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Municipal Maternity Services: Policy and Provision 1900-1939 with particular reference to Kingston upon Hull and its Municipal Maternity Home.

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by

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INTRODUCTION.

During the past fifteen years or so within the discipline of social history academics have begun to examine the development of maternal and infant welfare services. This area of study grew out of the existing interest in standards of health and health care systems and has been influenced by both the development of women's studies and the social history of medicine.[1] The emphasis upon the health and welfare of women as mothers (and of children) has generated a wide variety of studies which have not only examined the British experience but have sought to place the development of maternal and infant welfare services within the wider European and international context.[2] This thesis has been particularly influenced by some of these studies: including the work of Anna Davin who has examined the impact of population issues and imperialism in initiating the development of infant welfare services; of Jane Lewis whose work has stimulated the debate on the variety of groups working towards the implementation of a national maternity service; and finally that of Ann Oakley whose feminist perspective on the medical care of pregnant women has helped place the debate in its wider political context[3]- but also forms part of the more recent expansion of research into the variety of regional and local experience.[4] This work aims to explore the relationship between the development of national maternity policy and its implementation at the local level as well as the effect of the resulting services upon the clientele that used them and on the midwives who staffed them. By focusing on the experience of one English city this thesis aims to contribute to the discussion on the development of health services for mothers (and their babies) and in particular to examine the role of the local authority in realising a need for and providing such services. As a consequence this research looks at the work of a local health department and its relationship with the Local Government Board (and later the Ministry of Health) as essentially a study in social policy development. However, it aims to go further than simply offering an analysis of changes within local government; by retaining an interest in both clients (i.e. mothers) and health care workers (i.e. midwives) a more detailed account of the impact of such policy changes can be provided on the two groups most critically affected by policy development. Whilst the important role played by the G.P.

is recognised, this study does not attempt to examine, in any depth, their relationship with the emerging maternity and child welfare service, mothers or midwives. Furthermore, as G.P.s retained their independence within these services, they can be seen as a distinct group separate from many of the issues with which this thesis is concerned.

The example of Kingston upon Hull was chosen for a number of reasons but primarily because it did not seem on initial examination, to be a city that was either a pioneer in the development of maternal and infant welfare services or a reluctant participant in government schemes. Whilst it is important to examine those local authorities at the forefront of the development of social policy (and conversely those who were not) it is also vital to focus upon those who are not particularly unusual. In this way a more balanced picture of the progress of health policy in Britain can be provided. Although a variety of services for mothers and their babies were developed in Hull during the period 1900-1939, the Corporation itself and those responsible for implementing changes to the public health system in the city appeared on the whole to have been neither particularly enthusiastic nor particularly resistant to expansion in this area. As a consequence of this it was hoped that a study of Hull could perhaps offer the more typical response of large urban local authorities to the new public health ideology of increasing intervention and financial support for services. Other factors which made Hull a suitable area of study were its geographical location (a port on the North East coast) and social composition (including a large and occupationally varied working class) which made it an interesting comparison to work completed in other areas- such as Huddersfield, Hertfordshire and London[5]- with different economic and social structures. It was hoped therefore that this work would both complement and contrast the work of others in the field, adding to the information available on the variety of experience in different localities and, with regard to maternity hospital development, helping to shift the focus away from the capital and providing additional, more detailed and localised analysis. Moreover the additional discovery of a new and exciting documentary source relating to the Municipal Maternity Home meant that a unique

opportunity became available to examine the development of maternity policy at the local level. As little detailed work has been completed into the area of the shift towards institutional birth and the place of the maternity hospital within the maternity and child welfare service at the local level [6] it was felt that such a study would contribute greatly to our understanding of the development of health care services for women before the Second World War. It was hoped therefore that this investigation of a large urban sanitary authority in developing a maternity and infant welfare service would not only contribute to our understanding of the reasons for changes to local health policy and the interaction between local and national government on this issue, but would also provide much new information about the experience and organisation of hospital birth.

This study began with the primary aim of examining the experience of pregnancy and childbearing in light of the development of local authority maternity services and was therefore initially only concerned with women as mothers. Whilst acknowledging that it was not primarily an interest in maternal health that necessarily drove the development of maternity and infant welfare services, this work aims to place the mother at the centre of the debate and not (as others have done) to focus primarily upon either medical/health professionals or babies. However whilst this work has retained an interest more with mothers than with babies, some flexibility is required in this regard as British maternity policy did not begin with the issue of maternal health but rather grew out of a concern for the high rates of infant mortality. Although there is no doubt that infant mortality rates were high at the beginning of the century so too were rates of maternal mortality and this research therefore aims to explore the impact of these two rates upon the development of social policy at both the local and the national level and the consequences for women in terms of the experience of pregnancy and childbearing. Moreover as the demographic and eugenicist debate surrounding infant mortality proved more influential in terms of policy development than that associated with maternal mortality, some investigation of the possible reasons for this was also required. However maternity and infant welfare policy was not simply driven by the concern over mortality rates and some consideration must also be given to the

contribution of voluntary organisations and women's groups to the development of welfare services. At the same time the requirements of various groups of health care workers and officials also appear to have influenced policy development, particularly in respect of the expansion of the maternity hospital. This work also considers the needs of the midwifery training syllabus and its impact upon the development of services for mothers as this seems to have been a neglected factor in this area of policy formation. This work therefore attempts to acknowledge the complex web of factors influencing the development of maternity policy whilst retaining a primary interest in the role of local government and the way these policy changes impacted upon women's experience of childbirth.

One of the most striking changes in the experience of childbirth in the period 1900-1939 was the shift in the place of birth which occurred as more women began to have their babies in the hospital setting. However most births were still taking place at home in this period and so whilst this work aims to explore the expansion of institutional birth it also examines changes within domiciliary childbirth; not to do so would be to place too much emphasis on the hospital experience. However, because of the nature of the available data (i.e. the fact that more material was available on birth within the Municipal Maternity Home as opposed to within the domestic environment) this research devotes a substantial amount of space to the development and experience of hospital birth. However, whilst this work aims to offer much new information on the development of institutional maternity care and the experience of women who utilised this service, it is not intended to leave the reader with the impression that hospital birth was the preferred choice of most women in this period; rather it hopes to explore how policy development in this area helped determine the direction of the maternity services generally. This shift towards institutional confinements was accompanied by the expansion of maternity hospital provision and changes to local maternity policy which further encouraged the trend. Whilst it is difficult to be precise about which was most influential upon the expansion of hospital births-demand for or supply of maternity hospitals- it is clear that this trend resulted in a dramatic change in the experience of

childbirth as birth was removed from the social/domestic world and placed firmly within the medical environment of the hospital. As a result a significant proportion of this thesis concentrates on the expansion and experience of hospital birth and the reasons for the transition at the local level.

Despite such movements the midwife remained the principal birth attendant and an important part of the maternity and infant welfare service; indeed no study of the maternity services would be complete without an exploration of her contribution to the working of local schemes. However, whilst it is important to examine the contribution made by midwives and the changes to the service they provided to mothers, it is also necessary to examine how these changes impacted upon the midwives themselves. The years between 1900 and 1939 saw an increased emphasis placed upon the adequacy or otherwise of maternity care and as a result midwives found their standard of practice, education and status coming under close scrutiny by a number of agencies. Whilst this work aims to assess the role played by midwives within the developing local maternity service it also examines some of the challenges faced by midwives as a consequence of these policy changes. Particular attention is also given to the idea that professional status was uniformly improved as a result of their changing role. At the same time an examination of the work of midwives in Hull is essentially an examination of the experience of domiciliary practice (as the majority worked on the District as opposed to within the Maternity Home) and therefore some broad analysis of the experience of home birth can be made even though actual case notes no longer survive. In this way research into local midwifery fulfils two purposes; by making it possible to examine how far national and local policy decisions actually impacted upon the development of the midwifery service and therefore on the experience of individual women, and also how far such changes impacted upon the development of one group of female health care workers. Although some reference is made in this research to other female health care workers such as health visitors, an examination of their profession does not form a substantial part of this work. Health visitors inspected infants following the ending of midwifery care (10 and later 14 days following birth) and whilst recognising their

contribution to the expansion of infant welfare services, this research is primarily concerned with the experience of pregnancy and childbirth (including infants up to 14 days old) and therefore with the work of midwives.

Although this study's main aim is to examine the experience of pregnancy and childbearing in light of the development of local authority maternity services, it does not present itself as being a detailed study of the experience of all pregnant and childbearing women in Hull. The work has several limitations in that it appears that local authority maternity and infant welfare services were not patronised by all classes of women but appeared to be predominantly used by working class women. Moreover, because of the stigma associated with illegitimate birth it was not possible to make any detailed examination of the experience of unmarried women. As a consequence, this study is essentially an investigation of the impact of the development of local authority maternity and infant welfare services upon married working class women's experience of pregnancy and childbearing.

As a result of the various themes which present themselves for investigation this work falls neatly into two parts. The first focuses upon the overall development of Hull's maternity policy and examines those factors which encouraged its development as well as its impact on mothers and midwives, whilst the second analyses the expansion and experience of institutional childbirth, how the local authority became involved with providing maternity beds and who used this service. Part One is divided into three chapters; the first entitled 'Saving Babies' introduces the reader to how and why infant mortality became such an important issue, a priority on the public health agenda, and at how this influenced the development of maternal and infant welfare services at the local level. This chapter focuses particularly upon the issue of National Efficiency and the falling birth rate and highlights the importance of the 'Population Question' in initiating interest in infant welfare. Furthermore, it also sees the impact of the First World War as being a turning point for both national and local policy development. This chapter then moves on to examine how and why the local authority expanded its role in organising and funding services for infants in the inter-war years

and aims to examine how useful such services actually were and at how widely they were utilised by the mothers of Hull. Much of the material used in this chapter comes from official sources- the Local Government Board (L.G.B.), Board of Education and Ministry of Health and locally from the Annual Reports of the Medical Officer of Health and the Sanitary, Health and Maternity and Child Welfare Committees- and so is heavily influenced by the official interpretation of events. However, whilst acknowledging the limitations of this material- particularly the fact that the authors of these sources tended to see all policy developments in a positive light- this thesis is concerned with the progress of the local authority's maternity policy and its relationship with central government in this regard and so such sources are particularly useful and valuable. Unfortunately, few other primary sources are available to illustrate the work of the infant welfare movement in Hull, although some attempt has been made to acknowledge the work of local voluntary organisations and individuals.

Chapter Two continues the theme of the contribution of mortality rates in driving maternity policy by examining the impact of the maternal mortality rate-which actually rose in this period- upon the further expansion of the maternity services and is consequently entitled 'Safer Motherhood'. This chapter is also interested in the reaction of the local authority and again most of the sources used have been from official quarters. The main focus of the chapter is with the extent and impact of the debate within health departments (both nationally and locally) about the cause and cure for such a high risk of death in childbirth. It examines the argument that the issue of maternal mortality influenced the development of the maternity services and argues that such an interpretation is far too simplistic. Indeed the reverse is suggested, that the level of the maternal mortality rate actually had little influence upon the overall philosophy and direction of the maternity services. Whilst chapter two highlights the introduction of some new midwifery schemes and acknowledges that the *raison d'etre* behind them was influenced by the debate on maternal mortality, it suggests that although the health of mothers can be regarded as a factor influencing policy development it was not the only factor and by no means the most important. Furthermore, it is suggested that health

officials were never principally interested in the issue of women's health *per se* but saw women primarily as mothers and were therefore concerned with their health only in relation to their reproductive capacity.

In Chapter Three the changing position of the midwife is assessed and her role within the maternity services is examined under the title 'Managing Midwives'. Unfortunately, few records from midwives working during this period survive and much of this work is therefore based on official sources which contain much useful information about the development of midwifery locally, her role within the maternity services and her relationship with the local authority. Further information has been gained from the Central Midwives Board (the occupation's regulatory body) including details of the rules governing the profession, the nature of training courses, etc. and also from midwifery textbooks from the period. As part of another project, oral history testimony was taken from retired midwives regarding their experience of midwifery as a profession. As most of these women trained and worked in the period after 1939 it was not possible to include this data in this thesis. However, there were two women in the sample who trained between 1938 and 1940 and their recollections have been as evidence. This chapter's main concern is with the control and regulation of the midwifery profession as well as the impact of the developing maternity services upon domiciliary childbirth and the midwives place within this. As such, this chapter explores how legislative change altered the midwifery profession and what impact this then had upon the kind of service offered and therefore upon the experience of pregnancy and childbirth. It also examines the relationship between the requirements of pupil midwives and the development of municipal midwifery services in Hull and argues that the local expansion of midwifery training places initiated certain local authority maternity services. Furthermore, it also aims to focus upon the professional development of midwives themselves and argues that professionalisation was carefully controlled by the various agencies who now effectively restricted the position of midwives within the medical hierarchy and their place within the maternity services.

Part Two focuses upon the shift in place of birth which is clearly identifiable in the period 1900-1939 and is itself divided into two chapters. The first examines the development of local authority hospital-based maternity care and focuses on policy formation and the development of the local maternity hospital from its origins as a charitable organisation to an important part of the city's municipal maternity and child welfare scheme. It also seeks to explore the overall patterns of institutional admissions and confinements during the period 1900-1939 and assess some of the factors which encouraged the expansion of institutional maternity provision in Hull. This is an extremely difficult area because of the lack of available data, particularly from the women themselves, and unfortunately no ante-natal records from this period survive. Definite conclusions are therefore hard to make. However, some consideration is given in this chapter to whether the shift in the place of birth was client led; that is whether it was demand from women that encouraged the expansion of the maternity hospital or whether national and local policy encouraged the demand by providing a supply of beds which then had to be utilised. Moreover, the question of the training needs of pupil midwives is once again raised as being a factor encouraging expansion.

The second and final chapter offers an in-depth examination of the work of Hull's Municipal Maternity Home and a detailed analysis of the clientele. Based on the Home's Birth Registers which recorded every labour between 1924 and 1935 this study not only aims to explore the experience of childbirth but also to provide information on the client group and the kind of attention they received whilst in the Home. This chapter begins with a discussion of the source itself and the method of data handling used for this research. It then moves on to look in detail at the clientele over the period 1924-1935 by examining where the women lived, the amount of fees paid, the age range and obstetric history of the group. Owing to the nature of the data the analysis of cases that follows this focuses particularly upon the experience of complicated childbirth-as more information was recorded about these births. In this way it is possible to explore in detail the type of care offered to women, at the attempts made to ensure safe delivery and at the success of this care. However this chapter also discusses the fact that the

Home was not simply catering for those women with abnormal births and assesses some of the reasons women with no apparent medical complication may have chosen a hospital birth. This research has attempted to make women as mothers the main focus and so whilst some information was available concerning the neo-natal population born in the Municipal Maternity Home, little in depth analysis of their progress was made. However there is much scope here for further research.

The years between 1900 and 1939 can clearly be identified as a period when British social policy was extended and attention was focused upon the health and welfare of mothers and their babies. The result was an expansion of services at the local level. This thesis is concerned with those factors that helped develop this policy and at how it was then implemented in Kingston upon Hull. By using this example it is not only possible to explore the relationship between national and local government on this issue but also to assess the impact of policy change upon those women who used the service and the midwives who staffed them. In this way this thesis contributes not only to the existing debate on policy development but also offers a unique insight into the experience of the maternity services from the perspective of the two groups of women most closely and intimately involved- the mothers and the midwives.

[1] The progress of this field of study can be seen by looking at a number of texts, for example: B.B.Gilbert British Social Policy London C.Tinling and Co. 1973, A.Oakley 'Wisewoman and Medicine Man:Changes in the Management of Childbirth' in J.Mitchell and A.Oakley (Eds.) The Rights and Wrongs of Women Harmondsworth Penguin 1979 and D.Porter 'The Mission of Social History of Medicine: An Historical Overview.' in Social History of Medicine Vol.8 No.3 December 1995.

[2] See for example: G.Bock and P.Thane (Eds.) Maternity and Gender Policies: Women and the Rise of European Welfare States 1880's-1950's London Routledge 1994 and V.Fildes, L.Marks and H.Marland Women and Children First: International Maternal and Infant Welfare 1870-1945 London Routledge 1992.

[3] A.Davin 'Imperialism and Motherhood' History Workshop:A journal of socialist historians No.5 1978, J.Lewis The Politics of Motherhood:Child and Maternal Welfare in England 1900-1939 London Croom Helm 1980 and A.Oakley The Captured Womb:A History of the Medical Care of Pregnant Women Oxford Basil Blackwell 1986.

[4] See for example:L.Marks 'The Jewish Maternity Home and Sick Room Helps Society 1895-1939' Social History of Medicine Vol.3 No.1 April 1990, E.Peretz 'A Maternity Service for England and Wales: Local Authority Maternity Care in the Inter-War Period in Oxfordshire and Tottenham' in J.Garcia, R.Kilpatrick and M.Richards The Politics of Maternity Care:Services for Childbearing Women in Twentieth Century Britain Oxford Clarendon Press 1991 and H.Marland 'A Pioneer in Infant Welfare:The Huddersfield Scheme 1903-1920' Social History of Medicine Vol.6 No.1 April 1993.

[5] See H.Marland Ibid., L.Marks Op.Cit. 1990 and C.R.Gale and C.N. Martyn 'Dummies and the Health of Hertfordshire Infants, 1911-1930' Social History of Medicine Vol.6 No.2 August 1995.

[6] Some work on maternity hospitals has been done but it has focused largely upon the experience of the capital, London. See for example: L.Marks 'Mothers, Babies and Hospitals: 'The London' and the provision of maternity care in East London, 1870-1939' in V.Fildes, L.Marks and H.Marland Op.Cit. 1992.

PART ONE: The Development of Local Authority Maternity Care.

CHAPTER ONE: Saving Babies.

Although this work is principally concerned with the development of the maternity services and aims to place women as mothers at the centre of the study by focusing upon the impact of these services on their experience of pregnancy and childbirth, it becomes clear that social policy in this regard did not emanate from a concern for maternal health and welfare. Instead the development of the maternity services in Britain during the period 1900-1939 appears to have been driven by the issue of infant mortality and it was the progress of the infant mortality rate (I.M.R.) that prompted a debate about the role of national and local government in providing health care services for infants and their mothers. Consequently, no study of this area of policy development would be complete without some examination of how and why infant mortality became such an important social issue and at how this then impacted upon public health ideology and the provision of local services. Although much important work has been completed on the impact of this debate nationally, on the development of a national infant welfare movement and on the resulting policy changes within national government at the L.G.B. and later the Ministry of Health,[1] the interaction between national and local government and the consequences of this for the development of local maternity (as opposed to infant welfare) services are still being explored.[2] By examining the experience of Kingston upon Hull and in particular by focusing upon the responses of health and local government officials, it is possible to see how far the national debate about infant mortality was translated to the local level and how important this was in encouraging the development of local maternity services.

Although concern about the high rates of infant mortality[3] had been expressed before 1900 both by charitable organisations and in government departments, the early years of the twentieth century saw the debate about the causes and cures of infant mortality take precedence within the public health movement and the state become involved with the provision of services to protect infant life. At the local level the huge loss of infant life was also being investigated and discussed and in Hull it was largely the health department that provided the impetus for a local debate. The interest in the health and welfare of infants developed largely in response to the progress of the I.M.R.

Table 1

Infant Mortality Rates (per thousand live births) for England and Wales and Kingston-Upon-Hull, 1900-1939

YEAR	E + W	HULL	YEAR	E + W	HULL
1900	154	184	1920	80.0	98
1901	151	176	1921	83.0	93
1902	133	138	1922	77.0	106
1903	132	163	1923	69.0	82
1904	145	181	1924	75.0	87
1905	128	154	1925	75.0	93
1906	132	161	1926	70.0	82
1907	118	126	1927	70.0	82
1908	120	149	1928	65.0	79
1909	109	114	1929	74.0	104
1910	105	135	1930	60.0	69
1911	130	158	1931	65.7	81
1912	95	101	1932	64.5	68
1913	108	130	1933	62.7	77
1914	105	121	1934	59.3	64
1915	110	120	1935	57.0	72
1916	91	115	1936	58.7	65
1917	96	121	1937	57.7	77
1918	97	125	1938	52.8	69
1919	89	112	1939	50.6	61

Source: A MacFarlane and M Mugford, Birth Counts: Statistics of Pregnancy and Childbirth National Perinatal Epidemiology Unit London H.M.S.O. Medical Officer of Health for Hull Annual Reports

which at the beginning of the century was very high at 154 deaths per 1000 live births recorded in England and Wales. Although the progress of the I.M.R. over the entire period was downward and by 1939 it had fallen to 50.6 for England and Wales there was much fluctuation between years and wide variations at the local level. In Hull rates were consistently higher and fluctuations between years were greater than those recorded for England and Wales as a whole. For example, in 1900 the I.M.R. for the city was 184 and whilst this had improved dramatically by 1939 when a rate of 61 was recorded, there was great variety between years and progress was not always downward (Table One gives full details of the national and local I.M.R. for the period 1900-1939).

However, whilst the figures clearly illustrated that whilst other death rates were falling infant mortality was not, later investigations also confirmed that there was a social class dimension to the problem, that it was not randomly experienced across class divides and that the working class experienced higher death rates than other social groups. The work of the Medical Officer at the Local Government Board confirmed this in his report of 1913 when he stated that "...infant mortality is high among the poor and low among the well-to-do." and showed that whilst the upper and middle class had an I.M.R. of 77, the Wage Earning Class had a rate of 133. He also reported differences between skilled and unskilled labour (for example, skilled labourers had an I.M.R. of 113 whilst unskilled labourers had a rate of 152) and between industries (miners had a rate of 160 whilst agricultural labourers had a rate of 97). Moreover, he suggested it was an urban problem as infant mortality was found to be highest in the most densely populated and poorest parts of towns and cities. However, this was not used as an indication that poverty was the important determinant in infant survival because he also pointed out that agricultural labourers (regarded as the poorest occupational class) were seen to have a lower rate of infant mortality than other unskilled workers.[4] These conclusions were to have important consequences for policy development.

By the turn of the century work had already been completed into the clinical causes of the deaths amongst infants. Registration of deaths, which became compulsory under a civil registration scheme in 1874 (and was further extended by Parliament in

1907 and 1915) had helped in this process but there was still the problem of under registration as some people were able to avoid the scheme. The Registrar-General in his Annual Reports between 1876 and 1901 found that the causes of infant deaths fell into three categories: developmental and wasting conditions, diarrhoeal diseases and bronchitis and pneumonia.[5] The situation in Hull mirrored these findings as during 1900 there were 1436 infant deaths and whilst a wide range of causes of death were noted and a large number (322 in total) did not record a specific cause of death, by far the largest single cause of death recorded was diarrhoea (322 cases) followed by convulsions (158 cases) and prematurity (115 cases).[6] From the beginning of the period health officials at all levels were aware that many of these deaths were preventable and that diarrhoea was a primary cause of death amongst infants. The ensuing infant welfare movement, which operated at both the national and the local level, therefore focused much of its efforts on the problem of diarrhoea, its causes and how it could be eradicated.[7]

However, this study is not primarily concerned with the clinical causes of infant death rather with the reaction of both national and local government to the information being supplied about the problem of infant mortality, their contribution to the consequent debate about the causes of the diseases responsible for the high death rate and their response in terms of services to try to alleviate the problem. Once the clinical causes had been identified, there began a complex debate as to the factors which may have contributed to the development of these diseases and produced such a high mortality amongst children in their first year of life. Some believed infant mortality to be a natural selection process weeding out the weakest children, whilst others considered environmental and social factors more important, with personal negligence (invariably on the part of the mother) being the most common. This debate encouraged the creation of an infant welfare movement which largely concerned itself with the dissemination of information either at the local level through the provision of services such as infant welfare clinics or by national conferences which encouraged

communication between health officials, medics, policy makers and other interested groups.

As the statistics showed infantile diarrhoea to be the most common cause of death the medical investigations into infant mortality began with this problem. At the national level an investigation was made by Dr. Ballard for the Local Government Board in 1889. His conclusions were that the causes of diarrhoea were many and were influenced by local weather conditions, soil type, air pollution, and social conditions. He also noted that maternal neglect and ignorance (which included female employment and insufficient domestic hygiene) affected the health of infants, an argument which was to continue to be important throughout the period. From this the Board formulated their opinion that the disease was an urban problem which afflicted the working classes and was a result of poor public health systems and these ideas were presented to the Society of Medical Officers of Health by Arthur Newsholme (who was to become Chief Medical officer of Health at the Local Government Board) in 1899.[8] It was hoped that further local investigations would provide detailed information about the disease, its causes and efforts to control and eliminate its effects and whilst such investigations were not compulsory, dialogue between local Medical Officers of Health and the L.G.B. was expected.

Infantile diarrhoea was also a particular problem in Hull which had one of the highest infantile death rates from diarrhoea of the twenty largest towns (as recorded in the Annual Reports of the Medical Officer of Health) in England and Wales. In the ten years from 1890-99 the death rate from diarrhoea was 1.45 which was only beaten by Salford at 1.54 and Leicester at 1.52. This had greatly concerned the city's Medical Officer of Health who had commented on the apparent links between these deaths and climatic conditions and patterns of infant feeding in his Annual Reports since coming to Hull in 1881. Deaths appeared to have been associated with times of hot weather and with those babies who were fed on a bottle or mixed diet. In 1900 Hull had the highest infant mortality rate from diarrhoea of these twenty large towns and this along with the

work emanating from the L.G.B., probably prompted a full investigation by the city's Medical Officer of Health.[9]

The extent of the problem in Hull had not escaped the attention of the Local Government Board who wrote to the city's Sanitary Committee (which was responsible for directing the city's public health system) in 1901 to ask whether any work had been completed on this problem and whether they could see any reports that had been written. Interestingly it was this communication that prompted the Sanitary Committee to establish a sub-committee to investigate infantile diarrhoea and not the work of the city's own Medical Officer of Health (Dr. John Wright Mason) who had clearly been concerned for some years. The resulting report on infant deaths and diarrhoea-'Increased Death Rate and its Cause'- was sent along with Dr. Mason's report from 1900 to the Local Government Board in autumn 1901.[10] It would appear that the L.G.B. was satisfied by what it read as there was no further comment from them and no recommendations made to the Sanitary Committee.

It is worth examining the content of the two reports written by the city's Medical Officer of Health as they illustrate how current medical thought on the problem of infantile diarrhoea influenced the way services were developed at the local level. Both these reports were similar in content and linked the epidemics of infantile diarrhoea to high temperatures and the harmful effects of insanitary conditions in the town. This can perhaps be seen as a reflection of the progress of public health ideology of the time which had begun to focus upon the standard of domestic dwellings and particular attention was paid by the Medical Officer of Health for the city to the installation of water closets in homes throughout Hull. Indeed, he recommended that a scheme be introduced to allow the council to compel owners to comply. Some attention was given to his proposal in this respect although attempts by the Corporation to improve domestic sanitation were continually thwarted. However, the Sanitary Committee actually supported the idea that all new houses should be built with a water closet and intended to gain parliamentary powers to achieve this.[11] The ensuing local debate received some national attention, particularly as this plan was defeated due to the

opposition of some members of the Sanitary Committee and ratepayers who complained that such a scheme would bankrupt them, and reached the national medical press where the B.M.J. commented on the defeat in March 1902 that "It is not to the credit of the municipal representatives of a great city that such a grave duty should be shirked."[12] However, the Corporation eventually passed regulations which meant that all new houses were to be built with water closets and under the Public Health (Amendment) Act of 1907 conversions could be made by the council; however this scheme did not really gain momentum until the inter-war years. Whilst this recommendation of the Medical Officer of Health was defeated, the ensuing debate does illustrate the tensions between those officials concerned with public health and those concerned with the public purse. It seems clear that at this time, at least in Hull, political ideology had not been much affected by the death rate amongst babies.

Both reports also discussed the impact of infant feeding and concluded that bottle fed babies died in greater numbers than breast fed babies. In 1900 for example, there were 404 deaths from diarrhoea, 322 were children under one year old and of these 227 had been bottle fed or received a mixed diet whilst only 50 had been breast fed.[13] The natural conclusion to draw from this, and a continuing theme throughout the period, was that breast milk was the best food for babies but if it was impossible to provide this then mothers had to be instructed on the correct hygiene of bottle feeding. Leaflets giving advice on this were developed by the Medical Officer of Health and distributed via the birth registration schemes however the impact of these upon the local infant rearing practices are unclear. Figures collected by the Medical Officer of Health between 1900 and 1903 showed that patterns of infant feeding had not altered amongst those infants who died from diarrhoea and that the majority were still not being breast fed. During these years of the 1000 babies who died from diarrhoea 705 were bottle fed or received a mixed diet whilst only128 had been breast fed.[14] As patent foods and condensed milk became more widely available, women were likely to use them for their convenience or if they were unable to breast feed. Patent foods were bad for babies, being deficient in the necessary proteins and fats but condensed milk was becoming

increasingly used and both domestic production and imports increased, "...between 1895 and 1901 imports of tinned condensed milk doubled from about 545,394 to 919,319 cwts...".[15] Open tins were easily contaminated and this further added to their unsuitability. The alternative, cow's milk, was often as bad if un-sterilised and whilst it is now not recommended for young life it was seen as a suitable alternative at the beginning of the century- indeed the Medical Officer of Health for Hull recommended it, boiled and with a tablespoon of lime water to each bottle.[16]

Despite attempts at the national level to improve the milk supply, and sterilisation techniques had been developed in the nineteenth century, few municipalities actually implemented them and in Hull the issue of improving the milk supply received little attention. It was not until the inter-war years that the city began to see the development of a heat treated supply and even by 1928 only 11 per cent of the milk sold in Hull was pasteurised.[17] However, it must be remembered that breast milk was an economical food for the working classes and more likely to be used if the mother was capable of producing it. In Hull for example, it was found that before World War One of a sample of 500 families 73 per cent had breast fed their babies[18] and locally the promotion of breast feeding remained an important aim of the maternity and infant welfare scheme for the whole of the period. In an effort to promote breast feeding and realising the impact of poor nutrition on a woman's milk supply, some towns began to offer meals for nursing mothers before World War One. Often this was established by voluntary organisations as in Hull where the School for Mothers provided this service before it was taken over by the Corporation in 1915.

The links between the feeding of infants and infant mortality were established before the First World War and in Hull the Medical Officer of Health made efforts to educate parents as to the dangers of bottle feeding. Whilst this was the only positive step taken to combat the disease, he had recommended that the Corporation establish a milk depot along the lines of the one in St Helens to ensure that those babies not breastfed were receiving sterilised milk.[19] In principal this idea gained some support from the Sanitary Committee but in practical terms no efforts were made to introduce

the scheme. Furthermore, by 1907 the Medical Officer of Health himself had changed his mind and concluded in his Annual Report of that year that it was not an opportune time to establish a milk depot. This change of heart appears to have resulted from the belief that government investigations, which were due to be made into the condition of the milk supply in the East and West Ridings, would result in improved supplies.[20] The Medical Officer of Health for Hull also suggested that a female sanitary inspector be appointed "to instruct the poor in the principles of hygiene"[21]and whilst he argued that this had been beneficial in other towns the Sanitary Committee refused to commit to the idea until 1907 when finally two women were employed in the city. Part of the reason that the Medical Officer of Health's advice was ignored was that most of his recommendations required substantial financial commitment and the Sanitary Committee were simply not prepared to support services to the extent required. However, these ideas were continually debated at meetings although action was always avoided. This is particularly interesting in that it would seem to indicate that the Medical Officer of Health actually had little influence in local government circles and his role in terms of improving the public health was also limited. He seems to have simply acted as advisor to the Sanitary Committee who attempted to mollify him by not rejecting his ideas but asking for more information and he himself had no powers to force change. This provides further evidence that at least in this example, the infant welfare movement and the debate on infant mortality in the first decade of the twentieth century, was actually having very little impact upon those involved with policy development at the local level.

Little in the way of practical or effective schemes were implemented in Hull, although the situation was to be monitored by the Medical Officer of Health. During 1902 the deaths from diarrhoea fell dramatically with only 81 infant deaths being recorded as opposed to 341 in the previous year.[22] But this did not indicate that the problem of infant mortality was solved and in October 1903 after another epidemic of infantile diarrhoea in which 256 infants had died, the Sanitary Committee asked the Medical Officer of Health once again to report on the situation.[23] In this report, which

was presented to the Committee in the autumn of 1904, he reiterated that printed instructions on infant feeding had been distributed and again recommended both the appointment of female sanitary inspectors and the creation of a milk depot. Neither of these were immediately implemented because of the prohibitive costs which the Committee were not prepared to sanction. In Hull, at least in the early years of the century, the Corporation did not appear to have changed its public health ideology to account for the problem of infant mortality, nor was it prepared to act upon the advice of health officials. At this time the issue of financial support proved an effective stumbling block to the expansion of services and whilst the Corporation in Hull recognised that the problem of infant mortality existed and was keen to investigate the causes, there was little support for the Medical Officer of Health and his recommendations and no evidence of any desire to support infant welfare schemes with public money. The distribution of leaflets and the collection of data on causes of infant mortality formed the basis of the response to infant mortality in Hull at the beginning of the century. However, this was not through an unwillingness on the part of health officials to deal with the problem rather it resulted from their conflict with local government officials who were totally unwilling to provide financial support. However this appears to have been beginning to change as the Medical Officer of Health was finally successful in persuading the Sanitary Committee of the positive benefits of employing female sanitary inspectors (See Page 27).

Meanwhile the national debate on the cause of and cure for the high levels of infant mortality was gaining momentum and was given further impetus by the 'Population Question'. A falling birth rate (from 148.3 in 1880 to 115.6 in 1900)[24] heightened more general concerns about the size and fitness of the British population as a whole. High infant mortality meant fewer children were reaching adulthood, which led to fears of 'race degeneration'. Those influenced by eugenic sentiments feared that if the middle classes were to continue to practice birth control whilst the working class 'bred unchecked' the British would soon be 'a race of degenerates'. As a consequence some eugenicists believed that infant mortality provided a necessary service to the

preservation of the race, being part of the natural selection process which eliminated the unfit and that any interference in this process would lead to racial deficiency. However, such arguments did not dominate the debate and indeed were questioned by medical investigations in the early part of the period, by Dr. Ballard for example who found in his research that diarrhoea did not necessarily select the weakest children for its victims.[25]

Widespread public concern at the beginning of the century tended to concentrate on the health and fitness of the nation and the effect of this on Britain's national position. Such sentiments were further encouraged by the events surrounding the Boer War (1899-1902) which provided an environment in which the health of those recruiting could be assessed- the results were not encouraging as many of those who went to join were rejected on physical grounds. Articles concerned with this lack of military strength appeared in both the journals 'Nineteenth Century' and 'Contemporary Review' during 1903 and although figures quoted at the time were often exaggerated, they were sufficient to disturb both government and public opinion. Such obvious inadequacies heightened fears over the National Efficiency of the British race and encouraged the government to intervene in the welfare of its people. The state began slowly to change its role, eventually becoming more involved in the provision of health and welfare services (for example, Old Age Pensions Act 1908 and National Insurance act 1911), and by doing so publicly accepted some responsibility for the condition of the nation's health.[26]

The issue of infant mortality formed part of this debate and its impact on the population and how it should be tackled was addressed in the 1904 Report of the Inter-Departmental Committee on Physical Deterioration. Whilst the Report was able to reassure society that the race was not presently degenerating, it warned that preventative measures were needed to ensure this did not happen. The Committee recognised that the population problem was one of a falling birth rate and high infant mortality but their Report changed the nature of the debate on infant mortality by focusing attention away from clinical causes and towards the apparent inadequacies of mothers. The Report's

authors cited the employment of women as one cause of infant mortality since there was "...no doubt that the employment of mothers in factories is attended by evil consequences both to themselves and their children..."[27] and also believed that infant mortality was directly related to mothers' unwillingness to breast feed.[28] Essentially this report focused attention on women as mothers and their lack of ability to protect the lives of their infants and largely blamed maternal ignorance and neglect for the "annual sacrifice"[29]of babies. As a result, concern now shifted away from the impact of diarrhoea to wider issues relating to the causes of infant mortality and in particular how the problem of maternal ignorance could be solved.

The issue of infant mortality was clearly of widespread concern amongst several groups in society at the beginning of the century and the first National Conference on Infant Mortality took place in 1906. This conference (which was attended by Alderman Holder and Dr. Briggs on behalf of Hull's Sanitary Committee) and the later ones of 1908 and 1914 took the issue of maternal ignorance as their primary focus and reiterated the conclusions of government by recommending that infant mortality could be solved by the improvement of motherhood via educational solutions. In his presidential address in 1906 John Burns, President of the L.G.B., believed that "...at the bottom of infant mortality, high or low, is good or bad motherhood."[30] and this continued to be an important theme amongst the speakers at later conferences. At the 1908 conference for instance, C.W.Saleeby a G.P. from London, stated that the main cause of infant mortality was maternal ignorance: "...our infant mortality (is) due to parental, or rather maternal, causes...".[31] Education and good motherhood were also seen as vital to the reduction of infant mortality by Janet Campbell (who worked for the Local Government Board and later Ministry of Health). Speaking at the 1914 conference she commented that "...the most effective weapon with which to fight infant mortality is good mothercraft; (and) that good mothercraft is best taught and best learnt in schools for mothers...".[32] Quite clearly then the infant welfare movement believed that mothers were largely to blame for the high rates of infant mortality, if through ignorance rather than wilful neglect. Such a conclusion resulted in the movement being

dominated by the view that mothers' ignorance in child rearing methods could be improved via education, primarily by middle class sanitary inspectors or health visitors, and that whilst home visits were useful, the best means of educating mothers was believed to be through Schools for Mothers. Such sentiments were to influence policy in Hull, although once again action was limited to investigation of the problem rather then the implementation of services. Furthermore, local health official opinion echoed that of the national infant welfare movement as the Medical Officer of Health believed that the high rates of infant mortality in the city were largely preventable and were caused by "improper feeding, negligence and indifference on the part of mothers and guardians" and also to a "large amount of ignorance which exists amongst mothers and guardians regarding the subject of artificial feeding."[33] However, whilst in Hull the Health Department were clearly influenced by and participating in the national debate, the Sanitary Committee and local government officials had yet to be convinced.

Such conclusions were also supported by George Newman's influential work entitled 'Infant Mortality' which was published in 1906. This book clearly outlined the philosophy of the infant welfare movement and Newman (who went on to become the Chief Medical Officer at the Board of Education) was a most vehement supporter of maternalism. Although he acknowledged that environmental factors, especially poor sanitation, had an effect on infant mortality he clearly identified mothers as being primarily responsible for the large numbers of infant deaths and believed "...that the problem of infant mortality...is mainly a question of motherhood."[34] Furthermore, it was inadequate mothering that was the principal cause of death: "death in infancy is probably more due to such ignorance and negligence than to almost any other cause..."[35] He went on to add that "...if we would solve the great problem of infant mortality, it would appear that we must first obtain a higher standard of physical motherhood."[36] and in order to achieve this he advocated education of the mother in infant care. By focusing on motherhood in this way this book not only reflected the widely held views of the infant welfare movement but also contributed to the

development of policy in this area; paying attention to individual standards of motherhood meant widespread changes to public health ideology could be avoided.

Evidence of government opinion on the question of infant deaths before the First World War can be found in the first report on infant mortality published in 1910 by Arthur Newsholme, Chief Medical Officer of the Local Government Board. Again, although this work considered the impact of environmental factors, it too laid much of the blame with mothers. Newsholme believed that overcrowding, defects of municipal and domestic sanitation and the "ignorance and fecklessness of mothers" resulting in a "lack of mothering" were the main causes of infant mortality. He blamed women for their ignorance which he believed was "...commonly associated with carelessness and indifference..."[37] but also criticised the sanitary authorities who he believed were failing in their duties by allowing the continued use of privies, which he believed were one of the main dangers to infant life. It would appear that at the national level (as well as at the local level) there were tensions between departments and whilst solutions had been identified the public health officials seem to have been less powerful than other interests within government. Furthermore, the structure of power relationships within government seem to have led to emphasis being placed upon maternalism rather than upon possible changes to public health systems and it was therefore maternal ignorance and how to reduce its effect which formed the basis of government policy on this issue. The government continued to monitor the situation and another report followed in 1913 which reiterated many of the points made in 1910. Women were again blamed for inadequate and inappropriate infant feeding practices and Newsholme reiterated conclusions made earlier in the century when he commented that: "The disadvantages of artificial feeding, adopted thoughtlessly and with insufficient reason, may be further accentuated by the ignorance of the mother as to the correct method of artificial feeding, and by her carelessness and lack of cleanliness in the preparation of the food."[38] Despite this emphasis on poor standards of motherhood, this report was important in that it also discussed the impact of poverty. Poverty was not usually regarded as a cause of infant mortality in itself but Newsholme regarded it as a

contributory factor. He believed poverty could be seen as a direct cause of infant mortality "...where it induces the malnutrition of mother or infant or where it implies that the mother cannot give adequate care to the infant."[39] and an indirect cause as it was associated with ignorance, carelessness, overcrowding, uncleanliness and alcohol abuse. Whilst Newsholme largely blamed the people themselves for their situation his reports nevertheless at least gave some recognition that scarce resources had some effect on infant mortality.

Further confirmation that the official view largely placed the blame for high infant mortality with the mothers came in 1913 when Newman (now at the Board of Education) published a report on education and infant welfare. In it he dismissed the effects of environmental and economic problems and simply reduced the cause of infant mortality to the failure of motherhood: "...there can be little doubt that death in infancy is more largely due to maternal ignorance, negligence and mismanagement than to any other single cause...".[40] Again this provides further evidence of disharmony between government departments and some disagreement amongst officials. To try and alleviate the problem Newman again recommended the education of girls and of mothers in mothercraft and whilst he acknowledged the usefulness of a system of health visiting (again as an educative force) he stressed the importance of the impact of the individual mother and commented that "...the problem of infant mortality is not one of sanitation alone, or housing, or, indeed, of poverty as such, but is mainly a question of motherhood and ignorance of infant care and management."[41] It was this view that dominated government opinion before the First World War and whilst some health officials were arguing that a wider perspective should be taken their voices were less well heard and the dominant ideology of laissez-faire was not disrupted.

Before the start of the First World War both the clinical and social factors that were to blame for the high levels of infant mortality had been identified. Many of the deaths were associated with epidemics of diarrhoea as well as with prematurity and lung diseases and were believed to be preventable. The opinions of government at the local and national level and of those involved in the infant welfare movement were

dominated by the idea that the mother was the principal determinant of infant health and that much could be achieved through her education in the duties of mothers. Whilst this remained the dominant conclusion, other voices (primarily those of health officials at both the national and local level) could be heard which were beginning to question the organisation and structure of the public health system and public health policy. However, such views did not fit in with the social and political attitudes of the time and consequently had less impact. Working class women were now to blame for the high rates of infant mortality and were judged as both ignorant and careless by middle class standards. Women were to stay at home and be responsible for the care of children and the domestic environment whilst men went out to work and any deviation from this pattern was criticised. But this model did not take into account unemployment, low pay and seasonal work which caused poverty, malnutrition and ill health, let alone single motherhood and widowhood, and showed a complete lack of understanding of the nature and impact of poverty. Moreover, blaming the mothers in this way and highlighting personal responsibility also allowed government to resist state intervention into the private world of the family. However, the debate about the threat of race degeneration and the progress of the birth rate meant the state was increasingly under pressure to involve itself in the health of citizens. These contradictory forces were resolved by blaming women for the problem of infant mortality and by providing action in the form of an educative scheme rather than direct financial or medical help. In this way both state involvement and expenditure were minimised whilst at the same time government could be seen to be effectively tackling the problem.

This concentration on the positive benefits of educating the mothers encouraged the development of local infant welfare services, particularly Schools for Mothers and Infant Welfare Clinics. Whilst there were some pioneering Corporations who took responsibility for the creation and funding of infant services[42] before the First World War most were organised by voluntary effort with little in the way of funding from central government. In Hull, at least initially, the role of the Corporation with regard to infant welfare was largely restricted to the distribution of leaflets on infant feeding and

later the appointment health visitors. Whilst these were fairly cost effective approaches to adopt their impact upon women as mothers in Hull, although difficult to gauge, was probably limited. Leaflets although a relatively cheap way of disseminating information, were probably ineffective as it could not be guaranteed that they would reach the target population and if they did it was not certain that the advice would be read or acted upon. Following much debate on the subject at the meetings of Hull's Sanitary Committee and repeated requests from the Medical Officer of Health, two women inspectors were finally appointed in 1907 and by 1913 there were five Assistant Inspectors under the supervision of the Midwives Inspector. The work of these women was regarded as crucial in instructing mothers in correct childrearing practices but their effectiveness is unclear. Their contact with women began once the baby had been born and the doctor or midwife was no longer responsible for their care (usually 10 days after birth) and their role was mainly educational. In Hull their work consisted of visiting newly born babies and instructing mothers on cleanliness, feeding and clothing for their babies via both printed and verbal instructions. Whilst there was no guarantee that their advice would be put into practice, their work in reaffirming the advice given was hampered by a shortage of staff which made the systematic revisiting of infants impossible. In the period before the First World War the intervention of local government in infant welfare was not widespread or effective and in Hull there was clearly an amount of resistance to adequate funding even of those educational services introduced.

Although the Corporation in Hull was less willing to initiate local services there was some local activity by the voluntary sector and voluntary effort was responsible for the first School for Mothers in Hull.[43] The School for Mothers in Hull was probably established during 1914 and grew out of another charitable organisation the Hull Council of City Creches. It remains unclear exactly when the first School for Mothers was started in the city although the Health Committee (which had replaced the Sanitary Committee in 1912) makes reference to it in 1914 when they received a deputation (which included prominent members of the local community such as Mrs Reckitt wife

of the pharmaceutical company owner and Dr. Mary Murdoch the first woman doctor in Hull) from the Hull Council of City Creches. This organisation had evolved out of the National Union of Women Workers (N.U.W.W.) and provided three creches for working mothers in the city, one in East Hull, one in West and one in Central Hull and during 1913 had admitted 11888 babies who were looked after and fed for a small charge.[44] Whilst it is not clear when these creches were begun the Central Creche was operating in 1909 as Dr. Mary Murdoch was appointed as its physician.[45] Mary Murdoch had been involved with the N.U.W.W. from approximately 1907 and appears to have been instrumental in the establishment and continuation of both the Hull Council of City Creches and the city's School for Mothers.[46]

The first School for Mothers in Hull was attached to the East Hull Creche in Dansom Lane and employed a nurse and a Medical Officer (other staff were volunteers) to give advice on infant rearing, to organise infant consultations and make home visits if necessary. Mothers were educated either in classes or at the infant consultations which were attended on average by 12 infants per session between 1st July 1913 and 30th June 1914.[47] The Schools for Mothers were largely educational institutions that did not give treatment and this was their greatest failing for working class women who could not afford medical fees. In their capacity as schools (rather than as treatment centres) they were able to receive grants from the Board of Education to the value of fifty per cent of their running costs; in this way the Board helped reinforce their educational role and ensuring consultations were given but not treatment: "The object is thus preventative rather than curative."[48] There is however no evidence to suggest that the Hull Council for City Creches received any money for this service except from the Corporation itself and the School for Mothers were reliant on donations and the proceeds of charitable events. Whilst it was not normally agreed that mothers should work, in Hull at least there was some recognition of the need for female employment amongst the working class and so this service was established to ensure that the children were well looked after. The deputation approached the Health Committee to ask for funds to help support

an expansion of their work and to establish a School for Mothers at the West and Central Creches. The Health Committee considered the request and commented:

> "After reviewing the good work done by the Creches Council... we feel sure the Committee will agree that much is being done by the Créches Council to reduce the infantile mortality among the poorer classes. Such work, however, being conducted by means of voluntary subscriptions must necessarily be somewhat limited, and we feel that the Council are worthy of practical support in order to extend their operations."[49]

Following this a sum of £50 per annum (this sum was increased to £175 from November 1916) was agreed and whilst the Health Committee recognised the work of the Council in helping to reduce infant mortality and believed that expansion of the School for Mothers would have positive results, it was unwilling to begin any fully publicly funded infant welfare clinics. This limited support for the Schools did however aid the expansion of voluntary infant welfare services in the city and another School for Mothers which was located in West Hull in Coltman Street (not far from the West Hull Creche) was founded during 1914 and a third at the Central Creche in 1917. Whilst at the national level women who went out to work were blamed for infant mortality, in Hull certain sections of the community had recognised that women were not going to stop working and that services to ensure safe childcare were a sensible response to the problem. It would appear that the Corporation agreed, to some extent, with this sentiment and were prepared to offer some financial support although they were not as yet convinced of the need to involve themselves directly with the provision of any more services. However it was probably the Committee's interaction with the Hull Council of City Creches, along with other factors, that encouraged their eventual involvement in the provision of infant welfare clinics.

As the Corporation became more involved with the issue of maternity and child welfare and began to discuss plans for a city wide scheme, it wished to set up a district infant welfare clinic at the East Hull School for Mothers. However, there was some

disagreement as to how this should be organised. The Committee in charge of the School were willing to co-operate with the Corporation only on the understanding that the dinners they were providing for expectant mothers remain part of the service. The Corporation were not willing to give financial support for this over the £50 already being donated annually and after discussions it was finally agreed that the Corporation could take over at the School and the Committee would pay any extra money (over and above the £50) for the dinners.[50] Similar discussions were held with the West and Central Schools and the Corporation gradually took over their management- in 1920 and 1918 respectively- although the Voluntary Committees formally ceased any involvement with the Schools For Mothers in the city from April 1921.

Impetus was given to the extension of the role of local government in Hull by the circulation during 1914 of a letter and memorandum on Maternity and Child Welfare from the Local Government Board which was received by the Health Committee on 30th July that year and contained many new ideas and proposals. The letter indicated that the government's position had shifted on the issue of infant welfare as a system of financial support was to be voted on in Parliament and if successful (which it was and a fifty per cent grant scheme was introduced from 1915) would be given to help the provision of services. The most crucial and interesting point about this document in terms of the development of British social policy, is that the Board did not specify that these services had to be educational, rather it suggested that grants would be made to "...institutions primarily concerned with the provision of medical and surgical advice and treatment..."[51] This clearly indicated a change in national government ideology both in respect of financing and provision of services. The accompanying memorandum which gave a guide to the formulation of local schemes, suggested that both medical advice and treatment should be available for mothers and their children. The proposals in this document were wide ranging and provided suggestions for services for both infants and mothers. It stipulated that mothers should have skilled and prompt attendance during confinement at home and thereby recognised the important place of the midwife in these services, but also outlined the role of the maternity hospital in the

treatment of complicated cases of pregnancy, birth and the puerperium. Furthermore, it also suggested that all local schemes include a home visitation system and infant welfare clinics which could provide both advice and treatment. This document outlined the future development of the maternity services and indicated a definite change in official opinion which had accepted that without medical attention, education was of limited use in the reduction of infant mortality. Furthermore it was hoped that by awarding financial assistance, local government around the country would be stimulated into beginning or expanding their maternal and infant welfare work.

It would appear that as a consequence of this very clear and important change to national policy, both local and national government increased their role in developing maternity and infant welfare services. The resulting increased involvement with the health of the individual meant a new role for local authorities who were now to provide both medical treatment and education and a shift in the public health ideology of national government. This action appears to have been prompted by concerns over the future of the British race as the pressures of the First World War and the impact of this loss of life further accentuated the problem of the falling birth rate and high infant mortality. It seems clear that it was the War that stimulated action in this regard and evidence can be found at both the national and local level to support this view. For example in 1916 the Medical Officer of the Local Government Board commented that: "...at a time like the present there is urgent need for taking all possible steps to secure the health of all mothers and children and to diminish ante-natal and post-natal mortality."[52] and in Hull these ideas were being discussed in the local paper. The Hull Daily Mail which had a column entitled 'A Woman's Outlook', unfortunately there is no way of knowing who the author was although she signed herself Portia, but her comments on the Health Committee's response to the communication from the L.G.B. in 1915 is worth quoting in full as it brings together all the elements of this debate and illustrates the crucial importance of the 'Population Question':

> "A very considerable step in advance has been taken by the Hull Corporation Health Committee adopting the recommendations to

> establish district clinics... and the taking over of the Holderness Road Maternity Home. No doubt the increased interest in questions relating to population brought about by the War has stimulated action in this direction...Poor women must be helped in the great national task of re-peopling the country, and the burden which falls on them must be met by the State ...because the fittest die in battlefield, it does not follow that here at home the deficiency can be made up by encouraging the propagation of the unfit, but that all those who can be made fit should be made fit."[53]

Clearly both the quantity and quality of the population was of great concern at both the national and local level and there was a body of opinion who believed that it was the duty of the state to ensure good health. Whilst there was some increased financial commitment to these services from central government (in the form of the grants system) there was also a change in attitude towards the purpose of these services and a new emphasis was placed on their medical function as well as their educational facilities. Such changes in attitude affected the provision of services in Hull as the City began to establish its Maternal and Child Welfare scheme with a co-ordinated approach.

In Hull a meeting of the Health Committee was held to discuss the memorandum from the L.G.B. and the Medical Officer of Health was asked to write a report on how the current maternity and infant welfare services should be expanded.[54] The result was that a special sub-committee (the Maternity and Child Welfare Sub-Committee) was formed which was to make recommendations as to how the scheme might be extended and the projected costs of their proposals. This report was submitted to the Health Committee in July 1915 and reiterated many of the points made earlier by the Medical Officer of Health. Clearly it was the government's attitude on the issue of service provision that prompted further action at the local level and not the advice of the city's Medical Officer of Health- this once again illustrates the limited nature of his role in local policy development. The three main suggestions were that part-time women Medical Officers be appointed, that the Corporation should establish infant welfare

clinics which should offer advice and treatment and that both the health visiting department and use of the maternity home be expanded. This report, which was accepted both by the L.G.B and the Health Committee in 1915, provided the blueprint for the city's Maternity and Child Welfare Scheme after the First World War and firmly established the role of the Corporation in the provision and financing of services. However, whilst the Corporation had accepted that its role must change, work towards implementing these recommendations progressed slowly. Part-time Medical Officers were appointed (most of the work being done by a local doctor- Ethel Townend) and three clinics were being run by 1918 but there was no increase in the health visiting staff and the Maternity Home was still being run from domestic premises. It is interesting to note that only £290 of the £1748[55] needed to fund the local scheme was required from the rates (the rest was to come from government grants) but despite this it would appear that there was reluctance to improve services rapidly. Furthermore, there was also some conflict (as indicated above) between the Committees who ran the Schools for Mothers and the Corporation who wanted to turn them into infant welfare clinics. This too provided a stumbling block to the Corporation's progress in providing infant welfare clinics.

Although these changes were crucial in terms of local government ideology and policy development the impact upon the mothers of Hull was probably limited by the fact that few used the services provided. The Corporation had committed itself to providing these services but there was no guarantee that there was a demand for them. Indeed initially attendances at the infant welfare clinics were low with only 230 expectant mothers and 668 children attending the two clinics in 1916.[56] With the opening of a third clinic, and increased publicity about their work, numbers attending the clinics increased and in 1918 there were a total of 451 new expectant mothers and 2335 new visits by children.[57] Whilst the Medical Officer of Health was convinced of their achievements and commented that: "The general improvement in the health, both of the mothers and infants attending the Clinics makes the work encouraging..."[58] the clinics were only providing ante-natal care to a very small number of women. A

substantial number of babies were seen and in 1918 a total of 15621 children attended the clinics and 2335 of these were new cases.[59] If all these babies were born in 1918 then approximately 43 per cent of all babies born that year were seen at the clinics- a remarkable achievement in few years. However, the impact on pregnant women is less remarkable and probably only accounted for less than 10 per cent of all pregnant women in the city. Clearly the infant welfare clinics were being used primarily for babies and not by mothers. This highlights the fact that less attention was paid to maternal health as ante-natal care was not widely available/ publicised- alternatively it may also not have been seen as a priority by mothers themselves- and that it was infant health that was being promoted.

It is probably the emphasis upon infant welfare that attracted women to use the services. Moreover some women would probably have been more willing to use the services for their babies once they realised that the clinics also provided free or at reduced cost supplements (for example Virol- a vitamin supplement- and Cod Liver Oil) and powdered milk. Whilst breast feeding was the preferred method, powdered milk was provided to try and ensure mothers had a safe and suitable alternative and could be instructed in the correct artificial feeding practices. Other factors may have encouraged them to attend with their babies, such as a desire to provide the best start for their offspring, whilst at the same time others, such as a feeling of accepting charity, may have prevented some attending. It is difficult to be precise about the reasons women attended or the impact this had on child rearing practices locally and little evidence remains to assist us in this matter. It may have been that staff were not always sympathetic to the mothers' situations or willing to be flexible in the advice they gave. Alternatively, the pressures of domestic work and paid work may have simply prevented such large amounts of time being spent at the clinic.

However, despite the instructions from the L.G.B. that treatment should be provided an important disadvantage of the Corporation's clinics were that they did not provide much direct assistance for mothers. A free midwifery service was being developed (See Chapter Three) and many of the women who attended the clinics were

applying for her services but there was no treatment for pregnant women- other than for very serious complications and numbers assessed as such were small. The infant welfare centres may have been achieving their objective with regard to the inspection of babies but were clearly failing to offer services for mothers (particularly in the form of ante-natal care). Developments in this area in Hull had to wait until later in the period.

In 1918 the Maternity and Child Welfare Act became law and firmly established the position of local authorities in this area of social policy. However, action although strongly encouraged, was still discretionary and not compulsory. In Hull the government's action had the effect of increasing the Corporation's involvement in the provision of services as it increasingly took responsibility for the health and welfare of mothers and babies. As a consequence of this Act, the Corporation created a Maternity and Child Welfare Committee in 1918 which was made up of those councillors on the Maternity and Child Welfare Sub-Committee (established in 1914) and members of the local community who had an interest in this work. For example, there were two women from the School for Mothers Committee, one from the Association of Midwives and Mrs Robson who had begun the city's maternity hospital. No doubt much of the impetus for the expansion of this work came from the fact that government money was available and in 1919 the Corporation received a grant of £4684 16s 9d from the newly created Ministry of Health.[60] This was not sufficient to cover the costs of the Scheme locally and money was also raised from the Rates and by some of the services themselves, for example from sales of milk. The Act confirmed the state's role in the provision of services, indicated that it had accepted responsibility for the health and welfare of some of its citizens and that it felt it should encourage local authorities to do the same. However, to some extent old political ideology was proving hard to dislodge as action was not made compulsory. In Hull the Corporation appears to have reacted positively to the suggestions of both the Local Government Board and the Ministry of Health but it cannot be described as a pioneer in this area. Although the city's Medical Officer of Health had been arguing for an expansion of infant welfare services and action by the Corporation, local government was reluctant to involve itself and activity was really

only prompted by the promise of financial assistance from the L.G.B. The Corporation cannot be seen as initiating local services in the period before 1914 and the Medical Officer of Health was fairly impotent in changing their position. The voluntary sector however, played a crucial role in the development of infant welfare services in Hull and whilst these later became the responsibility of the Corporation, they originated not from the activities of the city's health department but from the voluntary sector.

By 1918 there had been some considerable improvement in the I.M.R. for England and Wales and members of the government and those involved with the infant welfare movement were convinced that it was their efforts that had produced these falling rates. The I.M.R. had fallen from 154 to 97 between 1900 and 1918 in England and Wales and this was a significant improvement. In Hull however, the experience was somewhat different and whilst there had been a fall in the I.M.R. from 184 to 125 over the same period, this was still high and there was much work to be done. In Hull the inter-war years saw the I.M.R fall below 100 and this was significant in that this had only been experienced once before in 1912, but more importantly this fall was sustained with the exception of 1922 and 1929 (see Table One).[61] By the end of the First World War the Corporation had established itself as the primary provider of infant welfare services taking over from the voluntary sector and the local Maternity and Child Welfare Scheme was supported by a mixture of local money, Board of Education and Ministry of Health grants and voluntary effort. The shift in role of Hull Corporation had been completed in a short space of time and during the inter-war years this changed little although the services provided were expanded and sustained. The final part of this chapter considers some of problems faced by the infant welfare services in the inter-war years, the response of the Maternity and Child Welfare Committee to these and the impact of services on mothers.

Whilst this thesis is not primarily concerned with the voluntary sector it has identified the part charitable organisations played in helping promote, provide staff for and sustain local services. As a result some mention also needs to made of their involvement in the city's Maternity and Child Welfare Scheme in the inter-war years

and although the Corporation was now primarily responsible for the provision of services this did not mean that the work of voluntary societies had completely ended. The Schools for Mothers were still operating in 1918, their main function now being the provision of dinners to expectant and nursing mothers. In 1919 there were four in Hull: one in East Hull (on Dansom Lane); one in West Hull (on Coltman Street); another in the city centre (at Kingston Square) and the last at the American Red Cross Centre Clarendon Street.[62] The Corporation had taken over all these centres by 1920 but the work of the Voluntary Committees only formally ceased in 1921. By 1920 the two city Creches were still open and these continued to operate and provide an important service; for example, during 1938 a total of 4,735 children were placed at the two nurseries.[63] Voluntary organisations were also involved in initiating new services in the city in the inter-war years although the close co-operation with the Corporation continued; for example, the Sutton Nursing Association began an infant clinic which was given a annual grant by the Corporation. There were however changes in the voluntary sector as the Corporation took over many of the services originally provided by them and initially volunteer workers were not employed at the infant welfare clinics. However, by 1922 volunteer workers were back as a result of staff shortages and they remained an important part of Hull's Maternity and Child Welfare Scheme. Infant welfare clinics were therefore staffed by a mixture of qualified medical and volunteer (untrained) people.

The Corporation's work in the form of the infant welfare clinics became the corner stone of the city's Maternity and Child Welfare Scheme. In 1921 there were four such clinics; one in East Hull (on Courtney Street); one at the original School for Mothers building in West Hull (on Coltman Street); another (on Waltham Street) which replaced the inadequate accommodation of the Kingston Square clinic and the last, the Central Clinic (on Fountain Road). By 1938 this provision had been expanded and there were eleven clinics covering the whole of the city. A range of services including education, advice, treatment of minor ailments and referrals to hospitals were provided and women could also buy (or in some cases obtain free of charge) reduced cost

Table 2

Attendances of Children Aged 0-5 Years at the Infant Welfare Centres in Hull, 1920-1938

	EAST HULL	WEST HULL	KINGSTON	CENTRAL
1920	2654	5371	2745	2139
1925	8733	13429	5069	5395
1930	13729	15183	7648	9130
1935	15874	15777	8939	13871
1938	14978	15560	6454	13239

	DAIRYCOATES	MARFLEET	NEWLAND	SUTTON	ALBERT AVE
1925	est. 1927	est. 1928	est. 1928	est. 1930	est. 1931
1930	6108	3081	3785	375	
1935	7323	4668	5071	2132	9867
1938	7931	4125	6628	3577	17468

	NORTH HULL	PRESTON RD	TOTAL ATTENDANCES	
1930	est. 1933	est. 1938	1920	12909
1935	5228	-	1925	32626
1938	13313	3400	1930	59039
			1935	72537
			1938	106673

Source: Medical Officer of Health of Hull Annual Reports

powdered milk and other nutritives, apply for admission to the Maternity Home or for the services of a free midwife, and if sufficiently necessitous, could obtain low cost meals. These clinics provided the front-line service of the Maternity and Child Welfare Scheme in the city and were the initial agency many working class mothers would engage with. In this way they acted as important information and referral centres as well as education and treatment centres and were supported by the efforts of the developing ante-natal clinics, midwifery service and maternity hospital (see later chapters). Whilst they had an important role to play within the developing health services their further expansion signalled a new era of municipal responsibility which encouraged the Corporation to extend financial assistance to some families. However, it is not clear that such a move had an automatic impact on mortality rates and the contribution of the infant welfare services to the reduction in the I.M.R. must not be overstated. Although the I.M.R. in Hull fell in the inter-war years it cannot be assumed that this was in response to the work of the infant welfare services alone.[64]

Throughout the inter-war period attendances at the infant welfare clinics increased. The total number of children seen at the four clinics was 12,909 in 1929 but by 1938 this had increased dramatically to a total of 106,673 children seen at eleven clinics in the city (see Table Two). These clinics remained concerned with the health of the child and as a consequence of the development of ante-natal and post-natal services fewer women were being seen at the infant welfare clinics. In 1920 most of the women (3,649 in total) were nursing mothers who would have attended seeking advice about their babies or for post-natal problems.[65] Pregnant women could get advice for themselves from the clinics at the beginning of the period and in 1920 988 attended for this reason.[66] However, by 1938 the development of the post-natal and gynaecological service (See Chapter Two Pages 77-8 and 84) meant no women were attending the infant welfare clinics for themselves. As a result the infant welfare clinics in Hull probably had little impact upon local pregnant population. Undoubtedly more and more women were taking their children to the clinics particularly as their work was expanded

to cover the under fives but for women themselves this services was probably only used to obtain low cost baby food and for advice about other maternity services.

The increase in attendances during this period meant that the main problem faced by the clinics was inadequate accommodation. Although the position of the Corporation in Hull had been changed with regard to the provision of services, it remained reluctant to extend its financial commitment to the scheme. No clearly defined policy developed to deal with the accommodation problem and there was no long term plan to build new premises. Initially increased numbers were absorbed by increasing the amount of clinic sessions held. For example, in 1921 the most popular clinic was in West Hull and was attended by 8,265 children, 1,924 nursing mothers and 624 expectant mothers.[67] It was decided to open an additional session to cope with the numbers and this meant increased work for the Medical Officers. Problems arose as these extra sessions had to be approved by the Ministry of Health who would not do so if they felt that the buildings were inadequate. As numbers continued to increase some clinics had to be moved to bigger rooms for example, the Kingston Square clinic was moved to its final location in the Queen's Hall in Alfred Gelder Street in 1927. The other solution applied by the Corporation to this problem was the opening of new clinics which were usually housed in church rooms as this was a cheap alternative to purpose built premises. For example, some of the pressure was taken off the West Hull clinic when the Albert Avenue clinic was opened in 1931 at the Wesleyan Mission Rooms on Lees Walk (which is actually off Walton Street). Only two brand new clinics were built in the inter-war period neither the result of any long term plan. The first in Morrill Street, East Hull was opened in 1929 when it became apparent that land could be developed behind the tuberculosis dispensary at Durham House. Plans were drawn up by the City Architect with the co-operation of medical staff and the new premises were built at a cost of over £10,000, money which was provided by the Maternity and Child Welfare Committee.[68] The new East Hull clinic was opened officially on the 11th of October 1929 but child welfare clinics had been in operation from here since the 12th of August that year. Later in the period another purpose built clinic was developed (on Ellerburn

Avenue) to cater for the growing number of residents on the expanding council house estates in North Hull and was officially opened on October 12th 1936. Both clinics were to combine ante-natal and child welfare sessions with the school medical services under one roof in an effort to provide a co-ordinated and complete medical service for the areas they served and also to share costs.

Although the Corporation had committed itself to the provision of services it took some time to accept that this would mean an expansion of financial assistance. Local government officials in Hull did not react swiftly to solve the problems of housing the infant welfare clinics and ignored the advice of the Medical Officer of Health who had for some time been urging the building of new clinics. As early as 1919 he noted that purpose built clinics were needed and commented that: "The present system of adapting old properties as centres is likely to prove but a poor substitute for what is required."[69] He was still pressing his case in 1925 when he argued that: "The clinics are overcrowded, thus making effective work difficult, and it is desirable that new Clinics should be opened in order to cope with the increase in population, particularly in the new suburban estates, and to relieve the congestion at the clinics now in use."[70] Whilst the Corporation had built two new clinics for sizeable populations in the north and east of the city by the end of the period it was on the whole unwilling to build new centres for any of the maternity and infant welfare services. This appears to have been largely because of the expense involved and it was seen as far more economical to adapt existing buildings. Once again, this suggests some conflict between those concerned with health services and those concerned with city finances. Although local government officials in Hull had now accepted the need for the extension of infant welfare services there was still some reluctance to provide full financial support. Moreover, this provides further evidence to support the idea that the role of the Medical Officer of Health was limited and that in many respects he appears to have been powerless to influence the progress of policy.

The inter-war years saw the Corporation take increasing responsibility for the health of infants and expand the work of the infant welfare clinics but the purpose of

these services remained primarily educational and preventative. Mothers could take their babies to the clinics to have them inspected medically, weighed and to receive advice about their care and management. There was little in the way of practical assistance to overcome the economic and social disadvantages faced by working class parents although some treatment was being given for minor problems at the clinics. Although the Corporation had made provision for free treatment of serious cases in hospitals very few actual cases were referred. In 1920 a total of 255 women and babies were advised to seek medical attention from specific hospitals and dispensaries from a total attendance of 17,546 at the clinics that year but by 1938 a proportionally smaller number were being referred and a total of 664 children under five were advised to seek private or hospital treatment from a total of over 100,000 attendances.[71] Clearly the clinics were still firmly attached to their original principles of education rather than the provision of free treatment for all who needed it.

The infant welfare clinics gave plenty of advice to mothers on how best to bring up baby not only at the infant consultations with the Medical Officer but at weighing sessions with the Health Visitors, at talks to mothers (and later fathers) and at cookery demonstrations but it is impossible to be certain of the impact of this advice on actual infant rearing practices. It might be expected that those mothers who attended were genuinely interested in improving their mothercraft skills and would put into practice the advice they were given. Some may have wished to implement improved diet or hygiene routines but may have been restricted by financial or domestic problems whilst others may have simply attended the consultations as a way of gaining access to the cheap or free services. It is this latter point of view which was expressed by Katherine Gamgee (Assistant Medical Officer for Maternity and Child Welfare appointed in 1922) when she commented that: "At present nearly all the Clinic Mothers regard the Infant Welfare Centres as...cheap or free food shops."[72] It is not clear from the available evidence exactly what the impact of these services would have been upon the mothers who used them. It does however seem reasonable to conclude that mothers used the

service for a variety of reasons not all of which would have necessarily resulted in a dramatic change in local patterns of infant rearing.

A consistent preoccupation of local health officials was the apparent decline in breastfeeding. The value of breastfeeding and its contribution to maintaining the health of infants was consistently promoted through the clinics and other maternity and child welfare agencies throughout the whole period but research carried out in the city by Katherine Gamgee concluded that breastfeeding was less popular in the inter-war years than in previous years. Clearly the local promotion of breastfeeding was not working. Medical thought at the time recommended breast feeding be continued for between 7 and 9 months and using this criteria Gamgee suggested that 73 per cent of women breastfed their babies before the First World War whilst only 44.6 per cent did in the 1920's.[73] What appears to have been happening was that women were breastfeeding their babies for shorter amounts of time and weaning them earlier. This was of concern to local health officials who believed that infants were therefore not getting sufficient dietary protection from disease. During 1923 nearly all the babies visited by the Health Visitors in Hull were breast fed- only 1.1 per cent were recorded as never having been naturally fed- and most (86.8 per cent) were fed for over a month, but only 53.3 per cent were fed for the recommended time of 7-9 months.[74] Despite their concerns there was little investigation of why this might be happening and no similar study appears to have been carried out in the city at a later stage. Although little information remains about patterns of infant feeding in the city the fact that parents were weaning children earlier did not seem to prompt any new local educational initiatives within the infant welfare service.

The inter-war years did see the expansion of services which gave direct assistance to mothers (although it has to be said that these were not always free) and it is these services that illustrate some acceptance of the changing role of local government. These services also had the most impact on those mothers and babies who used them. In Hull direct assistance was given in the form of the supply of milk and the provision of dinners. These services were important in two respects; firstly they were used by large

numbers of women, and secondly by directly attacking the problem of poor nutrition (of both mother and baby) would have done most to protect infants from illness and death. The link between health and diet is now well established and such services would have helped improve the diet of hundreds of individuals. As a consequence mothers would have been healthier and more able to breastfeed and for those who could not or would not breast feed the supply of cheap powdered milk meant that those bottle fed babies were at least getting a reasonable substitute.

The extent and impact of artificial feeding methods on the health of infants had been an issue concerning local health officials throughout the entire period, particularly as the increase in artificial feeding was associated with a higher risk of death from infantile diarrhoea. Initial attempts to educate mothers in the correct methods of artificial feeding methods and hygiene via the leaflets given out at birth registration and through the health visiting system had largely been ineffective principally because the issue of a clean and safe milk supply had not been tackled. The Medical Officer of Health had campaigned for a milk depot to be established in the city since the beginning of the century but had received little support and by 1906 he was hopeful that government action would provide a solution. Certain local campaigning groups also argued in vain for the city to have its own milk depot; for example the Hull branch of the Wesleyan Methodist Union for Social Service during 1907 and the Hull branch of the British Socialist Party in 1914 both approached the Corporation. The Health Committee prevaricated on this issue and following investigations in 1914 concluded that national government was tackling the problem of the milk supply via the Milk and Dairies Act 1914 which thereby made a local milk depot unnecessary. However, it is unclear how effective this act was locally and implementation would have been affected by the pressures of war. Before the First World War and the introduction of grants from central government the Corporation was less willing to support the infant welfare services from the rates. One of the factors which may have prevented the building of a milk depot was its cost which was estimated at around £300 in 1901.[75] But as artificial

feeding was becoming more popular the safety of the milk supply was still an important issue.

A cheaper alternative solution was found during the First World War when the Corporation was approached by the dried milk manufacturers Cow and Gate and the promotion of certain infant formulaes by local government began. As a result, the infant welfare service in Hull began to provide dried milk to women (other supplements were also available to both mothers and babies such as Virol and malt extract) at reduced costs. Whilst a supply of dried milk was of great importance to those women who wished to bottle feed their babies the scheme was also of great value to the milk manufacturers. At first coupons were given to the clinics which could then be passed via the Medical Officer, to mothers who could obtain Cow and Gate milk at reduced price from retail outlets. In this way mothers were enticed to attend inspection sessions by the promise of free milk. This system did not prove popular with the commercial retail outlets and the scheme was abandoned in 1917 when chemists would no longer accept the coupons. As a result, arrangements were made for the milk to be delivered direct to the clinics and distributed to mothers from there. According to the Medical Officer of Health, 21,2791bs of dried milk- enough to make 17,655 gallons of milk- were purchased in 1919; this milk was then sold for 2/- per pound (enough to make approximately 6 and a half pints).[76] Some of this milk was given free of charge to necessitous cases but most was sold. The impact of this service is difficult to calculate however, it did ensure that some bottle fed babies were seen at the clinic- as only enough milk for one week was given at any one time. This service may have changed the bottle feeding habits of some mothers, those who could get the milk freely and those who could afford to buy it and probably did much to promote the product itself. However, other mothers may not have been able to afford the milk which at 2s was expensive when compared to cow's milk and not all bottle fed babies would have been brought to the clinic.

By the end of 1919 the distribution of milk and other nutritives had been transferred to the Central Distribution Centre at 14 Hanover Square, a less convenient

location for mothers who did not live in the centre of the City. Both Cow and Gate and Glaxo were now stocked at the centre and the supply of dried milk was cited as an important factor in reducing the numbers of deaths from infantile diarrhoea. Whilst breastfeeding was still promoted as the best food for baby, dried milk was seen as a safe (if less suitable) alternative when breast milk was unavailable.[77] Due to overcrowding at the Central Distribution Centre the supply of milk had to be passed back to the clinics and throughout the inter-war years the work of the distribution centres was increasingly popular and the value of free issues increased each year. The scheme was self-funding and indeed was an important revenue earner for the Maternity and Child Welfare Committee. Whilst the Corporation was concerned about the milk supply and prepared to provide some milk free of charge it was reluctant to provide a high level of financial support particularly as it believed that Parliament was tackling the safety of the milk supply through national legislation. The conflict between the promotion of breast feeding and the provision of dried milk is obvious but such issues do not appear to have been discussed and the Corporation's Medical Officers seemed resigned to the fact that if breastfeeding was decreasing then at least a safe alternative was available.

Dinners had originally been provided by the Schools for Mothers but became part of the Corporation's Scheme during the inter-war years. This service proved immensely popular and the numbers of dinners served grew each year from 41,018 in 1925 to 61,674 in 1938.[78] A small charge of 2d. per day was made (this had increased to 5d in 1938) but in a number of cases the dinners were free for example, in 1920 of the 43,690 dinners served 3,482 (or 8 per cent) were free.[79] However, the impact of this service should not be over emphasised as the Corporation were not catering for all those mothers most at risk and the percentage of free dinners remained a small proportion of those served. Furthermore, as it is likely that mothers would make use of this service when they visited the clinic their impact may have been limited particularly if women only visited once a week or once a month. However for those women whose diet was poor and who were able to obtain these meals freely and regularly the benefits would no doubt have been great.

During 1920 the menus had been standardised and they remained the same throughout the inter-war period. The menu was:

Monday- Meat and Potato Pies, Milk Pudding

Tuesday-Irish Stew, Steamed Fruit Pudding

Wednesday-Haricot Mutton and Mashed Potatoes, Milk Pudding

Thursday-Roast Meat, Stashed Potatoes and Vegetable, Milk Pudding

Friday-Stewed bleat and Potatoes, Suet Pudding with Treacle

Saturday-Stew, Milk Pudding.[80]

and would have been filling and nutritious. The provision of dinners to mothers became particularly important in times of economic depression when resources were scarce and families were surviving on the dole or short-time earnings.[81] For example in 1932 and 1933 when unemployment was high in the city (over 20 per cent of the insured workforce) more dinners were served, a total of over 60,000 each year.[82] But most women continued to pay for these dinners and despite the fact that more women were applying for this service each year the proportion of dinners given free of charge remained constant. The figures available for the 1930's show that only between 4.6 and 5.4 per cent of all dinners served were given free of charge[83] and whilst this may indicate that their impact upon mothers was limited, their continued support by local government (they were heavily subsidised) did at least reflect some commitment to financially support as well as to provide services. However, the Corporation did not see this service simply as a form of outdoor relief but had realised that dietary supplements could be an important way of getting mothers to attend the clinic with their babies and therefore improve the proportion of infants inspected. It is impossible to make firm conclusions about the long term effects of this service due both to the lack of data and because it is not clear whether women were regularly using this service. However by committing themselves to the provision of dinners the Corporation in Hull were at least acknowledging the link between nutrition and health and were attempting to improve the diet of some working class mothers. Their reasons for doing so however resulted

more from a desire to encourage breastfeeding and attendances at clinics than from a concern about poor standards of living.

The period between 1900 and 1939 saw the creation of an integrated system of infant and child welfare services in Hull. However, policy development in this area clearly took place in stages. Indeed it is possible to identify three distinct phases to the development of infant welfare policy in Hull: discovery, implementation and expansion. The first period, which covers the years before 1914, can be identified as a period of discovery, a time when local health and government officials were learning about the nature and scope of the problem of infant mortality. It is during this period that the large numbers of infant deaths were being identified and acknowledged as a problem at both the national and local level. At the same time this period also saw the development of fairly rudimentary responses to the problem and some reluctance on the part of local government to change its approach to public health policy. However, when set within the context of the national debate these local developments can be seen as reflecting dominant ideas of the time.

Infant mortality and in particular the high rates of infantile diarrhoea were of national and local concern and whilst investigation into the problem in Hull was prompted by the Local Government Board this research did not result in immediate action. The Corporation was influenced by the national debate on this issue and came to accept that educational programmes which improved standards of motherhood amongst working class women were the most effective way forward. However, such an approach also complemented the political ideology of the time as these services were cheap to provide. As a result local government officials supported the Medical Officer of Health's leaflet distribution scheme but were opposed to any of his other suggestions which necessitated financial support. A slight change in their attitude occurred in 1907 when after prolonged debate the Corporation finally committed itself to the appointment of two female sanitary inspectors. This signalled the beginning of the change in the role of the Corporation but also has to be seen as part of the dominant educational approach to improving standards of motherhood amongst the working class.

A persistent problem throughout the whole period, but one which seems particularly apparent in the period 1900-1914, is the tension between those controlling the public purse and those in charge of public health. These conflicts of interest caused some disagreement about the progress of local policy. Even in later years when the Corporation had accepted its changed role there was still disagreement over the path policy should take and a general unwillingness to fund capital projects (from milk depots at the beginning of the century to new, modern and purpose built buildings for infant welfare clinics at the end of the period) was retained.

The period before 1914 cannot be identified as a time when the public health ideology changed dramatically at the local level. Before 1914 infant mortality became part of the local public health agenda but this was not accompanied by a new era of radical solutions and financial support from local government. In Hull, the role of voluntary organisations in stimulating and promoting services can be seen as another factor encouraging local government involvement. Indeed the voluntary sector established the first Schools for Mothers and Infant Consultations in the city.

The second phase of development occurred during the First World War when a change in policy can clearly be identified. However, this was not an independent response by the local government in Hull to the problem of infant mortality, rather it appears to have been stimulated by the activities of national government. The period 1914-1918 can be identified as a period of implementation of new policy ideas, a time when national government appear to have been fundamental in helping to shape the form and function of local schemes by providing clear and detailed policy statements. The messages coming from government circles appear to have provided the impetus to ideas already being discussed at the local level and, more importantly, started to change the whole public health ideology by moving away from an insistence upon educational services alone towards encouraging financial support of treatment and intervention.

The period during the First World War was the time when the role of the local authority changed dramatically. Initially this was limited to some co-operation with the Schools for Mothers, providing small grants to help with their work. However, once the

positive benefits of the work of voluntary organisations was acknowledged, the Corporation became interested in establishing infant welfare clinics in conjunction with their efforts. However, the real incentive to the expansion of maternity and child welfare work within the city of Hull came from the Local Government Board who suggested that local authorities should expand their work and that treasury grants would soon be available. As a consequence, and before the implementation of the 1918 Maternity and Child Welfare Act, the Corporation had devised and had approved a co-ordinated Maternity and Child Welfare Scheme which was fully operational by 1918. However this did not signal the end of the contribution of the voluntary sector who in the form of the Schools for Mothers, continued to play an important part until they were finally taken over by the Corporation in 1921.

Finally the inter-war years can be identified as a period of expansion where the local authority began to build upon the services developed and encourage their wider use. However, it is important not to see this period as a time when the local government simply abandoned all its previous laissez-faire principles to embrace a new public health ideology as it becomes clear that, in Hull at least, the Corporation was still limiting financial commitments to services for mothers and their babies.

During the inter-war years the role of the Corporation in the provision of infant welfare services expanded as money became available from central government to fund these services. The solution, in the form of infant welfare clinics, offered several services- inspection, some treatment and some free/cheap food- although the impact of this upon local infant rearing practices and the health of mothers is difficult to gauge. However, whilst it is difficult to be sure of their impact, the importance of these services lies in the fact that they illustrate a shift in attitudes amongst those involved in local government: an increasing commitment to financially support services and an acceptance that education alone was an insufficient approach to public health problems.

By 1921 the Corporation had established itself as responsible for the provision and financing of services and during the inter-war years these services were expanded. By 1939 a fully co-ordinated health service catering for the pre- school child had

emerged and although their function remained largely educational and preventative, some medical attention was given free of charge if only to small numbers of children. The Corporation appears to have accepted the link between food and health and provided powdered milk and dinners. But whilst this may have helped supplement the diets of working class families these services were not implemented to relieve poverty but to encourage attendance at the clinics. Moreover, the supply of powdered milk helped create a safe alternative to breast milk whilst at the same time allowing the close observation of some of the bottle fed babies. At the same time voluntary organisations did not disappear and remained actively involved in the provision of certain services with volunteer staff continuing to give vital support at the infant welfare clinics.

Although the problem of infant mortality had not been solved rates had been reduced (whether this was a consequence of the city's scheme is subject to debate) and the period 1900-1939 saw a change in local government as it accepted responsibility for the health and welfare of certain sections of the population. Hull's Corporation was not a pioneer in infant welfare reform neither was it wholly reluctant to participate in government directed schemes. The main stumbling block to progress were the financial costs to the rate payer and once money became available in the form of grants from central government the Corporation extended its role and involvement in the provision, management and funding of services. The emphasis upon the health and welfare of babies and the development of infant welfare services provided the impetus for the development of other maternity services and was to have important implications for the future development of the maternity services.

[1] See for example G.F.McCleary The Maternity and Child Welfare Movement London P.S.King and Son Ltd. 1935, J.Lewis The Politics of Motherhood:Child and Maternal Welfare in England 1900-1939 London Croom Helm 1980 and D.Dwork War is Good for Babies and Other Young Children: A History of the Infant and Child Welfare Movement in England 1898-1918 London Tavistock Publications Ltd. 1987.

[2] See for example H.Marland 'A Pioneer in Infant Welfare:The Huddersfield Scheme 1903-1920' in Social History of Medicine Vol.6 No.1 April 1993 and E.Peretz 'A Maternity Service for England and Wales:Local Authority Maternity Care in the Inter-War Period in Oxfordshire and Tottenham' in J.Garcia, R.Kilpatrick and M.Lewis The Politics of Maternity Care:Services for Childbearing Women in Twentieth-Century Britain Oxford Clarendon press 1991.

[3] The infant mortality rate is calculated by the number of deaths of infants under one year of age per thousand live births.

[4] Local Government Board Forty-Second Annual Report 1912-1913. Supplement in Continuation of the Report of the Medical Officer of the Board for 1912-13 Containing a Second Report on Infant and Child Mortality London H.M.S.O. 1913 Cd.6909 Page 82.

[5] G.F.McCleary The Early History of the Infant Welfare Movement London H.K.Lewis and Co. 1933 Page 22.

[6] Medical Officer of Health for Hull Annual Report 1900 Page 13-16.

[7] Despite such attention the causes of infant death had changed little by 1938 even if the numbers of deaths themselves had fallen dramatically. In 1938 the Registrar General noted that most of the infant deaths for that year had been recorded as a consequence of either diarrhoea and enteritis, prematurity or pneumonia and in Hull the Medical Officer of Health noted that of the 400 deaths of infants under one year of age prematurity accounted for 185 of them, 78 died of pneumonia and a further 52 died of diarrhoea and enteritis. Although some progress had been made in reducing the numbers of infant deaths, the causes of those deaths remained the same.
See Registrar General Statistical Review for the Six Years 1940-1945 Text Vol.1 London H.M.S.O. 1949 Page 47 and Medical Officer of Health for Hull Annual Report 1938 Page 135.

[8] G.F.McCleary Op.Cit. 1933 Page 26.

[9] Medical Officer of Health for Hull Annual Report 1900 Page 29 His report which was entitled 'Infantile Diarrhoea' was also published in the Annual Report of 1900 Page 47-53.

[10] Hull Sanitary Committee Minutes of Proceedings September 1901.

[11] Hull Sanitary Committee Minutes of Proceedings September 1902.

[12] British Medical Journal March 1st 1902 Page 539.

[13] Medical Officer of Health for Hull Annual Report 1900 Page 48.

[14] Medical Officer of Health for Hull Annual Report 1903 Table 14 Page 35.

[15] C.Dyhouse 'Working Class Mothers and Infant Mortality in England 1895-1914' Journal of Social History Vol.12 1978-9 Page 256.

[16] Medical Officer of Health for Hull Annual Report 1900 Page 51.

[17] A.Harris The Milk Supply of East Yorkshire 1850-1950 East Yorkshire Local History Society 1977 Page 34.

[18] K.M.L.Gamgee 'Breast Feeding:Some of its Aspects from the Public Health Point of View' The Journal of the Royal Sanitary Institution Vol. XLV October 1924 Page 203.

[19] Hull Sanitary Committee Minutes of Proceedings September 1901.

[20] Hull Sanitary Committee Minutes of Proceedings 1906-7.

[21] Hull Sanitary Committee Minutes of Proceedings September 1901.

[22] Medical Officer of Health for Hull Annual Report 1902 Page 32.

[23] Medical Officer of Health for Hull Annual Report 1903 Page 35.

[24] A.MacFarlane and M.Mugford Birth Counts: Statistics of Pregnancy and Childbirth National Perinatal Epidemiology Unit London H.M.S.O. 1984 Table A3.1.

[25] G.F.McCleary Op.Cit. 1933 Page25.

[26] For more information on the impact of the 'Population Question' on the development of policy see A.Davin 'Imperialism and Motherhood' History Workshop:a journal of socialist historians No.5 1978 and for details of how the issue of National Efficiency impacted upon British political thought see G.R.Searle The Quest for National Efficiency: A Study in British Politics and Political Thought Oxford Basil Blackwell 1971 Page 54.

[27] Report of the Inter-Departmental Committee on Physical Deterioration of the Population Vol. 1 London H.M.S.O. 1904 Cd.2175 Page 49.

[28] Ibid. Page 50.

[29] Ibid. Page 44.

[30] A.Davin Op.Cit. 1978 Page 28.

[31] National Conference on Infant Mortality 1908 Page 30.

[32] Ibid. 1914 Page 62.

[33] Medical Officer of Health for Hull Annual Report 1906 Page 38.

[34]G.Newman Infant Mortality: A Social Problem London Methuen and Co. 1906 Page 257.

[35] Ibid. Page 262.

[36] Ibid. Page 258.

[37] Local Government Board Thirty Ninth Annual Report of the Local Government Board for 1909-10. Supplement to the Board's Medical Offcier on Infant and Child Mortality London H.M.S.O. 1910 (Reprinted in 1917) Cd.5312 Page 73.

[38] Local Government Board Op. Cit. 1913 Page 82.

[39] Ibid. Page 82.

[40] Board of Education Annual Report for 1913 of the Chief Medical Officer of the Board of Education London H.M.S.O. 1914 Cd.7730 Page 19.

[41]Ibid. Page 19.

[42] See for example H.Marland Op. Cit. 1993.

[43] The first School for Mothers in England is usually regarded as that formed during 1907 in St.Pancras, London.

[44] Hull Health Committee Minutes of Proceedings May 1914.

[45] H.Malleson A Woman Doctor: Mary Murdoch of Hull London Sidgwick and Jackson Ltd. 1919 Page 105.

[46] Ibid Page 106.

[47] Board of Education Op.Cit. 1914 Page 34.

[48] Ibid. Page 34.

[49] Hull Health Committee Minutes of Proceedings May 1914.

[50] Hull Health Committee Minutes of Proceedings October 1915.

[51] Local Government Board Circular and Memorandum: Maternity and Child Welfare 30th July 1914 circular paragraph two.

[52] Local Government Board Forty Fifth Annual Report of the Local Government Board for 1915-16, Supplement Containing the Report of the Medical Officer for 1915-16 London H.M.S.O. 1917 Cd.8423 Page xxxiv.

[53] Portia 'A Woman's Outlook' Hull Daily Mail July 28th 1915.

[54] Hull Health Committee Minutes of Proceedings October 1914.

[55] Hull Health Committee Minutes of Proceedings July 1915.

[56] Medical Officeer of Health for Hull Annual Report 1916 Page 23.

[57] Medical Officer of Health for Hull Annual Report 1918 Page 29.

[58] Medical Officer of Health for Hull Ibid. Page 28.

[59] Medical Officer of Health for Hull Ibid. Page 29.

[60] City of Hull Abstract of Accounts 1919-20 Page 353.

[61] The reasons for such high rates of infant mortality in these two particular years can be found in the Annual Reports of the Medical Officer of Health. In 1922 the cause was a high rate of infantile diarrhoea and enteritis, and in 1929 it was apparently due to an epidemic of pneumonia during February and March and a large number of deaths from diarrhoea in October.

[62] The American Red Cross Centre was short lived. Established by the Corporation with the help of the American Red Cross in 1919 it was less popular than the other centres and was forced to close its dining and creche facilities in 1920. In 1921 it was replaced by the Corporation's own central clinic in Fountain Road.

[63] Medical Officer of Health for Hull Annual Report 1938 Page 153.

[64] This work is not concerned with the question of why the infant mortality rate fell but rather with the development of local authority services and their use by mothers.

[65] Medical Officer of Health Annual Report 1920 Page 27.

[66] Medical Officer of Health Ibid. Page 27.

[67] Medical Officer of Health for Hull Annual Report 1921 Page 24.

[68] Medical Officer of Health for Hull Annual Report 1929 Page 136.

[69] Medical Officer of Health for Hull Annual Report 1919 Page 74.

[70] Medical Officer of Health for Hull Annual Report 1925 Page 113.

[71] Medical Officer of Health for Hull Annual Report 1920 Page 28 and 1938 Appendix

36.

[72] Medical Officer of Health Annual Report 1923 Page 25.

[73] K.M.L.Gamgee Op. Cit. 1924 Page 203.

[74] Medical Officer of Health for Hull Annual Report 1923 Page 29.

[75] Hull Sanitary Committee Minutes of Proceedings September 1901.

[76] Medical Officer of Health for Hull Annual Report 1919 Page 78.

[77] Medical Officer of Health for Hull Annual Report 1920 Page 31.

[78] Medical Officer of Health for Hull Annual Report 1925 Page 115 and 1938 Page 149.

[79] Medical Officer of Health Annual Report 1920 Page 25-6.

[80] Medical Officer of Health Ibid. Page 25.

[81] Local economic circumstances may have also contributed to the development of meals for toddlers although this was also seen as part of a more general campaign to improve the health of the school entrant. The first toddler dining centre was opened on June 16th 1930 in Madeley Street, followed by a second on Humber Street opened on the 29th of September but attendances were disappointing largely because these centres were not located within the mothers' dining centres. Once the Corporation realised their mistake, the toddlers' dining centres were moved and were from 1932 located with the mothers' dining centres within the infant welfare clinics. This proved immensely successful and during 1932 a total of 17,243 meals were served to toddlers, as opposed to 1,821 between June and December 1930.
Medical Officer of Health for Hull Annual Report 1932 Page 131.

[82] Medical Officer of Health for Hull Annual Report 1932 Page 141 and 1933 Page 147.

[83] Medical Officer of Health for Hull Annual Reports 1930-1938.

CHAPTER TWO: Safer Motherhood.

This chapter aims to concentrate on those factors which contributed to the development of local authority maternity services between 1900 and 1939. Whilst chapter one has acknowledged the importance of the issues of infant health and infant mortality in encouraging a change in the political ideology with regard to welfare policy in this period; this chapter moves away from an emphasis upon the infant and begins to focus on the services available for mothers. As such, this chapter explores the role of local government in the development of services for mothers and highlights the experience of Kingston upon Hull, whilst at the same time it also attempts to assess the consequences of this for the experience of pregnancy and childbirth. Although principally concerned with the expansion of local reproductive health services such as ante-natal, post-natal and birth control clinics, this chapter also considers the role of the birth attendant.

One of the most important health care workers within the developing maternity and child welfare service was the midwife and she attended the majority of births in this period. Therefore no discussion of this nature would be complete without some emphasis on her role and her interaction with the shifting public health ideology. However, the emphasis in this chapter is placed upon the changing nature of local midwifery services, their provision and funding and the contribution of the local authority to their development. It is therefore concerned with the integration of midwifery into the local authority maternity service and the impact of this upon women's experience of childbirth and not with the provision and impact of private maternity care. However, because the midwife was such an important part of the maternity and child welfare service and as her work was subject to a number of challenges during this period, further in-depth consideration of the special place of midwifery within the maternity and infant welfare services is given in chapter three.

Another central concern of this chapter is with the impact of maternal mortality upon the development of the maternity services. One of the most startling features of the period 1900-1939 is the progress of the maternal mortality rate (M.M.R.) and the fact that the possibility of dying remained very much part of the experience of

childbirth. Whereas infant mortality fell during the period, the progress of the M.M.R. was not consistently downwards and indeed in certain years it actually increased. As the progress of the infant mortality rate appears to have provided the impetus to the development of infant welfare services (which also encouraged the initial development of the maternity services) this study was also interested to examine whether there was any similar concern over maternal mortality and if so whether this stimulated the further expansion of local authority maternity services. This work therefore examines the extent and nature of the debate about maternal mortality, its impact on the development of national policy and any consequences this may have had for the provision of services at the local level.

In the period before the First World War services for childbearing women in Hull were usually provided by private practitioners (either G.Ps or midwives) or voluntary effort and the role of the local authority was limited to the provision of emergency maternity beds within the local infirmary and the workhouse. The city was not unusual in this regard and its experience mirrored the more widely held public health ideology of the time which believed that such matters were for the individual to organise. The emphasis of those maternity services that did exist-i.e. the work of the G.P. and midwife- was upon assistance during childbirth and little attention was paid to either the issue of ante or post-natal care. However some consideration was starting to be given to the links between maternal and infant health in this period, particularly in conjunction with the national debate on infant mortality. Some commentators within the infant welfare movement were beginning to suggest that the chances of survival for the infant could be influenced by the health of the mother. In 1906 George Newman had suggested that prematurity, which was a major cause of infant death, may have been linked to the health and welfare of mothers indeed he commented that: "poor physique and ill-nutrition of the mother exerts, in a considerable percentage of cases, an injurious effect upon the infant."[1] Furthermore, he suggested that part of the solution to the problem of infant mortality would be to "first obtain a higher standard of physical motherhood."[2] However, attention upon ante-natal care formed only a small part of his

analysis and did not impact greatly upon the debate or organisation of services at this time. As indicated in chapter one, the main conclusion of the infant welfare movement was that maternal ignorance was primarily responsible for infant deaths and it was this attitude that influenced the shape of the maternity and infant welfare services before 1914. As a result, the focus of attention was on improving childrearing practices through educational schemes and not upon providing services to improve standards of maternal health.

Although there was little widespread availability of ante-natal care at the turn of the century some attention was being given to the possible benefits of ante-natal inspection by sections of the medical profession before the First World War and a debate had been stimulated by Dr. John William Ballantyne's work in Edinburgh at the turn of the century. However, his scheme was based upon ante-natal wards within a maternity hospital and the modern day concept of the out-patient, ante-natal clinic appears not to have been considered before 1914- indeed the first out-patient, ante-natal clinic is regarded to have been set up in Edinburgh in 1915 by Dr. Haig Ferguson.[3] In England and Wales it is not clear precisely what ante-natal care was available in the early part of the twentieth century but there was not a unified system operating nor were all pregnant women receiving attention. A variety of agencies (midwives, general practitioners, voluntary agencies and local authority infant welfare clinics) were providing some advice to some mothers during pregnancy but much of the attention was focused on providing assistance in childbirth. Although health visiting schemes had been established before the First World War in several towns these were not usually involved with the provision of ante-natal care as their work and involvement with the mother and child was activated by the registration of the birth. At this time the concept of ante-natal care was defined somewhat differently than today. Much of the emphasis on 'improving physical motherhood' did not translate into support for medical attention and inspection during pregnancy but in some cases was used as the rationale for improving health and fitness by the provision of meals. It was believed that improved nutrition would improve maternal health and result in the mother being better able to

cope with the experience of birth and enable her to establish breastfeeding. The Schools for Mothers incorporated this idea into their service along with the need to provide infant consultations and education in mothercraft as a way of reducing infant mortality.

In Hull, the issue of improving the 'standard of physical motherhood' did receive some attention and dinners were supplied to some women by the Schools for Mothers along with education and advice on infant health, baby weighing sessions and the promotion of breastfeeding. In the period before the First World War these Schools were charitable organisations, entirely funded by voluntary effort- through charitable donations and by special sales. Whilst little evidence remains as to their evolution and work in Hull, the writings of one of the local organisers provide an insight into the Voluntary Committee's goals and some information about the service they provided. Mary Murdoch was a doctor who worked in the city and was involved in establishing the city's Schools for Mothers and keeping them running before the Corporation took over their control. She was interested in the current work being done into child health both in Britain and abroad and was influenced by both eugenics and the maternal ignorance argument of the infant welfare movement. One of her addresses to the Women's Institute in Hull during 1906 illustrates her attitudes and provides some indication of the ideology behind this local scheme:

> "The declining birth rate of England is occupying the serious thought of all who care for their country...One of the chief causes (of infant mortality) is that the infants are fed artificially, and those of us who care for the welfare of our country must do everything in our power to persuade the modern mothers to feed their babies naturally. The next great cause of the high mortality rate is the invincible ignorance of parents."[4]

Clearly the 'Population Question' had influenced her attitudes and she believed that the Schools for Mothers had an important role to play in the reduction of infant mortality and noted that ante-natal care was part of this work. Her comments during 1909, that "All the 'Schools' insist strongly on breastfeeding, and realise that the cheapest way to

feed the baby is to feed the mother."[5] reflected the attitudes of the time about the nature of ante-natal care. As a medical member of the Voluntary Committee, Mary Murdoch's ideas would have been well respected within the organisation in Hull and whilst there is no information to indicate that any other form of ante-natal care was given to mothers at the Schools for Mothers it is clear that, at least initially, the definition of ante-natal care was heavily influenced by social and not medical considerations.

Voluntary organisations played a crucial role in the development of many of the maternity services in Hull before the First World War. One example was the Maternity Home (see Part Two for an in-depth discussion of the Home's development and the service it offered) although others can also be found. The Free Maternity Home was founded in 1912 by Mrs Edith Robson and whilst there is little information regarding the service it offered, it was originally established to cater for poor married women who needed an institutional birth for medical reasons but who could not afford medical care and does not appear to have offered any ante-natal care. Another service that had been established from 1911 and funded by voluntary effort was the provision (via local midwives) of maternity bags which contained linen for the woman's confinement and often clothes for the infant.[6] Another widely used, voluntary funded service was the Hull and Sculcoates Dispensary which had been established from in 1814. According to later fund raising publicity "All advice, treatment, medicines and minor operations are free to the necessitous poor who attend the various Dispensaries."[7] and this service formed an important part of the medical provision for those citizens of Hull unable to afford medical attention.[8] Although this service was probably used by parturient women the staff at the Dispensary may have also referred women to the Hull Lying-in Charity (and from 1915 also to the free midwifery service). The Hull Lying-in Charity offered a form of out-door relief; founded in 1899 it catered for between approximately 100 and 165 cases annually[9] and remained operational until 1926 when the work of the free midwifery service meant that the voluntary committee felt their services were no longer required.

The work of the Corporation in the provision of maternity services before 1914 was limited to two areas, the provision of a small number of institutional maternity beds and its responsibilities under the 1902 Midwives Act (to inspect and control standards of midwifery). Some attention had been given to the issue of women's health by the founding of the Hull Hospital for Women in 1891 but access was limited and dependent upon the ability to pay. Local hospitals do not seem to have offered any ante-natal care although there was some co-operation between the Hull Royal Infirmary and the domiciliary services. It is unclear exactly when this practice began or what the specific arrangements were for admission and fees. Furthermore, it would appear that the Infirmary only admitted women who were gravely ill- and usually these were cases of puerperal fever- and those women needing a caesarian section and therefore played a limited role within the maternity services. The maternity wards of the Poor Law institutions were serviced by midwives who attended deliveries and called a doctor if and when necessary; unfortunately no details remain as to the numbers of women having their babies in the workhouses in Hull. Whilst few details remain, it does seem that the Corporation was only involving itself with maternity provision for a very small number of women and only for those who were in a life threatening or destitute situation.

The Corporation's commitment to the maternity services largely revolved around the re-organisation of the domiciliary midwifery service under the 1902 Midwives Act (a full discussion of the changes implemented and the effect these had on midwives can be found in chapter three). The 1902 Midwives Act was a turning point both for midwifery and for the role of the local authority in England and Wales but it was a regulatory piece of legislation which was concerned with controlling midwifery rather than with providing an improved maternity service. Under this Act midwives became subject to inspection and control by both the local authority and the Central Midwives Board (which was created by the Act) and whilst their practice was closely supervised, their responsibilities remained primarily with the supervision of the birth and the post-natal period of 10 days and little attention appears to have been paid to the ante-natal

period. From 1905 an Inspector of Midwives was appointed in Hull to ensure the Act was implemented and to assess and improve the competence of local midwives- her salary of £120 per annum was paid for by the Sanitary Committee.[10] Her investigations provide some evidence of the wide range of standards in education and practice amongst local midwives and as a result the type and frequency of ante-natal care offered to local women would have varied enormously. Some midwives would simply have attended for the birth and would have offered nothing in the way of ante-natal or post-natal care; whilst others (usually those who had been formally trained by a recognised institution) were more aware of the apparent benefits of such care. However, midwives were not required by the rules of their profession to take ante-natal notes until 1926, an indication perhaps that ante-natal care was either not seen as vital or not regarded as within the midwives terms of reference.

Although not all births were attended by midwives and in Hull between 1906 and 1908 over half the registered births were either unattended or attended by medical practitioners,[11] these years did see an increase in the number of births assisted by midwives. Of the 7806 births registered in Hull in 1906 midwives attended 3128 or 40 per cent of them and by 1908 this had increased to 3708 or 45 per cent of the 8167 births registered. By 1914 midwives were attending the majority of the births notified under the 1907 Notification of Births Act- about 60 per cent[12]- and this trend continued throughout the First World War (although this appears to have been a result of a falling birth rate rather than any real increase in numbers of births attended by midwives). What is clear from this is that whilst in the period before the First World War midwives were already an important part of the maternity and child welfare, this important link between mothers and the maternity services does not appear to have been fully exploited.

There appears to have been little discussion of the application of medical ante-natal care and no provision of ante-natal clinics by the local authority in Hull before the First World War. Little information is available about the organisation of the city's maternity services at this time although most women- particularly working class

women- who were not attended by a doctor would have been reliant upon the work of the domiciliary midwifery service, voluntary organisations and Poor Law provision. Before the First World War the development of the maternity services was inextricably linked to the development of infant welfare services and provision was heavily influenced by the debate on infant mortality. Whilst there had been some discussion on the health and welfare of women as mothers before the War, the infant welfare movement and more importantly for the provision of local authority services, the Local Government Board and the Board of Education were convinced that maternal ignorance was the main determinant of infant survival and that therefore services should be organised around education. In Hull, the role of the Corporation in the organisation and provision of local maternity services was limited to those areas with which they were required by law to be concerned with.

From 1915 a new period of activity and a new role for local government can be identified which encouraged the development of local maternity services. However, the impetus for this change came not as a result of any concern with the standard of women's health but as a result of the acceptance of the need for infant welfare. The impact of the First World War also saw a new emphasis on the physical welfare of mothers and an expansion in local authority maternity services as the issue of population decline and the quantity and quality of the British Race became a matter of national importance. As has been indicated in chapter one, the 'Population Question' was an important stimulus to the development of infant welfare services but it was also instrumental in bringing about an extension of the maternity services and the introduction of the modern-day concept of the out-patient, ante-natal clinic.

Examples of how both national policy and attitudes regarding the function and organisation of the maternity services were changing in the period 1914-1918 can be found in the Annual Reports and Memoranda issued by both the Board of Education (whose responsibility lay with the funding of many of the Schools for Mothers) and the Local Government Board (L.G.B.). For example in 1914 the Board of Education began to acknowledge that education alone would not necessarily solve the problem of infant

mortality and suggested that state directed medical treatment services should not be ruled out; it commented that there was a need for: "Adequate attention to the physical condition of the mother herself...".[13] The Board now believed that healthy motherhood was important in relation to the health of infants and could be achieved by a number of measures including "medical, surgical and obstetrical advice and treatment for the mother before, during or after her confinement...".[14] Similar sentiments can also be identified in the publications of the L.G.B. and it has already been noted in chapter one that the circular letter to county councils and sanitary authorities of July 1914 indicated a shift in the Board's attitude and illustrated some acceptance of the need for medical treatment for pregnant women. This communication recommended the expansion of ante-natal services based upon domiciliary midwifery, ante-natal clinics and home visitation as well as maternity hospital beds for complicated pregnancies and therefore changed the emphasis of national policy by suggesting the creation of a fully co-ordinated out-patient, ante-natal service based upon a medical model.[15] This memorandum was to provide the blue-print for the future development of Britain's maternity and infant welfare service and indicated that the state had taken responsibility for the health and welfare of women as mothers and their children and was encouraging local authorities to do the same. Such attitudes illustrate the beginnings of a re-definition of the nature of ante-natal care, the need for an expansion of both the maternity services and the role of the state in providing medical attention to pregnant women.

Whilst such a change in policy was important in that it encouraged the further involvement of local authorities in the provision of maternity care at the local level, this new emphasis on the health of mothers did not indicate a new interest in the health of women per se. This policy was merely an extension of the commitment to reduce infant mortality in light of the changing contemporary medical debate about the benefits of ante-natal care, the impact of the ante-natal environment on the health of the foetus in the womb and its subsequent survival. The memorandum from the L.G.B. in 1914 confirms this as it notes that the focus of maternity and child welfare schemes should be

on the reduction of infant mortality and "be organised in its direct bearing on infantile health.".[16] Further confirmation of this point of view and the influence of the issues of Race and Nation on changes to national policy are given in another L.G.B. communication of 1915 which states that:

> "At a time like the present the urgent need for taking all possible steps to secure the health of mothers and children and to diminish ante-natal and post-natal infant mortality is obvious, and the Board are confident that they can rely upon local authorities making the fullest use of the powers conferred on them."[17]

What made this change in policy even more significant was that it was backed up with money from a central fund and during 1915 arrangements were made for the L.G.B. to pay fifty per cent grants to local authorities and voluntary agencies providing certain maternity and child welfare services. The L.G.B. listed four main services for which grants were available:

> "1)The salaries and expenses of Inspectors of Midwives.
> 2) The salaries and expenses of Health Visitors.
> 3) The provision of a midwife or doctor for the aid in confinement of necessitous women.
> 4) The expenses of a maternity centre...providing... Medical supervision and advice for expectant and nursing mothers, and for infants and little children, and medical treatment for cases needing it."[18]

Such a move not only confirmed that there had been a change in attitude amongst national government about the importance of these services but also helped encourage local authority activity (although action was not compulsory) and ensured a degree of uniformity in the provision of maternity services across the country. These grants were designed to encourage the development of maternity centres within which infant consultations and ante-natal sessions could be held but the significance of this policy

was that it firmly committed the L.G.B. to the funding of medical treatment and did not limit itself to simply supporting educational and inspection services. By ensuring that money was forthcoming from government, the Board had helped remove some of the objections of local rate payers and had provided an important stimulus to the expansion of the maternity services.

In Hull municipal ante-natal care via maternity centres began in December 1915 with the approval of the city's Maternal and Child Welfare Scheme by the L.G.B. The ante-natal clinics which were established at the two existing Schools for Mothers were supported by the work of the Health Visitors who were to visit women seen by the Medical Officer and instruct them in ante-natal hygiene. Although the L.G.B. had indicated that it would support medical treatment for expectant women, in Hull no out-patient treatment was offered by the city's Scheme and the clinics were to only offer medical advice. However, despite limitations, the city's Scheme totally altered the role of the Corporation within the maternity services and firmly located the local government as responsible for the funding and running of services begun in the voluntary sector. For example, women with complicated pregnancies or who were ill could now be admitted to the Maternity Home which had been transferred to local authority control on December 1st 1915. The numbers of women attending the ante-natal clinics were however very small indeed during the First World War and a total of 230 individual women were seen in 1916 and although this had doubled by 1918 when 482 expectant mothers attended,[19] ante-natal clinics had little impact upon the pregnant population (the impact of the Maternity Home on the experience of childbirth is considered in Part Two). However, the significance of the Scheme in Hull was that in signalled a new approach by the Corporation who were now willing to provide some services to some mothers free of charge. For example, from 1915 a system of free midwifery and (if necessary during the confinement) general practitioner care was funded and organised by the local authority. Moreover, at the same time, there was also some attention to post-natal problems amongst women at the clinics and some referral of serious post-natal complaints to either the Hull Royal Infirmary or the Hospital for

TABLE 3

Maternal Mortality Rates (per 1,000 live births) for England and Wales and Kingston-Upon-Hull, 1891-1939

YEAR	E + W	HULL
1891-5	5.49	3.7
1896-1900	4.69	2.6
1901-5	4.27	4.1
1906-10	3.74	3.6
1911-15	3.81	3.7
1916-20	3.88	4.6
1921	3.71	4.3
1922	3.58	3.9
1923	3.60	4.0
1924	3.70	3.6
1925	3.86	4.7
1926	3.87	3.3
1927	3.83	4.3
1928	4.15	4.1
1929	4.07	4.4
1930	4.16	4.4
1931	3.93	3.5
1932	4.01	3.9
1933	4.32	5.7
1934	4.39	5.3
1935	3.95	2.5
1936	3.65	3.4
1937	3.10	2.6
1938	2.97	2.8
1939	2.79	3.3

Source: A MacFarlane and M Mugford Birth Counts: Statistics of Pregnancy and Childbirth National Perinatal Epidemiology Unit London HMSO 1984. Medical Officer of Health for Hull Annual Reports 1925-1939

Women which was to be paid for by the Health Committee. However, there is no indication as to what was considered a serious complaint and no information indicating how many women were referred.

The wartime concern with population issues and the increased emphasis amongst health officials upon the links between maternal and infant health encouraged some discussion of the impact of maternal mortality upon the survival of babies and some investigation into the clinical and social factors which may have caused these deaths amongst mothers. However, the problem was not only that many women were dying in childbirth but also that many were suffering long-term ill health as a result of childbearing which in turn effected their reproductive capacity. The impact of this in population terms was apparent to health officials who began to investigate the problem and suggest ways in which the maternity services could develop to help remedy the situation. The main focus of the maternal mortality debate was therefore with its impact upon infant health and not primarily on the consequences for women.

There had been little discussion about the causes and consequences of high rates of maternal mortality before 1914 and a certain amount of death in childbirth appears to have been accepted. Moreover, there had been some reduction in the maternal mortality rate which had fallen from 5.49 in the period 1891-1895 to 3.74 in the years between 1906 and 1910[20] and as the maternity services improved and more women took advantage of the services offered there was an expectation that the rates would fall further. This was not however to be the case, as in certain years (during both the First World War and in the inter-war years) the maternal mortality rates actually increased (see Table Three).

In comparison with some other areas in England and Wales, Hull did not have a particularly high recorded rate of maternal mortality between 1900 and 1918. For the year 1914-1915 the highest rate of mortality from childbearing was recorded at 5.81 per 1000 births in Barnsley but in Hull it was 3.86 for the same period.[21] The causes of deaths in childbirth were various but puerperal fever was by far the biggest single recorded killer of women. In 1913 for England and Wales 3492 women were recorded

as having died as a result of pregnancy or childbirth and just over thirty per cent of these (a total of 1108 women) were caused by puerperal fever. Accidents of pregnancy and childbirth (which essentially covered all other deaths attributable to pregnancy and childbirth) accounted for another 751 of the deaths, puerperal haemorrhage for 507 deaths and other puerperal causes (e.g. albuminuria, thrombosis and sudden death) for the remaining 112.[22] In Hull during the same year, 19 maternal deaths were recorded, 8 being a result of puerperal fever. Whilst the number and cause of maternal deaths were recorded by the Medical Officer of Health in his Annual Reports, due to the problems of classification and certification of deaths, it is impossible to be certain that these numbers are accurate. Only two categories of cause of death were recorded: those who died from puerperal fever and those whose death was attributed to other diseases and accidents of parturition- a category which included a wide range of conditions. Deaths from puerperal fever were also recorded in the maternal and child welfare section of the Reports and the two sets of figures for these deaths do not always agree. For example, in 1914 a total of 32 maternal deaths were recorded by the Medical Officer and of these 17 were due to puerperal fever. However, 21 deaths from puerperal fever were recorded as taking place in domiciliary practice that year and another 7 in public institutions- a total of 28 puerperal fever deaths. Quite clearly there is some inconsistency in the recording and classification of these deaths which make it difficult to make any precise conclusions about the nature of maternal mortality in Hull. However, these figures do provide some indication of the proportion of women dying as a result of childbirth and the incidence of puerperal fever in the city. There was wide variation in both the numbers of maternal deaths in the city and the progress of the M.M.R. during the period 1900-1918 and although puerperal fever cases were recorded (which in itself indicates its significance at least in the minds of health officials) they did not account for a consistent proportion of deaths each year, for example in 1905 only 4 of the 33 recorded maternal deaths were attributed to puerperal fever whilst during 1914 more than fifty per cent of the deaths were puerperal fever cases.

The first government report on this subject which was published in 1915 argued that these deaths were largely preventable and suggested that improvements in both ante-natal care and attendance at the birth would help reduce the numbers of deaths.[23] This report illustrates the context within which the debate on maternal mortality took place and shows that the debate about maternal mortality did not evolve out of concern for women's health but rather from a desire to reduce infant mortality and to improve the birth rate. The report emphasised the links between infant and maternal mortality and further added weight to the argument that the mother's health influenced the health and survival of the baby. The report commented that:

> "The prevention of early infant mortality is inseparable from that of maternal mortality in childbearing. Excessive mortality of mothers in childbearing means also an excessive proportion of stillborn infants, and an excessive proportion of deaths of infants in the early weeks after live birth."[24]

This report did not signal the beginning of a national debate about maternal mortality but aimed to stimulate local enquiry. It suggested that "better arrangements for ante-natal care and for midwifery attendance would go far to reduce the mortality from childbearing"[25] and so signalled that the focus of the maternity services should be on expanding ante-natal care and improving the midwifery service- this was to continue to be a feature of policy statements into the inter-war years. However, the L.G.B.'s comments appear to have made little impact locally. Health Officials in Hull do not seem to have been concerned about the levels of maternal mortality in the city before and during the First World War. There was little comment made by the Medical Officer of Health in his Annual Reports between 1900 and 1918 about the nature of maternal mortality in the city and no discussion of the situation at any of the relevant local government Committees. This may have been because the city did not have a particularly high rate of maternal deaths or may simply indicate that the concern of local health officials was with the progress of the infant mortality rate and that a certain amount of death in childbed was acceptable.

Despite the beliefs of health officials that the greater application of ante-natal care, improved domiciliary midwifery and maternity hospital provision would result in a reduction of the M.M.R., maternal mortality remained a persistent problem throughout the inter-war years throughout England and Wales. As has already been shown the maternity services developed in response to the high levels of infant mortality and whilst the extent of maternal mortality had been noted it was initially discussed very much in light of its impact upon infant death rates. However, the nature of the debate on maternal mortality changed somewhat in the inter-war years as it became clear that the maternal mortality rate appeared reluctant to respond to the expansion of the maternity services.

During the inter-war years the M.M.R. for England and Wales remained high not falling to below 3 deaths per 1000 live births until 1938 and although there was some fluctuation between years (see Table Three) the progress of the rate was not consistently downward. Between 1900 and 1922 maternal mortality appeared to have been following a slow but steady decline but by 1924 it was clear that this was not the case and trends were reversed with the M.M.R. increasing from 3.7 in that year to 4.16 in 1930. However, although the rate dropped slightly in 1931 and 1932, by 1934 it had risen past the level recorded at the beginning of the century and had reached 4.39. In Hull the number of maternal deaths fluctuated yearly but as with the national picture the rate did not follow a downward path. Improvements were slow in coming and by 1933 the city's M.M.R. had reached the unprecedented height of 5.7 maternal deaths per 1,000 live births. Clearly the problem of maternal mortality in England and Wales and in Hull was not being solved by the policies being implemented at the time and although some improvement finally came from 1935 onwards, the threat of death remained very much a part of the experience of childbirth.

According to official statistics published in the 1920's and 1930's[26] the majority of these deaths were due to puerperal causes, that is they were a direct result of some complication of pregnancy and childbirth and not caused by any other medical complication, disease or abnormality. Puerperal sepsis was the most common cause of

death and of the 2971 maternal deaths recorded as taking place in England and Wales in 1922, 2303 were from puerperal causes, with 1079 actual deaths (or 36% of all deaths for that year) being due to puerperal sepsis.[27] These statistics were repeated locally with puerperal sepsis accounting for 50% of all maternal deaths in Hull in 1922.[28] Despite increased attention to the issue of maternal mortality which was to occur in the inter-war years and the greater availability of maternity services to pregnant and childbearing women, the clinical causes of death had not altered by 1936 and puerperal sepsis still accounted for one third of all maternal deaths in England and Wales[29] and in Hull eight out of the twenty maternal deaths were a consequence of puerperal sepsis.[30]

However whilst acknowledging that maternal mortality remained a consistent problem throughout the inter-war years, this study is less interested in the clinical causes of death but rather seeks to examine the consequences of this for policy development and in particular the impact of the debate upon the role of local government in providing maternity services and expanding those services available to women in Hull. By focusing upon the nature of the emerging debate on maternal mortality at both the national and local level, it is possible to examine how far the problem was acknowledged and what solutions were proposed and implemented. Whilst maternal mortality became a more important public health issue in the inter-war years, it is interesting to note that within both national and local government there was a reluctance to make any changes to the existing maternal and child welfare policy in response to this particular death rate. This is not to say that maternal mortality was ignored as a public health issue but rather that it did not impact upon policy in the same way as infant mortality had done and even when the M.M.R. rose there was no real reassessment of policy, instead health officials at both the national and local level continued to believe that the wider application of the existing services would eventually have the desired effect. Furthermore, the large numbers of women dying in childbirth did not become an issue of widespread public debate in the way infant mortality had and the two issues had completely different effects upon policy formation in England and Wales and in Hull. Whilst the remainder of this chapter focuses on the further

development of the maternity services, it seeks to explore this issue in light of the large number of maternal deaths in an effort to assess how far this particular mortality rate impacted upon the development of services at the local level and why this particular mortality rate may have been treated differently to other mortality rates. Moreover, it also aims to assess the consequences of the progress of policy for the experience of pregnancy and childbearing for the mothers in Hull who used the maternity services.

As it became clear that maternal mortality rates were not improving the government began to address the problem directly and a series of reports were published in the inter-war years. The first government report specifically on the issue of maternal mortality was published in 1924[31] with an introduction by the Minister of Health, John Wheatley. Whilst this document acknowledged the extent of maternal mortality and morbidity and indeed pointed out that much of this was avoidable; it also highlighted why maternal mortality was of particular interest to health officials and politicians. A common ideological theme was present in much of the debate about maternal mortality (and in this way it was similar to the debate on infant mortality), which showed that the concern of government was not with the impact upon women per se but with the wider implications for Britain's population. Despite the absence of war, ideas about the future efficiency of the nation and women's role within this abound in Wheatley's introduction; for example he comments:

> "It is a trite platitude to say that the girls of today are the mothers of the new generation. But the truth must be woven into our whole conception of preventative medicine if we really mean to build a healthy race of mothers, the source of a nation".[32]

Furthermore, these women were dying prior to completing their task (i.e. before the menopause) and Wheatley was clearly concerned about the implications of this not for mothers, but for the Race when he commented that:

> "With certain exceptions the women concerned are in the prime of life and are actively engaged in fulfilling the most important duty of bearing and rearing children for the nation. Most of them,

might in the ordinary course of events look forward to many years of health and usefulness."[33]

These attitudes clearly illustrate that maternal mortality was not simply a problem for individual women but was of national significance. Moreover, the high level of maternal mortality also spoilt Britain's public health record. Ministers were proud of the fact that all sections of society were now experiencing improved mortality rates but high death rates amongst childbearing women did nothing to promote the image of a healthier nation- nor did it help to promote motherhood.

Despite such strong language from the Minister of Health, it is interesting to compare the recommendations of the Report's author Dr. Janet Campbell with the resulting policy document from the Ministry of Health. Despite wide ranging proposals for the creation of a comprehensive maternity service to tackle the problem of maternal mortality on several fronts (through the improved education of medical and midwifery students, via local maternity services and social and educational measures),[34] no new policy initiatives were implemented and the Minister urged all local authorities to extend the existing policy by improving the ante-natal and midwifery service and ensuring local provision of maternity beds.[35] As a consequence, the policy already begun before the end of the First World War was to be continued but not altered and despite the continued problem of maternal mortality there was no compulsion for local authorities to improve services other than under the limited requirements of the 1918 Maternity and Child Welfare Act and the supervisory role required under the 1902 Midwives' Act (and extensions). Furthermore, despite a wide ranging report which recommended a variety of initiatives, Campbell's principal conclusion that "the adequacy or otherwise of the professional attention during pregnancy, and at the time of birth"[36] was the main reason for such high maternal death rates encouraged increased attention upon midwives and the service they provided. Whilst Campbell did not highlight midwives as primarily responsible for maternal deaths (in fact she emphasised the need for improved training amongst both midwives and doctors) the inter-war years saw increased emphasis upon the standard of midwifery in England and Wales and

midwifery training and practice were carefully prescribed by legislation and the guidelines of the Central Midwives Board (See Chapter 3). As a result attention was shifted away from standards of obstetric care offered by GP's and obstetricians and towards the role of the midwife. It is difficult to be sure about why this happened but it may have been because midwives attended the majority of births at this time and were therefore assumed to be responsible for the majority of maternal deaths. However, there may have also been more complex factors at work concerned with professional rivalries; for example, medics were in a more powerful position helping to shape policy and in an effort to promote themselves as the most skilled (and safest) birth attendant, whether this be at home or in hospital, they successfully deflected criticism away from their own practice. That midwives should be targeted in this way without the support of statistical information to prove their greater incompetence suggests that doctors were a more powerful force than the midwives within the maternity and child welfare service. However the midwives' case was not helped by the awareness of the continued practice of the handywoman although her position as maternity nurse may well have been encouraged (at least locally and unofficially) by doctors who used her as an assistant.

On the whole Campbell's report made few recommendations that were unpalatable to the government and the existing maternity services were expanded. As part of this, the availability of institutional maternity beds, which were increasingly being seen as part of the solution to both maternal and infant mortality, were expanded. Evidence had not shown conclusively that standards of housing and sanitation always had a detrimental effect upon the survival of the mother but despite this Campbell reaffirmed the emerging policy of the time that maternity beds should be available for complicated cases and for women where accommodation did not "enable them to be confined safely and suitably at home".[37] Her support for such a policy was based upon the fear that if complications arose in insanitary conditions it was more difficult to implement operative interventions and aseptic procedures. However, there is some contradiction in her report as she also believed that skilled midwifery could overcome many of the difficulties associated with poor housing without increasing the risk of

death for the mother. To support this view, Campbell cited evidence from Hull where municipal midwives attended necessitous cases with poor housing and few facilities necessary for childbirth without any maternal death or care of puerperal sepsis.[38] As a consequence of her investigations, Campbell concluded that normal deliveries could be safely conducted in poor conditions but recommended the removal of abnormal labours to hospital. This was not translated into government policy and the recommendation of the Ministry of Health was that home circumstances alone were sufficient reasons to encourage institutional delivery.[39] At the same time other factors were also at work to ensure that institutional childbirth became increasingly popular in the inter-war years (see Part Two of this thesis).

Campbell's Report also recommended a system of inspection and registration for maternity hospitals as she recognised that poorly managed maternity hospitals could worsen rather than improve the incidence of maternal mortality.[40] However, overall she concurred with medical opinion of the time that maternity beds were a necessary part of any maternity service for both medical and environmental reasons. In this way Campbell's report, and the subsequent policy document from the Ministry of Health, did little to change the progress of the maternity services instead the solutions that had been promoted before World War One were highlighted again and it was believed that maternal mortality could be reduced if women took advantage of the ante-natal service and ensured competent attendance at birth; this idea that women themselves were somehow to blame for maternal mortality was to remain an important theme. The Ministry of Health did not yet accept that it would have to take full responsibility for the organisation and financing of a national maternity service, although such a scheme was being discussed, and the later implementation of the 1936 Midwives Act did indicate some acceptance of a state funded national maternity service before the National Health Service.

The problem of maternal mortality showed no sign of improving in the late 1920's and 1930's (See Table Three) and in fact deteriorated but despite this there was no speedy reorganisation of services for mothers and the response from national

Table 4.

Mortality, per 1,000 Live Births, of Married Women according to Social Class of Husband- England and Wales, 1930-32

CAUSE NO.	CAUSE	CLASSES I & II	CLASS III	CLASS IV	CLASS V	ALL MARRIED WOMEN
140-150	All puerperal cases	4.44	4.11	4.16	3.89	4.13
142-150	Puerperal cases other than abortion	3.94	3.55	3.60	3.32	3.58
142, 143	Ectopic gestation and other accidents of pregnancy	0.17	0.15	0.16	0.12	0.15
144	Puerperal haemorrhage	0.50	0.44	0.48	0.60	0.49
145	Puerperal sepsis	1.45	1.33	1.21	1.16	1.29
146, 147	Albuminuria and other toxaemias	0.81	0.81	0.85	0.68	0.79
148	Phlegmasia alba dolens	0.40	0.30	0.32	0.26	0.31
149	Other accidents of childbirth	0.52	0.42	0.46	0.40	0.44

Source: Ministry of Health Report on an Investigation into Maternal Mortality London HMSO 1937 Page 108.

government was further investigation of the problem. Janet Campbell published another report in 1927[41] and a Departmental Committee was appointed in 1928.[42] However, these reports added little to what had already been said and offered few new ideas for a way forward for the maternity services. Both reports focused upon the need for a co-ordinated and well organised maternity service although they stopped short of explicitly arguing that this should be state funded and directed and instead encouraged the further expansion of existing policy.[43] Although the Departmental Committee recognised in their Final Report that maternal mortality was a response to a complex set of inter related factors- clinical, social, administrative and economic- the authors felt confident in concluding that the solution was fairly simple and that "the primary essential for the reduction of a high maternal mortality is sound midwifery, before, during and after childbirth, and this does not chiefly depend upon administrative arrangements or the expenditure of public money".[44] These somewhat contradictory conclusions did little to encourage a co-ordinated approach towards solving the problem but rather helped focus attention once more upon the competence of midwives. Moreover the report implicated mothers in the high maternal mortality rates by focusing on their failure to plan competent care for themselves during pregnancy and birth.[45]

Initially, those studying maternal mortality assumed that it affected all women equally regardless of social class and this made it simple to suggest that any woman who did not take advantage of the maternity services available to her was in fact putting herself at increased risk. However, by 1935 it was estimated that approximately 80% of pregnant women in England and Wales received some form of ante-natal care[46] but despite this the maternal mortality rate remained high at 3.95 per 1,000 live births. Further investigations revealed that women from the higher social classes actually had a higher risk of dying in childbirth (Table Four) but the Ministry of Health believed this was due to the higher proportion of first births in these social groups and did not speculate further- this conclusion could of course have been used to add further weight to the argument that all primigravidae needed a hospital birth. Other possible factors explaining this inverse class relationship were not explored; for example the patterns of

obstetric care differed between social classes and could have had an impact on maternal mortality. Women in the upper echelons of society were, by virtue of their wealth/status, more likely to have been attended by a doctor who in turn was more likely to interfere with the delivery (even in normal cases) compared to a midwife who was taught to observe the labouring woman and avoid "meddlesome interference".[47]

Later reports also commented that the problem was not simply one of maternal mortality but also morbidity which resulted in many women suffering ill health as a consequence of childbearing and therefore an increased risk of complication (and death) in future pregnancies. This situation was difficult to quantify because of a lack of statistical data but often meant that many women suffered ill health for the rest of their lives following pregnancy. Even if the woman survived, her health and future chances of dying during childbirth could be much reduced by her obstetric experience. One useful source of information on this issue is the aforementioned Report of the Departmental Committee which stated that approximately 10,000 women a year were suffering from chronic renal disease or recurrent albuminuria as a consequence of pregnancy and that eclampsia, pyelitis and sepsis were also causing much ill health amongst women.[48] Once acknowledged, this problem had enormous implications for the maternity services as it was gradually accepted that the availability of birth control and post-natal treatment clinics could do much to alleviate the problem. This presented a paradox for a government who had to balance the promotion of motherhood with the issue of healthy motherhood. The issue of birth control was not one with which the state wanted to engage and although women had been limiting their family size for centuries and indeed a birth control campaign had been operating in this country since the mid nineteenth century,[49] the state steadfastly refused to sanction the availability of advice and devices through local authority clinics until 1932- and then only to married women. It is debatable how far the inclusion of birth control into maternity and child welfare policy helped in improving women's health before 1939 as few women used the service and birth control information was not accompanied by freely available medical services

Table 5

Number of Maternal Deaths in Hull, 1919-1938

YEAR	TOTAL MATERNAL DEATHS	FROM PUERPERAL FEVER/ SEPSIS	MMR
1919	29	6	5.1
1920	32	10	3.8
1921	33	13	4.3
1922	29	7	3.9
1923	28	9	4.0
1924	24	6	3.6
1925	31	8	4.7
1926	21	9	3.3
1927	27	11	4.3
1928	25	13	4.1
1929	27	14	4.4
1930	28	10	4.4
1931	21	14	3.5
1932	24	12	3.9
1933	33	10	5.7
1934	30	16	5.3
1935	15	5	2.5
1936	20	8	3.4
1937	15	4	2.6
1938	16	2	2.8

Source: Medical Officer of Health for Hull Annual Reports

to solve post-natal problems. However, the acceptance of birth control as part of the policy to improve maternal health was a significant step forward.

Whilst it was suggested that ante-natal care be expanded and attention be paid to ensuring competent midwifery, it was becoming increasingly clear that maternity hospitals and obstetricians were believed to be the solution.[50] This medicalisation of childbirth (seeing it as a medical rather than a natural physiological or social event) and the increased faith put in the skills of obstetricians lead to further promotion of hospital birth and a shift towards institutional birth. Despite the expansion of maternity services no real progress had been made when the Ministry of Health made its last report on maternal mortality before the Second World War.[51] The report reiterated the conclusions made over the previous 10-15 years and recommended the further extension of the maternity services including hospital birth[52] without commenting on the fact that this policy had not in fact led to any alleviation of the problem. Much of the rhetoric concerning maternal mortality and the development of the maternity services emanating from official sources at this time failed to consider the notion that maternity policy might require some redirection despite the fact that the expansion of ante-natal, midwifery and specialised obstetric services were doing little to reduce the death rates.

In Hull the response by health care workers to maternal mortality was largely limited to it being recognised as being a problem and as the inter-war years progressed, to a recognition that this problem was becoming worse. The progress of the maternal mortality rate and the number of maternal deaths in Hull along with deaths from puerperal sepsis for the period 1919-1938 can be seen in Table Five which illustrates the persistent nature of the problem. However, although statistical evidence was collected and the clinical causes of death (as recorded on the death certificate) were noted, there were no local investigations into the problem by local health officials or other concerned groups[53] and no examination of the relationship between maternal mortality and the maternity services. Furthermore, no new local initiatives were

implemented to try and reduce theses deaths and instead national policy was followed and the local maternity services were extended.

Although national investigations had identified standards of midwifery care as an important variable in the level of maternal mortality, which had resulted in attention being focused upon midwives alone, it is difficult to show that midwives were predominantly responsible for maternal deaths in Hull and data is incomplete. For example, of the 24 maternal deaths taking place in Hull in 1924, 6 were recorded as being due to puerperal sepsis and 18 were due to accidents of pregnancy, but no further details are given about the medical, economic or social conditions of these cases. The Annual Reports of the Medical Officer of Health for Hull do however provide some information about the puerperal sepsis cases and during 1924 13 cases of puerperal infection were notified of which 9 were fatal. Of these, 5 took place in the practice of midwives and 4 occurred in doctors' practices; it would therefore be difficult to conclude from these figures that midwives alone were the primary cause of death. Moreover, the place of birth and puerperuim need also to be taken into consideration and may have had some impact upon the mother's survival; of the 9 fatal cases only 2 occurred in the patient's own home, whilst the rest occurred in institutions. What is not clear is whether all these women began their labour at home and were later transferred, or whether some were confined in public institutions. As a consequence we cannot be certain of the impact of birth attendant or place of birth upon the chances of recovery at the local level and it is impossible to make accurate conclusions about maternal mortality in Hull. What is clear is that with such a complex set of factors influencing the maternal outcome it was rather over simplistic of health officials to conclude that midwives alone were responsible for maternal deaths.

In Hull, some attention was paid to the provision of domiciliary midwifery care by the Corporation during the inter-war years by the creation of a municipal midwifery service. Although the municipal midwifery scheme appears to have been initiated to reduce the financial burden of free midwifery cases to the Corporation and to provide domiciliary experience for pupil midwives; it was also hoped that by widening the

application of ante-natal care and providing suitable attendants for birth, the service would also contribute to the reduction of local levels of maternal mortality. However, the development of this service also illustrated that emphasis locally was to be placed only upon standards of midwifery care and not upon the standards of all health care workers.

The main response of the Corporation to maternal mortality in Hull was however a reliance on the positive benefits of ante-natal care and the Medical Officer of Health was convinced that its greater application would reduce deaths; he commented that "Many of these maternal deaths could have been prevented if the patients had had proper ante-natal care..."[54] It is not clear upon what basis these claims were made but this attitude was popular amongst the medical and public health professions and encouraged the further development of ante-natal clinic services in Hull. Ante-natal care alone was not regarded as a sufficient solution to the problem but it was the central and most important service. In Hull the Medical Officer of Health believed that "the conditions that tend to lessen maternal mortality are undoubtedly connected with an efficient midwifery service, and, above all, good ante-natal medical supervision of the expectant mother".[55] As a result, the inter-war years therefore saw the further expansion of ante-natal services in Hull and the first ante-natal clinic separate from the infant welfare clinics was opened in 1924 in the midwifery centre at 14 Kingston Square. Initially it operated two weekly sessions, one for women referred by the municipal midwives or who were booked into the Municipal Maternity Home and another for those referred from their doctor or midwife. Commenting on the work of the clinic Dr. Ethel Townend, the part-time medical officer to the maternity and child welfare service, stated that this service had "helped reduce the number of abnormal deliveries considerably. Useful advice is given as to the general health during pregnancy, and every primipara is examined by the Medical Officer".[56] The emphasis locally within the ante-natal service was on prevention rather than cure and this was its biggest disadvantage. Once diagnosed as having a problem most women were referred to another health agency where they had to pay for their treatment but despite this

Table 6

Percentage of Pregnant Population Attending Municipal Ante-Natal Clinics in Hull, 1927-1938

YEAR	% ATTENDING ANTE-NATAL CLINICS	WOMEN ATTENDING CLINIC RECORDED AS MATERNAL DEATH
1927	24	0
1928	25	2
1929	27	1
1930	31	3
1931	33	5
1932	33	3
1933	37	3
1934	38	1
1935	40	5
1936	38	4
1937	53	5
1938	65	9

Source: Medical Officer of Health for Hull Annual Reports

attendances at the clinic did increase from 866 to 1566 between 1924 and 1925[57]- although this apparently only represented about 10% of the pregnant population.[58] Great results were expected from the ante-natal service locally, however the number of maternal deaths in the city was not consistently reduced and this further frustrated local health officials. Their response however, was not to examine the impact of existing services but centred around the further expansion of the ante-natal clinic service and by1928 there were 9 ante-natal sessions per week operating from clinics in the city centre and in the North, East and West of Hull. Although the proportion of pregnant women attending these clinics increased (see Table Six) so that by 1938 approximately 65% of them were taking advantage of the service many did not attend until the seventh month and therefore the impact was limited. However, this was not regarded as particularly problematic by local health care workers who believed that preventative action even at this stage could still avert disaster.

Despite action to encourage the expansion of ante-natal care and the insistence by local health officials and medics that the application of ante-natal care would have the desired result, figures for the local maternal mortality rate were not particularly encouraging. As a result some recognition of the limitations of the local ante-natal clinic service seem to have been made (if somewhat late) and the Corporation introduced a treatment centre in 1935 although unfortunately few details remain about its work. This service did result in some women receiving free medical care, but it is difficult to conclude who these women were or what criteria they had to satisfy to qualify for this. However, the Annual Report of the Medical Officer of Health notes that in its first year of operation this clinic gave medical treatment to 771 cases whilst a further 1811 were given douches.[59] This attention to medical treatment came late in the period and probably reflected the Corporation's general reluctance to burden local ratepayers further and its unwillingness to take full responsibility for improving women's health.

Despite the persistent nature of maternal mortality there were no local investigations of the problem. The most information available can be found in the 1928

Annual Report of the Medical Officer of Health when more detail than usual was recorded about the deaths; this was probably in response to the setting up of the Departmental Committee in the subject. During 1928 there were 25 maternal deaths in Hull (or 1 for every 244 births in the city) 13 of which were recorded as being due to puerperal sepsis and 12 to accidents of pregnancy- only 2 of the fatal cases had attended the ante-natal clinics. It was also noted that most babies survived their mother and that the greatest number of maternal deaths (8 in total or 32%) occurred amongst primigravidae.[60] Although these details were recorded, little comment was made as to their relationship to local maternity policy and instead they were used to further strengthen the path of existing policy and help support the wider application of ante-natal care and hospital birth (especially for first time mothers).

Some comment was also made regarding the impact of the birth attendant upon maternal mortality in the 1928 Annual Report of the Medical Officer of Health for Hull and during this year doctors alone attended 6 women who died and midwives only 2; a further 8 maternal deaths occurred with both present and 5 more where a doctor was assisted by a maternity nurse.[61] Although on initial inspection it might appear that the presence of a doctor at the birth increased the risk of death there was no comment on these figures by the Medical Officer of Health and no suggestion that the competence of doctors should be questioned. Instead the Medical Officer noted that doctors "are liable to receive an undue proportion of patients where a difficult confinement may be anticipated."[62] and of course this may be true, but further investigation of the work of general practitioners may well have provided some useful information on the deaths. It would appear that doctors were not regarded to be culpable in any way and such a position illustrates both the acceptance of government policy on the cause and cures of maternal mortality and the powerful position of doctors who as professional protectors of life would have resented the idea that they were in some way to blame for deaths.

Unfortunately, this level of statistical data collection was not continued and therefore no comparison of maternal deaths in Hull can be made across time. The only long term statistical information available relates to death rates (already discussed), age

of the women dying and whether their death was in a public institution. Most of the women dying in childbirth in Hull were between the ages of 25 and 44 and to some extent this was to be expected since it was during these years that women were predominantly having their families. Many of the deaths were taking place in public institutions but because all public institutions- hospitals and workhouses-were grouped together it is impossible to conclude whether place of birth had a detrimental impact on outcome. In 1919, 17 of the 29 maternal deaths occurred in public institutions and by 1938 this had increased from 59 to 75% of all maternal deaths in the city, or 12 of the 16 maternal deaths.[63] This is perhaps to be expected given the increased use being made of the Municipal Maternity Home and few firm conclusions can be made from this evidence except that the maternity policy adopted at the time appeared to be doing little to alleviate the problem.

Other services were also being implemented by the local authority to supplement ante-natal and midwifery provision; for example from 1925, maternity bags (containing linen for the birth and baby clothes) were loaned out to poor mothers and following the success of the scheme a further bags were provided by girls from local elementary schools. These were dispersed from the Maternity Centre at Kingston Square and a total of 98 mothers borrowed the 12 bags during 1926, usually for a period of 2-3 weeks.[64] These bags remained fairly popular until the late 1930's when it then became usual for the midwife to provide such items as were needed and of course those women who could not provide the necessities for childbirth were increasingly advised to have their babies in the Municipal Maternity Home. Although reference was often made to the need for a sterile environment for birth to avoid maternal death, the Corporation did not provide maternity outfits (which contained bedding and sanitary materials for mother and baby) free of charge instead a scheme was launched where, from 1928, midwives could purchase these packs at 60s each. Unsurprisingly few were sold and it was not until the implementation of the 1936 Midwives' Act that such equipment was provided freely.

As has been noted, another feature of the inter-war years was the increase in hospital births in England and Wales and this trend was also repeated locally as maternity hospitals were increasingly seen as part of the response to high maternal mortality. Despite the emphasis on the safety of hospital birth the maternal death rate in Hull's Municipal Maternity Home was not particularly impressive. In 1925 there were 4 maternal deaths out of 499 admissions (or 12.9% of all maternal deaths in the city that year) but by 1938 all 16 maternal deaths in Hull took place in the maternity hospital. Of course this could have been a reflection of a high proportion of complicated cases admitted- although from other evidence this does not appear to be the case- or have indicated that the hospital was not in fact the safest place in which to give birth.

One local service that does appear to have been developed as a direct result of the debate about the high levels of maternal mortality and morbidity was the post-natal clinic which was begun in 1928. It offered the opportunity of a medical examination by a doctor six weeks after birth to those women who had their babies at the Municipal Maternity Home or who had utilised the services of the municipal midwife. Advice was given and if treatment was needed this was also given free of charge to those on very low incomes. However, it is difficult to be certain of the impact of the clinic upon the health of mothers in Hull and initially the numbers of women seen were small- 63 in 1928- some expansion came between 1935 and 1938 when 641 and 416 women respectively were seen. Despite this, numbers remained small as a proportion of all women having babies in these years. Whilst more women were taking advantage of the service, the impact of the service was probably limited as by 1938 only approximately 7% of women having babies in Hull that year were seen at the clinic. Some women may have been seen by a G.P. or midwife in their own home but this was probably rare and most would have been left with little or no post-natal care.

Meanwhile, the local maternal mortality statistics were still not improving and local health officials were at a loss as to the solution and by 1931 seem to have been simply hoping that the results of the Departmental Committee would help solve the problem. This indicates to some extent an acceptance that the maternity policy adopted

was not working but it is remarkable that there was no questioning of either the progress of maternity policy, any investigation of the situation locally or to the introduction of any new measures. By 1938 the problem of maternal mortality had not been solved and although 16 deaths that year represented an improvement for the city of Hull the local authority Maternity and Child Welfare Scheme had not produced any fully effective solution.

The Corporation in Hull was not unusual in its provision of maternity services in the inter-war years rather the development of these services closely followed the recommendations coming from central government. It would appear that the question of maternal mortality had less impact upon the development of a maternity policy (either nationally or locally) than the debate about infant mortality or on the 'Population Question'. It is apparent that women's reproductive health particularly before 1918, was only considered important in its relation to the health of the child she was carrying and despite high rates of maternal mortality there appears to have been little concern in official government quarters as to the large numbers of women dying either at the national or local level. There was some change to this situation during the First World War when the issue of maternal mortality was discussed at the Local Government Board but this was not translated to any positive action or a new approach to the provision of maternity services. Instead maternal mortality was viewed within the context of the debate about infant mortality and the solution was to develop the maternity services along the lines already outlined by the government. It was believed that extended ante-natal care and improved standards of midwifery (including the increased use of maternity hospital) would bring about the desired result. This remained the basis of maternity policy throughout the inter-war years despite the fact that the maternal mortality rate increased rather than decreased. More attention was placed upon the health of the mother and locally services were expanded but the refusal to reassess policies already in place before 1918 or to tailor them specifically toward the problem of maternal mortality indicates a low level of commitment to improve the situation. However, health officials believed they were pursuing the correct policies and indeed

that once all pregnant women utilised the services available then maternal mortality would fall. It would therefore appear that maternal mortality was considered less important than infant mortality as a public health issue and although there was some debate over its causes and cures, local policy was not dramatically altered as a consequence.

Whilst the problem of maternal mortality can clearly be identified and was noticed by both local and national health officials, as a public health issue maternal mortality was approached in a very different way to infant mortality and although there was some debate as its causes and solutions, the ensuing debate had little impact upon the overall progress of national and local maternity policy which doggedly followed the patterns established in the period before 1918. Whilst the threat of death remained a very real part of women's experience of childbirth the provision of services did little to alleviate this and despite the eugenic sentiments about Race and Nation, the introduction of health care services for women did not become a priority on the public health agenda.

[1] G.Newman Infant Mortality:A Social Problem London Metheun and Co. 1906 Page 89.

[2] Ibid. Page 258.

[3] A.Oakley The Captured Womb: A History of the Medical Care of Pregnant Women Oxford Basil Blackwell 1986 Page 50.

[4] H.Malleson A Woman Doctor: Mary Murdoch of Hull London Sidgwick and Jackson Ltd. 1919 Page 195.

[5] Ibid. Page 209.

[6] At the request of the Inspector of Midwives it was agreed that from 1913 these bags would be maintained by the Corporation. Hull Health Committee Minutes of Proceedings July and September 1913.

[7] Hull and Sculcoates Dispensary Fundraising Pamphlet Hull 1932(?).

[8] Between 1900 and 1914 the Dispensary proved incraesingly popular:

	1900	1914
People treated at the Dispensary	12,253	18,378
Visits to patients' homes	17,840	77,295
Visits for advice and medicine	147,197	99,566

Hull and Sculcoates Dispensary Annual Reports Hull 1900 Page 9 and 1914 Page 9-10.

[9] Lancet February 18 1899 page 463 and Medical Officer of Health for Hull Annual Report 1926 Page 91.

[10] Hull Sanitary Committee Minutes of Proceedings March 1905.

[11] Whilst it is impossible to find any information about the former, the latter have been deliberately excluded from this analysis because the medical profession was self-regulatory and was not at any time during the period 1900-1939 controlled by the local authority.

[12] Medical Officer of Health for Hull Annual Report 1906, 1908 and 1914.

[13] Board of Education Annual Report for 1913 of the Chief Medical Officer of the Board of Education London H.M.S.O. 1914 Cd.7730 Page17.

[14] Ibid. Page 17.

[15] Local Government Board Memorandum of the Circular and Memorandum:Maternity and Child Welfare 30th July 1914.

[16] Local Government Board Ibid.

[17] Local Government Board Circular: Notification of Births (Extension) Act 1915 London H.M.S.O. 29th July 1915 Page 1 Paragraph 3.

[18] Local Government Board Regulations Under Which Grants will be Paid by the Local Government Board to Maternity Centres During the Year Ending 31st March 1916 7th July 1915 Paragraph 1.

[19] Medical Officer of Health for Hull Annual Report 1916 Page 23 and 1918 Page 29.

[20] A.MacFarlane and M.Mugford Birth Counts: Statistics of Pregnancy and Childbirth National Perinatal Epidemiology Unit London H.M.S.O. 1984 Table A10.1.

[21] Local Government Board Report on Maternal Mortality with Child-bearing and its Relation to Infant Mortality. Published as a Supplement to the Forty-fourth Annual Report of the Medical Officer of the Local Government Board for 1914-1915. London H.M.S.O. 1915 Cd.8085 Page 36-8.

[22] Ibid. Page 24.

[23] Ibid. Page 22.

[24] Ibid. Page 9.

[25] Ibid. Page 5.

[26] Official statistics for maternal deaths were published in three government reports which are of particular interest to this study:
J.Campbell Reports on Public Health and Medical Subjects Number 25: Maternal Mortality Ministry of Health London H.M.S.O. 1928 (originally published in 1924),
Final Report of the Departmental Committee on Maternal Mortality and Morbidity London H.M.S.O. 1932,
Ministry of Health Report on an Investigation into Maternal Mortality London H.M.S.O. 1937 Cd.5422.

[27] J.Campbell Op.Cit 1928 Page 42.

[28] Medical Officer of Health for Hull Annual Report 1922 Page 21.

[29] Ministry of Health Op.Cit. 1937 Page 12.

[30] Medical Officer of Health for Hull Annual Report 1936 Page 123.

[31] J.Campbell Op. Cit. 1928.

[32] Ibid. Page v.

[33] Ibid. Page iii.

[34] For a full summary of Campbell's recommendations see Ibid. Page 94-97.

[35] Ministry of Health Circular 517 Maternity and Child Welfare Maternal Mortality 30th June 1924.

[36] J.Cambell Op. Cit. 1928 Page 94.

[37] Ibid. Page 96.

[38] Ibid. Page 40.

[39] See Page 3 of Circular 517 Maternity and Child Welfare Op. Cit. 1924.

[40] J.Campbell 1928 Op. Cit. Page 83.

[41] J. Campbell Reports on Public Health and Medical Subjects Number 48: The Protection of Motherhood Ministry of Health London H.M.S.O. 1927.

[42] Their report was published in 1932; see footnote 1.

[43] J.Campbell Op. Cit. 1928 Pages 74-76 and Departmental Committee Op. Cit. 1932 Page 134-140.

[44] Departmental Committee Ibid. Page 134.

[45] Ibid. page 10.

[46] J.Towler and J.Bramall Midwives in History and Society London Croom Helm 1986 Page 218.

[47] J.S.Fairbairn A Textbook for Midwives Oxford University Press1930 Page 143.

[48] Departmental Committee Op.Cit. 1932 Page 123.

[49] For a discussion of the development of the birth control campaign see A.McClaren Birth Control in Nineteenth Century England London Croom Helm 1978 and R.Hall Marie Stopes:A Biography London Virago 1978. For details of women's own attempts to control their fertility see for example, B.Brookes 'Women and Reproduction 1860-1939' in J.Lewis (Ed.) Labour and Love:Women's Experience of Home and Family 1850-1940 Oxford Basil Blackwell 1986, D.Gittins Fair Sex:Family Size and Structure 1900-1939 London Hutchinson & Co. Ltd. 1982 and E.Roberts A Woman's Place:An Oral History of Working Class Women 1890-1940 Oxford Basil Blackwell 1986.

[50] See for example the conclusions and recommendations of the Departmental Committee Op. Cit. 1932 Pages 134-40.

[51] Ministry of Health Op. Cit. 1937.

[52] Ibid. Page 277-91.

[53] The feminist movement of the time and in particular women in the Labour Party and the Women's Co-operative Guild (see M.Llewelyn Davies Maternity: Letters from Working Women London Virago 1989) campaigned to bring attention to the plight of mothers and to improve access to the maternity services but it is not clear that their efforts alone were sufficient to produce radical changes to government policy. The relationship between feminist movements and the development of social policy is however beginning to receive attention from researchers. See, for example: G.Bock and P.Thane (Eds.) Maternity and Gender Policies: Women and the Rise of European Welfare States 1880's-1950's London Routledge 1994.

[54] Medical Officer of Health for Hull Annual Report 1925 Page 99.

[55] Medical Officer of Health for Hull Annual Report 1923 Page 18.

[56] Medical Officer of Health for Hull Annual Report 1925 Page 103.

[57] Medical Officer of Health for Hull Annual Report 1924 Page 26 and 1925 Page 103.

[58] See Table Six for the increase in the proportion of the local pregnant population attending ante-natal clinics in the inter-war years.

[59] Medical Officer of Health Annual Report 1935 Page 134.

[60] Medical Officer of Health for Hull Annual Report 1928 Pages 126-129.

[61] Four more deaths also occurred during this year; two were unattended abortions and for two others no details were available.

[62] Medical Officer of Health for Hull Annual Report 1928 Page 128.

[63] Medical Officer of Health Annual Report 1919 Table 'Causes of, and Ages at, Death in Localities' n.p.g. and 1938 Appendix Five.

[64] Medical Officer of Health Annual Report 1926 Page 97.

CHAPTER THREE: Managing Midwives.

Previous chapters have highlighted some of the factors which encouraged the development of a national maternity and infant welfare service, at how this was interpreted at the local level and at some of the problems facing health officials in this respect during the period 1900-1939. At the same time attention has been paid to the availability of services and the experience of the women who used them. Whilst some mention has already been made of the work of midwives in Hull and the importance of her role within the maternity services, this chapter seeks to explore in detail the changes faced by domiciliary midwives. Midwives faced a number of challenges in the period 1900-1939, both as a consequence of national legislation and due to the changes locally within the maternity and child welfare service, which resulted in closer ties with the local health officials. This chapter therefore aims to assess the impact of the relationship between the midwife and her Local Supervising Authority upon the domiciliary service in Hull. Whilst the consequences of this for mothers in terms of the availability of services are of particular importance, midwives were also critically affected by the changes and so this chapter will also examine the impact of the development of the maternity services upon her professional status and working environment. In this way much useful information can be gained not only of the experience of domiciliary childbirth but also of the midwife's place within the emerging maternity service.

Midwives were the most important providers of maternity care both in England and Wales and locally in Hull throughout the entire period.[1] In Hull their services appear to have been becoming more popular as the proportion of births attended by midwives in the city doubled from approximately 40 per cent in 1906 to 83 per cent by 1938 (see Table Seven). However, there was some fluctuation between years and whilst their work had increased during the First World War, so that by 1919 they were already attending approximately 83 per cent of all births in the city. This was to fall back to 70.5 per cent in 1920 and continued to fall to barely 52 per cent in 1935 and 1936, only then rising again from 1937. Whilst these figures need to be treated with some caution, as they are based upon births notified/registered (and whilst the birth attendant usually

Table 7

Proportion of Births (Live and Still) Attended by Certified Midwives in Hull, 1906-1938

YEAR	% ATTENDED BY MIDWIVES	YEAR	% ATTENDED BY MIDWIVES
1906	40.0	1925	64.0
1908	45.0	1926	55.5
1910	51.7	1927	61.0
1912	55.1	1928	64.0
1914	54.5	1929	60.7
1915	53.1	1930	59.8
1916	66.4	1931	56.0
1917	69.1	1932	57.4
1918	69.0	1933	57.6
1919	83.0	1934	59.9
1920	70.5	1935	51.8
1921	68.0	1936	51.9
1922	67.0	1937	77.1
1923	63.0	1938	82.9
1924	60.0		

Source: Medical Officer of Health for Hull Annual Reports

informed the authorities of the birth of a child this was not necessarily always the case) and were also affected by the dramatic reduction in the local birth rate, they do illustrate the continued importance of domiciliary midwifery care within local maternity service provision. It is worth stating therefore that most women's experience of childbirth would be domiciliary with a midwife attending and that despite the increase in hospital birth, the midwife maintained her important role as primary birth attendant throughout the period. However, whilst the majority of women would have been attended by midwives and may have noticed little change in the service provided, as a consequence of the development of the maternity services midwives themselves were to have their working environment and role altered.

As the most usual birth attendant midwives were a crucial component in any local maternity and child welfare scheme and although her work was initially limited to the birth itself, her role was to be extended in the years between 1900 and 1939 to cover the ante-natal period, childbirth and the first weeks of life and her responsibilities included ante, post and neo-natal care. In this way midwives came to have a wide range of responsibilities not only in providing medical attention to mothers and babies but also in referring any potential complications to doctors. However, her role was more than simply medical, it was also educational and social and midwives were often respected members of their community. In their close relationship with mothers midwives formed an important link between mothers and the maternity services and were in a position to influence the take up of new services such as ante-natal and infant welfare clinics. Moreover, as they traditionally worked in their local community they could also provide key services in the woman's own home. In this way midwives could also help shape women's behaviour, by providing guidance on infant rearing practices for example, and by being in the woman's home she also had an awareness of the family's circumstances and could adapt her advice accordingly. The midwife was usually the first health care worker to examine the new born infant and so her expertise could also determine the survival of the new-born. Furthermore, in continuing to attend both mother and child for

two weeks after the delivery the midwife was in a unique position to influence their environment, monitor their health and give advice and information.

As the importance of her work became obvious to those concerned with infant (and later maternal) welfare, her role came under increasing scrutiny by both government health officials (nationally and locally) and organisations such as the Central Midwives' Board (C.M.B.). Whilst the influential role of the midwife was recognised, her work was increasingly regarded as in need of regulation and supervision at the beginning of the century and her contribution to maternal and infant health was often seen as harmful rather than helpful in the years before the Second World War. Whilst the involvement of these various agencies (each with their own agenda) in the midwifery service may have helped improve the availability of services to mothers, they did not necessarily produce benefits for midwives themselves whose professional interests were not always represented. Although other health care workers had to adapt to the demands of the newly created maternity services, midwives faced a number of challenges to various aspects of their work which were not experienced by other groups of medical workers. These produced a dilemma for midwives: how to gain professional status (which demanded independence, autonomy in the workplace and self regulation) at a time when they were increasingly being integrated into the maternity and child welfare service, which itself necessitated some forfeit of occupational independence for control by both local government (in the form of the Local Supervising Authority) and the C.M.B.

The years between 1900 and 1939 arguably mark the most important period in the history of midwifery not only because of the challenges to their independence, but also because this period saw their work and status profoundly altered by a series of legislative changes. There are two pieces of legislation in the period 1900-1939 which profoundly altered midwifery and with which this study is concerned. The first Midwives' Act was passed in 1902 following a lengthy campaign[2] and sought to improve standards of midwifery training and practice by a system of registration and regulation to be organised by the C.M.B. and local municipalities, known as Local

Supervising Authorities or L.S.A.s. Further legislation followed which helped to define the role and responsibilities of the midwife. However, it was not until 1936 that the second most important Midwives Act was passed and this completely altered the employment conditions of midwives. Therefore as will be shown, in less then forty years midwifery had been transformed from an independent, largely unregulated and unsupervised occupation which did not necessarily require any formal training, to a state salaried profession controlled by a set of agencies which demanded certain standards of training and practice. However, this chapter does not intend to focus in detail upon the legislation itself but aims instead to examine the impact of that legislation upon the status and practice of midwives. By focusing on the experience of midwives in Hull it is hoped that some understanding can be gained of the place of midwifery within the developing maternity and infant welfare service and the impact these changes had upon both their professional development and the service they offered.

Although this work focuses upon the period 1900-1939 there is very little information available about pre-registration midwifery (i.e. before 1902) in Hull. Whilst it can be stated that midwives were working in the city before the implementation of the 1902 legislation it is difficult to be certain as to their numbers, clientele or standards of practice. No mention of their work was made in the Annual Reports of the Medical Officer of Health for Hull before 1905 and for this study only two sources of information have been discovered. The first, the local Kelly's Directory (in which some but by no means all midwives advertised) recorded five midwives as practising in the city in 1900.[3] However the Directory cannot be seen as an accurate record of all the midwives practising in Hull as many would have had no need to advertise being well known in their local communities. Indeed this was confirmed by the first report on midwifery in Hull by the Inspector of Midwives which recorded 101 midwives practising in the city during 1905. The second available source is the Census for 1901 which notes that fifteen women in Hull recorded their occupation as midwives. There is little detail in the Census about these women (who they were or whether they held any

qualifications) only their ages were noted and in this instance they were predominantly between 25 and 65 years of age.[4] What is particularly interesting about the listing in the Kelly's Directory is that two of the five were recorded as certified; by which was meant that they had received some formal training. By advertising themselves in this way at a time when there was no compulsion to gain qualifications, these midwives may have been trying to disassociate themselves from the folk/traditional midwife (who was regarded as incompetent and dangerous) in an effort to attract a particular kind of clientele. The traditional midwife had no formal training and was often associated in the public imagination with death and disaster whilst hospital trained midwives were regarded as more competent. This information may also indicate a level of support for the campaign for midwifery registration in the city as some local midwives were prepared to finance a period of training. Although there is insufficient evidence to prove conclusively that the Midwives' Institute was active locally, midwives who supported the campaign for registration and education often belonged to this organisation. The Midwives Institute was founded in 1881 and members were actively involved in the campaign for midwifery legislation. Largely a middle class organisation, its members hoped that registration would secure professional status for midwives making it a suitable profession for educated women. Even if there was no formal local campaign by midwives to improve their status at the beginning of the century, the fact that individuals were seeking out hospital training for themselves is an indication of some local support for the campaign. However, with so few sources it is impossible to comment upon standards of midwifery in Hull at the turn of the century or even to be certain of the numbers of midwives offering a service to mothers. Whilst it is clear that not all midwives in the city were formally trained, it cannot be assumed that this is illustrative of a high level of malpractice in the city. Completion of a short course of instruction was no guarantee of sound practice just as working from practical experience did not necessarily result in incompetent midwifery. Without further detailed evidence it is impossible to comment upon standards of midwifery care in Hull before registration was introduced and few details are available before 1905.

The first Midwives' Act became law on April 1st 1903 and began a period of change for midwives which was to result in some redefinition of their role and responsibilities. The Act not only set up regulatory machinery at the national level through the C.M.B. but also created a system of local supervision via the L.S.A.s. Some co-operation was necessary between the two as the C.M.B. was responsible for ensuring standard practice nation-wide by issuing a set of rules and maintaining a Midwives' Roll, whilst the L.S.A.s (which in Hull eventually meant the Medical Officer of Health's department) was responsible for supervising and reporting on the standard of midwifery in their local area. Both had wide powers to discipline midwives should they fail to comply with the rules and the C.M.B. could remove a midwife from the Roll thereby removing her right to practice. A system of inspection was introduced which concerned itself not only with standards of practice but with personal character and behaviour both of which were considered when assessing competence. From 1903 each L.S.A. was required to inform local midwives of the changes to the law and from April 1st 1905 it became an offence for any woman to use the title of midwife if she had not first received certification from the C.M.B. In Hull there is no evidence to suggest that the Medical Officer of Health informed midwives of the changes and there appears to have been no attempt to promote the Act at the local level. No discussion of how the Act would alter the work of the Medical Officer of Health's department took place before 1905 amongst the members of the city's Sanitary Committee- a reflection perhaps of the Corporation's unwillingness to take action before it was legally required to do so. Indeed, little local activity with respect to the Act appears to have taken place before 1905, when the Corporation was legally required to inspect midwives.

Early in 1905 applications for the position of Inspector of Midwives were considered by the Sanitary Committee and from March 1st that year Miss Mabel Harrison took up the position.[5] Unfortunately, there is little information available about the post or the applicants. The full job title was Inspector of Midwives and Inspector of Nuisances (and commanded a salary of £120 p.a.) which perhaps indicated that the Committee did not envisage the work of Midwives' Inspector to be particularly arduous

or indeed require full-time attention. Miss Harrison was suitably qualified for the post being both a midwife (holding a certificate from the London Obstetric School) and a sanitary inspector and her work provides the only clear insight into the condition of midwifery in Hull in the years before the First World War. Whilst her reports illustrate the standards of midwifery in the city and the composition of the midwifery labour force, they also provide much useful information about how the 1902 Act was implemented at the local level and what impact this had upon local midwives and the service they offered to women. Of course the reports of the Midwives' Inspector only provide the official view of events and no evidence remains from midwives themselves. Miss Harrison began her work by inspecting all the midwives in Hull (although it is not clear how this information was gathered) and her findings were to contribute to the certification of local midwives who were then listed on the first Midwives Roll published in 1905. Details of Miss Harrison's investigations were published in the Annual Report of the Medical Officer of Health but no documentation from the Midwives' Inspectors' office itself has survived.[6] Her work is worth discussing in detail as it not only gives information about the numbers of midwives working in Hull and their standard of practice but also indicates how the new inspection system operated, the kinds of questions asked and the qualities seen as un/desirable in a midwife. As a result the information contained in her reports are also useful in offering some insight into the interaction between local midwives, their inspector and L.S.A. and the kinds of problems faced locally as a result of the 1902 legislation.

In her first report published in 1905, Miss Harrison noted that there were 101 women calling themselves 'midwife' and practising in the city. Whilst her role was primarily to inspect these women and identify those who were not suitable candidates for certification, she was also required to improve the general standard of practice in the city by instructing midwives in those areas of practice she felt to be deficient. On the whole Miss Harrison concluded that the midwives of Hull were satisfactory and that they responded well to both the inspection procedure and any remedial instruction. Between March and December 1905 she made 322 inspections of local midwives and

published statistics relating to the practice of 64 of the 101 working in the city. There is no information to indicate which particular midwives these were or why only 64 are reported on except that all were applying for enrolment. Her comments were fairly positive although she did identify some areas of practice which concerned her; for example, most Hull midwives were not wearing suitable dresses and did not have a knowledge of antiseptic procedures. Miss Harrison's primary task was therefore to instruct these midwives as to the necessity for cleanliness both in their practice and their personal life and this was done within the context of avoiding puerperal fever. As a result midwives were also instructed in the use of a thermometer.

Miss Harrison's investigations were not confined to midwifery practice alone but also to the social condition of the midwives themselves; for example, five were regarded as habitually dirty whilst eight were recorded as intemperate. Although these numbers are small, their importance lies in the fact that they illustrate the kind of areas with which the inspectorate were concerned. Monthly inspections were made which examined both the midwife's case book, cleanliness of her bag and its contents as well as the sanitary condition of her home. More frequent inspections were made if deficiencies were found. Such visits to midwives' homes were also used to instil 'correct' moral behaviour and values which may or may not have been relevant to the work. Inspections were therefore not simply of midwifery practice but were intrusive invasions which included inquiries into the midwives' homes and personal lives. It is difficult to see how such a scheme improved the status of midwives as a professional group as the concept of a professional work force includes a degree of autonomy within the work place and at least some self regulation. From 1905 midwives in Hull were under the supervision of local health officials and had to abide by the rules of the C.M.B; neither group appear to have fully represented the interests of midwives. Although the C.M.B. was the midwives' professional body it was less concerned with promoting the welfare of midwives and was instead designed to control and restrict the work force by dictating both clinical practice and moral standards of behaviour. The membership of the C.M.B. did not predominantly consist of midwives and indeed it

could be argued that its whole organisation was designed to protect the medical profession rather than midwives. There were 9 members on the C.M.B., 4 were registered medical practitioners, 2 (one of whom was to be a woman) were appointed by the Privy Council and 1 each from the Association of County Councils, the Queen Victoria's Jubilee Institute for Nurses and the Royal British Nurses' Association.[7] In this way the Board did not have to include a midwife at all and even the Midwives Institute was not represented. Whilst midwives were now to abide by the rules of the C.M.B., at the local level their work was monitored by the L.S.A. which meant that the local midwifery labour force could (in part at least) be controlled by the Midwives Inspector who had far reaching powers over both professional and personal behaviour. Although the 1902 Act encouraged more women to train in hospitals to become midwives, it is difficult to see how this legislation necessarily resulted in the professionalisation of the work of the midwives although it may have encouraged an improvement in standards of service.

The rules of the C.M.B. greatly altered the administrative role of the midwife, all cases now had to be logged in a Register of Cases and midwives also had to keep notes on post-natal visits. Moreover, midwives were required by the rules of the C.M.B. to notify their L.S.A. of all deaths and stillbirths and special forms had to be filled in and passed on to the appropriate authority. All forms were standardised and issued by the C.M.B. but whilst these requirements extended the responsibilities of the midwife they also highlighted the problem of illiteracy. Some midwives who could not read and/or write faced great difficulties in completing their administrative duties and no doubt this would have resulted in falsification or incomplete data being sent to the L.S.A. In Hull the problem of illiteracy did not extend far as only 9 midwives were recorded as being unable to read or write and some attention was given to the problem as these midwives could attend the Midwives' Inspectors' office for help in completing the necessary forms.

The 1902 Act had helped to define clearly the role of the midwife as the practitioner with responsibility for the care of women in normal childbirth by requiring

her to obtain medical help in cases which deviated from the norm. This rule caused much anxiety locally amongst midwives, the inspectorate and local doctors and provides an indication not only of the increased bureaucracy created by the new Act but also of the conflicts it aroused. Many local midwives were failing to complete the necessary forms before calling in a doctor and although some were recorded as having difficulties in filling in the forms, others felt it unnecessary or even dangerous to leave the labouring woman to fill in a form when a neighbour or family member could quickly run for the doctor. The inspectorate had to insist that the procedure was followed and ensure that all midwives were aware of their duty in this regard. However, in Hull the problem was not simply one of non-compliance by midwives, but also of objections from the medical profession. Local health officials received a number of complaints from local doctors who objected to the sending of these forms and the tone employed. They regarded the receipt of the 'call for medical aid' form as a demand for their attention and did not regard it to be appropriate for a midwife, the L.S.A. or the C.M.B. to issue orders to them. This episode illustrates the problematic nature of the professional relationship between doctors, midwives and health officials and indicates some resistance on the part of local doctors at least to be involved with the provisions of the Act and the local municipal maternity scheme. Such attitudes reflected deeper resentments and whilst many doctors approved of midwifery registration they considered midwives inferior medical health care workers and would not support any move to improve their status. By defining the midwives' work as 'non-medical' (i.e. she was responsible for a normal physiological process that, if it proceeded normally, did not require a medical approach to care) it was hoped that the Act would not improve the status of midwives and that doctors could safeguard their own (superior) role within obstetrics.[8] However, the fact that the rule regarding sending for medical aid was not received kindly by doctors was indicative of the professional rivalries between midwives and doctors.

Another more practical problem was associated with the calling of medical aid as required by the 1902 Act, and that was the question of fees. Although midwives were

now required to call a doctor to any labour which deviated from the normal pattern of childbirth, there was no provision for the payment of these fees and the childbearing woman found herself having to pay both the midwife's and doctor's charges. This resulted in problems of non-payment (particularly in cases where the family were poor and could not pay) and in some cases the midwife had to forgo her fee in order that the doctor could be paid, whilst in others it seems she would pay them herself. Occasionally doctors refused to attend women who did not pay the fee first or who were suspected of being unable to pay. As a result some women (and babies) died as in the well publicised case of a woman in Chestnut, Hertfordshire during 1913.[9] No doubt this was not an isolated incident and although little data is available, cases of this kind did occur in Hull as evidence from the Stillbirth Register for 1909 illustrates. Two of the stillbirths recorded that year (one an abortion and one resulting in a stillbirth) noted that although the midwife had sent for a doctor he refused to attend unless the fee was paid first.[10] This was a serious omission in the provision of the 1902 Midwives' Act and one which was noted by the Departmental Committee appointed in 1909 to consider its workings.[11] Whilst they recommended amendments to the Act to solve this issue, the problem was not resolved at the national level until legislation in 1918 required all local authorities to pay the fee of any doctor called by a midwife. The Local Government Board set a scale of fees and allowed the recovery of these from the woman or her husband.[12]

Attention had been paid to this issue by the Local Government Board during 1915 when the Notification of Births Act 1915 had advised local authorities that "Arrangements should also be made for defraying in necessitous cases the cost of providing the services of a midwife and of a doctor";[13] however there was no compulsion to do so. Despite this, before the end of the First World War some attention had been paid to the introduction of a system of free midwifery in Hull and the Corporation had begun to pay the medical fees of the poorest women in the city (although it is not clear how this scale was calculated). Under the local scheme the Medical Officer at the infant welfare clinic could authorise payment of the fee of either

a doctor or a midwife if she felt that a woman would not, due to poverty, have skilled attendance at birth.[14] Clearly this was a significant new development in the Corporation's involvement in the maternity services which indicated the importance placed upon skilled attendance at birth. However, as has been seen in Chapter One, attendances at the infant welfare clinic were small and during 1918 only 250 women applied for free midwifery (it is not clear how many applications were granted). What is perhaps more significant is that in Hull the Corporation had, before legislation required them to do so, accepted some responsibility for ensuring every woman was able to have a midwife or doctor to attend her in childbirth in her own home and to pay the fees if the woman could not afford them herself. This practice may not have impacted on many women in the city but did indicate some change in local public health ideology.

Whilst such a scheme was important in terms of helping to solve midwives problems in calling for medical aid by assuring the doctors fee was paid, there was still the problem of her own fee. In particular midwives were often not paid if called out to an emergency and some women did not book a certified midwife for their birth but called her if an emergency occurred. The Corporation also addressed this issue and during 1916 held discussions with the Hull branch of the Midwives' Association and the Health Committee which resulted in an extension of the Corporation's responsibilities. Health officials decided (and this was approved by local government officials) that if a midwife was called to a labouring women in an emergency who subsequently could not pay her fee then the Corporation would pay 18s for a first confinement and 15s for subsequent births, including the 10 day post-natal and neo-natal care. As a result of the associated problems with the 1902 Midwives Act a system of free midwifery care was implemented in Hull for the poorest women and once established this service remained an important feature of the city's maternity and child welfare scheme until the introduction of the municipal midwifery scheme. Run by independent midwives who now had some protection against loss of earnings, this service proved increasingly popular as the number of free cases increased from 70 in 1919 to 187 by 1930.[15] Whilst it is clear that only a small proportion of pregnant women were actually affected, the

relevance of the scheme lies in the fact that it allowed women who would have perhaps not have received the attention of a certified midwife the opportunity to receive skilled assistance at birth and that it promoted co-operation and good will between health officials and independent midwives. Moreover, the acceptance of this principle and the knowledge that the Corporation would pay midwifery fees was important in shifting local public health ideology. Both these schemes of fee reimbursement appear to have alleviated some of the problems associated with the requirement to call medical aid and as a result midwives sent for increasing number of doctors to assist them; in 1906 there were 181 births where midwives requested the assistance of doctors but by 1918 this had risen to 646.[16]

The 1902 Midwives Act clearly had important implications for both midwives and local government encouraging a closer relationship between the two groups, some improvement in services and further development of local policy with regards to mothers and babies. But the Act was also expected universally to raise the standard of midwifery care available to women. By looking closely at midwifery practice in Hull after 1902 it becomes apparent that the legislation did not adequately address the question of standards and that a complex system of midwifery care was in fact available to women, some of which remained unregulated. Although the Act had created the machinery to regulate, certificate and inspect midwives it did not initially prevent all untrained midwives from practising but instead created a three tier system of hospital trained, bona-fide (untrained midwives who had practised before the Act and were considered of good character) and uncertified midwives (the traditional folk midwife or handywoman). Hospital trained midwives held a certificate from a training school approved by the C.M.B. whilst bona-fide midwives were given certificates and allowed to continue to practice without any formal training. Uncertified midwives were not considered suitable candidates for the C.M.B. Roll but were allowed to practice (at least by law until 1910) providing they did not promote themselves as a 'midwife' or imply they were part of the new system. In practical terms it is difficult to see how the Act itself improved standards of midwifery care or altered the experience of childbirth as

Table 8

Midwives in Hull, 1905-1938

YEAR	HOSPITAL TRAINED*	BONA FIDE*	UNTRAINED HANDYWOMAN**
1905	13	45	43
1906	15	39	57
1907	10	41	71
1908	16	37	-
1909	12	33	-
1910	14	32	86
1911	13	30	5
1912	17	33	3
1913	19	32	-
1914	18	32	-
1915	22	29	-
1916	22	31	-
1917	23	25	-
1918	27	27	-
1919	31	22	-
1920	23	36	-
1921	40	19	-
1922	40	20	-
1923	45	17	-
1924	53	15	-
1925	54	11	-
1926	52	11	-
1927	50	7	-
1928	51	6	-
1929	54	6	-
1930	53	5	-
1931	65	4	-
1932	62	4	-
1933	63	4	-
1934	73	4	-
1935	81	3	-
1936	85	2	-
1937	91	2	-
1938	107	-	-

*Both groups were certified by the C.M.B. and allowed to practice under the title midwife.

** 1905-1910 Figures based on estimates by Midwives' Inspector.
1911-1912 Figures based on handywomen warned/prosecuted.
under the 1910 legislation.
1913-1938 No figures recorded.

Source: Medical Officer of Health for Hull Annual Reports

the same system that operated before 1902 appears to have basically continued and whilst the certified midwives were inspected there was no provision for any supervision of the handywoman (who was considered the most dangerous birth attendant in terms of the mortality of the mother and child at this time). Moreover, after 1910 the handywoman did not disappear although little information remains about her work because she was operating illegally.

In Hull this three tier system was clearly visible and continued until after the First World War when the number of hospital trained midwives finally outnumbered the bona-fide midwives (see Table Eight) but the untrained, unregulated traditional midwife was never eradicated locally in the period before 1939 and continued to practice. Before 1910 these women could legally attend women in childbirth and there is much evidence to suggest they were doing so; indeed it would seem that the majority of the midwives in Hull were handywomen in the period before 1910 and the Inspector of Midwives recorded an increase in their numbers between 1905 and 1910 from 43 to 86. These numbers are likely to be conservative as the Inspector would not necessarily be aware of all the handywomen working in the city. Further information about the extent of the work of handywomen can also be found in the Stillbirth Register and during 1909 at least 9 different handywomen were recorded as having attended women in childbirth (whose babies were stillborn) at various locations in the city.[17] In 1910 the law was changed and it became illegal for those women to act as midwives "habitually and for gain" and as their work became illegal there is little detail recorded about their availability and use at the local level. However, it would appear that many of these women did continue to act as midwives despite the legislation; for example, in Hull some handywomen were warned to desist practising or were actually prosecuted. During 1911 3 women were convicted under the "habitually and for gain" legislation and 2 others warned of the consequences of continuing to practice as midwives.[18] However, although the Annual Reports of the Medical Officer of Health record few further cases of misconduct and appear to suggest that the handywoman was eradicated. Research suggests that these handywomen continued to provide an important service to

women throughout the period under discussion and beyond; a service which was known about and supported by both G.P.'s and midwives in Hull. For example, as late as 1935 local medics were supporting the use of handywomen as maternity nurses. The East Yorkshire branch of the B.M.A. decided, after discussing this matter, that: "the substitution of midwives for handywomen working in cooperation with medical practitioners should be deferred until steps may be taken by the Ministry to introduce some form of National Maternity Service."[19] Furthermore, oral history accounts provide evidence for the existence of local handywomen in Hull into the 1940's; for example, Granny Spray was working as a handywoman in the Bridlington Street area.[20] Clearly the law was not effective in this matter. According to the official statistics, and there is no way of verifying this, the composition of the midwifery labour force changed after 1910 as most midwives in Hull were registered as bona-fide (i.e. untrained but regarded as competent). Bona-fide midwives remained consistently the largest proportion of the registered midwifery labour force until 1919 when the number of hospital trained midwives exceeded the number of bona-fide midwives in Hull. Any improvements in standards of care would have therefore been slow in coming and most women in Hull who gave birth to babies before 1921 were most likely to have been attended by a midwife who had received no formal training at all. It is not until 1938 following changes under the 1936 Midwives Act, that all women in Hull attended by a registered midwife were seeing a formally trained attendant.

Although the three tier system is clearly visible in Hull it is difficult to be certain about the standards of care offered by the three groups of midwives. In fact the only detailed information available on this subject is the Midwives' Inspectors' reports from before the First World War. When compiling her report for 1905 Miss Harrison noted that there were 13 hospital trained midwives, 45 bona-fide midwives and 43 handywomen working in the city and she discussed the standards of practice of each group. Hospital trained midwives had received 3 months formal hospital-based training at a C.M.B. approved training school and as a consequence had attended at least 20 women in childbirth; Miss Harrison believed these women's practice to be satisfactory

(i.e. they were conforming to the requirements of the C.M.B. rules). It is amongst these women that the beginnings of a professional consciousness can be identified; for example, they often took the title Nurse to distinguish themselves from the untrained midwife and indeed some midwives had been through a period of nurse training. Moreover, they were also responsible for beginning the Hull branch of the Midwives' Institute in 1910. The bona-fide midwife had not gone through a period of formal, recognised training but after an inspection of her work, home and character she was allowed to continue practising. These women continued to account for an important proportion of the local midwifery labour force into the 1920's and only became insignificant during the 1930's (see Table Eight). It was this group of midwives that Miss Harrison felt were most in need of attention and in 1906 she noted that whilst equal supervision was given to both, it was necessary to visit the bona-fide midwives more regularly.[21] Such attention apparently resulted in considerable improvement particularly with regard to their method of working and cleanliness of their homes. It is interesting to note that midwives' domestic cleanliness was seen as an important reflection of their clinical practice as was their personal character and in this way midwives had to comply to a set of social and moral rules as well as those set out by the C.M.B.

A substantial number of midwives never made it onto the Midwives' Roll and were not considered suitable for certification, however as has been shown, the legislation did not bar these midwives from practising until 1910 and even then they did not disappear. It is amongst these women that the worst standards of practice could apparently be found and Miss Harrison commented that: "Many of them are both habitually dirty and intemperate".[22] When the legislation changed in 1910 it was assumed that these women had discontinued their practice but few checks appear to have been made and whilst the evidence suggest that these handywomen did in fact continue to practice, few were actually prosecuted. Two women were prosecuted during 1911 but there were to be no more prosecutions for the rest of the period; instead, small numbers of women who were suspected of being handywomen were periodically

summoned to the Medical Officer of Health's office and warned of the consequences should their work continue. Clearly this did not have the desired effect and uncertified midwives continued to practice in the city. Of course, this may have been due to the difficulties in gathering sufficient evidence to obtain a conviction but might also indicate a lack of commitment in eradicating the handywoman. It should perhaps be remembered that these handywomen provided a useful service to G.P.s by supervising labours and only calling the doctor for the delivery itself. Whatever the reason, the continued existence of the handywoman is an indication that midwifery legislation may not have been universally effective in raising standards of care.

Whilst the 1902 Midwives Act allowed for some inspection and training of local midwives, improvements were dependant upon the commitment of the local Midwives' Inspector. Although in Hull some attention was paid to the bona-fide midwife, little information is available about the work of the handywoman and both these women continued to play an important part in the midwifery service at least until the late 1920's. Whilst it is not possible to comment conclusively upon the standards of care offered by midwives in Hull, it seems unlikely that the 1902 Act altered the experience of childbirth for the majority of women as it failed to substantially alter the wide variety of midwives working in the city. The Act cannot be said to have universally improved standards of care as it did not immediately make formally trained registered midwives available to all women. If improvements in care are associated with formal training then in Hull at least the impact of the Act was not felt by the majority of women until some twenty years after its introduction.

As has been shown, one of the concerns of the Midwives' Inspectorate was the level of cleanliness amongst midwives but this was not simply a matter of controlling behaviour but also reflected wider fears about the spread of puerperal fever which was a major cause of maternal death. If a midwife came into contact with puerperal fever she was required to notify the L.S.A. and was then suspended from duty without pay. She was also required to disinfect herself, her clothes and her equipment at the local disinfecting station, which in Hull was located on Scarborough Street. What is most

interesting about these rules is that they did not apply to medical practitioners who had attended cases of puerperal fever but only to midwives. In the period 1900-1939 midwives were often regarded as responsible for the occurrence and spread of the disease and as a result were singled out for particular attention. Such rules helped reinforce these ideas, particularly as they did not also apply to doctors, and also suggested that midwives were irresponsible, i.e. they could not be trusted to disinfect themselves but had to be compelled to do so. Little consideration was given to the implications of this for the midwife's standard of living and suspension without pay continued into the inter-war years. There was of course no evidence that midwives were particularly responsible for the incidence of puerperal fever. Table Nine shows the extent of puerperal fever within domiciliary practice in Hull. The fact that these figures were recorded at all illustrates the concern of both the Medical Officer of Health and the Midwives Inspector, and whilst there was much variation between years not only in the number of cases of puerperal fever recorded but also in the mortality rates, it is clear that puerperal fever cases were not solely occurring amongst midwives' cases. Doctors also experienced this problem; indeed overall doctors had more cases of puerperal fever for the entire period than hospital trained midwives. Despite this fact there was no attempt to improve the diagnostic or midwifery skills of local G.P.s rather puerperal fever continued to be seen as a consequence of poor midwifery and as such provides another indication of the more powerful position of the G.P. within the medical community.

The period before 1918 saw the reorganisation and regulation of midwifery under the 1902 Midwives' Act, but although the Act had encouraged greater interference in midwifery practice on the part of local authorities and had established the C.M.B. as another regulatory body, midwives themselves essentially remained independent practitioners. In the period before 1918 the Corporation's role was limited to inspection and the provision of free midwifery to certain cases and most women having a domiciliary birth would therefore not come into contact with local government services at all. The experience of home birth would very much depend upon the type of

Table 9

Cases of Puerperal Fever in Domiciliary Practice in Hull, 1906-18

ATTENDANT	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918
MEDICAL PRACTITIONER	6	6	6	7	5	8	4	7	14	7	4	3	3
MIDWIFE (H)	4	1	0	5	6	7	7	7	2	2	3	1	3
MIDWIFE (BF)	10	9	10	1	-	13	4	7	15	8	4	4	4
MIDWIFE (HY)	2	4	7	2	5	3	1	-	-	-	-	-	-
NOTIFIED AFTER MIDWIFE CEASED ATTENDING					10								
NO. WHICH DIED	5	8	11	7	9	9	5	4	21	-	-	-	-
TOTAL PF CASES	22	20	23	15	16	31	16	21	31	17	11	8	10

H - Hospital Trained. BF - Bona-fide. HY - Handywoman.

Source: Medical Officer of Health for Hull Annual Reports.

Table 10

Free Midwifery Care in Hull, 1923-1936

YEAR	APPLICATIONS FOR FREE MIDWIFERY	NUMBERS GRANTED FREE MIDWIFERY	NUMBERS TAKEN BY	
			MUNICIPAL MIDWIFE	INDEPENDENT MIDWIFE
1923	-	374	129	245
1924	-	272	137	135
1925	413	213*	141	-
1926	400	377	198	179
1927	431	421	421	0
1928	491	448	440	1
1929	488	406	419	1
1930	416	373	387	1
1931	408	308	311	1
1932	420	375	369	0
1933	407	380	347	0
1934	472	412	429	0
1935	408	335	331	0
1936	356	291	303	0

*Figure for 6 months only.

Source: Medical Officer of Health for Hull Annual Reports.

birth attendant engaged and the 1902 Midwives Act had little impact on this, at least initially. Although some women would have needed the attention of a doctor, few in fact appear to have been called by midwives and the usual experience appears to have been a midwife attended, home birth that did not require any medical intervention other than that provided by the midwife.

Whilst childbearing women appear to have been little affected by the changes occurring within midwifery, the professional status of midwives was altered. However, there is no simple correlation between registration and improved status. Although midwives remained independent practitioners they were increasingly coming under the control of both the L.S.A.s and the C.M.B. and it is their relationship with these organisations that complicates the issue of professionalisation making it difficult to provide any firm conclusions. Given the various influences which were obviously acting upon midwifery before 1918, it is difficult to suggest that all midwives had achieved full professional status; indeed the persistent problem of the handywoman and the control exercised by doctors and health officials for example, could be taken to indicate little improvement in overall status. The formally trained midwife was increasingly being recognised for her work and by retaining her independent practice such women can be seen as fulfilling many of the criteria for professional status but the continued practice of both the bona-fide midwife and the handywoman might suggest that commitment to the improvement of the maternity services was only limited. As a result it is difficult to be certain of the impact of midwifery legislation before 1918, although the issue is certainly more complex than it would first appear and it did not result in either the uniform improvement of services to mothers or status amongst midwives.

The climate of change within the midwifery service in the period before 1918 was to continue into the inter-war years as further legislation, changes to the C.M.B. rules and the increased involvement of the L.S.A.s in the provision of local maternity services offered further challenges to midwives. During the First World War central government had clearly outlined its plans for creating a comprehensive, national maternity and child welfare policy and had made some commitment to finance these

services at the local level. Midwifery was to play a central part in this scheme and as it was generally felt that standards had improved somewhat amongst most midwives, the emphasis now shifted towards ensuring that these competent midwives were available to all women. The Local Government Board offered to provide a 50 per cent grant from 1916 to help local authorities "provide the service of a competent midwife gratuitously or at less than the ordinary fee..."[23] thereby recognising the difficulties faced by poor women in securing midwife care. But whilst this policy encouraged the development of free midwifery schemes (See Table Ten and Page 112 for its impact in Hull) and altered the role of those local authorities taking part, as in Hull for example, the measures were not compulsory and represented only a partial (although important) shift in national health policy ideology. As a result, the example of Hull cannot be used to provide firm conclusions about standards of maternity services in other areas.

Traditionally midwives were independent practitioners and whilst some worked either for local charities, the Poor Law or the hospitals, the majority worked for themselves in domiciliary practice. Although the 1902 Midwives Act had altered their relationship with outside agencies such as the local authorities, essentially the majority appear to have continued to be self-employed into the inter-war years. The 1902 Act remained (with some amendments) the basis for the organisation of midwifery until 1936 when another Midwives' Act completely altered the whole structure of the midwifery service, making local authorities responsible for the organisation of the midwifery service and making all midwives salaried public employees. However, this legislation was the culmination of trends that had begun much earlier and were already affecting independent practice. For example, the introduction of municipal midwifery schemes resulted in some conflict between the L.S.A.s and independent midwives as some women (and therefore income) were now to be dealt with by the municipal midwife. At the same time the C.M.B. was further refining the role and responsibilities of the midwife, for example by requiring her to carry out ante-natal inspections from 1926 and extending her post-natal responsibilities to 14 days from 1937. Whilst it appears that more was being demanded from midwives it is far from clear that these

changes resulted in universal improvements for midwives themselves, in terms of status and conditions and in particular the role of the C.M.B. in facilitating the process of professionalisation needs some exploration. For example, although the C.M.B. supported midwives in the debate that followed the implementation of the Dangerous Drugs Act in 1920, in the area of education and training midwifery knowledge was carefully restricted to prevent her straying into the territory of medical practitioners. A complex range of factors were acting upon the progress of midwifery in the inter-war years and although her role within the maternity services was extended it is not clear that this necessarily resulted in her gaining full professional status.

The composition of the midwifery labour force was altered during the inter-war years as formally trained midwives began to replace bona-fide midwives. This trend can clearly be identified in Hull (see Table Eight) especially after 1922 when the number of bona-fide midwives began to fall quite dramatically until by 1937 only 2 were working in the city. However, the presence of the handywoman remains a persistent problem in any study of the midwifery service in the inter-war years. Although she undoubtedly continued to practice there is little written evidence of the extent of her work and she remains an elusive figure. Whilst it is important to recognise her continued existence and contribution to the care of childbearing women, she probably attended a smaller number of births than the certified midwife and to some extent she has to be excluded from the discussion. The majority of births were attended by certified midwives who remained the principal birth attendant for domiciliary confinements. In Hull the Medical Officer of Health recognised the importance of midwives and commented in 1919 that "The midwife seems likely to become a more important factor in the medical and nursing service.".[24]

Most midwives worked for themselves in independent practices based within their own homes. Their clients booked them for the birth and this and any ante-natal care was usually carried out in the woman's own home. However, their position and livelihood was increasingly coming under threat during the inter-war years as municipal schemes and finally the repercussions of the 1936 Midwives' Act reduced the viability

of self-employment. Two main challenges to independent practice can be identified before 1936: the increasing number of hospital births and the creation of municipal midwifery schemes. Of course the impact of these factors varied from region to region as local conditions influenced the expansion of the maternity services and it was not until the implementation of the 1936 Act that all midwives were affected in the same way. Midwives in Hull did not have to wait until 1936 for their position to be challenged as the inter-war period saw more and more women choosing to have their babies in hospital. Once a woman elected to deliver in the Municipal Maternity Home her ante-natal and post-natal care were transferred to the staff attached to the home. Furthermore, if an independent midwife referred a client to the maternity hospital having detected some abnormality there was no system of compensation. As a consequence, independent midwives were at a disadvantage and were losing income as a result of the promotion of hospital birth.

This was not the only threat to independent practice as the creation of municipal midwifery service further limited their incomes. Although the Corporation in Hull had made some attempt to follow L.G.B. guidelines and ensure competent midwifery was available to all women by the introduction of system of free midwifery before the end of World War One, it was not until this was changed to a municipal midwifery scheme that independent midwives were affected. Under the original free midwifery scheme, begun in 1916, independent midwives simply claimed their fee from the Corporation if their client had been assessed as in need of assistance. However, the Corporation began to consider the possibility of employing a municipal midwife and from 1919 investigations were made to see how this idea worked in other areas of the country.[25] Once the principle had been accepted by the maternity and child welfare committee, the first municipal midwife- Miss A.C.Johnson- was appointed in 1922.

The creation of the municipal midwifery scheme was an important step forward in the development of public health policy as it resulted in some reassessment of the role of local government in the provision and staffing of the maternity services. The implementation of these schemes in Hull and elsewhere indicated some acceptance of

the idea that local authorities were not simply responsible for the inspection and partial funding of the midwifery service but that they also had a part to play in the actual provision and maintenance of midwifery staff. However, this point must not be overdone as the prime motives for the creation of a municipal midwifery schemes may have had little to do with an altruistic desire to improve access to competent midwifery for the poorest women. This is certainly true in Hull where the scheme appears to have developed out of a desire to reduce the financial burden of the free midwifery scheme and at the same time to improve local facilities for the education of pupil midwives. The Corporation believed it could save money by employing one midwife to do all the free cases in the city (if assisted by pupils) rather then by paying individual independent midwives. Furthermore, the scheme was also intended to provide experience of domiciliary practice to pupil midwives who were a source of cheap labour, thereby helping the L.S.A. to meet the requirements of the C.M.B. who had by this time suggested that pupil midwives could benefit from instruction in community midwifery. This was confirmed by the Medical Officer of Health in his Annual Report for 1922 when he commented that a municipal midwife had been appointed in the city "to comply with the expressed wish of the Central Midwives Board regarding the necessary training in district work of pupil midwives at the maternity home.".[26] It is important to recognise that the creation of municipal midwifery schemes may not simply have been a direct response to maternal and infant welfare issues of the period (although in Hull it was hoped that maternal mortality in the city would fall as a consequence of this scheme) but were an attempt to reduce costs and attract pupil midwives. As such the role of the C.M.B. in encouraging the development of municipal midwifery schemes needs some acknowledgement and whilst it could be argued that such schemes helped ultimately to raise standards of midwifery care by encouraging the employment of registered midwives by local authorities, the role of the pupil midwife in these schemes must also be considered. Pupil midwives were a source both of cheap labour and revenue (in the form of fees) and as such were very attractive to L.S.A.s. As pupil midwives were however used to staff municipal midwifery schemes the standard of care

Table 11

Free Midwifery Cases as a Percentage of Total Births in Hull, 1923-1936

YEAR	% FREE CASES
1923	5.4
1924	4.1
1925	NR
1926	5.9
1927	6.8
1928	7.3
1929	6.7
1930	5.9
1931	5.1
1932	6.1
1933	6.6
1934	7.0
1935	5.7
1936	4.9

Source: Medical Officer of Health for Hull Annual Reports.

they offered needs to be questioned. As with the expansion of the Municipal Maternity Home, which was also staffed by pupils, the impact of the municipal midwifery scheme needs to be seen from several different perspectives. Whilst municipal midwifery schemes need to be regarded as important ideologically in strengthening the role of the local authority within the maternity and child welfare service, at the same time they provided a threat to the livelihood of the independent midwife and did not necessarily signal an improvement in the services provided to mothers.

Although the percentage of births in Hull attended by the municipal midwife remained small fluctuating between 4.1 and 7.3 per cent of all births, the actual numbers of women being cared for by the staff of the municipal midwives department increased throughout the period (see Table Ten and Eleven). In 1923 municipal midwives were only attending 129 births but by 1934 this had increased to 429, much of this increase can be accounted for by administrative changes. Initially the scheme offered a limited threat to the incomes of independent midwives and in the period 1923-1926 the work was shared between the municipal midwife and independent midwives. However, independent midwives were now in direct competition with the municipal midwife for free cases and this is more significant than the actual numbers of births attended by either group of midwives. Initially the system retained an element of choice for pregnant women; if a woman had booked an independent midwife she could retain her choice and still have her fee paid. However, women who had not booked a midwife before assessment were encouraged to utilise the services of the municipal midwife. Whilst an important principle had been established and independent midwives were no longer exclusively responsible for domiciliary midwifery care, local midwives do not seem to have protested about the organisation of the new scheme.

Impetus for the expansion of Hull's municipal midwifery scheme came during 1924 when it was realised that it was not attracting sufficient numbers of pregnant women to allow the Corporation to comply with the C.M.B.'s rule on pupil midwife training. As a result the scheme had to be altered but this was not to occur without some protest on behalf of independent midwives. The C.M.B. regulations clearly stated that

"at least five cases, and preferably double that number, must be delivered in the patients' homes by the pupil midwife under the supervision, and in the actual presence of the teacher..."[27] but during 1924 there were only 137 cases when 200 were required for the 20 pupils enrolled that year. In an effort to increase numbers the Medical Officer of Health began to reorganise the scheme and decided that from April 1925 any woman who had booked an independent midwife before applying for free midwifery would not be eligible. This alteration of policy caused much dismay amongst the members of the Hull Association of Midwives who met with the Medical Officer of Health during May 1925 to voice their concern and discuss a more equitable solution. Understandably independent midwives were concerned that some of their clients (and therefore their income) would be removed completely and furthermore if they did attend a woman too poor to pay their fee they would not necessarily be reimbursed. Finally, it was decided that the municipal midwife would work alternate districts in the city centre for 6 months each and that a woman should be able to have an independent midwife to attend her if she wished. This at first appeared to be a victory for the independent midwives who had managed to secure their position in this regard. However, whilst this solution may have pacified local midwives to some extent, it did nothing to solve the essential problem of insufficient numbers of cases for pupil midwives to observe and the whole arrangement had to be reassessed during 1926. This time the solution was not to the advantage of the self-employed midwife.

During the discussions with the Hull Association of Midwives, the Medical Officer of Health offered two solutions neither of which would have been particularly attractive to the independent midwife. The first was that the municipal midwife should take on some fee paying clients in addition to her free work and the second solution was that she should take all free cases. There really was little choice for the independent midwife, for to accept that the municipal midwife had a place in private practice was clearly to risk further erosion of incomes. It seems clear that in effect midwives had very little power locally and that their professional association appears to have been consulted more out of politeness than any serious desire to hear the opinions of local

midwives or to act upon them. Negotiations appear to have been largely artificial attempts to smooth the way for changes already decided upon by the Corporation, and the Medical Officer of Health appeared unbending. In an effort to preserve their place within private practice (which was more lucrative) the local Midwives' Association agreed to the second proposal. Although independent midwives no doubt suffered a loss of earnings from the 421 cases taken by the municipal midwife in 1927, they had succeeded in protecting their place within private practice whilst at the same time the city's maternity and child welfare service now had sufficient numbers of domiciliary cases for pupil midwives to observe.[28] From 1927 only in exceptional cases were women who were having their midwifery fees paid by the Corporation allowed to have an independent midwife. There were only four such cases between 1928 and 1931, each of these being multiparous women who had had the same attendant for previous births and had insisted upon the same midwife again. The result of this reorganisation was the expansion of the work of the municipal midwife and the role of the Corporation in the provision of maternity services. The service continued to be popular and staff numbers were increased; by 1927 there were 2 municipal midwives employed by the Corporation but by 1934 this had increased to 4 and these municipal midwives and their pupils attended over 400 women (or 7.3% of all births) in Hull. Whilst this scheme provided an early challenge to the independent midwife and removed cases from her practice its significance was in the fact that the Corporation took responsibility for the provision and funding of domiciliary midwifery care for the poorest women in Hull. However, to suggest that this was for the benefit of mothers alone or that it necessarily improved their midwifery care would be inaccurate.

As the staff of the municipal midwife's department were drawn from the Municipal Maternity Home-either from qualified midwives or pupils- a link was established between the provision of local municipal domiciliary and institutional midwifery care in Hull. Women who were to be attended in childbirth by the municipal midwife were automatically provided with ante-natal care. This proved useful in helping to increase the proportion of pregnant women seen at the ante-natal clinic and

helped boost admissions to the Maternity Home as increasing numbers of free cases were referred for an institutional birth. This relationship is difficult to prove conclusively and whilst some women would have had genuine abnormalities that required referral, others were referred simply to promote the use of institutional birth once the municipal midwives had sufficient cases for their pupils. The municipal midwifery scheme was therefore important in helping to create a clientele for the Municipal Maternity Home in Hull as well as altering the role of local government in the provision and funding of the maternity services in Hull. As a consequence, the requirements of pupil midwives was an important factor which helped alter the experience of childbirth for increasing numbers of women before 1939.

Despite the challenge of the municipal midwifery scheme to the practice of independent midwives in Hull, the independent midwife continued to attend the majority of births in the city until 1937. However, the proportion of births they attended fell between 1922 and 1936 from 67 per cent to 51.9 per cent. Although there was some fluctuation between years much of this overall decline can probably be accounted for by the impact of the municipal midwifery scheme and the increase in hospital births. Independent midwives faced a number of challenges to their practice in the inter-war years but despite this they continued to be an important part of the provision of maternity services. Not until the introduction of the 1936 Midwives' Act was the self-employed midwife to see her practice come under serious threat. As a result most women having babies in Hull were attended by independent midwives and whilst more were coming into contact with the Corporation's maternity and child welfare service, it was not until the implementation of the 1936 Midwives' Act that municipal services became a normal part of the majority of pregnant women's experience.

The 1936 Midwives' Act completely altered the organisation of the midwifery service in England and Wales by legislating for "the organisation throughout the country of a domiciliary service of salaried midwives under the control of local supervisory authorities..."[29] It was hoped that as a result not only would maternal mortality be reduced but that midwives would also benefit as the "whole status of the

midwifery profession will be raised by providing adequate salaries and secure prospects of those midwives who enter the service..."[30] It is not clear that this was achieved before 1939 and indeed the whole notion that the Act helped professionalise midwifery needs careful consideration. Clearly the Act had advantages for midwives in terms of security, salaries and the regulation of the working day but at the same time certain disadvantages can be identified; for example, independent practice was now less viable as local authority midwives were in direct competition with those in private practice. Some midwives were able to join the new service and others retired or left taking advantage of the compensation scheme available. But whilst it seems apparent that conditions of service improved it is not so clear that professional status followed as a consequence of the Act.

In terms of the service provided to women the Act implemented a system of free domiciliary care by registered midwives and removed for many the financial burden of childbirth. Furthermore, it finally banned unqualified birth attendants (that is the handywoman) from practising and sanctioned that the penalty for "receiving payment for attending a woman in childbirth or at any time during the following ten days should be...a fine not exceeding 10 pounds.".[31] In this way the Act finally helped disassociate trained midwives from the undesirable image of the unskilled, untrained handywoman. However, it is not clear that professionalisation automatically accompanied the implementation of the Act. Indeed it could be argued that legislation did little to improve the professional status of midwives and that by making them salaried employees with little control over their time and work their chances of full professional status, such as that occupied by doctors, was actually reduced.

In Hull the Act did not immediately destroy the practice of independent midwives rather it extended the municipal midwifery scheme begun in 1922. When the legislation came into force on 30th July 1937 the staff of the municipal midwife's department was increased to 52 (50 midwives and 2 superintendents). These midwives all received an annual salary, were included in the National Health and Superannuation schemes and had 3 weeks annual leave. Their pay depended upon qualifications and experience and

whilst the superintendents received between £260 and £300 p.a. the midwives were usually paid between £180 and £235 p.a.[32] They were provided with a uniform, equipment and a laundry allowance and were issued with bicycles to travel around the city. By 1938 the composition of the local midwifery labour force had been completely altered when compared to its position in 1900. During 1938 107 certified midwives had notified their intention to practice, all were formally trained and most were employed by the local authority either offering domiciliary or institutional midwifery care. Municipal midwives now accounted for the majority of the midwives in Hull as their numbers had increased to 62, or 58 per cent of all Hull midwives, although some midwives retained their independent practices. Whilst further work is needed into the impact of the Act locally it clearly had different implications for mothers, local government agencies and midwives. Moreover, as the needs of pupil midwives seems to have prompted the development of local services it would appear that, at least in Hull, local government was not only responding to the wishes of national government but also to the requirements of the C.M.B.

Whilst so far this chapter has considered the impact of legislative change upon the role of midwives, their relationship with the Local Supervising Authority and the service they offered to women, some reference also needs to be made to the role of the C.M.B. in the process of professionalisation. The C.M.B. had not been created as a campaigning body whose prime aim was to pursue improvements in the condition and status of midwifery, rather it was intended to be a regulatory body concerned with the supervision and control of the midwifery labour force. This is certainly illustrated in the list of duties of the Board which had been drawn up under the 1902 legislation. The Board had six main duties (to frame rules governing training and practice, to appoint examiners, to organise examinations, to decide who was eligible for admission onto the midwives' Roll and to issue and cancel certificates)[33] none of which related especially to the issue of professionalisation but all of which were intended to raise standards of midwifery and improve their public image and as a consequence had an impact upon the status of midwives. Furthermore, the composition of the C.M.B. itself had important

implications for the development of midwifery and their status within the maternity services. Midwives were not regarded as capable of self regulation (unlike other professions) and were never allowed to dominate the membership of the Board. Initially the C.M.B. did not have to include a midwife at all (although one was appointed by the nursing bodies who were allowed a seat) and it wasn't until 1929 that midwives sat on the Board in their own right.[34] The membership of the C.M.B. meant that rather than being dominated by the concerns of midwives the most powerful voice within the C.M.B. throughout the period to 1939 was that of medical practitioners. Although never a majority, doctors concerns dominated the agenda of the C.M.B. and ensured that midwifery only developed into a quasi-profession (a necessary move to improve maternity care) rather than into a direct threat to their own area of practice. As the professional rivals of midwives, doctors (G.P.s in domiciliary and obstetricians in institutional maternity settings) had a vested interest in ensuring that the development of midwifery was restricted.

Whilst the professional rivalries between doctors and midwives need to be acknowledged, the remainder of this chapter is concerned with exploring the ambiguous nature of the C.M.B. in both restricting and enabling professional development. The role of the C.M.B. in this regard is certainly not clear and examples can be found of how it both helped (for example, by supporting the changing role of midwives under the Dangerous Drugs Act 1920) and hindered (for example, in its organisation of midwifery education and training and in its restriction of midwifery knowledge) the professional development of midwifery. The Dangerous Drugs Act allowed certified midwives to carry and administer to women in childbirth preparations containing opium. A careful record was to be kept of the supplies, where they were purchased and a note was to be made of how much was given to clients. This created a new role for midwives not only administratively but medically. Traditionally it was only doctors who could administer drugs and so this legislation indicated some improvement in the midwife's status as she was now considered responsible enough to carry out at least some techniques that were regarded as medical. However, it was precisely this apparent crossover into medical

practice for a 'non-medical' health care worker that particularly concerned some groups. From 1921 there began a heated debate primarily between the Ministry of Health, the C.M.B. and the British Medical Association (B.M.A.) over this issue but what is most interesting is that the C.M.B. consistently supported the midwives' right to carry and administer drugs. The B.M.A. wrote to the C.M.B. and Minister of Health to complain about the matter focusing upon the use of opium and pituitrin within domiciliary midwifery. The B.M.A. believed that such drugs should only be used "under the supervision of medical man..."[35]and although the Minister of Health agreed with the B.M.A. regarding pituitrin[36] he supported the C.M.B. in the use of opium by midwives. Writing to the General Medical Council in 1928 the Minister explained the governments' position:

> "To deprive a woman of a drug- say opium- in a prolonged first stage of Labour (*sic)* is to inflict unnecessary suffering upon her and even militate against her safety. To make her wait for the doctor may be to wait too late. The midwife should deal with the situation without delay."[37]

This quote perhaps gives a clue as to the reason for C.M.B. support over this issue. It is likely that this battle was part of a wider campaign to improve pain relief in childbirth and to prevent suffering. It therefore has to be seen in light of the on-going debate about how to reduce maternal mortality and not necessarily as indicating C.M.B. support for an increased medical role for midwives. Such national debates had an impact at the local level and in this case further extended the role and duties of midwives in Hull. Although the C.M.B. was not overtly arguing for midwives to cross over into the preserve of doctors, by supporting this measure the professional status of midwives was inadvertently improved.[38] By campaigning for the greater application of analgesics in domiciliary midwifery practice the C.M.B. helped improve the status of midwives by recognising part of their work as necessarily medical. However, it seems clear that this was not a deliberate objective.

In other areas the relationship between the C.M.B. and rank and file midwives was less beneficial, especially in terms of their professional development, where it

would appear that the C.M.B. actively (and effectively) restricted the process of professionalisation. This is perhaps most clearly demonstrated in the area of midwifery education and training (for which the C.M.B. were primarily responsible) which appears to have developed in such a way as to maintain, rather then improve, the inferior position of midwives within the hierarchy of medical professionals. During the period before 1939, as a consequence of the attention upon standards of midwifery within maternity and child welfare circles, training programmes were expanded both in terms of content and length and a formal body of midwifery knowledge (which incorporated elements from obstetrics, nursing and health visiting) was created which was distinct from the obstetric training given to medical practitioners. It was the development of these training courses and of midwifery knowledge which helped firmly locate the midwife within the maternity and child welfare service and to restrict her role. Although improvements were made in the standard of midwifery education and training between 1900 and 1939, the structure of formal midwifery knowledge passed via the training schools served to limit the role of the midwife and ensure she remained the practitioner with responsibility for normal childbirth and did not stray into the preserve of medical practitioners. By examining the development of midwifery education and training and analysing how midwifery knowledge was created and transferred it is not only possible to chart the development of training programmes but also to look at the relationship between training and professional development. Furthermore, as the C.M.B. played a fundamental role in this area it is also possible to comment upon the nature of their support for the professionalisation of midwifery.

From its inception the C.M.B. dictated the development of midwifery education and training and was therefore a significant force in the creation of formal midwifery knowledge. This work focuses upon the formation of formal midwifery knowledge, i.e. the content of training programmes as disseminated by midwifery teachers and textbooks. Midwifery knowledge as a whole consists of both formal and informal (i.e. experiential) knowledge and whilst it has been impossible to collect data relating to the latter for this period, the former was passed on in the written form and is therefore more

accessible. However in another project I have been examining the creation of midwifery knowledge in the post 1939 period, which seems to suggest that midwives adapted formal information as a consequence of practical experience, that is that midwifery knowledge is not static but fluid and responded to challenges faced in the workplace. As the Board was responsible for "regulating the course of training and the conduct of examinations"[39] its members were in a powerful position to control the type and standard of training received by midwives. However despite the increased emphasis upon the important role of the midwife within the maternity service and concerns about standards of care, the issue of training received little attention before 1916. In the period before the First World War all pupil midwives underwent a period of training which lasted 3 months and culminated in a 3 hour written and 15 minute oral examination.[40] Whilst it seems clear that the C.M.B. were not interested in changing this policy, as no lengthening of the course or extension of the syllabus was forthcoming between 1902 and 1916, the reasons for this inactivity are less clear. It could be suggested that the membership of the C.M.B. was dominated not by midwives but by those more sympathetic to the concerns of medical practitioners, and that the reluctance to improve training was part of a deliberate policy designed to perpetuate the low status of midwifery within the maternity services and to ensure her training was in no way comparable to that undertaken by doctors. However, although this may have been a significant factor given professional rivalries between groups of health care workers, the shortage of midwifery personnel at this time (and indeed throughout the whole of our period) also affected the issue. The shortage of midwives throughout the country as a whole[41] meant that few applicants could be rejected. In an effort to encourage more women to apply, levels of educational attainment had to remain fairly low to allow sufficient pupils to enter without dramatically reducing standards; furthermore the need to encourage applications meant that midwifery training was not restricted to those who had completed nurse training.

Historically entry into midwifery was not restricted simply to those who had undergone nurse training and whilst nurses often saw the gaining of midwifery

qualifications as a useful way of completing their training not all went on to practice. Whilst nurses were encouraged to obtain C.M.B. certification, midwifery training was also open to those women who were not nurse trained- the direct entry pupil. This is an important point as the composition of the midwifery labour force has contributed to the occupation retaining its separateness from nursing, encouraging its development as a specialism distinct from nursing and not merely an adjunct to it. However, the degree of 'non-medical' or 'non-nurse' trained personnel has also meant that midwives have often been regarded as inferior. This is apparent in their relationship with medical practitioners but can also be seen within midwifery education itself where the nurse trained pupil was sometimes regarded as more competent then the direct entry pupil. This perhaps reflects wider issues concerning the status of midwives within the medical hierarchy. For some the direct entry pupil did nothing to improve the position of midwifery rather her persistence helped maintain the association of professional midwifery with the image of the handywoman.

From June 1916 the period and content of training programmes changed as divisions were made between the direct entry and nurse trained pupil midwives; the period of training was doubled to 6 months for the direct entry pupil and increased to 4 months for nurses. As has been seen the issue of maternity and child welfare was coming under close scrutiny during the First World War and as part of this emphasis was placed upon providing a competent midwifery service. Attention to midwifery training reflected these wider concerns but also acknowledged for the first time the differences between the two types of entrant. What is interesting is that whilst some recognition was given to the work already completed by the nurse trained pupil, the direct entry pupil was required to make up any deficiencies in the two months that separated the two types of training courses. Whilst nurses were accredited for prior learning, direct entry pupils were expected to learn all the nursing skills necessary for midwifery work in 2 months whilst nurse training itself was 3 years duration (the period required to gain admission to the register under the 1919 Nurses' Registration Act). Despite improvements, midwifery training was particularly short when compared to

other health care professions (even those dominated by women) and the two training pathways had the potential to cause tensions between the two groups of pupils. Doctors were required to study for several years as were nurses and even health visitors (whose role was more educational than medical) had a longer period of training than midwives at this time and were required to train for 12 months (6 months for qualified nurses). The organisation of midwifery training programmes may have conveyed certain ideas about midwifery (for example that it was less arduous or rigorous then other areas of medicine and that it did not necessarily require great intellect or skill) which may have contributed to the maintenance of its overall inferior status.

Although the syllabus had been extended in 1916 and all pupils were expected to be instructed in the same way, the topics covered clearly reinforced the inferior position of the midwife within the medical profession and did not allow any development in areas considered outside her field of responsibility. For example, although her education was to include some instruction in obstetric emergencies the midwife was to be taught to cope until the arrival of a doctor and then to step aside. For the most part the syllabus confirmed her position as practitioner with responsibility for normal childbirth, although it was extended to cover infant care and sanitation of the home, food and person. Midwives were required to have some knowledge of the signs of abnormalities but this was taught very much in light of the C.M.B. rule requiring a midwife to call for medical aid in such situations. Moreover, whilst the syllabus encompassed a wide range of subjects including anatomy, physiology, management of labour, puerperal fever and the care of infants, detailed study was impossible given the length of the training programme. The educational experience of pupil midwives usually consisted of formal lectures and practical work within the institutional setting further supplemented with domiciliary experience. In Hull, throughout the period under discussion, pupils began their training in the Municipal Maternity Home where lectures were given by local medics, usually obstetricians or gynaecologists from the Hull Royal Infirmary. However, the majority of teaching appears to have been done by other midwives and in Hull, both the Matron of the Home and the other midwives trained pupils. Some

criticism of the teaching styles adopted within midwifery training schools came from Janet Campbell, writing in 1917 she commented that: "much of the theoretical instruction given is not fully comprehended and consequently, is not remembered as it should be".[42] However, pupil midwives did not simply attend lectures but from the very beginning of their course of training had practical experience. Although this initially meant working on the wards (usually doing menial tasks such as cleaning, dusting and disinfecting instruments) and observing the midwives at work, they were required to attend and care for 20 mothers and babies. At the end of their period of training all pupils were also examined on all aspects of their duties as a midwife and were observed in a practical setting.

Despite the extension in the period of training and the attention to the syllabus, some were still concerned that its length and content were inadequate. Janet Campbell noted the desire amongst some teachers to lengthen the period of study for inexperienced women (and by this was meant the direct entry pupil) to 12 months and agreed that this should be a long term goal. However, she also recognised that the organisation of courses was just as important and that: "The main requirement is to prevent the pupil wasting any of this valuable time in routine drudgery, to give her greater opportunity for quiet study, and more oral teaching as opposed to lecturing".[43] Moreover, she also felt the curriculum needed enlarging to cover the teaching of infants, ante-natal care and the role of the midwife in promoting the maternity and child welfare service.[44] Whilst Campbell's work recommended many alterations to the organisation of midwifery education, she and other health officials actually had little control over the work of the C.M.B. However, the Board does appear to have been influenced by the wider maternity and child welfare debate and the midwives' role in these services and at various times altered its rules to reflect new thinking; for example, the introduction of taking and recording the mother's pulse and temperature regularly and the extension of the midwives' responsibility towards the neonate reflected both concern over levels of maternal and infant mortality. However, on the whole the C.M.B.

appear to have resisted outside interference and further major changes to midwifery education and training did not occur for another ten years until 1926.

The reasons for the apparent reluctance of the C.M.B. to improve midwifery training programmes are more difficult to isolate and some, such as the general shortage of recruits and the dominance of the medical practitioner, have already been suggested. In addition there is also the issue of the financial relationship between the pupil, the institution in which she was trained and the C.M.B. Initially grants were not made for midwifery training and pupils paid their schools direct but from 1919 grants were made available from the government to partly cover the fees of those pupils who committed themselves to practising upon qualification. Financial support from the Treasury increased throughout the period rising from a total of £13,600 on 670 pupils in 1923 to a total of £23,095 for 809 midwives by 1934.[45] Both the pupil and Local Supervising Authorities contributed towards the income of the C.M.B., the former via, for example, examination fees and the later by a levy on the rates (a system that had developed with midwifery legislation).[46] After the First World War pupil midwives paid between £15 and £21 for their training and whilst in Hull their numbers remained small (between 1916 and 1919 there were 25 pupils in total in the city)[47] they became a more important source of revenue as their numbers increased in the inter-war years. Moreover, pupil midwives were vital to the continuation of local maternity hospitals by bringing in addition to financial support, cheap labour and training school status to those institutions in which they trained. Further limitation of recruits by strict entrance requirements or longer courses which resulted in fewer pupils passing through the system would mean a reduction of income for the training schools and the C.M.B. However, it is not clear whether there was a precise link between the financial relationship and the policy of the C.M.B. In Hull at least, the revenue and status brought to the Municipal Maternity Home by pupil midwives became increasingly important and contributed to the Home's expansion and viability during the inter-war years. Any reduction in their numbers, at least locally, would not have been well received by health officials.

The strengthening of the link between midwifery education and hospitals arguably had important implications not only for the professional development of midwifery but also for the medicalisation of childbirth. Once it was accepted that all midwives should be trained within hospitals before gaining domiciliary experience[48] it was necessary for the number of institutional maternity beds (and admissions) to increase. Between 1921 and 1938 public health authority institutional maternity beds increased from 2463 to 6442.[49] Furthermore, by strengthening the role of the hospital in midwifery training, doctors (and in particular obstetricians) could influence both the professional behaviour of pupil midwives as well as what and how they were taught. By making the initial period of training hospital-based the C.M.B. ensured that direct entry pupils gained a thorough grounding in hospital etiquette and hierarchies- an important lesson which may have set the pattern for future professional relationships and self-image. However, the link between hospitals and midwifery training cannot simply be seen as an attempt by the medical profession (via the C.M.B.) to control the professional development of midwifery and create work for obstetricians. Those involved in the debate over the future organisation of midwifery education sincerely believed that institutional training would improve the standard of that training and therefore the service offered to women. For example, Janet Campbell commented that: "Training in the hospital or on the district only, may be adequate for pupils who do not intend to practise but it is most emphatically insufficient for midwives who intend to follow the profession".[50] The hospital was regarded as the best place to train pupils in antiseptic procedures and gave the opportunity to observe a wide range of abnormal cases. However, this emphasis upon the institutional setting for birth ignored the fact that midwifery practice was fundamentally different to the work of other health care professionals in that it dealt with a normal physiological process (and not the sick) and was predominantly based within the domestic environment. To encourage the initial focus of training to be upon the abnormal both in terms of outcome and setting was to offer a somewhat distorted image of midwifery practice. Although acknowledgement

was given to the importance of district experience, training within the hospital setting was often regarded as superior in that it offered a chance to see 'correct' procedure:

> "Teachers of midwifery would probably all agree that the pupil requires a thorough grounding in correct obstetrical methods, which can only be taught and applied in their entirety under hospital conditions, before she attempts work on the district where she must be content to do her best with make-shift equipment".[51]

However it was the domiciliary work which was the usual setting for midwifery practice and 'correct' procedure was often of limited value within the domestic environment.

During the inter-war years, as a consequence of the investigations into maternal mortality, health officials became more interested in the content and scope of midwifery training and its relationship with maternal health. Standards of midwifery were linked directly to the issue of maternal mortality and by 1923 Janet Campbell at the Ministry of Health noted with some disappointment that improved and extended training programmes had not resulted in improvements in the maternal mortality rate: "the almost stationary character of the maternal mortality rate suggests the inference that the midwifery service of the country is not all efficient as it should be".[52] Such sentiments remained an important part of maternity and child welfare ideology, despite later findings which suggested that changes to midwifery alone would not solve the problem of maternal mortality[53], and resulted in the greater influence of the Minister of Health in shaping the development of courses although ultimately the responsibility for this still lay with the C.M.B. This new relationship was not always easy and the C.M.B. was keen to maintain its independence; for example, when the Ministry recommended in 1923 that the period of training be extended from 6 months to 1 year for direct entry pupils and from 4 to 6 months for nurse, and that the curriculum should be extended to reflect the ante and post-natal role of the midwife.[54] It was not until 1926 that the C.M.B. felt it was desirable to do so. In their Annual Report for the year ended 31st March 1925 the Board resolved that it was now necessary to increase the length of midwifery training to bring about a "lessening of mortality and disability among the

mothers and babies of the Nation..."[55] Whether this response was part of a deliberate attempt to maintain the independence of the C.M.B. or whether the intervening time had been used to gather information and formulate a policy is not clear. However, it is difficult to see why change which had been undesirable in 1923 was by 1925 seen as necessary. Nonetheless the result was that training was lengthened and the C.M.B. rules were altered to reflect changes to the content of courses. By ensuring that the pace of change had moved slowly, the C.M.B. restricted the professional development of midwives although it is not clear how far this was a deliberate policy on their behalf. Whilst it is difficult to make firm conclusions about the intended motives of the C.M.B., the Ministry of Health became more influential in shaping the policy of the Board and was therefore to influence the professional development of midwives. More importantly however, by encouraging midwifery training to develop in this way both agencies had encouraged the expansion of the role of the maternity hospital and this was part of a deliberate policy to encourage more institutional births.

Whilst few details remain as to the precise nature of midwifery education in Hull following alterations in 1926, it is possible to begin to make some comment as to the impact of these changes generally by examining the C.M.B. Rule Book and by looking at midwifery textbooks of the time. In this way a detailed picture of the state of midwifery knowledge and the required role of the midwife emerges which further contributes to an understanding of their position within the maternity services. Furthermore, some indication of the type of training offered in Hull and the experience of pupil midwives can be obtained through oral history accounts, although few midwives survive who trained in the inter-war years.[56] Despite concerns over the standards of midwifery care, few formal educational qualifications were required before entering a course of midwifery training. To enter a training school a woman had to be over 21, have a good standard of general education and provide a certificate to show good moral character.[57] This low standard of educational achievement arguably did nothing to improve the status of midwifery as candidates were simply required to be able to read and write. More important it would seem was the character of the entrant

and the C.M.B. provided a form which had to be signed by two responsible people (such as teachers or priests) who had known the candidate for at least 12 months. This acted as a reference and confirmed that the pupil was "trustworthy, sober and of good moral character".[58] It seems likely that it was as a consequence of the shortage of midwives (discussed earlier) that these requirements did not change throughout the entire inter-war period and whilst the question of fees may have acted as a barrier to some women, few would have been refused on the grounds of qualifications. However, by maintaining this low standard of entry requirements the C.M.B. was sending important signals about the status of midwifery which allowed the maintenance of the clear distinction between the standard of the midwifery labour force and that of medical practitioners. In this way the established medical hierarchy could be reinforced, protecting the position of both G.P.s and obstetricians.

The 1926 Midwifery legislation had not only resulted in changes to the length of courses but also to their organisation. It was now necessary for pupils to witness at least 10 births before they began personally attending women in childbirth. Under the rules of the C.M.B.[59] each pupil during her period of study had to show she had been responsible for at least 20 labours and that she could make both abdominal and vaginal examinations, to supervise personally at the delivery (or as it was put "personally delivering the patient") and to be responsible for the care of mother and infant in the 10 day post-natal period. Although this differed little from previous requirements (and only the requirement to witness 10 births before beginning to attend women was new) the rules now clearly stated that of the 20 cases the first five must be within an institution and at least five of the remaining fifteen must be within the woman's own home. This further strengthened the bond between maternity hospitals and midwifery training and despite the fact that most midwives would be working in the district the training programme was organised around the hospital setting and indeed three quarters of the period of study could legitimately be spent there. Another new addition in 1926 was the extension of the number of lectures and pupils now had to attend 30 as opposed to 20 previously. The lecture programme was to cover a wide range of topics as before and

apart from a specific section on the care of the breasts there were no new additions to the curriculum. The organisation of these lectures did not alter and continued to be didactic with one speaker addressing the whole group of students for a particular year. This was still considered the best method of transferring essential information and was supported by John Fairbairn (obstetrician, midwifery teacher and President of the C.M.B. between 1933 and 1936, whose book A Text-Book for Midwives remained a standard teaching text from its publication in 1914) who believed: "In teaching the elements of any subject the only way to impress points on the student is by constant repetition"[60]. The consequences of this for pupils in Hull were clear and oral history testimony shows how, despite the national debate, teaching styles had not altered. In Hull the Matron took the majority of lectures and was described by one woman who trained between 1939 and 1940 as "a typical Matron".[61] Further insight into what this meant was given by another interviewee who trained between 1938 and 1939 and remembered: "When she took lectures and that, you had to pay attention...She was very, very strict but she was very, very good."[62] Lectures were fixed and pupils had to attend even if they were on night duty. At the end of their training the examination procedure (which in 1928 cost 10s 6d[63]) consisted of the assessment of record keeping and case studies and a written and oral examination on the subjects on the syllabus. These minimal organisational changes represented the extent of the refinements to midwifery training schemes at this time and can be seen as an illustration of the reluctance of the C.M.B. to improve the professional status of midwives by widening their knowledge base. The extent of midwifery knowledge as reflected in the syllabuses reinforced the low status of midwives and did little to encourage a more equal relationship between the various health care professionals working in the maternity services. The C.M.B. was primarily responsible for this as it was they who regulated and influenced the content of training programmes and whether this was part of a deliberate policy or not the reaction of the Board served to limit the status of midwives.

The relationship between the status of the midwife and the organisation and content of training courses was further complicated by the position of the midwife in

the maternity services. Whilst midwives attended the majority of births and had to have a wide range of obstetric information (not just regarding normal childbirth but also about complications) to carry out her work properly, it was important that her knowledge and skill did not blur the distinctions between her status and that of the G.P. (who was perceived to be superior both in skills and knowledge). As a consequence it became important to attract women who had an enquiring, alert and independent mind whilst at the same time to ensure that these recruits did not begin to regard themselves as equals of medics. In his midwifery textbook Fairbairn had noted that "A more educated class is now coming forward to qualify as midwives..." and that this was a positive step forward, part of the "legitimate aspirations of the midwife for a higher professional education".[64] However, whilst he believed that midwives needed a wide range of knowledge he realised that much of the information in his text went beyond what was usually regarded as suitable for pupils; indeed he commented in the preface to the first edition that "this text-book contains more than has hitherto been considered necessary for midwives, and is open to the criticism of going beyond what is required by them and of them".[65] Despite this he was not advocating that midwives could or should replace medical practitioners but his text illustrated how the paradox in midwifery training could be resolved. By constantly referring to the midwife as being the practitioner with responsibility for normal childbirth, as assistant to the doctor and by placing this within the context of the requirements of the C.M.B. rules his text helped reinforce rather than remove the inferior status of midwifery. He saw the midwife's role as being "to preserve normal function throughout labour, and to eliminate any causes of disturbance, to detect abnormality early, and obtain medical aid. Her success will be estimated by the proportion of normal cases obtained with recovery of the mother without disability and able to nurse and rear a healthy infant".[66] It was necessary therefore to give information to the midwife to help her deal with a variety of complicated circumstances and in many respects her obstetric knowledge had to be equal to that of doctors but her education was organised in such a way that she was constantly made aware of the C.M.B. rules and the inferiority of her position in relation

to the medical practitioner. Again Fairbairn illustrates this in his chapter on obstetric operations which gave information on such issues as forceps deliveries, caesarean sections and the administration of anaesthetics, all of which were at this time beyond the preserve of the midwife. Fairbairn justified the inclusion of such a chapter by saying that: "Although the midwife is never called upon to perform these operations, she ought to know many things regarding them if she is to take an intelligent interest in her work, and if she is to act as a skilled assistant to the medical practitioner".[67]

The nature of this debate were transferred to the local level as in Hull at least, midwives appear to have been taught very much in light of these sentiments. For example, the different roles of the doctor and midwife were constantly stressed to pupils. Midwives were taught to be the practitioner with responsibility for normal childbirth, whilst the doctor was regarded as far superior in both knowledge and status. Oral history evidence supports this as the women interviewed emphasised the clear distinctions between their work and the work of medics. Moreover they were in no doubt as to their inferior status; for example, certain procedures had to be followed if a doctor came on the ward. One interviewee remembered: "When we were doing our training, the doctor came on the ward and you stood to attention and kept quiet."[68] As a consequence midwifery knowledge was not necessarily inferior in quality in many respects to that obtained by doctors but in an effort to maintain distinctions in status between the two groups midwifery knowledge was regarded as inferior and the maintenance of this position by the C.M.B. further helped restrict the professional development of midwives as a group.

Further expansion and reorganisation of training was to follow in the wake of the 1936 Midwives Act and were implemented in 1938 but these changes had little impact in the period under consideration and were disrupted by the onset of war in 1939 and the reorganisation of the maternity services under the Emergency Medical Service. At the end of the inter-war period midwifery education and training had undergone a great deal of change reflecting the demands of midwifery legislation. Following proposals from the C.M.B.[69]for further changes, the length of the period of training was

doubled (from 6 to 12 months for nurses and from 12 to 24 months for direct entry pupils) and the course split into two parts (part one being 6 months for nurse and 18 months for direct entry pupils and hospital-based whilst part two was 6 months in length and included some if not all domiciliary experience) from 1938. Whilst some structural changes had taken place, the national dialogue about the status of midwives remained static and although efforts had been made to improve the content and standard of training it is clear that, in Hull at least, much of the work of the pupil midwife remained unglamorous, arduous and of low status.

Throughout the inter-war years great emphasis was placed upon the need to provide competent midwives (particularly if high rates of maternal mortality were to be avoided) but the debate about how this should be achieved was complicated by a number of factors, most importantly the shortage of recruits and the rivalries between health care workers within the maternity services. Whilst it was necessary to improve midwifery training to remove the association with the untrained, incompetent handywoman at the same time this had to be done without disturbing the established medical hierarchy which kept midwives subservient to doctors. Moreover, attempts to exclude women from midwifery by, for example, raising educational entry requirements or banning untrained women from practice would have impacted on the shortage of midwives. Whilst the C.M.B. and Ministry of Health may have been committed to improving standards of midwifery care their role in aiding the professional development of midwives needs to be questioned particularly in light of the fact that bona-fide midwives were allowed to continue to practice and were never required to undergo formal training. Furthermore, although examples can be found of both agencies seemingly acting to promote the professional status of midwives it seems clear that their prime motivation was the improvement of services and not the status of midwives. The development of professional status requires a degree of autonomy and self regulation and whilst midwives had the potential to be independent practitioners this period sees their work increasingly controlled by agencies - the C.M.B., Ministry of Health and L.S.A.s - which did not necessarily have the interests of midwives as their primary

concern. There can be no doubt that registration and formal training improved the status of midwives but they did not reach full professional status in the period before 1939 but continued to be regarded as inferior to medical practitioners. This can clearly be identified in Hull where a variety of forces acted upon the local midwifery labour force and the pupils working in the municipal maternity services.

The period 1900-1939 was clearly one of great change for midwives who in the space of less than forty years moved from being an unregulated workforce to a state employed occupation. But the development of midwifery legislation not only altered the relationship between midwives, the government and the local authorities it also resulted in a new approach to the maternity services, a new public health ideology which resulted in the expansion of services for mothers. Clearly, in Hull at least, the midwife was primarily responsible for the care of women in childbirth and although services expanded the experience of birth appears to have been largely unchanged for the majority of women until the implementation of the 1936 Midwives Act. Whilst legislative changes (which ultimately have to be seen in light of the debates concerning the levels of infant and maternal mortality and the power struggles amongst health care workers) resulted in improvements in the maternity service they did not automatically produce professional status for midwives. The two issues are not necessarily connected and to suggest that midwifery legislation resulted in the automatic professionalisation of midwifery is perhaps to misunderstand the complex relationships between the various agencies which began to influence the future and function of midwifery. The question of whether midwives gained professional status in this period has to be examined separately from the issue of improved services for mothers as the needs of the one group did not necessarily reflect the needs of the other. Although agencies such as the C.M.B., the Ministry of Health and the L.S.A.s were concerned to improve the availability of competent midwifery care their prime motivation for doing so was not the professionalisation of midwifery; indeed it has been suggested that in some respects they actively sought to restrict this process and to preserve traditional professional boundaries. Although in some respects the professional status of midwives was

undoubtedly raised (particularly after 1936) by the improved standard of training, pay and conditions; the removal of the option of independent practice and the organisation and content of training programmes did nothing to improve status. By 1939 midwifery had not developed into a fully fledged profession and the inequalities between midwives and doctors had been reinforced ensuring the inferior status of the midwife.

Although it is possible to conclude that the standard of midwifery care had been improved the impact of these changes upon midwives themselves remain complex particularly when the persistent presence of the handywoman and the bona-fide midwife are considered. Overall full professional status was never achieved and whilst it could be argued that midwives never fully realised or utilised their powerful position within the maternity services as the principal birth attendant, there were a number of factors if not directly working against them then certainly not operating on their behalf. It seems clear that more work is needed on the relationship between the C.M.B. and the restriction of professional development in an effort to uncover how far factors such as the shortage of recruits and the wishes of the medical profession influenced policy. However, it would appear that the relationship between improving the maternity services for women and the professional development of midwifery was not a straightforward one.

[1] In 1919 midwives attended 51 per cent of births in London and 69 per cent of births in the county boroughs. By 1946 midwives were attending 64 per cent of home confinements and 51.4 per cent of hospital births.
Ministry of Health Annual Report 1920-1 London H.M.S.O. 1921 Page 24 and Joint Committee of the Royal College of Surgeons and the Population Investigation Committee Maternity in Great Britain Oxford University Press 1948 Page 66 and 71.

[2] For a detailed discussion of the campaign see: J.Donnison Midwives and Medical Men: A History of the Struggle for the Control of Childbirth London Historical Publications 1988.

[3] Kelly's Directory Hull 1900.

[4] Census of England and Wales,1901: County of York London H.M.S.O. 1902 Cd.1107.

[5] Hull Sanitary Committee Minutes of Proceedings March 1905.

[6] Medical Officer of Health for Hull Annual Report 1905 Page 64.

[7] Janet Campbell Report on the Physical Welfare of Mothers and Children, England and Wales Volume Two The Carnegie United Kingdom Trust Liverpool C.Tinling and Co. Ltd. 1917 Page 24.

[8] Doctors were members of the C.M.B. and therefore helped to formulate the content of midwifery education and training programmes and the rules of the profession. In this way they were able to influence the nature of the work, the knowledge required and therefore its status. By doing so they were able to maintain the distinction between the work of the midwife and their own obstetric service.

[9] J.Donnison Op.Cit. 1988 Page 182.

[10] Kingston upon Hull Register of Stillbirths 1909 Cases 47 and 144. Only a few of these stillbirth registers appear to have survived. In addition to the records for 1909, complete records for 1906-8 remain and a proportion of cases for the years 1905 and 1910.

[11] The committee noted that proper provision with reference to the payment of doctors fees had been "a serious obstacle to the realisation of the full intention of the Act." Report of the Departmental Committee Appointed to Consider the Working of the Midwives Act 1902 Volume One London H.M.S.O. 1909 Cd.4822 Page 10.

[12] The scale upon which the fees were based was fixed by the Local Government Board as follows:

1 Attendance at confinement requiring operative assistance and subsequent necessary visits during the first ten days £2 2s

2 Attendance at confinement without operative assistance and subsequent necessary visits during the first ten days £1 1s

3 Assistance for the administration of an anaesthetic £1 1s

4 Any visit not covered by the above including any necessary presecription: Day (8am to 8pm) 3s 6d Night (8pm to 8am) 7s 6d with the addition of the mileage fee usual in the district.

Medical Officer of Health for Hull Annual Report 1919 Page 64.

[13] Local Government Board Forty Fourth Annual Report of the Local Government Board, 1914-1915. Circulars and c. issued by the Board relating to Public Health and Local Administration Appendix to Part One London H.M.S.O. 1916 Cd.8195 Page 73.

[14] The following scale was adopted locally to assess women for free midwifery care. If they fell below the scale their application was authorised.

Weekly income for the family after excluding rent and insurance:

1 man and 1 woman.....20/-
1 man, 1 woman and 1 child.....22/6
1 man, 1 woman and 2 children.....26/5
1 man, 1 woman and 3 children.....30/4
1 man, 1 woman and 4 children.....34/3
1 man, 1 woman and 5 children.....38/2
1 man, 1 woman and 6 children.....42/1
1 man, 1 woman and 7 children.....46/-
1 man, 1 woman and 8 children.....50/-

Medical Officer of Health for Hull Annual Report 1919 Page 81.

[15] Medical Officer of Health for Hull Ibid. Page 66 and Medical Officer of Health for Hull Annual Report 1930 Page 166.

[16] Medical Officer of Health for Hull Annual Report 1906 Page 55 and 1918 Page 30.

[17] Kingston upon Hull Register of Stillbirths Hull 1909.

[18] Medical Officer of Health for Hull Annual Report 1911 Page 43.

[19] B.M.A. East Yorkshire Branch Minutes 21st January 1935.

[20] M.Rhodes Oral History Interviews with Hull midwives (Unpublished).

[21] Medical Officer of Health for Hull Annual Report 1906 Page 56.

[22] Medical Officer of Health for Hull Annual Report 1907 Page 47.

[23] Local Government Board Circular: Maternity and Child Welfare 23 September 1916 Paragraph 11.

[24] Medical Officer of Health for Hull Annual Report 1919 Page 63.

[25] Maternity and Child Welfare Committee Minutes of Proceedings July 1919.

[26] Medical Officer of Health for Hull Annual Report 1922 Page 24.

[27] Medical Officer of Health for Hull Annual Report 1925 Page 104.

[28] The increase in free midwifery cases was probably also aided by the closure of the Lying-in Charity in 1926.

[29] Ministry of Health Circular 1569: Midwives Act 1936 London H.M.S.O. 1936.

[30] Ministry of Health Ibid.

[31] Midwives Act, 1936 Section 6 London H.M.S.O. 1937. Of course the weaknesses of this are obvious. Firstly, proof had to be found of such activity and co-operation on behalf of the mother was unlikely. Secondly, that the attendant received payment was difficult to prove.

[32] Kingston upon Hull Health and Public Assistance Committee, Maternity and Children Sub-Committee Minutes of Proceedings December 1936.

[33] Janet Campbell The Carnegie United Kingdom Trust Op. Cit. 1917 Page 24.

[34] J.Towler and J.Bramall Midwives in History and Society London Croom Helm 1986 Page 217. The nine members were increased to fourteen with four seats guaranteed for midwives.

[35] Letter to the C.M.B. from the B.M.A. 15th November 1921 File DV6/3 Kew P.R.O.

[36] Letter to the C.M.B. from the Ministry of Health 8th July 1922 File DV6/3 Kew P.R.O.

[37] Letter to the General Medical Council from the Ministry of Health (copy sent to the C.M.B.) dated 5th April 1928 File DV6/3 Kew P.R.O.

[38] The C.M.B. issued guidelines on the use of drugs by midwives during 1936 which allowed them to use a range of drugs including special drugs such as opium, chloral hydrate and syrup of chloral. All these were regularly used as pain relieving agents. The fact that the use of pituitary extract remained outside the midwives province would suggest that the C.M.B. were more concerned with midwives' role in giving pain relief and not with professional status.
See: C.M.B. Advisory Memorandum as to the Drugs which may be carried and Administered by Midwives October 1936 File DV6/3 Kew P.R.O.
From 1939 midwives were to administer gas and air to patients.
See: Letter to the Ministry of Health from the C.M.B. 7th January 1939 File DV6/6 Kew P.R.O.

[39] J.Campbell The Carnegie United Kingdom Trust Op.Cit. 1917 Page 24

[40] G.F.McCleary The Maternity and Child Welfare Movement London P.S.King and Son Ltd. 1935 Page 152.

[41] The shortage of midwives was a persistant problem throughout the whole period under investigation, and was not resolved until after World War Two. See for example:

Local Government Board Forty Fourth Annual Report of the Local Government Board, 1914-1915, Containing a Report on Maternal Mortality and its Relation to Infant Mortality London H.M.S.O. 1915 Cd.8085 Page 74

Ministry of Health Report of the Departmental Committee on the Training and Employment of Midwives London H.M.S.O. 1929 Page 75

Ministry of Health, Department of Health for Scotland, Ministry of Labour and National Service Report of the Working Party on Midwives London H.M.S.O. 1949 Page 6.

[42] J.Campbell The Carnegie United Kingdom Trust Op. Cit. 1917 Page 50.

[43] Ibid. Page 50 Unfortunately the opportunities for drudgery in midwifery education persisted beyond 1939. M.Rhodes Oral History Interviews with Hull midwives (Unpublished).

[44] Ibid. Page 51.

[45] J. Campbell Reports on Public Health and Medical Subjects Number 21: The Training of Midwives Ministry of Health London H.M.S.O. 1923 Page 3 and G.F.McCleary Op.Cit. 1935 Page 162.

[46] Central Midwives Board Report on the Work of the Central Midwives Board for the Year ended 31st March 1937 London H.M.S.O. 1938 Page 10.

[47] Medical Officer of Health for Hull Annual Report 1919 Page 87.

[48] The formal division of training programmes into Part One (hospital based) and Part Two (giving a choice of location; either totally domiciliary or a mixture of hospital and community based work) was not introduced until 1938; to some extent (particularly in areas where municipal maternity beds were available) this split in work experience had been operating since the First World War.

[49] R.Pinker English Hospital Statistics, 1861-1938 London Heinemann 1966 Page 33 and 41.

[50] J.Campbell The Carnegie United Kingdom Trust Op. Cit. 1917 Page 51.

[51] Ibid. page 51.

[52] J.Campbell Op. Cit. 1923 Page 1.

[53] Ministry of Health Report of the Departmental Committee on the Training and Employment of Midwives London H.M.S.O. 1929. See for example the summary of conclusions and recommendations on Page 68.

[54] J.Campbell Op. Cit. 1923 Page 44-5.

[55] Central Midwives Board Report on the Work of the Central Midwives Board for the year ended 31st March 1925 London H.M.S.O. 1925 Page 6.

[56] An account of the experience of becoming a midwife in a later period was given by the author to the Annual Conference of the Oral History Society, May 1996 and was entitled: 'Births, Bedpans and Bugs:The experience of midwifery education and training 1938-1951.' Unpublished.

[57] Central Midwives Board Rules framed by the Central Midwives Board under the Midwives Acts, 1902, 1918, and 1926 London Spottiswoode, Ballantyne and Co. Ltd. 1928 Rule B 1 and 2 Page 7.

[58] Ibid. Form I Page 47.

[59] Ibid. Rule C1 (1) Page 9-10.

[60] J.S.Fairbairn A Text-Book for Midwives Oxford University Press 1930 page viii.

[61] M.Rhodes Oral History Interviews with Hull midwives (Unpublished) Miss S.

[62] M.Rhodes Oral History Interviews with Hull midwives (Unpublished) Mrs F.

[63] Central Midwives Board Op. Cit. 1928 Rule C3 Page 12.

[64] J.S.Fairbairn Op. Cit. 1930 Page vii.

[65] Ibid. Page vii Fairbairn's textbook was originally published in 1914.

[66] Ibid. Page 336.

[67] Ibid. Page 305.

[68] M.Rhodes Oral History Interviews with Hull midwives (Unpublished) Mrs F.

[69] Central Midwives Board Report on the Work of the Central Midwives Board for the year ended 31st March 1937 London H.M.S.O. 1938 Page 13-14.

PART TWO: Institutional Childbirth.

CHAPTER FOUR: The Development of Local Authority Hospital-Based Maternity Care.

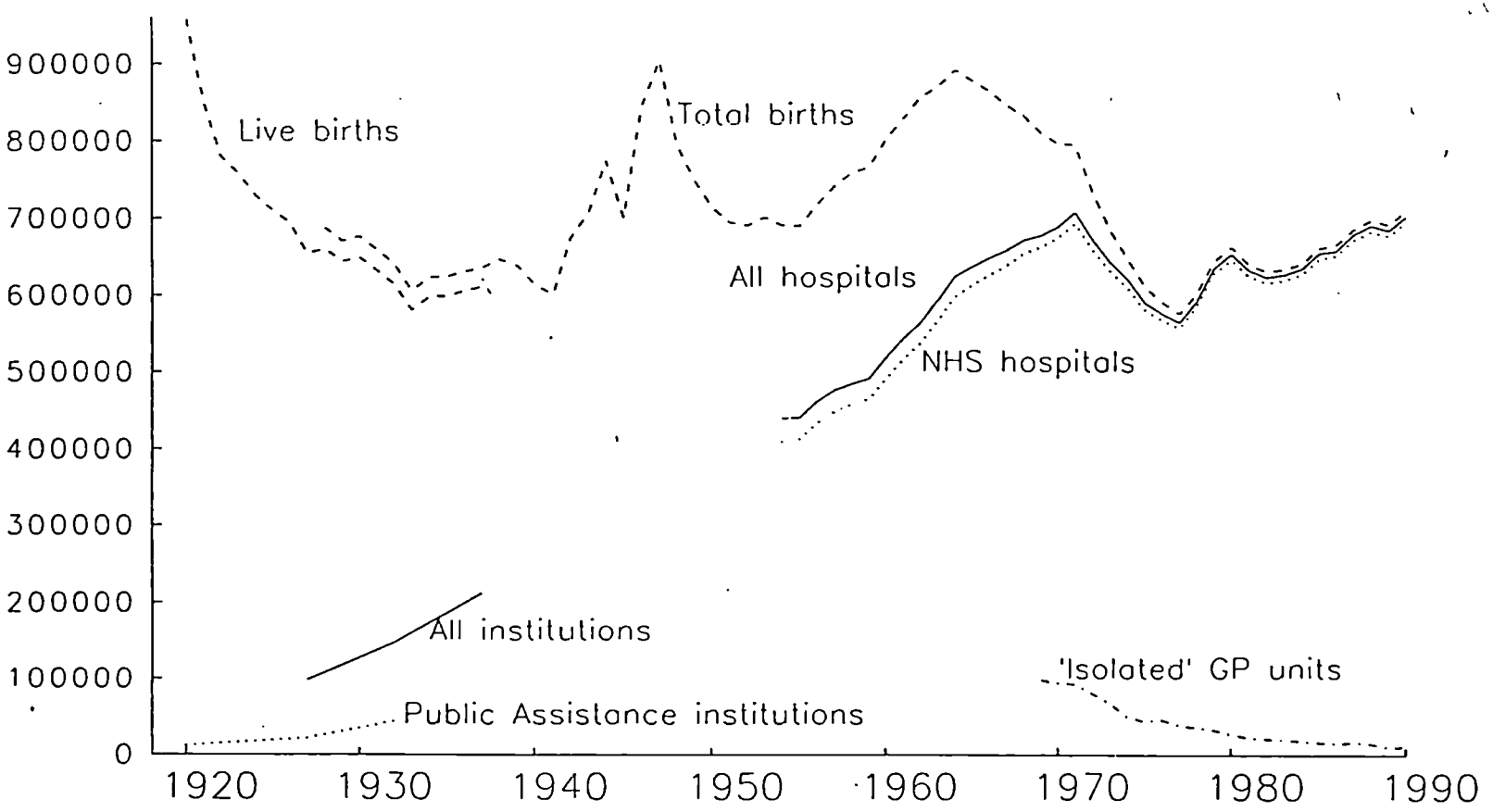
The maternity hospital has become the focal point of Britain's maternity services and provides the institution around which all the other maternity services can operate. Most births in Britain today take place in the maternity hospital setting, and other services such as ante-natal classes, post-natal clinics and midwifery services are usually co-ordinated from the hospital. Moreover the maternity hospital has been seen in recent years as the most suitable and the safest place for all births and this attitude has been enshrined in national maternity policy which until recently has only been questioned by a few women's groups (such as the National Childbirth Trust) and health professionals (such as the Association of Radical Midwives).[1]

The dominance of hospital birth has not occurred overnight and indeed the onset of this trend can be traced to the end of the last century (see Table Twelve[2]). In 1890 the Select Committee on Midwives Registration believed about 1.3 per cent of all births in England and Wales were taking place in institutions (either in voluntary hospitals or workhouse infirmaries).[3] However, there was little alteration in this trend until the inter-war years when the increase in hospital births became most striking; indeed in the years between 1927 and 1937 the proportion of hospital births in England and Wales had increased from 15 to 35 per cent of all births.[4] Similarly in Hull, the numbers of babies born in hospital also grew. Between 1917 and 1939 the Municipal Maternity Home was catering for more and more of the pregnant and childbearing population of Hull and the numbers of babies born there rose dramatically. In 1917 1.8 per cent of all babies born alive in the city were born at the Home whilst by 1938 this had increased dramatically to 17.1 per cent. It is the reasons for this significant alteration in the place of birth and in the position of the Municipal Maternity Home within the city's developing maternity and child welfare scheme, which are examined in this chapter.

At the same time as analysing the expansion of the maternity hospital at the national level, the experience of Kingston upon Hull is compared with the national picture. Moreover, this work also aims to explore the development of local institutional maternity care and the role of the local authority in promoting this service, as well as analysing the experience of those women who used the services of Hull's Municipal

Table 12

Births in institutions, England and Wales, 1920–1990



Source: OPCS Birth statistics

Maternity Home. This has been greatly aided by the discovery of a new and important source (data recording every birth taking place within Hull's Municipal Maternity Home)[5] which has allowed close examination of both hospital policy and the experience of childbirth.

During the course of this discussion, the words 'home' and 'hospital' are used interchangeably when describing the institution in which women gave birth, as their meanings seem to us today almost synonymous and I have used the widely accepted definition of a hospital to be an institution gathering together a group of people who are seen to be in need of medical attention. However, it is interesting to note that in Hull, at least, distinctions were made between these words and it would appear that 'home' and 'hospital' were used interchangeably in the period 1912-1939. The Maternity Home never referred to itself as a hospital with regard to the service provided to childbearing women, but only in relation to its work with infants when it was known as the Municipal Maternity Home and Infants' Hospital. The word 'hospital' was never attached to the maternity service and whilst it is difficult to be sure about the reasons for this, a number of suggestions can be made. For example, 'home' may have been used to encourage women to attend by conjuring up a homely image, portraying the institution as a home from home or as somewhere that provided the correct type of home environment which was recommended at the time and unavailable to those who lived in poor standards of accommodation. Alternatively, the word 'home' may have been used to avoid the connotations associated with the word 'hospital'. Hospitals would have probably been associated in the public imagination with disease, illness and even death and these images were not at all suitable associations for the experience of childbirth.

Whilst one of the most striking features of any investigation into the maternity services in England and Wales before 1939 is the increase in the number of hospital births; one of the main problems for such a study is the availability of sources. Reliable and comprehensive national statistics are only available from 1927 when the Registrar General began to include them in his Statistical Reviews and to calculate the total

number of institutional births. Before this, figures were only collated with regard to Poor Law institutions and during 1920 it was found that of the 957,782 births registered for that year 12,187 (or just over 1 per cent) had taken place in such institutions. These cannot be seen as representative of the national picture for obvious reasons.[6] In his Statistical Review of 1927 the Registrar General estimated that 15 per cent of live births (England and Wales) were taking place in institutions; of these 3.3 per cent were born in Poor Law institutions and 11.7 per cent in Maternity Homes, Nursing Homes and Hospitals.[7] His second report which contained reference to institutional births was his Statistical Review for 1932 which calculated that 24 per cent of the total live births in England and Wales took place in institutions (being defined in the same way as in 1927). Of these 7.1 per cent were taking place in Poor Law institutions and 16.9 per cent in the others. Clearly institutional childbirth was being more widely encouraged amongst all mothers, not only paupers, and the rise in hospital births cannot simply be accounted for by the needs/demands of one group of mothers alone. The Registrar General identified a number of factors as being responsible for this change but commented that in addition to the increased availability of services, the outlook of expectant mothers had changed to make institutional confinement more available and acceptable to increasing numbers of women.[8] The final report which is useful to this study was issued by the Registrar General in 1940 and covered the year 1937. In this he calculated that the number of institutional births had increased to 34.8 per cent of all live births[9] and whilst not particularly detailed, his conclusions emphasised the increased importance of institutional deliveries.

In essence these Reports form the basis of the statistical evidence available to historians about the increasing role of the maternity hospital and whilst they provide little detail they do at least establish the nature and extent of the trend and confirm that in the space of a very few number of years the proportion of babies born in institutions had more than doubled. Furthermore, this increase over the eleven years between 1927 and 1937 was not simply amongst paupers relying on poor relief but amongst those using the other available institutions especially the expanding numbers of maternity

homes. The trend towards institutional confinement was well and truly under way in the inter-war period and it is clear that the maternity home (and not simply the Poor Law Infirmary) was establishing itself as an acceptable option for pregnant women. However, such figures hide wide regional variations (which were noted by the Registrar General) which are only now beginning to receive attention from historians through this and other studies.[10]

Overall, at both the national and local level, this trend was to continue and resulted in the maternity hospital becoming the usual place of birth after the Second World War. By 1958 only 36 per cent of births were taking place at home and numbers continued to fall. In 1968 80.6 per cent of all deliveries were taking place in institutions and by the 1980's only around 1 per cent of all births were home deliveries.[11] By investigating the first sustained and large period of growth in the shift towards institutional birth it is possible to understand how the maternity hospital has come to occupy such an important part within the maternity services.

This study is unique as it provides for the first time a detailed picture of the work and clientele of one municipal maternity hospital. It examines the development of local authority institutional maternity care by using (amongst other sources) information regarding the women who used the facilities provided and their experience of pregnancy and childbirth. It is therefore hoped that this research will contribute greatly to our understanding of the development, use and experience of this new maternity service. However, this work does have certain limitations in that whilst conclusions can be drawn with reference to the experience of Hull and suggestions made as to the impact of factors in other localities, the experience of Hull cannot be seen as representative of the country as a whole. Generally it would appear that urban areas had higher rates of hospital deliveries than rural areas; in some London boroughs for instance, over 50 per cent of babies were born in hospital in the mid 1930's,[12] whilst in rural areas the figures were much lower. For example, in Oxfordshire during 1938 only about 10 per cent of babies were born in hospital.[13] This of course probably reflects both population distributions and the availability of services in the different localities

(usually maternity homes and hospitals were located in urban as opposed to rural settings[14]). However, we cannot be certain that individual areas did not also have variations in their acceptance of hospital birth and therefore few firm conclusions can be made about the national picture without further in-depth study of local areas.

Reasons for the overall increase in the numbers of hospital births are difficult to isolate with any certainty largely because of the many influences which act on the provision of maternity services (both nationally and locally) and their use by clients and medics. Whilst this study places emphasis upon both the role of local and national government and places mothers at the centre of the discussion, it is also important to consider the impact of medical health care workers on the shift in place of birth. For example, the struggle for the control of childbirth which was occurring at this time between midwives, general practitioners and obstetricians may have also contributed to the shift in place of birth.[15] At the same time a further feature of this period is an increase generally in society's concern for the health of infants, children and later mothers which resulted (for varying reasons) in the evolution of welfare services such as infant welfare clinics and ante-natal sessions. Such attitudes encouraged local activity and in Hull the creation of services (both by voluntary effort and by the city's Corporation) and in the development of the Maternity Home.

The purpose of this research then is to investigate the change in place of birth from home to hospital by looking at the inter-war years as it is during these years that the rapid change began. By focusing on the experience of Hull, it is hoped that a detailed insight into the development of hospital-based maternity care and the reasons for the increased use of institutional maternity beds can be provided. As well as documenting the development of hospital-based maternity care in Hull as provided (eventually) by the local authority, this work will also examine the changes in local patterns of hospital birth between 1912 and 1939 and aim to offer some discussion of those factors bringing about this change. Furthermore, from a detailed examination of the client group between 1924 and 1935, the experience of childbirth in the Municipal Maternity Home can be isolated and discussed and some assessment can be made of the

service the women received and the effect of this upon themselves and their babies. In addition this work also examines the changing role of the maternity hospital within the maternity services and by focusing on one institution this study will not only provide much detailed local information about how national government and local authority maternity policies functioned, but will also contribute to our understanding of the development of that policy and of the experience of hospital birth.

The remainder of this chapter highlights the development of Hull's Municipal Maternity Home by examining its changing position within the city's emerging Maternity and Child Welfare Scheme. Beginning with a brief outline of the Home's foundation as a charitable organisation run by voluntary effort, it moves on to consider its later development in terms of geographical location and structural expansion. Following this, some exploration is made of how the Home was utilised by local women by focusing on admission patterns throughout the entire period. In this way, this chapter seeks to explore the importance of the Home as part of the maternity service in Hull in the period prior to the Second World War and the contribution of local maternity policy to the expansion of institutional maternity beds. It must be noted however that in the period before 1939 in Hull, most women gave birth in their own homes and at most, the Municipal Maternity Home only ever catered for around one in five of all live births in the city. However, whilst acknowledging that the maternity hospital was never the usual place of birth in this period, it is the pace of change in this regard which makes it both an interesting and suitable area of study.

Hull's Municipal Maternity Home was initially begun as the Free Maternity Home and was founded in 1912 by Edith Robson. Before 1912 the city did not have a maternity hospital and women requiring a hospital birth went into one of the local hospitals or workhouse infirmaries depending on her financial situation. Maternity admissions into these hospitals were usually emergency cases that could not be dealt with by the doctor or midwife in the woman's own home and birth usually took place in the domestic environment. Although little documentary evidence remains regarding its origins, it seems reasonable to assume that Mrs Robson's charitable interests

encouraged her to begin the Maternity Home. Mrs Robson and her husband, Edwin, were prominent local figures; Mrs Robson was an active member of the Townswomen's Guild and President of the Southcoates Branch and Mr Robson was Managing Director of the local company British Oil and Cake Mills. Both had an interest in civic life and in the Hull Royal Infirmary (where Mr Robson was on the Management Board) and the Convalescent Home at Withernsea. It seems likely that Mrs Robson's connections here would have persuaded her of the apparent benefits of institutional midwifery care for the poor.

The Home was initially situated at number 569 Holderness Road, on the Eastern side of the city, and only had beds for between 6 and 8 women. The staff consisted of 2 midwives and 2 maids as well as the Matron, Miss Ruth Broughton. Accommodation was provided free for the use of poor women who were unable to provide suitable attendants for their confinements. However, no records are available to indicate how the selection was made. It is unclear why Mrs Robson chose an institutional service for these women rather than domiciliary midwifery care although perhaps she was dissuaded from the latter course of action as the city already had a Lying-in Charity but did not have a maternity home. The Home was financed by Mrs Robson until 1915 when she handed it over to the Corporation to be included in plans for the city's Maternal and Child Welfare Scheme. But although it was given to the Corporation she remained involved for some time with its administration and continued to contribute financially. Indeed she became more involved with the city's Maternity and Child Welfare Scheme by being admitted from 1918, as a member of the Corporation's Maternity and Child Welfare Committee. Again, as in other cases, voluntary effort had played an important part in the evolution of maternity services in Hull.

After being taken over by the Corporation the Home continued to provide free institutional care for pregnant (initially married) working class women who had specific medical problems and these women were recommended for admission either by general practitioners or by a Medical Officer at the Infant Welfare Clinics.[16] Under the Maternity and Child Welfare Scheme of 1915 two District Clinics were established, one

at the West Hull Creche and the other at the East Hull School for Mothers, both of which had also been started by voluntary effort. From 1919 an assessment scale based on income was introduced to prevent abuse of the system (the Corporation obviously felt those applying were not always the most needy) resulting in some women having to pay at least something towards the costs of care. Although it is not clear what this scale was, it was probably the same one used to assess women for free midwifery.[17]

The Home continued to expand and further premises were acquired when in 1918 the Corporation was able to rent the house next door 567 Holderness Road, and as a result the number of beds was increased to 14. However, this situation proved inadequate and the Corporation began to make plans in 1921 to build a new Home in the city. It is not clear why the building of a new maternity Home was seen as a priority although some regarded it as desirable due to the lack of suitable accommodation available to married couples.[18] Such a policy does not seem in line with the Corporation's general policy on new buildings as in other areas they were reluctant to support capital projects; therefore other factors prompting the further development of institutional maternity beds need also to be considered (see below).[19] However, details of the new Home (including architect design and building costs) were sent to the Ministry of Health and a loan to help with the costs was applied for. The Corporation's application was unsuccessful and the Ministry of Health replied that they were unable to support the project. The reason given was that due to national economic problems there was a further need for economies in public expenditure, it was therefore suggested that the scheme be postponed[20] - in fact the city never got a brand new, purpose-built maternity home.

Further expansion to the accommodation came in 1924 when the Home moved to the newly built Castle Hill Hospital in Cottingham (a village 3 miles from the city centre) when tenancy arrangements came to an end on one of the Holderness Road properties. The move was not part of a planned policy but was intended to be a temporary measure whilst new premises were arranged and this meant conversion of an existing building. Despite the supposed temporary nature of the relocation, it was not

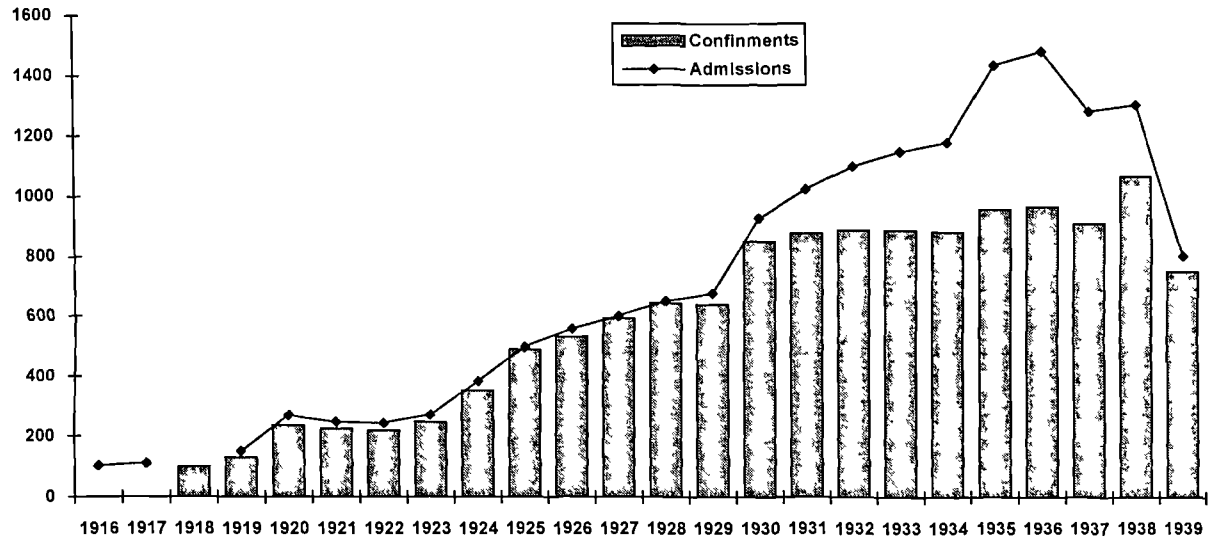
until 1929 that the Fever Hospital on Hedon Road was converted into a maternity hospital and the staff and clients were transferred. By 1938 the Municipal Maternity Home was still the main provider of institutional maternity care in the city but it was now catering for a far larger number of pregnant women. It was located at the Hedon Road site where it has remained ever since. Hull's Maternity Home therefore changed from being a small, privately run voluntary service operating from domestic premises to being a central part of the Corporation's Maternity and Child Welfare Scheme, financed mainly from the city coffers and offering hospital accommodation. It is on this expanding nature of hospital maternity care and its place within the City's Maternity and Child Welfare Scheme that the rest of this chapter now focuses.

Having established the chronological development of the Home and briefly commented on the expansion of the service in terms of location and structure, the following section will explore in detail both the increase in admissions and confinements and suggest some of the factors influencing the changing local pattern in place of birth in the period 1916-1939. Data is not available on the work of the Home before 1916, and sources are limited for the following period to the Annual Reports of the Medical Officer of Health for Hull and the client data (which is in the form of Birth Registers from the Municipal Maternity Home itself). There are, of course, problems in using two sets of data from different sources as they do not always record the same information. The Birth Registers are what their name suggests, a register of all the births (live and dead) occurring in the Home; whilst the Annual Reports' figures were calculated by collecting information together from the various maternity and child welfare agencies. Where the two sources are directly comparable they do not always produce the same figures which suggests imperfections in one or both of the sources. Where anomalies appear the actual records from the Maternity Home have been considered the most accurate as they were compiled by the staff at the Home at the time of the birth and not at a later date by health department staff. However as data from the Municipal Maternity Hospital is only available from 1924 some reliance on the Annual

Table 13
Patterns of Admissions and Confinements in Hull's Municipal Maternity Home, 1916-1939

YEAR	NO. OF ADMISSIONS	NO. OF CONFINEMENTS	YEAR	NO. OF ADMISSIONS	NO. OF CONFINEMENTS
1916	103	-	1928	651	645
1917	111	-	1929	678	640
1918	-	100	1930	928	851
1919	150	130	1931	1023	877
1920	268	236	1932	1100	889
1921	246	224	1933	1146	887
1922	243	219	1934	1177	881
1923	270	247	1935	1435	958
1924	383	353	1936	1480	966
1925	499	490	1937	1282	910
1926	558	532	1938	1304	1067
1927	601	592	1939	804	752

Source: 1918-1923 and 1936-1939 Medical Officer of Health for Hull Annual Reports
1924-1935 Birth Registers from Hull's Municipal Maternity Home



Reports of the Medical Officer of Health for the period 1916-1923 is therefore unavoidable.

Despite the problems associated with using two sets of data, a detailed picture of changing local trends in the use of the Municipal Maternity Home can be presented (see Table Thirteen). The usefulness of this table lies in the fact that it helps to locate the cases from the Birth Registers in their wider context by adding the information in the Annual Reports of the Medical Officer and further it gives a sense of the overall shifts in place of birth locally. Moreover, as figures for both admissions and confinements are available, it is possible to suggest not only that increased use was being made of the Home but also that as admissions start to far exceed confinements in the period after 1929, the role of the Home may not simply have been in providing care during parturition but it may also have expanded the types of services it offered women in Hull. This point needs further explanation. Whilst the number of confinements were increasing during the period 1916-1938, in the period 1916-1929 admissions kept just ahead of confinements. In some respects it would be expected that admissions would exceed confinements slightly and this can be accounted for in a number of ways. For example, some women appear to have been admitted after labour (as cases of puerperal fever for example) and would be recorded in the admission statistics but as they had their baby elsewhere would not be recorded in the confinement statistics; other women were not pregnant at all and were discharged, others were admitted but later discharged as not in labour. Other examples which need to be considered include those women admitted one year but who delivered their babies the next (i.e. December admissions); others- although few in number- who were admitted for gynaecological operations or had abortions and would therefore not be recorded as having a baby; and finally, some were admitted to the Home and then transferred to another hospital (for instance to the Hull Royal Infirmary in the case of caesarian section) where their baby was subsequently born.

From 1930 however there is a significant increase in admissions which remain, until 1938, consistently much higher than figures for the number of confinements. This

perhaps is a response to the expanding services and facilities at the Home in this later period. For example, after the move to Hedon Road the Home took more isolation cases as special wards had been constructed for this purpose and this may have been responsible for the increase in admissions. Furthermore, as changes in the Local Government Laws resulted in the closing of Poor Law maternity beds the Home was also having to take cases previously dealt with in the Poor Law institutions. The impact of this upon the composition of the client group also needs investigating. Allowing for these changes there is still a noticeable increase in admissions during the years 1935 and 1936. It is difficult to account for this increase although it may be related to local economic problems and be in response to high unemployment in the city- some examination of the number of cases admitted free of charge might assist here. However, the reasons for the significant leap in admissions for these years remain unknown.

Throughout the whole period from 1916-1938 there was some fluctuation in the number of confinements, although the overall trend was quite clearly upwards and there was a substantial increase in the number of women giving birth in the Home. In 1916 there were 103 admissions to the Home and in 1938, this had increased to 1067 deliveries. The data for 1939 is incomplete and the figures for both admissions and confinements for this particular year cannot be regarded as accurate and to some extent have been discounted from the discussion. Due to the commencement of the Second World War, the figures for 1939 only cover the period from January to August. During September the Maternity Home became included in the Emergency Medical Scheme and became a casualty clearing station- it is not within the scope of this study to discuss maternity provision during the War.

It is also necessary to acknowledge another problem associated with this research, that is the lack of evidence from women themselves. It is necessary to consider how far the shift in place of birth was actually a response to the changing requirements of individual women but this is difficult as little evidence remains. However, it is likely that as women became aware of the facilities on offer and as these were promoted more and more by local health officials so a demand was created. It seems unlikely that in

Hull at least, the creation and expansion of the maternity home was encouraged primarily by the demands of local women.

Looking again at Table Thirteen, the increases in both admissions and confinements seem to have occurred in three distinct phases. Phase One began in 1916 with the Corporation's first full year of management of the Municipal Maternity Home and between 1916 and 1923 there is some fluctuation in the number of confinements taking place in the Home, although the overall trend is upwards. Phase Two coincided with the move to larger premises in 1924 and ends in 1929. This period has the steepest increase in the number of confinements when the number of women having their babies in the Home almost doubled. Phase Three covers the years 1930-1938 and is also associated with a move to larger premises but although the numbers of confinements increases, the increase is less sharp than in the previous phase. In an effort to locate some of the reasons for the changing patterns of use of the Maternity Home in Hull some examination of these three phases now follows.

Phase One 1916-1923

The city's Maternity and Child welfare scheme had come into operation on 1st December 1915 and as part of this scheme the Maternity Home was transferred to the Corporation. Admissions to the Home rose each year (except for 1918) and by 1923 had reached 270; however there was no consistent rise each year. Admissions were slightly higher than confinements during this period and the difference between the numbers of admissions and the numbers of confinements can probably be accounted for by those women discharged as not in labour and those women who were admitted one year and gave birth the next.

Although increased use was being made of the Home, very few of Hull's babies were actually being born in the Municipal Maternity Home during this period. In 1917, the first year for which such figures are available, 95 of the 100 deliveries in the Home were live births (of the other five one was a macerated foetus born before arrival at hospital and the other four were stillbirths) as there were 5252 live births in the city as a whole during that year, only 1.8 per cent of Hull babies were being born in the Home.

Figures increased slightly by 1923 when 3.45 per cent of live births took place in the Home (of the 6898 live births in the city as a whole, only 238 took place in the Home during 1923 and a further 9 were stillborn). It is quite obvious from these figures that the hospital was not the usual place of birth in this period and indeed was most unusual and not part of the general experience of childbirth.

In an effort to promote this new facility and to encourage local women to use the Home, admission policy was fairly wide and women were admitted at the discretion of the Medical Officer at the Infant Welfare Clinics or through the recommendation of a private general practitioner. However, the Home had been established to cater for complicated[21] cases of pregnancy and childbirth and this policy was continued and supplemented by allowing the admission of any "sick women...suffering from any other condition involving danger to the mother or infant."[22] Despite this fairly broad admission policy the emphasis was upon providing care to women who were in some way medically ill and as a result the numbers of women using the Home remained low with only 130 women having babies in the Home during 1919 for example. Furthermore, although the number of available beds was increased from 6 to 14 during 1918, admissions did not rise as a result. This was probably due to a number of reasons including lack of publicity, reluctance from local General Practitioners to utilise the Home's facilities (as this would mean a loss of clientele and therefore income), the low attendances at local authority clinics which meant few could be referred and the fact that traditionally women gave birth in their own homes.

During this period however, emphasis was being placed upon the benefits of institutional maternity care and at both the national and local level support can be found for the expansion of maternity beds. The Local Government Board had for example stressed the importance of the maternity hospital within a complete scheme for maternity and child welfare by 1914[23] and in Hull during the First World War, the Medical Officer of Health was also suggesting that more women should attend the Maternity Home. However, when admissions did not rise as expected despite an increase in available beds the admission policy was changed and the Medical Officer of

Health encouraged clinic medical officers to admit more normal cases to boost admissions.[24] As a result Hull's Maternity Home moved away from simply providing care for complicated cases to encouraging other categories of women to attend.

However, the factor that proved vital to subsequent changing patterns of admissions to Hull's Maternity Home was the needs of pupil midwives and not a desire amongst local health officials to improve maternity provision. It is during the period 1916-1923 that the training requirements of pupil midwives began to impact on admission policy, resulting in an expansion of admissions. The Home had been used as a training school for pupil midwives since 1917 and as more were admitted for training so more maternity cases were needed for them to observe. Unfortunately, pupil midwives were experiencing a shortfall in their required case load during this period and in an attempt to remedy this, clinic medical officers were asked during 1919 to start recommending normal cases for admission due to "the falling off in the number of admissions making it difficult to provide the necessary cases for the pupil midwives..."[25]. Moreover, from 1920 unmarried women were allowed to be admitted but only when "...special circumstances justify help being given, but for first cases only."[26] This resulted in the admission policy being made more explicit as two categories of women were identified as eligible for a bed; furthermore marital status was no longer a consideration. The first category identified were "Patients showing some abnormality either during pregnancy or at the time of labour which calls for special medical treatment and skilled nursing." These women had traditionally been catered for by the Home but to this were also added those "Patients whose domestic conditions are unfavourable for confinement in their own homes, even where a normal labour may be expected."[27] A new category of patient had therefore been identified as requiring a hospital birth- those women with no medical but rather social considerations- and as a result the Maternity Home was not only promoted for women with complicated birth but also for those women who were perfectly healthy and well. As a consequence of these clear guidelines, admissions began to increase as more women were defined as in need of institutional care and it is during this period that

categories of risk were expanded. However, as this work illustrates, the widening of admission policy cannot be seen as responding totally (or even primarily) to medical factors and for the benefit of pregnant women. Other considerations unrelated to the health of the pregnant woman, were also to be considered. One good example of this is the treatment of first time mothers (primigravidae) who were increasingly seen as at risk due to an absence of obstetric history. More important, at least at the local level, to their inclusion as special cases in need of hospital care was the fact that these women provided valuable training experience of first births for the pupil midwives and as a result added considerably to the training facilities of the Home.

It is clear that the increasing numbers of women using the Home did not reflect a worsening standard of maternal health in the city but rather an increase in admission of normal cases. The majority of women using the Maternity Home were not suffering from any obstetric or other medical abnormality and complicated cases never amounted to more than 41.7 per cent of all cases between 1918 and 1923- see footnote for how these figures have been calculated.[28] During 1918 for example, abnormalities suffered by women attending the Home were listed in the Annual Report of the Medical Officer of Health and did not account for the whole or even the majority of admissions. Of the 100 deliveries only approximately 21 cases (the exact figure is difficult to calculate- see footnote 7) were considered abnormal, of the remaining 79 cases no information remains and were therefore normal cases. It is difficult to accurately assess why these 79 were admitted to the Home. As most were probably normal pregnancies, these women may have been necessitous cases too poor to provide adequate midwifery care for themselves, others may also have been diagnosed as having some complication which either did not materialise or did not cause the problems expected, whilst others would have been admitted because their home conditions were considered inadequate.

It is difficult to assess exactly who the clients of the Home were during this first period as little evidence remains as to the selection procedure. However, it would appear that they were mostly married working class women who visited the infant welfare clinics. The Maternity Home had originally been established to provide free

care for working class women but once the Corporation took over an income scale was introduced which meant some women had to pay part of the fee. An income limit was also fixed and so only those women whose income fell below this level were eligible for admission.[29] As a result the client group was being drawn from a particular section of the population and the Home was certainly not catering for women from the middle or upper classes. The majority of candidates (who were not emergencies) were probably seen at the infant welfare clinics by the Medical Officer but attendances at these clinics were low with only 230 expectant mothers seen during 1916. Although there is no indication of the total applications for the Home in this period, there were during 1920 and 1921, 327 and 256 applications made through the infant welfare clinics; as admissions for these two years were 268 and 246 respectively, we can assume that a substantial proportion were drawn from this source.

The application procedure was more complex than simply completing a request for admission form; an inspection of circumstances was made by the Health Visitors before the chairman of the subcommittees gave his approval for admission.[30] The inspection of circumstances meant not only an assessment of means but also a home visit and this may have put some women off applying. Although more were applying than being admitted, not all were rejected by the Health Department. There is no doubt that some were refused a place because their income was too high but women also sometimes rejected the place offered, some considering the fee required too high and others simply changed their mind about using the Home for their confinement.

It seems unlikely that many of the Home's clients (unless emergency cases) would come via a general practitioner or a midwife. Midwives themselves had no authority to admit cases to the Home, although there is evidence to suggest that in Hull at least they did admit emergencies. If there was a deviation from the norm midwives were bound by the rules of their profession to send for the doctor. The problem would usually be dealt with at home as the medical culture of the time did not demand that women be routinely referred to hospital if suffering some complication of childbirth and also because to do so would have meant the doctor would loose their fee.

Despite the policy of the hospital, the Home was not catering for all the city's complicated and necessitous cases and as has been seen it was not the only service available to working class women. Whilst most women in Hull gave birth with the assistance of a trained midwife or doctor, some also laboured alone or with the help of a family member, friend or neighbour. As has been seen in Chapter Three, the unofficial midwife had not been destroyed by the 1902 Midwives' Act. Although the Home was to admit some necessitous cases, it is unlikely that in this period at least these formed a substantial proportion of admissions. The only figures available for the numbers of free admissions in this first phase of development are for the years 1922 and 1923 when free admissions numbered 49 and 81 respectively. This accounts for only 20 per cent of cases in 1922 and 30 per cent in 1923. Clearly it had moved away from its founding principle of providing mainly for those who could not afford midwifery care. Due to the absence of ante-natal records, it is difficult to tell how many of the admissions were predicted as needing hospital care for some complication (which perhaps never materialised) or to identify those women whose home environment was considered inadequate. Although some women may have simply preferred a hospital to a home birth, it is unlikely that in this period at least these should account for even a small proportion of cases. Despite the tradition of home birth, the Medical Officer of Health was convinced that the Home was providing a service which women wanted. In 1919 he noted that: "An increasing number of women desire to be confined away from their homes because of the lack of facilities for lying in at home."[31] It is of course difficult to tell to what extent this is true; but it is more likely that local women's desire for hospital birth became a more important consideration in later years as hospital births gained popularity and more women were convinced of the Home's efficacy.

Although it is difficult to assess accurately why women attended the Maternity Home, some limited detail can be gained and general conclusions made about the clientele in the period 1916-1923. Most were not paupers or women with obstetric complications but working class women having 'normal' births and paying part of the fee. Others had some medical or environmental reason for attending, or most probably

the two combined. Whilst other factors were also responsible for the rising popularity of hospital birth locally, it would appear that the requirements of pupil midwives were particularly responsible for changing admission policy and encouraging the beginnings of a shift in place of birth. Most women coming into the Home in this first phase would have been married women, although the requirements of pupil midwives had also resulted in the admission of unmarried women and in particular all women who were primigravidae (whether married or unmarried) and therefore particularly useful for training purposes.

Phase Two 1924-1929

The analysis of the changes occurring in the pattern of hospital birth in Hull during this second period has been aided by the availability of Birth Registers which appear to record the details of every confinement in the Home (see chapter five for a detailed analysis of the source and the data). Where possible data from these records has been used in place of data from the Annual Report of the Medical Officer of Health as the Birth Register is considered the more reliable source.

Following the move to the Castle Hill hospital in Cottingham, the number of beds was increased to 20 allowing for a further expansion in admissions. In 1924 there were 383 women admitted to the Home but by 1929 this had risen to 678. The number of admissions, although increased, remained only slightly above the number of confinements and this can probably be accounted for in the same way as in Phase One. Along with this increase in admissions came a rise in the number of women having their babies at the Home as the number of confinements rose from 353 in 1924 to 640 in 1929. This period is particularly interesting in that it sees the steepest increase in the number of confinements at the Home and also sees the number of Hull babies being born in the Home double. Of the 6666 live births in Hull during 1924, 333 were born in the Municipal Maternity Home: a total of 4.99 per cent of all live births in the city. By 1929 this had increased to 10.51 per cent of total births, as 640 (live and still) of the 6090 (live and still) births were born in the Home.[32] Whilst not being strictly comparable these figures do illustrate the point that whilst not the usual place for birth,

the Municipal Maternity Home was becoming an increasingly important part of the city's maternal and infant welfare service, and that for whatever reason, more and more women were being convinced of the benefits of institutional childbirth.

Application for admission was now not usually made through the infant welfare clinics (which increasingly concentrated on providing childrearing services) but through the ante-natal clinics. Ante-natal consultations had begun at the infant welfare clinics but as the service expanded the clinics were transferred to the Midwifery Centre at 14 Kingston Square from 1924 on two afternoons every week. All women requiring the services of the municipal midwife or wishing to attend the Municipal Maternity Home had to attend a special ante-natal session, whilst a general ante-natal clinic was run for those women referred by a health professional or who voluntarily sought advice. There was no attempt to decentralise this service until 1929 when the first ante-natal clinic in East Hull began in August that year. All primigravidae applying for free midwifery were seen by Dr. Townend (who was the Medical Officer at the Home) and would have been advised of the benefits of hospital birth. This policy reflected medical opinion of the time which increasingly felt that these women required special attention. Applications for a bed at the Home were still usually followed by a home visit (either by the municipal midwife or health visitor) to investigate financial and social circumstances.

The admission policy of the Maternity Home appears to have remained similar to that discussed in Phase One and admissions were most likely to be women with some obstetric abnormality or other illness that was seen as requiring hospitalisation, primigravidae, women with unsuitable home conditions or those with a combination of these factors. As admissions were increasing rapidly in this period some consideration also must be given to the notion that women, convinced of the benefits, would have chosen a hospital in preference to a home birth. Whilst it is important that the wishes of women themselves are considered (and there is evidence to suggest that a variety of women's groups were pressing for increased access to maternity beds)[33] it is difficult to say how many of the women in Hull fitted into this category.

Table 14

Municipal Maternity Home: Numbers and Percentages of Complicated Cases, 1924-1929

YEAR	NO. OF CONFINEMENTS	COMPLICATED CASES	AS A PERCENTAGE OF ALL CASES
1924	353	136	38.53
1925	490	187	38.16
1926	532	182	34.21
1927	592	194	32.77
1928	645	215	33.33
1929	640	205	32.03

Source: Birth Registers from Hull's Municipal Maternity Home

Once accepted for admission to the Home these women were encouraged (if not coerced) into attending ante-natal clinics. This, health officials believed, was for the good of the mother and the foetus and was an essential weapon in the fight against maternal mortality. Mothers were obviously convinced of this too as percentages of Hull women seen at an ante-natal clinic increased from 10 per cent in 1925 to 25 per cent in 1928 (of women having live births).[34] Although some women felt this service to be beneficial, others may have only attended sessions for fear of having services (either of the municipal midwife or of the Municipal Maternity Home) removed. The Annual Reports of the Medical Officer of Health note that few refusals to attend were met and that "The mothers fully appreciate the advantages of ante-natal supervision."[35] and "...it is most exceptional to have an objection taken to attendance at the clinic."[36] However, some indication is given in the 1927 Report that women had little choice in the matter and had to attend when he commented that: "All patients...are required to attend the Clinics for medical supervision, and visits are paid to them if they absent themselves from the Clinic."[37] Clearly those women who were accepted by the Home were then carefully monitored and controlled by the maternity and child welfare service and the threat of the removal of free services would have ensured their participation. Similarly, women giving birth in the Home were encouraged (from 1924) to attend a post-natal clinic. It is interesting and perhaps revealing that few choose to do so and this is probably accounted for due to the fact that there was no compulsion to attend and no threat of withdrawal of services; moreover, the service was usually one of inspection and referral and not treatment. Although there were 640 confinements taking place at the Maternity Hospital in 1929, there were only 199 attendances from the hospital at the post-natal clinic (184 first attendances and 15 re-attendances) and numbers using the post-natal service remained small throughout this period.

A detailed examination of the clientele reveals that most of the women attending the Home did not have a complication that required them to have a hospital birth and of the cases recorded in the Birth Registers most had normal pregnancies labours and puerperia. As in the previous period, the number of complications never accounted for

Table 15

Municipal Maternity Home: Birth Attendants, 1924-1935

YEAR	TOTAL CONFINEMENTS	MIDWIFE	%	DOCTOR	%
1924	353	272	77.05	81	22.95
1925	490	375	76.53	115	23.47
1926	532	394	74.06	138	23.11
1927	592	461	77.87	131	22.13
1928	645	476	73.80	169	26.20
1929	640	500	78.13	140	21.88
1930	851	630	74.03	221	25.97
1931	877	786	89.62	91	10.38
1932	889	819	92.13	70	7.87
1933	887	819	92.33	68	7.67
1934	881	802	91.03	79	8.97
1935	958	872	91.02	86	8.98

Source: Birth Registers from Hull's Municipal Maternity Home.

the majority of cases and in this period, between 1924 and 1929, not more than 39 per cent of all confinements were complicated. Indeed in this period, despite a dramatic increase in admissions and confinements, the percentage of complicated cases admitted actually fell- see Table Fourteen.[38] This is also apparently confirmed by data relating to birth attendant which shows that most of the women were attended by midwives (Table Fifteen). As the practitioners with responsibility for normal childbirth, midwives would call for medical assistance if complications arose and as midwives attended between 74 and 92 per cent of all births in the Home in this period it would be logical to assume that these would be normal deliveries.[39] However, the role of the hospital midwife appears to have been different to that of midwives working on the District and so firm conclusions cannot be made from birth attendant data alone. Moreover, the presence of a doctor did not always indicate complicated labour as they were often called ante-natally or during the puerperium. There is some confusion in the Birth Registers over this issue as it is not made clear whether the doctor was called for the woman, her infant or both and whether she was visited more than once. All that can be said with any certainty is that most of the deliveries were attended by midwives and that although some women clearly suffered complications in the ante-natal period and in the days following birth, the number of women with no recorded complication far out-numbered those with some abnormality. The number of doctor attended births fell sharply from 1931 and the reasons for this are difficult to determine. This may reflect a reduction in complicated cases or may reflect changes in the method of recording data. However, a significant factor in the increased presence of normal cases, appears to be the needs of pupil midwives as the Home was continuing its role as a teaching hospital in this period. Each pupil required 20 cases to observe to qualify and as their numbers rose from 20 in 1924 to 23 in 1929 it was important to ensure that at least 460 confinements were admitted. Few problems were experienced in this regard as by 1929 640 women were having their babies in the Home.

In addition, this period also saw the debate on the causes and cure of maternal mortality focus attention on the benefits of institutional childbirth as health officials

promoted the maternity hospital as a solution. In Hull, the Medical Officer of Health and his assistant with responsibility for maternity and child welfare, Doctor Gilchrist, firmly believed that the Home was the solution to high levels of maternal mortality and morbidity and that as its services were more frequently used by the women of Hull so the problem would be solved: "It is hoped that the provision now made will suffice permanently for the public maternity needs of the City, and that, as increasing use is made of the accommodation, the maternal mortality and morbidity of the City will decline"[40]. However, despite the increased use of the institutional maternity care the problem of maternal mortality was never really solved in Hull (although health officials remained hopeful that eventually institutional care would produce the desired effect) and no deviation from this policy was considered.

Most of the clientele contributed financially towards the costs of care in this second period. A maintenance fee was charged depending on income and between 1924 and 1929 the majority of women contributed between 20s and 39s 11d per week. This was a considerable sum for families to find and was probably paid out of the Maternity Benefit of 40s which was paid to women insured under the National Insurance scheme or to the wives of insured men. Although it is not made clear in any of the available data, it is likely that fees were set at this level because of the Maternity Benefit. However, the Home did not develop as a consequence of National Insurance legislation.

It would appear that the hospital had moved away from its original aims of providing free care and the increase in free places noted between 1922 and 1923 was not sustained; indeed in this period very few free places were awarded. Although it is not clear why a total of only 5 places were awarded during the four years between 1926 and 1929, this would seem to indicate that most poor women were still being catered for by other maternity agencies and the Home was offering its facilities to other groups of working class women. Furthermore, as a consequence of a number of outstanding debts from women attending the Home, during 1925 a deposit system was introduced in an effort to ensure that those women who booked a hospital bed actually delivered there and clients were now required to pay 5s. All fees were to be paid before leaving the

Home and not to be collected at a later date from patients. Despite these efforts the new system was not quite as successful as anticipated and some debtors ledgers remain to testify that not everyone paid their bill.

Hospital policy changed at the suggestion of the Ministry of Health during 1925 to allow the admittance of any woman who could pay the 63s per week fee. Provided the fee was paid there was no need for an investigation into financial circumstances or for the woman to be in need of a hospital bed for medical reasons. This was a significant change as it meant that for the first time women could choose to have their baby in the Corporation Home, providing they had the money, and offered a way for the Home to increase its revenue. It is not clear why this policy was introduced but there was a developing belief (encouraged by obstetricians) that hospitals were superior places for delivery. Moreover, demand from women themselves also increased the attractiveness of hospital delivery. However, few women in Hull took up this opportunity and during this second phase between 1924 and 1929 only about 12 per cent of women contributed over 60s per week. Whilst wealthy Hull women would have been more likely to choose a private maternity home rather than attend one which had been developed to cater for the poor, the significance of this particular figure is that it indicates that at least amongst some women there was a demand and preference for hospital birth.

The Municipal Maternity Home occupied a very specific place within the maternity and child welfare service in Hull and during this second phase between 1924 and 1929 was continually expanding its role. Although still responsible for those who could either not afford domiciliary care (although not for those who were destitute) or who were considered to be in some way at risk if they were to have a home birth, the Home also began to offer a service to a wider range of clients including those who could afford to pay and those who wished to attend. In this way local health officials were able to ensure that the Home's place within the city's maternity service was assured. However, the majority of the clientele remained those women having normal

births with no obstetric complication at any stage of the pregnancy, labour or puerperium and who were at least in part, paying for the care they received.

Phase Three 1930-1938

The staff and clients had been transferred back to the eastern side of the city in 1929 once the contagious diseases hospital on Hedon Road had been converted into the new Municipal Maternity Home and Infants' Hospital (which was officially opened on 17th August 1929 by Mrs Robson), and here begins the third and final phase of expansion for the Home. Between 1929 and 1938 there was to be a doubling of the number of maternity beds available at the Home and whilst this allowed for an expansion in the numbers of women having their babies in the Home, initial increases were not sustained. Looking again at Table One this becomes clear; between 1929 and 1930 there was a sharp increase in admissions as the new accommodation offered more beds but in the years between 1930 and 1937, although the broad trend was upwards, the rise was not as steep as in the previous period and it was not until 1938 that the number of confinements significantly increased again. The percentage of Hull babies born in the Home did rise but not as steeply as in Phase Two; in 1930 12.5 per cent of live births took place at the Home whilst this had risen to 17.1 per cent by 1938.

Although there was no dramatic increase in the number of women having their babies at the Home between 1930 and 1937, there was a sharp increase in admissions during the period 1930-1938. In the previous phases admissions had closely followed the pattern of confinements but during the 1930's they were consistently much higher. This can probably be explained by the changing role of the Home and increased admissions into both the isolation wards and the infants' hospital. With the opening of the refurbished hospital in 1929, Hull's Maternity Home diversified its work and consolidated its position within the maternity and child welfare services by not only admitting pregnant and labouring women but also cases of women with puerperal fever, puerperal pyrexia and venereal disease (mostly into the isolation wards) as well as infants with opthalmia neonatorum (a severe form of eye infection) and dietetic

diseases. Although such cases had to some extent formed part of the work of the Home in earlier periods, the 1930's saw the Home increase its work in this regard and become the primary place of care for such cases. In previous periods these cases were dealt with primarily at other hospitals; for example, cases of puerperal fever were treated at the Hull Royal Infirmary and ill infants at the Victoria Children's Hospital. The Maternity Home now had the facilities to offer care to these patients and so its position as the main institutional setting for the care of mothers and new babies was strengthened. However, whilst this would account for the overall increase in admissions, a particularly unusual increase in admissions can be identified during 1935 and 1936 and there are few clues as to why this occurred. All the available evidence seems to indicate that a simple rise in the number of maternity cases may have been responsible although there was not an unusually large number of babies born in these years. The number of maternity cases recorded rose sharply between 1934 and 1936 from 935 to 1240 and as the number of free and Public Assistance cases also increased, peaking at 244 in 1935, this increase in admissions may reflect the increasing hardships felt amongst some families in Hull.[41] This situation remains difficult to explain, although it may also have been due at least in part to the high unemployment in the city (See Page 169).

Whilst the role of the hospital had changed and increasing numbers of women were being admitted to the isolation wards, the majority of the clientele was still made up of parturient women who were either having a planned hospital delivery or were being admitted from domiciliary practices. The importance of these women to the work of the hospital is reflected in the increasing provision of maternity beds. During the period 1929-1938 the number of maternity beds provided at Hull's Municipal Maternity Home doubled from the 36 provided at Castle Hill to 72 provided at Hedon Road from 1937. Clearly local health officials believed that the hospital was an increasingly important part of the maternity and child welfare provision in the city and that more women should have the choice of a hospital birth. Initially the Hedon Road site had 49 beds when it opened but this was increased to 60 during 1931. Much of the expansion in bed numbers appears to have been in an effort to encourage admissions but in this

period it must also be seen in light of the changes made by the introduction of the Local Government Act of 1929 which altered maternity service provision by closing the Poor Law maternity beds and making the Maternity Home solely responsible for the city's municipally funded institutional maternity care.

The actual admission policy of the Home seemed to have changed little during the 1930's and was still mainly concerned with providing beds for women who lived in sub-standard housing or who had obstetric problems. Whilst the number of maternity cases seen at the Home increased, there is little evidence to suggest that the increasing number of confinements meant an increasing proportion of the local pregnant population were suffering some complication of pregnancy and childbirth and were in need of a hospital bed. As in previous periods, during the 1930's the majority of clients had normal deliveries and were attended to by midwives; for example, of the 958 births in the Home during 1935 only 86 were attended by a doctor. Some women were admitted to the Home because their domestic environment was considered unsuitable. Whilst a woman could not be forced to attend the Home, if she was applying for the services of the municipal midwife and her home environment was assessed as being unsatisfactory then she would have been advised to go into the Home and would not have qualified for domiciliary care. Moreover, the popularity of the Home itself may have been increasing; as more women were encouraged to attend and found the Home comfortable and restful, they may have encouraged others to attend. However whilst a change in the attitudes of pregnant women must be taken into account there is no way of quantifying how far this impacted on admissions from the available evidence.

More important in this period was the impact of the rise in numbers of pupil midwives which would have provided the impetus for encouraging an increase in admissions. Their numbers grew rapidly during this period from 23 in 1929 to 35 in 1938. This meant to fulfil training requirements at least 760 confinements were needed. Pupil midwives were also important to the Home as they made a substantial contribution to the Home's finances through their grants and fees. Indeed revenue from this source had doubled from just over £405 during the year 1926-7 to £876 in 1930-1.

By 1938 pupils brought over £1049 to the Home which was almost as much as the grants received from the Ministry of Health that year. They were therefore important to the Home for a number of reasons: they provided a substantial proportion of the staff, brought money to the service and contributed to the reputation of the Home as a training school.

The client group overall changed little during this period and most of the women contributed something towards the cost of their care. The majority paid between 20s and 39s 11d per week as in the previous period which probably meant that the clientele was still primarily working class women. However, there may have been some change to the social class composition of the client group as the 1930's saw more pauper women were being admitted as a consequence of the changes to local Poor Law provision and the effects of unemployment. This is reflected in the number of free places awarded in this period which increased from 19 in 1931 to a high of 51 in 1936 dropping slightly to 47 in 1938. Similarly those receiving Public Assistance were admitted free and their numbers increased from 64 in 1930 to a high of 204 in 1935 dropping to 97 in 1938. However as a proportion of all cases these women only accounted for a minority and in 1935 (which recorded the highest number of free admissions with 244 women either paupers or receiving Public Assistance) only accounted for a total of 17 per cent of admissions. At the same time there was also an increase in the numbers of women paying over 60s per week; of those maintenance cases assessed during 1938 for example, 177 were to pay over 60s per week. Of these women only 150 women decided to have a hospital birth (although it is not clear when they had their babies); however if all these women had their babies in 1938 they still only accounted for approximately 14 per cent of cases. The proportion of women in Hull wishing to have a hospital birth and willing to pay for the service did not therefore increase dramatically and was probably not particularly significant in the Home's development.

Despite not being as steep as in previous periods the numbers of women having their babies in the Home was nonetheless increasing during this final phase. Although

much of the increase can be accounted for by the expansion of maternity beds and changes to Poor Law maternity provision which both affected demand, there also appears to have been a change in the activity of local General Practitioners. During the 1930's local G.Ps began to increase their use of the Home's facilities and more women are recorded as being referred from private practice to the Home. In 1930 there were only 54 G.P. referrals to the Home but during 1931 this had leapt to 211 referral and by 1932 had reached 463; thereafter it remained fairly steady between 386 and 462. It remains difficult to know why this happened at this particular time.

Increasingly during the 1930's women were choosing to have their babies in the Home or being defined as in need of an institutional confinement (more women were attending ante-natal classes during this period) either by municipal clinic doctors or private practitioners. Furthermore, the closure of the Poor Law maternity beds also helped to boost admissions and deliveries but not to a great extent and there appears to have been little significant change in the overall composition of the clientele. In 1930 there were 851 confinements at the Home which resulted in approximately 13.5 per cent of all Hull babies (live and still) being born in the Home. By 1938 this had increased to 1067 confinements or about 18.5 per cent of all Hull babies (live and still). Quite clearly although the Home had expanded and was becoming more widely used, but it was not expanding as quickly as it had done in the 1920's, particularly in terms of maternity admissions.

Admissions of all women to the home increased from 928 in 1930 to a high of 1480 in 1936 before falling back slightly to 1304 during 1938. A variety of groups of women can be identified within the clientele: paupers, women paying the whole fee and choosing a hospital birth, primigravidae, women with medical complications and those with environmental reasons for attending but despite this variety it must be noted that most do not appear to have had a medical reason for attending. Although the Municipal Maternity Home was still not the usual place of birth, its contribution to the experience of childbirth had dramatically altered and during the period 1930 to 1938 the maternity

hospital offered a wide range of services to a larger proportion of women in Hull and institutional birth had become a part of the experience of childbirth for more women.

Having identified the three main phases of development in the Municipal Maternity Home's history and highlighted some of the changes to admission policy and within the composition of the client group, a number of factors emerge as having encouraged the use of institutional maternity beds at the local level in the period 1916 to 1938. Although it cannot be said that this period saw the usual place of birth change from the domestic environment to the hospital environment, there is quite clearly an increase in the provision of institutional beds and in the numbers of Hull women using the expanding facilities of the Maternity Home. Bearing in mind the wider context in which this discussion is set, that is the changes in power structures within midwifery and increased concern at national government level with infant and maternal welfare (which have to some extent been developed in Part One of this thesis) other influences, which may only be of particular relevance to this local example, can be identified as affecting the number of deliveries taking place in Hull's Municipal Maternity Home. Indeed, three factors emerge as having a particularly important influence upon the increase in admissions at the local level: the first relates to the changing role of local government and its promotion of the Maternity Home, the second to the requirements of pupil midwives, and the third to the relationship between the promotion of the hospital and its acceptance amongst mothers. Whilst sufficient evidence can be provided to support the argument that the local Maternity and Child Welfare Scheme prompted the use of the maternity hospital and that the needs of pupil midwives was also instrumental in its expansion, it is more difficult to assess the impact of the demand from women themselves. However, it seems unlikely that this was a factor encouraging initial expansion, although it may have contributed to later development. Whatever the reason, whilst institutional deliveries did not supersede home confinements in the period 1916-1938, in a short space of time (23 years) Hull's Municipal Maternity Home had established itself as a major part of the city's maternity and child welfare service.

[1] Most recently however in 1992, this notion of the hospital as the usual place of birth has been challenged by the House of Commons Health Committee which reported that "the policy of encouraging all women to give birth in hospitals cannot be justified on grounds of safety." Health Committee (Second Report) Maternity Services Volume One London H.M.S.O. 1992 Page xii. The government's response did not indicate that the role of the maternity hospital would change dramatically or that home births would once again become widely available and so the maternity hospital looks set to remain at the centre of the maternity services into the next millenium. See Department of Health Maternity Services. Government Response to the Second Report from the Health Committee. Sessions 1991-2 London H.M.S.O. 1992 and Department of Health Changing Childbirth:The Report of the Expert Maternity Group London H.M.S.O. 1993.

[2] Reproduced from: Health Committee Op. Cit. 1992 Page cxi.

[3] R.Campbell and A.MacFarlane Where to be Born?:The Debate and the Evidence Oxford National Perinatal Epidemiology Unit Oxford 1994 Page 6.

[4] Registrar General Statistical Review of England and Wales for the year 1927 London H.M.S.O. 1929 and Statistical Review of England and Wales for the year 1937 London H.M.S.O. 1940.

[5] I am grateful to Mr Alistair Imrie, Consultant Obstetrician and Gynaecologist at Hull's Maternity Hospital for allowing me access to this important source.

[6] Registrar General Op. Cit.1929 Page 125.

[7] Ibid. Page 124.

[8] Registrar General Statistical Review of England and Wales for the year 1932 London H.M.S.O. 1935 Page 144.

[9] Registrar General Op. Cit. 1940 Page 217.

[10] Most recent local studies have tended to focus on the capital. See for example, L.Marks 'Mothers, babies and hospitals: 'The London' and the provision of maternity care in East London, 1870-1939' in V.Fildes, L.Marks and H.Marland Women and Children First: International Maternal and Infant Welfare 1870-1945 London Routledge 1992, L.Marks 'Medical care for pauper mothers and their infants: poor law provision and local demand in East London, 1870-1929' Economic History Review Vol. XLVI No.3 1993 and L.Marks 'The Jewish maternity home and Sick room Helps Society 1895-1939' Social History of Medicine Vol.3 No.1 April 1990.

[11] See M.Tew Safer Childbirth? A critical history of maternity care London Chapman and Hall 1990 Page 65 and R.Campbell and A.Macfarlane Op.Cit. 1994 Page 15.

[12] L.Marks Op.Cit. 1990 Table 4 Page 81.

[13] E.Peretz 'A Maternity Service for England and Wales: Local Authority Maternity

Care in the Inter War Period in Oxfordshire and Tottenham' in J.Garcia, R.Kilpatrick and M.Richards (Eds.) The Politics of Maternity Care. Services for Childbearing Women in Twentieth Century Britain Clarendon Press Oxford 1991 Page 40.

[14] However, some small towns and villages did provide institutional care although these were often small, privately run establishments. Examples can be found in two locations close to Hull (Driffield and Cottingham) which the Corporation does not appear to have taken over until the 1940's.

[15] For further information on this subject see J.Donnison Midwives and Medical Men. A History of the Struggle for the Control of Childbirth Historical Publications London 1988 and Chapter Three.

[16] At this time it would appear that unmarried mothers who required an institutional birth were catered for either by the Poor Law or by a church run charitable organisation called the York Diocesan Maternity Home.

[17] This is the scale used to assess women for free midwifery and illustrates the amount of income allowed before fees were payable:

1 man 1 woman 20/.....after excluding rent and insurance
1 man 1 woman 1 child 22/6
1 man 1 woman 2 children 26/5
1 man 1 woman 3 children 30/4
1 man 1 woman 4 children 34/4
1 man 1 woman 5 children 38/2
1 man 1 woman 6 children 42/1
1 man 1 woman 7 children 46/
1 man 1 woman 8 children 50/

From Medical Officer of Health for Hull Annual Report 1919 Page 81.

[18] Medical Officer of Health for Hull Annual Report 1921 Page 31.

[19] Whilst outside the scope of this particular project, the role of the medical practitioner in this process needs some consideration.

[20] Ibid. Page 32.

[21] Throughout the whole of this research complicated childbirth has been defined as any pregnancy, labour or puerperium varying from the normal course of labour.

[22] Medical Officer of Health for Hull Annual Report 1915 Page 23.

[23] Local Government Board Circular and Memornadum: Maternity and Child Welfare July 1914.

[24] Medical Officer of Health for Hull Annual Report 1919 Page 83.

[25] Ibid. Page 83.

[26] Medical Officer of Health Annual Report 1920 Page 34-5.

[27] Medical Officer of Health Annual Report 1919 Page 83.

[28] The following table shows the number of complicated cases for the period 1918-1923. These figures have been calculated from the Annual Reports of the Medical Officer of Health for Hull and show those women who whilst in the Maternity Home, required the attention of a doctor (either ante-natally, during labour or during the puerperium). Of course these figures may not be accurate as there is the possibility that some women may have been seen more than once and at a number of stages during their stay. However, these figures are useful in that whilst they may exaggerate the numbers of women requiring medical attention they certainly do not underestimate the number of complicated cases.

Complicated Cases per year at the Municipal Maternity Home

Year	Complicated cases	Admissions	Confinements	%of complicated cases
1918	21 i	100	100	21
1919	41 ii	150	130	31.5
1920	88 iii	268	236	37.3
1921	79 iv	246	224	35.3
1922	63 v	243	219	28.8
1923	103 vi	270	247	41.7

i) In 1918 there are 18 cases recorded as abnormal plus another three emergencies. It is not clear if these are separate cases so a maximum of 21 complicated cases can be recorded.
ii) In 1919 26 cases were recorded as abnormal plus another cases were recorded as needing the attention of the medical officer. Again it is not clear if these are the same cases and so a maximum of 41 complicated cases can be calculated.
iii) In 1920 18 cases are recorded as complicated but the Medical offcier was called out to women 70 times. Therefore the maximum calculated is 88.
iv) In 1921 28 cases were 'delivered' by the Medical Officer whilst another 51 are recorded as needing medical assistance. Therefore a maximum of 79 complicated cases are calcuable.
v) In 1922 18 babies were 'delivered' by doctors and medical assistance was sought in 38 cases. Another 7 complicated cases are recorded separately making a maximum of 63 complicated cases.
vi) In 1923 28 babies were 'delivered' by the doctor, a further 63 are recorded as having sought medical assistance whilst another 12 had a rise in temperature to above 100.4 (definition of puerperal fever) and need to be added. Making a maximum total of 103 complicated cases.

[29] Most middle or upper class women would not have considered the Home as an option at this time. They would have been attended to in their own homes by midwives or doctors or if having an institutional confinement, would enter one of the private nursing homes that offered a maternity service. This class distinction has largely been maintained at Hull's Maternity Hospital to the present day where it is still not a popular choice for middle class women.

[30] It is unclear from the available data who this was but it was probably the chair of the Health Committee until 1918 after which time the Maternity and Child Welfare Committee took over. However, this approval was only a formality and based on the recommendations of Health Department medical staff.

[31] Medical Officer of Health Annual Report 1919 Page 83-4.

[32] These two sets of figures are not strictly comparable because of the addition from 1928 of stillbirths into the figures for registered births.

[33] One such example of a women's group campaigning for wider availability of maternity beds was the Women's Co-operative Guild. In 1914 they published a pamphlet entitled The National Care of Maternity which was written by Margaret Bondfield and argued that "In many towns a Municipal Maternity Hospital would be a great boon, not only for those whose circumstances compel them unwillingly to enter the Workhouse Infirmary, but for others who need the greater care and restobtainable in an hospital." (Page 12-13). It was still campaigning for the extension of maternity home provision as part of a complete maternity service in 1928 when the Guild published The National Care of Motherhood by Eleanor Barton.

[34] Medical Officer of Health for Hull Annual Reports 1925 Page 104 and 1927 Page 127-8.

[35] Ibid. 1925 Page 103.

[36] Medical Officer of Health Annual Report 1927 Page 129.

[37] Ibid. Page 133.

[38] Hull Municipal Maternity Home Birth Registers 1924-1929.

[39] ibid.

[40] Medical Officer of Health for Hull Annual Report 1929 Page 110.

[41]

Year	Maternity Cases	Free/Public Assistance Cases
1934	935	217
1935	1186	244
1936	1240	198
1937	979	148

Medical Officer of Health for Hull Annual Reports 1934-1937.

CHAPTER FIVE: Hull's Municipal Maternity Home. An Analysis of Cases 1924-1935.

This thesis is mainly concerned with the development of Hull's municipal maternity services and therefore with the changing role of local government but, at the same time, it is also interested in the organisation and impact of those services. For many areas of the city's maternity and child welfare service it is simply not possible to investigate in detail their organisation or impact as information is not available. However, due to the discovery of Birth Registers from the Municipal Maternity Home it has been possible to explore the service offered by the city's maternity hospital in-depth.

These Birth Registers enabled the close examination of the work of the Home between 1924 and 1935. Before this time, little information is available regarding the work of the Home and much of the information regarding the origins, organisation, staffing and clientele of Hull's Maternity Home in the period before the Corporation took over (i.e. from 1912 to 1st December 1915) has been obtained from obituaries and local directories as well as from Annual Reports of the Medical Officer of Health for Hull. Obviously this left many questions unanswered but attempts to locate documents from the Home's days as a voluntary organisation failed. After 1915 the bulk of the information on maternity hospital development was gathered from official sources and most frequently from the aforementioned Annual Reports of the Medical Officer of Health. Such reports help locate the Maternity Hospital within the developing local maternity and infant welfare service and offer an indication of how important the Home was to that service and therefore were useful in providing information about the changing role of local government. However, the reports gave little information about activity within the Home (other than some basic statistical reporting of admissions, confinements, mortality rates etc.) and those forces acting upon the development of particular policies within the Home, or about the effect of these policies on the staff and on the type of service offered. Furthermore, the Annual Reports contained very little information about the experiences of those women using the services provided, except to comment that the Home was much appreciated by the target population.

The discovery of the Birth Registers therefore offered an opportunity to examine the nature of the Home's work and the client group and enabled (together with other

sources) both a detailed account of local maternity hospital provision to be reconstructed and some exploration of the experience of hospital birth. Whilst obviously an important and useful source, the Birth Registers do have their limitations, the principal one being that the source is a medical document and therefore simply records the medical view of the births taking place in the Home and offers little detail about what the women themselves thought of the service. It is hoped that an oral history project can be carried out at a later stage which may help to obtain the views of women who used this service. Despite the problem of only providing one perspective on municipal institutional maternity care in the city, this data has provided much useful information about the expansion and experience of hospital birth.

The Archive

The Birth Registers for Hull's Maternity Hospital. These Registers had apparently been used to record every labour occurring in the Home between 1924 and 1939 and on initial examination appeared to be a complete archive. Further research was to reveal that this was not in fact the case and that after 22nd October 1936 some data was missing. There did however appear to be a complete record of all labours taking place in the Maternity Home between 1st January 1924 and 31st December 1935 and so, in an effort to provide a clear and consistent picture of both hospital policy and the experience of those women attending the Municipal Maternity Home, this complete set formed the basis of the analysis. This twelve year span was considered to be a suitable length of time in which to study both the hospital population and any changes to hospital policy, and seemed to provide both consistency within years and over a number of years making comparisons and analysis possible.

As the cases recorded followed logically in date order throughout the Registers (for the most part at least), it seemed reasonable to assume that the source was a complete record of all the women who had their babies in the Home. This was further confirmed by an inspection of the original documents (as it appeared that the Registers were completed by the midwifery staff at the Home on the day or within a week of the birth) and by comparison with other admissions data. The Registers themselves were

issued by the midwifery governing body, the Central Midwives Board, and referred to their rules for record taking. The births appear to have been filled in batches by one member of staff every day or every few days. The information must have been gathered from separate case notes (which have not been located) and so the opportunities for clerical error are quite apparent. However whilst mistakes will have been made, these would probably have been few in number as midwives were trained in the importance of keeping accurate records. However whilst it seems reasonable to assume that these Registers record all the confinements within the Home, it is impossible to be certain that the archive is a complete record of all the women attending the Municipal Maternity Home.

The Birth Registers were not created to simply record all live and still births taking place in the Home, but primarily to note the women who attended and their medical experience whilst in the Home. The data set therefore focused on the mother, her pregnancy, labour and puerperium, as well as her baby and its health in the first few days of life. However, it cannot be guaranteed that all cases admitted to the Home were recorded in the Birth Registers. For example, cases which did not involve a 'birth', such as abortions (either induced or spontaneous), sterilisations, and other gynaecological operations which appear to have been carried out at the Home, may not have always been recorded in the Registers (although some were). Similarly, women transferred from other institutions or from their own homes to the Municipal Maternity Home for treatment were not necessarily recorded in the Birth Registers as their babies were not born in the Home. This could help to explain the occasional discrepancy between the Maternity Home figures and those recorded in the Annual Reports of the Medical Officer of Health for Hull.

The archive for the period 1924-1939 consisted of 22 hard backed ledgers issued by the Central Midwives Board and published by Messrs. Spottiswood, Ballantine and Co. Ltd. The cost of each ledger remained constant at 1s 6d net (by post the price was 2s 1d falling to 2s 1d in 1939). Each book had fifty pages and spaces for ten entries per page. There were no loose pages and few inserts, the exception being where a mother

No.	Date of expected Confinement.	Name and Address of Patient.	Age.	No. of previous Labours and Miscarriages.	Date and hour of Midwife's Arrival.	Presentation	Date and hour of Child's Birth.	Sex of Infant: Born Living or Dead.	Full time or Premature. No. of Weeks.	Name of Doctor if called.	Complications (if any) during or after Labour.	Date of Midwife's last visit.	Condition of Mother then. (See Rules, Rule 19, p. 94.)	Condition of Child then. Section E	REMARKS.*
101	Mar:	Mrs B	28 yrs	Two	Mar: 6th 4.30 pm	L.O.A	Mar: 6th 7.20 pm	Boy alive	Term 7 lbs 11 ozs			Mar: 6th	Satisfactory	Satisfactory 7 lbs 7½ ozs	St: Nurse Formery Nurse Parkin ? Contracted Outlet - Previous history forceps.
102	Mar:	Mrs Be	25 yrs	One	Mar: 7th 4.15 am	L.O.A	Mar: 7th 11.20 am	Boy alive	Term 9 lbs 12 ozs	Dr Lissons & Dr Innocent	Delayed 2nd Stage low forceps.	Mar: 22nd	Satisfactory	Satisfactory 9 lbs 7½ ozs	Nurse Kerris (not sat.)
103	April	Mrs T	19 yrs	Nil	Mar: 7th 1.50 pm	R.O.A	Mar: 8th 9.5 am	Girl alive	Term ? 36 wks 5 lbs 7 ozs		Pit. Brom. & Chlorod Mar: 8th Satisfactory	Mar: 27th	Satisfactory	Satisfactory 5 lbs 6 ozs	Sister Archer
104	Mar:	Mrs F	24 yrs	Nil	Mar: 8th 6.15 am	L.O.A	Mar: 8th 12.50 pm	Girl alive	Term 6 lbs 12½ ozs		Pit. Brom & Chlorod 9.0 pm 8.3.29.	Mar: 31st	Satisfactory	Satisfactory 6 lbs ½ ozs.	Sister Archer Nurse Kerris
105	Mar:	Mrs G	21 yrs	Nil	Mar: 8th 6 pm	R.O.A	Mar: 9th 12.5 am	Boy alive	Term 6 lbs 9 ozs			Mar: 21st	Satisfactory	Satisfactory 6 lbs 12½ ozs. Baby has a Spina bifida	Sister Robinson Recommend Guys Pt Childrens Hospital
106	Feb.	Mrs S	27 yrs	Two	Mar: 9th 7.35 am	R.O.A	Mar: 9th 3.45 pm	Boy alive	Term 7 lbs 1 oz			Mar: 22nd	Satisfactory	7 lbs.	St: Nurse Formery Nurse Jackson. Femoral thrombosis in left leg. Good recovery.
107	April	Mrs H	18 yrs	Nil	Mar: 11th 12.15 am	L.O.A	Mar: 12th 2.10 am	Boy mac.	? 28 wks			April 2nd	Satisfactory		St: Nurse Cracknell Nurse Hogan Senior. Slight thrombosis Went home at 10 a.m.
108	Mar: Emergency	Mrs He	31	Seven	Mar: 11th 5.45 am	R.O.A	Mar: 11th 11.40 am	Boy alive	? 42 wks 8 lbs 9 ozs			Mar: 28th	Satisfactory	Satisfactory 8 lbs 13 ozs	St: Nurse Formery Nurse Skelton.
109	Mar.	Mrs Gu	30	Eight	Mar: 11th 1.30 pm	Breech	Mar: 11th 3 pm	Girl S.B.	? Term		Twins A.P.H. Placenta Praevia Version before admission	Mar: 13th	Not Satisfactory		Transferred G. H. R. 2. Pre-operal pyrexia Sister Archer
110	Mar:	Miss S	28 yrs	Nil	Mar: 8th 6.15 pm	L.O.A	Mar: 11th 6.30 pm	Girl alive	Term 7 lbs 3 ozs	Dr Innocent	Delayed 2nd Stage low Forceps	Mar: 15th	Satisfactory	Satisfactory 4 lbs 1 oz	Baby has been adopted & removed from district

* If any drug, other than a simple aperient, has been administered in any way, state here the name and dose of the drug and the time and cause of its administration. See Rule 19.

had discharged herself either earlier than expected or against medical advice. In these cases, a letter was paper-clipped into the Register which gave the reason for early discharge. These letters which were signed by the mother indicated that she took full responsibility for herself and for her child and confirmed that her actions were against medical advice, therefore absolving the Home of all responsibility.

As can be seen from the enclosed page from one of the Birth Registers (Figure A), there are several columns, each containing information about the pregnant woman, her birth and her infant. The headings and layout of these columns remained the same for each year and as a result, the same information was recorded for each woman over the whole period 1924-1935, making comparisons over time straightforward. However, the frequency with which the data was recorded changed over time and there was some inconsistency in the information recorded- the extent and impact of this missing data will be discussed in the analysis of cases. Overall, however, it would appear that the proportion of missing data was low and therefore the impact was far less than might be expected from such a large data set.

Looking again at the photocopied page from the Birth Register in Figure A (from left to right), we can see that each case was firstly given a number. There then followed a record of the expected date of confinement; this data was not consistently recorded nor were exact dates always given and often this was simply expressed as a given month. Expected dates could be calculated from information provided by the woman about the date of her last menstrual period or by medical examination. There are of course a number of reasons why this information might not have been recorded: for example, a lack of availability of ante-natal care, lack of co-ordination between medical professionals (e.g. notes not being passed on), or inadequate information from the woman herself. Such detail could be used to help show the medical response to those pregnancies which were regarded as post mature (i.e. over 40 weeks' gestation) such as the application of medical induction, and thereby contributed to building up a picture of the development of hospital procedure.

Names and addresses were also given in the Registers (although on this example they have been blanked out to ensure confidentiality) and this information was useful in both helping to locate the catchment area of the Home and also in making tentative conclusions about the social class composition of the client group. Certain areas of the city at this time can be broadly defined as being inhabited by a particular social class and this information can be used in conjunction with that obtained from the Annual Reports of the Medical Officer of Health for Hull to help build up a picture of the client group. Whilst conclusions with regard to class position are not intended to be precise, it does seem clear that the Home was used mostly by sections of the working class and not by the middle and upper classes. More precise conclusions can be made concerning the geographical areas catered for by the Home; for example, some women came from as far away as Bridlington, Lincolnshire and the Wolds, but most were local women from the Hull area.

Whilst it was fairly simple to ascertain the location of the clientele, it was more difficult to determine accurately their marital status as the difference between 'Miss' and 'Mrs' was often hard to decipher from the hand-written entries. Some (though very few) women were quite clearly recorded as 'Miss' and are therefore easily identifiable as unmarried mothers. Because of this, it has not been possible within this study to examine in detail the differences between unmarried and married women's experience of the Maternity Home and all cases have usually been studied together.

In the next two columns the age of the woman and the number of previous labours and miscarriages is recorded. This information is of great interest as it was possible to construct fairly detailed obstetric histories of all the clientele between 1924 and 1935. For example, the data allowed examination of the ages that women were having children and at their parity (number of previous pregnancies) and from this, it was possible to suggest reasons why these women were having their babies in the Home, despite the absence of ante-natal notes. Furthermore, this information can be used to establish the medical response to certain groups of pregnant women and to see whether medical care reflected the obstetric history of the mother as well as the

progress of her current pregnancy. For example, some examination of multiparous women was possible to see if they were treated in a different way to primigravidae (women pregnant for the first time). Furthermore, this information allowed assessment of who was using the Home; for example, was it being used primarily by primigravidae or women with a history of stillbirths and miscarriages or other obstetric complications? At the same time it helped answer questions about the care of these groups by providing information about whether obstetric history influenced the medical response.

The column labelled 'previous labours and miscarriages' was an attempt to provide a record of total pregnancies and whilst this data was extremely useful in helping to establish the obstetric history of the client group, it may be inaccurate. For example, a woman may not have wished a particular pregnancy to be recorded or may have chosen to omit details if, for example, she had aborted or miscarried. Induced abortion was illegal and would not be readily admitted to, whilst miscarriages could be forgotten (e.g. if a woman had several), be mistaken for a heavy period, or be hidden to avoid accusation of self-induced abortion. Such problems need to be acknowledged when coming to any firm conclusions about the number of pregnancies experienced by this group of women. Nonetheless, this information has been most useful in helping to calculate different groups of pregnant women within the overall client group. It has been possible for example, to calculate the number of primigravidae who gave birth at the home and the number of women considered to have had a complicated pregnancy or birth. This close examination of the client group helped uncover some of the reasons why Hull women were increasingly giving birth at the Home. In this period women were increasingly being encouraged to give birth in hospital in England and Wales as this was regarded by sections of the medical profession as safer than a home birth for some groups of pregnant women. Government policy was also embracing this idea and this resulted in primigravidae, women with medical/obstetric complications and women with 'unsatisfactory' domestic circumstances being encouraged to deliver in hospital. Whilst it cannot provide all the answers, the Birth Register data has helped show how far obstetric history influenced admissions to Hull's Municipal Maternity Home.

The next columns recorded the date and hour of the midwife's arrival. It was hoped that by combining this information with the information on the date and time of birth, some indication of the duration of labour could have been calculable. However, this was not possible as the information could not be judged as accurate and so this information has been of little use to this particular study. As a woman may not have seen a midwife at the very beginning of her labour, the arrival of the midwife cannot be used as an indication of the start of labour. Labour may well have been in progress for some time before reaching the Home as women either had to get themselves to the hospital or use the developing ambulance service. Indeed, some did not make it to the hospital in time and their babies were born before arrival- noted as BBA in the Register.

The next column recorded the presentation of the foetus and this information made it possible to explore the medical responses to differing presentations: that is, to see how different births were regarded and managed. The presentation of the foetus may affect the progress and outcome of the labour and so early detection of the foetal position was useful to the medical profession who could then make preparation for the birth or in the case of an abnormal presentation could take appropriate action: both are noted in the Registers. Categories of normal and abnormal presentations have therefore been established by obstetricians and differing responses to each were taught both to midwives and doctors, although the emphasis in midwifery training was that midwives should detect these abnormalities and the doctor should attend and manage them.

Some presentations were regarded as normal; these were usually the vertex (head first) positions and were considered to be manageable as part of natural childbirth. In the Registers, normal/vertex positions were usually noted as L.O.A., R.O.A. (short for Left and Right Occipito Anterior) and R.O.P or L.O.P (short for Left and Right Occipito Posterior) which showed the position of the foetus in relation to the mother's body. Sometimes, but less often, normal presentations were expressed as either Vi, Vii, Viii or Viv. These were another method of shorthand for the above presentations, Vi being L.O.A., Vii being R.O.A, Viii being R.O.P and Viv being L.O.P.

Abnormal presentations seemed to have been defined in much the same way as today and if detected usually required the attention of a doctor. If discovered ante-natally, this would also have been an adequate reason to recommend a hospital birth. Common deviations such as Breech and Face presentations were usually written into the Registers in longhand but were also sometimes noted as Bi, Biii, Fi or Fiii with numbers referring to the position of the foetus in relation to the mother's body. Other presentations that were regarded as indicating an abnormal labour included shoulder, foot and brow presentation as well as multiple pregnancies e.g. twins. If a woman was diagnosed as having an abnormal presentation, this was often used to indicate that she needed a hospital birth and the attention of a doctor. However, not all abnormal births were admitted to the Home and if they were, they did not always prove problematic and require the attention of a doctor. Many midwives both in domiciliary and hospital practice delivered breech babies and twins. Indeed, oral history work with midwives has indicated that many of the situations which were regarded as abnormal were often delivered at home without complication.[1] Quite clearly there was some disparity between midwives and doctors as to which presentations needed referral to hospital. This information on presentation, along with details from other columns, was used to help build up a picture of what was seen as normal or complicated childbirth, what the reaction to this diagnosis would be and which attendant would be required at the birth.

Although this study is primarily concerned with the experience of women and the development of hospital policy regarding her care, the Birth Registers also noted information about her infant; for example, the next column showed the date and hour of the birth of the baby. This information was used to assess whether there was a seasonal pattern to births in Hull and standard statistical tests indicated that no such pattern existed. Where there was a multiple birth (twins or triplets) the time of birth for each baby was noted. In this way multiple births could be isolated as a separate category and any special care be assessed.

The sex of the child was noted in the next column as well as whether it was living or dead. Whilst the sex of the baby was of little interest to this study, mortality was. A

live birth was usually recorded 'alive' or with no comment and a dead foetus as either 'S.B.' (stillbirth) or as 'mac' (which indicated a macerated foetus: that is one that has been dead inside the womb for at least 24 hours). This information was useful in that it made possible a calculation of the numbers of stillbirths in the Home and some investigation into factors which may have contributed to this.

The next column noted the baby's gestation and in particular whether it was full term (sometimes recorded as full time in the Register), premature or post mature. Most frequently this was noted in weeks, with full term normally being 40 weeks,(although there seems to have been some variation in this definition over time) but often such cases were simply recorded as 'FT'. In addition, the birthweight of live births was noted, although not in every case, but in a sufficient number of cases to allow closer examination of premature births. These were usually defined as babies born between the 28th and 40th weeks and weighing below 5 lbs- although again this appears to have changed over time. In this study this data has been used to assess the impact of gestational age upon the management and care of mother and baby.

The doctor's name was also included in the data if she ('she' is used because the doctors at the Home were usually women) attended the woman ante-natally or during labour or if she visited the baby and mother later during their stay. As it was difficult to ascertain when the doctor visited and for what reason, close scrutiny of the following columns was needed.

The most interesting column in terms of this study was the next which noted down any complications during or directly after labour. Problems during the puerperium were often noted in the remarks column and so this combined information helped build up a very detailed picture of over 8000 individual labours, births and puerperia. However, one of the most startling pieces of information which emerged at the beginning of the study was that most of the women had no information recorded about their experience at all and were therefore not suffering any complication at all. The reason for these women's attendance was therefore the most difficult to isolate.

Clearly this data provided more information about the abnormal than the normal and this was a serious inadequacy as the data therefore encouraged attention to be focused on complicated childbirth when in fact this was not the usual experience. However despite this lack of detail about normal cases, the data provided much useful information about the medical approach to complicated childbirth. The 'complications' column noted any deviation from 'normal' labour and any drugs used or procedures applied to the woman or her infant (a discussion of how normal and complicated births were defined follows later). The Register had a note printed at the bottom of each page which stated that all drugs, other than a simple aperient (producing an action on the bowels), and their dose and time administered were to be noted in the register.

The next three columns dealt with the discharge of the mother and baby and related to the last visit by the midwife, which was usually on the day of departure. A calculation of length of stay was made by a comparison of the date of the midwife's first and last visit and in most cases this was fourteen days after birth. The health of both the mother and baby were recorded as well as the weight of the baby on discharge. In the final column the staff involved with each case was recorded and any remarks about the health, treatment or transfer of the mother and her child was also noted. At this point the Registers made reference to the rules of the Central Midwives Board referring midwives to Section E Rule 12 which simply informed midwives that whilst working in the Home, some of the responsibilities held by the domiciliary midwife in terms of notification and inspection were removed as they were working "under the supervision of a duly appointed medical officer within Hospitals approved by the Central Midwives Board."[2]

The details in these final columns supplemented that recorded in earlier columns and provided additional information which was used to help explore the experience of childbirth within the Home and to explain the possible causes of mortality and ill health or the reasons for recovery of mother and/or child. For example, information about neonatal deaths was found here, as well as a record of those women who discharged

themselves and/or their child. Furthermore, any maternal deaths which occurred during the puerperium were usually recorded here too.

It is quite clear that the information contained in the Birth Registers is of enormous value to the study of hospital birth. Whilst recognising its limitations particularly with regard to the accuracy of recording information and the emphasis upon complicated childbirth, this data does however provide a detailed picture of the obstetric experience of over eight thousand Hull women. Whilst not representative of the pregnant population of Hull as a whole, this information has enabled a detailed analysis of the experience of hospital birth for both the woman and her infant but more than this it has also allowed some examination of the development of policy within one particular local authority hospital, the kind of attention women received and any changes to these over time.

Before looking specifically at the methods used to manipulate the data, it is necessary to explain what information was extracted from the case notes and how it was organised. By looking again at Figure A and referring specifically to these 10 cases, the process of classification used can easily be understood. Much of the data, for example that relating to name, age, address, dates and times, could be simply analysed. This page has not been chosen as a representative sample of cases; indeed it shows an unusually high number of complications than was normally experienced. It has been chosen specifically to illustrate to the reader the variety of complications and outcomes, both for mother and infant, and to show how these have been approached within the study.

As the focus of this study was to understand why increasing numbers of women were attending the Home, each case was examined to see if there was some medical/obstetric reason for the women being admitted. As ante-natal care expanded and risk categories were developed, so more women were defined as in need of a hospital birth. If all the cases had some complication or deviation from the normal pattern noted in the Birth Registers, it could clearly be concluded that the function of the Home was simply to cater for those women who were expected to have a complicated birth. Each case was therefore examined to see if any abnormality was

noted and then categorised as either satisfactory (a normal birth with no deviation from the expected pattern and with no need for medical intervention) or complicated (where there was some indication of deviation from normal parturition). In this way, it was possible to conclude how many women were attending the Home because of some obstetric or other medical complication which meant that the medical profession would have advised against a home birth.

Categorising a woman as a satisfactory case was easily done. Looking for example at case 101 in Figure A, it can be seen that there were no recorded problems in the 'complications' column and that both mother and infant were considered satisfactory. Cases like these were defined as satisfactory and were assumed to have had a normal, uncomplicated pregnancy, labour and puerperium. As there was no medical/obstetric reason for her presence in the Home, it was necessary to try to identify other reasons for her admittance such as personal choice, standard of housing or parity. In this case, as with many, it was difficult to make an accurate assessment. Using the same criteria, both cases 105 and 106 were also classed as satisfactory. Mrs S in case 106 was also categorised as satisfactory; despite the fact that she gave birth to a baby with spina bifida, this did not cause her to have a complicated pregnancy, birth or puerperium and there is no indication that special attention was given to her during the birth or that a doctor was present. However, such cases would be of special interest to a study of the neonatal population. These three cases were all women who did not require intervention by the medical team and were attended to by a midwife (the practitioner responsible for normal childbirth) during their labour. They were classed as satisfactory as this was the only comment made in their notes or because their whole experience had caused no complication or comment from those caring for them during their stay. It is interesting to note that this group made up the largest proportion of cases within the whole data set and so hospital birth appears not always to have been recommended for medical reasons. What needed to be addressed was why some appeared to have chosen or been advised to attend when there was no medical/obstetric reason for admission.

Complicated cases were also easy to identify from the archive, although it was sometimes more difficult to establish whether a woman had a history of obstetric complications, had some problem ante-natally which meant she was referred to the Home at an early stage, or whether she had developed some complication whilst in the Home. It was not possible to be certain of the numbers of women who had booked a hospital bed in advance or whether they had been admitted during or after labour. However, by looking at the figures cited in the Reports of the Medical Officer of Health of those applying to have a hospital birth it seems likely that many were booked in to the Home. In analysing the data, efforts were made not only to categorise these women as complicated but to also identify when the complication had occurred. A numerical code was used: 1 to indicate ante-natal complications such as a problematic obstetric/medical history or ante-partum haemorrhage; 2 to indicate some problem in any or all of the three stages of labour (the three stages of labour are dilation, birth of the baby and expulsion of the placenta) including post-partum haemorrhage; 3 to indicate a problem in the days following the birth- the puerperium. Some of course, had complications in each area. Similarly, women who attended for either an abortion (spontaneous or induced) sterilisation or other gynaecological operation were also classed as complicated cases as they needed specialised treatment and care. Information about such cases was often found in either the 'complications' or 'remarks' columns.

Looking at Figure A again, and at case 102 in particular, it is clear why this case was regarded as complicated as intervention by the medical team was necessary. The 'complications' column notes a delayed second stage and forceps delivery with the drug pituitrin being given to the woman. Furthermore, it is fairly certain that this woman was booked for a hospital birth because of a previous forceps delivery due to a possible contracted outlet (small pelvis). This case would not only be categorised as complicated but would also have the numbers 1 and 2 attached to indicate exactly when the problems occurred. Both mother and infant were satisfactory on discharge and this case gives some indication of the scope of the information available and the conclusions that can be drawn from it. Other cases in the example which were classed as complicated

were 103 and 104 because drugs were given during the labours, and 107 and 108 because the women had thrombosis. In the case of 107, Mrs H gave birth to a macerated foetus which if noted ante-natally could have been the reason for her admittance, and case 108 is interesting in that Mrs He did not continue her stay but discharged herself. Case 109 was a serious case: an emergency admittance for a malpresented placenta, which indicated the possibility of severe complications and was usually associated with the risk of haemorrhage. Unfortunately, this woman developed puerperal pyrexia and was transferred to Hull Royal Infirmary as the Home at this time did not treat all fever cases because it had limited isolation accommodation. Case 110 was also defined as complicated and was similar to case 102 by being a forceps delivery. This case was also easily identifiable as a unmarried mother (Miss S) who was having her first child which, the notes record, was adopted and taken out of the district. However, not all cases of single mothers were so easily identifiable.

This process, which helps distinguish between those women who were attending the hospital for medical/obstetrical reasons and those who had normal births, was important for two main reasons. Firstly, by identifying the normal births it was possible to discount the admittance of these women because of obstetric/medical reasons and therefore some assessment of other factors was necessary to discover why they were admitted. Secondly, in identifying the complicated cases it was possible to assess the type of care women received and to explore the impact of this upon them.

The resulting data was then manipulated using the Paradox 4 package[3] and although the application of I.T. to this data helped enormously with the calculation of statistical information, the preparation of cross tabulations and the extraction of groups of women, it was not possible to find any package which could adequately cope with the subtleties of the textual information. It was this information which made these case notes so interesting and of such historical value. In an effort to retain the sense of dealing with individual women (each with their own experience of pregnancy, labour and the puerperium) where textual information was recorded it was important to include it in full and not to code it. The coding of information would have provided a

uniformity which simply did not exist and which would have completely destroyed the complex variety in the experiences of childbirth. As a result, the analysis of the data was completed using a mixture of computer technology and manual techniques, and used together these methods of analysis proved fairly successful. However, historians should become more aware of the limitations of the technology at their disposal and treat it with care, acknowledging both its usefulness and limitations.

An Analysis of Cases.

The extent of the information contained in the Birth Registers and their overall usefulness in helping to further historians' knowledge about the development of hospital-based maternity care and women's experience of hospital birth has been established. The remainder of this chapter analyses the information contained in the Birth Registers and examines closely the changing nature of the maternity hospital service in Hull. Particular attention has been paid to the overall nature of the client group and the development of hospital policy with regards to both patterns of admissions and the maternity care offered. In addition, particular emphasis has also been placed upon the experience of complicated childbirth as much detailed information was available about these cases.

By looking in detail at the clientele, it was possible to make suggestions about who was using the facilities offered by the Home, whether this was in line with the policy on who was the target population (as highlighted in Chapter Four) and whether there was any change in the client composition over time. Moreover, it was also possible to establish the geographical catchment area of the Home and whilst it would seem on initial analysis that the majority were women who lived in Hull, some did come from some distance from the city. As details regarding the obstetric history of the majority of the clientele were calculable from the Birth Registers, it was also possible to investigate the impact of this upon place of birth and to make some suggestions as to why women increasingly used the facilities available at the Home at a time when home births were still the norm. Due to the absence of ante-natal notes, it is difficult to be sure exactly why those women who had no recorded obstetric or medical complication

were admitted to the Home, although there was some attempt to investigate other possible reasons for admittance. Here the address data was most useful in identifying those areas of Hull which were considered to have housing unsuitable for home birth, but conclusions in this regard can only be speculative. More useful in establishing possible reasons for admission was the age data which when used in conjunction with the information on obstetric history, provided details about past fertility patterns and the ages at which women were having babies, both of which would have contributed to the recommendation for hospital birth. This information to some extent reduces the impact of the absence of ante-natal notes.

Much of this chapter focuses upon the Home's work with complicated childbirth and explores the individual experiences of certain groups of women. As detailed information about the woman, her pregnancy and labour and her baby was only recorded if there was some deviation from the norm, there is an unavoidable emphasis on what could go wrong during pregnancy, birth and the puerperium. However whilst it has been acknowledged that this was not the experience of the majority of the clientele, much useful information can be extracted about the variety in type of complications that medical health care workers were dealing with and some of the responses to these. Moreover, it has been possible to extract a number of different groups of complications and to study these in detail. In this chapter, particular attention has been given to three groups of complicated cases: those women who suffered from puerperal fever and/or pyrexia, those who died in the Home and those who had a caesarian section.

Whilst the main interest of this study is with the provision of municipal maternity hospital beds and the women who used them, some attention (although very brief) has been paid to the neonatal population. In particular the incidence and treatment of low birthweight babies was examined along with the incidence and treatment of two of the most common neonatal complications at the time: opthalmia neonatorum (severe inflammation and infection of the eye) and pemphigus neonatorum (produced by a bacterial infection of the skin). At the same time attention has also been paid to the numbers of stillbirths, abortions and infant deaths. However as this work is particularly

Table 16

Total Cases (complicated and satisfactory) in the Municipal Maternity Home, 1924-1935

YEAR	TOTAL CASES	SATISFACTORY NUMBER	%	COMPLICATED NUMBER	%
1924	353	217	(61.47)	136	(38.53)
1925	490	303	(61.84)	187	(38.16)
1926	531	349	(65.73)	182	(34.28)
1927	591	397	(67.17)	194	(32.83)
1928	644	429	(66.62)	215	(33.39)
1929	640	435	(67.97)	205	(32.03)
1930	851	587	(68.98)	264	(31.02)
1931	877	719	(81.98)	158	(18.02)
1932	887	637	(71.82)	250	(28.19)
1933	892	570	(63.90)	322	(36.70)
1934	881	596	(67.65)	285	(32.35)
1935	958	588	(61.38)	370	(38.62)
TOTAL	8595	5827	(67.80)	2768	(32.20)

Source: Birth Registers from Hull's Municipal Maternity Home.

concerned with mothers, the study of infants was limited although the possibilities for future research are clear.

This work therefore identifies two main groups of women having hospital births- those having a normal birth and those experiencing some complication- in the period 1924-1935 and aims to explore their reasons for attendance and their experience of hospital care. At the same time by combining this information with that from other sources, the position of the Home within Hull's Maternity and Child Welfare Scheme can be studied in depth. In this way, whilst it may not be possible to use this work to generalise about the experience of childbirth within municipal maternity hospitals throughout England and Wales, the data from Hull's Maternity Home has provided much useful information about the operation and use of this facility at the local level and does therefore give some idea of the kinds of factors that may also be applicable elsewhere. As such, this work contributes to our understanding of changing practices in childbirth and the reasons for the shift towards an increased use of maternity hospital beds.

The Clientele.

Between 1924 and 1935 the number of women using the facilities offered by the Municipal Maternity Home increased from 353 to 958. Table Sixteen clearly shows the expansion of admissions and also illustrates that the majority of those women entering the Home were not experiencing any complication. Whilst this expansion of the proportion of Hull babies being born in the Home has been placed in its wider context and discussed in Chapter Four, the Birth Register data for the period 1924-1935 has enabled close scrutiny of the women attending the Home for this particular period. Without the admission application forms or ante-natal notes, it is fairly difficult to be precise about who exactly these women were or why they had their babies in the Home. However, the first conclusion that can be made is that the majority of women were not attending due to obstetric or medical complications. The proportion of women experiencing a normal pregnancy, labour and puerperium remained a much larger proportion of the whole clientele than those suffering some complication and based on

definitions outlined above; 67.80 per cent of the whole data set were regarded as normal cases whilst only 32.30 per cent were considered complicated. In 1924 for example, 61.47 per cent of women recorded in the Birth Registers had a normal experience whilst only 38.53 had complications. There was some fluctuation in these figures and by 1931 the proportion of complicated cases had reached 18.02 per cent of all cases and normal cases accounted for the vast majority of the Home's work, a total of 81.98 per cent of cases that year. The figures for 1931 are unusual (although checks indicate that they are correct) and may indicate some change in methods of recording data for that year although there is no evidence to support this view. However, by 1935 the proportion of complicated cases had risen again and had reached their 1924 level.

Although there appeared to have been little change to the basic admission policy in the period 1924-1935 which might have encouraged an increase in admissions, there were other factors influencing the development and use of local maternity and child welfare services which may have had an impact on the composition of the Home's clientele and encouraged its expansion. Firstly, from 1930 the Maternity and Child Welfare service became responsible for the maternity care of pauper women as the Poor Law maternity beds were closed under the Local Government Act of 1929. This led to an indirect change in admission policy as more women were sent from the Poor Law and later from the Public Assistance Committee (P.A.C.). The numbers of these women, who were all admitted free of charge, increased each year between 1930 and 1935; however, we cannot be sure of their exact numbers. Women on Public Assistance were recorded separately in the Annual Reports of the Medical Officer of Health between 1930 and 1935 and their numbers increased yearly, rising from 7.52 per cent of all cases to 21.29 per cent between 1930 and 1935. The proportion of pauper women being admitted to the Home was therefore perhaps more significant than has been indicated in Chapter Four, especially as the Home took over the provision of care for these women from 1930.

As has been highlighted in Chapter Four, other factors can also be identified which may have been partly responsible for the increase in number of admissions into

the Home. For example, the increasing numbers of women attending ante-natal sessions and the general concern about the persistently high nature of the maternal mortality rate. Although the expansion of ante-natal care at the local level could be seen as an attempt to improve admissions for the Home and secure its place within the city's Maternity and Child Welfare Scheme, there was also a general and genuine belief that the maternity hospital was the solution to high maternal mortality and so its use was encouraged. Whilst there is no doubt that local ante-natal care was expanding and that there was much concern about the extent of maternal mortality and how to solve it at the national level, what is less certain is how far this then influenced the expansion of local hospital admissions. However, it has been made clear in previous chapters that the inter-war years saw greater emphasis placed on the role of the maternity hospital as a solution to maternal mortality.

Further information was available by examining the address, age and parity data from the Birth Registers and this too helped answer the central question of who these women were and why they had their babies in the Home. The address and age data were simply extracted but the parity of the woman had to be calculated from information about the woman's previous births and miscarriages, and whilst the problems with the accuracy of this particular data have already been acknowledged in the sections above, it was felt that this information was sufficiently reliable to allow some detailed discussion of obstetric history.

Although address data was fairly consistently noted with all cases throughout the entire period from 1924 to 1935 (see Table Seventeen), the age and obstetric history of the woman was not. The accuracy of the address data meant that detailed analysis and firm conclusions could be made about the geographical location of the client group and some comment could be made about the environments in which they lived. Table Two shows the numbers and percentages of missing address data for each year; in some cases data was either not recorded by the staff or was obscured in the Register and in others the location of the woman's home could not be found on local maps. It is clear that address data was recorded and located for the majority of cases and that missing

Table 17

Numbers and Percentages of Missing Address Data Per Year in the Birth Registers

YEAR	TOTAL CASES	NO ADDRESS DATA	% OF CASES PER YEAR
1924	353	9	2.55
1925	490	11	2.25
1926	531	11	2.07
1927	591	12	2.03
1928	644	13	2.02
1929	640	19	2.97
1930	851	39	4.58
1931	877	36	4.11
1932	887	32	3.61
1933	892	22	2.47
1934	881	15	1.70
1935	958	27	2.82
TOTALS	8595	246	2.86

Source: Birth Registers from Hull's Municipal Maternity Home.

Table 18

Numbers and Percentages of Missing Age Data Per Year in the Birth Registers

YEAR	TOTAL CASES	AGE DATA MISSING	% OF CASES
1924	353	25	7.08
1925	490	17	3.47
1926	531	21	3.96
1927	591	18	3.05
1928	644	21	3.26
1929	640	23	3.59
1930	851	40	4.70
1931	877	133	15.17
1932	887	191	21.53
1933	892	395	44.28
1934	881	572	64.93
1935	958	866	90.40

Source: Birth Registers from Hull's Municipal Maternity Home.

data only accounted for a small proportion of cases- never more than 4.58 per cent. This was not large enough not to seriously affect the results.

The proportion of missing age data (see Table Eighteen) did not become problematic until after 1930 when the recording of the ages of the clientele began to seriously deteriorate. In 1924, 92.92 per cent of all cases had age data recorded and by 1930 this had increased to 95.3 per cent. However, from 1931 accuracy in this area of the data set fell quite markedly until by 1935 the majority of cases did not record the woman's age and only 9.60 per cent of all cases had any record of age. The proportion of data missing between 1924 and 1930 was not considered so serious as to significantly effect the results and was used in the calculations, but after 1930 the age data was not considered useful even for tentative conclusions because of the large proportion of missing data. Whilst midwives were required as part of their duties to make careful record of the ante-natal period, birth and puerperium, they were not required by their rules to note down the age of the mother. This might help to explain why this data was not consistently recorded.

In the column marked 'previous births and miscarriages', the previous pregnancies of the client group were noted and overall this was more accurately recorded than the age data. This was probably a reflection of the requirements set down in the rules of the Central Midwives Board which stated that "When engaged to attend a labour the midwife must interview her patient at the earliest opportunity to enquire as to the course of present and previous pregnancies, labours and puerperia."[4] However, previous pregnancy data was missing from an increasing number of cases, particularly from 1931, but never to such an extent that it was considered to have a significant effect on the results (see Table Nineteen). It was therefore possible to examine the parity of nearly all the women entering the Municipal Maternity Home and to comment upon how this may have influenced the decision to offer a maternity bed.

The age range of the client group between 1924 and 1930 was wide and the women entering the Home in these years ranged in age from 15 years to 46 years old. However, the majority of women entering the Home were between the ages of 20 and

Table 19

Numbers & Percentages of Missing Data Relating to Previous Pregnancies in the Birth Registers

YEAR	TOTAL CASES	MISSING DATA	% OF CASES
1924	353	6	1.70
1925	490	3	0.61
1926	531	3	0.57
1927	591	0	0.00
1928	644	1	0.16
1929	640	3	0.47
1930	851	2	0.24
1931	877	41	4.68
1932	887	26	2.93
1933	892	71	7.96
1934	881	63	7.15
1935	958	48	5.01

Source: Birth Registers from Hull's Municipal Maternity Home.

29 and although there was some fluctuation between years, this group never accounted for less than 58.21 per cent of all cases (in 1927) and at their highest during 1929 accounted for 66.56 per cent of all cases. The largest single age groups were 22, 23 and 24 year olds. It is impossible to make conclusions about the period 1930-1935 because of the inadequate nature of the data.

The parity of the whole data set varied from women having their first child (a parity of 0) to one woman who had had 19 previous pregnancies! However, this data was examined in two groups; the first looked at the period 1924-1930 and also incorporated the ages of the women whilst the second group simply examined the obstetric history (and not the ages) of women in the years 1931-1935. In the period 1924-1930 the largest group of women was those aged between 20-29 and they included a variety of obstetric experience, from women having their first babies to one who had had nine previous labours and miscarriages. Although the previous pregnancies data showed that most women were having their first, second, third or fourth child, there was great variety within the data set for this period.

Increasing numbers of teenagers were admitted to the Home between 1924 and 1930 and all were having their first or second child. In 1924, 19 of the cases were teenagers, the women being between the ages of 17 and 19, but by 1930 this had increased to 65 women between the ages of 15 and 19. Teenage pregnancy is obviously not a modern day phenomena. Whilst the information on marital status- by the recording of either Miss or Mrs- may not be accurate and indeed was often difficult to decipher, there are some cases which are clearly recorded as single mothers. The numbers of unmarried mothers increased each year and numbers rose particularly after 1930 as the Home took over the work of the Poor Law Institutions- these two factors may be connected. In 1924 only 4 cases were recorded as Miss but by 1929 this had reached 26. Numbers increased to a high of 69 in 1931 and thereafter fell reaching 55 in 1935. As there were more unmarried mothers than teenage mothers, not all single mothers were teenagers. However, nearly all of these single mothers were having their first baby and between 1924 and 1926 all the women recorded as Miss were

primigravidae. For the years 1927-1935 the majority were primigravidae although a small proportion had had between one and two previous pregnancies.

Whilst the majority of cases attending the Home between 1924 and 1930 were women in their twenties, increasing numbers of women in their thirties and forties were also having institutional births. In 1924, 22.38 per cent of the clientele were aged 30-46 but by 1930 this had increased to 27.73 per cent. Although less likely to attend the Home, older women were clearly being convinced of the benefits of hospital birth. Again the nature of the data makes it impossible to comment on whether this trend was sustained into the period between 1930- 1935.

Although it is interesting to note the age range of the clientele, what is more significant is the ages at which all these women were having their first baby, second, third and subsequent babies and any changes in this relationship over time. Moreover as both primigravidae and grande multiparous women would have been seen as at risk and therefore in need of a hospital bed, it is possible to identify these groups of women and assess how far parity may have influenced the decision to encourage an institutional delivery. Primigravidae are especially interesting as (where age data is recorded) it may be possible to make some comment on the control of fertility by examining the ages of women having their first births.

Grande multiparous women offer other useful information such as the age at which women were continuing childbirth and how many pregnancies they were having in their lifetimes. Today the consensus is that first, fourth and subsequent births offer the greatest risk of mortality to mothers with the risk being much reduced for second and third births. Grande multiparity is therefore currently defined as a woman who has had four or more children. The problem that confronts us here is that the definition of grande multiparity has changed over time and seems to have taken into account falling fertility rates. Whilst first births were already established as offering a great risk to the mother during the period 1924-1935, the risk assessment of subsequent births was changing. During the inter-war period grande multiparity was associated with ten pregnancies or more as for some women this was not an unusual obstetric history (see

details of the parity of women in this data set for example in Appendix One). But as fertility rates fell so the obstetric experience of women in Britain changed, family size was reduced and fewer women were experiencing large numbers of pregnancies. It would seem that the definition of grande multiparity changed in response to this and by 1947 was defined as a woman having eight or nine pregnancies.[5] There is some uncertainty as to the precise definition used at the time this data was created and so both definitions of grande multiparity have been applied.

Looking at the cross tabulations for the period 1924 to 1930 (see Appendix One), much detailed information about the client group can be extracted. For example, of all ages the largest group was of women having their first (primigravidae), closely followed by those having their second. As has been noted, the ages of the women using the facilities offered by the Municipal Maternity Home ranged from 15-46 years but the majority were in their twenties. For the period 1924-1930 most of the teenage population were having their first child but some were having their second. There were 313 teenage women in total giving birth in the Home during this period and of these only 26 were having their second child- all but one of this later group were aged 19. These teenagers accounted for only a small proportion of the total clientele only 7.63 per cent for the period 1924-1930. This however indicates that despite an overall downward trend in fertility, some women were starting their families at an early age. Although this does not indicate that teenage pregnancy was becoming more prevalent, only that more teenagers were finding their way to the Municipal Maternity Home.

The client population aged between 20 and 29 accounted for a far larger proportion of total cases, some 2517 cases or 61.39 per cent of all women in the period 1924-1930. A large proportion of these women (49.98 per cent) were primigravidae having their first babies and were probably recommended a hospital birth because of this. However, the parity of this particular age group overall ranged from O to 9 and, as expected, as the women got older, fewer were experiencing their first birth and more had experienced a number of previous pregnancies. Those women experiencing their second and third pregnancies accounted for a further 41.04 per cent of this age group

and few were experiencing four or more pregnancies. The proportion of grande-multiparous women was therefore only 3.67 per cent of all cases in this age range between 1924 and 1930 (if using today's definition of grande multiparity) and this situation can mostly be explained by age; that is, grande multiparity would most likely be associated with older age. The great variety of parity amongst women indicates perhaps that there was a wide variety of factors in play: for example, in the age when sexual activity began, in the age of marriage and in the application and success of birth control. Furthermore, this could also be explained if multiparous women were not routinely being admitted to the Home (there is little reason to believe that this second explanation holds true).

Those women aged between 30 and 39 accounted for 945 (or 23.05 per cent) of total cases for the period 1924-1930, and whilst some were experiencing their first pregnancies (over 14 per cent), the majority were having their second and subsequent children. One third of this age group (33.44 per cent) had one or two previous pregnancies and, as might be expected, more of this age group were having their fourth or subsequent child. These women were of an older generation and had had a longer period of fertility. The greatest range in parity occurred amongst women in their thirties and between 1924 and 1930 these women were recorded as having between O and 18 previous pregnancies. One woman aged 39 was recorded as having 18 previous pregnancies and she was admitted to the Home during 1927. This almost constant state of pregnancy may have resulted in poor health and accounted for her admission into the Home. By using a definition of grande multiparity as ten or more pregnancies, 2.33 per cent of this age group fitted this category. However, if today's definition of more than four pregnancies is used, then a higher figure is reached and a total of 52.28 per cent of those women aged 30-39 could be defined as grande multiparous women. Women with high parities were obviously being admitted to the Home but what is apparent is the variety of obstetric experience for women in this age range, which again leads to the conclusion that some form of family limitation was being practised by some women.

Table 20

Parity of Cases in the Birth Registers, 1924-1935

YEAR	NO. OF CASES	% OF PRIMI-GRAVIDAE	% PARITY 1-3	% PARITY 4+	% PARITY 10+
1924	353	32.58	41.08	18.98	1.13
1925	490	44.69	40.00	14.69	0.61
1926	532	40.41	45.68	13.35	1.88
1927	592	39.19	45.10	15.71	1.86
1928	645	46.67	38.60	14.57	1.40
1929	640	45.94	40.16	13.44	1.88
1930	851	44.18	42.54	12.81	0.71
1931	877	41.85	38.66	14.82	1.48
1932	887	40.81	43.18	13.30	1.80
1933	892	42.60	34.64	14.80	1.23
1934	881	43.13	37.12	12.60	1.48
1935	958	42.90	38.62	13.47	1.36

Source: Birth Registers from the Municpal Maternity Home

Whilst those women aged 40-46 only accounted for 145 cases between 1924 and 1930, or 3.54 per cent of total cases in this period, there was some variety in their obstetric experience. Five were experiencing their first birth and whilst this could be accounted for by late marriage, the possibility of the application of some form of birth control or fertility problems must also be considered. Most of this age group were not experiencing their first birth but were having second or subsequent children. Although most were recorded as having had nine previous pregnancies or under, there were 24 women who had had ten previous pregnancies or more. Many of these women would probably have been recommended a hospital birth because of their age and/or their status as grande multiparous women.

The data for the period 1931-1935 is less complete and it is impossible to create cross tabulations showing the relationship between age and parity. However, it is possible to examine the parity alone of the clientele and to compare it to that for the period 1924-1930 (see Table Twenty). Overall primigravidae remained the majority of the clientele for the whole period 1924-1935 but there was some fluctuation between years and during 1924, 1926, 1927 and 1932 women with between 1 and 3 previous pregnancies accounted for the majority of the clientele. In some respects the predominance of primigravidae is to be expected as they were encouraged to attend by the hospital's admission policy. Women having their second, third or fourth baby also made up a substantial proportion of the client group between 1924 and 1935, although they were unlikely to have been admitted due to their parity alone and other factors may have been responsible for their admission. Those who could be defined as grande multigravidae made up (depending on the definition used) a smaller proportion of cases and although there was some variety over time, they never accounted for more than 20 per cent of all cases. Whilst there was some variation in the parities of the clientele between years, over the period 1924-1935 on the whole the client group consisted predominantly of two groups: those having their first baby (who would have been recommended an institutional birth because of this fact) and those having a second,

third or fourth baby. As these women were not regarded as at risk, other factors must have contributed to their admission.

Having now established something of the age range and obstetric history of the whole data set, it is also possible to identify the catchment area of the Home and to make suggestions about the probable social class position of the client group by looking at the address data. The assumption here is that those on low incomes will inhabit the worst standards of housing and therefore that broadly speaking, working class occupants will be found in those areas of Hull known to have poor standards of housing.

When a woman entered the Municipal Maternity Home her personal details were taken including her address. Whilst other lines of investigation were hampered by the absence of data, this was not the case for the address data which was recorded fairly consistently. In an effort to work more easily with this data, each case was located on a map and given a map reference, thus enabling patterns of density in different areas of the city to emerge. From this information, it was possible to speculate on the general standards of housing in which the clients lived as certain areas of the city were well known as being made up predominantly of slum dwellings. Poor standards of housing were considered a suitable reason to recommend a hospital birth but as large numbers of women lived in such accommodation, it is unlikely that this alone was used to recommend admission. Moreover due to the tradition of home births, many women would not see the need for a hospital birth simply because local medics had deemed their home unfit. Generation after generation was born in the same house and this would no doubt have affected the decision on place of birth. A poor domestic environment would most likely have been combined with some other risk factor to help strengthen the case for admission to the Home and persuade the woman of its advantages.

The majority of the clientele were women living in the city and a basic pattern emerges of the areas inhabited by the Home's clientele which did not alter for the entire period but was extended as the Home expanded its catchment area. Whilst there is expansion in the catchment area of the Home to include the villages and towns of the

Wolds and East Riding as well as other areas within the city, most of the women inhabited areas located around the major roads out of the city to the West (Hessle Road, Anlaby Road and Spring Bank); to the East (Holderness Road and Hedon Road); to the North (Beverley Road and Wincolmlee); and those areas in the city centre (such as Lowgate and Witham). This is referred to as the basic catchment area. An increase in admissions can be seen from the North and West of the city such as the areas around Newland Avenue, Princes Avenue, Chanterlands Avenue and the Dukeries. However, the expansion into new areas of the city was not always regular or sustained; for example, in 1926 there were three new areas from which groups of clients were coming from: the first covered the northern end of Beverley Road, Newland Avenue and Princes Avenue; the second, Anlaby Road, West of Hawthorne Avenue and North of Hessle Road; and the third, the Humber Dock area. Whilst a number of clients continued to come from both groups one and three, there was some fluctuation in those coming from the Western area covered by group two.

Despite the expansion of the Home's catchment area in the period 1924-1935 the majority of women continued to be drawn from the same areas of the city. Of the 353 cases during 1924, 84.99 per cent lived within the basic catchment area (as outlined above) and by 1935, whilst the catchment area had expanded and more women were coming from new areas within the city, the proportion who lived in this original area still accounted for 83.63 per cent of the whole client group. There are two points which need to be made here. Firstly, many of the streets in the basic catchment area, particularly in the area around and close to the city centre, were regarded as slum dwellings or had particularly poor standards of housing. Secondly, whilst many were drawn from this area, the Home was expanding its catchment area and clearly women were also coming from other areas in the city. However whilst it is difficult to be precise, the majority of the clientele were probably from working class communities in the city. Furthermore as more council houses were being built in the twenties and thirties, more women were recorded as inhabiting these areas. Mostly on the outskirts of the city, these new estates continually contributed to the client group; for example a

consistent number of women from the Gypsyville area (predominantly a council estate with a few streets of private dwellings) were attracted to the Home and as the Orchard Park estate in the North of the city grew so more women having their babies in the Home were recorded as living there- from 1 in 1929 to 44 in 1935. These women would certainly not have been admitted because of poor standards of housing and due to the higher rents on these estates would most likely have occupied the upper echelons of the working class or the lower end of the middle class. Conclusions in this regard can only be very tentative but the point can be made that the Home was not catering for women from the middle or upper classes in Hull.

Other cases came from outside the city, predominantly from rural areas or small market towns in the Wolds but some came from further afield from as far away as Scarborough and Lincoln. Whilst numbers of these cases were relatively small, they did begin to increase, particularly after 1929. In 1924 no cases of women from outside the city of Hull were recorded as having their babies in the Home but by 1925 this had changed, with 7 coming from Beverley, Cottingham, Driffield, North Cave and Scarborough. Numbers remained small until 1929 when the catchment area appears to have expanded and 29 women from outlying areas were admitted. By 1935 numbers had expanded to 47 and they were coming from the Wolds villages, East Coast and South of the River Humber. Whilst cases from outside the city did not form a majority, they were increasing in numbers during the period, an indication of an expansion of the role and importance of the Maternity Home in the region. Furthermore, there is little remaining evidence to indicate the domestic circumstances of these women and so little comment can really be made as to who they were. It is perhaps as a result of changes under the 1929 Local Government Act that the Home became responsible for more maternity cases. However, it must also be considered that these women might have paid to enter the Home and chosen a hospital birth or were visiting Hull at the start of labour- this is unclear from the Registers.

Whilst there has been some discussion of this data at an earlier stage in this research, particularly in Chapter Four, it is worth reiterating the point that whilst the

Home had been developed to cater for poor women, it did not remain a service exclusively for the very poor. No free cases were allocated in 1926 and by 1930 these had only increased to 8. However, the following years saw a marked increase in free and Public Assistance cases (which were admitted free of charge) and by 1935 these accounted for 25.47 per cent of total cases for that year- a reaction perhaps to the worsening economic situation and changes in Poor Law provision.

All applications to the Home were considered and assessed for levels of payment. Very few applications for a bed were turned down indeed during the period 1926-1935 only 1 application was refused. Whilst few applicants were refused, some did not continue with a hospital birth. However whilst there were obviously a wide variety of incomes amongst the clientele judging by the range of fees paid, it is unlikely that the Home would have been used by many from the middle and upper classes. Most of the clientele would have been working class women in receipt of maternity benefit as most paid between 20s and 39s 11d, the equivalent to the amount of benefit paid. In 1926 those paying this amount accounted for over 72 per cent of cases but by 1935 this had fallen to just over 65 per cent. The composition of the clientele changed slightly over the period as more and more women were admitted free of charge as a consequence of the changes under the 1929 Local Government Act. Some paid between 40s and 59s 11d, but whilst these accounted for 32 per cent of cases in 1926, their numbers had fallen to account for only 17.22 per cent of cases by 1935. Whilst the numbers of free cases as a proportion of total cases increases therefore, most women were contributing something towards the cost of their care. At the other end of the scale, very few women could afford to pay in full. In 1926 the number of women paying the full fee accounted for nearly 12 per cent of all cases for that year but this had fallen to 7.10 per cent in 1935. This information, whilst not related to specific cases, does seem to support the assertion that the majority of the clientele were working class. Whilst the Home had been developed to cater for the very poor it moved away from this ideal only to have to return to it when changes were made to the city's Poor Law provision. Further confirmation about the social class composition of the client group can be obtained by

Table 21

Assessment of Fees Payable by Clientele of the Municipal Maternity Home

YEAR	FREE	UNDER 20s	20s- 39s 11d	40s-59s 11d	60s AND OVER
1926	0	61	386	170	62
1927	1	45	450	119	72
1928	1	41	517	131	78
1929	3	18	458	130	90
1930	8	1	510	237	122
1931	19	19	641	167	86
1932	16	53	640	134	61
1933	38	99	621	124	77
1934	37	134	577	134	66
1935	40	105	625	165	68

YEAR	PAC	VD	OUTSIDE
1930	64	2	-
1931	95	6	-
1932	134	6	43
1933	152	1	29
1934	180	1	37
1935	204	0	42

Between 1926 and 1928 figures are for all assessments made whether taken up or not but from 1929 the figures record those assessments actually taken up.

Source: Medical Officer of Health for Hull Annual Report.

examining the pattern of fees paid by the whole client group for the period 1924-1935. Table Twenty One provides much detailed information about the status of the whole client group (in this table P.A.C. refers to women on Public Assistance and V.D. to women admitted with venereal disease) but unfortunately this data cannot be related to individual cases contained in the Birth Registers as it is taken from the Annual Reports of the Medical Officer of Health for Hull.

Certain conclusions can therefore be drawn about the age and parity of the clientele of Hull's Municipal Maternity Home and the areas of the city they occupied and this information helps in answering the central question of who these women were and why they were giving birth at the Home. The women who entered the Home between 1924 and 1930 were aged between 15 and 46, although the largest single age group was of women aged 20- 29 and within this, those aged 22, 23 and 24 made up the largest proportion. However as the period progressed, both the numbers of teenagers admitted and women in their thirties and forties increased. Whilst the Home had been originally established for married women, there were now a number of single women using the Home. Their numbers increased particularly after 1930, probably in response to changes under the Local Government Act which broadened the scope of the work of the Home although their admission had been encouraged (particularly if they were primigravidae) before 1924 by the Medical Officer of Health. However, their numbers remained small (under 5 per cent of cases per year) until 1930. Whilst cases of teenage pregnancies and single women did not make up a large proportion of the clientele of the Home, they did form a part of the work of the Home especially after 1930 when the Poor Law beds were closed.

By examining the parity of the clientele, it is possible to reveal the obstetric histories of a large number of women. The first point to note is that despite changing patterns of fertility and falling family sizes, many women were still experiencing long years of childbearing. The range of obstetric experience was wide, from a majority of women who had not been pregnant before to a woman who had had nineteen previous pregnancies. Despite the overall wide range of parities in this client group, the largest

group of women was those having their first child (primigravidae). Those with previous pregnancies numbering one, two and three made up the next largest group, whilst those who had had four pregnancies or more (grande multigravidae) made up the third but much smaller group. Of the whole data set, 42.51 per cent were having their first babies (parity 0), 40.45 per cent were having their second, third or fourth babies (parities of 1-3), and 14.10 per cent were having their fifth and subsequent babies (parities of 4 and over)

Whilst it is useful to know the overall parities of the women attending the Home, what is more interesting is the ages at which they were having their babies. Most of those in their twenties were having their first, second or third babies whilst the older age groups had wider-ranging obstetric histories. In fact most of those women in their thirties were having their fourth and subsequent pregnancies although a wide range of parities was recorded between O and 18. Women in their forties were also experiencing a wide number of pregnancies-from O to 19, although numbers in this group were significantly smaller. The main point to note is that whilst there were changes to national patterns of fertility which suggest that family sizes generally were falling, women using Hull's Maternity Home had a wide range of obstetric experience. As women were having different numbers of pregnancies at a variety of ages, it seems reasonable to conclude that fertility control was being practised by some of them either to space children or to prolong the period before the birth of the first child. It is not within the remit of this study to follow up these ideas but there is scope here for further local research. Because of the nature of the data it is not possible to continue the age analysis of the clientele although from the data from previous pregnancies, it would appear that the Home was catering predominantly for primigravidae and women having their second, third and fourth child and that these women were probably in their twenties and thirties.

Further information about who exactly the clientele of the Home was can be gained from the address data contained in the Birth Registers and from details about payment of fees. Most of the women lived in Hull, in the areas around the town centre

and off the main roads out of the city, and despite some expansion of the local catchment area, most of the women still came from the central areas. Many of these areas contained some of the worst standards of accommodation in the city and as a consequence it would seem reasonable to assume that the majority of the clientele were working class women. However, these were not the only clientele and increasingly, women who lived in the newly developed council estates were being admitted as well as women from surrounding villages and seaside towns, some even from south of the River Humber. This general conclusion about the social class composition of the clientele is further supported by the available evidence relating to the payment of fees and many appear to have been using their maternity benefit to pay for their care.

Whilst much of the above helps answer the question of who these women were, there is still the question of why they were attending the Home. It is fairly straightforward to explain the reasons for admission of both primigravidae and grande multigravidae. They were admitted because they were seen as being at risk, either because they had not had a baby before and had no obstetric history or because they had four or more children and were at increased risk of maternal mortality. However, it is less simple to ascertain why those women having their second, third or fourth babies should have been admitted. By examining the address data, conclusions have been made about the areas occupied by the clientele and suggestions made about the probability of admission due to poor domestic environment. Whilst this was a factor taken into consideration when recommending a hospital birth, it was probably used in addition to a number of other factors which also need examining.

One of the main reasons for admission was that the woman had some medical or obstetric complication of pregnancy, birth or the puerperium which meant she was considered in need of a hospital bed. If the data set is examined to see how many cases were either complicated or satisfactory, the results should help answer the question of why these women were in the Home. Again we return to initial conclusions which suggested that most admissions were in fact normal cases. Looking again at Table Sixteen, it is possible to account for approximately one third of the data set and argue

that they were admitted due to some complication which was diagnosed during the pregnancy, birth or the puerperium. According to the admission policy, this would make them eligible for a hospital birth. However, it is difficult to be precise about how many of these women were predicted as likely to have some complication (and therefore were recommended a hospital bed due to some medical reason or because of their obstetric history) and how many developed some complication at a later stage which had not been identified. It is possible to extract all those cases recorded as having a complication ante-natally and to be fairly certain that these women would have been recommended a hospital birth and booked a bed, but it is difficult to be certain as to why the rest attended. Some would have been transferred from domiciliary care and according to the Medical Officer of Health's Annual Reports, cases were transferred from midwifery practice and from General Practitioner care.

Complicated cases did not however account for the whole of the maternity hospital's work and never accounted for more than 38.62 per cent of cases in any one year. In 1924 complicated cases accounted for just over 38 per cent of cases and fluctuated around this point until 1931 when there was a dramatic reduction in the proportion of complicated cases treated at the Home with only 18.02 per cent of cases being thus defined during that year. Thereafter, the proportion of complicated cases rose to a high of 38.62 per cent in 1935. The majority of the work of Hull's Municipal Maternity Home was therefore with normal childbirth, satisfactory cases that experienced no deviation from the expected pattern of pregnancy, birth and the puerperium. Throughout the period under consideration there were 8595 cases recorded as attending the Municipal Maternity Home and of these, 5827 (67.80 per cent) were satisfactory cases. Looking at individual years, the number of satisfactory cases never fell below 61 per cent and in fact the percentage of normal cases increased each year up to and including 1931 when nearly 82 per cent of cases were recorded as without complication. Thereafter, the proportion of satisfactory cases fell back and was again around 61 per cent by 1935. It is an important point which is worth stressing that whilst the Municipal Maternity Home had been developed to cater for complicated cases, the

majority of its work was not with complicated cases at all but in the realm of normal childbirth.

Most of the women were attended by midwives during birth and never needed to see a doctor during the entire length of their stay. Of all the cases between 1924 and 1935, doctors attended 1389 in total or 16.16 per cent and most of these, although not all, were complications. It was not made clear in the Birth Registers at which stage the doctor was called although most appear to have been for the labour itself. Clearly most of the Home's clientele did not require the attention of a doctor and could be safely attended by midwives. Whilst it must be considered that ante-natal notes may have indicated that some of these women had been predicted as at risk from some medical or obstetric condition that did not materialise, other satisfactory cases may also have been primigravidae or grande multiparae whose predicted risk category did not result in complications. Other factors such as personal choice or the advice of medical professionals may have also influenced the decision to have a hospital birth. It is more likely that a combination of several factors encouraged these women to have hospital births and it is impossible to be precise about the reasons these women were motivated into having an institutional birth.

It is impossible to suggest how many of the satisfactory cases were women who had been referred to the Home ante-natally. However from data supplied in the Annual Reports of the Medical Officer of Health for Hull, it would seem that increasing numbers were being referred from the local authority's general ante-natal clinic. During the period 1925-1935 a total of 909 (11 per cent of total cases) were referred to the Home from this clinic. However, the proportions referred did not remain constant but increased each year. In the period up to 1930 the numbers of women referred from the clinic were fairly small, accounting for under 10 per cent of all cases. However, these ante-natal referrals became more important after 1930, climbing from nearly 13 per cent of all cases in 1931 to nearly 20 per cent of total cases for the year 1935. Clearly more and more of the Home's clients were being referred from the expanding ante-natal service whilst other women would have been referred to the Home by doctors in private

Table 22

Numbers and Percentages of Primigravidae Recorded as Satisfactory

YEAR	NO. OF PRIMIGRAVIDAE	AS % OF SATISFACTORY CASES
1924	58	26.73
1925	113	37.29
1926	114	32.67
1927	122	30.73
1928	171	39.86
1929	170	39.08
1930	227	38.67
1931	282	39.22
1932	232	36.42
1933	208	36.49
1934	245	41.11
1935	212	36.05
TOTAL	2154	36.97

Source: Birth Registers from Hull's Municipal Maternity Home

practice, and indeed there is evidence to suggest that after 1931 G.P. admissions did increase quite substantially. Of course we cannot be sure how many satisfactory cases were being referred either by the ante-natal clinics or by doctors from private practice but it seems reasonable to assume that doctors would not refer women who could have easily had a home birth as this would mean a loss of income for them.

What is more easily calculable from the Birth Registers is the number of primigravidae who were recorded as experiencing a satisfactory pregnancy, birth and puerperium. As has been stated earlier, the number of satisfactory cases for the period 1924-1935 was 5827, and of these 2154 were recorded as primigravidae, which is approximately 37 per cent of all satisfactory cases (see Table Twenty Two). Throughout the period under investigation primigravidae represented a substantial proportion of all satisfactory cases, rising from 26.73 per cent in 1924, and fluctuating between 30.73 and 39.86 per cent before reaching a peak of 41.11 per cent in 1934. This would seem to provide evidence to support the claim that hospital policy was encouraging women having their first babies to have a hospital birth and that despite the insistence of the medical profession, a high proportion of these were experiencing no complications at all. Of course what is not clear from this data is how many of these women desired a hospital birth rather than being recommended one and whether other factors contributed to them being recommended to attend the Home. However, the fact that a woman was having her first baby was reason enough to advise her to be admitted to the Home during the period 1924-1935, although this policy seems to have been developed locally to cater for the needs of pupil midwives and not for the benefit of mothers. Many of these first births could have easily been conducted by adequate domiciliary care within the women's own homes but as primigravidae were increasingly seen as at risk, they were recommended to attend.

Whilst a large proportion of women were obviously advised to attend the Home because they had not had a baby before, they do not form the whole of the satisfactory cases and so some examination of the 3673 cases remaining is needed. One possible explanation for some of these women being admitted to the Home is that they were

Table 23

Numbers and Percentages of Grande Multiparous Cases Recorded as Satisfactory

YEAR	A	B	AS A % OF SATISFACTORY CASES	
			A	B
1924	4	1.84	1.84	18.43
1925	2	0.66	0.66	15.84
1926	3	0.86	0.86	14.04
1927	5	1.26	1.26	17.13
1928	5	1.17	1.17	14.22
1929	5	1.15	1.15	14.48
1930	3	0.51	0.51	11.76
1931	12	1.67	1.67	15.02
1932	12	1.88	1.88	12.72
1933	7	1.23	1.23	15.44
1934	8	1.34	1.34	12.42
1935	10	1.70	1.70	15.14
TOTAL	76	1.30	1.30	14.38

A = Grande Multiparity defined as 10 pregnancies and over.
B = Grande Multiparity defined as 4 pregnancies and over.

Source: Birth Registers from Hull's Municipal Maternity Home.

considered at risk because they had had many children and were categorised as Grande Multiparae. Although multiparity was not mentioned as a criteria for admission in the Annual Reports of the Medical Officer of Health for Hull, it is clear that medical opinion at the time considered grande mutiparity a situation that could lead to complications. Using both definitions of grande multiparity outlined earlier, the Birth Register data indicates that somewhere between 1.30 and 14.38 per cent of satisfactory cases can be described as representing grande multiparous women (see Table Twenty Three).

By assessing the obstetric history of the satisfactory cases, it is possible to account for somewhere between 48.62 and 61.70 per cent of all satisfactory cases as being either primigravidae or grande multiparous and to conclude that these women were probably recommended to have a hospital birth by the medical profession. Furthermore, as more women were being seen at local authority ante-natal clinics, many could have been referred from there.

Despite these calculations, this still leaves between 2835 and 3597 women who entered the Home, had normal births (who were considered obstetrically safe) and were having their second, third or fourth baby. The factors explaining why this group were admitted are more difficult to isolate. One explanation could be that these women were admitted for a hospital birth by paying the full fee. Although the admission policy of the Home seems to suggest that women could only get a bed if they did not fit the criteria by paying a 63s per week fee (a change introduced in 1925), this was quite clearly not being strictly adhered to. Assessment took place upon applying for a hospital bed and remained fixed. From the data available on both fees payable and applications granted it is not possible to suggest that all the remaining satisfactory cases (between 2835 and 3597 women) were paying fully for their care. Between 1929 and 1935 of those assessments taken up, only a total of 570 paid over 60s per week (9.52 % of total cases for that period). Furthermore, the address data suggests that a large proportion of the clientele were coming from the working class and it is unlikely that these women would have been able to afford the 63s fee, even with the help of the maternity benefit payable

to some under the National Insurance Scheme. It would appear that the policy of only allowing choice to those who could pay was not being adhered to and that some women were allowed to enter the Home without paying the full fee. This is confirmed by the Medical Officer of Health who commented as early as 1925 that "should they desire to stay in the Home on other than medical grounds, they are charged at the rate per week fixed originally."[6] It would therefore be inaccurate to suggest that only those women paying fully for their care had chosen a hospital birth as the rule was not strictly applied. Because of this it is difficult to be precise about who was attending through choice, although personal preference may well have been more important than initial comments in Chapter Four had suggested.

Whilst we cannot be sure how many were attending through personal choice, we must consider that this may have played an important part in local women choosing to give birth in the Maternity Home. Some women may have wished to enter the Home to have their babies because they wanted to ensure proper care, attention, rest and recuperation, because they felt that this was the best environment in which to give birth or because they were worried about the high levels of maternal mortality. Without either ante-natal notes, admission details or oral history testimony for a cross section of these women, it is impossible to be certain of how important such notions of personal choice were to the clientele of Hull's Municipal Maternity Home.

Another factor that may have accounted for the admission of these women was if their home environments were considered unsuitable for a home birth. As has been seen from the address data, the majority of the Home's clientele came from those areas in the city not necessarily associated with the best standards of housing. The satisfactory cases inhabited the same areas as the complicated cases and were not disproportionately distributed amongst slum areas. As some came from areas of the city associated with poor standards of accommodation, it is therefore possible that they may have been admitted due to their domestic environment alone. However, firm conclusions about the importance of this factor cannot be made. Although the clientele inhabited those areas of the city generally associated with poor housing, it is impossible to be absolutely

certain of the standards of housing of individual clients as standards varied from street to street and from house to house.

Some of the women with satisfactory births, labours and puerperia also came from the Gypsyville area of the city which was made up of both the council house estate and a few areas of private dwellings. After 1928 more women came from the Preston Road area on the eastern side of the city and after 1932 women increasingly came from the Orchard Park council house estate but these accounted for less than ten per cent of all satisfactory cases. In a minority of cases, it is puzzling why these women should have attended the Home at all as they had no complication and lived in newly-built council accommodation. One likely explanation is that these women may have been targeted by the Corporation and may have been more likely to attend ante-natal clinics and to spend money on a hospital birth seeing it as a sensible choice. Another is that they may have preferred a hospital birth because they were living away from their immediate family. However, there is no way of being certain about this group's motives for entering the Home for the birth of their children.

Other satisfactory cases came from outside the city (especially after 1930) predominantly from rural areas or small market towns where midwives or doctors may have recommended a hospital birth if facilities were inadequate but personal choice must also be considered here too. Whilst these never formed a substantial percentage of the client group- for the whole period between 1924 and 1935 these cases amounted to 2.37 per cent of all satisfactory cases- they did increase in numbers after 1930. Between 1930 and 1935, 106 women who had satisfactory births came from outside the Hull area. However it is not the numbers of these women that are significant, rather the fact that these women travelled some distance to reach the Home at a time when the ambulance service was in its infancy. As they went on to have uncomplicated births, the question of why they needed a hospital birth must be asked. This leads to the conclusion that these women were booked for a hospital birth due to their domestic environment or through choice or were simply visiting Hull when labour began.

Overall conclusions as to the reasons why women who went on to have satisfactory pregnancies, births and puerperia had a hospital birth are necessarily more speculative as little actual evidence remains to indicate why the women were admitted. Certain groups of women can be easily extracted from the data set and their admission be explained by either their status as primigravidae or grande multigravidae. However, a large proportion of the work of the Municipal Maternity Home was with normal cases who are not recorded as having any complication or risk factor. Complicated cases accounted for approximately one third of all admissions whilst normal cases accounted for the remainder. Some women without obstetric or medical complication may have been admitted due to their parity but there were still a substantial number for whom the reason for their admission could not be accurately located. It would appear, therefore, that a substantial proportion of these women were admitted either due to the fact that their domestic environment was poor or because they desired a hospital birth and local maternity hospital policy did not prevent these women from having an institutional birth. Bearing in mind the wider context within which this expansion of hospital deliveries takes place- the expansion of local maternity services and the debate about high maternal mortality- this is perhaps not so surprising, although it remains difficult to quantify statistically.

As a result of the data supplied in the Birth Registers, a fairly detailed picture of the client group can be constructed. As has been stated, the majority of the Home's clientele were working class women in their twenties, mostly having their first child. However, whilst primigravidae made up the largest group they were closely followed by women having subsequent births who were not traditionally considered at risk. Whilst the Home had been created to deal with poor women and complicated cases and these functions were retained, the majority of the clientele were women paying towards the costs of their care and experiencing normal pregnancies, births and puerperia. Most lived within the central areas of the city, which were dominated by poor standards of housing, although increasing numbers were coming from the outskirts especially from the newly constructed council estates. Whilst the majority of the clientele were women

from Hull, the catchment area of the Home was widening and covered the Wolds, parts of Lincolnshire and East Yorkshire. Although hospital birth was promoted by the local authority in Hull as part of the Maternity and Child Welfare Scheme, it would seem that women in Hull also chose to have a hospital birth.

Complicated Childbirth.

It is impossible to comment on the experience of hospital birth for the entire client group as most were normal births with no record of their time at the Home, other than to say it was satisfactory. This next section however does not attempt to give a broad picture of the experience of hospital childbirth generally. Instead it concentrates on one small group of women (who had some recorded complication) to give some indication of part of the work carried out by the doctors and midwives working at the Home.

Whilst this section is an attempt to look closely at how women with complications or deviations from the pattern of normal childbirth were treated whilst they were in the Home, it must be remembered that the Birth Registers provide a very particular type of data. The information which is extractable from these records is purely the medical view of the women's time at the Home. It illustrates the medical response to varying 'abnormalities' and gives no indication of the psychological impact of birth. The information relates only to the complications suffered and the medical attempts to remedy these and offers nothing to indicate how the woman herself felt about the care she received (the Birth Registers do not often record the emotional feelings of the clientele- unless staff considered them abnormal). Indeed it is interesting to note that the medical approach to birth regarded only the abnormal as worth recording. This reflects the general organisation of medicine which is far more interested in the unusual than the usual. However whilst appropriate in some areas, this approach has had serious implications for the medical care of pregnant women.

Of the 8595 women attending the Home between 1924 and 1935, only 2768 or 32.2 per cent were classified as complicated. Whilst it is important to remember that these births were by no means representative of the whole sample or of the experience

Table 24

Complicated Cases, 1924-1935

YEAR	TOTAL COMPLICATED CASES	STAGE 1	STAGE 2	STAGE 3	COMBINATION
1924	136	6	71	28	31
1925	187	15	102	35	35
1926	181	13	103	31	34
1927	194	17	105	29	43
1928	215	16	125	28	46
1929	205	15	123	27	40
1930	263	24	169	11	59
1931	158	13	91	18	36
1932	249	41	146	19	43
1933	316	43	179	32	62
1934	285	38	159	33	55
1935	370	48	228	37	57

Key: Stage 1 - Ante-natal complications
Stage 2 - Complications during birth
Stage 3 - Complications during the puerperium

Source: Birth Registers from the Municipal Maternity Home.

of hospital birth generally, they do provide detailed information about some of the work performed at the Home and of the type of service offered. By looking specifically at the complicated cases it is possible to examine the type of complications dealt with by the staff at the Home, the procedures applied and the success of these. Furthermore close examination of the data also provides information about when complications occurred i.e. ante-natally, during labour, in the puerperium or in a combination of these. In particular this study is also concerned with the incidence of puerperal pyrexia, fever and mania as well as with cases of abortion (both spontaneous and induced), the application of caesarian section and numbers and causes of maternal deaths.

As previously discussed these women were further grouped according to the stage of labour at which their particular complication occurred. Each case was assigned to one of four categories:

1) Those women who only had ante-natal complications

2) Those with abnormalities during all three stages of the labour

3) Women with abnormalities during the puerperium

4) Those women who had complications in more than one of the above.

The results of this method of grouping are shown in Table Twenty Four. Because of clerical or computer error the figures recorded in this table are not always the same as those quoted in Table Sixteen. Four years show different figures: 1926, 1930, 1932 and 1933. However the numbers are small enough to be insignificant and with a large data set of over 8500 cases some allowance must be made for a small margin of error. Indeed this applies throughout this study. Table Twenty Four clearly shows that the number of complicated cases fluctuated from year to year, whilst the proportion of cases allocated to each category generally appears to have remained the same for the entire period between 1924 and 1935 and the majority of complications appeared to have occurred in group 2 (that is during labour). By examining all the data from the complicated cases manually, and not by computer, it was possible to become very familiar with the types of complications women had and the procedures adopted by the staff to try and remedy them and so what now follows is a detailed discussion of these

complicated cases. Illustrations will be drawn from the whole data set, some cases being used because they show the typical response to a complication and others because they give details of the more unusual or difficult cases. In this way, it is possible to build up a picture of the range of obstetric work carried out at the Home.

Ante-Natal Complications.

The number of ante-natal problems experienced by the clientele increased both as a proportion of total complicated cases and in numbers over the period 1924-1935, although overall they accounted for only a small proportion of cases. During the first year for which data is available from the Birth Registers, only six of the women admitted were having a hospital birth due to some recorded problem ante-natally, but by 1935 this had increased to 48. As a proportion of all complicated cases, this amounted to 4.41 per cent in 1924 and 12.97 per cent in 1935 and this seems to have been a reflection of the increased application of ante-natal care generally.

The ante-natal complications themselves can be divided into two main groups: firstly, those problems that are associated with pregnancy such as toxaemia or albuminuria and secondly, those which are not obstetric and not directly related to pregnancy but are medical such as tuberculosis and influenza. The range of obstetric ante-natal problems amongst the complicated cases in the data set was wide, including: abortion (which will be dealt with separately), albuminuria, anaemia, ante-partum haemorrhage, disproportion, eclampsia, hydramnios, obstruction, history of post-partum haemorrhage, placenta praevia, prolapsed cord, pyelitis, pyrexia, toxaemia and abnormal presentations of the foetus such as face presentation, extended legs, transverse lie, breech and other conditions relating directly to the foetus such as hydrocephalus, anencophaly and no foetal heart. Some cases also had long-standing gynaecological problems which were also allocated to this category such as a history of vaginal discharge, growth on the uterus and vaginal cysts. Some were quite clearly noted as being referred from the ante-natal clinic whilst some had been referred from general practice and from the domiciliary midwives. Also some women appear to have arranged

a place at the Home themselves and some of these went on to develop ante-natal problems once admitted.

The most common obstetric ante-natal problem was ante-partum haemorrhage (APH) which can be defined as any haemorrhage (or loss of blood) which occurred before the birth of the child. It seems reasonable to assume that as most women would be aware that bleeding during pregnancy could indicate a problem needing further investigation that this would be the most often recorded complication. There were 88 cases during the period 1924-1935 which had some complication ante-natally which included APH and of these, 15 were primigravidae (who formed the largest single group)-the remainder ranging in parity from 1 to 12. The problem was not therefore confined to those experiencing pregnancy for the first time. Once diagnosed, APH was usually treated in the same way (although this depended on the apparent cause of the bleeding); firstly efforts were made to stop the bleeding and secondly (if appropriate) labour was precipitated. Usually only those babies fully gestational survived; for example, in one case during 1924 labour was induced by the artificial rupture of the membranes (a procedure not used as part of normal childbirth) carried out at full term by Dr. Townend which resulted in a healthy mother and child. However, with most cases of APH labour began spontaneously and was often accompanied by stillbirth. For example, in 1926 one woman's labour spontaneously started following APH and culminated in a stillbirth of 33 weeks gestation.

There is little information to indicate that any aggressive treatment was given for APH and a doctor was not always in attendance at these labours. Whilst attempts were made to stop the bleeding following APH, staff were not always successful. In one case during 1932 for example, a woman had been haemorrhaging for two weeks prior to the birth despite being in the Home for the entire time. Her baby was stillborn and she was transferred to the Anlaby Road Infirmary to be nursed post-natally. However at the other end of the spectrum, an APH could be slight and not affect the baby or mother as in a case during 1935 which resulted in a full term baby being born alive. It would seem that little intervention was offered in cases of APH other than to stop the bleeding,

provide rest and induce the labour; no drugs were recorded as being given to the mother and specialist attendance at the birth (in the form of the doctor) was not always required.

Sometimes the bleeding was an indication of problems with the placenta. In one case during 1929 a woman had been admitted due to APH and an absence of a foetal heartbeat. She was subsequently found to have a completely separated placenta and went on to deliver a stillborn baby. In 1930 a similar case occurred, with APH being accompanied by placenta praevia (abnormally situated placenta). This woman's baby was in the breech position and was delivered by the Resident Medical Officer. Unfortunately (but typically) the baby was stillborn as it was only of 25 weeks' gestation.

Whilst the Birth Registers record the events surrounding APH, they do not consider the emotional effect on the mother. Although many of the labours following APH resulted in stillbirth or infant death due to prematurity there is no indication that the mothers received any help or advice through what would be a difficult time. In one case during 1931, a baby born following APH died after a few hours. Although the mother was having her first pregnancy there is no record of whether/how staff helped her cope with this loss and these women appear to have spent their puerperia on the wards with the new mothers.

The second most commonly experienced obstetric ante-natal complication were the toxaemias of pregnancy. In some cases simply the word 'toxaemia' was noted but in others the specific type of toxaemia was recorded. In this data set these were albuminuria and eclampsia. Of all the cases having toxaemia during the ante-natal period without further complication later in their labour or puerperium, 55 were primigravidae. Whilst first time mothers were most likely to suffer, women having their second and subsequent children were also affected but in far fewer numbers. All the cases of unspecific ante-natal toxaemia (seven in total) were attended by midwives and despite some prematurity on the part of the infants only one died several days after birth. Little information is given as to any treatment other than rest and observation.

Of the toxaemias experienced in pregnancy albuminuria (the presence of protein in the urine) was the most common amongst the patients at the Municipal Maternity Home. More cases were referred to the Home as techniques were developed and implemented to detect the presence of protein in the urine ante-natally. Albuminuria is not a complication in itself other than it might indicate problems with the working of the kidneys. However albuminuria can be an indication of the onset of eclampsia, which is potentially life threatening to the mother. As ante-natal clinic attendances increased and diagnostic tests were developed, more women were detected as having albuminuria and referred to the Home. Many of the case notes simply commented that albuminuria was present and some added that the woman was taken in for treatment although there was no other information to indicate what exactly this treatment was. For example, one woman in 1926 was admitted for a month before labour commenced and another in 1928 was taken in for two weeks. This is typical of the Birth Registers which showed albuminuria was present but did not indicate what course of treatment was followed. Midwifery texts of the time suggest several different ways of coping with the problem such as bed rest, a low protein diet and observation for the onset of eclampsia. It can be assumed that women would have received this kind of treatment at the Municipal Maternity Home but there is no explicit evidence to indicate which course of action was followed.

Another toxaemia noted amongst the clientele was eclampsia and whilst this was potentially life threatening, no mother died of this cause alone. As midwives attended the majority of these cases, it can be assumed either that the midwife working in the maternity hospital was expected to take responsibility for serious complications (normally the preserve of the doctor) or that most of the cases in the Home were pre-eclamptic (that is without the associated fits). As a few cases are recorded as having eclamptic fits during labour, it would appear that the role of the midwife was somewhat different to her role on the District. The rate of stillbirth was high amongst the women with eclampsia and only two of the babies born to mothers with this illness actually survived. The case notes do not indicate the treatment used and there is no record of the

application of any drugs. However, one method of dealing with eclampsia was to starve and purge the patient. As the Birth Registers did not require the recording of enemas it is difficult to be sure if this procedure was applied.

Placenta praevia (where the placenta partly or completely covers the os) alone or accompanied with APH (as is usual) accounted for a smaller number of ante-natal complications, 20 in total. It was not most common amongst primigravidae but amongst those women who had had between 2 and 5 previous labours and miscarriages. Whilst the condition was seen as an abnormality many of these cases were treated by midwives; indeed from 1933 all of the cases of placenta praevia were attended by midwives. The fact that these cases took place ante-natally and were not followed by any other complication either during labour or in the puerperium is perhaps an indication that they were partial and not complete cases of placenta praevia. Complete placenta praevia was more difficult to handle and usually required forceps intervention or caesarian section.

As no other intervention was recorded, cases of placenta praevia would usually have been treated manually. If there was bleeding this would have been plugged and a binder put on in an effort to stop it before continuing with labour. Another technique used and mentioned in the case notes is version and breech extraction which was always carried out by the doctor. This required rupturing the membranes and bringing down a leg in a breech baby. Midwifery texts mention that a two pound weight was then attached to the leg and the pressure helped to stop any bleeding whilst the baby was delivered.

A few woman also seem to have been referred to the Home because of a raised temperature before the onset of labour and others suffered temperature rises once they were settled in the Home. Staff were constantly vigilant for signs of varying temperature because of the risk of puerperal infection and although this was usually a post-natal complication three cases were identified as having ante-natal pyrexia; these cases were nursed in isolation due to the fear of cross infection. One of these cases had had a temperature rise twelve hours before delivery (which was attended by a doctor) and was

given a saline solution as a preventative measure to avoid dehydration and to help in case of haemorrhage. Another case during 1930 was of a 38 year old woman who had had three previous labours and miscarriages who was admitted with a fever of 102.6 degrees Fahrenheit and was diagnosed as having pyrexia. She went on to have a complete abortion which may have caused the rise in temperature and whilst it must be considered that this may have been self-induced there was nothing in the notes to indicate the abortion was anything other than naturally occurring. Her treatment was somewhat different to other cases as she was given an 'ante-strep. serum'. This drug does not appear often in the Birth Register data and although we cannot be sure what it contained it would appear to have been formulated to combat various strains of the streptococci bacteria which were suspected to be the cause of puerperal fever and many maternal deaths. In this case the treatment following the serum appears to have been rest as the woman stayed at the Home for a further 17 days.

The remaining ante-natal complications were few in number and can be divided into three groups: those that related to the mother such as obstructions and prolapsed cord; those that related to the foetus were, for example, various malpresentations and malformations and problems with the amniotic fluid; finally there were the gynaecological complications such as vaginal and uterine cysts and discharge which were referred to the Home in case they caused some later problem. Some women were also recommended admission to the Home because they had some medical problem which may have contributed to a complicated labour. These included a wide variety of conditions from varicose veins, colds and influenza to heart problems, thrombosis, pleurisy and epilepsy. Such cases would have been transferred from domiciliary practice to the Maternity Home where specialist obstetric care was believed to offered. As the complications dealt with were various a wide range of medical/ nursing knowledge and skills were therefore required both by the midwifery staff and the doctors.

In only a few of the women suffering ante-natal complications was it made explicit how the women had come to the Home. Some no doubt were booked into the

Home and either were admitted due to some problem or came in early as one occurred. Others were referred by midwives from domiciliary practices (as in one case in 1927 which was sent in by Sister Beaulah) whilst others were sent in by doctors. Some were recorded as emergencies although no indication was given as to which medical personnel approved the transfer. Some seem to have been self-referrals, as in one case in 1925 where a woman had suffered APH and had called for the doctor who reportedly refused to attend. She was subsequently admitted to the Home where she gave birth to a premature child who died some hours after birth.

Complications During Labour.

The second group of women studied were those who had some complication of labour only. These women made up by far the largest single group of complications within the whole data set. In 1924 there were 71 cases of women recorded as having some problem during labour which amounted to 52.21 per cent of all the complicated cases for that year. Although there was some variation in their numbers between 1924 and 1935, overall complications during labour increased reaching 228 in 1935 which amounted to 61.62 per cent of all complications for that year. The problems recorded for this group of women usually fell into one of three categories relating to the three stages of labour (dilation, birth of the baby and expulsion of the placenta) and required some form of intervention, either by medical personnel or by the use of drugs.

By far the most commonly recorded remark was that the woman had suffered a ruptured or lacerated perineum. Today this would not be seen as a complication of labour as episiotomies are often routinely performed and such damage to the perineum is regarded as part of normal childbirth. However in the period being studied, this was certainly not the case. Midwives did not routinely perform episiotomies although they were sometimes performed by doctors. In this data set, there were only a few women (4 cases in total) who were recorded as being given an episiotomy. One example was of a young, single primigravida whose baby had extended legs and who appears to have been given the episiotomy after a long labour to help the delivery of the head. The Resident Medical Officer attended the birth and performed the episiotomy which

resulted in seven stitches. Most of the cases of ruptured or lacerated perineum however were not attended by the doctor, although she would be called to stitch the difficult cases. Whilst some tears did not require sewing, others were stitched by midwives. This is an interesting point because midwives were not supposed to insert stitches routinely. Oral evidence from women who trained and worked at the Home suggests that stitches were only put in by midwives if a doctor was not available unless it was the middle of the night and the doctor was sleeping! This was not an acknowledged practice but was applied to preserve relationships between staff.

Midwives undergoing training at this time were made to feel as if they had failed both in their duty as midwives and to the mothers they were attending if they allowed the rupture of the perineum.[7] The textbooks of the time also make it clear that the midwife was usually able (and expected) to maintain the perineum in tact by careful management of the delivery of the head.[8] From oral history accounts and midwifery textbooks, it becomes clear that damage to the perineum was not regarded as part of the normal progress of labour and as a result it has therefore been included as a complication in this study.

Of the 1601 cases recorded as having some complication during labour in the period 1924-1935, 898 were recorded as suffering some rupture or laceration of the perineum. The majority of women recorded as having a ruptured or lacerated perineum had no further complication of labour. Furthermore, the incidence of ruptured and lacerated perineums was not confined to primigravidae but occurred amongst a number of women with varying parities. A large number of women were therefore going into the Home for a normal birth and coming out with a perineal tear (with or without stitching) that could lead at worse to prolapsed wombs and incontinence, and at best to pain and discomfort. Most of these women were attended by midwives and this makes the apparently high rate of perineal damage even more surprising. It is difficult to be sure exactly why this was happening; one answer could be related to the pressure of work in a busy maternity hospital which may have led to less care being taken over each delivery. But perhaps more useful an explanation is the role of the Home as a teaching

hospital for pupil midwives. Pupil midwives practised their new skills on the women in the Maternity Home and as it was bound to take time to perfect the skills needed to ensure delivery without damage, a high rate of perineal problems might be expected. However, for a service that presented itself as 'superior', this was a surprising and interesting finding.

Labour was also sometimes complicated by the position of the foetus (a discussion of abnormal and normal presentations can be found at the beginning of this chapter. See Page 182-3). Whilst breech was sometimes regarded as problematic, it was usually made worse by the addition of extended legs, arms or both and a number of these cases are recorded in the Birth Registers. Many of these cases once diagnosed would have been referred by General Practitioners who believed that such complicated presentations demanded the skill of the obstetrician. However, many of these types of birth were not attended by doctors but were managed by the midwife (indeed oral history evidence suggests that domiciliary midwifery included the delivery of breech and twins and that these cases were not always referred to the Home[9]). For example, in 1924 a case where the baby was a footling was attended by a midwife. Even emergency cases of this nature were sometimes left to the midwives as in a case in 1930 which was sent into the Home as a transverse lie with a prolapsed arm. Version occurred spontaneously to the breech position and a macerated foetus was born.

A doctor would usually attend in a particularly difficult case either to manage the delivery herself or to observe. If version (where the baby rotates, or is manually rotated, to get into a suitable position for delivery) was to be attempted under anaesthetic then the doctor would perform this, as in one case during 1925 where Dr. Townend rotated a breech baby. In another difficult case in 1928 a woman was admitted as an emergency with a foetus with both extended legs and arms. Whilst Dr. Townend was at the birth the notes record that Sister Hill actually 'delivered' the baby. At other times the doctor would be consulted on the telephone and pass advice to the midwifery staff that way, as in one case during 1927 which had both a prolapsed cord and a double footling. Of the 2768 complicated cases between 1924 and 1935, 1420 or 51.3 per cent were assisted by

midwives alone whilst the rest were attended by doctors. Quite clearly the role of the hospital midwife was quite different to that of the domiciliary midwife.

Version was performed on several cases and could either be done by external or internal manipulation but had to be carried out early in labour. Usually if internal version was required, a doctor was needed whereas external version could be carried out by the midwife. One emergency case in 1931 was of a woman whose baby was post mature at 46 weeks and was a face presentation. This was rotated by the Resident Medical Officer under anaesthetic and resulted in a live birth. In 1935 the doctor turned a transverse lie into a breech under general anaesthetic, again resulting in a live birth. Other cases are recorded as being managed by the midwife alone and so whilst the position of the baby was an indication that hospital birth was called for, mothers were not always seen by the obstetrician and midwives often managed these complicated births themselves, as they could have (and often did) on the District.

The two most common interventionist techniques used at the Home were induction and forceps delivery. Induction was usually needed in the first stage of labour when it was considered that labour was progressing slowly or where doctors felt that there was a need to speed up delivery. It was not always made clear however exactly why induction was necessary. Some of the women had specific problems such as heart disease which would have encouraged the doctors to precipitate labour and others seem to have had long labours and uterine inertia. Inductions could be performed in a variety of ways, some of which required the attention of the doctor and others which could be carried out by the midwives. The reason for the application of induction as stated in the Annual Reports of the Medical Officer of Health was to "...avoid a difficult confinement later."[10] and several methods of induction were used at the Home. Those recorded in the Birth Registers are medical, surgical and intensive. Whilst it was fairly simple to ascertain what the medical and surgical methods of induction were, it was less clear what was involved in intensive induction. Little indication was given on any of the case notes as to the methods used for this technique and sometimes a doctor attended whilst at others the midwife was recorded as the sole attendant. Of course intensive and

surgical induction may in fact be the same procedure. Alternatively, intensive induction may have been the application of certain basic techniques such as hot baths. Unfortunately it is impossible to be certain about this and no mention was made of intensive induction in the midwifery or obstetric texts of the period.

Medical induction required the application of drugs and was sometimes recorded as 'quinine induction' in the Birth Register. This method was probably the safest as it did not require the introduction of possible infection into the uterus. Although quinine was used to induce, it is also possible that where the use of ergot is recorded, this too was administered in an attempt to induce labour- although ergot seems to have been more commonly used at the Home after labour to encourage the expulsion of the placenta (see below). Midwives could carry out medical induction if instructed to do so by a doctor and this was certainly happening in Hull. Sometimes medical induction failed or was used with other methods to speed up the process and if any instruments were to be used the doctor usually attended.

Surgical induction required direct intervention and was therefore associated with a higher risk of infection due to the introduction of some foreign body into the uterus. This type of induction took many forms and was either done by artificial rupture of the membranes and manual dilation of the cervix, or by the application of bougies, toy balloon or stomach tube. All these methods were used in the Home although from the case notes, it would seem that the application of bougies and the stomach tube were the preferred methods. Artificial rupture of the membranes was not always applied as the first method because to keep the waters intact meant less chance of infection for the baby. But in some cases the waters were broken to speed up delivery, as in one case during 1926 when a mother had been diagnosed as having severe uterine inertia. Induction was also performed for postmaturity, as in one case during 1924 when as labour had not started the cervix was manually dilated. Most of the cases of surgical induction were recorded as being attended by the doctor. The attendance alone of the Medical Officer did not ensure the success of these methods and sometimes attempts to induce caused further complications. For example one woman in the Home during 1929

was induced by the doctor using a stomach tube but this did not work and she started to bleed. Fortunately, both she and her baby survived although there was some delay to the second stage of labour and forceps had to be applied.

The second most common interventionist technique performed at the Home was forceps delivery and this was always done by the doctor. Although forceps deliveries were fairly routine in the Home they were not applied without a trial of labour first unless there was some urgent need to get the baby born quickly. Dr. Townend, who formulated much of the medical policy of the Home, usually allowed two hours for the second stage of labour before applying forceps but believed that prolonged labour damaged the mother's muscles and increased the danger of post-partum haemorrhage.[11] The maternity hospital also admitted failed forceps cases as emergencies from the district. One such case occurred in 1924 where the doctor had failed to deliver a post mature baby by forceps and so admitted the woman to the Home where the procedure was completed by Dr. Townend, but the baby was stillborn. Forceps were applied in a number of the cases quite often following induction and frequently for uterine inertia or delayed labour. Most cases were recorded as having low forceps where the head was well descended, on the pelvic floor and simply required assistance during delivery, for example in the case of a breech birth. Others were recorded as high forceps where the head was not low down; this was a more complex procedure requiring the baby to be pulled through the pelvis and with a higher risk of death for the baby and damage to the mother.

Other reasons for the application of forceps were foetal distress, heart problems in the mother, epilepsy, prolapsed cord and contracted outlet. Whilst some of these deliveries were done under anaesthetic or with the help of drugs, the majority do not record the application of any pain relief at all. No comment is made about the impact of such deliveries on the mother although any damage to the baby was noted. Forceps delivery did not always occur without mishap, the most common problem being a lacerated or ruptured perineum for the mother and bruising for the baby. Sometimes the

damage to the child was more severe as a consequence of forceps delivery, for example facial paralysis and fractured skulls- although most appear to have recovered.

Sometimes when both induction and the application of forceps had failed (and where caesarian section was inappropriate), the doctors had no alternative but to undertake a craniotomy to remove the foetus. All the craniotomies performed at the Home recorded a stillborn infant but what is not made clear is whether the foetus was dead before the operation or not. As this procedure required the dismembering of the foetus inside the uterus, it was always carried out by the doctor but there is no indication that any anaesthetic was used. Again no comment is made about the impact of this operation on the mother both physically and mentally and whether attempts were made to comfort her after the event.

Some drugs were administered during the second and third stages of labour. During labour, most were to help with pain relief and some also had the effect of stimulating labour. Ergot was sometimes used if labour was progressing slowly and to help with the expulsion of the afterbirth. Potassium bromide and chloral gas or hydrate were both used before the birth of the baby and helped to induce sleep and to soothe and also helped dilation. Hyoscine was given during labour and produced a loss of memory rather than pain relief and if combined with morphine, was known as 'twilight sleep'. Hyoscine alone was much more commonly used than 'twilight sleep' at the Home where only one case of the later was recorded. Usually hyoscine was injected in small doses which could be repeated as desired: one woman who delivered her baby in 1927 had two doses at twelve hourly intervals. Sometimes a combination of drugs was used but usually hyoscine was given first, followed by potassium bromide and chloral gas towards the end of the birth. All these drugs could be (and were) administered by the midwife as part of her duties. Again there is little information to indicate the after-effects of these drugs either on the woman or her baby.

Complications in the third stage of labour were usually of two main types, resulting in problems with expressing the placenta or with post-partum haemorrhage, and sometimes the two occurred together. The treatment of both these often involved

the application of drugs as well as techniques to stop bleeding and remove the placenta by hand if necessary. In one example a woman who gave birth in 1924 had a haemorrhage of 46 ounces following the manual removal of the placenta. She survived and was treated with saline (for the haemorrhage) and 1cc of pitocin (to aid expulsion of the placenta and ensure its complete removal). This woman was fortunate as both these conditions were potentially life threatening.

After delivery of the baby, the placenta is supposed to detach itself from the uterine wall and expel itself naturally. In some cases this did not occur and attempts had to be made to help its progress. The first course of action seems to have been to administer pitocin in its various forms (usually pituitrin was noted which was apparently a less useful pituitary preparation because it acted to increase blood pressure and could cause shock[12]) at a dosage of 1cc. Pitocin stimulated the uterus at a faster rate than ergot although ergot and ergometrine were also used at the Home. If this did not work, attempts had to be remove the placenta manually from the uterus- an action which quite clearly could result in infection, haemorrhage and even death. A number of cases were recorded as having trouble expressing the placenta and whilst midwives were taught the skill of manual removal for use in the community, they would only usually do so in an emergency. Whilst most of the cases were attended by doctors, several cases are recorded as being attended by a midwife. This may reflect the role of the Home as a teaching hospital as pupil midwives would have had to know how to do this procedure. But it is also perhaps an indication of the different responsibilities of the midwife working within the maternity hospital setting.

From the available data, it would appear that the manual removal of the placenta was usually undertaken without anaesthetic and so some of the women suffered from shock and collapse. Some sedative treatments seem to have been used in some of the cases and those recorded in this data set are potassium bromide and chloral gas which not only induced sleep and relieved pain but also encouraged the progress of the labour and may have therefore aided expulsion. After the removal of the placenta, no further treatment appears to have been given except where there was morbid adhesion. In these

cases the woman would normally be given an iodine douche as a precaution against infection.

Haemorrhage after birth was a fairly common occurrence and drugs such as pitocin and ergot were used as treatments. Ergot was particularly useful in stopping bleeding because it encouraged the retraction of the uterus. In some of the cases of haemorrhage aseptic ergot, pitocin and saline were given as the treatment. In one particular instance in 1927 a woman suffered haemorrhage after induction and forceps delivery. Although the amount of blood lost was not noted, it was significant as she needed to be treated with both aseptic ergot and pitocin as well as salines every four hours. If haemorrhage was accompanied by the collapse of the patient, then the treatment of drugs and saline were supplemented by the addition of glucose and brandy to encourage the woman to regain consciousness. In one case in 1925 a woman collapsed three hours after delivery following a haemorrhage. She was treated with ergot, saline, glucose and brandy which resulted in her recovery. Ergot was often given by mouth but where there was a large amount of blood lost, it was given by injection in order to act more rapidly. In some of the case records, the amount of blood lost was noted and this could vary from an insignificant amount to 90 ounces. This was the highest recorded loss and followed an adherent placenta and prolapsed cervix. Pituitin at a dose of 1cc was given and despite losing so much blood the woman survived and did not need to stay in the Home for longer than the usual 14 days. Generally after 1930, unless it was accompanied by some other complication, post-partum haemorrhage was simply recorded as 'PPH', no blood loss was given and no indication of any treatment was noted. One case in 1934 was unusual in that it simply recorded the woman as having PPH but also indicated that she was still losing blood some twelve days after the birth. Sometimes a douche was used after the haemorrhage as this was believed to prevent infection. However it would appear that the application of douches was reduced in the later years as it was realised that by introducing the equipment into the woman's vagina or uterus the risk of infection was increased not reduced.

Although the doctors from the Home supervised ante-natal clinics and could therefore advise women to attend the Home for the birth of their baby, they could not be forced to remain in the Home once there. One woman during 1933 who had been admitted for an APH left the Home against the advice of the staff after delivering a stillborn baby. This woman had stayed for nearly two weeks at the Home and no further reason for her needing to stay was given in the case notes. Her obstetric history indicated that she probably had a large, young family at home as she was only 35 and had seven previous pregnancies. She may have had childcare or financial problems which meant she had to leave. Staff did not seem sympathetic to these concerns and simply advised against discharge- in this case as with others their advice was impractical.

Some women discharged themselves after a certain amount of time, many against the advice of the doctors. Usually in these cases the women had to sign a letter confirming that they were leaving (or taking their baby home) against the advice of the staff and that they took full responsibility for this action. Whilst such action may seem irresponsible on the part of the mother, it is important to consider the other pressures women faced. The facilities at the Home were not free and so many women would have budgeted for the necessary two weeks but no longer. This meant that if any complications occurred, the family finances could not necessarily stretch to cover further institutional care. To insist on this put further pressure on the mother and placed her in a dilemma. Moreover, the woman's other commitments need to be considered. A hospital birth may not therefore have always provided a convenient place in which to give birth, free from anxiety and stress. Quite clearly the maternity services were not attempting to offer a flexible service based on the needs of individual women and were only concerned with the medical view of the woman and her baby. Once the woman left the Home, little follow-up treatment was offered and whilst she may have been visited by the Health Visitor, no treatment was available; if she needed to call a doctor, she would have to pay for it and the local authority post-natal clinic only gave advice. The

main problem therefore with the service offered by the Home was that it was neither freely available nor combined with an efficient and free follow-up service.

Complications During the Puerperium.

Information about the wide range of complications occurring in the days following birth were usually to be found in the 'remarks' column of the Birth Registers. Overall, the proportion of cases suffering some complication during the puerperium alone fell from 20.59 per cent of all cases in 1924 to 10 per cent of all cases during 1935. But despite this the variation between years, the actual complications suffered remained broadly similar. A few were recorded as suffering some medical problem which was not a consequence of their being pregnant and giving birth. These ranged from the minor such as colds, headaches and toothache to the serious; for example, there were a number of cases of T.B., pneumonia, bronchitis and pleurisy. It is difficult to be precise about when these conditions developed or were noticed by the staff and little indication is given of the precise treatment offered other than bed rest and nursing care. Others had complications which related directly to the fact that they had been pregnant. These can be organised into three broad groups: complications relating to the reproductive organs and genitals; temperature rises and cases of puerperal pyrexia, fever and mania; and those complaints common (at the time) to the post-natal period such as sore breasts, thrombosis, anaemia and bowel problems.

In the days following the birth of their children, the clientele of the Maternity Home were monitored by the midwifery staff who, amongst other things, checked that the uterus was returning to its pre-pregnant state, that the lochia was normal and had stopped before discharge and that any lacerations and stitches were healing properly. The general health and well being of the woman was also noted, particular attention being paid to the woman's temperature as a sign of the onset of pyrexia. The clientele were usually kept in bed for several days following birth (according to oral history accounts this was usually nine days[13]); after this if no temperature rise had occurred, they were allowed up to go to the bathroom. The babies were kept in the nursery and brought to the mother for breastfeeding (although not during the night) and the staff

observed the method of breastfeeding and tended to any associated problems with the mother's breasts. Treatments were also given for constipation (although constipation was rare as aparients were routinely administered two days after birth) and for anaemia, which was treated with ferro malt, iron tonic and Virol. Quite clearly, the behaviour of the women attending the Home was tightly controlled by the staff and they were directed in the correct methods of breastfeeding and care for their infant. Whilst this could be seen as offering the most rest for the mothers, allowing them to recuperate from the birth, this regime can also be seen as very restrictive, not allowing for any variation in routine or personal choice in terms of infant rearing. Furthermore by insisting on immobility following labour, the staff were unwittingly increasing the risk of thrombosis and several cases of thrombosis and its associated forms known as 'phlegmasia alba dolens' and 'white leg' were recorded. The treatment was usually belladona plasters, bandage and complete rest.

The most common problems with the uterus after birth were either subinvolution where the uterus failed to reduce in size as expected and retroversion where the woman was found to have a backward tilting uterus. In the case of subinvolution a few extra days bed rest was accompanied by ergot and douches to try and encourage the uterus to reduce in size. In other cases the woman was allowed home to rest in bed and were advised to see the doctor at the post-natal clinic. In the case of retroversion the uterus was replaced in the correct position and a ring pessary was inserted into the vagina. This was removed at a later stage and it was hoped that the uterus would then stay in the correct position.

With so many women having lacerated or ruptured perineums and the appropriate suturing, midwives also checked that the healing process was progressing well and that stitches were removed. In a few cases after 1933, a few women were noted as having a 'deficient perineum' indicating that the healing process was not completed. This would probably mean that these women would have difficulty with future births, could suffer pain and discomfort permanently and may even be incontinent. Most lacerations of the cervix were however not regarded as particularly problematic and were usually left

unsutured to heal naturally. Sometimes more serious lacerations occurred when there had been a high forceps delivery and these required stitching.

The presence of the lochia was only usually noted in the Birth Registers if there was some problem such as it was unusually red or pungent; occasionally a woman would have a persistent lochia which showed no signs of stopping. In one case during 1929, a woman was still loosing blood ten days after the labour and so she was given a general anaesthetic and her uterus was explored. Shreds of tissue were removed which were probably remnants of the placenta which could have caused infection. She was only kept in for a week following the operation before being allowed to go home in a satisfactory state. However, this was an extreme case and usually the woman was simply kept under observation.

Some of the women had problems trying to breastfeed and a few were allowed to supplement their babies with formula milk (Gow and Gate and Glaxo) or to bottle feed if their breast supply was absent or deficient. A number of women suffered from mastitis, sore nipples and breast abscesses whilst in the Home. Sore nipples were usually treated by removing the baby from the breast and feeding on expressed breast milk whilst the nipples were carefully washed, treated with antiseptic (hexamine) and covered with gauze. Breast abscesses were usually cut and drained and then dressed in the same way. Mastitis, uncomfortable breasts and flushed breasts were usually treated with four hourly hot fomentations which helped to clear the blood vessels, reduce swelling and prevent infection.

As a rise of temperature could indicate the onset of puerperal pyrexia the staff monitored the women's temperatures and notes were made of any rises. When a rise of temperature occurred in most cases it was not an indication of the onset of puerperal pyrexia but was a consequence of some other problem. These cases were usually treated with hot fomentations (as above) and their temperature was monitored closely. Such cases were fairly common throughout the whole period and accounted for a substantial proportion of complications during the puerperium; for example during 1926, 17 women suffered a rise in temperature during the puerperium with no other complication

of pregnancy or birth. Of these only one was recorded as due to no apparent cause, the majority being a consequence of breast problems whilst others were due to colds and influenza, subinvolution, T.B. and nausea. Sometimes the treatment was more aggressive and some cases of temperature rise were treated with ergot and douches.

Combined Complications.

Many women experienced complications in more than one of the stages outlined above and these were potentially the more serious cases as one problem lead to another. Despite the growing number of these cases, as a proportion of all complicated cases their numbers fell. In 1924 22.79 per cent of all complicated cases were of this type but by 1935 this had been reduced to 15.41 per cent. Most of the cases in this group had more than one of the complications already outlined above and there is therefore no need to discuss them all in detail. All the cases of puerperal pyrexia, fever and mania have been withdrawn from this group and they will be discussed with other similar cases below. The most common combination was for women to either have an ante-natal problem and a complication in labour, or to have a problem in labour followed by some complication of the puerperium. A few cases were recorded as having an ante-natal complication and the same problem during the puerperium but with no record of any complication during labour; this usually applied to those suffering from some toxaemia.

Several of the women with ante-natal complications who then went on to have problems during their labour were those women who had a history of complicated childbirth; for example, one woman was admitted during 1924 because of a history of adherent placenta and post-partum haemorrhage. She subsequently gave birth followed by a haemorrhage of 46 ounces which was treated with ergot and saline. Other women were admitted because they were suffering ante-partum haemorrhage which then revealed further complications. One example was of a woman who gave birth in 1925 who had an ante-partum haemorrhage at 32 weeks. Her baby was in the breech position and the doctor attempted bi-polar version and extracted the baby. Other women were admitted due to some new ante-natal problem which usually resulted in the need for

induction, such as those cases with eclampsia and albuminuria ante-natally. Other examples can also be found, such as one woman in 1928 who had been constantly vomiting and was admitted for observation. Her condition apparently improved but not sufficiently for her to be left to have a natural labour, and she was induced by the midwifery staff.

The other likely combination was of women who had complications during labour and then more problems during the puerperium. For example in 1924, one woman's labour was followed by a retained chorion and post-partum haemorrhage which was treated as usual by the application of ergot and rectal saline. However her problems continued into the puerperium when she was diagnosed as suffering from subinvolution which was treated with iodine douches and ergot. Other cases seem to have suffered rises in temperature which were not notifiable as pyrexia during the puerperium possibly as a consequence of the action taken during the labour. In one case during 1924 a woman had primary uterine inertia which necessitated a forceps delivery and resulted in a lacerated perineum which needed stitching. Her temperature rose to 199.4 degrees Fahrenheit on the seventh day and an infection was suspected (probably as a consequence of the forceps delivery); the treatment was iodine douches and ergot. In another case, this time during 1925, a retained placenta was removed under anaesthetic which resulted in a haemorrhage and a ruptured perineum. During the puerperium this woman suffered thrombosis and problems with the healing of the perineum. These cases were potentially very serious but others were less so; common combinations of complications were ruptured perineums followed by thrombosis or anaemia in the puerperium.

Finally some women suffered complications during all three stages, in pregnancy, during labour and throughout the puerperium. Most common was the existence of albuminuria in each stage but other cases were also noted; for example during 1927, one mother was admitted for intensive induction at full term because she had had a difficult forceps delivery with her previous child. Forceps were required again and the mother then suffered thrombosis after birth which was treated with bed rest. Whilst all

these women having complicated childbirth do not represent a majority of the clientele of the Municipal Maternity Home they do show that a substantial amount of the work of the staff at the Home was with a wide variety of complications.

Cases of Puerperal Sepsis, Pyrexia and Mania.

This next section seeks to examine the cases of notifiable puerperal pyrexia, sepsis and mania recorded in the Birth Registers. Whilst a total of 69 cases were extracted this number does not match those recorded in the Annual Reports of the Medical Officer of Health. From 1925 the staff at the Municipal Maternity Hospital produced a statistical review of their work for the Annual Report of the Medical Officer of Health which recorded the incidence of puerperal fever, pyrexia and mania (puerperal sepsis was mentioned only in the 1925 review and then only to comment that no cases had occurred). The numbers of these cases was significantly greater than the numbers actually recorded in the Birth Registers which for the period 1925-1935 amounted to a total of 343 cases. The anomaly can probably be accounted for by those cases which were admitted into the Home but who did not have their baby in the Home and would not therefore be recorded in the Birth Registers. Before 1929 the procedure for admitting these cases is unclear; however once new premises had been opened in August that year, women with puerperal pyrexia etc. were admitted from domiciliary practice to the Home and were nursed in the newly constructed isolation wards.[14] Whilst the figures from the Birth Registers cannot be regarded as accurately recording all cases occurring in the city, they do appear to record all those which originated in the Home and indicate the methods used to treat such cases.

Before examining the incidence of puerperal sepsis, etc. within Hull's Municipal Maternity Home it is necessary to briefly explain the terms used. Puerperal sepsis was an infection of the genital tract produced by bacteria, and as the main cause of maternal death nationally the staff at the Home were ever vigilant for its onset and as a rise in temperature could indicate this, midwives regularly took each woman's temperature. Before 1926 all rises in temperature to (or above) 100.4 degrees Fahrenheit which were maintained for twenty four hours were to be notified as puerperal fever. In 1926 the

Public Health (Puerperal Fever and Puerperal Pyrexia) Regulations were introduced which essentially required any fever occurring during the lying-in period to be notified. Puerperal pyrexia was defined as a rise of temperature to 100.4 degrees Fahrenheit (or above) for twenty four hours or its recurrence within that period during the 21 days after childbirth or miscarriage. From 1926 both cases of puerperal fever and puerperal pyrexia were noted in the statistical review and whilst pyrexia could have many causes, fever appears to have been caused by an infection. Of the sixty nine cases extracted from the Birth Registers 59 were suffering from puerperal pyrexia, 6 from puerperal mania and insanity, 2 from puerperal fever, 1 from puerperal sepsis and 1 was an unspecified puerperal case. This last case occurred during 1929 and the woman appears to have suffered puerperal pyrexia (although it is not explicit) due to some swelling of the lymphatic vessels and was treated with l0cc of anti-streptococci serum. The case of puerperal sepsis occurred in 1924. The woman began the puerperium with a rise of temperature which was treated with a saline every four hours, ergot and douches. When the temperature persisted she was given 20cc of the anti-streptococci serum but remained unhealthy. Her notes indicate that she may have had gonorrhoea which may have further complicated her case.

Looking at the evidence from the Birth Registers, most of the cases of puerperal pyrexia were caused by some specific problem and fortunately the midwifery staff made notes of what they felt might be the cause of the rise in temperature. Those listed in the Birth Register cases were breast problems (11 cases), influenza (2 cases), problems with the cervix (2 cases), unhealthy perineum (1 case), subinvolution (1 case), rheumatism (1 case), heart condition (1 case) and finally pneumonia (1 case). In two other cases puerperal pyrexia was recorded along with a bacterial infection known as sapraemia which was suspected as being caused by the action of bacteria in decomposing tissue left in the uterus. To avoid further infection, this condition was treated with intra-uterine injections of glycerine to encourage the flow of lymph to the area and to stimulate uterine contractions in the hope that any waste material would be expelled naturally. Treatment of puerperal pyrexia varied depending on the cause. For those rises

in temperature suspected to be due to breast problems, the usual response was to apply hot fomentations; for those due to obstetric problems, the treatment was usually to administer a drug (either quinine or ergot) to help the uterus contract and to douche to cleanse and prevent infection. In those cases where a loss of fluid was noted or suspected, saline was administered and in others which were suspected as having some medical problem causing the high temperature, observation seems to have been the treatment.

If it was suspected that the rising temperature was due to a bacterial infection or there were signs of infection, the main form of treatment was the injection of an anti-streptococci serum. Apart from in the two cases mentioned above this serum was used in three other cases: two of puerperal pyrexia and one of puerperal fever. For pyrexia, one dose of 20cc was given but for fever, two doses each of 20cc were administered- all these cases recovered. The serum could also be used in cases of sapraemia along with the glycerine injections. Little appears to have been written about the serum by recent historians and text books of the time seemed to think its effects unpredictable. Commenting in 1924 John Fairbairn in his book Gynaecology with Obstetrics felt that whilst the serum could be used in all cases of puerperal infection its efficacy was not always certain: "Sometimes benefit appears to result from serum-injections, but they are uncertain and their results often disappointing."[15] However, this treatment along with others such as injections of quinine, mercury and other antiseptic preparations was all that was available before the introduction of sulphonamides and the widespread availability of Prontosil in the mid 1930's.

According the to Medical Officer of Health for Hull, cases of puerperal fever which began at the Maternity Home had a higher risk of death than cases of puerperal pyrexia. Of the twenty cases of puerperal fever recorded between 1925 and 1935, 8 died, whilst 22 of the 321 cases of puerperal pyrexia died. Of all these cases extracted from the Birth Registers only one is recorded as a maternal death. The case occurred in 1929 and was recorded as 'Very serious' but despite this no treatment was noted and there was nothing to indicate what may have caused the fever other than she had a

lacerated perineum which was not stitched. The woman concerned was transferred to Hull Royal Infirmary where she died seven days after labour. The other case of puerperal fever occurred in 1926 following the removal of the placenta by curettage which may have caused an infection leading to puerperal fever. However, this woman recovered following the administration of the serum.

Puerperal insanity or mania can be defined as some psychosis of the mind during the puerperium usually triggered by pregnancy but that can be brought about by any other life event during this time. Women suffering from this problem were usually treated in the mental home and in the case of Hull this was the asylum at Willerby. The Birth Registers recorded 6 cases which can be defined as probable cases of puerperal insanity but the statistical reviews of the Home's work in the Annual Reports of the Medical Officer of Health record only two such cases- one in 1926 and one in 1929. There is little information about what happened to the women transferred to other hospitals but some details of the circumstances of their labour and immediate post-natal period are available.

The first case which was recorded as puerperal mania in the Birth Registers was of a 31 year old woman having her tenth pregnancy during 1924. Following the birth, she suffered a haemorrhage of 36 ounces and a rapid pulse, and was transferred to the asylum one week after the birth. Another case, this time during 1925, was of a primigravida who was seen by Dr. Townend and diagnosed as having puerperal mania one week after birth and was transferred to Willerby asylum. This woman had given birth to an infant with a congenital heart problem and whilst there was no recorded damage to the woman herself, the condition of her child (which subsequently died) could have disturbed her greatly. The third case diagnosed as puerperal insanity was a single primigravida aged 21 who suffered both placenta praevia, eclampsia and a lacerated perineum. The shock of this, her first experience of childbirth, may have accounted for her mental state and she was transferred out of the Home one week after birth. The final case of puerperal mania to be moved from the Home to another institution occurred during 1931. There was nothing to indicate that the birth of the

baby had caused any problems for the mother (whose age was not recorded but who had had six previous pregnancies) and the notes simply record puerperal insanity and the transfer to what was the workhouse hospital on Beverley Road in the remarks column.

Two women were diagnosed as either having puerperal insanity or mental instability but were treated at the Municipal Maternity Home and both of them had their babies during 1926. The first was a 39 year old woman who had had 11 previous pregnancies and who was probably booked for a hospital birth because of a history of puerperal insanity. Her labour seemed to have been normal and her notes show that staff thought her mind 'unbalanced' on the fifth day following birth. She was kept isolated on a ward alone and treated with bromide and was noted to have improved although on discharge her notes say she was "inclined to be strange in manner at times"! The other case was of a 23 year old primigravida whose labour progressed normally but who suffered a seriously lacerated perineum, which would have caused her great pain and discomfort and may have been responsible for her condition. Her notes say she had shown signs of mental instability early on in the puerperium. She was isolated and treated with bromide and was discharged apparently normal. Where information exists, the babies were either kept in the Home or discharged, presumably to the family.

Whilst it is impossible to make any overall conclusions from the information contained in these case notes, they do provide clues as to the incidence, causes and treatment of puerperal fever, pyrexia and insanity. Puerperal pyrexia was more commonly diagnosed than puerperal fever and the chance of recovery was greater for the former. This may have been because cases of pyrexia did not usually occur because of some bacterial infection, whilst puerperal fever was bacterial in origin and therefore more difficult to treat with the limited drugs available at the time. Puerperal insanity was not a widespread problem but it was treated aggressively with drugs and within the institutional setting. Although cases of mania were often sent to the asylum (and one wonders what treatment these women were given and whether they returned to their families) other cases were usually dealt with in the Home especially after 1929 and the opening of the isolation wards.

Abortion, Caesarian Section and Maternal Deaths.

Other particular groups of cases were also extracted from the Birth Register data as being of particular interest to any study on complicated childbirth. Both the Birth Registers and the Annual Reports of the Medical Officer of Health were used to establish the numbers of abortions, caesarian sections and maternal deaths within the Home. The calculations from the two sets of data do not always agree and whilst there may be inconsistencies in the recording of cases it is more likely that the discrepancy occurs because many of these cases (especially abortions and women who developed problems in the puerperium and later died) were admitted directly to the isolation wards and were not recorded in the Birth Registers. Despite this problem it is still useful to examine the individual cases as they provide detailed information about the reaction to problems, the success of certain techniques and the influence of hospital birth.

Abortion.

The term abortion is used for the process whereby the foetus is expelled either naturally or with help before it is viable. Between 1930 and 1935 there were two different types of abortion dealt with at the Home: spontaneous and induced. Spontaneous abortions occur naturally as part of the body's own screening process and in response to medical or obstetric ailments. Because of the difficulty of recording and identifying a spontaneous abortion it is impossible to know what proportion of pregnancies resulted in this type of abortion. Induced abortion was illegal in England and Wales until the Abortion Act was introduced in 1967. Whilst it is not within the realms of this study to explore the medico-legal aspects of abortion in Britain it is useful to be aware of the two Acts of Parliament which covered abortion in this period. Under the 1861 Offences against the Person Act, it was illegal to self-induce an abortion or to get someone else to procure one. However, there was some debate as to the position of medical induction of abortion if the mother's life was at risk and this practice no doubt occurred. In 1929 the Infant Life (Preservation) Act was passed which allowed for the destruction of the foetus before birth providing it was carried out in order to preserve the life of the mother. As a result, medical induction was therefore

used when the mother had some complication which meant pregnancy endangered her life. According to the records of the Medical officer of Health, a total of 639 abortions were dealt with at the Municipal Maternity Home between 1930 and 1935, 68 of these were induced and a further 571 women were admitted as having spontaneous abortions (of course there is no way of knowing how many of these resulted from efforts to self induce).

With the move to Hedon Road, the maternity hospital gained six special isolation wards each with two beds where cases of abortion could be nursed. These wards had been created because abortion was often associated with sepsis and death and so there was concern about the risk of cross infection.[16] However, isolation may have also been a way of controlling and punishing those women suspected of self-induced abortion. By keeping them separate from the other women they would be denied company and could not share any information relating to abortion practice. Women were also admitted to the isolation ward to have operations to remove any products of conception from their uterus following an incomplete abortion and numbers of these increased from 8 in 1930 to 88 in 1935- again no indication was given whether any of these may have been self-induced.

Whilst there is little detail of the cases of spontaneous abortion, the Annual Reports of the Medical Officer of Health do record the reasons for performing induced abortions and most were due either to some medical problem with the mother or some obstetric problem associated with her pregnancy. Of the 68 induced abortions recorded in the reports the following reasons were given for the inductions:

23 were due to the mother having cardiac disease

21 were due to her having T.B.

6 were due to carneous mole (where the ovum has been destroyed by haemorrhage into it)

4 women had excessive vomiting

4 had toxaemia

2 had repeated haemorrhaging

1 suffered from chorea (St. Vitus' Dance)

and only 7 had no recorded reason.

Whilst no cases of abortion were recorded in the Birth Registers between 1924 and 1929, (a reflection of the legal position) details are available for a total of 39 cases between 1930 and 1935. Of these 14 were noted as induced, 6 were noted as spontaneous and 2 were incomplete (i.e. partial). It is difficult to be sure of the precise nature of the remaining 17 but as most induced abortions were recorded as such by the staff we can assume that the rest were naturally occurring or at least were not induced by the staff of the Maternity Home. The two cases of incomplete abortion both occurred during 1931; one mother survived whilst the other did not. The first case was of a 27 year old woman who had had one live birth and one miscarriage. This pregnancy ended at 14 weeks but when examined by the doctor it was felt that she was still retaining tissue and she was operated on under general anaesthetic. After two months in the Home she died in March of that year. The other case was recorded as an emergency admission. The woman's age was not recorded but she had had three previous live births and 2 miscarriages. She was diagnosed by the doctors at the Home as having an incomplete abortion and was operated on but survived leaving the Home two weeks later. Whilst any exploration of the uterus had its dangers, it was believed necessary in cases such as these to avoid infection and possible death but success was not always guaranteed.

Of the induced abortions four cases did not record why this was felt to be necessary. Where reasons for induction are recorded three women had heart problems such as mitral stenosis which coupled with pregnancy could put severe strain on the heart and even cause death. In one case during 1930 a woman who had had two previous pregnancies was induced at eight weeks for this reason. Another woman had suffered ante-partum haemorrhage and a further two women were T.B. sufferers who were seen as having good reason to abort in severe cases. One woman recorded in the Birth Register was 30 years old and had had seven pregnancies. Her pregnancy was terminated due to her T.B. at 22 weeks and she left the Home in a satisfactory state

some 13 days later. Four other women were recorded as being induced due to V.D.H. and whilst it has been difficult to establish what exactly V.D.H. meant it may have referred to a heart problem. One of the indications for the induction of abortion was cardiac failure, or Valvular Disease of the Heart (for example mitral stenosis) and so it seems reasonable to assume that V.D.H. referred to such problems.

Some cases were believed to be spontaneous abortions by the staff at the Home and this is supported by the method of recording these events. Standard midwifery terms such as 'complete abortion' and 'missed abortion' were found in the notes and these indicated that pregnancy had ended naturally (or at least not induced within the Home). One of these cases was fairly serious as the abortion was accompanied by post-partum haemorrhage and collapse. Her notes indicate that as well as the usual treatment for haemorrhage, this woman was also given a curettage (to remove tissue from the uterus) and a glycerine plug to encourage the uterus to return to its normal size. Due to the serious nature of this case, Dr. Townend and the Resident Medical Officer were in attendance but usually cases of spontaneous abortion were dealt with by the midwifery staff.

The remaining cases were most likely to be spontaneous abortions. For example, one woman is recorded as having a sterilisation following an abortion. She did not have a doctor present and was noted to have a 16 week abortion. Her notes do not record any other medical or obstetric problem that would indicate the need for sterilisation and so it is possible she had either had many children or many miscarriages and abortions making pregnancy injurious to her health. It is difficult to be precise as there are no details as to her age or obstetric history. Another three cases record that the mothers had had some haemorrhaging and although it is difficult to be certain these cases probably aborted spontaneously as no doctor is recorded as being present. Two of these women died: one woman in 1932 from a pulmonary embolism after aborting twins and another during 1933, 9 days after her abortion. The remaining cases simply record an abortion taking place and do not specify what type it was but as there is no record of a doctor being present it can be assumed that these were spontaneous abortions.

Although spontaneous abortions were more frequent events than induced abortions, terminations were being performed at the Home for a variety of reasons. Despite the fact that induced abortion was essentially illegal in Britain at this time, the medical profession obviously felt quite secure in its position to use abortion in certain cases. Whilst it is difficult to be precise about the incidence of either self-induced abortions or spontaneous abortion, by examining the records of local hospitals (especially women's and maternity hospitals) some indication of the pattern of induced abortion can be gained. There was no national policy on this issue and so much of the decision was left to the discretion of local practitioners. In Hull whilst induced abortion was only performed occasionally at the Maternity Home, the fact that it was used at all indicates an acceptance amongst the medical staff that termination of pregnancy was a necessary part of obstetrics.

Caesarian Section.

Caesarian section was an accepted part of obstetric practice in the inter-war years to remove the foetus from the uterus where natural delivery was impossible without destroying the infant. Indeed it was believed that "The operation itself could have a relatively low mortality rate if performed correctly"- under 2 per cent-[17] but standards varied from one hospital to another and Hull's Municipal Maternity Hospital did not always have great success with this operation.

According to the statistical review and the text relating to the work of the Maternity Home in the Annual Reports of the Medical Officer of Health for the city, a total of 86 caesarian sections were performed at the Home between 1925 and 1935 but there is little information about their mortality. The Medical Officer of Health only noted two years where a caesarian section was a contributory factor to maternal death- two cases in 1925 and another two in 1935- and information from this source is of little value for an examination of the application of caesarian section at the Maternity Home except in providing the reasons for its application. Most (37 in total) were carried out because of a contracted pelvis which made natural delivery impossible. Another 9 were due to some obstruction of labour and 10 were performed after a trial of labour. The

remainder were performed either because of some medical or obstetric condition of the mother or due to the position of the foetus.

Before 1925 it was usual practice to move the woman from the Maternity Home to the Hull Royal Infirmary if a caesarian section was required. Neither the Annual Reports of the Medical Officer of Health nor the Birth Registers record cases of caesarian section taking place at the Municipal Maternity Home before this date. Realising the associated risks of this, a rota was organised during 1925 whereby some of the surgeons from the Infirmary came to the Maternity Home to perform these operations. However, they were reluctant to do so and only came for cases where it would be dangerous to move the mother from the Home. This new policy was not particularly successful and medical staff noted that the application of caesarians for that year was unsatisfactory as two of the women had died. Furthermore during 1926 the Ministry of Health contacted the Medical Officer of Health to inquire into arrangements at the Home for caesarian section and, following some discussion with medical staff, it was felt that caesarians should only be performed rarely at the Home and that most cases should be sent to the Hull Royal Infirmary where both the necessary equipment and skilled surgical staff were available.

The Birth Registers record the details of 88 cases of caesarian section. Mistakes were obviously made in transferring the statistics and recording them for the Annual Reports of the Medical Officer of Health and so the actual recorded cases from the Birth Registers will be examined in this study. In 1925 a total of five caesarians were performed at the Home but after the changes in policy that year the numbers fell to either one or two per year between 1926 and 1929. All those women having caesarians during 1925 did so because of an obstructed labour of one form or another and all appear to have been given a trial period of labour first. One example is of a 24 year old primigravidae who had to have a caesarian following an attempt at natural childbirth and forceps delivery both of which failed. This particular case was successful in that it resulted in both a live mother and live baby. Two of the five women for this year were not so fortunate. One was a 24 year old primigravida who had a small round pelvis

which would not allow the head to be born. Following her operation (in which the baby was stillborn) she never fully recovered and died less than twenty four hours later. The other death occurred three days after the operation and whilst this too was an obstructed labour resulting in a stillborn infant, the mother also had a hysterectomy. This was usually carried out following a caesarian if there was some uterine growth or cancer, an increased risk of infection, concealed haemorrhage or because the uterus failed to contract. None of these reasons are noted in this case and as she was 42 years old and had had nine previous pregnancies it would seem reasonable to assume that pregnancy was inadvisable for some other reason and hysterectomy was suitable considering her obstetric history.

Between 1926 and 1929 the policy of only performing caesarian sections in those cases that could not be moved from the Home appears to have been followed, as most cases were mothers booked into the Home who found themselves in need of a caesarian rather than emergency admissions. A number of different surgeons came from the Hull Royal Infirmary (Dr. Graves, Dr. Cameron, Dr. Corbett, Dr. Blair and Mr Upcott) to perform this operation and no deaths were recorded. The doctors working at the Maternity Home assisted, as in one case of a 27 year old primigravida who had an impacted breech.

After the move to Hedon Road in 1929 the numbers began to increase again; in 1930 there were six caesarians but by 1935 this had risen dramatically to 22. Some emergency cases were now being dealt with at the Maternity Home (there were two such cases in 1931) but the reasons for the need to operate are not always recorded. Some were needed because the woman had a heart complaint, others were for ante-partum haemorrhage, for obstructed labour and placenta praevia. Whilst it is often recorded that these operations were performed under general anaesthetic, there is one interesting case during 1931 which appears to have been given an epidural as the notes record 'spinal anaesthesia'.

Although there is no indication that policy had changed, the Home had gained increased accommodation and a new operating theatre in the move to Hedon Road

which meant that the facilities were far superior to those that had existed at Cottingham. This meant that the Maternity Home was now better equipped to perform caesarian sections. Moreover Dr. Townend had been appointed Consultant Obstetrician from October 1929 and performed some of the caesarians along with two of the Hull Royal Infirmary surgeons (Dr. Grieve and Dr. Cameron) who had been appointed as Consultant Gynaecological Surgeons to the Maternity Home from February 1930. The doctor performing the operation does not appear to have any bearing on the outcome of the operation.

It is difficult to be sure exactly of the cause of many of the maternal deaths in the Home as the records do not note what went on the death certificate. It has been assumed that in those women having caesarian sections who later died that this operative procedure played some part in their lack of health and ultimate death. Death was not peculiar to one age group or one particular parity; for example, the death associated with caesarian section (which had been required due to uterine fibroids) during 1930 was a woman of 45 who had had 12 previous pregnancies but the one in 1935 (no reason for its use was given) was of a 28 year old primigravida. Three other deaths occurred following a caesarian and whilst there is no indication as to why the operation was necessary for the cases taking place in 1932 and 1935, the woman who died during 1933 had placenta praevia. As has already been noted placenta praevia was difficult to manage without recourse to caesarian section due to the fact that the placenta was over the os. This woman died two days after the birth.

As it was now taking the majority of the city's maternity cases as well as some from the East Riding it would seem reasonable to expect that the numbers of caesarian sections would increase (in 1931 there were 12 cases, 1932 11, 1933 9, 1934 16) and that the number of deaths following this operation would also increase- a total of five are recorded between 1930 and 1935. But as a percentage of cases, more women were surviving following the move to Hedon Road than in the period 1925-1929. Whether this was a reflection of improved medical attendance (better clinical techniques, improved operating facilities or better anti-septic procedures and post operative care) or

Table 25

Maternal Deaths in Hull's Municipal Maternity Home, 1924-1935

YEAR	ARMOH*	BR**
1924	2	2
1925	4	4
1926	1	1
1927	2	2
1928	0	0
1929	0	0
1930	5	5
1931	25	10
1932	19	8
1933	23	9
1934	24	5
1935	16	7

*Data from Medical Officer of Health for Hull Annual Reports
**Data from Birth Registers from Hull's Municipal Maternity Home.

fewer serious/emergency cases is difficult to determine. Caesarian section was a useful obstetric operation which removed the necessity to perform craniotomies and as local surgeons became more skilled in this procedure so the number of maternal deaths associated with these cases fell.

Maternal Deaths.

The numbers of maternal deaths recorded as occurring in the Municipal Maternity Home in both the Annual Reports of the Medical Officer of Health and the Birth Registers are exactly the same for the years between 1924 and 1930 but are hugely different between 1931 and 1935 (see Table Twenty Five). As has been mentioned before, this was probably due to the move to Hedon Road and the opening up of the isolation wards where cases of sepsis and abortion (which could often result in death) were catered for. These cases would not be recorded in the Birth Registers because these women did not have their babies within the Home. As this study focuses on hospital birth this section is only concerned with the reasons for the deaths of those women who had their babies in the Maternity Home.

As seriously ill patients were often transferred to the Hull Royal Infirmary before 1930 the maternal mortality figures for the Home are somewhat misleading. For example, during 1928 and 1929 no maternal deaths actually occurred within the Maternity Home but two cases (one in each year) were transferred to the Hull Royal Infirmary, where they later died. The first was a primigravida who seventeen days after the birth was found to have several severe medical complications including problems with her spleen, endocarditis, hemiplegia (paralysis of one side of the body) due to a cerebral embolism and pulmonary embolism. She was also found to have the streptococci bacteria in her blood. She was transferred to the Infirmary where she was seen by Dr. Adamson but she died there 27 days later. The other case was of a 27 year old woman who had had one previous pregnancy and who suffered from puerperal fever following the birth of her second child. Both these cases would have been transferred because of the risk of cross infection.

Between 1924 and 1930 there were 14 maternal deaths actually within the Home- three of these followed a caesarian section and have been discussed earlier. There does not seem to be one factor common to all these deaths as there was a wide range of ages, parities and complications amongst the women who died. The youngest was a 21 year old primigravida who had been admitted due to a cardiac problem and the oldest a woman of 45 who had had 12 previous pregnancies and died after a caesarian. One 37 year old woman had had 15 previous pregnancies and died following her sixteenth which was stillborn. She had been admitted for accidental haemorrhage and also had a post-partum haemorrhage from which she never recovered. A variety of conditions, which could have been responsible for the maternal deaths, were noted in these cases. Those listed for the period between 1924 and 1930 were cardiac failure, caesarian section, central placenta praevia, eclampsia (following a craniotomy or due to haemorrhage) and collapse. For example, one woman who had had 11 previous pregnancies was admitted to the Home to have her baby because she suffered from nephritis. She had a stillborn child and died from cardiac failure fifteen minutes after the birth. In the case of central placenta praevia one wonders why there was an attempt to deliver the child naturally as this was usually not possible in such cases. In one of these cases the mother was 34 years old and had had 8 previous pregnancies, she died one and three quarter hours after the birth of a stillborn child.

Another women who died during 1930 was admitted as an emergency and was not booked into the Home. She had eclampsia which had obviously not been detected ante-natally and she went into a coma following the delivery of twins, collapsed and died. Little treatment was available for such cases which was why early detection of the toxaemias of pregnancy was necessary and why so often cases of albuminuria were admitted to the Home for observation. Sometimes collapse followed instrumental delivery as in one case of high forceps delivery during 1930 which was treated with digitalis, Pituitin, styrchnine and coffee saline, all in an effort to stimulate the mother to recover. Initially this is what happened but progress was not sustained and the woman died ten days later. Although not all the Birth Register case notes give details, it would

appear that some attempt was made to revive some of the mothers. For example following haemorrhage, the usual treatment of pituitrin, ergot and salines is recorded and in cases of collapse, brandy was given to try to resuscitate the woman. If treatment proved ineffectual, nothing more was available and the woman died, as in one case during 1924.

Maternal deaths increased in number after 1930 and between 1931 and 1935 there were 39 recorded in the Birth Registers. This however is perhaps to have been expected as the number of admissions rose dramatically in this period and the Home was dealing with the most complicated maternity cases. However as has been shown, the majority of the Home's clientele were having normal experiences. On the whole the data for the period 1931-1935 is less detailed than for the earlier period as ages, previous pregnancies, complications and treatments are not always recorded. Only five of these cases had no record of any complication which may have contributed to their death. For the others pneumonia, T.B. or cardiac failure were noted; whilst others died following obstructed labours or instrumental deliveries, and some had toxaemia, placenta praevia or had the foetus removed by craniotomy. Three had abortions and four had caesarian sections and these have been discussed in the appropriate sections. Whilst it is impossible to be certain that these were the causes of death they would have been contributory factors. For example, one 37 year old woman who had had 6 previous live births and one miscarriage entered the Home during 1931. She had experienced haemorrhaging both before and after labour and had to have the placenta removed manually. This was a complicated procedure that could cause infection either by the introduction of the hand into the uterus or by the failure to remove all the placental tissue. She died shortly afterwards probably either due to shock or loss of blood. Another woman, a 23 year old primigravida, was admitted during 1932 and suffered from eclampsia. There was little the staff could do for her, she was unconscious during the delivery and died shortly afterwards.

Clearly some of the maternal deaths related directly to obstetric interference as in cases of incomplete abortion and caesarian section. Other examples can also be found

as in one case of a forceps delivery which resulted in collapse, shock and death and another which occurred after craniotomy. Other deaths were related not to standards of obstetric and midwifery care but to other medical complications. Some of these cases state the cause of death plainly; for example, one case during 1932 gives cardiac failure as the cause whilst another during 1933 indicates that the mother died from pulmonary tuberculosis.

Although maternal deaths were not confined to one particular age group (the women ranged in age from 17 to 49) or to women with a particular number of previous pregnancies (the women ranged from O to 12) the largest single group were primigravidae below the age of 30- a total of fifteen maternal deaths were primigravidae. One example being a 24 year old who had eclampsia and gave birth to a baby girl after a forceps delivery. Her notes record that she had liver problems (probably as a result of the eclampsia) and that she died three days after the birth. Another primigravida died following a forceps delivery in 1935 but there are no details to indicate exactly what happened.

Overall maternal death amongst those women recorded in the Birth Registers was not a frequent outcome. It occurred in less than 1 per cent of cases for all the years between 1924 and 1935 except two, 1931 and 1933 when it reached 1.14 and 1.01 per cent respectively. Whilst after 1930 it would appear that primigravidae were more at risk of dying in childbirth than other groups of women, a substantial number of cases did not fall into this category. A wide variety of complications (both obstetric and medical) appear to have been responsible for the deaths and a wide range of parities were recorded amongst these women. It is difficult to make general statements about these deaths but what is apparent is that the staff were largely unable to offer any useful and successful treatment. It cannot be said that hospital birth was any safer than home birth but that skilled medical assistance was quickly available. The increasing number of maternal deaths in the Municipal Maternity Home generally related to its changing role after 1930 when accommodation was available to isolate infectious cases which were more likely to result in death.

Despite not being representative of the usual experience of the women within the Municipal Maternity Home, the complicated childbirth cases provide information about one aspect of the Home's work from which certain general conclusions can be drawn. Whilst the percentage of complicated cases taking place in the Maternity Home fluctuated between 1924 and 1935, overall they accounted for approximately one third of the total cases recorded in the Birth Registers. This information is useful in that it suggests that most of the women were not admitted for some obstetric problem but for some other reason and whilst the Home had initially been developed to cater for complicated childbirth, it had widened its admission policy to cater for other groups of women. Moreover as well as providing information about the experience of complicated childbirth, these cases also reflect the level of midwifery/obstetric knowledge at the time and give much information about what was regarded as acceptable and correct procedure.

A wide range of complications were being experienced by women in the Home either ante-natally, during labour, throughout the puerperium or in a combination of these; however of these, the majority were women having some complication of labour. Most of the obstetric interventions recorded in the Birth Register for the period 1924-1935 were those associated with the actual birth; the most common being the ruptured perineum which accounted for one third of all the recorded complications. This is a most interesting statistic as rupture or laceration of the perineum was not regarded as part of the normal management of childbirth. In these cases many women were experiencing unnecessary pain which may have resulted in permanent damage however there was no comment made about this situation within the Home. The high proportion of perineal damage as recorded in the Birth Registers may therefore be related to the work of the home as training school for pupil midwives.

Other interventions also provide information about the experience of childbirth, the treatment offered and the type of care received. For example, a proportion of women were induced (for a variety of reasons) although it is interesting to note that staff appear to have been reluctant to achieve this by rupturing the membranes

artificially. This reflected the nature of midwifery/obstetric knowledge at the time which in this case accepted the protective properties of the amniotic sac. Another aspect of the work was forceps delivery and whilst women were always given a trial labour first, many of these cases came from the district as failed forceps. Whilst it is impossible to comment conclusively on standards of obstetric care amongst general practitioners, the fact that a number of failed forceps were transferred to the Home every year would perhaps suggest that the level of competence of local G.P.s in this area was insufficient and that women having a forceps delivery were better off in the Home. Furthermore, the fact that attention was not paid to standards of G.P. care but rather upon standards of midwifery care suggests differences in the way the two professions were regarded. More research is needed into the work of local doctors, if data can be found, before firm conclusions can be made.

The detail from the complicated case notes illustrates the wide variety of problems experienced by women and the types of interventionist techniques used by the medical team, but also shows that complications usually occurred during the birth itself. As well as being the time when medical intervention was most common, the three stages of labour (dilation, childbirth and expulsion of the placenta) were also the time that most of the drugs used were administered. However, although some of these appear to have been associated with pain relief during (or in the induction of) labour, they were not routinely applied and most women (whether having a complicated or normal experience) were not treated with drugs.

Another interesting feature which emerges from the data is that some of the complications suffered by women during the period 1924-1935 were not related to her pregnant state but were due to some other medical condition. Clearly the Home was also being used too for women whose general ill health may have caused some complication during her labour and the illnesses most often referred to were tuberculosis, pneumonia and heart disease. Most of the complications recorded were however as a result of pregnancy and childbirth.

One of the major concerns of the medical team appears to have been the risk and onset of puerperal fever and staff were ever vigilant for changes to the woman's temperature with any slight elevation being noted in the Birth Register along with its cause (if known). Despite such careful observation little could be done to alleviate puerperal fever when it occurred and most cases were treated with observation and bed rest in isolation. Few drugs were available although the mention of anti-streptococci serum (which was used occasionally) indicates that some attempts had been made to develop a pharmacological response to the problem before the widespread availability of Prontosil. Some women were also recorded as suffering insanity as a result of their experience of childbirth (puerperal mania) and whilst few in numbers they were quickly isolated and often transferred to the asylum. Death too (although not always caused by puerperal fever) remained part of the experience of childbirth and whilst numbers were few, we can only speculate about the impact of a maternal death upon the woman's family, the staff and the clientele of the Home. However, as the staff at the Home carried out some complicated obstetric operations such as caesarian section and therapeutic abortion it is perhaps surprising that death did not occur more often.

Although these women were having what were regarded as complicated pregnancies, labours and puerperia, the majority of complicated births were in fact assisted by midwives. This is surprising in that midwives were supposed to only attend normal childbirth cases and so this would suggest that the work of midwives employed within the Maternity Home was very different to that of their colleagues on the District. In particular the responsibilities of the midwifery staff of the Home appear to have been greater than those required of domiciliary midwives. In some respects this is surprising, particularly given the large number of pupil midwives working on the staff. However, if midwives were to gain the maximum teaching benefit from the variety of cases admitted they had to be allowed to attend complicated cases.

These complicated cases provide much information about the type of medical treatment and care offered within the Home and therefore about the experience of childbirth, as well as details about the work of the medical personnel within the Home.

In some respects the care offered at the Home differed little from that carried out on the District as much of their work was in basic nursing care, observation and encouraging rest. However, there was some medical and pharmacological intervention particularly during the birth, which in some cases resulted in the alleviation of problems and overall few women died.

The Neonatal Population.

Whilst the main focus of this research has been to examine the impact of welfare services on women, no study of the Maternity Hospital would be complete without some discussion of the neonatal population. It is not however my intention to study the babies in detail, but instead to make general observations about their health and welfare. Here too, the Birth Registers only make comments about the infants if their progress was considered unsatisfactory. Most of the babies that were born alive simply had their birthweight and weight upon leaving the Home recorded (although this was not consistently noted for the whole period), as well as the fact that the staff considered them 'satisfactory'. The main focus of this section has therefore to be those babies who were not regarded as satisfactory and the common problems that they experienced in early life. Some attempt will also be made to discuss patterns of care and infant feeding in the first weeks of life, the rates of stillbirths and infant deaths as well as the incidence of and the response to low birthweight babies.

Some general comments will be made about the whole neonatal population using data from all the Birth Registers, where detail is required specific case examples will be drawn from one particular year-1933 was chosen randomly. By this time the move to Hedon Road was complete and the Home had established an Infants' Hospital on site. During that year 885 babies were born in the Home and of these 813 were live births. This year had the highest stillbirth rate for the entire period at 81.36 per thousand live births and there were a number of infant deaths which resulted in a neonatal mortality rate of 29.52 per thousand live births but this was not the highest rate recorded.

It has already been noted that the Birth Registers only record those babies born at the Home or those who were born in transit and admitted as 'Born Before Arrival'. Other

babies were admitted to the Home after 1930 if they required specialist attention, either to the isolation wards if they had ophthalmia neonatorum or pemphigus neonatorum or to the infants' hospital. Babies were also usually referred to the infants' hospital from the infant welfare centres if they had some dietetic disorder, respiratory disease or other abnormality. The infants' hospital was one ward of thirty beds within the Maternity Home and babies were not always admitted free of charge but assessments were made on the same scale as for maternity cases.

This project does not intend to examine the work of the infants' hospital in detail as case notes are not available. However, the expansion of the services offered by the Maternity Home when there were other institutions (such as the Victoria Children's Hospital) offering medical attention to infants does illustrate how the Home was becoming a more important part of the maternity and infant welfare services in the city. There is much scope for further research into this area of the Home's work.

The first point to make about the babies born at the Maternity Home is that the majority were born alive and did not die before leaving the Home (usually after 14 days). The numbers of live births increased steadily between 1924 and 1935 rising from 333 to 879 as a consequence of increased admissions and most had no other comment made about them other than they were satisfactory. Indeed the percentage of babies leaving the Home alive never fell below 87.93 per cent of all births. Despite this fact little comment can be made about these babies because few details were recorded in the Birth Registers.

Whilst an over emphasis on the numbers of stillbirths and infant deaths can be somewhat misleading, encouraging a pessimistic view of the chances of survival for the baby, it does allow some discussion of what caused these deaths and whether the hospital environment had some impact on this. Here too the problem of using two different sets of data has to be confronted and care has to be taken when comparing figures from the Annual Reports of the Medical Officer of Health for Hull and the Birth Registers as the two do not always agree. For example, in 1926 the Annual Report records that 22 stillbirths were registered by the Maternity Home but the Birth Register

data gives details of 27 stillbirths at the Home for that year. These discrepancies probably occurred either because of clerical error or were due to differences in defining and recording information. Where possible the Birth Register data has been used as the actual case notes are available to be studied.

The numbers of stillbirths recorded in the Birth Registers increased for the period 1924-1935 from 17 to 68 but there was some fluctuation between years, the lowest number of stillbirths being 16 in 1925 and the highest 72 in 1933. There appear to be two distinct phases to the patterns of stillbirths one which relates to the period 1924-1929 and another which occurs between 1930 and 1935. Whilst this fits with both the expansion of accommodation and admissions, conclusions should only be tentative and more research is needed into the incidence and cause of stillbirth.

There is little evidence in the case notes to indicate what definitely caused a stillbirth especially in those births which showed no deviation from the normal pattern of childbirth. Despite the difficulties some attempt can be made to suggest a number of factors which may have influenced the outcome. During 1933, which is being used as an illustrative year, there were 72 stillbirths recorded in the Birth Registers, 24 of which occurred in satisfactory labours and 48 in complicated births. Of those born to women having normal labours 12 gave no indication of a possible cause, 6 were premature (defined as either between 28 and 40 weeks gestation and under 88 ounces in weight), 2 were anencephalic (failure of the development of the brain causing death), 2 more were macerated (where the foetus had been dead in the womb for some time), 1 was hydrocephalic (died of water on the brain) and another was one of a twin. None of the stillbirths listed above could be said to have occurred because of interference by the medical staff. However, in the complicated cases this is less certain and a higher risk of stillbirth was found. Some appear to have been due to some problem with the pregnancy; for example, 15 followed haemorrhage of one sort or another (with or without placenta praevia) and placenta praevia itself occurred with 6 of the stillbirths. Others appear to have died because of some problem with the development of the foetus or its position in the womb; for example, 6 were breech deliveries and 6 were

premature. Others followed some specific medical attention; for example, craniotomies were performed in 3 cases and forceps were used in another 8 cases. This is not to say that these are definitely the causes of the stillbirths or that medical intervention necessarily resulted in a higher rate of stillbirth, rather that these conditions may have contributed to the deaths.

The number of neonatal deaths recorded in the Birth Registers also increased throughout the period and fell into two phases in the same way as the stillbirths. Between 1924 and 1929 there were 53 recorded neonatal deaths but for the period 1930-1935 there were far more, a total of 179. This too probably reflects the expansion of accommodation and admissions. The number of infant deaths was far lower than the incidence of stillbirths. The lowest recorded number of infant deaths was in 1924 when 3 were noted and the highest was during 1934 when 36 were recorded. There is little evidence in the Birth Registers to indicate the possible causes of neonatal death. Sometimes the date the infant died was recorded along with its weight and most of the deaths were of babies born prematurely. Complications during labour appear to be of less relevance to the incidence of neonatal death as of the 24 infant deaths recorded in the Birth Register for 1933, 14 were infants whose mothers had had complicated pregnancies, births and puerperia and 10 were babies whose mothers had had a normal experience. Again more research is required before firm conclusions can be made. However, the Annual Reports of the Medical Officer of Health listed the causes of death of all infants who died in the Home (the figures do not always agree with those recorded in the Birth Registers probably because those babies who were brought into the Home after birth and subsequently died would not be recorded in the Birth Registers) and for 1933 it also recorded 24 deaths. The cause of death was given as prematurity in 17 cases, cerebral haemorrhage in 3 cases, atelectasis (problems with the lungs) in 2 cases, congenital malformation in 1 case and gastro-enteritis in another case and these are fairly representative of the causes listed for other years.

Whilst few babies actually died whilst at the Home, the neonatal population experienced a number of health problems and three were singled out as the most serious

by the staff. These were ophthalmia neonatorum, pemphigus neonatorum and prematurity. Ophthalmia neonatorum (inflammation of the eye, which could cause blindness) was linked to venereal disease or vaginal discharge in the mother and to a lack of attention to the cleanliness of the eyes at birth. The midwife had to report all cases to a doctor who was then responsible for notifying the disease. Following the 1926 Public Health (Opthalmia Neonatorum) Regulations, all cases of inflammation however slight were to be notified and to help combat the disease, the Corporation arranged for all cases of opthalmia neonatorum to be treated (freely if necessary) in the Hull Royal Infirmary. As the disease was contagious, strict routines for cleansing all the babies' eyes and the routine administration of drugs were established early on in the Home. Before 1928 the usual treatment was to place drops of silver nitrate or argyrol into all the babies' eyes. After 1928, there was some change to this routine treatment and each baby now had its face bathed in weak perchloride lotion following the delivery of the head and argyol drops into the eyes following birth. Further attention was continually paid to the eyes in the routine care of the new-born child. Despite such policy cases of ophthalmia neonatorum did not disappear and 14 infants were diagnosed with the disease during 1933.

Pemphigus neonatorum was another neonatal disease which concerned the medical staff and from March 1927 it was a notifiable disease. This was a serious and contagious complaint which occurred in epidemics within the Home; for example, a cluster of 6 cases can be found between the 18th and 21st January 1928. Its cause puzzled medics (it was caused by certain bacteria strains or syphilis) but its symptoms were watery blisters on the child and it frequently resulted in death. Because of the risk of the disease, careful attention was paid to the cleanliness and condition of the skin of the infants in the Home and every little rash and spot appears to have been recorded, most of which were simple skin blemishes or nappy rash. There was little effective treatment available other than the use of anti-septics.

As premature babies often died, either at birth or shortly after, special attention was paid to their feeding patterns and general progress. Prematurity was defined as

those babies born before the 40th week and under 88 ounces in weight and special mention was made of their care during midwifery training. In Hull these babies were kept in a separate nursery which was kept very warm and were clothed in flannel gowns with hoods after having their bodies rubbed with olive oil to keep in the heat. They were not usually bathed but 'topped and tailed' to prevent their body temperature falling too low. They were fed every two hours either with expressed breast milk or a proprietary formula and were watched carefully for signs of deterioration which was treated with a little brandy and water. During 1927 and 1928 the Annual reports of the medical officer of health make reference to an enquiry into the health of premature babies requested by the Ministry of Health. This looked at the health of premature babies born in the Maternity Home twelve months after birth and found that they had a survival rate of just over fifty per cent; however no comment was made about how to improve this situation. During 1933 there were 98 babies born prematurely in the Home and most responded well to the treatment given to them. Only 12 are recorded as having died before leaving the Home but it is impossible to know how many survived their first year.

All the mothers were 'encouraged' to breast feed and did so unless there was some reason (usually relating to illness of the mother and insufficiency of breast milk) why she could not. During 1933 26 babies were recorded as not being breast fed but women could not chose whether to breast feed or not. Some babies were fed on powdered milk or cows' milk by bottle or were given a combination of expressed breast milk and formula- both Cow and Gate and Glaxo were used at the Home.

This chapter has examined the place of the Municipal Maternity Home within the developing Maternity and Child Welfare Scheme in Hull by focusing on the experience of over 8000 women who were recorded in the Home's Birth Registers for the period 1924-1935. The importance of the Birth Register data for the study of institutional maternity care at the local level is quite clear, but this source has wider implications for the study of the development of the maternity services in England and Wales. Although essentially based on the urban experience, this data has contributed to our

understanding of the wide range of factors which influenced the expansion of hospital birth generally, both in its use by women and its place within the developing maternity and child welfare service in the inter-war years. This analysis has contributed therefore both to our knowledge of the experience of childbirth within the hospital setting and the place of the maternity home within municipal health policy. At the same time, by offering a medical record of individual women, it has also provided much useful information about the type of care they received and about the management of childbirth at this time. Although it is unlikely that the development of municipal maternity homes in other parts of the country necessarily mirrored that of Hull's Municipal Maternity Home, this study has provided much new information about the expansion of institutional maternity care, its availability and use as well as the experience of childbirth and has suggested a number of factors which will be relevant elsewhere. However whilst conclusions can be made about the overall experience of hospital birth and the progress of the expansion of this type of maternity care, this data has been particularly useful in relaying the individual experience (particularly with regard to complicated birth) and has hopefully provided the reader with a sense of the variety of individual encounters with the municipal maternity hospital service. Conclusions have consistently been drawn throughout this chapter as to the composition of the client group, the work of the medical team and the factors which encouraged the expansion of hospital birth in the period 1924-1935 and therefore it is unnecessary to repeat these findings. However, a few general comments need to be made about the overall nature of the data and the information it provides.

The first, and in some respects most significant, conclusion that can be drawn from the Birth Registers is that whilst the maternity hospital was developed to cater for the abnormal, it was in fact predominantly providing maternity beds for women who had normal pregnancies, births and puerperia. Throughout the whole period, the proportion of cases recording some complication, be it either medical or obstetric, only accounted for the minority of clientele. The expansion of hospital admissions did not therefore indicate a worsening of maternal health but rather signalled the increased

importance of the maternity home within the Maternity and Child Welfare Scheme. Initially developed as a service for those women who had some medical or obstetric complication, definitions of 'need' were expanded and risk categories created which encouraged a variety of groups of pregnant women to attend and brought about the expansion of admissions.

Most of the women who came to the Home were in their twenties and thirties and the vast majority of these were having either their first, second, third or fourth baby. The largest single group consisted of women who came to have their first baby and this was to be expected given the fact that primigravidae were increasingly regarded as in need of hospital birth. A much smaller proportion of the clientele consisted of grande multiparous women (i.e. those having their fifth or subsequent baby) who were also seen as at risk. However what is interesting is that a large number of women who were not regarded, by virtue of their obstetric history, as at risk (i.e. those having second, third and fourth babies) were also admitted. As most births were normal, many of these women had no obvious reason for requiring a hospital birth. This suggests that other factors in addition to obstetric history were important in encouraging women to utilise the services of the Municipal Maternity Home. Whilst this study has clearly identified the importance of both the domestic environment and the economic situation of women, it has also suggested that the needs of pupil midwives and the issue personal choice (which is difficult to quantify) may also have been important. Whilst it is difficult to be precise about which came first, demand from women or the availability of services which then created this demand, it would appear that at least locally, maternity policy encouraged women to take advantage of the facilities supplied by their local Maternity Home.

Whilst most of the Home's work was with normal childbirth and most women did not require intervention of any kind or the attention of a doctor, approximately one third of women admitted suffered some abnormality or deviation from the normal progress of pregnancy, birth and the puerperium. The variety in their experience was enormous and a range of complications were recorded. Most were successfully treated although others

concluded tragically as some women developed complications which resulted in their death, or in the case of puerperal mania transference to the asylum. The approaches applied to these problems were various although in many cases rest, observation and basic nursing care was offered and direct obstetric or surgical intervention was limited (mostly to the actual labour itself).

Much of the medical care of women admitted to the Home appears to have been carried out by midwives and they attended the majority of births, on their own, without the assistance of a doctor. Whilst it was expected that they should attend most normal births, they also attended half the complicated cases as well and were unassisted medically. Therefore the majority of women were regarded as never needing to see a doctor for the entire length of their stay. This would seem to indicate that the work of midwives on a day to day basis in the hospital (where they provided and ran the medical environment) was very different to that of their colleagues working in the community. Hospital-based midwives appear to have had far more responsibility in complicated cases which they often attended alone as the prinicpal birth attendant. However, it is difficult to know whether this practice was confined to the Municipal Maternity Home in Hull or reflected the general differences in the working practices of midwives in institutional as opposed to domiciliary settings. However, midwives working in the community were expected to quickly call the doctor for any abnormality and not to deal with this alone.

As most women were attended by a midwife during their stay (in the same way as they usually would have been if giving birth at home) the value of institutional maternity care for the mothers themselves is, in the majority of cases, difficult to isolate. Women were advised to attend the Home in order to receive the specialised care it could offer, however much of the work of the home appears to have been conducted by pupil midwives. The staff at the Home increasingly consisted of pupil midwives who had to assist at least twenty deliveries to meet the requirements of their training programme. This might help explain why so many women admitted to the Municipal Maternity Home in Hull suffered no other complication other than a ruptured perineum.

Clearly the experience of a wide variety of maternity cases was valuable to pupils' education but the benefits to mothers are less clear. Although specialist obstetric help was readily available if necessary, the fact that the Home was a training school for pupil midwives appears to have been a significant factor in its expansion. Further research is therefore needed to assess the exact contribution of pupil midwives to the work of the medical team.

As a whole the Birth Register data has offered valuable information about the reproductive and childbearing experience of over 8000 local women and has illustrated the wide range of this experience and the approaches to maternity care. Its prime limitation lies in the fact that as a medical archive it sees birth as a medical event and recorded nothing from the women themselves about the care they received. Furthermore, because of the emphasis on the medical approach to birth, the records isolate the experience of childbirth and fail to see the women within their wider economic and social environment.

Much of the work of the Home was in detection and observation; little pro-active medical treatment was actually carried out in the majority of cases between 1924 and 1935. Furthermore when complications arose, the response of staff was limited to basic midwifery care and certain common obstetrical procedures in addition to some pharmacological treatment. In some respects (except where a general anaesthetic or surgical intervention was needed) the work of the Home differed little from the type of work both midwives and general practitioners were already doing on the District. However, the value of a hospital birth for women's health was perceived to be in the fact that bed rest (for up to two weeks after the birth) could be enforced and close observation was possible with staff available twenty four hours a day. If necessary, an obstetrician was available to assist women in childbirth and to monitor her progress and that of her child in the first crucial two weeks of life. At the same time, feeding could be monitored and childcare practices taught to mothers which, it was felt, would improve the survival rates of babies. In the period between 1924 and 1935 the Home took a variety of cases whose admission was based on various factors- medical,

obstetric, social, financial and personal. This wide-ranging admission policy had been adopted before 1924, and was sustained up to 1939 via the promotion of the Home within the local maternity and child welfare service and the consolidation of its role within that service.

[1] M.Rhodes Oral History Interviews with Hull midwives (Uunpublished).

[2] Central Midwives Board Rules framed by the Central Midwives Board Under the Midwives Acts, 1902, 1918 and 1926 Eleventh Edition London Spottiswoode, Ballantine and Co. Ltd. 1928 Page 42.

[3] I am extremely grateful to Jean Standing of the University's computer centre staff for her invaluable help.

[4] See Rule E No.1 Central Midwives Board Rules Op. Cit.1928 Page 22.

[5] J.B. Dee Lee and J.P.Greenhill Principles and Practice of Obstetrics London W.B. Saunders and Co. 1947 Page 202.

[6] Medical Officer of Health for Hull Annual Report 1925 Page 109.

[7] M. Rhodes Oral History Interviews with Hull midwives (Unpublished) and N.Leap and B.Hunter The Midwife's Tale London Scarlet Press 1993 Page 169.

[8] In one such text the author noted that "The midwife, by careful attention during the passage of the head, is able to prevent laceration of the perineum in a large proportion of cases." Sir Comyns Berkley A Handbook of Midwifery London Cassell and Co. Ltd. 1935 Page 378-9.

[9] M.Rhodes Oral History Interviews with Hull midwives (Unpublished).

[10] Medical Officer of Health for Hull Annual Report 1926 Page 108.

[11] Her views are recorded in the Medical Officer of Health for Hull's Annual Report for 1928 Page 136 and in The Lancet Vol.II December 1927 Page 1234-5.

[12] R.Christie Brown, B.Gilbert and R.Hobbs Midwifery London Edward Arnold and Co. 1950 (first published in 1940 and used as the text-book for pupil midwives at Hull's Municipal Maternity Home).

[13] M.Rhodes Op. Cit.

[14] This was also partly in response to the changing role of the Home under the Local Government Act 1929.

[15] J.S.Fairbairn A Textbook For Midwives Oxford University Press 1930 Page 583.

[16] The Medical Officer of Health for Hull noted that "As a miscarriage is so frequently a cause of puerperal infection it is felt that isolation with specialised treatment is the safest course, both for the patient herself and for those she might otherwise infect." Medical Officer of Health for Hull Annual Report 1934 Page 126.

[17] J.S.Fairbairn Op. Cit. 1930 Page 312.

CONCLUSION.

This thesis began with the intention of examining changes to public health policy in the period 1900-1939; to assess how and why the issue of infant and maternal welfare became such an important part of public health ideology at this time and to examine the consequences of this for the provision of services at the local level and the effect upon those groups most intimately involved with the changes. As a result, this study has not simply been an investigation of the formation of social policy regarding mothers and babies and the changing role of local government within this process. Whilst attempts have been made to convey the complex range of influences which impacted upon the development of policy, this work has also examined the relationships between the various government, voluntary and professional agencies involved with the creation of one city's maternity and child welfare policy and the outcome of this for women, both in their capacity as midwives and mothers. Although much of the discussion has focused upon policy and provision and therefore on the interaction between public health and government officials at the national and local level, this thesis has also attempted to place the client at the centre of the debate. Attention has therefore been paid to the experience of pregnancy and childbirth and the impact of the development of maternity and child welfare schemes upon women as mothers. As one of the results of the development of maternity and child welfare policy was an increased use of the maternity hospital, particular attention has been paid to the changing place of birth within the local context and the consequences of this for the experience of childbirth.

The period 1900-1939 witnessed an unprecedented concern for the health and welfare of infants and their mothers and this largely appears to have been a consequence of a general interest in issues of population quantity and quality which manifested itself in attention being paid to birth rates and infant death rates. In fact it seems clear that infant and maternal welfare policy was led, at both the national and local level, primarily by a preoccupation with mortality statistics. However, what has been seen in this study is that the treatment of, and reaction to, infant and maternal mortality statistics varied. The public and wide-ranging debate about infant mortality, its causes and cures, resulted in the development of services both by voluntary agencies

and by local authorities as well as directives from the Local Government Board before the end of the First World War. Although during the same period maternal mortality was also high, this issue did not find a place on the public health agenda at either the national or the local level until the 1920's. Even then, it was approached in an entirely different way and never received the same widespread, urgent attention which had accompanied the debate on infant mortality. It is quite clear that maternity and infant welfare schemes were primarily designed to cater for babies and services for mothers were consistently promoted in light of their contribution to the improvement of infant health. At no time during the entire period was there an increased concern for women's health rather, as a result of the emphasis on infant welfare, attention was paid to the health of women when pregnant. Despite the fact that the number of deaths in childbirth was rising and did not consistently fall until the late 1930's, maternity and child welfare policy was not altered but remained fixed. Indeed there was a generally held belief that the greater application of existing policies (rather than a re-evaluation of these) would eventually produce the desired results. The fact that this did not actually happen did not result in new policies but was generally regarded as being the fault of mothers who were not taking advantage of the services on offer. As a result, national policy tended to highlight infant health as a priority, especially in the period before the inter-war years, and such sentiments were reflected in the debate and services provided at the local level by local government and health officials as well as those working within the voluntary sector. Moreover, the sentiment that mothers were culpable in their own and their infants' deaths was implicit in maternal and infant welfare policy throughout the period and adds further support to the conclusion that, at both the national and local level, health officials were more concerned with the health of babies than with mothers.

In Hull generally speaking, local authority infant and maternal welfare services appear to have developed as a consequence of suggestions and directives from central government. The most important being a memo from Local Government Board (L.G.B.) during 1914 which not only provided a clear blueprint for the organisation of services but also offered financial support for local schemes. This was a matter of crucial

importance to the development of local provision, as the question of the financial costs to the city of the maternity and child welfare scheme appear to have acted as a brake on the development of these services. Although the communication of policy objectives from the Board and later from the Ministry of Health helped shape the structure of local schemes, this was not a simple relationship. Whilst it seems clear that in some cases the Corporation in Hull only acted when instructed by the L.G.B. or Ministry of Health, the transference of national policy objectives to the local level was not always smooth. In many cases action was only forthcoming when there was a statutory requirement to implement change. Moreover, conflict was present amongst local government workers, particularly between the Medical Officer of Health and those officials who controlled the public purse. In many respects it was money that appears to have been the biggest stumbling block to the development of services in Hull and political ideology did not change substantially to remove all local objections in this regard nor did it result in a complete commitment to support services. Although the public health agenda had been sufficiently changed to encourage the local authority to provide education and inspection services, it never produced an environment which made the funding of capital projects or the provision of free treatment (to a substantial number of women and babies) possible.

Whilst there is no doubt that local authority maternity and infant welfare services were increasingly being utilised by working class mothers in Hull, the biggest disadvantage to the services provided was the absence of free treatment. Most of the services available were organised around information, advice and referral and were therefore of limited value to those women who could not afford to implement the recommended advice. However the Corporation in Hull was not unusual in its method of organisation of services, which reflected the dominant ideology of the infant welfare movement. Moreover, providing treatment also meant a financial commitment that the city was not prepared to make. Financial assistance was given to some families in the form of free or reduced cost services and supplements (such as milk) and this was important in that a new principle had been established which acknowledged the

relationship between income and access to health care services. However, the numbers actually receiving free help remained small. Poverty amongst families was not generally accepted as part of the health and welfare equation, rather it was generally believed that mothers could be educated in correct child rearing practices. This solution circumvented the need to reassess the question of financial assistance and, instead of free or low cost treatment, other services were developed. These, such as the meals for nursing mothers, were not created to alleviate poverty but rather to encourage attendance at clinics to allow the observation of both infant and mother which was regarded as crucial to their health and welfare.

Although this thesis has been mostly concerned with the involvement of local government in the provision of services, the role of the voluntary sector in this area needs to be acknowledged. Many of the services for mothers and babies in Hull were begun by charitable organisations, the Schools for Mothers (which became the infant welfare clinics) and the Maternity Home being prime examples, and although the Corporation began to take over the running of services during the First World War, volunteers continued to play an important part in the Hull scheme throughout the period. Indeed volunteers were continuously used to staff the infant welfare clinics and financial contributions were made to the city's maternity and child welfare scheme. Without the work of voluntary agencies it is doubtful that Corporation would have so readily involved itself in the provision of services before it was legally required to do so.

Quite clearly the shape of local government was altered by the development of maternity and infant welfare policies. As infant death became an important public health issue, a new role was created for local government and local health departments which meant some involvement in areas which had previously been considered private. Mothers were initially involved as the principal carers of infants but emphasis was placed on their education rather than their fitness. However, once the relationship between the health of the mother and the health of the foetus had been accepted ante-natal clinics were established which focused upon her well-being when pregnant. This

service, like the infant welfare clinics, provided assessment and referral but little in the way of free treatment to alleviate complaints; it was not until the 1930's that treatment (via the gynaecological and post-natal clinics) was available to women and even then few took advantage of the service. Women could be referred to the clinics by an independent midwife or local doctor, although it took some time for the issue of compensation for loss of earnings to be addressed, but also appear to have made the initial contact themselves. In this respect there was a degree of autonomy for women as they could usually decide whether to participate in the ante-natal service or not and could choose their attendant and place of birth. However, if a woman was assessed for free or reduced cost care, this autonomy was removed and attendance at ante-natal clinic or the Maternity Home (if she was recommended for a hospital birth) was compulsory. Furthermore, she could not always choose her attendant. Although women could discharge themselves from the service, this was also more difficult for those seeking financial assistance. In this way the local authority not only exercised some control over the pregnant population but also guaranteed an increased clientele for its services; as the promotion of ante-natal care led to increasing numbers of women attending, so referrals to other services could be increased.

At the same time there was great debate about the place of the midwife within the medical health care team and much attention was paid to standards of practice. However, this was not only a result of the emphasis being placed upon infant and maternal welfare but was also a consequence of competition between medical health care workers for a place at the side of the childbearing woman. Although this issue had received some attention before the beginning of the century and legislation was introduced in 1902 to regulate and supervise the work of midwives, maternity and infant welfare policy further intensified the rivalries between the midwife, G.P. and obstetrician. During the inter-war years childbirth was medicalised, resulting in the ascendancy of the obstetrician as 'specialist' and the promotion of hospital care. This model of care was accepted and supported by government agencies and appears to have resulted in the maternity services being organised around domiciliary midwifery or

institutional maternity beds; little attention appears to have been given to the place of the G.P. However, although it was the G.P. who was deprived of space within the new service to some extent, overall it would appear that it was midwives who, throughout the entire period under discussion, were most profoundly affected by the policy changes.

The majority of midwives retained their independent status until the end of the period but at the same time were increasingly controlled both by the Central Midwives Board (C.M.B.) and by the local authority (in its role as the Local Supervising Authority). Whilst this may have improved the service offered to women, it is not clear that this produced benefits for all midwives. Although during the period 1900-1939 their work was significantly altered, their status was not necessarily enhanced. At the same time independent midwives were facing competition from the creation of municipal midwifery schemes. In Hull, the Corporation initially compensated independent midwives if mothers were too poor to pay their fee but as this system proved popular and therefore expensive, the system was changed during the 1920's and municipal midwives were directly employed by the local authority. Whilst there was some negotiation about this new service between health officials and independent midwives, essentially rank and file midwives appear to have had little influence on this policy. Although the importance of the municipal midwifery service must be acknowledged, both with regard to its impact upon public health ideology and services to women, it is not clear that this scheme evolved in response to the needs of mothers or because of a desire by the Corporation to provide competent midwifery care to all women. Rather this scheme has to be seen in the light of the demands made by the C.M.B. which insisted that all pupils had domiciliary as well as institutional experience. Moreover, the alteration of the scheme ensured that it was cheaper to run. Despite having their roles and responsibilities altered, midwives consistently remained important components of any local maternity scheme. Whilst it is debatable whether such moves improved their professional status, midwives attended most births (whether

in hospital or in the community) and were therefore crucial to the development, staffing and success of the city's maternity and child welfare scheme.

As emphasis was being placed upon the value of institutional maternity care and more and more women were having an institutional delivery, a substantial proportion of this work has focused on the shift in place of birth. Hospital birth was clearly being promoted through directives from national government and this study has provided a unique insight into this process at the local level. Due to the discovery of Birth Registers from the Municipal Maternity Home, it has not only been possible to explore the increase in hospital birth locally but also to assess why this happened and the consequences of this for the experience of childbirth. Although hospital birth was being promoted via health policy during this period, other factors were also contributing to its expansion; for example, women's groups were demanding institutional confinements. However, in Hull, it appears that the needs of pupil midwives also acted as a significant factor encouraging increased admissions in that when it became clear that the number of cases was insufficient for the needs of pupils, efforts were made to increase admissions. As a consequence of these demands, risk categories were created (for instance primigravidae were to be regarded as in need of hospital birth) and admission policies were widened (to allow women who could pay access to beds, for example) which resulted in more and more women being defined as in need of hospital birth. The Maternity Hospital in Hull had been developed to cater for women suffering some complication but as risk categories were widened and social factors considered, more and more women were admitted. As a result between 1924 and 1935, whilst admissions increased, the majority of women were having normal births, whilst only one third of the clientele were suffering some medical or obstetric problem. However, the value of this data has not only been in that it has helped locate the Maternity Home within Hull's maternity and infant welfare policy, but also it has provided an insight into the medical care available to pregnant women and the experience of hospital birth. Despite being promoted as a superior environment in which to give birth, most women were attended by midwives and never needed to see a doctor for the entire length of their stay.

Medical attention was mostly organised around rest, observation and nursing care whilst direct surgical, obstetric and pharmacological intervention was limited. Moreover, as pupil midwives made up a substantial proportion of the staff it is in fact doubtful that women were receiving superior maternity care compared with home births..

Although it was genuinely believed that by the wider application of ante-natal care, qualified midwifery attendance at birth and the greater application of institutional birth maternal mortality would be reduced, it is quite clear that there were other factors influencing the development of services for mothers. Whilst the issue of infant health was important, the needs of pupil midwives were crucial to the development of both the municipal midwifery scheme and to the expansion of local authority maternity beds. This factor has been overlooked by previous studies but was clearly of great importance, at least in Hull, where these services were actually being organised primarily to meet the training requirements of the C.M.B. Whilst the public health rhetoric stated that such services would improve maternity care for mothers, it is not clear that this was entirely the case in reality. Indeed it is difficult to see how these services would necessarily have improved the standard of care women actually received as they were largely staffed by pupils and not by qualified midwives.

The consequences of the emphasis upon maternal and infant welfare for mothers, at least in Hull, were most marked in the inter-war years. During this time services were expanded and more women took advantage of them. Those which had a most dramatic influence upon the experience of childbirth appear to have been the development of the Municipal Maternity Home and the changes to the provision of qualified midwives. However, it is clear that the experience of pregnancy and childbirth (particularly for working class women who used the local authority services the most) was not altered suddenly as a result of the change in public health ideology and the implementation of maternal and infant welfare services. The majority of births were still taking place at home and in Hull no more than 20 per cent of all babies were born in the Maternity Home. Little widespread impact appears to have been made until the 1920's and even then change was mostly associated with the labour itself and not with ancillary services

such as ante-natal, post-natal treatment or birth control. For example, the effects of the 1902 Midwives Act were felt by the 1920's as the composition of the midwifery labour force was altered and more qualified midwives were available but it was not until the end of the period that legislative change (in the form of the 1936 Midwives Act) totally altered the provision of midwifery care. This reflects the medicalisation of childbirth (and not pregnancy) which was taking place at this time as well as the recurrent debates about the place of the midwife. In addition, the increased use of the Maternity Home offered an entirely different environment to a home confinement, although for most the attendant was still the midwife. Furthermore, despite changes to public health policy, the threat of death in childbirth remained very much part of the experience of childbirth.

The overall effects of the development of maternal and infant welfare policy varied amongst the different groups involved, health and local government officials, midwives and mothers; however it would seem that in Hull at least, changes in national government ideology regarding infant and maternal health and welfare were not only important in helping to alter local government's attitudes towards public health, but also had a profound and sustained impact upon midwives (who changed from being fully independent practitioners to local government employees) and mothers (who were particularly affected by the expansion of hospital birth and the changes to midwives). Whilst the experience of Kingston upon Hull cannot necessarily be seen as a blueprint for other areas, this thesis has illustrated how one particular local authority coped with the changes to the public health ideology, at how this impacted upon the provision of services, on the mothers who used them and on the midwives who staffed them. Whilst it is undoubtedly true that different areas reacted in different ways to the policy changes emanating from central government, this study has suggested that a variety of factors were at work, not all of them necessarily related to the issue of infant or maternal health and welfare, some of which may be common to other areas. It is clear that the development of local maternity and infant welfare services was not simply a question of local authorities reacting to directives from government but was a process of local

negotiation very much dependant upon the power relationships between local government, health officials and medical health care workers.

The development of municipal maternity services in England and Wales can be broadly divided into two phases; the first between 1900 and 1918, which saw the creation of policy and the shift from voluntary to local authority services following government interest at the national level and the impact of the First World War on the 'Population Question' and the second, which covered the period to 1939, saw the extension of this policy, the medicalisation of childbirth and an increased use of local authority services by working class mothers. This not only resulted in a change to public health ideology but caused shifts to be made in the relationships between and amongst local authority public health workers, local government workers and medical health care professionals who were all vying for space within this newly developed sector of medicine and public health.

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APPENDIX ONE: Cross Tabulations Showing the Age and Parity of the Municipal Maternity Home's Clientele, 1924-1930.

Age of Mother	0	1	2	3	4	5	6	7	8	9	10	11	12	16
-9	9	7	3	1	2	1	0	0	0	0	0	0	1	0
17	1	0	0	0	0	0	0	0	0	0	0	0	0	0
18	7	1	0	0	0	0	0	0	0	0	0	0	0	0
19	8	2	0	0	0	0	0	0	0	0	0	0	0	0
20	12	6	0	0	0	0	0	0	0	0	0	0	0	0
21	13	7	3	0	0	0	0	0	0	0	0	0	0	0
22	10	6	4	0	0	0	0	0	0	0	0	0	0	0
23	11	7	2	1	0	0	0	0	0	0	0	0	0	0
24	8	12	5	3	2	0	0	0	0	0	0	0	0	0
25	5	15	3	2	0	0	0	0	0	0	0	0	0	0
26	11	5	5	1	1	0	0	0	0	0	0	0	0	0
27	5	3	5	3	1	1	0	0	0	0	0	0	0	0
28	4	7	4	2	0	0	0	0	0	0	0	0	0	0
29	4	4	2	2	2	1	1	0	1	0	0	0	0	0
30	5	2	2	1	0	0	0	0	0	0	0	0	0	0
31	1	4	3	0	2	2	0	0	0	1	0	0	0	0
32	0	0	2	4	2	1	0	2	1	0	0	0	0	0
33	1	0	1	1	1	0	1	0	0	0	0	0	0	0
34	1	3	1	2	0	2	0	0	1	0	0	0	0	0
35	1	0	1	1	3	0	0	1	0	0	0	0	0	0
36	2	1	2	2	0	0	0	3	0	0	0	0	0	0
37	0	1	1	1	1	0	0	0	1	0	0	0	0	0
38	0	0	0	0	0	1	1	0	0	1	0	0	0	0
39	1	0	1	1	1	0	3	0	0	1	0	0	0	0
40	0	1	1	0	0	0	0	1	2	0	0	0	0	0
41	0	0	0	1	1	0	0	0	0	1	0	0	0	1
42	0	0	0	0	0	0	0	0	0	0	0	1	0	0
44	1	0	0	0	0	0	1	0	0	1	1	0	0	0
46	0	0	1	0	0	0	0	0	0	0	0	0	0	0

Age of Mother	0	1	2	3	4	5	6	7	8	9	12
-9	4	4	3	4	0	0	1	0	0	0	0
16	1	0	0	0	0	0	0	0	0	0	0
17	3	0	0	0	0	0	0	0	0	0	0
18	12	0	0	0	0	0	0	0	0	0	0
19	20	2	0	0	0	0	0	0	0	0	0
20	33	3	0	1	0	0	0	0	0	0	0
21	19	8	1	0	0	0	0	0	0	0	0
22	21	4	0	0	0	0	0	0	0	0	0
23	20	10	5	1	0	0	0	0	0	0	0
24	21	17	7	0	0	1	0	0	0	0	0
25	15	9	4	1	0	0	0	0	0	0	0
26	12	10	6	1	0	0	0	0	0	0	0
27	11	4	10	2	1	0	0	0	0	0	0
28	6	4	5	0	0	2	0	0	0	0	0
29	11	5	4	1	4	2	0	1	0	0	0
30	6	5	5	5	3	3	1	0	0	0	0
31	2	0	4	1	5	3	0	1	0	0	0
32	3	3	2	3	3	0	0	0	0	0	0
33	0	3	2	0	1	0	3	0	0	0	0
34	2	5	2	3	1	1	0	0	0	0	0
35	0	1	3	5	2	0	2	1	0	1	0
36	0	0	0	0	0	1	0	0	0	0	0
37	0	0	1	1	0	0	3	2	1	2	0
38	0	0	0	1	2	1	2	0	0	1	0
39	0	0	1	0	0	1	0	2	0	1	0
40	0	1	0	0	0	0	0	0	0	1	0
41	0	0	0	1	0	0	1	1	0	0	1
42	0	0	0	0	0	0	0	0	0	1	0
43	0	0	0	0	0	0	0	0	0	0	1
44	0	0	0	1	0	1	0	0	0	0	1
45	0	0	0	0	0	0	1	0	0	0	0
46	0	0	1	0	0	0	0	1	0	0	0

Age of Mother	0	1	2	3	4	5	6	7	8	9	10	11	12	14	17
-9	7	5	4	1	3	0	0	0	0	0	0	1	0	0	0
17	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0
19	26	5	0	0	0	0	0	0	0	0	0	0	0	0	0
20	28	5	0	0	0	0	0	0	0	0	0	0	0	0	0
21	19	9	4	0	0	0	0	0	0	0	0	0	0	0	0
22	20	12	3	0	0	0	0	0	0	0	0	0	0	0	0
23	18	19	2	1	1	0	0	0	0	0	0	0	0	0	0
24	26	10	6	2	0	0	0	0	0	0	0	0	0	0	0
25	8	10	5	6	0	0	0	0	0	0	0	0	0	0	0
26	13	13	9	7	0	1	0	0	0	0	0	0	0	0	0
27	9	12	7	2	3	0	0	0	0	0	0	0	0	0	0
28	8	7	8	2	0	0	0	1	0	1	0	0	0	0	0
29	6	6	2	6	1	0	0	1	0	0	0	0	0	0	0
30	5	5	5	3	2	0	0	0	0	0	0	0	0	0	0
31	4	2	1	2	2	0	0	0	0	0	0	0	0	0	0
32	4	4	3	2	0	0	0	1	0	1	0	0	0	0	0
33	0	3	1	3	1	0	0	1	0	1	0	0	0	0	0
34	3	3	0	0	1	3	0	2	0	1	0	1	0	0	0
35	3	1	0	2	4	1	3	0	0	0	1	0	0	0	0
36	0	0	2	3	3	1	1	0	1	1	0	0	0	0	0
37	1	0	2	0	0	2	1	1	0	1	0	0	0	0	1
38	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
39	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0
40	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0
41	0	1	0	0	0	1	1	0	0	0	0	0	0	1	0
42	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
43	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0
44	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

Age of Mother	0	1	2	3	4	5	6	7	8	9	10	11	12	15	18
-9	3	6	2	2	2	0	0	1	1	1	0	0	0	0	0
17	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	25	5	0	0	0	0	0	0	0	0	0	0	0	0	0
20	28	4	1	0	0	0	0	0	0	0	0	0	0	0	0
21	36	9	2	0	0	0	0	0	0	0	0	0	0	0	0
22	22	19	4	0	0	0	0	0	0	0	0	0	0	0	0
23	23	13	1	0	0	0	0	0	0	0	0	0	0	0	0
24	19	21	5	1	0	0	0	0	0	0	0	0	0	0	0
25	14	10	5	1	0	0	0	0	0	0	0	0	0	0	0
26	17	6	7	5	4	0	0	0	0	0	0	0	0	0	0
27	6	8	10	4	1	1	0	0	0	0	0	0	0	0	0
28	2	7	3	2	1	0	2	1	0	0	0	0	0	0	0
29	5	7	7	5	1	3	1	0	0	0	0	0	0	0	0
30	7	5	7	5	1	0	1	2	1	0	0	0	0	0	0
31	4	4	8	3	3	0	0	1	0	0	0	0	0	0	0
32	1	4	7	4	2	2	1	0	0	0	0	0	0	0	0
33	2	1	2	1	2	1	0	1	0	0	0	0	0	0	0
34	0	1	4	1	2	0	2	1	1	1	1	0	0	0	0
35	1	3	2	4	1	2	1	3	2	0	0	0	0	0	0
36	1	2	1	0	2	2	2	0	0	0	0	0	0	0	0
37	0	3	3	0	1	0	2	0	0	0	0	1	0	1	0
38	2	3	2	0	2	0	1	0	1	0	0	1	0	0	0
39	0	0	1	2	0	0	1	3	1	1	0	0	0	0	1
40	0	0	0	0	1	0	2	1	0	0	0	1	1	0	0
41	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0
42	0	0	2	0	1	0	0	0	0	0	0	1	0	0	0
43	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0
44	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
46	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

Age of Mother	0	1	2	3	4	5	6	7	8	9	10	11	12	14
-9	13	4	1	0	1	0	1	0	0	0	0	0	1	0
15	1	0	0	0	0	0	0	0	0	0	0	0	0	0
16	1	0	0	0	0	0	0	0	0	0	0	0	0	0
17	8	0	0	0	0	0	0	0	0	0	0	0	0	0
18	18	0	0	0	0	0	0	0	0	0	0	0	0	0
19	30	1	0	0	0	0	0	0	0	0	0	0	0	0
20	32	6	1	0	0	0	0	0	0	0	0	0	0	0
21	31	9	2	0	0	0	0	0	0	0	0	0	0	0
22	27	19	4	2	1	1	0	0	0	0	0	0	0	0
23	26	22	8	1	0	0	0	0	0	0	0	0	0	0
24	17	9	3	1	0	0	0	0	0	0	0	0	0	0
25	16	10	3	1	1	0	0	0	0	0	0	0	0	0
26	15	16	4	3	6	0	0	0	0	0	0	0	0	0
27	14	9	10	1	1	0	2	0	0	0	0	0	0	0
28	13	8	5	2	3	0	2	1	0	0	0	0	0	0
29	10	5	2	4	0	0	2	0	1	0	0	0	0	0
30	7	4	4	5	4	2	1	0	0	0	0	0	0	0
31	5	3	6	5	2	0	3	0	0	0	1	0	0	0
32	3	7	5	0	0	1	2	0	0	0	0	0	0	0
33	2	0	0	4	2	1	1	0	0	0	0	1	0	0
34	4	1	1	2	2	0	1	1	1	0	0	0	0	0
35	1	0	3	2	0	0	1	0	1	1	0	0	0	1
36	1	0	2	2	2	1	0	0	0	0	0	0	0	0
37	4	1	0	4	0	1	1	1	2	0	0	0	0	0
38	2	1	3	3	0	1	1	1	0	1	0	0	1	0
39	1	0	0	1	1	0	0	1	3	0	0	0	0	0
40	0	0	0	0	0	0	2	2	3	0	0	0	0	0
41	0	2	1	0	1	0	1	0	0	1	0	0	1	0
42	0	0	0	0	0	1	0	0	0	0	1	1	0	0
43	0	0	0	0	1	0	0	1	0	0	1	0	0	0
44	0	0	0	0	1	0	2	1	0	1	0	0	0	0
45	0	0	0	1	0	0	0	0	0	0	0	0	0	0

Age of Mother	0	1	2	3	4	5	6	7	8	9	10	11	12	13	18	19
-9	12	8	1	1	0	0	0	0	0	0	0	0	1	0	0	0
16	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	18	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	26	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0
21	30	9	0	1	0	0	0	0	0	0	0	0	0	0	0	0
22	37	16	4	0	0	0	0	0	0	0	0	0	0	0	0	0
23	20	9	2	0	1	0	0	0	0	0	0	0	0	0	0	0
24	21	17	2	1	1	1	0	0	0	0	0	0	0	0	0	0
25	25	16	11	2	1	0	0	0	0	0	0	0	0	0	0	0
26	25	12	9	2	1	0	0	0	1	0	0	0	0	0	0	0
27	12	13	6	4	1	1	1	0	0	0	0	0	0	0	0	0
28	10	11	5	1	3	2	0	0	0	0	0	0	0	0	0	0
29	14	13	6	5	3	2	1	0	0	0	0	0	0	0	0	0
30	5	2	1	3	4	1	1	0	0	0	0	0	0	0	0	0
31	6	6	1	0	1	0	0	0	0	0	0	0	0	0	0	0
32	5	3	4	2	2	1	1	1	0	1	0	0	0	0	0	0
33	0	5	2	4	0	1	0	2	0	0	0	0	0	0	0	0
34	0	1	1	2	0	0	1	0	0	1	1	0	0	0	0	0
35	2	2	3	0	2	1	1	0	0	0	0	0	0	0	0	0
36	0	0	4	1	0	1	0	3	0	0	0	2	0	0	0	0
37	1	0	0	3	2	0	1	0	2	0	2	0	0	0	0	0
38	2	1	0	0	3	0	0	1	0	1	1	0	0	0	0	0
39	0	0	0	1	1	1	0	0	0	1	0	0	0	0	0	0
40	0	0	2	0	3	2	0	0	2	2	0	1	1	1	1	1
41	0	0	2	0	0	0	2	1	0	1	0	0	0	0	0	0
42	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0
43	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0

Age of Mother	0	1	2	3	4	5	6	7	8	9	10	11	12
-9	16	14	3	1	1	0	2	0	1	0	1	0	1
15	1	0	0	0	0	0	0	0	0	0	0	0	0
16	1	0	0	0	0	0	0	0	0	0	0	0	0
17	6	0	0	0	0	0	0	0	0	0	0	0	0
18	24	0	0	0	0	0	0	0	0	0	0	0	0
19	28	5	0	0	0	0	0	0	0	0	0	0	0
20	32	10	1	0	0	0	0	0	0	0	0	0	0
21	47	14	5	0	0	0	0	0	0	0	0	0	0
22	39	15	3	1	0	0	1	0	0	0	0	0	0
23	41	23	8	0	0	0	0	0	0	0	0	0	0
24	24	21	8	2	0	0	0	0	0	0	0	0	0
25	23	17	9	3	1	0	0	0	0	0	0	0	0
26	15	15	5	3	1	0	0	0	0	0	0	0	0
27	19	18	1	5	0	0	0	0	0	0	0	0	0
28	22	8	6	4	0	0	0	0	0	0	0	0	0
29	13	14	4	5	1	1	1	0	0	0	0	0	0
30	7	11	8	4	6	2	2	1	0	0	0	0	0
31	4	3	4	1	2	2	2	2	0	0	0	0	0
32	3	6	5	7	3	2	2	0	0	0	0	0	0
33	3	4	1	5	2	0	2	2	0	0	0	0	0
34	3	5	4	2	1	0	2	0	1	0	0	0	0
35	2	3	2	5	1	1	0	2	1	0	0	0	0
36	1	6	1	2	1	2	1	4	0	1	0	0	0
37	2	1	3	1	2	2	1	0	3	2	0	0	0
38	1	1	2	4	1	0	3	0	0	0	1	0	1
39	0	1	1	0	2	2	2	0	2	2	0	0	0
40	3	2	1	0	1	2	0	2	2	0	0	0	0
41	0	0	2	1	1	0	1	1	1	1	0	0	0
42	0	0	0	0	0	0	0	1	1	1	0	0	0
43	0	0	1	0	1	0	0	1	0	0	0	0	0
44	0	0	0	0	0	1	0	0	0	0	1	0	0
45	0	1	0	0	0	0	0	0	0	0	0	1	0
46	0	0	0	0	1	0	0	0	0	0	0	0	0