information was from antenatal and postnatal questionnaires.

Designing and Piloting of Instruments - Both questionnaires were specifically designed for the study and piloted on separate samples of 30 women booking and delivering at Glasgow Royal Maternity Hospital during December 1984. Piloting was successful and only minor adjustments made to content and layout.

Preparation of Midwives - A meeting was arranged with the midwives from the community and from the hospital-based antenatal clinics. The methods of

identification of the sample and the administration of the questionnaires were detailed and the midwives were asked to highlight any problems they envisaged. Such factors as the time taken to complete questionnaires at busy clinics and the methods of collection of completed questionnaires were discussed and solutions found.

The system of identification of the sample and administration of both questionnaires was piloted by the researcher and midwives during January 1984 and found to be workable dependent upon workload.

The Antenatal Questionnaire

The antenatal questionnaires (Appendix II) identified the demographic medical, obstetric and socio-economic characteristics of the sample population. Information on the cost, time and methods of travel to antenatal clinics was also collected at this time. The antenatal part of the study took place between February 1984 and May 1985.

Identifying the Sample - Identification of the sample was made in two ways:

Firstly, for those women who booked at the hospital, the notes of women suitable for the study were identified by the researcher. An antenatal questionnaire was inserted inside the front cover of the notes ready to be administered by a midwife at the first available opportunity.

Secondly, at the community-based booking clinics the midwives were asked both to identify women suitable for the study and to administer the questionnaire.

Administration of the Questionnaire - Midwives were asked to administer the questionnaire to as many of the target population as possible in the time allowed at each clinic.

Every effort was made not to upset the smooth running of the clinic. If it was not possible to administer the questionnaire at booking, it could be done at a later date.

Identification and Collection of the Questionnaires - Questionnaires were identified by hospital number, name and address including post code and by date of birth.

Completed questionnaires were returned to two collection points, one in the Community Midwives Room and one in the Antenatal Clinic at Glasgow Royal Maternity Hospital. They were uplifted on a weekly basis for coding and analysis.

The Postnatal Questionnaire

The women's views and opinions of the antenatal care they received together with information about obstetric outcomes, antenatal admittance, use of the antenatal service (frequency and timing of visits, places attended, providers of care and content of care, together with further demographic information) was obtained using a postnatal questionnaire (Appendix III). Postnatal data was collected from June 1984 to December 1985.

Identifying the Sample - Women fulfilling the sample criteria (the target population) were identified by a nursing auxiliary upon their

discharge from hospital into the care of the community midwife. The auxiliary then inserted a postnatal questionnaire into the discharge liaison documents.

Administration of the Questionnaire - The postnatal questionnaire was self-administered. The community midwives were responsible for distributing the questionnaires to identified women and for collecting completed questionnaires. Distribution and collection was undertaken during routine postpartum visits and completed by the 10th day.

Identification and Collection of the Questionnaires - Questionnaires were again identified by hospital number, name and address including post code and by date of birth. Completed questionnaires were returned to a collection point in the Community Midwives Room at the hospital and collected weekly for coding and analysis.

2. Observation Study

Arrangements were made, at the preparatory meeting with the midwives, to visit all the community and peripheral antenatal clinics, subject to permission from the general practitioners and consultants involved. This permission was given and each clinic was visited on a specified date agreed between the researcher and providers of antenatal care. Visits took place between June and September 1985. The clinics were described and a record made of the facilities available to women. Attention was paid to clinic management policy, the status and responsibilities of the person conducting the clinic and of those fulfilling support roles. Suitability of the consulting rooms in terms of privacy and equipment was also noted. Where possible the waiting and clinical consultation times for all women attending for antenatal care during that session were measured.

Data required for the observation study were recorded on a broadsheet for consistent reference (Appendix IV).

3. Routinely Collected Information

Information was collected from:

Standard Scottish Morbidity
Records (SMR2's) (Appendix V);
Shared Care Antenatal Records (Appendix VI);
Small Area Statistics.

Scottish Morbidity Records

Information about the obstetric outcomes, personal characteristics and the pre-existing medical and obstetric conditions of the target and sample populations were obtained using the Standard Scottish Morbidity Record via the Information Services Department of the Common Services Agency in Edinburgh. This information was used to supplement that obtained from the questionnaires and also to test representativeness of the sample. Such information was not always complete.

Shared Care Cards

The Shared Care Antenatal Record is kept by the woman and is completed at each antenatal visit to the community and hospital clinics. It is brought to hospital by the woman when she goes into labour and is filed with her hospital notes postpartum. This record was used to check the validity and reliability of women's responses to questions about frequency and timing of antenatal visits and also about status of providers of care. Checks were therefore made on stratified random sample responses from 50 women: two who reported less than five antenatal visits; three women who reported more than 16 visits and 45 women who reported 5-16 visits.

Small Area Statistics

Additional background information on the social, demographic and obstetric characteristics of the East End of Glasgow was obtained from 1981 census data and small area statistics produced by the local authority and the Information Services Unit of Greater Glasgow Health Board.

iii) Coding and Analysis of Data

Questionnaires were coded by hand and occupations coded according to the OPCS System.(37)

Linkage of data (ie antenatal, postnatal questionnaires, SMR2's) by hospital number, date of birth and post code and a detailed analysis of such data was undertaken by the ICL 2976 computer using the Statistical Package for Social Scientists (SPSSX) at the Social Paediatric and Obstetric Research Unit at the University of Glasgow.

Linked data were then compared with SMR2 data from the target population using the criteria of age, parity, marital status, obstetric history, antenatal admissions and obstetric outcome, the representativeness of the sample to the target population was tested (Chi square test).

iv) Response Rate

98% (1850) of women invited to answer the antenatal questionnaire, as part of the larger survey, agreed to do so and 583 of these women were also requested and agreed to complete the postnatal questionnaire.

v) Representativeness of the Sample

Details of all East End women delivering at Glasgow Royal Maternity Hospital were available from Scottish Morbidity Records.

The sample was representative in terms of age, parity, marital status, obstetric history and antenatal admissions.

Bias was shown in terms of low birthweight ($P < 0.05$), prematurity ($P < 0.05$), admittance to Special Care Baby Unit ($P < 0.01$). Ten per cent of the sample were known to have experienced these outcomes compared to 14% of the target population.

TABLE I Personal Characteristics of the Sample

a) Age n = 583

	No.	%
under 20 years	87	14.9
20-29 years	420	72.0
30-34 years	64	11.0
35+ years	12	2.1

b) Marital Status

	No.	%
married	387	66.3
co-habiting	40	7.0
divorced/separated	3	0.5
planning to marry	31	5.3
single	122	20.9

c) Parity

	No.	%
primiparous	284	48.7
1-3 children	285	48.9
4 or more children	14	2.4

CHAPTER III

The Women in the Study

i) Personal Characteristics

Women were asked to provide information about age, marital status, parity and place of residence by postal code. **Table I (opposite page) summarises the personal characteristics of the sample.**

Those women aged 20-29 years accounted for 71.9% of the total: 14.9% were under 20 years (12 were 16 years or under) and 13.2% were over 30 years of age.

Married women constituted 66.3% of the sample. Of the 196 women not describing themselves as married 20.4% said they were living in a stable relationship; 15.8% were planning to marry; 62.2% described themselves as single and just over 1% said they were divorced or separated.

Women with no living children formed 48.7% of the sample and of the 299 who did have children 14 (4.9%) had four or more. Fifty-five (18%) multiparous women had one or more children under 5 years of age.

TABLE II Relationship Between Age, Marital Status and Source of Income

n = 583

Marital Status	Age	Earned Income	State Benefit Only	Other	Total
Single	under 20	10 (21.7)	35 (76.1)	1	46 (100%)
	20-24	11 (26.9)	30 (71.4)	1	42 (100%)
	25+	11 (52.4)	10 (47.6)	0	21 (100%)
	All Ages	32 (29.4)	75 (68.8)	2	109 (100%)
Married	under 20	8 (36.4)	14 (63.6)	0	22 (100%)
	20-24	107 (65.6)	54 (33.1)	2	163 (100%)
	25+	157 (77.8)	44 (21.8)	1	202 (100%)
	All Ages	272 (70.3)	112 (28.9)	3	387 (100%)
Stable Relationship	under 20	1	7	0	7 (100%)
	20-24	1	14	0	15 (100%)
	25+	2	14	2	18 (100%)
	All Ages	4	35	2	40 (100%)
Getting Married Soon	under 20	2	9	0	11 (100%)
	20-24	4	10	1	15 (100%)
	25+	2	3	0	5 (100%)
	All Ages	8	22	1	31 (100%)
Separated/Divorced	under 20	0	0	1	1 (100%)
	20-24	0	3	2	5 (100%)
	25+	4	6	0	10 (100%)
	All Ages	4	9	3	16 (100%)

number (%)

Place of Residence

The East End of Glasgow encompasses the postal areas of G1, G2, G31, G32, G34, G40 and parts of G4, G21, G33, G69 and G71 (Appendix I). The postal code areas of G31, G32 and G33 form the largest part of the district and contain some of the poorest areas (38); 71.4% of women lived there (20.5%; 18% and 32.9% respectively). A small percentage of women (3.4%) in the study lived in the more middle class district of Ballieston (G69).

Income

The sole source of income for 43.3% of women was state benefits. There were 23.3% of homes supported by a joint income whereas women's earnings were the only income for 6.3% of households. Husbands or partners were the sole earners in 24.5% of cases. The remaining 11 women said their households were financially dependent upon a grant or combination of state benefit (unemployment or sickness benefit) and earned income.

Table II (opposite page) illustrates the relationship between age, marital status and source of income.

Unmarried women were more likely to be dependent upon state benefit and 68.8% of such women stated that this was their only source of income. For women under 20 years of age the number dependent upon benefits rose to 76.1%. Their own income supported 25.7% of women describing themselves as single. Of the women who described themselves as living in a stable relationship 85.4% said they were dependent upon state benefits and 12.2% were wholly or partially financially supported by their partner; 2.4% were dependent upon their own earned income.

Husband's earnings provided the only source of income in 31% of married households. For married women over the age of 25 years, 21.8% were dependent upon state benefits compared to 38% of women under 25 years. In total 28.9% of married women gave state benefits as their only source of income. Joint earnings provided income for 33.1% of families.

Women were also asked if their income was adequate for their needs. Of the total sample 54.8% said that their income was adequate. Nearly three-quarters (73%) of these women, however, lived off earned income.

Employment

The majority of women left school at or even before the minimum school leaving age (the minimum school leaving age was 15 years before 1972); 14% of the sample stayed at school for at least one more year.

A job or a place on a training scheme was found by 84.7% of women when they left school; 10.4% said that they were unable to find employment and 4.8% continued to further education.

Of the 284 primiparous women, 52% had experienced one or more spells of unemployment during the previous five years. At the time of administration of the antenatal questionnaire, 47% of the 484 women who were interviewed before 28 weeks of pregnancy were working full-time; 6% part-time and 11% had stopped work during their pregnancy; 32% were not working when they became pregnant. Current employment information was not available for 23 women.

Partner's Employment Status

Women were asked their partner's age and if he was in employment. If he was currently employed his occupation was requested. Replies to these questions

were given by 540 women, even though some women said they were not supported by their partners; 7.4% of women said the question was inapplicable.

Men employed full-time accounted for 50.2% of replies and men unemployed for 40.6%. The remainder (50 men) were employed part-time were students or were off work because of illness.

For the 30 men aged under 20 years 70% were described as unemployed compared to 42% (154) of 20-29 year-olds and 40% (53) of 30-39 year-olds. Unemployment was again higher for the 15 men over 40 years and 60% were unemployed.

Social Class

It was possible to categorise only 51% of the sample by social class according to occupation (husbands if married, otherwise by woman's own occupation) because of high unemployment. Therefore social class has not been considered further.

Housing

Women were asked if they thought their housing was adequate and if their family shared accommodation with others.

Housing was said to be adequate by 76.7% of women. Accommodation was shared by 24.5% of the sample. Most commonly, sharing occurred with parents, parents-in-law and friends.

Married women or women living in a stable relationship accounted for 76% of women who said their housing was inadequate. The reasons given for inadequacy were shortage of room or problems with damp and condensation.

Smoking and Drinking

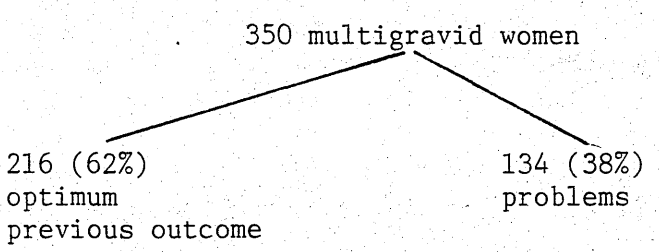
More than half the women in the study smoked (56%). Of these 326 women 55.8% said that they smoked between 10 and 20 cigarettes per day and 26% women smoked 20 or more.

One hundred and sixty-nine women (29.1%) said they drank alcohol and 88% of these women said they were drinking less during their pregnancy. No-one had more than 10 alcoholic drinks in a week and 88% of drinkers said they had less than four drinks. In the total sample 18% of women who smoked also drank and 32% neither smoked nor drank alcohol.

TABLE III The type and frequency of underlying conditions and relationship to hospital admission

Condition	No. of women	No. of women admitted
Epilepsy	3	1
Heroin addiction	2	-
Ulcerative colitis	1	-
Goitre	1	1
Thalassaemia	1	-
Australian antigenpositive	2	-
Ovarian cyst	1	-
Congestive cardiac failure	1	-
Essential hypertension	1	1
Bicornuate uterus	1	1
Uterine prolapse	1	1
Polyarteritis	1	1
Manic depresssion	1	1 (twice)
Cushings syndrome	1	-
Asthma	1	1
TOTAL	19	8

Fig.2 Previous obstetric outcome



ii) Medical and Obstetric Characteristics

Information from Scottish Morbidity Records indicated that 19 women in the sample had an underlying medical or socio/medical condition that could affect the outcome of pregnancy; 8 women were admitted to hospital during their pregnancy due to their underlying condition. **Table III (opposite page) illustrates the frequency of underlying conditions and whether hospital admittance was required.**

Multigravid women composed 60% of the sample (350 women). **Fig 2 (opposite page) summarises previous obstetric outcome.** A problem with a previous pregnancy had been experienced by 38.2% (134) of these women.

Eighty (23%) multigravid women had had a spontaneous abortion (12 women had two or more) and 48 (13.7%) a therapeutic abortion. Nine women had suffered a therapeutic and spontaneous abortion. Seven women had experienced a perinatal death and 35 women had had a previous low birthweight baby.

TABLE IV Women admitted according to condition

Condition	No. of women admitted
Raised blood pressure	48
Threatened miscarriage	26
Urinary tract infection	25
Pain (unspecified)	16
Placenta praevia	2
Previous miscarriage	2
Malpresentation	3
Polyhydramnios	2
Reduced fetal movement	2
Intrauterine growth retardation	4
Haemorrhoids	1
Vomiting	3
Vaginal discharge	1
Unstable lie	2
Twins	1
Weight loss	1
Abscess (unspecified)	1
Oedema	1
Anaemia	2
Meningitis	1
Diarrhoea	1
TOTAL	145

Pregnancy-Related Conditions

Information from Morbidity Records (SMR2) indicated that 197 women (33.7%) were admitted to hospital for acute conditions related to the current pregnancy; 80 of these women were admitted two or more times. One hundred and forty-five women gave reasons for their admission when answering the postnatal questionnaire. **Table IV (opposite page) gives details of the number of women admitted according to condition.** The main reasons for admission were: raised blood pressure, threatened miscarriage and urinary tract infection.

Twenty-one of the 197 women who were admitted antenatally had an adverse outcome to their pregnancy.

iii) Obstetric Outcomes

The perinatal mortality rate for women in the sample population was 4/1000. Five hundred and six women (87%) had an optimum obstetric outcome, defined as a full-term baby (over 37 weeks gestation), weighing 2.5 kg or more who did not require admittance to Special Care Baby Unit whereas 10% of babies did not fit into the above category, detailed outcome information was not available for 3%.

Fig.3 Outcome for women who had previous good outcomes to pregnancy

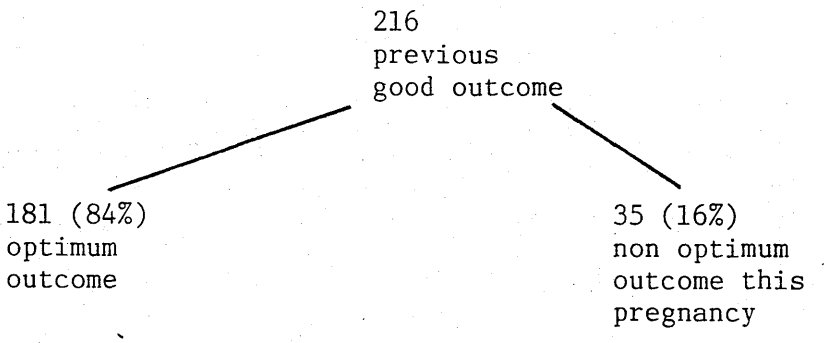
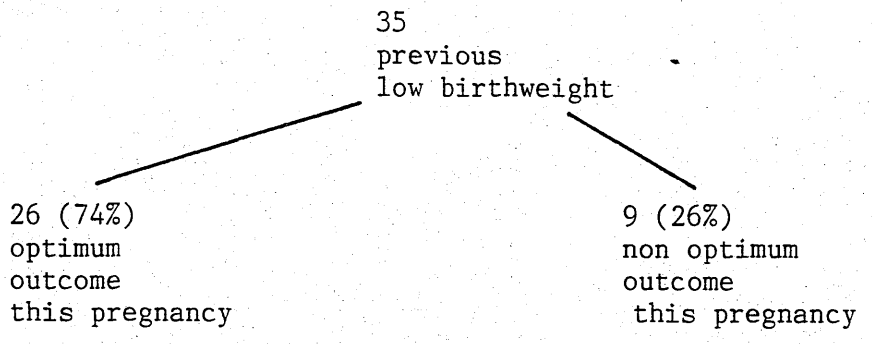


Fig.4 Outcome for women who had a previous low birthweight infant



Of the 59 women who did not have an optimum outcome to their pregnancy, one baby was born before 28 weeks gestation, 6 babies between 28 and 32 weeks gestation and 29 babies between 33 and 37 weeks gestation. Twenty-three full-term babies were admitted to Special Care Baby Unit weighing more than 2,500 gms.

Nine women had an adverse obstetric outcome who previously had had a low birthweight infant. Thirty-five women had an adverse outcome for this pregnancy who had previously had an optimum outcome. Twenty-six women had an optimum obstetric outcome who had previously had a low birthweight infant. **Outcomes for these groups are summarised in Figs 3 and 4 (opposite page).** There were two perinatal deaths (one stillbirth). Both women had booked before 12 weeks gestation and had not defaulted from antenatal care.

Of the 506 women who had an optimum outcome to pregnancy, 34.6% had required admission antenatally; 64.2% had spontaneous onset of labour and 3.8% of women had a caesarean section.

Fig.5 Outcome for babies of mothers with underlying medical conditions

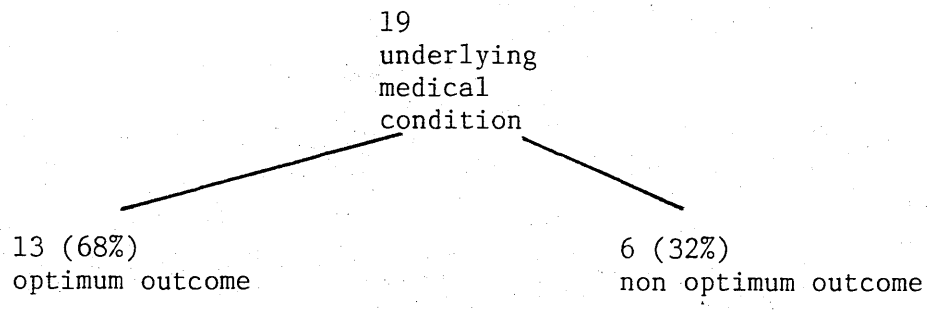
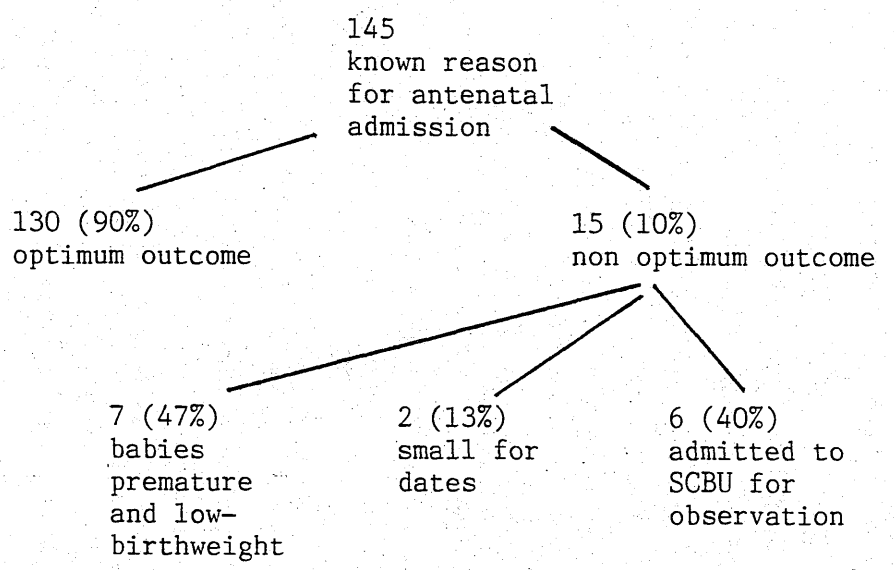


Fig.6 Outcome for babies of mothers with known pregnancy-related conditions requiring antenatal admission



All babies born to mothers with underlying medical conditions (19) (as described in Table III) survived. **Fig 5 (opposite page) summarises outcome for this group.** Thirteen women had an optimum obstetric outcome. Six babies were admitted to Special Care Baby Unit. One whose mother suffered from essential hypertension was small for dates and also premature.

For those 145 women where the reason for hospital admittance for a pregnancy-related condition is known, 15 babies were admitted to Special Care Baby Unit. **Fig 6 (opposite page) summarises outcome for babies of mother with known pregnancy-related conditions requiring antenatal admission.** Seven babies were premature and of low birthweight; two were small for dates and 6 were admitted for observation.

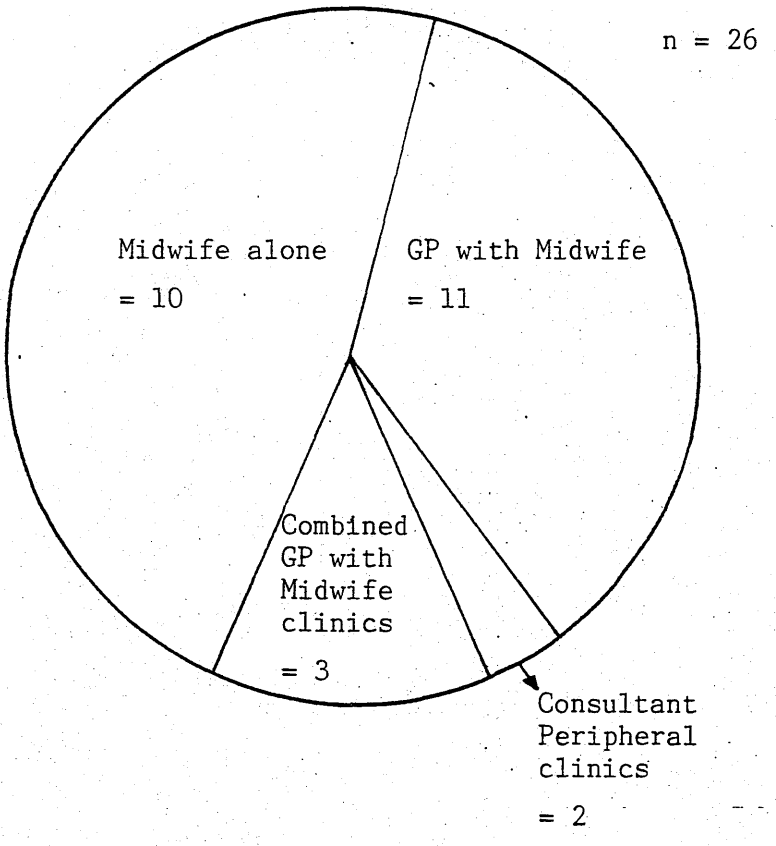
iv) Summary

Many women in the study were young, unmarried and often unsupported. These women were likely to be dependent upon state benefits. The high unemployment levels, however, meant that many older multiparous women were also dependent upon state benefits or low incomes and in some instances the money women received from part-time work was the only earned income

available to a family. A large proportion of women smoked and most smoked more than 10 cigarettes a day. Alcohol was not a problem.

The women in the sample were generally healthy, medically and obstetrically. The vast majority had a good outcome to their pregnancy. This is encouraging in view of the fact that the majority of women were of poor socio-economic status (pages 54-59).

Fig.7 Number of Clinics According to Provider of Care



CHAPTER IV

The Community Antenatal Service

An integrated system of midwifery care (45) is in operation at Glasgow Royal Maternity Hospital. The community midwives are hospital-based and each midwife is attached to one or more general practitioner units.

For the purpose of the study routine antenatal care describes the type of care women received at the community clinics by either a general practioner or a midwife. Specialist antenatal care describes obstetrician led care at Glasgow Royal Maternity Hospital or at the peripheral consultant clinics held at health centres in the community.

i) The Clinics

In total there were 26 clinics held in the community to which midwives attached to Glasgow Royal Maternity Hospital had an input. There were four types of care available to women at specifically arranged clinics. Type and number of clinics according to provider is illustrated in Fig 7 (opposite page).

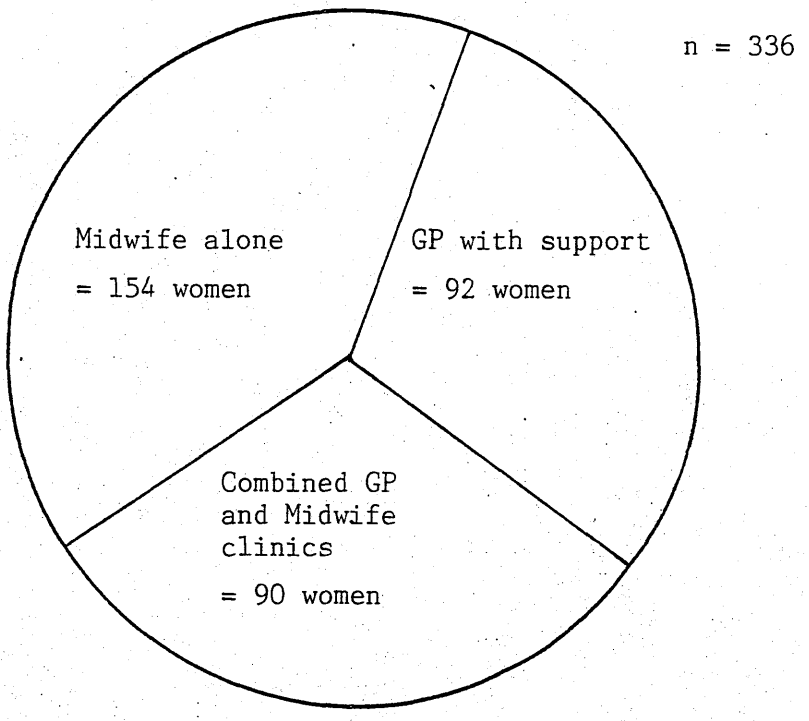
Type 1 Midwife only clinics where the midwife undertook all antenatal care.

Type 2 General practitioner clinics where the doctor performed all clinical care and took all decisions and a midwife acted in a supporting role only; that is she tested urine, weighed people and took their blood pressure before women were seen by the doctor.

Type 3 A combined general practitioner and midwives clinics where both practitioners undertook full antenatal care.

Type 4a A combined consultant and midwives' clinic where the consultant and a senior registrar saw all new bookings and women with problems, and two midwives saw women with normal pregnancies. A midwives' clinic and a combined clinic were feeder clinics for this service. Women attending for routine antenatal care from other sources also attended here. This clinic operated on a weekly basis.

Fig.8 Proportion of women in the Study attending Community Clinics for Routine Antenatal Care According to Provider of Care



89 of these women also attended for Consultant care at the 2 peripheral clinics.

The remainder attended for Consultant care at Glasgow Royal Maternity Hospital.

Type 4b A consultant clinic which took place after a midwives' clinic where the consultant saw all women at specified stages of their pregnancies and a midwife acted in a supporting role only. A midwives' clinic and a general practitioner clinic held at the same health centre were feeder clinics for this type of peripheral consultant care. This clinic took place at four-weekly intervals.

The clinics took place in either health centres or general practitioner surgeries.

The majority (336) of women in the study attended one of the 24 community clinics as described here, and 89 of these women attended for peripheral consultant care. **Fig 8 (opposite page) illustrates the proportion of women in the study attending for routine antenatal care at one of the community (Types 1-3) clinics.** Of the remaining 247 women 37 attended Glasgow Royal Maternity Hospital for all their antenatal care; 185 attended a general practitioner during normal surgery hours. Information was not available for 25 women.

Clinic Layout and Facilities Available

There was wide variation in the facilities offered to women. All the clinics operating in health centres were at ground floor level and easy to get to but not always well indicated from the health centre entrance. Waiting areas at health centre clinics were spacious and near to the consulting area. At 6 midwives' clinics, antenatal women waited with patients for normal surgery (being operated by a general practitioner at the same time), although the receptionist often guided women to a different row of seats. Chairs were arranged formally in rows usually facing the reception area. Seats were of the moulded plastic variety, except at one health centre which had padded upright chairs. At the general practitioner surgeries the waiting areas were cramped at four out of the 6 clinics. At two surgeries seating consisted of wooden benches either around the walls or in rows. A variety of hard/canvas seating was available at the other surgeries, all formally arranged.

Magazines were available at three health centre clinics. There were health education leaflets readily available at only one of the 26 antenatal clinics. Often the midwife handed these out as she saw fit. There were no pregnancy/child health posters

prominently displayed at any of the clinics held at general practitioners' surgeries or at three health centre clinics.

All health centre clinics were adequately decorated although rather drably in some areas. Four general practitioner clinics were in need of redecoration. Floor covering varied from utilitarian carpeting in health centres to linoleum/vinyl in general practitioner surgeries. Artificial lighting was needed in some health centres which tended to be dimly lit.

There were no play or crêche facilities available at any of the community clinics nor any toys or books for children. Some midwives and general practitioners pointed out that they had provided these in the past but they had been stolen. Toilet facilities were available at all clinics, but women could buy refreshments while attending clinics at one health centre only and then at some distance away.

Basic equipment for antenatal clinical examination was provided at most clinics. At one health centre clinic women had to walk to another part of the building to be weighed as scales were not provided in the midwife's consulting room. Twelve clinics provided ordinary bathroom scales only. At one general

practitioner surgery clinic the midwife did not have access to an examination couch should she have wished to examine women herself before they went in to see the doctor (a low chaise-lounge type seat was available). At another clinic the midwife had to search for a pillow and a sheet to put on the examination couch before she could start the clinic. Sonic-aid monitors were not available at clinics. Midwives brought their own from a pool at Glasgow Royal Maternity Hospital, if one was available. Other personal equipment such as stethoscopes and sphygmomanometers was provided by the person operating the clinic. Equipment for testing urine and taking blood samples was available at all but two clinics. Midwives compensated for this by providing their own from Glasgow Royal Maternity Hospital.

Privacy

Privacy was satisfactory at all community clinics, although at three general practitioner clinics held in surgeries, the midwife did not have a separate room due to lack of space. This was also the case at two health centre general practitioner clinics. At both health centres and surgeries it was common practice for the midwife to use another doctor's consulting room which was vacant. At one health centre clinic the general practitioner, midwife and health visitor

all shared a room and saw the women together. The professionals concerned liked this arrangement and the women, who had previously been consulted, preferred it because it meant less waiting. The health visitor tried to identify women whom she thought needed a longer, more private session with her and visited them at home, as did the midwife.

Very little privacy was accorded to the receptionists but no personal questions were asked by them at any of the clinics. Their main role was to organise notes and appointments as well as recording the arrival of patients. At general practitioner surgeries and all health centres except one, reception areas were "fenced off" from users of care. This arrangement sometimes appeared formal and unwelcoming at larger clinics. One woman waiting for her appointment, volunteered the information that the smaller, less formal general practitioner surgeries were more friendly and approachable than the larger health centre clinics. At those clinics where other professional facilities were offered, (health visiting, social work etc) these were in individual rooms, often in another part of the building.

Support Services

One of the main advantages of health centre clinics was the availability of several other professional services of benefit to pregnant women. Although at three general practitioner surgery clinics a health visitor was routinely present during antenatal clinic. This was the only other service readily available on surgery premises. A health visitor was regularly available at 12 out of 21 antenatal clinics operating from health centres. Generally, the health visitor saw all new bookings and women referred to her by the midwife or general practitioner, as well as self-referrals, immediately.

At all other clinics access to the health visitor was by appointment unless by chance she was available in her room at the time of the clinic. Those women attending general practitioner surgeries where no health visitor was available were usually referred to the local child health clinic. A social worker was available routinely at only one clinic (the combined consultant and midwives' clinic). At all other clinics clients were referred either by the general practitioner, midwife or health visitor, and had to make a specific appointment, unless by chance the social worker was on the premises. There were social

workers attached to all health centres. Women attending clinics at general practitioner surgeries were referred to the local area office.

Other services of value to pregnant women and usually available at health centres were: physiotherapy; dentistry; chiropody; dietetics; dispensary and X-ray.

Appointment Systems

Nineteen of the clinics operated a specific appointment system. At other clinics (all at health centres) women were told to come between certain times. This often meant a crowd at the start and end of a session and a quieter time in the middle. Midwives at clinics where there had been a successful changeover to an appointment system as opposed to a first come first served basis, reported less waiting time for the majority of women. At some clinics efforts had been made to change to a specific appointment system but the women tended to congregate at the beginning or end of a session and expected to be seen on a first come first served basis. Six clinics operated successfully on a first come first served basis (all small clinics) and did not intend to change this arrangement. One clinic, at a health centre, did not have a formal record of women booked to attend at all and did not know who to expect from

TABLE V Average Attendance at Community Clinics and Average Waiting and Clinical Consultation Times

Type of clinic	Number of clinics	Average number of women	Range	Average waiting time	Waiting time range	Average clinical time	Range
Midwife alone	10	8	3–12	18 mins	0–65	13 mins	5–27
GP's with support	11	6	2–18	16 mins	0–59	10 mins	3–28
Combined GP and Midwife	3	16	11–23	19 mins	0–44	16 mins	8–35
Community Consultant Clinics	2	11	10–21	30 mins	0–90	11 mins	5–37

week to week unless the general practitioner and midwife checked through the antenatal notes. This they did every three weeks or so to discover defaulters.

Clinic Size

On the days the clinics were visited attendance varied from two to 23 women. Twenty-two clinics were described as "typical" by the midwife attending, the remaining four clinics which were described as quieter than usual. The combined consultant and midwives' clinic was atypical because the consultant was unable to attend that day and the clinic was operated by a senior registrar and two midwives only.

Table V (opposite page) illustrates average attendance at the various clinics together with average waiting and clinical consultation times.

The combined clinics tended to be larger and those held at general practitioner surgeries smaller (except the combined clinic). General practitioners saw on average slightly fewer women than were seen at midwives clinics. The consultant/midwives' clinic had 21 women attending on the day it was visited and three women had to leave because they were expecting

children home from school and could wait no longer. Clinics lasted from between 45 minutes (five women seen) and three hours (23 women seen).

Waiting and Clinical Consultation Times

Waiting and clinical times varied from clinic to clinic (Table VI). Generally, the smaller the clinic the shorter the wait. Maximum waiting times were lower at the separate general practitioner and midwives' clinics but these tended to be smaller. Women attending combined general practitioner/midwives' clinics had on average longer consultation times than at single practitioner clinics or at the combined consultant/midwives' clinics.

Content of Care

The same pattern of clinical care was practised whoever the provider. It was observed, however, that a change in emphasis occurred between doctors and midwives. Women were more likely to discuss unrelated medical problems with their general practitioner and more likely to discuss the broader aspects of pregnancy and childcare such as maternity benefits and infant feeding with a midwife. Other personal worries, for example, marital and financial problems were also more often mentioned to the midwife.

TABLE VI Consultant Regime Followed in Relation to Community Clinics with Consultant Liaison

Community Clinic	Times when seen at a Consultant Clinic (at GRMH unless indicated)
01	Booking, 36, 38 and 40 weeks
02	12 weeks", 37, 39 and 40 weeks
04	Booking, 28, 36, 38 and 40 weeks
07	12 weeks, 36, 38 and 40 weeks
09	12 weeks", 36, 38 and 40 weeks
10	Booking, 28, 36 and 40 weeks
11	Seen once at approximately 16-20 weeks gestation*
12	Booking then flexible approach according to Consultant's wishes
13	" " " " "
14	Booking, (28), 36, (38) and 40 weeks
15	Booking, (28), 36, (38) and 40 weeks
16	Seen once at approximately 16-20 weeks gestation*
17	Booking then alternate appointments at health centre and GRMH
18	12 weeks", 28, 36 and 40 weeks
20	Booking then alternate appointments at health centre and GRMH
23	12 weeks", seen at least once by Consultant at health centre. Also attended GRMH 36 weeks and 40 weeks gestation.
24	Booking then alternate appointments at health centre and GRMH

Visits in parentheses are optional.

"Booking using GRMH notes carried out at health centre.

*Women seen at Consultant clinic in the community. Only attend GRMH for scanning.

Pattern of Care

The overall pattern of care, whoever the provider and wherever the place, was the same. This followed the 4 week, 2 week, 1 week model.

All the community clinics reported that allowance was made for hospital visits and new appointments given accordingly, in order that women were not seen too frequently. In practice, examination of 50 shared care cards for validity testing (see page 51 Chapter II) showed that this was not always so and 6 women had two antenatal visits within the same week. Defaulters were usually sent another appointment by post or visited at home by the midwife, at her discretion.

It varied when women with normal pregnancies were seen at a consultant clinic in the hospital. **Table VI (opposite page) summarises the consultant regime followed at the various community clinics with a consultant liaison.** Some consultants required women to be seen at their clinics at booking (some specified 12 weeks), 28 weeks, 36 weeks and 40 weeks gestation. Some missed out the 28 week visit. One consultant liked women to attend his clinic for alternate appointments.

Those clinics without an established liaison scheme (ie clinics held at general practitioner surgeries) followed the referred consultant's regime as directed at the booking visit.

At the peripheral clinics, one consultant endeavoured to adopt a more flexible approach according to a woman's needs and another consultant saw all women with a normal pregnancy in the mid-trimester.

Not all women were seen by an obstetrician at every visit to consultant clinics either at hospital or at one of the peripheral clinics. Some women were referred for midwives antenatal care before or after their first visit to the obstetrician. It was possible for a woman to have all her antenatal care (after confirmation of pregnancy) performed by a midwife either at the peripheral or hospital clinics except for one visit to an obstetrician. There was close liaison between obstetricians and midwives at the midwives' clinic functioning as part of a consultant clinic. Any obstetric decisions were made by the consultant.

Decision Making at Routine Antenatal Visits in the Community

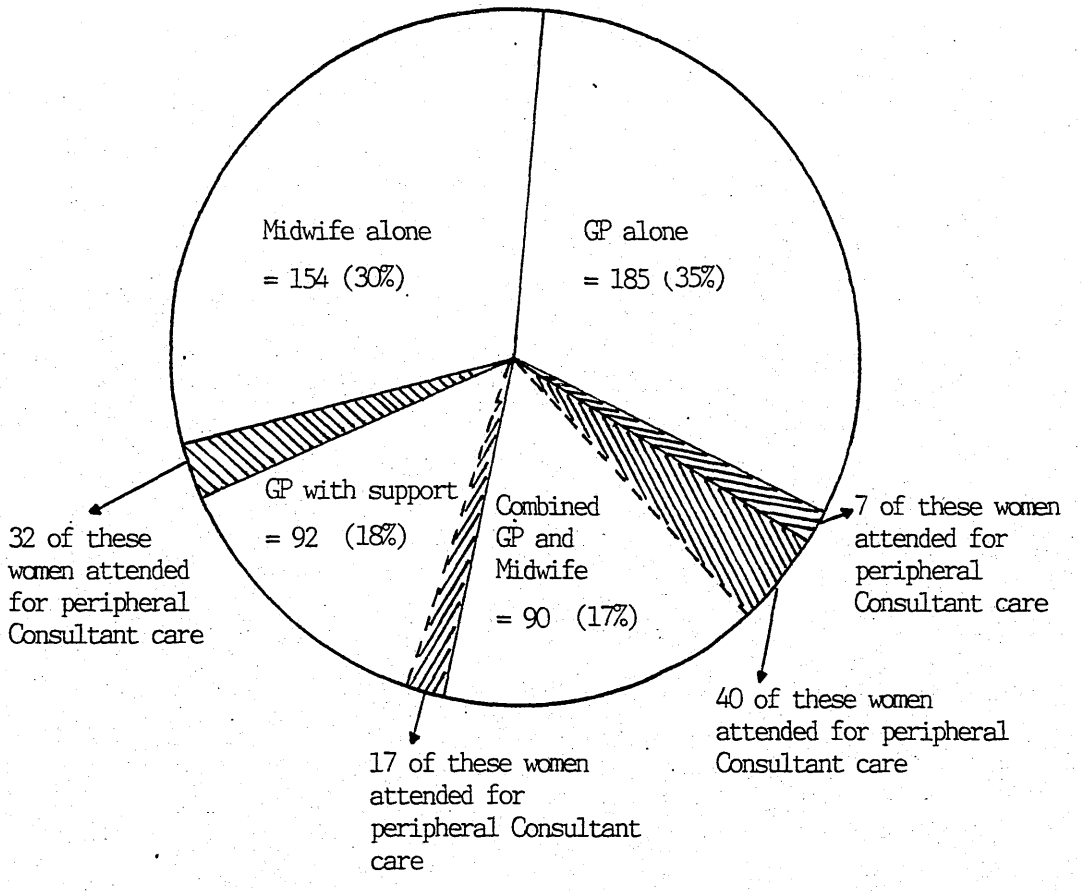
Clinical decisions were usually taken by the person operating the clinic. The midwives who ran community clinics were totally responsible for identifying variation from the norm. How problems were dealt with depended on what the problem was and the availability of a doctor. Unless a problem could be managed initially by making an appointment for an ultrasound scan, for example, confirmation of presentation, the general practitioner was usually contacted and the final decision or course of action left to him or her. Midwives did expect to be consulted about this action, however, and to give their opinion as to its appropriateness. In practice women were usually referred to the consultant at the next hospital or peripheral clinic unless it was judged an emergency when they were sent to hospital immediately. Responsibility for finding out information about hospital visits and liaising with the hospital was often the responsibility of the midwife whether or not she undertook clinical care.

Fig.9 Proportion of Women in the Study Attending for Community Antenatal Care (all types)

n = 521

37 women attend GRMH for all their care

25 women complete data not available



Of these 96 women who received all their antenatal care in the community:

70 of these women attended for Consultant Care A

26 attended for Consultant Care B

ii) Clinic Usage

Information on the use of the community antenatal service was available for 521 of the 583 (89%) women. Thirty-seven women (7%) received all of their care at Glasgow Royal Maternity Hospital and the remaining 25 women were unable to give adequate details of their community antenatal care.

Use of Service

As mentioned previously (page 65) in addition to the four types of care described (general practitioner care, midwifery care, combined care and peripheral consultant care) antenatal care was also offered by some general practitioners as part of their normal surgery. This type of care is referred to as "GP alone" care (ie no input from midwife). One hundred and eighty-five women received their routine antenatal care this way. **Fig 9 (opposite page) illustrates the proportion of women attending all the different forms of community care.**

Fig.10 Proportion of women attending feeder clinics - Consultant Care A

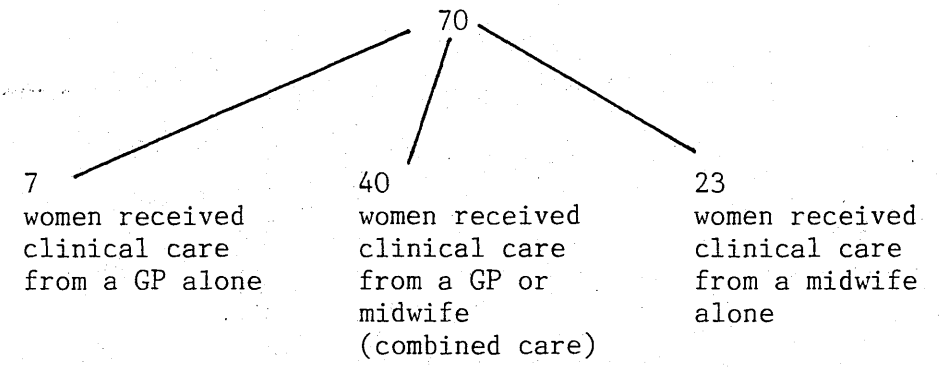
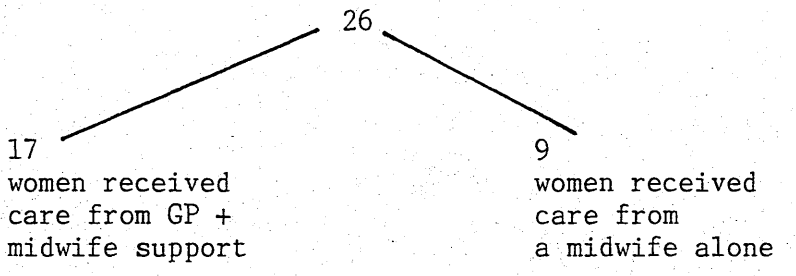


Fig.11 Proportion of women attending different feeder clinics - Consultant Care B



A total of 96 women received all of their antenatal care in the community and attended hospital only for ultrasound scanning. Of these women 70 attended for Consultant Care A and 26 for Consultant Care B.

Figs 10 and 11 (opposite page) illustrate the numbers of women attending different types of "feeder" care for peripheral consultant clinics A & B.

Nine of the women who attended for peripheral Consultant Care B received all of their "routine" antenatal care from a midwife alone and paid only one mid-trimester visit to the consultant. Twenty-three women who attended for Consultant Care A received all of their "routine" care from a midwife alone and may also have received part of their care from a midwife at the peripheral consultant clinic (as may have the other 47 women attending for peripheral Consultant Care A). As mentioned earlier attending for peripheral Consultant Care A did not automatically mean that women would see an obstetrician. He/she was, however, instantly available if a problem was discovered.

The other 425 women for whom information was available received "routine" care in the community and consultant led care at Glasgow Royal Maternity Hospital.

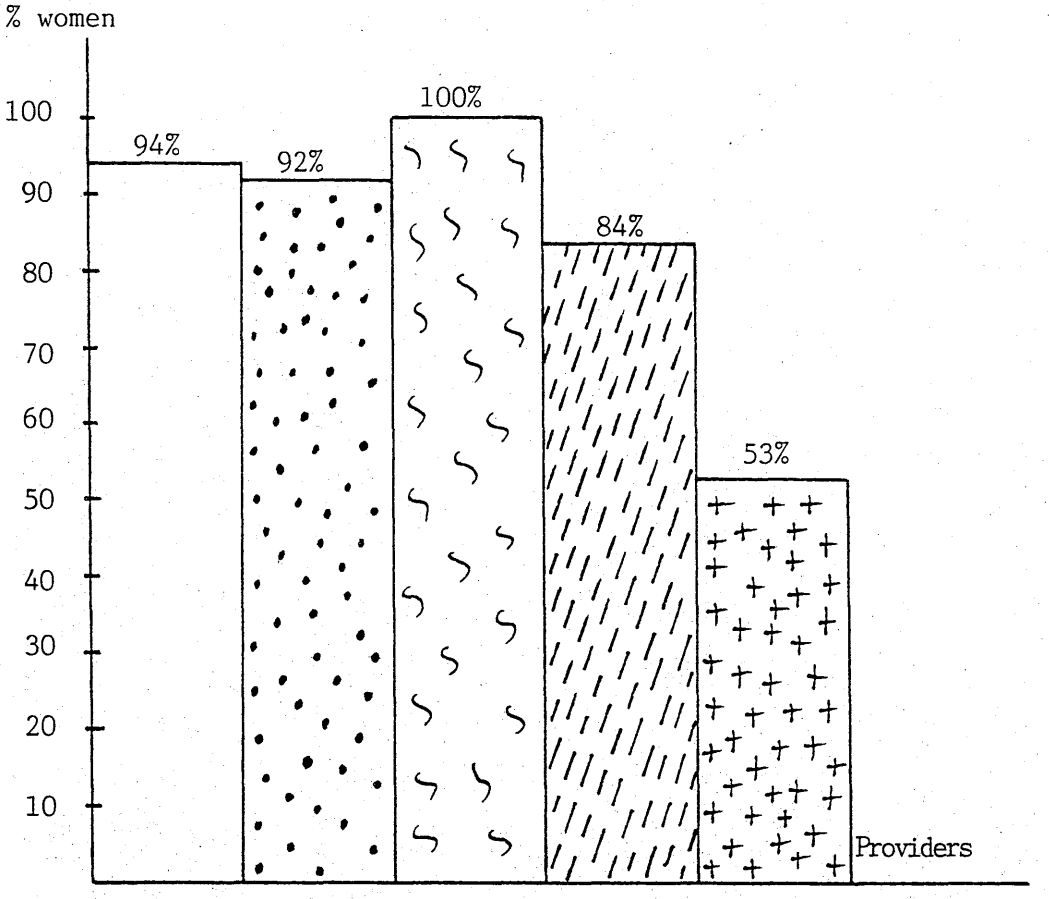
On average one in four of the total hospital antenatal visits paid by the 462 women in the study who received some form of hospital antenatal care (425 who received shared care + 37 women who received all their care at Glasgow Royal Maternity Hospital) was to a midwife. Overall 27% of all antenatal visits, ie for routine community care plus peripheral consultant care or hospital consultant led care, were to a midwife and 73% to a doctor (general practitioner or obstetrician).

Frequency of Visits

On average the women in the sample had 11 antenatal visits. A typical pattern was 7 routine visits in the community and four consultant led visits.

Validity testing, by checking a sample of 50 antenatal shared care records, proved that 23 (46%) of these women gave an accurate reply to the number of visits they had made. Thirty-six women (72%) were accurate to within two visits. The more visits women said they had the more likely they were to be inaccurate. One

Fig. 12 Women who received clinical antenatal care from no more than two people related to status of provider of care



Community Midwives care (including those who saw midwife at Combined Clinics (GP or Consultant)

GP care (including those who saw GP at Combined Clinics and attended for GP care alone

Consultant at Peripheral Clinic

Midwife at Hospital Clinic)) Consultant

Doctor at Hospital Clinic)) led care

woman who said she had 26 visits had in fact only had 9 visits and one reported having 18 visits who had only had 14. Both women who reported less than five visits booked late but had not defaulted.

Continuity of Care

The number of carers women saw throughout their antenatal visits (either in the community or at hospital) was of interest. **Fig 12 (opposite page) illustrates proportion of women who received clinical antenatal care from no more than two people compared with status of provider.**

For those women who received routine community care from a midwife alone, 94% saw no more than two midwives. At the general practitioner clinics 92% saw no more than two doctors and no woman saw more than four doctors.

For those women attending for peripheral consultant care no woman saw more than two doctors. Of the women who attended for consultant led care at the hospital 84% of those who saw a midwife received care from no more than two midwives. For those receiving obstetrician care although 53% saw no more than two doctors, 25% of women said they had seen four or more.

iii) Personal and Obstetric Characteristics in Relation to Type of Antenatal Care Received

There was no difference in personal and obstetric characteristics between the women in the study who used the different forms of community antenatal care or consultant led antenatal care (peripheral and hospital). There was also no difference between those who received community care and the 37 women who received all their care at Glasgow Royal Maternity Hospital. There was a wide variety of choices available to women and the numbers attending for each type of care were considered too small for significance testing.

Comparisons were made between the 521 who attended for community antenatal care and for whom total data was available in terms of age, parity, antenatal admissions, previous low birthweight baby, employment, optimum obstetric outcome and the total number of antenatal visits made. Care was divided into community care and hospital led consultant care and community care and peripheral Consultant Care A, or peripheral Consultant Care B. Community care was further divided into three types according to provider:- combined midwifery and general practitioner care, midwives' care and general practitioner care.

TABLE VII Personal Characteristics of Women using the Community Antenatal Service Compared to Type of Care Received

n = 521

( ) = % rounded to nearest whole for no > 10	Community and Hospital n = 425			Community and Peripheral Consultant Care A n = 70			Community and Peripheral Consultant Care B n = 26	
	GP Care n = 253	Combined Care n = 50	Midwife Care n = 122	GP Care n = 7	Combined Care n = 40	Midwife Care n = 23	GP Care n = 17	Midwife Care n = 9
Primiparous women	128 (51)	16 (32)	58 (48)	2	17 (42)	9	9	6
< 20 yrs	43 (17)	9	27 (22)	2	5	7	3	1
> 3 yrs	29 (11)	2	21 (17)	0	3	2	2	0
Antenatal number of admissions % NA	169	31	93	5	27	14	11	7
Previous low birthweight baby	12 (5)	4	10 (8)	1	2	0	1	0
Women employed	91 (36)	12 (24)	40 (33)	1	9	6	7	3
Partner employed	140 (55)	24 (50)	69 (57)	3	18 (45)	10 (43)	13 (76)	8
Good obstetric outcome	219 (87)	40 (80)	106 (87)	6	34 (85)	21 (91)	13 (76)	8
Antenatal visits no. of "knows" = 417								
< 5	4	1	1	0	1	1	0	0
5 - 10	77 (31)	15 (30)	38 (31)	3	13 (33)	9	5	3
11 - 15	101 (40)	13 (26)	45 (37)	1	18 (45)	8	6	4
< 15	14 (6)	15	7	0	1	1	1	1

The latter category consists of all clinical care given by general practitioners alone in normal surgery hours and clinical care given by general practitioners with support from a midwife at separate antenatal clinics. **Table VII (opposite page) illustrates personal and obstetric characteristics of the women using the community antenatal service compared to the type of care received.**

iv) Summary

There were several forms of antenatal care available to women in the community. Midwives and general practitioners undertook clinical antenatal care and some women were able to attend for specialist obstetrician led care in the community. These women with normal pregnancies did not attend the hospital at all except for ultrasound scanning.

Clinics vaired in the type of facilities available to women. There was, however, lack of comfortable seating at most clinics and health education literature was not readily available. None of the clinics had play space or toys for children accompanying their mothers. Waiting times could sometimes be long although generally shorter than at hospital clinics.

The pattern of care followed at the clinics was the same as that recommended in the 1929 Report (1). Most women had between 11 and 14 visits. Little or no heed had been paid to the recommendations of Hall et al in Aberdeen (4) or to schemes offering fewer visits.(6) Nearly all women attended for their antenatal visits and defaulting was rare. Continuity of care was better at community-based clinics.

CHAPTER V

The Views and Preferences of Women with an Optimum Outcome to Pregnancy

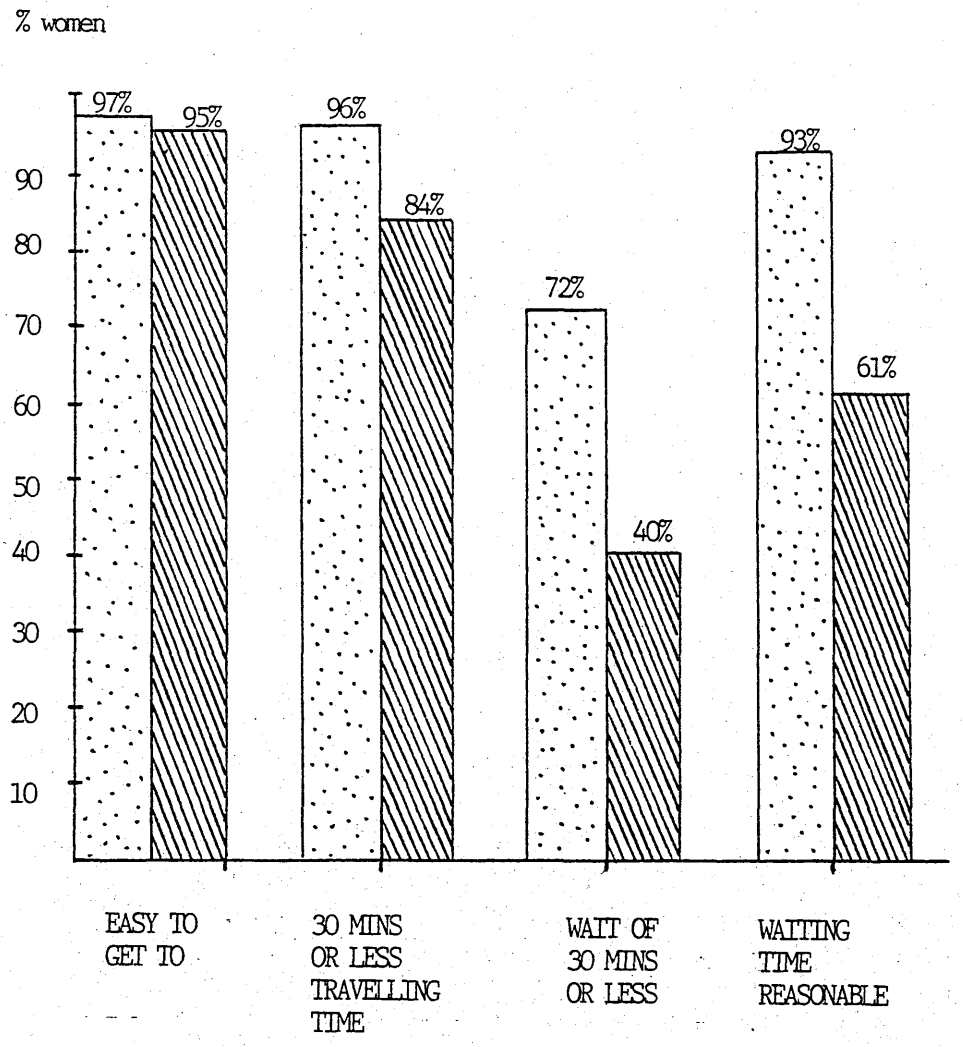
The views of the 506 women in the sample who had an optimum outcome to their pregnancy are presented here.

Background Opinion

Women were asked when they first attended the consultant clinic and how easy and convenient they thought the different types of antenatal clinics were. Over 93% had visited their general practitioner by 12 weeks gestation.

A visit to the consultant's clinic either in the community (peripheral clinic) or at Glasgow Royal Maternity Hospital was usually arranged within two weeks of the hospital clinic staff receiving the general practitioner's booking letter. An exception to this concerned those women receiving Consultant Care B in the community, where women who had a normal pregnancy were seen once at approximately 18 weeks gestation.

Fig.13 Comparison of certain aspects of convenience to women



n = 488 women who attended Glasgow Royal Maternity Hospital (96 women had all their care in the community)

n = 547 women who attended community clinics (37 women attended for all their care at Glasgow Royal Maternity Hospital)

The majority of women (84%) thought they had visited the consultant clinic at the right stage in their pregnancy. Twelve women (2%) thought they had visited too early and 30 (5%) women too late; 51 (9%) women said they did not know if their visit was at the right time or not. Of those women who said they had visited too early 8 had been seen by the 10th week of pregnancy and the remainder by the 12th week. These women said there was nothing to be gained from visiting so early. All those women who said they had visited too late had been seen after 18 weeks gestation and regretted that they could not take advantage of the tests to detect certain abnormalities. The most common reason for women saying they had attended at the right time was that it was important for a woman to get the best care for herself and her baby as soon as possible.

The large majority of women (95.2%) said it was easy to attend for antenatal care both in the community and at Glasgow Royal Maternity Hospital. Times of the appointment, distance and cost taken to travel were the reasons given for inconvenience of clinics. **Fig 13 (opposite page) illustrates a comparison of certain aspects of convenience to women between community and hospital-based clinics.**

Three per cent of women (7 primiparae and 9 multiparae) said the community clinics were not easy to attend for these reasons and 5% (6 primiparae and 17 multiparae) said the same about the hospital clinics. Of the women who attended community clinics 96% took 30 minutes or less to get there and 84% of those women who attend for hospital antenatal care took the same time or less to get to Glasgow Royal Maternity Hospital. A wait of 30 minutes or less was experienced by 72% of women who attended community clinics and by 40% who attended hospital clinics. Two women said they waited for more than two hours at the community clinics (general practitioner alone clinics) and 21 at hospital clinics.

In all, 52% said that the waiting times were reasonable; 36% said they were too long and 12% did not give an opinion. The wait was too long for 39% of the women who attended Glasgow Royal Maternity Hospital for some form of care and for 7% of women who attended the community clinics. Fifteen of these women attended for Consultant Care A. The usual cost of travel to the community clinics was 0-50p and to Glasgow Royal Maternity Hospital 50p-£1 one way.

Multiparous women were asked if it was easy to arrange for other children when they visited the clinics and what arrangements they preferred for their children.

It was easy to make arrangements for 92% of such women. A relative or friend was the preferred choice of minder for 74% of women and the remainder preferred to bring their children with them if a crêche or play facilities were routinely available at antenatal clinics. Women were also asked what time of day they preferred to attend clinic. A morning clinic was preferred by 36% of women; 29% preferred afternoon clinics and 2% evening clinics. No preference was expressed by 33% of women.

In general terms 47% (48% primiparae; 46% multiparae) of women preferred to attend community clinics and 51% (48% primiparae; 53% multiparae) preferred to attend the hospital; 8 women gave no preference. Women who preferred community clinics liked the personal attention, shorter wait and the fact that there was not so much travel involved. Those who preferred hospital clinics liked the technical equipment available and appreciated seeing the doctors and midwives who might look after them in hospital.

Women's Views about the Quality of Antenatal Care

Women were asked general questions about the level of satisfaction they felt about their antenatal care and also specific questions about certain aspects of their care.

TABLE VIII Women's overall responses to specific aspects of care in relation to parity

	Prims % n = 197	Multips % n = 309	Total % n = 506
Aspect of care received:			
Reassurance from visits	152 (77)	231 (75)	383 (75.7)
Questions answered	99 (50)	148 (48)	247 (48.8)
Procedures explained	80 (41)	108 (35)	188 (37.1)
Expert care and diagnosis	116 (59)	149 (48)	265 (52.3)
*Emotional support	27 (14)	38 (12)	65 (12.8)

*Women were not asked if they needed emotional support only if they received any.

Responders were generally well satisfied with the care they received no matter who provided that care or the place where care was received. There was no measurable difference in the levels of satisfaction between the different types of routine antenatal care given. Overall 26.5% of women described their care as excellent and 66.8% as satisfactory. The only reason given by the 6.7% who said that their care was unsatisfactory was the long wait before clinical consultation. The wait at Glasgow Royal Maternity Hospital was the cause of complaint for 5.9% of women; 7 women complained about the wait at their general practitioner's surgery and two about the wait at a general practitioner antenatal clinic.

When asked more specifically about their care women's answers were revealing. Over three-quarters (75.7%) said they had reassurance from their visits but as few as 12.8% said they had received any emotional support.

Table VIII (opposite page) illustrates details of women's overall response to the questions about specific aspects of their care in relation to their parity.

Continuity of Care

Continuity of care was viewed as important by women. Women were asked if they would prefer to be in regular contact with one person during their pregnancy and if their response was 'Yes', who would this person be. 49% of women chose a midwife (55.1% primiparae and 45.3% multiparae); 21% their general practitioner (30.9% primiparae and 20.7% multiparae); 20% (17.9% primiparae and 22% multiparae) a hospital doctor and 5.5% (2% primiparae and 7.8% multiparae) their consultant; 4.3% of women had no preference.

In total, 57% of women stated that they saw their consultant during pregnancy; 8.3% saw him or her whilst in labour and 30% during the postnatal period in hospital.

Women were also asked if they saw any of the same people whilst in hospital having their baby (intra and postpartum) as they had seen during their antenatal care. Forty-nine per cent of women said they saw at least one person they knew antenatally, whilst in hospital having their baby. In 37% of cases this was a midwife; 42% of cases a hospital doctor and 21% of cases a consultant. A total of 63.4% of women thought it important to be attended in labour by a doctor or midwife that they knew.

TABLE IX Importance attached to certain aspects of care according to parity

Prims n = 197
Multips n = 390

	Very Important		Important		Fairly Important		Not Important		Don't Know	
	Prims %	Multips %	Prims %	Multips %	Prims %	Multips %	Prims %	Multips %	Prims %	Multips %
More privacy at consultation	15.2	17.5	25.4	26.2	28.4	0.22	20.3	20.1	10.2	14.2
Fewer visits	7.6	5.8	7.1	7.8	11.7	9.4	59.9	58.4	13.7	18.2
Shorter wait	34.0	35.1	19.8	22.1	24.9	21.1	12.2	12.0	9.1	9.7
More opportunity to ask	31.0	35.1	32.0	24.7	19.3	16.9	7.1	8.8	10.7	14.6
Better information experience	39.1	37.3	26.9	26.3	14.2	12.7	8.1	7.1	11.7	16.6
More information on baby care	45.7	39.6	28.9	25.3	7.6	14.6	5.1	6.8	12.7	13.6
Continuity of care	47.7	48.7	21.3	20.8	10.7	10.7	8.1	7.8	12.2	12.0

Importance Attached to Care

Women were asked to rate certain aspects of their care by degree of importance.

Table IX (opposite page) details degree of importance attached to certain aspects of care according to parity.

Privacy at consultation was viewed as very important or important by 28.3% of women. To have fewer antenatal visits was considered important by 24.3% of women. A shorter wait was thought of as important by 78.3% of women and 62.8% would have liked more opportunity to ask questions. Better information or explanations would have been appreciated by 78% of women. Eighty-seven per cent of women thought it important or very important to have more information about the care of their baby (only 6% of these women had attended parentcraft classes). Continuity of care at antenatal visits was thought to be very important by 48% of women.

TABLE X Intra and postpartum expectations of women

	Prims % n = 197	Multips % n = 309	Total % n = 506
Birth was:			
worse than expected	57 (28.9)	67 (21.7)	124 (24.5)
as expected	48 (24.4)	111 (35.9)	159 (31.4)
better than expected	90 (45.7)	128 (41.4)	218 (43.1)
no answer	2	4	6
Postnatal stay was:			
worse than expected	13 (6.6)	6	19 (3.8)
as expected	93 (47.2)	183 (59.2)	276 (54.5)
better than expected	87 (44.2)	118 (38.2)	205 (40.5)
no answer	4	3	7

Matching Expectations with Reality

Women were asked how both their expectations of the birth of their baby and their postnatal stay in hospital matched reality. **Table X (opposite page) gives details according to parity of how expectations matched reality concerning delivery and postnatal stay.**

The birth was worse than expected for 24.5% of women (28.9% primiparae); 31.4% of women thought the birth was as expected (24.4% primiparae); and 43.1% better than expected (45.7% primiparae). The stay in the postnatal ward was described as worse than expected by 3.8% of women; as expected by 54.5% of women and worse than expected by 40.5% of women. Seven women did not answer.

Summary

In general terms women were well satisfied with the antenatal care they received no matter who the provider and the place they attended. In certain aspects the community clinics were judged to be more convenient, however, the only marked area of dissatisfaction was with long waiting times. Answers to specific questions were more revealing. The majority of women did not think that their questions

were answered adequately or all procedures explained. Few thought they received any emotional support during their pregnancy. Over three-quarters of women did, however, feel reassured by their antenatal visits. Women would have liked a shorter wait at antenatal clinic, more opportunity to ask questions and better explanations and information at their antenatal visits. A large majority of women would have liked more information about care of their baby, to be given at clinic visits despite only a few of the women attending parentcraft classes.

Continuity of care both during pregnancy and including labour and delivery was also thought to be important. Continuity of care with a midwife was mentioned by most women. Fewer antenatal visits was considered to be important by slightly less than a quarter of women.

Both the birth of their baby and their postpartum stay in hospital was perceived as being as expected or better than expected for all but a few women. Overall poor antenatal expectations about the birth and afterwards did not often match reality.

CHAPTER VI

Discussion

The overall aim of the study was to review the community antenatal service in the East End of Glasgow in relation to three recommendations of the Royal College of Obstetricians and Gynaecologists Working Party Report on Antenatal and Intrapartum Care.(5)

These recommendations were:

1. Antenatal care centred in the community should be developed more widely.

2. Midwives should take more part in the antenatal care and should provide antenatal care as part of the obstetric team.

3. The amount of antenatal care should be tailored to each woman. Arrangements should be flexible.

In order to do this three questions were asked:

1. What was the medical, obstetric and socio-economic status of the study population?

2. What types of community antenatal care were available to the women of the East End of Glasgow?.

3. What were the women's views and opinions of the care they received?

Data collected from patient questionnaires, a non-participatory observations study and from routinely collected statistics answered these questions. Bias was shown towards women with an optimum obstetric outcome and data presented on views and suggestions of the sample was therefore limited to these women.

The personal and social characteristics of the women were of special interest. Many were young, poor and unmarried or unsupported. The majority of women smoked. These findings confirmed already known facts about the East End of Glasgow.(38)

Unemployment has long been a problem. Information from the 1981 census shows that the unemployment rate for men in the East End was 26.7% compared with 18.7% for the whole of the Greater Glasgow Health Board

area.(39) By 1985 the situation was worse. Bridgeton, one of the poorest areas of the East End, had an unemployment rate of 37%, double that of Strathclyde as a whole which already had the highest recorded unemployment rate (18.5%) of any region in Scotland.(40) For women in the study 47% of primiparae were not working at all at the time of initial entry into the study and of those women who gave information about a partner (542 women) 40.6% said he was unemployed.

There has been a change in the pattern of births to teenage mothers. Births to teenage mothers in Glasgow have fallen from 12.8% of all births in 1979 to 11.6% in 1983.(41) The East End was no exception; the proportion of births to teenage mothers in the East End had previously fallen from 19.1% of all births in 1979 to 17.2% in 1983. The proportion of births to teenage mothers in the study was 14.9%. More births to teenage mothers, however, are illegitimate. In 1983 61% of all births to teenage mothers in Glasgow were illegitimate compared to 39% in 1979.(41) The figures for the East End are similar. Seventy-four per cent of births to teenage women in the study population were illegitimate. The study has confirmed that these mothers are usually unsupported by a partner, only 7 teenage women describing themselves as living in a stable relationship. This fact in

conjunction with the high unemployment rate for the area indicates that many children are socially and economically disadvantaged from birth. Documented evidence based on the nulliparous teenage women in the larger survey supports this.(42) The extent, however, to which older women in the study were also dependent upon State benefits indicates that the economic situation is often not any different for them.

Housing was not seen as a problem for the majority of the women in the sample. The housing stock in the East End is mostly local authority owned post-war tenements (71%).(43) Compared with other areas of Scotland housing is plentiful and an official from the housing department states that pregnant women who are homeless can expect to be housed in a home of their own by 28 weeks of pregnancy. The quality of housing is not always ideal. One of the main causes of complaint concerning housing given by women was about damp and condensation. Some women with two or more children also complained about overcrowding and difficulty in acquiring a larger house to rent. Whilst most women did not drink alcohol and no one appeared to drink to excess 54% of women smoked. For women a relationship has been shown between smoking, social class and stress.(44) Lack of employment and in consequence money could well be a cause of stress

amongst the women in the study and account not only for the large number who smoked but also the high percentage who smoked more than 10 cigarettes a day.

Medically and obstetrically the women in the study were generally fit and well and relating obstetric outcomes to events occurring during pregnancy is now only possible in large multi-centre studies.(45) The number of women in the study was too small to show significant differences in obstetric outcomes.

Underlying medical conditions were not usual and only 1.4% of these women required hospital admission during pregnancy because of illness or disability. All the babies born to these women survived as did those born to women who had obstetric complications during their pregnancy and who were admitted to hospital. Outcome was optimum for 74% of women who had previously had a low birthweight infant.

The two perinatal deaths occurred to women who were medically and obstetrically fit at their antenatal visits. They had booked before 12 weeks gestation and had not defaulted.

In general terms the women in the study had a good obstetric outcome as measured by birthweight of baby, gestation and admittance to Special Care Baby Unit no

matter what was their age, socio-economic circumstances or underlying medical and obstetric condition. There was no difference in the type or frequency of antenatal care they received or where they received it. The women were just as likely to have received all or the majority of antenatal care from a midwife or a general practitioner as from an obstetrician. The vast majority of them (93%) received all or part of their care at a community clinic near to their home.

Availability of community care (Recommendation 10, Ch.3)

Community care was widely available in the East End of Glasgow and there was variation in the type of antenatal care available at the 26 clinics. The clinics varied from those run entirely by a midwife to those run by a consultant with support from a midwife. There has been a definite change in the role of the midwife in clinical antenatal care. One third of the community clinics were run by a midwife and 47% of women receiving community antenatal care received part or all of their clinical care by a midwife. There was closer liaison between midwives and consultants yet in some clinics midwives were not acting to the full extent of their role, as defined by the World Health Organisation and accepted by the United Kingdom

Central Council for Nurses, Midwives and Health Visitors (46) and only supported doctors undertaking the clinical care.

Community clinics were usually smaller than those taking place in the hospital and waiting times were shorter. Women were more likely to receive continuity of care at a community clinic and this they appreciated. Other studies have shown that many women prefer to attend clinics nearer to home (35)(36) and in some instances it is thought attendance was improved because of this.(6) A shorter time travelling and waiting at antenatal clinics is especially important to multiparous women who may have difficulty finding someone to care for their other children. Women were reluctant to bring children to the clinics where play facilities were very limited. None of the clinics in the study had adequate play material or space for children. This is one of the features looked in a recent analysis of out-patient department services.(47) One of its recommendations is that toys and books should be available in the waiting area for children accompanying parents to out-patient departments.

The study reinforced the previous findings of Reid & McIlwaine (35)(36) that the community clinics were cheaper to get to, more convenient for women and especially appreciated by multiparae.

Approximately half the women in the study said however, that they preferred to attend the hospital clinics. The most commonly given reasons for this were the availability of sophisticated diagnostic equipment and wanting to meet the hospital doctors and midwives. The access to "technical care" was therefore perceived as important to women as well as the more traditional concept of continuity, which to most women was only a question of "knowing some faces" when they went into labour.

Both "technical care" and true continuity of care could be provided in the community. Studies (48)(49) have shown that the introduction of a "Domino Scheme" whereby community midwives and general practitioners give antenatal care in the community and also deliver the babies in hospital greatly improves continuity of care and is much appreciated by women. Ultrasound scanning and cardio tochograph monitoring can also be provided for antenatal women at community clinics and women need not attend hospital at all during their pregnancy.(50)

This concept of total community care is a paradox of the Montgomery Report (24) which recommended that those delivering the babies should undertake the antenatal care. In this case for the majority of women with normal medical and obstetric characteristics, those who give antenatal and postnatal care also deliver the babies but the three aspects of care are given by the community not the hospital-based team.

A complementary study documenting the views of the providers of care (51) had shown that one of the perceived problems with undertaking antenatal care in the community was lack of facilities for ultrasound scanning. Another problem identified was the difficulty in ensuring efficient liaison between hospital and community in the fragmented "shared-care" system. This was something the community midwife often took responsibility for. Not only did she ensure information was available to providers of care but also endeavoured to keep the woman informed. Interestingly one of the purposes of the integration of the maternity services, recommended as part of the reorganisation of the health service in 1974 was to establish continuity of care between hospital and community services.(52)

Midwives' involvement (Recommendation 12, Ch.4)

Choice and type of provider of antenatal care to women was limited. Although the women in the study received a variety of forms of antenatal care as shown by the small numbers attending some clinics, the women themselves were not in a position to choose what type of care they would prefer. Who their general practitioner was, where he/she practised in effect decided the care they would receive. Those attending a general practitioner who liked obstetrics and wanted to undertake antenatal care himself received shared care between the hospital and general practitioner. Who a woman's consultant was decided how much of that care was undertaken in the community and how much at the hospital. Those women attending a general practitioner who had a midwife attached to his/her practice may have received shared care between the midwife and the hospital or between the midwife/general practitioner/hospital. Awareness of the importance of choice in provider of care and the role of the midwife has been shown and a recent suggested target to be achieved by the year 2000 aims to: "offer all women with low risk pregnancies the possibility of antenatal care that is shared between midwives, general practitioners and hospital

consultants."(53) If and how the current situation will change in response to the Government White Paper "Working for Patients" (54) will be of interest.

Individual Needs and Flexibility (Recommendation 13, Ch.4)

The study showed also little choice in variation in the amount of antenatal care women received and the frequency of their visits. The 1929 "package approach" applied no matter the parity of the woman, the status of her pregnancy, her socio-economic circumstances or the type of community antenatal care she received. At only one peripheral consultant clinic did this pattern possibly vary. The study on the view of providers of care (51) had shown that only 64% of consultants and 8% of midwives and 11% of general practitioners were familiar with the work done by Hall et al in Aberdeen which recommended fewer visits for a specific purpose.(4) They were, however, aware of schemes where these recommendations were practised and functioning well.(6)(28)

The women in the study although having given an overall preference for venue of antenatal care were generally well satisfied with the antenatal care they received no matter where it took place and who gave it. Many of them indicated that they themselves had

been born at Glasgow Royal Maternity Hospital and there was obviously a feeling of goodwill towards the hospital. Their only complaint in general terms was about waiting times especially at the hospital clinics.

Answers to more specific questions, however, were revealing. Explanations and answers to questions were not always given and many women did not feel they received any emotional support. It had been observed in the non-participatory observation study at the community clinics that this was something the midwives at their clinics did try to do. Some women while asking their doctor about other medical problems did voice anxieties about marital and financial problems and worries about their pregnancy including the effect on other children to the midwife. In all cases observed the midwives listened and gave advice and support to the women. Whether midwives are perceived to be concerned with more than just the safe delivery of the baby or whether women relate better to another woman in a professional role is not known.

When asked what they thought important from antenatal care 76% of women gave practical answers: a shorter wait, more opportunity to ask questions and more information about care of the baby. The latter statement was surprising in view of the fact that only

6% of women attended parentcraft classes and indicated that while attendance at formal classes was not acceptable to women, they still wanted parentcraft information.

Conclusions

Changes in delivery of community antenatal care in the East End of Glasgow in response to the Royal College of Obstetricians Working Party Report on Antenatal and Intrapartum Care (5) have been limited.

The study showed, however, that while women's expectations may have been low they were generally satisfied with the care they received no matter whoever the provider and wherever the place attended, obstetric outcomes were good.

The specific conclusions of the study are:

1. There is a wide range of community antenatal care available to women in the East End of Glasgow. All women, however, have to attend Glasgow Royal Maternity Hospital for ultrasound scanning and the majority have to attend the hospital for obstetrician led care.

2. The midwives' role has expanded, although not all midwives are undertaking clinical antenatal care on their own responsibility as indicated as the role defined by the World Health Organisation. (46)

3. There is some duplication of resources between general practitioners, midwives and obstetricians.

4. The amount of antenatal care and frequency of antenatal visits still follows the recommended 1929 pattern of care.(1) A woman's individual circumstances, needs or wishes are not always taken into account. Often arrangements are not flexible and little choice is available to women.

5. Some of the needs of women at their antenatal visits are not met. Preparation for parenthood and for "integration of the child in the family" as recommended by Kerr (3) does not take place in a form readily acceptable to most women.

The Way Forward

1. Choice of place and provider of antenatal care should be offered to all women with normal pregnancies. Some women prefer to attend Glasgow

Royal Maternity Hospital for all their care and some prefer the community clinics. As well as being more preferable to women this could cut down the number attending busy clinics and improve continuity of care.

2. Peripheral consultant care should be more widely available to more women.

3. Further development of a more personalised antenatal service should take place. Account should be made of a woman's general health, socio-economic circumstances, feelings about her pregnancy, knowledge of pregnancy, labour and childcare and her family responsibilities when her antenatal care is being planned.

4. Further study into the duplication of care between midwives and doctors and appropriate use of the midwife should be made. It is of note that this latter recommendation is the subject of the only reference to midwives in the recent Government White Paper reviewing the health service.(54)

5. A randomised control trial probably multi-centred is indicated in order to discover if a relationship exists between outcome of pregnancy and type and provider of antenatal care.

6. Ultrasound scanning by midwives, as carried out in other areas (50) should be available in the community.

7. Liaison between hospital and community at all stages of care should be improved. The implementation of a computerised Patient Administration System could help this.

8. Preparation for parenthood should become part of the antenatal clinic visit for those who do not wish to attend formal classes.

The World Health Organisation has declared that by 1990 "Every participating country should have developed methods to monitor the quality of the services provided within all areas of the health care system."(55) One of the factors to be considered in any assessment of quality is the consumer view.

The East End Antenatal Study was an evaluation of the existing service in regard to consumer need and satisfaction and provides information useful to those planning and monitoring a more consumer orientated service.

Achieving change especially towards a more consumer orientated perspective may, however, be slow and difficult. It involves understanding and accepting different concepts, different attitudes as well as different practice. Education, preparation and support are necessary and as recommended new practices and innovations must be monitored. Extra financial resources may also be needed.

REFERENCES

1. Ministry of Health (1929) Maternal Mortality in Childbirth. Memorandum 145/MCN. Antenatal Clinics and their Conduct and Scope London: HMSO, Section F

2. Kitzinger S. (1978) The Experience of Childbirth (Fourth Edition). Middlesex, Penguin, Ch.3, pp 63-64

3. Parboosingh J., Kerr M. (1982) Innovations in the Role of Obstetric Hospitals in Perinatal Care in Eds. Enkin M. and Chalmers I. Effectiveness and Satisfaction in Antenatal Care. London: Spastics International Medical Publications/Heineman Medical Books, Ch.19, pp 254-265

4. Hall M., Chng P. and McGillivray I. (1980) Is Routine Antenatal Care Worthwhile? Lancet ii, pp 78-80

5. Royal College of Obstetricians and Gynaecologists (1982) Report of Working Party on Antenatal and Intrapartum Care, Ch.3-4, pp 10-13

6. McKee I. (1984) Community Antenatal Care. The Sighthill Community Antenatal Scheme. In Eds. Zander L., Chamberlain G. Pregnancy Care for the 1980s. London: The Royal Society for Medicine, Ch.5, pp 35-36

7. Glasgow Royal Maternity Hospital (1866) Annual Report. Glasgow: Aird & Coghill, p 7

8. Glasgow Royal Maternity Hospital (1912) Annual Report. Glasgow: Aird & Coghill, p 24

9. Oakley A. (1984) The Origins and Development of Antenatal Care. In Eds. Enkin M., Chalmers I. Effectiveness and Satisfaction in Antenatal Care. London: Spastics International Medical Publications/Heineman Medical Books, Ch.1, p 4

10. Dow D. (1984) The Rottenrow. Lancashire: The Parthenon Press Ltd, Ch.7, p 89

11. Glasgow Royal Maternity Hospital (1915) Annual Report. Glasgow: William Rodger & Co, p 31

12. Chalmers A.K. (1930) The Health of Glasgow 1818-1925. Glasgow: Bain & Bell, Ch.9, pp 189-248

13. Llewelyn Davies M. (1915) Maternity letters from Working Women. London: C. Bell (reprinted Virago Books 1984)

14. MacGregor A. (1967) Public Health in Glasgow 1905-1964. Edinburgh: Livingstone, Ch.8, pp 120-123

15. Medical Officer of Health for the City of Glasgow (1948) Annual Report. Glasgow: Corporation of Glasgow, p 53

16. Central Midwives Board (1937) Midwives Rules. London: Central Midwives Board/Spottiswood, Section E, Rule 16C

17. Ministry of Health (1924) Maternal Mortality Report No.25 on Public Health and Medical Subjects. London: HMSO

18. Baird D. (1946) Correspondence between Baird D. & Titmuss R. as quoted in Oakley A. The Captured Womb (1984). Oxford: Blackwell, Appendix ii, p 316

19. Wrigley A.J. (1934) A Criticism of Antenatal Work. British Medical Journal i, pp 891-894

20. Department of Health for Scotland (1935) Report on Maternal Mortality and Morbidity. Edinburgh: HMSO

21. Baird D. (1946) Correspondence between Baird D. and Douglas J. as quoted in Oakley A. (1984) The Captured Womb. Oxford: Blackwell, Appendix ii, p 311

22. Royal College of Obstetricians and Gynaecologists and the Population Investigation Joint Committee (1948) Maternity in Great Britain. Oxford: Oxford University Press, Ch.4, p 38

23. Griggs B. (1985) Health on the Home Front. New Health, May, pp 30-35

24. Department of Health for Scotland (1959) Scottish Health Services Committee. Maternity Services in Scotland (The Montgomery Report). Edinburgh: HMSO. Ch.III, Item 22

25. Baird D. (1960) The Evolution of Modern Obstetrics. Lancet ii, pp 557-564

26. Richards I.D.G., Donald E.M. and Hamilton F.M.W. (1970) The Use of Maternity Care in Glasgow in Eds. McLachlan G., Shegog R.F. In the Beginning. London: Oxford University Press, Ch.5, p 117

27. Chalmers I., Richards M. (1977) Intervention and Causal Inference in Obstetric Practice. In Eds. Chard T. and Richards M. Benefits and Hazards of the New Obstetrics. London: Spastics International Medical Publications/Heineman Medical Books, Ch.3, p 37

28. Hall M., MacIntyre S., Porter M. (1985) Antenatal Care Assessed. Aberdeen: University Press, Ch.2

29. Cochrane A.L. (1971) Effectiveness and Efficiency. London: Nuffield Press, p 66

30. Illich I. (1975) Medical Nemesis. London: Calder & Byrars, Ch.2, p 48

31. Thornhill Neighbourhood Project (1987) Antenatal Care Who Benefits? Part I, pp 9-12

32 MacIntyre S. (1984) Consumer Reaction to Present Day Antenatal Services in Eds. Zander L., Chamberlain G. Pregnancy Care for the 1980s. London: The Royal Society of Medicine, Ch.2, p 9

33. McIlwaine G. (1980) Oral Evidence to the Social Services Committee on Perinatal and Neonatal Mortality as quoted in Eds. Enkin M., Chalmers I. Effectiveness and Satisfaction in Antenatal Care. London: Spastics International Medical Publications/Heineman Medical Books, Ch.19, p 266

34. Huntingford P. (1978) Obstetric Practice, Past, Present and Future in Eds. Kitzinger S., Davis J. The Place of Birth. London: Oxford University Press, Ch.15, p 24

35. Reid M., McIlwaine G. (1980) Consumer Opinion of a Hospital Antenatal Clinic. Social Science and Medicine, 14A, pp 363-368

36. Reid M., Gutteridge S., McIlwaine G. (1983) A Comparison of the Delivery of Antenatal Care Between a Hospital and a Peripheral Clinic. Edinburgh: Scottish Home and Health Department

37. Office of Population and Census Surveys (1980) Classification of Occupations. London: HMSO

38. Information Services Unit (1985) Ten year Report 1974-1983. Glasgow: Greater Glasgow Health Board, Ch.15, pp 113-121

39. Information Services Unit (1982) Census Tables for Greater Glasgow Health Board and Its Constituent Health Districts. Greater Glasgow Health Board

40. Strathclyde Regional Council (1985) Unemployment in Strathclyde. Glasgow: Chief Executive Department, Table 3

41. Information Services Unit (1984) Maternity Statistics 1983. Greater Glasgow Health Board

42. Williams S., Forbes J., McIlwaine G., Rosenberg K. (1987) Poverty and Teenage Pregnancy. British Medical Journal 294, pp 20-21

43. Planning Department (1986) "Gear" Location Plan. Glasgow: City of Glasgow District Council

44. Jacobsen B. (1986) Beating the Ladykiller. London: Pluto Press Ltd, Ch.7, p 72

45. Lilford R.J. (1987) Clinical Experimentation in Obstetrics. British Medical Journal 295, pp 1298-1300

46. UKCC (1986) A Midwife's Code of Practice. London: United Kingdom Central Council for Nursing, Midwifery and Health Visiting, p 1

47. Scottish Management Efficiency Group (1988) Report of Steering Group on the Organisation and Management of Out-Patient Clinics. Edinburgh: SCOTMEG, Section 3, p 20

48. Flint C. (1988) Know Your Midwife. Nursing Times, Vol.84, No.38, pp 28-32

49. Marsh G.N., Channing, D.M. (1989) Audit of 26 Years of Obstetrics in General Practice. British Medical Journal 298, pp 1077-80

50. The Sighthill Maternity Team (1982) Community Antenatal Care The Way Forward. Scottish Medicine, April, pp 5-9

51. Williams S., Dickson D., Forbes J. McIlwaine G., Rosenberg K. (1987) The Providers of Antenatal Care in the East End of Glasgow, pp 21-22. Report Greater Glasgow Health Board

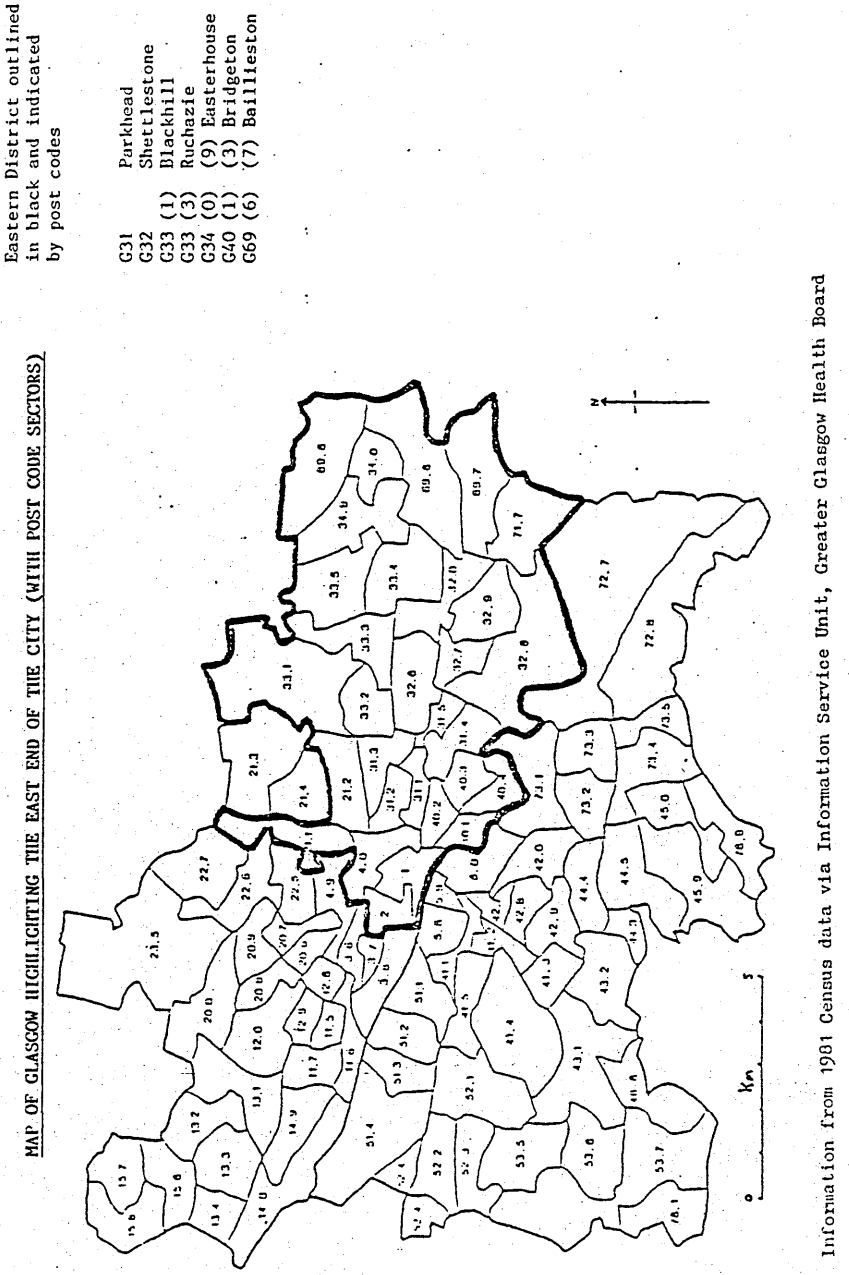
52. Scottish Home and Health Department (1973) Maternity Services. Integration of Maternity Work. Edinburgh: HMSO, Ch.I, p3

53. Smith A., Jacobsen B. (1988) The Nation's Health. A Strategy for the 1990s. London: King Edward's Hospital Fund, Ch.17, p 260

54. Department of Health (1989) Working for Patients. London: HMSO, Ch.2, p 15

55. World Health Organisation (1986) Health for All 2000. Geneva: World Health Organisation, Target 31, p 14

APPENDIX I Map of Glasgow highlighting the East End of the City (with post code sectors)



APPENDIX II Antenatal Questionnaire

PLEASE DO NOT WRITE ANYTHING IN BOXES

ANTENATAL SURVEY (1st Questionnaire)

1. Hospital Case Reference No. (if known) ☐☐☐☐☐☐
2. Name of Consultant (if known) .....
3. Name of G.P. ..... ☐☐
4. Name of Midwife ..... ☐☐
5. Date of interview ..... ☐☐☐☐☐☐
6. Place of interview (please circle as appropriate)
   1. Baillieston H/C
   2. Bridgeton H/C
   3. Townhead H/C
   4. Easterhouse H/C
   5. Other (please state) ..... ☐
7. Is this: (please circle)
   1. Consultant clinic
   2. Midwives clinic
   3. G.P. clinic ☐
8. Patient's name: ..... ☐☐☐☐☐☐☐☐☐☐
   Address: .....
   .....
   Postal Code: ..... ☐☐☐☐☐☐
9. Date of Birth ..... ☐☐☐☐☐☐

For Multigravidae Only

10. How many children have you? ..... ☐
11. How old are they? Child 1 ..... (yrs) ☐☐
    Child 2 ..... ☐☐
    Child 3 ..... ☐☐
    Child 4 ..... ☐☐
    Child 5 ..... ☐☐
12. Were any of your children born under 5½ lbs?
    (please circle) 1. Yes
    2. No
    3. Do not know ☐

13. If yes, how much did he or she weigh?

Baby 1 .....
Baby 2 .....
Baby 3 .....

14. Have any of your children been born in G.R.M.H? (please circle)

1. Yes
2. No

15. Where are your pre-school children today? (please circle)

1. With mother
2. At playgroup/nursery
3. At home of friends or relatives
4. At own home with friends or relatives
5. Other (please state) .....

Current Pregnancy

Can I ask some questions about yourself now?

16. How have you been feeling? (please circle)

1. Well
2. Quite well
3. Not well

If 3, please specify .....

17. How tall are you? .....

ft ins

18. What is your weight now? .....

st lbs

19. How many weeks pregnant are you? .....

20. What symptoms did you have? (please circle)

1. Missed period
2. Felt sick
3. Breast fullness
4. Other (please state) .....

21. How far on was your pregnancy then? .....

22. How many weeks pregnant were you when you first saw your G.P? .....

Advice and Support

38. Who are you most likely to ask about health/pregnancy problems?

1. Husband (please circle)
2. Mother
3. Sister
4. Friend
5. G.P.
6. Clinic staff
7. Other ..... (specify)

39. Would you say you had any worries during this pregnancy? (please circle)

1. Yes
2. No

If yes, what? .....

Is there anything that would help? .....

.....

Can I ask you about getting to A/N clinic?

40. How did you get here?(please circle)

1. Walked
2. Bus
3. Car
4. Taxi
5. Train
6. Other ..... (specify)

41. Did you have any difficulties getting here? (please circle)

1. Yes
2. No

If yes, what? .....

42. How long did it take?(please circle)

1. Under 15 mins.
2. 15-30 mins.
3. 30 mins. - 1 hr.
4. Over 1 hr.

43. How much did it cost? (one way only)

1. Nothing (please circle)
2. Under 50p
3. 50p - £1
4. Over £1
5. Do not know

44. Would you say this clinic is convenient for you? (please circle)

1. Yes
2. No

Why? .....

45. Have you any comments you would like to make about A/N services at this clinic/hospital?

APPENDIX III Postnatal Questionnaire

ANTENATAL SURVEY (2nd Questionnaire)

FOR OFFICE USE ONL

Identification

1. Hospital no. ☐☐☐☐☐☐
2. Mother's name .....
3. Address .....
4. Postal code ..... ☐☐☐☐☐☐
5. Date of Birth ..... ☐☐☐☐☐☐
6. General Practitioner's name: .....
   address: .....

Baby

7. How is your baby? (Please circle) 1. Well
   2. Ill ☐
   3. Problems

If 2 or 3, please explain .....
.....

8. What is your baby's date of birth? ..... ☐☐☐☐☐☐
9. How much did he/she weigh? ...../..... ☐☐☐☐
   (lbs/ozs) (lbs/ozs)
10. Was the baby in the ward with you right from the start?
    Please circle: 1. Yes
    2. No ☐

11.(a) If NO, was he/she admitted to the Special Care Baby Unit?
Please circle: 1. Yes
2. No ☐

(b) Were you admitted to the intensive care unit after problems at delivery.
Please circle: 1. Yes
2. No ☐

If YES was the baby in intensive care with you?
Please circle: 1. Yes
2. No ☐

FOR OFFICE USE ONL

12. If admitted to the Special Care Baby Unit, is he/she still there?

Please circle 1. Yes
2. No

(b) If NO, how long was he/she there? .....(days)

(days)

13. Why was he/she admitted there?

.....

The Birth & Postnatal Stay

14. How was the birth?

Please circle: 1. Better than expected
2. Worse than expected
3. As expected

15. What type of delivery did you have?

Please circle: 1. Normal delivery
2. Forceps
3. Caesarean Section
4. Other, please state .....

If 2,3 or 4 – do you know why you had this type of delivery? .....

.....

16. Was your stay in the postnatal ward –

Please circle: 1. better than expected
2. worse than expected
3. as expected

17. How do you feel now?

Please circle: 1. Well
2. Tired
3. Not well
4. Quite well

If 3 or 4, please explain .....

.....

18. Do you know how much you weighed at birth? ..../....
(lbs/ozs)

(lbs/ozs)

FOR OFFICE USE ONLY

The next part of the questionnaire deals with your antenatal care.

19. Where did you receive your antenatal care?
Please circle numbers appropriate:

1. At Glasgow Royal Maternity Hospital
2. At your General Practitioner's surgery
3. At a community clinic run by hospital staff.

20. What did you think about the clinics you attended generally speaking?
Please circle:

1. Excellent
2. Satisfactory
3. Unsatisfactory
4. Very unsatisfactory

21. If 3 or 4, about which place did you think it?
Please circle numbers appropriate:

1. General Practitioner's surgery
2. Glasgow Royal Maternity Hospital
3. Community clinic run by hospital staff.

Why did you think it/them unsatisfactory?.....
.....
.....

22. Do you think you paid your first visit to the hospital clinic (or Dr. Howat's Easterhouse clinic) -
Please circle:

1. at the right stage in your pregnancy
2. too late
3. too early
4. do not know

Could you please explain your reply? .....
.....
.....

FOR OFFICE USE ONLY

Visit to General Practitioner's Surgery

23. How many visits did you make to your General Practitioner's surgery for antenatal care? ..... |__|__|
    (a) How many times did a midwife carry out your antenatal care at your doctor's surgery? ..... |__|__|
    (b) How many times did a doctor carry out your antenatal care at your doctor's surgery?..... |__|__|

For women who attended Dr. Howat's consultant clinic at Easterhouse Health Centre only

24. (a) How many times did a midwife conduct your antenatal care?..... |__|
    (b) How many times did a hospital doctor conduct your antenatal care?..... |__|
25. At the midwives' clinic, how many midwives conducted your antenatal care?..... |__|__|

26. At the hospital doctor's clinic, how many doctors carried out your antenatal care?..... |__|__|

For all women who attended Glasgow Royal Maternity hospital for antenatal care

27. (a) How many times did a midwife conduct your antenatal care?..... |__|
    (b) How many times did a hospital doctor conduct your antenatal care?..... |__|
28. At the midwives' clinic, how many midwives carried out your antenatal care?..... |__|__|
29. At the hospital doctors' clinic, how many doctors carried out your antenatal care?..... |__|__|
30. Do you think it is important that the same person carries out your antenatal care?
    Please circle: 1. Yes
    2. No |__|
    3. Not sure

FOR OFFICE USE ONLY

31. Excluding antenatal visits, how many times did you visit the hospital for:-
Please circle number as appropriate -

1. Blood tests.....
2. Scan .....
3. Amniocentesis.....
4. Parent craft.....
5. Other.....

If 5, please explain.....
.....

32. At each antenatal visit did you have your blood pressure taken?
Please circle: 1. Yes
2. No

If NO, what type of clinic was this NOT carried out?
Please circle numbers as appropriate:

1. General Practitioner's surgery.
2. Easterhouse clinic (Dr. Howat's clinic)
3. Hospital

33. At each antenatal visit did you have your abdomen examined?
Please circle: 1. Yes
2. No

If NO, what type of clinic was this NOT carried out.
Please circle numbers appropriate:

1. General Practitioner's surgery
2. Easterhouse clinic (Dr. Howat's clinic)
3. Hospital

FOR OFFICE USE ON

34. At each antenatal visit did you have your urine tested?
Please circle: 1. Yes
2. No
If NO, what type of clinic was this NOT carried out?
Please circle numbers as appropriate:
1. General Practitioner's surgery
2. Easterhouse clinic (Dr. Howat's clinic)
3. Hospital

35. What do you think you got out of your antenatal visits?
Please circle numbers appropriate:
1. reassurance
2. questions answered
3. procedures explained
4. expert care and diagnosis
5. emotional support
6. other, please explain
.....
.....

36. Do you think you had:
Please circle: 1. too many antenatal visits
2. too few
3. the right number of visits

37. Was it easy for you to attend for antenatal care?
Please circle: 1. Yes
2. No
If NO, why?.....
.....

38. Was it easy to make arrangements for your other children?
Please circle: 1. Yes
2. No
3. Not applicable

39. What would you prefer to do with children when you attended for antenatal visits?
.....

FOR OFFICE USE ON

40. At what time of day would you have preferred to attend for antenatal care?
Please circle: 1. morning
2. afternoon
3. evening
4. do not mind

41(a). How long did you usually have to wait before being examined at your General Practitioner's surgery?
Please circle: 1. less than 15 mins.
2. 15-30 mins.
3. 30 mins-1 hr.
4. 1 hr-2 hrs.
5. over 2 hrs.

(b) How long did you usually have to wait before being examined at Glasgow Royal Maternity Hospital.
Please circle: 1. less than 15 mins.
2. 15-30 mins.
3. 30 mins-1 hr.
4. 1 hr-2 hrs.
5. over 2 hrs.

For those who attended Dr. Howat's Easterhouse clinic only

(c) How long did you usually have to wait before being examined?
Please circle: 1. less than 15 mins.
2. 15-30 mins.
3. 30 mins-1 hr.
4. 1 hr-2 hrs.
5. over 2 hrs.

42. Do you think the waiting time at antenatal clinic is -
Please circle: 1. reasonable
2. too long

43. If 2, where was it too long?
Please circle numbers appropriate:
1. General Practitioner's surgery
2. Easterhouse clinic (Dr. Howat's surgery)
3. Glasgow Royal Maternity Hospital

FOR OFFICE USE ONL

44. Was there any time you were unable to keep an antenatal appointment?
Please circle: 1. Yes
2. No

45. If yes, what did you do about it?
Please circle as appropriate:
1. Contacted clinic/surgery beforehand to make another appointment.
2. Contacted clinic/surgery as soon as possible afterwards to make another appointment.
3. Nothing.

46. If you could have chosen one person to have regular contact with throughout the pregnancy who would it have been?
Please circle: 1. Midwife
2. General Practitioner
3. Hospital doctor
4. Hospital consultant

FOR OFFICE USE ONLY

47. Which place did you prefer attending most for antenatal care?
Please circle: 1. General Practitioner's surgery
2. Easterhouse clinic (Dr. Howat's clinic)
3. Hospital

48. Did you feel all your questions were answered and all procedures explained fully at -
Please circle numbers appropriate:
1. General Practitioner's surgery
2. Easterhouse clinic (Dr. Howat's clinic)
3. Hospital

49. Who was the consultant who looked after you in hospital? Name:.....

50. Did you see him/her -
Please circle numbers appropriate:
1. During antenatal visits
2. During labour and/or delivery
3. After the baby was born

51. If you were worried about anything concerning your pregnancy, who did you discuss it with?
Please circle numbers appropriate:
1. Midwife
2. General Practitioner
3. Hospital Doctor
4. Consultant
5. Husband
6. Mother
7. Other relation
8. Friend
9. Someone else (please state who):
.....

52. Did a midwife visit you at home during your pregnancy?
Please circle: 1. Yes
2. No

FOR OFFICE USE ONLY

53. Did you talk to a Health Visitor during your pregnancy?
Please circle: 1. Yes
2. No

If yes, where?
Please circle numbers appropriate:
1. At home
2. At antenatal clinic
3. At child health clinic
4. Other place (please state where):
.....

54. Did you talk to Social Worker during your pregnancy?
Please circle: 1. Yes
2. No

If yes, where?
Please circle numbers appropriate:
1. At home
2. At his or her office
3. At antenatal clinic
4. Other (please state where):
.....

55. If you DID NOT talk to Health Visitor, would you have liked to have seen one?
Please circle: 1. Yes
2. No
3. Do not know

56. If YES, where would you prefer to talk to one?
Please circle: 1. At home
2. At antenatal clinic
3. At child health clinic
4. Other (please state where):
.....

57. If you DID NOT talk to a Social Worker would you have liked to?
Please circle: 1. Yes
2. No
3. Do not know

58. If YES, where would you prefer talk to one?
Please circle: 1. At home
2. At antenatal clinic
3. At their office
4. Other (please state where):
.....

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59. Were you admitted to hospital during your pregnancy?
    Please circle: 1. Yes
    2. No
    If YES, why .....

60. How did that admission come about?
    Please circle: 1. Felt unwell and contacted General Practitioner or hospital.
    2. Something discovered at routine antenatal visit.

61. You saw a number of people during your antenatal care, did you see any of the same people again when you came into hospital to have your baby?
    Please circle: 1. Yes
    2. No
    If YES, who?
    Please circle numbers appropriate:
    1. Consultant
    2. Midwife
    3. Radiologist
    4. Hospital Doctor
    5. General Practitioner

62. Do you think it important to see a doctor or midwife you know during labour?
    Please circle: 1. Yes
    2. No

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63. Would you look at the list below and put a tick in the column you think most appropriate, i.e. if you think more opportunity to ask questions is very important, put a tick in the box marked 'very important'.

	V. imp.	Imp.	Fairly imp.	Not imp.
1. More privacy at consultation				
2. Fewer visits				
3. Shorter waiting times				
4. More opportunity to ask questions				
5. Better information or explanations				
6. More information about care of baby				
7. Continuity of care (i.e. seeing same doctor and/ or midwife each visit)				

8. Other, please state.....
.....

64. Where would you prefer to attend for antenatal care?

Please circle: 1. General Practitioner's surgery. ☐
2. Easterhouse clinic (Dr. Howat's clinic). ☐
3. Hospital. ☐

65. Why was this? (Please give several reasons if appropriate).....
.....
.....
.....
.....

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66. How much did cost to attend (one way only please)
Please circle: 1. General Practitioner's surgery. ..... ☐
2. Easterhouse clinic (Dr. Howat's clinic) ..... ☐
3. Glasgow Royal Maternity Hospital. ..... ☐

67. How long did it take to get to -
Please circle: 1. General Practitioners's surgery. .....hrs....mins ☐
2. Easterhouse clinic (Dr. Howat's clinic). .....hrs....mins ☐
3. Glasgow Royal Maternity Hospital. .....hrs....mins ☐

68.(a) If you attended your General Practitioner's surgery for antenatal care, how did you usually travel?
Please circle: 1. Car
2. Bus
3. Train
4. Taxi
5. Walk ☐
6. Other.....

(b) If you attended Glasgow Royal Maternity hospital for antenatal care how did you usually travel there?
Please circle: 1. Car
2. Bus
3. Train
4. Taxi
5. Walk ☐
6. Other.....

(c) If you attended R. Howat's Easterhouse clinic how did you usually travel?
Please circle: 1. Car
2. Bus
3. Train
4. Taxi
5. Walk ☐
6. Other .....

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Any change in circumstances?

69. Is this the same address as you gave at your first antenatal visit?
Please circle: 1. Yes
2. No
If NO, how many moves have you had during your pregnancy? .....

70. Has anyone in your family become unemployed during your pregnancy?
Please circle: 1. Yes
2. No
If YES, who? .....

71. Has anyone in your family found employment during your pregnancy?
Please circle: 1. Yes
2. No
If YES, who? .....

Thank you for your help. Is there anything you would like to add?

APPENDIX IV Clinic Observation Broadsheet

EVALUATION OF ANTENATAL CARE PROVISION IN GLASGOW'S EAST END

Date ☐☐☐☐☐☐

Clinic Visit

1. Name of clinic .....
2. Times of clinic ..... ☐
3. Length of clinic ..... ☐
4. Type of clinic: 1. Midwives clinic
   2. G.P. clinic
   3. Consultant clinic ☐

If 1 or 2 has this clinic direct liaison with a consultant at G.R.M.H?

1. Yes ☐
2. No

If yes, who?

3. Draw diagram of clinic layout:

4. Please describe what happens to patients on arrival at clinic:

5. Who do patients see for clinical antenatal care?

1. G.P. ☐
2. Midwife ☐
3. Consultant ☐
4. Senior Registrar ☐
5. Other (please state) ..... ☐

6. Does the same person who undertakes clinical care take Bp., test urine and weigh patients?

   1. Yes
   2. No
   3. Usually ☐

   If 2, who does this routinely?

   1. G.P. ☐
   2. Midwife ☐
   3. Receptionist ☐
   4. Nursing Auxiliary ☐
   5. Other (please state) ..... ☐

7. Who makes clinical management decisions?

   1. Depends on what it is ☐
   2. Midwife ☐
   3. G.P. ☐
   4. Consultant ☐
   5. Senior Registrar ☐
   6. Other (please state) ..... ☐

   If 1, please explain:

8. How many women attended clinic? ☐☐

9. How many women defaulted without previously informing clinic? ☐☐

10. What is average waiting time before clinical care runs? ☐☐☐

11. How long did clinical care take? ☐☐

12. Did this involve urine testing, Bp., weighing?

    1. Yes
    2. No ☐

13. What waiting facilities are there?

    1. Books, magazines ☐
    2. Antenatal leaflets ☐
    3. Posters ☐
    4. Grouped chairs, etc. ☐
    5. Refreshments ☐
    6. Play facilities for child ☐
    7. Other (please state) ..... ☐

14. Which features are available regards attractiveness and convenience to women.

    1. Good decor ☐
    2. Light and airy ☐
    3. Comfortable chairs ☐
    4. Carpets or equivalent floor covering ☐
    5. Pictures, posters on walls ☐
    6. Near a bus stop ☐
    7. Frequent bus service ☐
    8. Parking facilities ☐
    9. Dispensary ☐
    10. Blood taking ☐
    11. Other (please state) ..... ☐

14. Can women readily see at clinic -

1. Health Visitor ☐
2. Social Worker ☐
3. Dentist ☐
4. Chiropodist ☐
5. Other (please state) ..... ☐

15. Of no, what arrangements are made for them to see

1. Health Visitor
2. Social Worker
3. Dentist
4. Health Visitor
5. Other (please state) .....

16. Is there enough privacy while talking to

1. Receptionist ☐
2. Midwife ☐
3. Doctor ☐
4. Health Visitor ☐
5. Social Worker ☐

17. Further comments:

APPENDIX V Scottish Morbidity Record (SMR2)

MEDICAL IN CONFIDENCE — SCOTLAND MATERNITY DISCHARGE SHEET — SMR2 Revised 1.1.85

1. GENERAL INFORMATION

Hospital Code * 1–5
Hospital Case Reference Number * 6–15
Surname * 16–27
Forename * 28
Second Initial * 29
Maiden Name * 30–41
Age ____ Date of Birth * 1 9 42–49
Marital State ____ * 50
Home Address ____
Post Code * 51–57
Occupation — Patient ____ 58–60
— Husband ____ 61–63
Date of Marriage 64–69
Obstetrician ____ * 70–75
Family Doctor ____ 76–81
Type of Antenatal Care ____ 82

2. PREVIOUS PREGNANCIES

Total Number 83
Spontaneous Abortions (Miscarriages) 84
Therapeutic Abortions 85
Caesarean Sections 86
Perinatal Deaths 87
Children now Living 88

3. CURRENT PREGNANCY

Date of Admission * 89–94
Admitted From ____ 95
Number of Previous Admissions to Any Hospital in this Pregnancy 96
Type of Admission ____ 97
Date of Booking 98–103
Original Booking for Delivery ____ 104
Blood Group ____ Rh ____ 105
Height ____ ft ____ ins 106–108
Type of Abortion ____ 109
Management of Abortion ____ 110
Sterilisation after Abortion ____ 111
Principal Complication of Abortion ____ 112
Last Menstrual Period * 113–118
Estimated Gestation at Abortion or Delivery 119–120
Certainty of Gestation based on LMP ____ 121

4. MATERNAL DISCHARGE DATA

Date of Discharge * 122–127
Condition on Discharge ____ * 128
Discharged To ____ * 129
Category of Patient ____ * 130
Unit on Discharge ____ * 131

* THESE FIELDS MUST BE COMPLETED WHEN CONDITION ON DISCHARGE = 1 OR 4

5. RECORD OF LABOUR

Method of Induction of Labour ____ 132
Presentation at Delivery or start of Operative Delivery ____ Baby 1 133
____ Baby 2 134
Mode of Delivery ____ Baby 1 135
____ Baby 2 136
Duration of Labour (In Hours) 137–139
Sterilisation after Delivery ____ 140
Date of Delivery 141–146
Number of Births this Pregnancy 147
Outcome of Pregnancy ____ Baby 1 148
____ Baby 2 149
Birthweight (GMS) Baby 1 150–153
Baby 2 154–157
Apgar Score at 5 mins Baby 1 158
Baby 2 159
Sex ____ Baby 1 160
____ Baby 2 161

6. POSTNATAL RECORD OF INFANT(S)

Special Care Baby Unit ____ Baby 1 162
____ Baby 2 163
Baby Discharged To ____ Baby 1 164
Baby 2
Case Record No. Baby 1 165–170
in this Hospital Baby 2 171–176

To be specified by Clinician

Underlying Cause of Stillbirth or Baby Death
____ Baby 1 177–180
____ Baby 2 181–184

7. MAIN CONDITION

____ * 185–192

8. OTHER CONDITIONS

____ 193–200
____ 201–208
____ 209–216
____ 217–224
____ 225–232

9. OPERATION

____ 233–240
CT 2

National Use 241–246
Local Use 247–252

KEY TO CODED ITEMS

Marital State [50]
1 = Never married (Single)
2 = Married
3 = Widowed
4 = Divorced
5 = Separated
8 = Other
9 = Not Known

Type of Antenatal Care [82]
0 = None
1 = GP Only
2 = GP care with specialist consultation
3 = Hospital Only
4 = GP and Hospital Shared
8 = Other
9 = Not Known

Admitted from [95]
0 = Not admitted
1 = Home
2 = Other hospital
3 = GP unit outwith this hospital
4 = Other speciality in this hospital

Type of Admission [97]
0 = Domiciliary (Not Admitted)
1 = Abortion (includes threatened abortion and ectopic pregnancy)
2 = Pregnant but not in labour
3 = In Labour
4 = Born before arrival
5 = Admitted after delivery at home
6 = Admitted after delivery in any hospital
8 = Other (e.g. doubtfully pregnant)

Original Booking for Delivery [104]
0 = Not booked prior to this admission
1 = Booked for Home delivery
2 = This Hospital (Consultant Unit)
3 = This Hospital (GP Unit)
4 = Other Hospital (Consultant Unit)
5 = Other Hospital (GP Unit)
9 = Not Known

Blood Group [105]
1 = O Rh –ve
2 = O Rh +ve
3 = A Rh –ve
4 = A Rh +ve
5 = B Rh –ve
6 = B Rh +ve
7 = AB Rh –ve
8 = AB Rh +ve
9 = Not Known

Type of Abortion [109]
0 = Threatened Abortion (still pregnant on discharge)
1 = Spontaneous or incomplete abortion
2 = Missed abortion
3 = Hydatidiform mole
4 = Therapeutic Abortion
5 = Suspected illegal abortion
6 = Failed therapeutic abortion
7 = Ectopic Pregnancy
8 = Unspecified abortion

Management of Abortion [110]
0 = Not operative (i.e. management of threatened or spontaneous complete abortion)
1 = D+C
2 = Vacuum aspiration
3 = Hysterotomy
4 = Prostaglandin (all forms)
5 = Amniotic infusion (other than Prostaglandin)
8 = Other (including ectopic pregnancy)
9 = Not stated

Sterilisation after Abortion [111]
0 = None
1 = Laparoscopy
2 = Laparotomy
3 = Laparoscopy Other hospital
4 = Laparotomy Other hospital
8 = Other
9 = Not stated

Principal Complication of Abortion [112]
0 = None
1 = Haemorrhage
2 = Sepsis
3 = Trauma to Cervix or uterus
4 = Damage to bowel
5 = Retained products requiring re-evacuation
8 = Other
9 = Not stated

Certainty of Gestation [121]
0 = Not applicable
1 = Certain
2 = Uncertain
9 = Not known

FULL INSTRUCTIONS FOR COMPLETING THIS FORM

Condition on Discharge [128]
0 = Domiciliary Delivery
1 = Still pregnant
2 = Aborted (all types of completed abortion)
3 = Delivered
4 = Post natal care only
5 = Pregnancy not confirmed
8 = Other (e.g. known missed abortion)

Discharged to [129]
0 = Domiciliary Delivery
1 = Home Care
2 = Other hospital - GP maternity unit
3 = Other hospital - specialist maternity unit
4 = Other hospital or institution
5 = Other unit in this hospital
6 = Died (PM)
7 = Died (No PM)
8 = Other

Category of Patient [130]
1 = Amenity
2 = Paying
3 = NHS
7 = Special arrangement (see manual)

Unit on Discharge [131]
1 = Obstetric (Consultant)
2 = Obstetric (General Practitioner)
3 = Home or Other confinement not admitted to hospital
4 = Day Case (for definition see manual)
9 = Other or Not Known

Method of Induction of labour [132]
0 = None
1 = ARM
2 = Oxytocics
3 = ARM + Oxytocics
4 = Prostaglandins
5 = ARM + Prostaglandins
6 = Prostaglandins + Oxytocics
7 = Prostaglandins + ARM + Oxytocics
8 = Other
9 = Not Known

Presentation at Delivery or start of Operative Delivery (Baby 1 and Baby 2) [133], [134]
1 = Occipito - anterior
2 = Occipito - posterior
3 = Occipito - lateral
4 = Breech
5 = Face/brow
6 = Shoulder
7 = Cord
8 = Other
9 = Not Known

Mode of Delivery (Baby 1 and Baby 2) [135], [136]
0 = Normal, spontaneous vertex, vaginal delivery, occipito - anterior.
1 = Cephalic vaginal delivery with abnormal presentation of head at delivery, without instruments, with or without manipulation.
2 = Forceps, low application, without manipulation, forceps delivery NOS
3 = Other forceps delivery. Forceps with manipulation. High forceps. Mid forceps
4 = Vacuum extraction ventouse.
5 = Breech delivery, spontaneous assisted or unspecified partial breech extraction
6 = Breech extraction. Breech extraction: NOS or Total or Version with breech extraction
7 = Elective (planned) Caesarean Section.
8 = Emergency, other and unspecified Caesarean Section
9 = Other and unspecified method of delivery

Sterilisation after Delivery [139]
0 = None
1 = Laparoscopy
2 = Laparotomy
3 = Laparoscopy other hospital
4 = Laparotomy other hospital
8 = Other.
9 = Not stated

Outcome of Pregnancy (Baby 1 and Baby 2) [147], [148]
1 = Live birth
2 = Still birth
3 = Live birth died <7 days
4 = Live birth died 7-28 days
5 = Live birth died after 28 days

Sex (Baby 1 and Baby 2) [159], [160]
1 = Male
2 = Female
8 = Other or Not Known

Special Care Baby Unit (Baby 1 and Baby 2) [161], [162]
0 = Not Admitted
1 = Admitted for up to 48 hours
2 = Admitted for more than 48 hours
9 = Not known

Baby Discharged to (Baby 1 and Baby 2) [163], [164]
1 = Home
2 = Remaining in Special Care Baby Unit
3 = Special Care Baby Unit but home with mother
4 = Transfer to Other Hospital
5 = Other Unit in same hospital
6 = Foster Home
7 = Local Authority Care
8 = Healthy baby remaining in unit after mother's discharge
9 = Dead

RETURN APPOINTMENTS

DAY AND DATE	TIME	PLACE (G.P. OR HOSPITAL)

COMPLAINTS AND SUGGESTIONS

If you have any suggestions for improvement in facilities or you feel you have cause for complaint, please speak to the Consultant in charge, Ward Sister,

THE GLASGOW ROYAL MATERNITY HOSPITAL
ROTTENROW, GLASGOW G4 0NA

SHARED CARE AND APPOINTMENT CARD

Patient's name

Address

G.P'S Name Tel. No.

Address

An appointment has been made to attend Dr _____

Ante-natal Clinic on _____ _____ at _____

If this is not suitable please inform us and an alternative appointment will be made. Bring this card and an early morning specimen of urine each time you visit the Hospital or your G.P.

WHEN IN LABOUR 'PHONE 041-552 3400

If 'phoning about hospital appointments use the same number and ask for ext. 270

..M.P.

F.M.F. — Date / Gestation

BLOOD GROUP:

RHESUS:

ate(s) of Scan Gestation

Serum AFP — (Performed / (Arranged / (Declined / (Not Performed

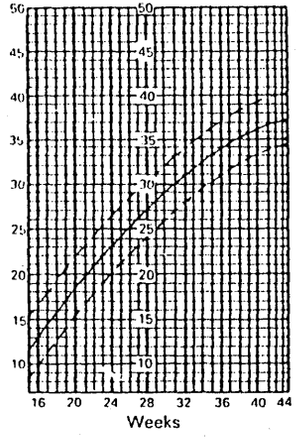
RUBELLA STATUS — IMUNE / NOT IMMUNE

Accepted

E.D.D.

ate	Weight (Kg)	B.P.	Urine Prot.	Urine Sug.	Oedema	Wks. Gest.	Fundal Height	Presentation and Mobility	FM/FH	Comment on General Health and Drugs Given	Return (Weeks)	Seen By

Cm.



Investigations & Results