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**HEALTH VISITING AND HEALTH EXPERIENCE
OF INFANTS IN THREE AREAS**

BY

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Thesis Submitted for the degree of Ph.D., University of London

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ABSTRACT

The development of health visiting is reviewed and the literature relating to the nature of health visiting practice and its contribution to child health is evaluated. Current inequalities in child health experience are discussed. Health education is considered in relation to health visiting and Becker's Health Belief Model (1974) is evaluated for its feasibility as a framework for understanding 'preventive health behaviour' in child care. An attempt is made to justify the use of a retrospective census survey of health visitor records as a method of data collection to elicit the practice of health visiting and the health experience of infants during their first two years of life.

The findings are presented in two ways - first, as sample characteristics comparing an inner city population (n=756) with two suburban districts (n=127, n=97). This is followed by an examination of utilisation rates of National Health Service provisions, health visitor home visiting practice, and contact of families with selected non-Health Service provisions. Residence in the high socio-economic suburb and median socio-economic suburb was clearly related to more fortunate social circumstance as compared with residence in the inner city. Increased uptake of acute paediatric facilities and reduced uptake of prophylactic care was related to poor social circumstance. Health visitor home visiting did not appear to be based upon a clear strategy to compensate for poor social circumstance. Further, health visitor home visiting was noted to be limited in its extent during the first two years of an infant's life, particularly in the suburbs. The findings are discussed and the implications to health visiting practice considered.

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CHAPTER 1

INTRODUCTION

The history of health visiting is one of an occupation specifically developed to provide a preventive home visiting service to children and their families. The historical literature is consistent in concluding that the origins of health visiting are to be found in the nineteenth century voluntary and philanthropic effort which preceded statutory based services. Early health visiting began with the distribution of leaflets and was extended to include health teaching, social support and child welfare. It was given impetus by the national concern over the poor health of Boer War recruits and the massive loss of life caused by World War I, together with the then prevailing high infant mortality rates.

World War II also brought in its wake changes, notably the establishment of the National Health Service and with it a statutory provision of health visiting. While the National Health Service Act of 1946 extended the role of the health visitor beyond a concern for expectant and nursing mothers and young children, the Children Act of 1948 removed health visitors from the field of child protection in an attempt to bring such responsibilities under one authority, namely local authority children's committees.

The wide interpretation of the role of the health visitor subsequent to the 1946 National Health Service Act caused much debate and inter-professional conflicts between health visitors and social workers. The Jameson Working Party (Ministry of Health, 1956) was appointed to review the 'proper field of work' of health visitors and while noting that health education should be an important

function, the Report also suggested that health visitors should be engaged in 'social advice'. The two subsequent enquiries into social work (Ministry of Health, 1959a; Seebohm Committee, 1968) did not address themselves to the role relationships of health visitors and social workers so perpetuating the conflict and confusion which some would argue continues to persist. The relationship between health visiting and the main body of nursing has also been difficult at times, particularly in the areas of management and education and health visiting has also been reluctant to formalise its relationship with general practice.

Both the Brotherton (Scottish Home and Health Department, 1973) and Court (Department of Health and Social Security, 1976a) Reports laid great emphasis upon the value of preventive paediatrics and particularly acknowledged the contribution of health visitors in this field. The Reports identified developmental assessment as the means of recognising handicapping conditions at the earliest possible time. They hoped that subsequent active management of the identified problem would reduce the detrimental consequences for the child. The value of infant immunisation lies in its very real contribution to child welfare and the prevention of illhealth. These prophylactic measures had a striking effect upon the control of infectious disease in the post-war period (Dick, 1978), in particular, in the control of poliomyelitis. The cost-effectiveness of polio vaccine is now well-established, not only in financial terms, but also in human terms with few suffering the disastrous consequences of the disease (Department of Health and Social Security, 1976b). Health visiting has been identified as a means of persuading parents to accept prophylactic care and educating parents in child care. Health visitor home visits were also seen as a means of providing health education to parents who did not attend child health clinics. More recently, the Short Report

(House of Commons, 1980a) emphasized the role of the health visitor in the support of mothers during and after pregnancy. The Black Report (Department of Health and Social Security, 1980a) further suggested that inequalities in health experience could be reduced through the development of community services and health education.

McKeown (1976) has argued that the burden of disease and the cost of curative services could be reduced through the redistribution of funds in favour of prevention. However, Muir Gray (1980) has argued that such a redistribution of funds may not change morbidity and mortality rates. Muir Gray has pointed out that prevention of illhealth depends upon the motivation of the individual which may be stimulated by health education and, in some cases, by law. Because the motivation of an individual depends in part upon whether an individual can anticipate a reasonable lifestyle in the future, the social and economic circumstances of the country are important. It has long been admitted that the effects of primary prevention are in the long term for an individual and in this context Muir Gray has argued that prospects of a poverty stricken life with limited employment will mean that the message of primary prevention will have little meaning for many people. The importance of social circumstances is also emphasized by McKinlay (1979) who has asserted that specific medical measures and the expansion of medical services have had little effect on the overall health of populations. He has further asserted that prevention of disease is more likely to be achieved by social and environmental changes. In contrast, Warner (1979) has argued that empirical evidence supports the view that primary prevention activities are frequently cost-effective, particularly when the individual's role is relatively passive, such as receiving an injection.

Illich (1975) and Kennedy (1981) identified the redistribution of funds in favour of prevention as having the added advantage of reducing the dependence of society on the medical profession. Indeed, Katz and Levin (1980) considered the development of the self-care movement in the United States and other Western societies as a reaction against the philosophy and practice of the prevailing health care system. They suggested that the self-care movement was the result of individuals taking action in their immediate interests and they pointed out that the movement represents the popular reaction of a variety of ideologies, for example: rejection of medicine's perceived depersonalisation of the individual, drive for greater personal control over one's own life, appeal of 'alternative therapies'..... Katz and Levin in their paper have anticipated considerable future growth in the self-care movement in the Western world.

The increasing cost of the curative services caused the Department of Health and Social Security in 1976(b) to posit the view that curative medicine may increasingly be subject to the law of diminishing returns. And it would seem that the government holds the view that primary prevention through health education may improve the health of children (Department of Health and Social Security, 1981b) with health visitors devoting most of their time to this preventive work (Department of Health and Social Security, 1977a). Doll (1983), in reviewing the 'Prospects for Prevention' in the 1982 Harveian Oration, suggested that opportunities for improving health by the prevention of disease were immense.

Despite the long history of health visiting in the field of preventive paediatrics, research evaluating the contribution of health visiting to child health is very limited. This study is an attempt to redress this deficit in a small way. It was designed as a descriptive study with three main aims: to ascertain the utilisation of National

Health Service provisions by selected infants; to describe the contribution of health visitor home visiting to the health experience of these infants; and to ascertain the contribution of selected family support provisions to these infants.

The thesis falls into three distinct sections: a literature review, a presentation of the findings, and finally, a discussion of the findings. Chapter 2 reviews the historical development of health visiting against the background of British social policy and the emergence of a national health care system. It is suggested that health visiting is a quasi-autonomous occupation which lies somewhere between social work and nursing. Chapter 3 considers the literature pertinent to the practice of health visiting which includes the function and professional skills of a health visitor, the nature of health visiting activity and an evaluation of health visiting in terms of its effect upon infant mortality rates and consumer satisfaction. It is suggested that health visitors acquire four core skills during their post-registration training but do not gain a coherent framework on which to base their subsequent practice. The research evaluating health visiting is very limited, and none could be found which considered the effectiveness and efficiency of health visiting in achieving its stated aims. Chapter 4 reviews literature regarding inequalities in child health and concludes by agreeing with previous well known findings that social circumstances are associated with, and have a profound effect upon, health experience. Chapter 5 completes the literature review with a consideration of literature in the field of health education. Becker's Health Belief Model (1974) is described and evaluated and its potential use in health visiting practice is outlined.

Chapter 6 describes the method of research. An attempt is made to justify a retrospective analysis of health visiting records by means of a census survey. Chapter 7 describes the characteristics of the sample and Chapter 8 presents the findings regarding the utilisation of National Health Service provisions. Chapter 9 describes the findings relating to health visitor home visiting practice and Chapter 10 presents the findings on the utilisation of the selected family support provisions outside the National Health Service.

Chapter 11 considers the characteristics of the sample and the importance of area of residence to sample characteristics. The utilisation rates of National Health Service provisions are discussed in terms of their support for the view that social circumstance is a major determinant of health experience. Chapter 12 presents a discussion of health visitor home visiting practice and the contribution of other selected family support provisions. It is suggested that the limited contact health visitors have with infants and their families is inadequate to sustain a health education and support programme. Further, it is shown that health visitors do not positively discriminate in favour of disadvantaged families in terms of home visiting. Chapter 13 concludes the thesis and includes a critique of the research and suggestions for future research.

Throughout the thesis the word 'infant' refers to children under the age of two years rather than children before their first birthday as it is employed by medical statisticians. For reasons of both brevity and clarity the words 'suburb' and 'affluent suburb' are employed thus: 'suburb' refers to the selected median socio-economic suburb and 'affluent suburb' refers to the selected high socio-economic suburb.

CHAPTER 2

THE DEVELOPMENT OF HEALTH VISITING

" 'Health visitor' means a woman* employed by a local health authority for the visiting of persons in their homes for the purpose of giving advice as to the care of young children, persons suffering from illness and expectant or nursing mothers, and as to the measures necessary to prevent the spread of infection and also includes a woman so employed by a voluntary organisation under arrangement with a local health authority." (Statutory Instrument, 1948, Number 1415).

2.1. Early History

The history of health visiting has been described as one form of public response to the adverse living conditions which were perceived as significantly contributing to the infant and child morbidity rates of the nineteenth century (Baly, 1973). Health visiting in the United Kingdom began in the middle of the nineteenth century as a voluntary movement in the wake of sanitary reform. The two cholera epidemics in 1831-2 and 1848 appeared to act as a catalyst of public opinion in favour of public health measures (Briggs, 1961), although this interest in sanitary reform subsided as the epidemics were resolved (Baly, 1973).

However, Edwin Chadwick's Sanitary Report (1842) created sufficient interest to give momentum towards an acceptance that a control of public health was a legitimate function of government (Frazer, 1950). The Report brought together a mass of evidence exposing the gross inadequacy of urban living conditions:

* Regular training of male health visitors began in 1979.

".....impurity and its evil consequences are greater or less in different places, according as there is more or less sufficient drainage of houses, streets, roads, and land, combined with more or less sufficient means of cleansing and removing solid refuse and impurities, by available supplies of water for the purpose." (Chadwick, 1842, page 79 in Flinn edition).

The Report accumulated evidence of the differing life expectancy of those born to different classes and in particular, the higher infant mortality rate among the 'labouring population'. 'An Act for Promoting the Public Health' reached the statute book in 1848 and was the first in a long line of Public Health Acts. It emerged as an attempt to control various aspects of the environment:

".....it shall not be lawful newly to erect any House....., unless and until a covered Drain or Drains be constructed,sufficient for the proper and effectual Drainage of the same." (Clause XLIX).

However, the Bill had been subject to strong parliamentary opposition with some Members of Parliament considering the Bill as an interference with personal liberty while others were anxious to protect their pecuniary interests (Frazer, 1950). As a result of parliamentary compromise, the Act was only permissive in its powers, unless adopted in an area or made enforceable due to the average death rate over seven years of age exceeding 23:1000. Thus areas were permitted to appoint Medical Officers of Health:

".....a fit and proper Person, being a legally qualified Medical Practitioner or Member of the Medical Profession, to be and be called the Officer of Health." (Clause XL).

The 1848 Act did not legislate for improvements in standards of personal health and hygiene but left these improvements for the voluntary sector. Consequently, the pioneer activities of the newly appointed Medical Officers of Health were accompanied by developments in the voluntary sector. Several explanations have been offered to account for the voluntary sector's concern in public health and private hygiene. One was the mooted relationship between religious belief and personal health suggested by Newsholme (1935). Further, middle class women were becoming a valuable source of manpower for the voluntarism of this period. Visiting the poor in rural areas was an established form of charity although Roof (1957) has pointed out that extension of such schemes to poor urban areas was not without its problems. Out of this background, The Ladies Sanitary Reform Association was formed in 1862 in Manchester and Salford, three years after the foundation of the Manchester and Salford Sanitary Association whose work was reviewed in the British Medical Journal in 1863. The Ladies Sanitary Reform Association has traditionally been credited with being the first health visiting practice in the United Kingdom and establishing a model of low cost preventive health care based upon house to house health surveillance. The respectable working women were appointed by the Association in 1867 to go:

".....from door to door among the poorer classes of the population, to teach and help them as opportunity offered " (McCleary, 1933. page 85),

and have been recognised as the direct antecedents of health visitors. Their duties were extended from the distribution of leaflets to include the teaching of hygiene and child welfare, providing social support and the teaching of moral and mental health.

Although the voluntary associations of the period were important, the growth of central government's involvement was confirmed. Three factors combined to extend government involvement into the area of health of individuals. The nineteenth century system of health provision had an injurious effect upon the health of mothers and infants since the provision was managed by two separate authorities, namely; the Board of Guardians and the health authorities. Indeed by the early twentieth century the Minority Report of the Poor Law Commission (Webb and Webb, 1909a) drew attention to this shortcoming in the provision of public welfare:

".....the continued existence of two separate rate-supported Medical Services in all parts of the Kingdom,....., overlapping, uncoordinated with each other and sometimes actually conflicting with each other's work - cannot be justified "
(pages 584 - 585),

and it was felt that the government should initiate collective action since the health of the nation was at stake. Despite public health reform, children's health, as reflected in mortality statistics (Registrar General, 1850; Registrar General, 1862; Registrar General, 1872; Registrar General, 1882; Registrar General, 1892; Registrar General, 1902) was causing increasing concern as was the evidence from the social surveys of Booth (1890) and Rowntree (1901) of the effects of poverty on health. The revelation that 40% of the Boer War recruits between 1901 and 1902 were unfit for military service on medical grounds further aroused national concern and an Interdepartmental Committee was established to examine the problem and its report was published in 1904. The Committee noted that there were considerable differences in the average dimensions of the different classes of the population (Interdepartmental Committee, 1904a, para.14). By 1905 sufficient interest had been

generated to inspire an organised movement and, as a consequence, the British Infant Welfare Movement was formed in 1906, with the King and Queen as patrons. The Movement was registered with the Charity Commission in 1909 (Reg.No. 217740) and in 1928 became part of the National Council for Maternity and Child Welfare.

The Public Health Act, 1872 made the appointment of Medical Officers of Health compulsory:

"It shall be the duty of every urban sanitary authority to appoint from time to time a Medical Officer or Officers of Health....." (Section 10).

Such officers were frequently appointed from the ranks of Poor Law Medical Officers to serve populations of varying sizes, smaller rural areas frequently sharing one Medical Officer of Health (Frazer, 1950). A patchy development of infant welfare services ensued. While some authorities benefitted from able Medical Officers of Health, others were less fortunate, and it was among this group of able Medical Officers that the feasibility of individual intervention through home visiting proved an attraction. Thus Buckinghamshire County Council began to employ three health visitors in 1892 (Nightingale, 1911), while Worcestershire County Council appointed five 'lady health missionaries' in 1897 (Interdepartmental Committee, 1904b) and the Minutes of the London Women's Sanitary Inspectors' Association of 4th April 1902 note the development of health visitor appointments in London and environs, the first appointment being made in the Borough of Kensington. McCleary (1933) has attributed the achievements of enterprising authorities solely to their greater autonomy since the Local Government Board failed to take any initiative before 1905 despite a warning given to Disraeli's Government in

1875 about the inadequacies of the 1872 Public Health Act (British Medical Journal, 1875).

However, with no central guidance, the local services varied widely in terms of the qualification of the staff and in the ratio of paid to voluntary helpers. For example, in 1890 the Manchester Corporation undertook to pay the salaries of six of the fourteen agents employed by the Sanitary Association, by then renamed the Ladies' Health Society of Manchester and Salford, which took the occupation beyond the limitation of being a voluntary movement. The work of these women was described in verbal evidence to the Interdepartmental Committee on Physical Deterioration by Mrs. Worthington and Mrs. Bostock (Interdepartmental Committee, 1904b, paras.7183-7397; paras.7398-7543). Gradually a trend towards a local authority service emerged so that, by 1905, fifty towns were employing women in this work. The increasing appointment of health visitors in the London area can be traced in the Minutes of the London Women's Sanitary Inspectors' Association 1902 - 1906.

The powerful influence of certain local authorities was demonstrated by the Huddersfield Corporation Act, 1906 which introduced statutory birth notification:

"In the case of every child born within the borough.. it shall be the duty of the father of the child..... or in his absence of any person in attendance upon the mother at the time of the birth or within six hours thereafter to send or give notice of the birth to the Medical Officer within forty-eight hours after such birth." (Section 73(i)).

A permissive national Act followed this example (Notification of Births Act, 1907) and national birth notification became mandatory in 1915 (Notification of Births Act (Extension), 1915).

In describing the work of early health visitors, the British Medical Journal (1904) stated that the duties of health visitors were:

- "1. The systematic visitation of babies and the instruction of the women in the matter of feeding and care of them."
2. Instruction in cases of infectious diseases....., coupled with seeing that the necessary precautions are taken.
3. The systematic visitation of houses in the district.
4. The distribution of leaflets on sanitary and other matters and the supplying of lime, whitewash brushes, sanitary powder, and also of carbolic soap to the people of the districts." (page 276).

Evidence brought before the Interdepartmental Committee on Physical Deterioration (1904b) by Rowntree (para.5164) and others has suggested that 'lady' visitors were favoured because the poor took more notice of their advice owing to their ability to combine education, tact and experience. However, whatever social class the early health visitors were drawn from, education and training were soon recognised as important prerequisites for the job. Thus in 1908 the Royal Sanitary Institute began to set examinations for health visitors, while in 1909 it was noted that authorities were employing variously trained personnel (doctors, trained nurses, midwives and sanitary inspectors) as health visitors (Dingwall, 1977a). There was a clear belief at this time in the efficacy of education to overcome 'maternal ignorance of domestic hygiene' so that developments in maternal and infant welfare reflected this despite evidence of the effect of poor socio-economic conditions on infant mortality (Lewis, 1980).

2.2 Health Visiting : 1909 - 1946

The origins of the health service have been described in detail by Eckstein (1958), Wilding (1967), Gilbert (1970) and Honigsbaum (1970 and 1979). An attempt will be made to review those aspects of health care policy developments which were important to the development of health visiting.

In 1909 the Minority Report of the Poor Law Commissioners was concerned about the disparate system of health care provision and ascribed:

".....the defects of the existing arrangements fundamentally to the lack of a unified Medical Service based on Public Health principles." (Webb and Webb, 1909a, page 588, para. 42).

They proposed a unified State Medical Service based on public health principles with all preventive and curative services provided by the local authorities. This they argued was:

".....the only proper basis for the expenditure of public money on a Medical Service." (Webb and Webb, 1909a, page 587, para. 40).

According to McCleary (1933), the division between preventive and curative services was such that:

"At the outset, the treatment of the sick formed no part of these functions; if children needing treatment came, the Mothers were advised to take them to a local doctor or hospital." (page 45).

A situation which for many meant the use of medical services provided by the Poor Law.

Between 1907 and 1914 there were three sources of preventive health care. The Poor Law Administration was the main source of state aid in health and was centred upon curative provision with the exception of the powers attributed in instances of infectious disease through the Public Health Act of 1875. Some local authorities overcame this constraint through a liberal interpretation of infectious disease with health visitors being employed as sanitary inspectors. However, maternal welfare was less easily accommodated so that local authorities tended to rely upon voluntary societies (Honigsbaum, 1970). Under the Education (Administrative Provisions) Act of 1907, the Board of Education introduced medical inspection of school children as well as some treatment. Section 13 (i)(b) stated it was the duty of school boards:

".....to provide for the medical inspection of children immediately before, or at the time of, or as soon as possible after, their admission to a public elementary school, and on such other occasions as the Board of Education direct,"

and further gave:

".....the power to make such arrangements as may be sanctioned by the Board of Education for attending to the health and physical condition of the children educated in public elementary schools."

From 1908 school provision was made for mothers which included baby clinics under the Regulations for Technical Schools, Schools of Art, and other Schools and Classes (Day and Evening) for Further Education. Such a provision was an attempt to fill in the gap in the services between those provided by the health authorities for the first year of life and school children at five years of age (Honigsbaum, 1970).

In 1919 the Ministry of Health was formed in an attempt to resolve conflict between the disparate provision of services by the Local Government Board and the Board of Education. The compromise was reached on the basis that the Local Government Board should retain control of maternity and pre-school welfare services while the Board of Education should retain the School Health Service (Honigsbaum, 1970). This administrative dichotomy in child health provision has continued to persist and was acknowledged as a shortcoming in child health provision by the Child Health Services Committee (Department of Health and Social Security, 1976a).

National concern over health was again heightened by World War I which resulted in a massive loss of life on the battlefield as evidenced by the 1911 and 1921 census statistics (Registrar General, 1917; Registrar General 1927). This loss of life was coupled with a fall in the birthrate and continued high infant mortality rates (Registrar General, 1927) consequent upon the prevailing poor conditions of childbirth. The Maternity and Child Welfare Act of 1918 enabled the County and County Borough Councils to provide facilities for the wellbeing of expectant and nursing mothers and children under five years of age under the auspices of the Local Government Board. Section I stated:

"Any local authority.....may make such arrangements as may be sanctioned by the Local Government Board, for attending to the health of expectant mothers and nursing mothers, and of children who have not attained the age of five years and not being educated in schools recognised by the Board of Education."

This permissive power was retained in Section 204 (i) of the Public Health Act of 1936 although from 1936 Maternity

and Child Welfare Committees became statutory:

"Every welfare authority shall appoint a maternity and child welfare committee, which may, if the authority think fit, be a committee of the authority appointed for other purposes." (Section 201(i)).

The National Insurance Act of 1911 contributed little to the field of public health (Gilbert, 1970) and hopes that the Lloyd George government would unify health services were not realised as the different interests of various insurance schemes emerged. The 1911 National Insurance Act separated the preventive services from the curative services of general practitioners, leaving health visitors powerless to initiate treatment of sick children or their mothers, except through referral outside their own agency. Thus the momentum in the field of health visiting gained in the previous years began to wane in the wake of the lack of organisational changes. The creation of a Ministry of Health in 1919 was in itself a feat in the face of such conflict, although the absorption of the Local Government alongside the Poor Law Administration into the Ministry of Health occasionally resulted in the adoption of Poor Law philosophy rather than further developments in public health (Frazer, 1950). Several reports urging a health service based on health centres and therefore integration of preventive and curative medicine emerged during the twenty years following the 1911 Act, but none reached the statute book. The most important of these reports was the Dawson Report (Ministry of Health, 1920) which considered that:

"Preventive and curative medicine cannot be separated on any sound principle, and in any scheme of medical services must be brought together in close coordination....." (para. 6).

The Report suggested that:

".....a Health Centre is an institution wherein are brought together various medical services, preventive and curative, so as to form one organisation." (para. 9),

which would overcome the prevailing health care shortcomings.

Social policy legislation between 1920 and 1939 brought about few changes with regard to infant welfare services. The Local Government Act of 1929 abolished Boards of Guardians and transferred Poor Law hospitals to local government with no changes regarding voluntary and teaching hospitals, general practice or health visiting. The Public Health Act of 1936 consolidated previous legislation and made Maternity and Child Welfare Committees compulsory (Section 201(i)) while leaving health visiting as a permissive provision (Section 204 (1) and (2)). It may be argued that both these Acts had a greater effect upon maternity services than on health visiting, reflecting concern with regard to maternal mortality statistics in which England compared unfavourably with Denmark, Holland and Sweden. However, Lewis (1980) has argued that the way in which infant welfare was perceived as a problem of mortality, in particular from diarrhoeal conditions caused an increasing emphasis to be placed upon the provision of infant welfare clinics and health visitors.

The maternal mortality inquiries of the period identified inadequate antenatal care and poor management of delivery as important factors and the 1932 Ministry of Health Report on Maternal Mortality and Morbidity concluded that at least half maternal deaths were avoidable (Frazier, 1950). During the same period, concern emerged regarding

perinatal mortality rates which compared unfavourably with infant mortality rates. McCleary (1933) has ascribed the high perinatal mortality rate to inadequate obstetric provision while death in later infancy was mainly due to infection. In response to these conclusions, the obstetric services have, over the years, become hospital based, a trend which began in 1929 when the local authorities were enabled to increase their maternity bed provision through the use of former Poor Law Infirmaries (Frazer, 1950). Later, the Cranbrook Committee (Ministry of Health, 1959b) supported the view that there should be sufficient hospital beds to allow 70% of deliveries to take place in hospital, while the Peel Committee (Department of Health and Social Security and Welsh Office, 1970) identified 100% hospital delivery as the safest provision for mother and child. Both these reports drew attention to the need for the unification of maternity services, for example:

".....it is probable that the majority of us would suggest that a unified service, including of course a maternity service under the control of one authority, might be a desirable arrangement."
(Ministry of Health, 1959b, para.11).

The trend culminated in a recommendation by the Department of Health and Social Security in 1976(b) for 100% hospital deliveries. This has undoubtedly had an impact upon health visiting practice with the dichotomy between hospital based and community based services coming to the fore.

It has been suggested by MacQueen (1962) that this inter-war period can be regarded as the 'heyday of health visiting' and the Jameson Working Party (Ministry of Health, 1956) noted that the number of health visitors in post by the mid-thirties was equal to that of the 1950s. Further, the Jameson Working Party suggested that the importance

of health visiting in the field of maternal and child welfare was clearly recognised by the mid-1930s. However, it is interesting to note that, in terms of legislation, this period of social policy contained only a permissive Act with regard to health visiting and the number of training courses fell from 29 in 1923 to 15 in 1933, below the 1918 level (McCleary, 1935).

Despite improvements in infant mortality, the state of war for the second time in the twentieth century exposed the effects of poverty on the health and wellbeing of children. The large-scale evacuation of children from bombed cities to rural areas highlighted the problem (Titmuss, 1950). Two solutions emerged. In the short term, special provision regarding health and nutritional needs of mothers and young children, and in the long term, social reform. Subsequent to World War II a new guiding principle was introduced into social policy development, that of the maintenance of the integrity of the family unit which was in great contrast to the prevailing approach based upon the old Poor Law philosophy. Under the Poor Law it was considered legitimate to split up families and place individual members separately (Heywood, 1978). In 1945 the Curtis Committee was established to inquire into the prevailing provision for children outside normal home life and, as a consequence of its report (Interdepartmental Committee, 1946), the Children Act of 1948 attempted to bring together the care of all homeless children under one responsibility. The development of child care provision is described in detail by Heywood (1978). The importance of the family as a unit was recognised with regard to health visiting with the Ministry of Health Circular No.118 (1947) which stated that the health visitor:

".....will be concerned with the health of the household as a whole."

Like other welfare provisions of the period, health visiting was subject to disruption along with the population as a whole. The considerable government concern regarding the health of children resulted in food subsidies and priorities, for example regarding milk products, the development of the national milk and vitamin scheme, diphtheria immunisation and nursery provision. No nation can remain unaffected by the experience of total war and Britain was no exception. Much has been written about the effect of war upon social policy development (Titmuss, 1958; Marshall, 1975; Hall et al, 1978). In summary, Marshall (1975) has suggested that:

"The experience of total war is (therefore) bound to have an effect on both the principles of social policy and the methods of social administration."
(page 82).

Although there had been considerable pressure for social security reform before 1939, this pressure was strengthened by the outbreak of war (Harris, 1979). Sir William Beveridge was appointed Chairman of the Committee on Social Insurance and Allied Services in June 1941. The aims of the government in appointing such a committee in the middle of the war were twofold, namely: the tidying up of some administrative loose ends and the silencing of the demands of back-bench M.P.s for a specific government commitment to post-war social reform (Harris, 1978). The Beveridge committee was not designed by the war-time coalition government as an instrument of radical reform, however, Beveridge seized the opportunity of reviewing all existing social policies and laying down clear principles and guidelines for post-war reconstruction (Harris, 1977). Although the Social Insurance Committee included civil servants from the relevant government departments, their role on the committee was purely advisory and the Report which emerged in 1942 was almost the single-handed work of Beveridge (Harris, 1977).

The Report was a technical analysis of problems and methods of social insurance with an attempt to provide a means of unifying the whole system with a view to making it both simpler and more efficient. It undoubtedly had a deep effect upon subsequent social policy and established the principle of compulsory national insurance to include the entire population. Beveridge declared that social insurance was:

".....an attack upon Want. But Want is only one of the five giants on the road to reconstruction and in some ways the easiest to attack. The others are Disease, Ignorance, Squalor and Idleness."
(para. 8).

His plan was an attempt to abolish Want (poverty) and he listed three assumptions which underlay his proposals, namely that provision would be made for dependent children, for comprehensive health and rehabilitation services and for the maintenance of full employment.

The two objectives which were therefore seen as essential in planning post-war services for children were family allowances to raise the income of poor families and medical care so that children should not be deprived on the grounds of cost. The principle of a unified health service was not an issue although its form and method of financing became contentious political issues. The National Health Service Act of 1946 which became operative in July 1948 represented a compromise on a vast scale between the powerful medical profession and the Minister (Abel-Smith, 1964). The 1946 Act had two important features as regards health visiting. Firstly, the administrative separation of curative and preventive medicine was perpetuated for a further twenty five years with the idea of the provision of health centres by local authorities going largely by

default and secondly, under Section 24 of the Act, an expansion of the health visitor role was proposed which carried no statutory powers. As a consequence of this and the expansion of other agencies' statutory powers into the realm of traditional health visitor work, role overlap and interprofessional conflicts have arisen which have been described as the 'dilemma of identity in health visiting' (Hunt, 1972).

2.3. Health Visiting : 1946 - 1983

The Relationship between Health Visiting and Social Work

Section 24 of the 1946 Act stated:

"It shall be the duty of every local health authority to make provision in their area for the visiting of persons in their homes by visitors, to be called 'health visitors'."

Thus local health authorities were expected to provide a complete health visitor service. In a Ministry of Health Circular, the Minister drew attention to the extended role of the health visitor beyond a concern for expectant and nursing mothers and young children:

"After the appointed day, she will be concerned with the health of the household as a whole, including the preservation of health and precautions against the spread of infection, and will have an increasingly important part to play in health education. She will work in closest cooperation with the family doctor and will not encroach on the province of the nurse.....or the sanitary inspector." (Ministry of Health Circular, 1947/118).

The specific activity assigned to the health visitor was:

".....giving advice as to the care of young children, persons suffering from illness and expectant and nursing mothers, and as to the measures necessary to prevent the spread of infection." (Statutory Instrument, 1948, No. 1415).

The significant word in the definition of their duties is 'illness' which in the 1947 Circular includes mental illness and any injury or disability requiring medical or dental treatment or nursing. Thus health visitor duties were not extended to the care of the mentally handicapped.

At the same time as the health visitor's function was extended, child life protection was transferred to local authority Children's Committees. This transfer under the 1948 Children Act marked the beginning of specialisation and division of labour between the local health authority and social services. Dingwall (1977a) has argued that in the post-war era health visiting was affected by a shift in the Labour Party's approach to social policy. Namely, the belief that universal provision of health, education and employment would eradicate most social ills and the remaining problems such as deprived children were perceived to be those of an individual nature and therefore requiring individual solutions. Dingwall (1977a) has further suggested that health visitors were in no position to defend their work because they were too few in number and their record in the field of child care did not assist their case. In this context, Robinson (1982a) has argued that health visitors were seen as part of an inefficient and divided administration which needed to be discarded and replaced by a specialist department staffed by graduates of the social sciences rather than low status, non-graduate health visitors. The transfer of child life protection from Local Authority health to children's departments began in 1948 and was completed under the Local Authority Social Services

Act of 1970 which set up a comprehensive social service to be concerned with the welfare of families and individuals. Heywood (1978) has suggested that the Act represented the fulfillment of the principle that social work should meet the needs of the underprivileged within the context of the family.

These changes were associated with a debate over the role of the health visitor and interprofessional conflicts and were probably an important factor influencing the development of health visiting following the establishment of the National Health Service. Lillywhite (1954) in describing the background to the appointment of the Jameson Committee (Ministry of Health, 1956) suggested that there were three concerns which prompted the setting up of the Working Party. Firstly, the report of a study of the work of public health nurses by the Nuffield Provincial Hospitals Trust had revealed much variation in the employment of health visitors. Secondly, "this vagueness as to her function" coupled with the publicity given to her work since 1948 had adversely affected the recruitment of health visitors. And thirdly, health visitors themselves were uncertain and concerned about their future. The Women Public Health Officers' Association's Annual Report of 1953 noted:

"It was therefore with a great sense of achievement that, in August, the Association learnt that the Minister had decided to appoint such a Working Party." (page 6).

Thus a Working Party was appointed in September 1953 under the chairmanship of Sir William Jameson:

"To advise on the proper field of work, recruitment and training of health visitors in the National Health Service." (page v, Ministry of Health, 1956).

It is noteworthy that role definition was implicit in the terms of reference. The Working Party had five members, only two of whom were health visitors, the remainder being a general practitioner, a Medical Officer of Health and a Chairman of a Health Committee. Various government departments were represented on the Steering Committee and expert advice on social workers and their training was provided by Professor Titmuss and Miss Eileen Youngusband. The evidence received by the Working Party was divided in the Report into 'Evidence of Opinion' and 'Factual Evidence'. The former evidence was gained through an analysis of completed questionnaires together with memoranda and oral evidence. A list of witnesses who submitted memoranda and gave oral evidence appears in Appendix I of the Report. However, such evidence is not individually reported but subsumed into the text of the Report. The Working Party recorded that they received conflicting evidence:

"A wide variety of opinions about the future of Health Visiting have been expressed to us. It is fair to say that those of a medical background and those with a social science background have been in opposite camps." (para. 290).

The Working Party also gathered what it termed 'Factual Evidence' which included consideration of government statistics, a report of the Nuffield Provincial Hospitals Trust study, a Working Party survey of health visiting provision, an analysis of diaries kept by health visitors in six selected areas during an ordinary working week, independent observations of health visitor work, a survey of the characteristics of student health visitors and finally, an examination of the arrangements for health visitor training. A summary of this evidence appeared in the body of the Report.

During the period of the Working Party's deliberation, the views of the various interested parties appeared in the press, examples of which are the series of articles which were printed in Public Health (Editorial, 1953; Davies and Hitchen, 1956; MacQueen, 1956). The Women Public Health Officers' Association (later renamed the Health Visitors' Association on 26th April 1962) propounded its views in Woman Health Officer (Lillywhite, 1954; Editorial, 1955). Indeed, the Women Public Health Officers' Association attached such importance to the Memorandum of Evidence it presented to the Working Party that the Honorary Secretary's Annual Report of 1954 noted that:

".....the Committee met in all 27 times,"

and that the Memorandum:

".....may be regarded as the Association's finest piece of work to date." (page 7).

The publication of the Jameson Report was acknowledged fully in the medical and nursing press (British Medical Journal, 1956; Byrne, 1956; Lancet, 1956; Nursing Times, 1956a; Public Health, 1956; Robinson, 1956; Warin, 1956). The Report was described in the Nursing Times as an:

".....admirable study of health visiting " (page 581),

while the British Medical Journal commented that the Report contained:

".....a good deal of wisdom, balanced judgement, and good sense" (page 1413).

It seems that the Report was generally welcomed as an attempt

to delineate the functions of health visiting and to establish health visiting as an important contributor to public health independent of district nursing and community midwifery. However, there was some public debate about the Report (Report of a Symposium, Royal Society of Health, 1956; Conference Reports, Nursing Times, 1956b).

The Working Party noted that although there existed a divergence of opinion about the future of health visiting, it was generally agreed that:

".....the field work of Health Visitors should be among families.....and that their main function should still be health education." (para. 290).

The Working Party recorded that:

"Disagreement begins with consideration of the social aspects of her work" (para. 290),

with witnesses from a medical background advocating that the health visitor should be a general family social worker while those from a social science background considered that she was best suited to health education and routine visiting. A distinction was drawn between a case-work approach and routine visiting.

The Jameson Working Party unfortunately made non-specific recommendations and thus perpetuated the discussion by advising that:

"The functions of Health Visitors should primarily be health education and social advice." (para. 1).

The Working Party saw the health visitor's contribution not only in terms of health visiting skills but also in

terms of supportive contact, unlike other comparable workers.

"Her contribution would be to act as a common point of reference, a common source of information of a standard kind, a common adviser on health education - in a real sense, a 'common factor' in family welfare" (para. 315).

The two subsequent enquiries into social work did not address themselves to the role relationships of health visitors and social workers, so perpetuating the conflict and confusion. The Younghusband Report (Ministry of Health, 1959a) traced the development of the various services and noted that:

".....in many aspects these services still represent separate strands of history, only recently interwoven, and each preserving much of the particular motive power which brought it into existence" (para. 175).

Thus the Younghusband Report acknowledged the existing complexity of the service provision. The Report was very critical of the Jameson Working Party proposal of "a general purpose family visitor":

"This 'general purpose family visitor' bears sufficient similarity to the 'general purpose social worker' in our terms of reference to have added to the confusion of evidence regarding the functions of social workers and health visitors. So far as social workers are concerned, we have said we hope the term will not be perpetuated." (para.970).

However, the Youngusband Working Party did not reduce the confusion when it stated that:

".....we think it would help if everyone concerned could agree that there was a point at which they did not know enough - social workers of medical and health matters, and health visitors about social casework. No single type of worker can provide a comprehensive service and the inter-relation of health, welfare and social needs makes it essential that no-one should think they can" (para. 974).

In contrast, the Seebohm Report (1968) stated that:

"The comprehensive planning of help for a family or individual should be easier if the primary professional responsibility for assisting them lies with a single worker....." (para. 517).

In his critique of the Seebohm proposals, Townsend (1970) pointed out that deprivation may be in terms of resources or isolation; isolation which may be ameliorated by the establishment of a routine visiting service. Some would argue that the health visitor with her universalist tradition would have been able to develop this preventive function but the Seebohm Committee (1968) commented that:

".....the notion that health visitors might further become all purpose social workers for general practice is misconceived." (para. 380).

The two Councils for the Education and Training in Social Work and of Health Visitors, established under the 1962 Health Visiting and Social Work (Training) Act, also had difficulty in separating the respective roles.

The history of the Council for the Education and Training of Health Visitors is described by Wilkie (1979) who has pointed out that in health visiting the medical officer was the responsible officer and therefore held responsibility for role definition, while health visitors carried the service provision for which they had no responsibility in its design.

In 1964 a Joint Advisory Committee was set up by the two Councils in order to establish the service given by health visitors and social workers to the community. Wilkie (1979) has noted that neither Council was pleased to receive the subsequent report in 1966. The recommendations were:

"(a) The Councils should plan at least for some time to come on there being two separate workers..... but a degree of overlap of functions.....should be welcome.

(b) The central functions of these two workers should be.....the health visitor is a nurse and not a social worker, though her service contains an element of social work; the social worker, though not a nurse, is involved in her work in the problems of personal health....." (Wilkie, 1979, page 52).

This confusion has been perpetuated and is considered by the Royal College of Nursing Health Visitors' Advisory Group (1983) to be one of the underlying problems of health visiting practice. The recommendations of the Advisory Group have suggested that prevention for the health visitor ends where it begins for a social worker. Confusion has continued to exist with consequent poor communication between the two services, regularly highlighted by the various enquiries into child abuse, particularly in the 1970s (Dingwall

et al, 1983). A modus vivendi has emerged for fear of the consequences of non-cooperation rather than out of mutual respect for the knowledge and skills of each service. Corney (1980) has documented the difficulties of health visitors and social workers working without each other's knowledge of involvement with families. It is an area also examined by Sachs (1982) who also found considerable role overlap but suggested some saw it as a source of collaboration rather than conflict.

The Relationship Between Health Visiting and Nursing.

While the enlargement of the role of social workers has created one problem for health visitors, another problem area has been the relationship of health visiting to nursing. The medical profession has been particularly vocal in what has seemed to be a waste of nursing skills (Jefferys, 1965; Wenborn, 1966; Department of Health and Social Security, 1976a). Indeed there has been a long established division between health visitors themselves as to the value of their nursing background. The idea that health visiting was quite different from nursing was first considered by Florence Nightingale who wrote:

"It seems hardly necessary to contrast sick nursing with this. The needs of home health bringing require different but not lower qualifications and are more varied.....She must create a new work and a new profession for women." (As quoted in Clark, 1973, page 11).

Dingwall (1976) has suggested that health visiting neither developed out of nursing nor has it adopted the basic philosophy of nursing which is concerned with people who are in recognised need unlike health visiting which is concerned with all people without discrimination. The division of opinion can be broadly aligned with the policies

of the two professional organisations representing health visitors. The Royal College of Nursing (1971) stated that:

"The core skills of health visiting are derived from specialist training which extends previous preparation for professional nursing." (page 7).

This stance has been maintained and is categorically stated by the recent Royal College of Nursing discussion document (1983). The Health Visitor Association has stated a different case:

"The Association has represented health visitors since 1895, long before a nursing background became a pre-requisite for their training. Consequently, its natural assumption is that health visiting is an independent profession linked both to nursing and social work but separate from both and essentially different from both." (Health Visitors' Association, 1970).

Early health visitors were drawn from a variety of backgrounds (Dingwall, 1977a). The passing of the Nurses Act of 1919 with the establishment of the Board of Education (Health Visitors' Training Regulations, 1919) only enabled the Ministry of Health to sanction full time health visitors who had undertaken an approved certification course. In 1925 six months of midwifery training became a pre-requisite for health visitor training and subsequent to this health visitor candidates increasingly came from a nursing background. However, it was only in 1962 that possession of State Registration as a nurse was made a requirement for entry to training (Wilkie, 1979).

The relationship between the main body of nursing and health visiting has been particularly fraught in two

areas; namely, management and education. Subsequent to the 1966 Report of the Committee on Senior Nursing Staff Structure, the Mayston Committee was set up to examine similar structures for community nurses. The Report (Department of Health and Social Security, 1969) recommended a framework which allowed a combined career structure for hospital and community nursing staff so that the health service could be unified. Much to the dismay of health visitors, they were equated with ward sisters rather than nursing officers (Robinson, 1982a). The unification of the health service in April 1974 following the National Health Service Reorganisation Act of 1973 made the implementation of the Mayston Committee recommendations a reality. Thus, within months of losing the domination of the Medical Officer of Health, health visitors found themselves subordinated to hospital nurses at the divisional level.

The Mayston Committee recommended three grades of management staff which were nursing officer, senior nursing officer and divisional nursing officer. They also recommended two patterns of administration, either functional for one particular speciality, or geographical to cover several specialities in a defined area. Generally, nursing officers, if not senior nursing officers, possessed a health visitor qualification, however, on occasions geographical consideration meant that joint appointments were also given to hospital nurses. Some health visitors felt much bitterness towards these developments (Clode, 1978), and the more recent Health Service Reorganisation has done nothing to redress the balance. Although the Consultative Paper (Patients First, 1979) proposed direct accountability between community nursing and senior management at district level, the Health Visitors' Association has noted that nineteen District Health Authorities in England and Wales have made no such provision (Health Visitor, 1982a).

The insecurity of health visitors has been further exacerbated by developments in nurse education. In 1962 the Council for the Education and Training of Health Visitors assumed responsibility for all health visitor education from The Royal Society of Health and The Royal Sanitary Association of Scotland. The Council established a new syllabus as well as other aspects in health visitor education such as entry requirements for training and approval of recognised courses. The Council clearly saw health visitors as independent practitioners, however, this autonomy was not readily recognised by hospital orientated managers. Furthermore, it was not acknowledged by The Report of the Committee on Nursing (1972) which devalued their educational preparation. The Report (Department of Health and Social Security, 1972) recommended that the current certification should be replaced by a non-statutory higher certificate in preventive nursing of six months' duration which was to take place in single vocational institutions. These proposals generated considerable anxiety and resulted in health visitors seeking an amendment to the Nurses, Midwives and Health Visitors Act of 1979 which ensured that neither the Central Council nor a National Board may act on matters relating to health visiting without receiving a recommendation of the Health Visiting Joint Committee. Further, health visiting has managed to maintain its separate identity within the main body of nursing with the addition of Health Visitors to the title of the Act.

However, in 1982(b) an editorial in the Health Visitor expressed concern that autonomous health visiting practice was increasingly becoming the subject of challenge by the nursing hierarchy. The editorial referred not only to instances of disciplinary action in what it considered were matters of professional judgement, but also to a concern that District Health Authorities were being influenced

by expressions of opinion about health visiting practice. In answer to these concerns, Renee Short, M.P. (1982) asked the Secretary of State for Social Services:

"(1) if he will set up a national inquiry into the proper role and functions of health visitors and school nurses;
 (2) what studies have been carried out into health visiting and school nursing since the Jameson Committee Report in 1958^{*}; if he is satisfied that there is sufficient information available on which to plan the future development of health visiting and school nursing; and if he will make a statement."

Geoffery Finsberg (1982) replied:

"We are giving that request serious consideration and will announce our intentions in due course."

The Government has not yet announced its intentions.

The Relationship Between Health Visiting and General Practice

The Jameson Report (Ministry of Health, 1956) noted that at the time of its inquiry:

".....a working relationship is thoroughly established in only a few areas" (para.332),

and suggested that the health visitor was:

".....likely to be most useful to the practitioner in his dealings with mothers and children, especially in infant feeding problems,....., because her training and experience will specially fit her for this" (para.330).

* This incorrect date is as recorded in Hansard.

The Working Party emphasized the need for good relationships and cooperation between health visitors and general practitioners but felt that this situation could best be achieved by organising health visitors' work on a geographical basis with liaison arrangements with practices in the area.

The increasing acceptance that inpatient hospital treatment has adverse psychological effects upon children (Ministry of Health, 1959c; MacCarthy, 1962; Rodin, 1983), together with a growing awareness of the high cost of hospital care, has brought an emphasis upon prevention and community care. This, together with developments in general practice, encouraged health visiting in many areas to move towards a far closer relationship with general practice than had been envisaged by the Jameson Working Party. The first experiment with regard to team practice took place in Oxford in 1956 and by 1965 all community staff in the Oxford area were attached to primary health care teams. Both Wofinden (1967) and a Department of Health and Social Security consultative document (1976b) identified the development of coordinated primary health care through attachment and growth of health centres as a means of improving health care delivery and thus reducing demand on acute hospital services. The Jameson Report seemed hardly to have considered this possibility:

"It will often not be possible to make Health Visitors' areas and doctors' practices coincide. One team of Health Visitors may well be working with a number of doctors, but the fact that areas of operation do not coincide should present no insuperable difficulties." (Para. 331).

However, subsequent to the introduction of attachment of health visitors to general practice in Oxford, it has become an area of staff organisation which has generated much

interest and research and is well reviewed by Hicks (1976). Since 1969 when Irvine and Jefferys (1971) reported that 35% of general practitioners in their survey had an attached health visitor, Cartwright and Anderson (1981) have found that 88% of general practitioners in their study had attached health visitors.

A Joint Working Group was set up in 1978 by the Department of Health and Social Security to examine the problems associated with group attachment and reported in 1981(a). The Report noted that group attachment was becoming increasingly unpopular in some areas, particularly in the inner cities, either because it had been an imposed structure upon professionals not sharing the same ideals or because it had been introduced where resources in terms of manpower and money mitigated against effective teamwork. Unfortunately, it may be that those professionals, nurses and doctors, who choose to work in the community may do so because of the independence implicit in such work; a factor which Hall et al (1978) suggested that civil servants have underestimated.

Health visitors have opposed attachment mainly on the grounds that it threatened their concern with primary prevention together with their universalist approach to client care. They viewed group attachment as forcing a more individualistic approach to care upon them, together with increasing amounts of secondary and tertiary prevention. Indeed, MacFarlane (1982) considered that the concept of 'attachment' carried with it the idea that the health visitor is subordinate to the wishes of the general practitioner. So great was the perceived threat that in 1978 a resolution was put to the Annual General Meeting of the Health Visitors' Association that the health visiting service would better serve the community working on a geographical basis, whilst maintaining close liaison with other members of the primary

health care team (Health Visitor, 1978a). However, despite the reservations of health visitors regarding attachment, government policy continues to advocate it. The Report of the Royal Commission on the National Health Service (1979) suggested joint training schemes as a method of improving teamwork while the London Health Planning Consortium Report (1981) identified unsatisfactory accommodation and the characteristics of general practitioners and client populations as problem areas, and in reference to Inner London they concluded:

".....attachment is not the only, and may not always be the best, method to achieve effective teamwork in the delivery of community care."
(para. 5.3).

However, Gilmore et al (1974) found that the geographical location of team members was an important influence upon team relationships and delivery of care.

Present government policy would appear to favour group attachment of health visitors. Thus it would appear that the health visitor's traditional universalistic approach to care may be subjected to continued pressure.

2.4. Conclusion.

It is suggested that health visiting rests somewhere between nursing and social work and is reluctant to formalise its relationship with general practice. Health visiting lost some of its original functions to the formal expansion of social work while also feeling under threat from the main body of nursing which has seemed to undervalue its uniqueness in the field of preventive work. The domination of the nursing hierarchy by curative nursing may prove damaging in the future since this, together with the monopoly

of health service resources by the hospital sector, may inevitably result in damaging changes. Government support for attachment carried with it implications regarding the nature of health visiting practice and may well result in expansion of the workload in secondary and tertiary prevention at the expense of primary prevention. Except in times of war, investment in the health of mothers and children has had a relatively low priority. Nevertheless, health visiting has continued to develop over time, for example, care of the elderly is now an important area of health visitor concern, and, to a certain extent, health visiting has successfully defended its independence as a quasi-autonomous occupation. The next chapter considers the nature of health visiting as it is practised at the present time with regard to infants during the first two years of life.

CHAPTER 3

HEALTH VISITING

Both the Brotherston (Scottish Home and Health Department, 1973) and Court (Department of Health and Social Security, 1976a) Reports laid great emphasis upon the value of preventive paediatrics. While the Brotherston Report identified one of the general objectives of the child health service:

"To promote the health of infants and children so that they grow and develop as normally as possible, enjoy as happy a childhood as circumstances permit, and can profit by education to the limit of their abilities " (page 3),

the Court Report simply stated:

".....we think that in future much greater emphasis must be placed on prevention". (para.5.21)

More recently the Black Report (Department of Health and Social Security, 1980a) identified three objectives for the health and personal social services, the third of which was:

".....to encourage good health among a large proportion of the population by preventive and educational action". (para.8.7(iii)).

The Black Report further identified the reorganisation of resources to develop further community health services and extensive health education as a means of preventing the continuation of inequalities in health experience.

Health visiting developed as a potentially ideal vehicle for the propagation of health education and the prevention of disease. The unique role of health visitors in the child health service has been acknowledged by the Royal College of General Practitioners (1982), which stated:

"Health visitors are particularly important in that they have a statutory responsibility for child care and have the longest tradition of any member of the primary health care team for 'thinking prevention'." (para. 163).

The literature which is considered pertinent to the practice of health visiting in the field of child care will therefore be reviewed. The review falls into three discrete sections: firstly, the function and professional skills of a health visitor; secondly, the nature of health visiting activity; and lastly, an attempt is made to evaluate the 'effectiveness' of health visiting.

3.1. The Function and Professional Skills of a Health Visitor

The definition of health visiting is a functional one in that it does not deal with what health visiting is, but rather what health visitors do. Thus health visitors (and not health visiting) 'identify' and 'fulfil' recognised health care needs and 'provide' a generalistic health care service and 'monitor' the needs and demands of the population (Council for the Education and Training of Health Visitors, 1972). The Council's definition confined its consideration to the outcome of health visitor activity rather than the process involved so that the health visitor is described as:

".....a nurse with post-registration qualifications who provides a continuing service to families and individuals in the community." (Council for the Education and Training of Health Visitors, 1972).

The Council identified five main aspects of the work of the health visitor:

- "1) The prevention of mental, physical and emotional illhealth and its consequences;
- 2) Early detection of illhealth and the surveillance of high risk groups;
- 3) Recognition and identification of need and mobilisation of appropriate resources where necessary;
- 4) Health teaching;
- 5) Provision of care; this will include support during periods of stress, and advice and guidance in cases of illness as well as in the care and management of children." (Council for the Education and Training of Health Visitors, 1972).

In fulfilling these activities, the health visitor is expected to draw upon her knowledge gained in her previous nurse and obstetric training as well as her health visitor training (Council for the Education and Training of Health Visitors, 1982b).

There is an implicit assumption that all previous professional knowledge is well integrated by the experience of health visitor training. However, as Dingwall (1977b) demonstrated in his study of a particular training course, health visitor students may be presented with a series of conflicting perspectives. Dingwall (1977b) posited that there were four distinct perspectives. The doctor's

perspective emphasized the organic basis of social behaviour and the subordinate position of health visitors. Two perspectives were presented by the behavioural scientists engaged in teaching the student health visitors. One group of behavioural scientists, whom Dingwall called the 'Evangelists', presented the view that there was a correct version of reality and identified the health visitor as a potential social reformer. The other group, whom Dingwall called the 'Latitudinarians', emphasized the fluidity of social and psychological phenomena and were vague about the role of the health visitor. The health visitor tutors had an elaborate set of theories drawn from medical, psychological and sociological sources. Dingwall has suggested that health visitor tutors overcame the contradictions and incompatibilities of the different approaches through the extraction of what was considered relevant from the various sources. Finally, Dingwall drew a distinction between the perspective of fieldwork health visitors, that is the fieldwork teachers, and their managers. While the managers shared the tutor's perspective of what health visiting should be and claimed that it was as the tutors anticipated, the fieldwork health visitors saw the job as a variety of routine chores which included visits to clients they did not like and carrying out a variety of dull tasks. Although Dingwall's study was limited to observations of one training institution, he has highlighted an important issue in health visitor training, namely, that because:

"Students were not required to formulate a consistent theory, the differences between the approaches of various lecturers were not forced into salience... .. Most of the students recognised that lecturers were saying different things but saw these as surface differences rather than as an expression of any basic conflict." (Dingwall, 1977b, pages 83 and 84).

Thus it may be argued that the nature of the present training does not set out a coherent 'picture' of health visiting so that students do not notice the conflicting perspectives with which they are presented by their various lecturers.

Clearly, the acquisition of a knowledge base does not in itself constitute a theory of health visiting. Indeed, the role conflicts which have previously been blamed for competition with other occupational groups may equally well be attributed to the lack of a conceptual framework for health visitor practice and the associated absence of any specific problem that health visitors can call their own. The development of social work at the expense of health visiting previously discussed in relation to the consolidation of the social service structure after the Seebohm Report is perhaps about to be repeated with regard to general practice. For example, the right of health visitors to screen the child population in a particular practice has been challenged (Steel, 1982; Jackson, 1982). This conflict was identified by Jefferys (1965) and Gilmore et al (1974) who found a large proportion of general practitioners did not understand the nature of health visitor work.

Uncertainty among health visitors in the 1970s regarding the relationship between theory and practice caused the Council for the Education and Training of Health Visitors to initiate a search for a theoretical basis. A consultative document was subsequently published (Council for the Education and Training of Health Visitors, 1977). This initial publication was followed by a discussion document (Council for the Education and Training of Health Visitors, 1980) and the series was completed in 1982 with the series of papers concerned with 'Health Visiting Principles in Practice' (Council for the Education and Training of Health Visitors, 1982c). However, the uncertainty has persisted to culminate

in a request for a national enquiry into the proper role and function of health visitors (Health Visitor, 1982b). The aim of such a request was to refine the legacy of the Jameson Report (Ministry of Health, 1956) whose definition of health visiting suggested a limitless field of activity in which the health visitor was to be 'a general purpose family visitor' proffering 'health education and social advice'.

Four core skills have been identified by the Council as necessary for the fulfilment of the health visitor function. The core skills were: observational skills, skills in developing interpersonal relationships, skills in teaching individuals and groups, and skills in organisation and planning (Council for the Education and Training of Health Visitors, 1972). Robinson (1982a) has argued that the primacy awarded to each of the four core skills is one of the determinants of the health visitor's conception of her role. She further suggested that the health visitor's conception of her role was an expression of the rationalisation of the conflicting theoretical perspectives offered to her during health visitor training and the reconciliation of the conflicting role obligations attributed to different members of her role set (doctor, social workers.....). Robinson (1982a) has asserted that role strain is an inevitable consequence in a worker who is encouraged to project herself as 'supportive' whilst at the same time 'seeking out' problems detrimental to health. Clearly role strain may not be a consistent feature of health visiting practice where families positively seek aid with self-identified problems. However, there are families who for social or cultural reasons may perceive health visitor intervention as either an unnecessary intrusion or a threat. Health visitors of course are not unique in attempting to combine problem-oriented and relationship-centred components in their role. Social workers are obliged to combine both components in their work with potential abusing parents.

Robinson (1982a) has suggested that in an attempt to resolve the paradox of their role, health visitors adopt either a problem-oriented approach to practice or a relationship-centred approach. In adopting a problem-oriented approach the health visitor identifies more closely with her previous nursing role with a clear clinical perspective in which observational skills are foremost for role performance. In contrast, in adopting the relationship-centred approach, the health visitor concentrates upon developing her relationship skills while utilising her clinical knowledge in conjunction with her observational skills. Robinson (1982a) has postulated that where the relationship-centred approach is adopted, the health visitor will continue to offer her resources even where a family is resistant to those approaches which is similar to social work practice. This conflict in health visiting practice has been further exacerbated by the emergence of two priorities for practice. Namely, the encouragement of 'whole population' screening for children under five years of age at the same time as the support for families with young children. Thus the health visitor is expected to both monitor deviation from the normal and be a friend to the family (Robinson, 1982a).

The acquisition of observational skills is given much emphasis in health visitor training (Council for Education and Training of Health Visitors, 1982a). However, Dingwall (1977b) observed that the training in this skill was informal and depended much upon fieldwork training. Indeed the practical training of health visitors is founded upon an apprenticeship model; that is, a student health visitor is provided with chiefly one model of health visiting embodied in her fieldwork teacher. Throughout the health visitor course, practical competence in observational skills is assessed by tutors, fieldwork teachers and assessors (Council for the Education and Training of Health Visitors, 1982a).

However, it would seem that the quality of fieldwork teachers is not uniformly high (Chapman, 1979; While, 1980).

Social skill training is considered to be of great importance in health visitor education (Council for the Education and Training of Health Visitors, 1982a). Campbell (1982) has asserted that:

".....the essence of effective health visiting lies in the quality of interaction with the client." (page 10).

However, the Council for the Education and Training of Health Visitors allows much variation in curricula so that the Social Skill Training Programme in use at Ulster Polytechnic is only one example of how social skills may be taught to health visitors (Campbell, 1982). As with the development of observational skills, much depends upon the guidance provided by the role model during the practical experience. Turner (1982) has argued that current health visitor training does not equip student health visitors to meet client needs, neither in terms of sufficient knowledge accretion nor in terms of practice. This view is supported by Robertson (1982) who has suggested that one year is too short a period to allow role conversion from clinical nurse to health visitor. Robertson (1982) was particularly critical of the lack of time available for the attainment of skilled counselling techniques, a point developed by Lythgoe (1983) who concluded that the development of communication skills is too important to the health visitor and her clients to be left to chance and she described the development of a course to enhance these skills.

The Council for the Education and Training of Health Visitors has not given specific guidance on the knowledge required for skill in teaching individuals and groups (Council

for the Education and Training of Health Visitors, 1982a). While Strehlow (1982) has discussed the contribution of the health visitor in the field of health education, she failed to make clear the educational skills inherent in such a role performance and MacFarlane (1982) has questioned the efficiency of health visitor health education methods.

Despite the obvious involvement in setting out to change attitudes or modify behaviour and, in consequence, potentially infringe the liberty of the individual, health visitors have had a limited concern about their role with regard to social control. Robinson (1982b) has argued that the health visitor as an authority on child rearing is able to hold power over an individual who seemingly controls less expertise. Further, although it may be contended that there is a voluntary relationship between the health visitor and the client, the health visitor provides an unsolicited service. Indeed, it is a rare example of an expert seeking out a client population for the purpose of authoritative advice (Robinson, 1982b). The potential role of health visitors as agents of social control has been emphasized by two recent government committees which suggested that child health workers should use their initiative to 'persuade' attendance at maternal and child welfare clinics. Thus the Short Report (House of Commons, 1980a) suggested that:

".....leaders of social primary care groups should establish a 'commando group' consisting of, at least, a health visitor, a community midwife, an education welfare officer and a social worker in health districts. These groups would have a specific responsibility to identify and support 'high risk' mothers during and after pregnancy."
(para. 276).

While the Court Report (Department of Health and Social Security, 1976a) advocated:

"Parents should be required to declare a change of address when they claim family allowances," (para. 9.21).

and:

".....we recommend the 'entrant' examination should again be statutory." (para.10.17).

Health visitors may well be open to the charge that in pursuing a social policy aim prescribed for the 'common good' that they ignore individual motivations and preferences. Robinson (1982a) found that a minority of clients perceives the health visitor as an agent of social control and the assumption that the client's view of the health visitor is the same as that of the health visitor has not been substantiated (Orr, 1980).

The acquisition of organisational and planning skills is considered fundamental in health visitor training (Council for the Education and Training of Health Visitors, 1982a) and are supposedly acquired during the all too short training period (Robertson, 1982). In an exploratory study it has been suggested that, although health visitors were confident in their performance of tasks and saw the prevention of illhealth as important, they were vague about the assessment of priorities (Bolton, 1980). The widely used terms 'at risk' and 'vulnerable' apparently encompassed such a wide variety of meanings that Bolton (1980) doubted whether they could be considered useful terms in the organisation of work despite their status in health visitor training.

Oberservation Registers as a guide to health visiting need have continued in use (Perkins, 1977) despite doubts about their value (Court Report, para. 9.24 , and Appendix F). Many children who are deemed 'at risk' due to their condition at birth or in the perinatal period thrive and, conversely, many who are at risk are not on the Register because they were in a satisfactory condition at birth. The Court Report (Department of Health and Social Security, 1976a) concluded that:

".....we endorse the view.....that health departments should cease to use them." (para. 9.24).

Robinson (1982a) has contended that different health visitors may define their objectives according to fundamentally different criteria while Dingwall (1977b) suggested that objectives and priorities set by health visitor fieldworkers and their managers do not necessarily coincide. Thus it seems that health visitors use discretion in deciding how they apportion their own resources in terms of home visiting. Davis (1969) has suggested that:

"A public officer has discretion whenever the effective limits on his power leave him free to make a choice among possible courses of action or inaction." (page 4).

He argued that discretion permits the sensible application of rules although some have argued that its use has denied some Supplementary Benefit appellants their 'rights'. Jowell (1973) has reviewed the relationship between the law and administrative discretion in detail and concluded that decisions about private need were not ideally suited to legal control. Further, McGlew and Robertson (1981) have argued discretion/professional judgement is implicit in the field of medicine, as indeed it is in social work (Giller and Morris, 1981).

Clearly, the problem-oriented approach lends itself to the achievement of tangible objectives such as immunisation uptake while the relationship-centred approach concerns itself with rapport and acceptance. The current emphasis upon value for money in the National Health Service has had the tendency to place the problem-oriented approach in the ascendancy among managers; a development that Clark (1983) considered an inevitable consequence of the vacuum regarding what constitutes 'good health visitor practice'. The lack of knowledge regarding the process of health visiting has progressed little since Hunt (1972) wrote:

".....the skills used by health visitors in their work have not been identified: a good deal is written on what health visitors should do but little on how they should do it....." (page 24),

leaving health visitors individually to decide what they consider good practice.

3.2. The Nature of Health Visiting Activity.

National Statistics on Health Visiting Activity

Hicks (1976) found the data on health visiting activity 'puzzling' and despite the length of the chapter devoted to the subject of health visiting and health visitors, he only wrote three paragraphs on the subject of health visiting statistics. Hicks (1976) drew attention to the discrepancy between supposed health visitor visits to newborn infants and the recorded number of births. It seemed that a confusion arose in the compiling of data through a variable definition of what counts as a 'case'. The Jameson Report (Ministry of Health, 1956) also noted in its review of government department statistics that the annual returns

were compiled in different ways in different years. Robinson (1982a) has suggested that the data derived from the collection of national statistics on health visiting activity is misleading because of the differences in local interpretation of the requirements of activity recording.

However, despite this limitation, the Central Statistical Office (1981) showed that in 1979 60% of all health visitor contacts were with children under five years of age and their families. This was similar to the pattern of contact revealed by Dunnell and Dobbs (1982) in their national survey of community nurses. The remainder of health visitor contacts were mainly the result of work with the elderly - visiting of tuberculosis cases no longer being a significant source of work in contrast to the period reviewed by the Jameson Report (Ministry of Health, 1956). In the case of Dunnell and Dobbs' sample, health visitors spent 62% of their time (excluding clinics) with children under 16 years and 10% of their remaining time with the elderly. And according to the latest available government statistics, there were 8,797 full time health visitors or equivalent employed in 1980 and the provisional figures for 1981 suggest that 3,778,000 individuals were visited at home. Of these, 651,000 (17.2%) were children born in 1981 and 1,646,000 (43.6%) were other children under five years of age. The provisional figures for 1981 suggest that 465,000 people aged over 65 years were also visited by health visitors at home, this would represent 12.3% of the total number of people visited at home (Department of Health and Social Security, 1982a).

Studies of Health Visiting Activity.

Clark (1981) has reviewed the research in the field of health visiting during the twenty years 1960 to 1980. However, she was handicapped by what Hicks (1976) identified

as the absence of any standardised classification of problems or topics so that the available research may be viewed as a series of uncoordinated case studies. Further, the methods used in the various studies were as dissimilar as their aims. However, despite these limitations, the available research on health visiting activity is reviewed below.

Thirty-five of the thirty-seven studies reviewed by Clark (1981) investigated the proportion of time spent by respondents on various activities. In general terms, she concluded that health visitors spend between a quarter and a third of their time on home visits, about a sixth on child health clinic sessions, a further sixth on travelling and about a quarter on clerical work. Dunnell and Dobbs (1982) found a similar distribution of time in their survey although they found slightly less time was concerned with clinic sessions and correspondingly more time was spent on clerical work.

Fifteen of the thirty-seven studies reviewed by Clark (1981) revealed the percentage of visits to clients of different ages. It was clear from the review that the major component of health visitor clientele was families containing young children so that they represented 50% to 80% of the clientele visited. Perkins (1977), Fitton (1981) and, more recently, Speakman (1984) also found a similar concentration upon families with children under five years of age. In contrast, the proportion of the visits to the elderly was variable, ranging from 3.4% to 36.2% (Clark, 1981); a variation which Luker (1979) attempted to explain in terms of the age structure of the population, attachment of health visitors to general practice, local policy and the personal preference of the health visitor. The influence of attachment to general practice upon the work of the health visitor, however, seems to have been

small and such differences which were found cannot conclusively be attributed to attachment. Further, health visiting may well have changed since the last relevant study was undertaken in 1978 (Walsworth-Bell, 1979).

Although home visits account for between a quarter and a third of the health visitor's time (the proportion ranged from 17.4% to 58.1%) (Clark, 1981), no study has considered the amount of home visiting an individual client may receive. Indeed, this most important constituent of health visiting activity has only been investigated in terms of: the number of home visits made by a health visitor during an average day or average week, the average duration of home visits, the proportion of 'no-reply' visits and initiation of home visits. The few studies concerned with the number of visits achieved in the course of an average day revealed a range of 9.6 to 5 visits while the range achieved during an average week was between 20 and 48 visits (Clark, 1981). The duration of home visits considered as a topic in nine studies revealed a range of average duration between 13 and 25 minutes (Clark, 1981), although clearly the duration of a visit will vary according to the problems encountered during a home visit. Figures relating to the number and duration of home visits do not, however, indicate the quality of health visiting. The proportion of 'no-access' visits was reported in eight studies and revealed that the percentage of no-access visits as a proportion of all visits varied from 6% to 25% (Clark, 1981). This variation may reflect the greater use of appointments by some health visitors, a factor which was not recorded in any of the research studies (Clark, 1981). Eight studies considered the source of health visitor home visits and Clark (1981) has concluded that most home visits are health visitor initiated (the proportion ranged from 91.9% to 59.3%) with client initiation ranging from 33.9% to 5.4%. McClymont's (1983) more recent survey concurred with Clark's analysis and found 83.3% of home visits were health visitor initiated.

Despite Clark's (1981) assertion that work in clinics accounted for approximately 15% of a health visitor's working time, (the range reported was 2.1% to 29.2%), the information available about activities in clinic sessions is sparse. However, it seems the great majority of clinics are concerned with child health (Clark, 1981). Child health clinics were identified by the Court Report (Department of Health and Social Security, 1976a) as providing regular sessions for routine examinations and screening of the preschool population as well as offering advice and a programme of immunisation. The Court Report also noted that attendance at child health clinics was in the main restricted to children under two years of age. Two surveys have suggested that the majority of clinic attenders have a child under one year and the primary reason for attendance is infant weighing (Biswas and Sands, 1984; Bolton, 1984). These findings reflected previous work in the field (Orr, 1980). The only research in the field of health visitor-client interaction has been undertaken by Warner (1983) who attempted to explain the 'negotiating' procedure between the client and health visitor in the clinic setting. Unfortunately, the study was on a very limited scale but it suggested that such interaction is worthy of full scale analysis.

Phaff's (1983) review of evaluative research concerning child health clinics concluded that such work was in much need of further development. He suggested that the assumption that they are important contributors to child welfare was open to question since their methods of health care delivery have not changed although the causes of child mortality and morbidity have changed. Hendrickse (1982) was also cautious about the contribution of child health clinics particularly noting that families in least need made optimal use of the services while non-attenders had an appreciably higher percentage of problems. Hart et al (1981) have suggested that certain clinic characteristics such as a

familiar doctor and geographical convenience may do much to enhance attendance levels.

Health visiting activity has been considered in terms of time allocated for various activities, the clientele visited and lastly the topics discussed. Both Clark (1973) and Marris (1971) relied upon health visitor recall for their data while Watson (1977) undertook an observation and time study. However, regardless of research method employed, the range of work noted was very wide, including such topics as child management, screening, general health, immunisation and problems related to housing and finance. Walsworth-Bell (1977) found a similar range of topics as reason for health visitor contact in her survey in two London Health Districts; a similar finding to McClymont's (1983). However, Clark (1973), Marris (1971) and Watson (1977) found a considerable variation in work content between individual health visitors. Clark (1973) attributed this difference to the differences in the health visitors themselves while Marris (1971) thought much could be explained in terms of geographical differences. Luker (1979) offered the most plausible explanation in suggesting that personal preference on the part of the health visitor was a factor in health visiting practice but other factors such as local policy and attachment to general practice were also contributory.

Connolly's (1983) postal survey of ninety Area Health Authorities confirmed that the role of the health visitor with regard to child assessment was variable. Nineteen Area Health Authorities did not require health visitors to assess children, fifteen Area Health Authorities had a general assessment policy under which health visitors were expected to assess children's development when the opportunity arose and 54 Area Health Authorities had a specified assessment policy which involved health visitors

fully in child assessment programmes. Morris and Hird (1981) have suggested that health visitors are able to make an effective contribution to infant screening and Robertson's (1981) small feasibility study regarding visual screening of preschool children also suggested that health visitors could undertake such work efficiently and effectively. In contrast to Connolly's survey (1983), the Health Visitors' Association (1978b) found that health visitors were responsible for carrying out routine infant hearing tests in 90% of the 210 districts surveyed.

Although various studies have attempted to elicit what health visitors do, none has considered whether health visiting activities matched the objectives or priorities as predetermined by local policy nor by the individual health visitors themselves. The research to date has instead revealed a job which, whilst much concerned with maternal and child health, has a much broader scope including what the Jameson Committee (Ministry of Health, 1956) called 'psycho-social' work. Unfortunately, whether or not health visiting was effective or efficient was not considered.

3.3. Evaluation of Health Visiting

The Relationship Between Health Visiting and Infant Mortality Rates.

Both the Jameson Committee (Ministry of Health, 1956) and Jefferys (1965) stated that health visitors had played a major part in the reduction of infant mortality rates. However, neither offered hard evidence to substantiate this claim and further it is doubtful whether health visiting alone could combat the effects of poverty and poor social circumstances. The Court Report (Department of Health and Social Security, 1976a) inferred a positive relationship between resources and outcome and stated:

".....the infant mortality rate is a sensitive indicator of child health and attendant services...., it allows comparison between countries and within the same country and different times." (para. 2.27).

The Court Report was criticised for its preoccupation with medical matters to the exclusion of social policy issues and Alberman et al (1977) considered that the recommendations:

".....could create a wholly misleading impression of the capabilities of medicine and of what we know about helping children to be fit for the future." (page 393).

The debate regarding the relationship between the input of health service resources and mortality rates as measures of outcome was continued by the Royal Commission on the National Health Service (1979) and the Report noted that the evidence was both conflicting and inconclusive.

The Court Report (Department of Health and Social Security, 1976a) based its recommendations upon the evidence of various sudden infant death syndrome studies (Carpenter and Emery, 1974; Emery, 1976; Protestos, 1973; McWeeney and Emery, 1975). The research suggested that it was possible to identify 'at risk' infants and their families who, when given intensive home visiting by health visitors, experienced much improved mortality rates (McWeeney and Emery, 1975). Protestos' (1973) research, which found that the 'at-risk' population included a large proportion of non-utilisers of health services, suggested that the health visiting services may succeed in providing an 'outreach' service to those families through individual education and support and mediation with other health service agencies. However,

since ultimately the consumer has control and may accept or reject the services rendered, the issue of consumer satisfaction is an important one. Interestingly, a number of high risk mothers declined to participate in the Sheffield Study so that the health visiting service could not be evaluated for the 14.3% of that population of infants who died unexpectedly (Carpenter and Emery, 1977).

More evidence of the benefits of health visiting has been offered by MacQueen (1960) and the Wynns (1974). While MacQueen attributed the comparatively good infant mortality rate achieved in the last 1950s in Aberdeen as compared with the whole of Scotland to the work of health visitors, Margaret and Arthur Wynn cite the Finnish experience:

".....that home visiting by midwives and health visitors was basic to the achievement of their low prenatal and infant mortality rate." (page 5).

The assumption that health visiting alone may achieve such notable success in the field of infant mortality seems to disregard all the evidence which suggests that social circumstance has much influence upon child health status. However, Lauri (1981) in a piece of action research demonstrated that a focused approach by Finnish public health nurses could help parents solve their child rearing problems and she also found the levels of development in the children of the experimental group was higher than that of the control group at 24 months of age in certain areas. Further, Luker's (1982) experimental study with regard to the effectiveness of health visiting with the elderly suggested that health visitor intervention had more than a transitory effect in the improvement of wellbeing. No similar study has considered the effect of health visitor intervention on mothers with young children although Lauri's

study would seem to suggest that focused health visitor intervention may be beneficial. The most recent British scheme which seeks to evaluate positive discrimination in terms of extra health visiting support in favour of high risk infants was established in Nottingham in 1978. Although the difficulties in administering this scheme have been overcome, Madeley (1982) has admitted that:

"Problems of evaluation remain and are considerable, but the scheme is widely thought to have been beneficial by most of those involved." (page 364).

3.4. The Client's View of Health Visiting.

Cartwright's (1967) study of general practice found that when respondents were asked what they appreciated about their general practitioner, 88% mentioned something about manner or personality. Orr (1980) also found that similar attributes in health visitors were positively viewed. Orr studied the consumers' view of 68 Social Class IV and V Northern Ireland mothers. She only included married women with one child in her sample so that her results cannot be generalised to either single parents or families with several children, who by tradition are perceived to utilise maternal and child health services least. However, Orr presented the view that clients value a warm, friendly relationship as a medium for the giving of practical help and advice and she concluded that it was one of the main skills of health visiting.

Orr (1980) asserted that no mothers in her study were negative about health visiting. She claimed that those who did not go to clinic or mothercraft classes were amongst those who wanted a health visitor. This contrasts with the findings of Graham's (1979) survey that a minority of mothers viewed both health visitors and clinics negatively;

a finding which was replicated by Robinson (1982a) who found that a minority of clients saw the health visitor as a representative of a bureaucratic system rather than as a source of help. Field et al (1982) found that although 60% of their sample women held positive attitudes towards their health visitors, many of the remaining 40% thought that their health visitors were:

".....interfering, authoritarian, unsympathetic and out of touch."(page 300).

Another survey concluded that although:

"Generally, the picture presented of the health visitor is a positive one.....Most of the dissatisfaction we encountered focused on difficulties in communication between health visitors and mothers." (Foxman et al, 1982, page 308).

The issue of consumer satisfaction is important and the Morris Report (Department of Health and Social Security, 1980b) recommended that more research should be undertaken to establish:

".....the extent to which health surveillance (like all the services) gives satisfaction to the consumer. Consumer 'satisfaction' is a determinant not only of the current but also of the future use of services." (page 15).

No research has systematically explored the relationship between health visitors and parents from different ethnic groups which may well involve more problems and tensions than that between those sharing a common culture and language. This is a potential problem of inner city health visiting

practice in view of the population served, although 70% of mothers of mixed ethnicity interviewed in an inner-London study:

".....felt that the health visitor had helped them." (Bax et al, 1980, page 33).

Watson (1982) found a similar level of satisfaction in her inner-London study.

Notwithstanding different levels of consumer satisfaction with the health visiting service, both Orr (1980) and Foxman et al (1982) found that mothers preferred to see the health visitor in the home. However, both Graham (1979) and Foxman et al (1982) found that breast feeding mothers were more likely to rate their health visitor's visits as helpful although frequency of visiting was the same. No study has explored consumer satisfaction in terms of home visiting frequency although Graham (1979) found that some of her sample expressed uncertainty about the role of the health visitor at the same time as expressing less positive attitudes about the service.

3.5. Conclusion.

The Court Report (Department of Health and Social Security, 1976a) identified the health visitor as a:

".....key figure in the preventive services,"
(para. 4.21),

however, the research regarding the contribution of health visiting to child health is very limited. Phaff (1983) has suggested that the evaluation of immunisation uptake is one of the best examples of evaluation of a child health service. The value of the developmental screening clinic

has been established by Bain (1974) and, although non-attendance is a problem at such clinics, developmental screening continues to be an important function of child health clinics.

Home visiting has always been an important constituent of health visiting practice although the precise nature of the interaction has yet to be fully investigated (Clark, 1984). However, it is the part of health visitor work enjoyed most by health visitors themselves (Clark, 1973) and a source of consumer satisfaction. The method by which health visitors organise their home visiting has yet to be fully investigated although the aims of the service would suggest that resources should be concentrated where the need is greatest. In Dingwall's (1977c) view, the health visitor's combination of health and social work skills and her knowledge of individuals and available services should allow her to:

".....be seen as the principal case-finding agency of the Welfare State." (page 78).

He reminded the Royal Commission on the National Health Service in his personal evidence that:

"Reminder letters are a poor *substitute* for regular personal contact, friendly persuasion and the ability immediately to give informed answers to parental questions." (page 77).

CHAPTER 4

INEQUALITIES IN CHILD HEALTH

There is a distinction between differences in health experience and inequalities in health experience. The distinction was clearly explained in the Black Report (Department of Health and Social Security, 1980a) in which inequality was defined in terms of outcome which had been socially or economically determined. In contrast, differences were perceived in terms of individual natural and physiological constitutions or processes. Crombie (1984) explored this distinction in the McConaghey Memorial Lecture. This review will focus upon the factors which are relevant to inequality in child health experience and consider the literature relating to social class, regional differences, ethnic background and residence in inner cities.

4.1. Social Class and Inequalities in Child Health.

Central to the work on inequality has been the development of the concept of 'social class'. Social class may be defined as a segment of the population sharing similar types and levels of resources and maintaining broadly similar lifestyles (Townsend and Davidson, 1982). A variety of factors play a part in determining social class, for example, income, wealth, social origins, education, housing tenure..... However, historically occupation has been selected as the principal indicator as it has proved more reliable than other alternatives and information relating to it is easy to gather (Worsley, 1970). But as a concept it has its shortcomings which are discussed in the Black Report (Department of Health and Social Security, 1980a) namely, an emphasis upon prestige of occupation rather than material properties of occupations and the difficulty of 'allocating' women to social class together with accommodating occupational changes during working lives.

Mortality Rate in First Year of Life.

The Registrar General for England and Wales first introduced a group of occupations into social classes in 1911, subsequent to which an analysis of social differentials in perinatal and infant mortality has been offered related to the decennial census. The Registrar General for Scotland has offered the same analysis since 1938. Both these analyses have shown that infant mortality rates increase regularly with declining social class despite a marked improvement in infant mortality over time (Office of Population Censuses and Surveys, 1977). Morris's (1979) review has suggested that these social differentials continued unabated in the 1970s. Further, the Black Report (Department of Health and Social Security, 1980a) noted that the social class gradient in standards of health seemed to be more marked in Britain than in some comparable countries and that in certain respects this gradient was becoming more marked. For example, during the twenty years up to the early 1970s covered by the review, the infant mortality rates in Social Classes I and II had steadily declined while those in Social Classes IV and V had only improved slightly. The Report drew attention to the existence of these differentials which appeared uninfluenced by more than thirty years of a national health service expressly committed to offering equal care to all.

The same social class differentials in mortality rates have been confirmed by those birth cohort studies which have contained large enough numbers. The Social Medicine Research Unit examined the background of all stillbirths and infant deaths among all children born in England and Wales during 1949 and 1950 and revealed that social class was an important influence upon infant mortality rates independent of the mother's age or parity and the

region of residence (Daly et al, 1955; Heady et al, 1955a; Heady et al, 1955b; Morris and Heady, 1955a; Morris and Heady, 1955b). The particularly detailed analysis of the Perinatal Mortality Survey (Butler and Bonham, 1963) found the class differential unchanged and adjustment for maternal age increased the social class trend (Feldstein and Butler, 1965). The British Births Survey (Chamberlain et al, 1975) produced perinatal mortality rates rising regularly from 7.5/1,000 live births in Social Class I to 27.6 in Social Class V. Forbes et al (1982) in their examination of perinatal mortality in Scotland during the 1970s confirmed the existence of continued social class differentials. Blaxter's (1981) review of the literature considered in depth the social distribution of factors associated with perinatal and infant mortality. This excellent review confirmed the higher incidence of congenital abnormalities, birth injury and low birth weight with declining social class.

In the post-neonatal period, from one month to one year of age, deaths are much fewer than in the earliest period of life; however, it is a period of life when the social class differential in death-rates is at its greatest (Office of Population Censuses and Surveys, 1978; Townsend and Davidson, 1982). Blaxter (1981) in her review has confirmed the clear social class gradients in all the causes of such deaths, including the higher incidence of 'cot death' in Social Class V.

Childhood Mortality.

Until recently, little has been published on the variation in mortality amongst social groups for children over one year of age. Prior to the 1971 Census analysis, children aged between 1 and 14 years were not included in the decennial analysis of mortality by social class. Death-rates in childhood are also low so that the rates

available from samples of the population are based on very small numbers, so that the evidence from longitudinal studies is limited.

Douglas and Blomfield (1958) in their analysis of death rates between 12 and 15 months of age amongst the National Survey of Health and Development cohort found an insignificant difference in mortality rates between social classes. Chamberlain and Hill (1970) found little difference between social classes regarding child mortality rates over five years of age in Greater London. However, at one to four years of age the mortality rates were 0.65/1,000 live births for Social Classes I and II compared with 1.08 for Social Classes IV and V. The total number of deaths amongst children in the National Child Development Survey cohort were too small for detailed analysis (Davie et al, 1972).

Adelstein and White (1976) matched the deaths of children aged 1 to 14 years in the years 1959 to 1963 against the estimated population in each social class derived from a 10% sample of the 1961 Census. They found a trend of higher mortality rates with declining social class and although the gradient lessened as the children grew older, the greater number of deaths in Social Class V was always marked. Childhood mortality was considered in the 1970-1972 Decennial Supplement on Occupational Mortality (Office of Population Censuses and Surveys, 1978) and the figures supported the earlier analysis of Adelstein and White (1976) in suggesting that social class differences are greatest at earlier ages. At all ages the rates for male children in Social Class V were at least twice those in Social Class I. The rates rose regularly as social class declined except for an anomaly in younger female children where Social Class II tended to have lower rates than Social Class I, and Social Class III M lower rates than Social Class III N.

An analysis of child mortality rates by geographical region (Brennan and Lancashire, 1978) showed that rates may vary more widely by area than by social class, especially where young children are concerned. Area of residence as an influence on health status is considered later in this review.

The prime causes of death in the first year of life such as congenital abnormalities are less important to childhood mortality. In 1970 to 1972 congenital abnormalities accounted for 13.3% of deaths between one and fourteen years of age, while nearly two-thirds of the deaths could be attributed to cancers, respiratory diseases and accidents, with accidents being the single largest cause. The social class differences were not particularly marked for cancers although in the 1970 to 1972 Analysis (Office of Population Censuses and Surveys, 1978) there was a tendency for the rates to be higher in Social Class III N and Social Class V, especially for leukaemia.

The proportion of childhood deaths from infective and respiratory diseases has fallen dramatically over time from 8.1% and 16.6% respectively in 1959 to 1963 to 5.7% and 13.7% in 1970 to 1972. In 1970 to 1972 deaths from pneumonia in Social Class V were approximately $2\frac{1}{2}$ times the rate in Social Class I despite the fall in the overall incidence. The ratio of Social Class V death-rates from all parasitic and infective diseases to those of Social Class I was more than 2:1 (Office of Population Censuses and Surveys, 1978).

The causes of death with the steepest gradients by social class at all ages were accidents, poisoning and violence in both the 1959 to 1963 and 1970 to 1972 analyses. Further, the number of children involved was greater than those who died from respiratory diseases. The social class

difference was particularly marked at the early ages, one to four years (Office of Population Censuses and Surveys, 1978). In 1959 to 1963 the death-rate/100,000 per year for motor accidents to children of this age rose regularly from 2.85 in Social Class 1 to 15.80 in Social Class V and for 'other' accidents, mainly fire, the rate rose from 0.79 to 9.32 (Adelstein and White, 1976). Macfarlane and Fox (1978) found that these differences had increased by 1970 to 1972. Thus death-rates from falls, fire and drowning for boys were more than ten times as great in Social Class V as in Social Class I. Brown and Davidson (1978) have suggested that this differential in childhood accidents reflects the higher incidence of maternal depression in Social Classes IV and V which was found by Brown and Harris (1978). Macfarlane and Fox (1978) have also pointed out that accidents are the most common cause of death in childhood.

In general, it may be concluded that there is clear evidence that both infant and child mortality varies markedly with social class. The difference is most marked in the first four years of life and between Social Class V and the rest of the population.

Childhood Morbidity.

Evidence about the relative morbidity of different groups of children ranges from large national cross-sectional surveys such as the General Household Survey, through the important evidence provided by large-scale longitudinal surveys to the more detailed findings of research which has limited geographical coverage. The evidence is further limited by the fact that morbidity statistics of large populations refer only to identified and treated diseases and therefore the perception of symptoms as indicators of illness. These variations may be even more important in the case of children whose illness is usually identified

by the mother. For example, in one sample of mothers of low income families, different survey instruments produced widely differing results and less than a quarter of mothers' reported clinic visits matched the clinic records (Kosa et al, 1967).

The patterns of reported illness in the General Household Survey for children aged 0 to 14 years have been variable over the years and do not consistently show the rising trend of morbidity with declining social class evident in adults. Particularly for girls, there has been little difference between social classes in the amount of chronic illness, but for boys there has been some tendency for higher reported rates in all the manual classes in comparison with non-manual classes. For acute illnesses, the trend for boys in all years has been a rate which declined with social class (Office of Population Censuses and Surveys, 1978). The other evidence available, however, suggests that this declining rate may be affected by mothers' identification or reporting.

Reported rates of illness may be compared with rates of general practitioner consultation. While there is a consistent trend towards higher consultation rates as social class declines in adulthood, such a trend is absent with regard to children of both sexes and all ages (Office of Population Censuses and Surveys, 1978). Birch and Gussow (1970) have suggested that the higher rates of reported illness amongst children of higher social classes in the United States reflect the health behaviour of those families and therefore parental perception and propensity to seek a medical consultation. Thus any studies relying on mothers' reports or on statistics of service use may under-represent morbidity in lower social classes.

In the first year of life, a greater incidence of illness was found in the lower class families in the Newcastle 1,000 Families Survey, especially due to respiratory infections (Spence et al, 1954). Acheson (1965), examining morbidity in the first six months of life of babies born in 1962 in the Oxford Linkage Study area, found that children in Social Classes IV and V were admitted to hospital nearly twice as frequently as those in Social Classes I and II. Maternal age also had a great influence upon admission rates. In the first two years of life the National Survey of Health and Development (Douglas, 1951) reported more untreated illness in children of manual families as compared to non-manual families. An increase in the incidence of infectious diseases with declining social class was also found in the analysis of morbidity in the first five years of life (Douglas and Blomfield, 1958).

More recently the National Child Development Study has provided evidence of a clear social class gradient in the health experience of children in the first seven years of life. Children with past or present otitis media rose from 6.81% in Social Class I to 9.57% in Social Class V (Davie et al, 1972). This survey also revealed that lower social class children have higher rates of hospitalisation but use specialist outpatient clinics less. By seven years of age, 42.9% of the survey children in Social Class I had been admitted to hospital with a regular rising trend to 47.3% of the Social Class V children (Davie et al, 1972). This differential to some extent reflected the higher rate of accidents in lower social classes (Davie et al, 1972). This trend was confirmed by Wedge and Prosser (1973) in their follow-up of children at eleven years of age. Bassett (1981) in his study of child and family health in a Scottish new town confirmed the existence of increased morbidity among children in Social Classes IV and V. Thus

health problems were twice as prevalent in children in Social Classes IV and V as compared with children in Social Classes I and II.

Large scale general practice consultation figures by occupational class and by condition were revealed by the 1955/56 survey of morbidity in general practice (Logan, 1960). Consultation for bronchitis in male children under one year of age was 179.5 per thousand in unskilled manual families as compared with a rate of 52.2 in professional families. However, consultation rates for some other conditions such as otitis media, conjunctivitis, acute respiratory infection, nasal catarrh and 'pyrexia of unknown origin' was markedly lower in unskilled manual families as compared with higher social classes. This perhaps reflects different maternal perceptions of illhealth especially when the illness is not major. Bax et al (1980) found a higher general practitioner consultation rate for children of manual workers which they felt could be partially accounted for by the increased incidence of respiratory illness, which included bronchitis, in the manual groups. However, Lucas's (1980) large-scale survey of contact between children and their general practitioners found no variation in consultation rates between the different social classes.

The evidence from surveys, both longitudinal and cross-sectional, has suggested that children in lower social classes suffer from more illhealth in general than those in more advantageous circumstances. This social class differential is perhaps an area of disadvantage in which health visiting could make a contribution to child welfare.

Use of Curative Medical Services

General practitioner consultation rates have many inherent weaknesses so that no single interpretation is

possible. Spence et al (1954) found that 20% of non-reported cases of illness were pneumonia and bronchitis, while Miller et al (1960, 1974) reported that two thirds of the attacks of vomiting and diarrhoea, half the attacks of suppurative otitis media and half the accidents were not brought to the attention of a doctor. Kosa et al (1966) noted that there was much variability with which the same symptom was considered as indicating illness. This is supported by Robinson's work (1971) which demonstrated both how difficult decision-making was for mothers and how complex the family processes which might be involved in the interpretation of symptoms as requiring expert consideration.

Rein (1969) and Crombie (1984) have asserted that the higher consultation rates of adults in Social Classes IV and V confirm that equality of access has been achieved. However, Blaxter (1976) has suggested that the difference in the actual consultation rates is probably less than the difference in the actual incidence of illhealth so that higher social classes actually consult more for illness incidence. In contrast, Collins and Klein (1980) have argued that there is no systematic relationship between need as measured by self-reported morbidity, social class and access to general practitioner services and therefore that there is no social class bias in the National Health Service. These views have been challenged by Cartwright (1980) because they ignore the issues of quantity and quality of care being consumed.

Some evidence has been accumulated that adult middle class patients tend to have longer consultation times and get more information (Townsend and Davidson, 1982). Cartwright (1964) found that middle class patients were more likely to be visited at home than working class patients. A later study found that middle class patients made better use of the consultation time and that doctors seemed to have

more knowledge about their middle class patients even though working class patients had been registered for longer periods (Cartwright and O'Brien, 1976). Despite these findings there is no evidence that working class patients are less satisfied with the care they receive.

A trend in consultation rates has not been demonstrated for children despite the evidence of increased mortality and morbidity among children in lower social classes; a feature about which Brotherston (1976) expressed concern. Social class, however, as a complex variable includes many components, one of which is family size. Both Hare and Shaw (1965) and Picken and Ireland (1969) found a declining number of consultations with increasing family size, although the more recent work of Lucas (1980) does not support this differential in consultation rates.

The content or characteristics of primary care consultations regarding children, in contrast to the utilisation rates of general practitioner services, have not been the subject of research. It cannot be assumed that there are no special characteristics of consultations for children in view of the critical role parents play in such consultations. Indeed, the work of Davis (1982) has suggested that the nature of such consultations differs markedly from that recorded between doctors and adult patients.

Curative services are also provided by hospitals and attendance data offer alternative morbidity statistics. The evidence of all longitudinal surveys in Britain is that children in Social Classes IV and V are admitted more often to hospital but use specialist outpatient clinics less (Spence et al, 1954; Douglas and Blomfield, 1958; Davie et al, 1972; Wedge and Prosser, 1973). The National Survey of Health and Development found that the proportions of

children hospitalised under five years of age differed markedly by social class, with children of manual workers being admitted more frequently for infections (Douglas and Blomfield, 1958). In their analysis of this hospitalisation data, Wadsworth and Morris (1978) suggested that 10.4% of the admissions from non-manual families were preventable as compared with 15.1% from manual families.

Use of Prophylactic Services.

Immunisation

Immunisation of children is one area of preventive behaviour where the benefits are almost universally accepted and where the evidence of differential take-up between social groups is clear. In the National Child Development Study of children at seven years of age, 94% of children in Social Class I had been vaccinated against smallpox as compared to 66% in Social Class V (Davie et al, 1972). In a follow-up of children at eleven years of age, Wedge and Prosser (1973) found that two-fifths of 'disadvantaged' children were not vaccinated against smallpox and one seventh were not immunised against diphtheria. Similarly, the Child Health and Education in the Seventies Study found a significantly different level of uptake between manual and non-manual families with only 1% of children from non-manual classes unimmunised at 3½ years of age. There was also a significantly higher uptake of the measles vaccine in non-manual families (76.5%) as compared with manual families (60%) (Butler, 1977). When the children were categorised by a 'social index' rather than by father's occupation, the differential between 'advantaged' children and 'disadvantaged' children was highlighted (Butler, 1977). The 'social index' was a composite index which included such factors as housing, amenities and parental education (Osborn and Morris, 1979).

Use of Child Health Clinics.

The regular developmental and health surveillance of young children is recognised to be of value in the prevention and early detection of a wide variety of remedial conditions (Scottish Home and Health Department, 1973; Lancet Editorial, 1975; Department of Health and Social Security, 1976a). However, there is growing evidence that the families most in need of help may not use the facilities available (Dowling, 1978). Child health clinics perform an essentially diagnostic and preventive function through the provision of developmental assessments and advice and support to the mother in the care and feeding of her child. Clinic use is highest in the first year of life, falling to minimal levels after the age of two years. Davie et al (1972) found that three quarters of children were taken to the clinic under the age of one year but subsequently only half continued to attend. Dowling (1978) reported similar diminishing clinic attendance rates in the Child Health and Education in the Seventies Study.

Douglas and Blomfield (1958) and Acheson (1962) found reduced child health clinic attendance at both ends of the social scale. Reduced attendance was also associated with unmarried mothers, large families and agricultural workers' families. Acheson (1962) suggested, however, that the lack of child health clinic visits is compensated by increased visits to the general practitioner. The National Child Development Study found slightly greater attendance at clinics in Social Class III, both non-manual and manual, in comparison to Social Classes I and II or IV and V. After the first year, Social Class V children fell behind the other groups with only 47% attending (Davie et al, 1972). Amongst the 'disadvantaged' children studied at eleven years of age, one third had never attended child health clinics compared with one fifth of the 'non-disadvantaged' (Wedge and Prosser, 1973). Wedge and Prosser (1973) also

found that only one third of the 'disadvantaged' children had attended clinics regularly as compared with two-thirds of the 'non-disadvantaged' children. The Child Health and Education in the Seventies Study found no social class gradient amongst child health clinic attenders during the first four years of life and nor did the proportions differ with regard to five or more attendances. However, when attendance rates were analysed using a 'Social Index', the 'disadvantaged' group differed significantly from both the 'advantaged' and the 'neutral' groups. Thirty five percent of the 'disadvantaged' children had never attended child health clinics in the first year of life and 40% in the second and third years of life as compared to 14.7% and 26.8% respectively of non-disadvantaged children (Butler, 1977).

The Court Report (Department of Health and Social Security, 1976a) noted that although multiple services may have the advantage of offering parents a choice, they may also result in confusion. The Report suggested that a split of preventive and surveillance work from curative work may limit the effectiveness of overall child health provision.

In general, it may be concluded that there is evidence that children from the lower social classes receive less prophylactic health care than their contemporaries from the higher social classes.

4.2. Regional Differences and Inequalities in Child Health.

The Black Report (Department of Health and Social Security, 1980a) confirmed the considerable variation in mortality rates at all stages of the life cycle between different parts of the United Kingdom. Thus populations to the south and east of a Severn-Wash line have a relatively

favourable mortality experience. On a more local scale, the Brotherston Report (Scottish Home and Health Department, 1973) suggested that there were striking regional differences within Scotland with the infant mortality rate being highest across the heavily populated central industrial belt and lowest in the border counties. The infant mortality rate was also found to be higher in the cities and large burghs as compared to that in the small burghs. Jarman's (1981) compilation of statistics relating to London confirmed the Brotherston Report's (Scottish Home and Health Department, 1973) assertion that infant health experience was inferior in the more heavily populated cities and towns. Thus death-rates in the first year of life and for children up to their fifth birthday were not only greater in Inner London as compared to Outer London, but were greater than those for England and Wales in general (Jarman, 1981). The particular characteristics of inner city life are considered in a separate section of this review.

Geographical 'disadvantage' in health is related to socio-economic disadvantage which again is related to aspects of environmental disadvantage. However, geographical disadvantage has appeared to exist independently of social class (Brennan and Lancashire, 1978) and the 'social class standardization' performed by Fox and Adelstein (1977) had little effect upon differences among geographical areas except in the case of Wales where mortality experience worsened. Tudor Hart (1975) has argued that there seemed to be an 'inverse care law' in operation with regard to National Health Service resources whereby the poorest resources were devoted to the greatest need. The Acheson Report (London Health Planning Consortium, 1981) reviewed the problems of primary care provision in Inner London and would seem to support Tudor Hart's (1975) tenet.

Regional differences in mortality rates may therefore demonstrate not only a heavy preponderance of manual workers with urban deprivation and poverty but also structural differences arising from inequitable distribution of hospital services and of general practitioner services. In an attempt to reduce inequalities in resource allocation to different areas, a Resource Allocation Working Party (R.A.W.P.) was appointed in May 1975. The Report (Department of Health and Social Security, 1976d) sought to establish a mathematically quantifiable definition of need as a basis for determining future resource distribution. However, the Black Report (Department of Health and Social Security, 1980a) in its review noted that nine of the fourteen Regional Health Authorities had only partially implemented R.A.W.P. proposals and that R.A.W.P. had not been consistently applied at area or district level.

4.3. Ethnic Background and Inequalities in Child Health.

Statistics relating to mortality and morbidity patterns of ethnic minorities are difficult to obtain and further tend to compare first generation immigrants only. 'Race' has rarely been assessed in official censuses and surveys. Until the commencement of linkage at the national level of individual deaths and births in 1975 (Adelstein et al, 1980), analysis of infant mortality by the place of birth of the parents was not available. The analysis of figures for 1977 demonstrated that infants of immigrant parents are most at risk during the perinatal and neonatal period. With the exception of infants of Pakistan-born mothers, the post-neonatal mortality rates were similar to or lower than those of United Kingdom-born mothers (Adelstein et al, 1980).

Membership of an ethnic minority encompasses both biological and social dimensions. While there is very limited evidence that biological causes underly perinatal vulnerability (Blaxter, 1981), some disadvantages of early life may be associated with patterns of childbearing, for example, the age and parity of mothers in any particular group. Chamberlain et al (1975) identified increased infant mortality where mothers were under twenty years of age or over thirty-five years of age, while Adelstein et al (1976) found that young maternal age, high parity and low social class were risk factors with first-day deaths associated with prematurity. These findings were similar to those of Heady et al (1955b).

The clustering of adverse socio-economic factors must also be considered in contributing to the inferior health experience of ethnic minorities. Townsend's (1979) survey found that 43% of households with a non-white member were in Social Classes IV and V as compared with 26% of the whole sample. Further, 14% of households with a non-white member were either in or on the margins of poverty compared to 9% of the whole sample and 42% were defined as 'deprived' by the index used as compared with 16% of the whole sample. This would seem to complement Morris's (1978) contention that black workers are more vulnerable to unemployment than the white population, the consequences of which have been considered by Brenner (1979, 1981) and R. Smith (1981). D. Smith (1976) found that Asian households experienced more cramped living conditions than the indigenous population and a recent report by the Commission for Racial Equality (1984) has suggested that black people are allocated poorer quality council housing than white people. The inequalities of income, employment, housing and education opportunities experienced by ethnic minorities were considered by the House of Commons Home Affairs Committee (1981) and

the inferior social and home circumstances of children of immigrants have been documented by the National Child Development Study (Fogelman, 1983). McNaught (1984) has further asserted that ethnic minorities do not experience equal access to health care in comparison with whites.

The limited evidence available, however, also suggests that the children of immigrants suffer from certain specific health problems related to cultural factors or to their lack of natural immunity. Oppé (1964) found respiratory infections to be more common among West Indian children while Hood et al (1970) found a greater incidence of minor physical disorders and of admission to hospital in their study of one year old West Indian children as compared with a control group of non-West Indian children. Pollak (1972) also found more anaemia and more burns in three year old West Indian children as compared with indigenous English children. In contrast, Bax et al (1980) did not find any significant correlations between health variables and the mother's place of birth; father's occupation, housing and maternal stress proved to be more influential with regard to child health status. However, Dowling (1983) considered children from ethnic minorities to be particularly vulnerable to poor health in early childhood; in part this may be due to the well documented incidence of Sickle Cell Disease and Thalassaemia.

Ethnic background is inextricably linked with adverse socio-economic factors which are acknowledged as contributors to health experience. Further, the limited evidence would seem to suggest that children of ethnic minorities may suffer from certain health problems in excess of their indigenous contemporaries.

4.4. Residence in an Inner City Area and Inequalities in Child Health.

Blakemore (1982) has suggested that:

"Enough is known about the decay, poverty and socially unstable nature of inner city environments for us to suppose that they can exert strangely negative influences on many of the people who live in them....." (page 82).

Madge (1982) concurred with this assertion in her review article which considered the range of physical, material, behavioural and social adversities inherent in growing up in an inner city. She noted in particular the environmental problems, not only the physical decay, pollution and noise but also the nature of the housing stock and housing shortage. Blume (1972), however, has suggested that a more adequate explanation should extend beyond a consideration of structural-environmental factors and include characteristics of the individual likely to affect his vulnerability. In reviewing the behavioural adversities, Madge also highlighted the problems of crime and juvenile delinquency as well as other psychosocial problems such as alcoholism, drug addiction, mental illhealth, marital discord and family breakdown coupled with the over-representation of single parents and ethnic minorities. The particular problems of one-parent families were the subject of the Finer Report (Department of Health and Social Security, 1974).

Multiple and pervasive deprivation will clearly have its effect upon children growing up in an inner city and evidence to two House of Commons committees include this claim. Professor Stroud (House of Commons, 1977b) in particular emphasized the immense effect of what he called 'social disprivilege' and remarked:

".....it is the damage in the first few years of life which decreases a child's ability to benefit from whatever is offered later on."
(page 3, para. 1)

Likewise, the Central Committee for Community Medicine of the British Medical Association (House of Commons, 1980b) commented:

"Social factors are particularly important in the inner city areas." (page 369)

It is an especially important consideration with regard to children in their preschool years who are most affected by their home environment because of their dependence upon the family for physical care, emotional security and intellectual stimulation. The lack of adequate housing conditions has implications, not only in terms of lack of space for play, but also in terms of normal family relationships (Crine, 1981) and facilities in time of childhood illness. Madge (1982) referred to the development of a social handicap among children from deprived families which may endure throughout life. However, Brown and Madge (1982) have argued that children from apparently similar circumstances are affected to differing extents and there is a growing literature on the invulnerability of children who remain relatively unscathed by quite substantial adversity (Brown and Madge, 1972). Berthoud (1976) found that difficulties tended to accumulate within individual families with problems of work or income being most predictive of further adversity while poor housing and poor health were least predictive.

The higher infant and child mortality rates associated with inner city life have already been discussed. Palmer et al (1980) suggested in their study of infant deaths

in Inner London that 37% of the deaths were attributed to diseases that are treatable. The consideration of morbidity rates is subsumed by other social factors such as poor housing, single parentage and parental unemployment; all factors associated with poor health experience (Davie et al, 1972; Wedge and Prosser, 1973; Rutter, 1981; Farrow, 1983). An analysis of available statistics of Glasgow and Edinburgh wards has suggested that there is good evidence of greater mortality and morbidity in areas of greater deprivation (Carstairs, 1981); Townsend et al (1984) had similar findings in Bristol. Further, an analysis of child attendances at Accident and Emergency Departments in an Inner London district during 1980 confirmed a high incidence of accidents (Meer, 1982) and Kearns (1982) found a higher paediatric admission rate for Greater London as compared to England as a whole. However, Jarman (1981) has shown that while certain social and medical characteristics tend to occur together, there are great variations within Inner London. Bax et al (1980) in their study of children in Inner London found that 20% of children attending their clinic had significant medical or developmental problems. In particular, an excess of respiratory infections, developmental delay and behavioural problems were interrelated and adverse social findings, particularly stress in the mother, were closely correlated with health and behaviour of the preschool child (Bax et al, 1980).

The Court Report (Department of Health and Social Security, 1976a) summarised the health status of children who lived in urban conditions. The Report considered that such children were:

".....more likely to suffer from ill-health than those who do not (live in urban areas) and children in inner London areas are twice as likely to be psychologically disturbed as their counterparts

in rural areas. The physical health of inner-city children is likely to be poorer and yet the services in urban areas, especially in the North and Midlands, are likely to be less numerous and of a poorer quality." (page 7)

Like ethnic background, residence in an inner city is associated with a cluster of adverse social factors, all of which are acknowledged as detrimental to good health and the achievement of optimum child wellbeing. The evidence would seem to support the assertion that residence in an inner city does not enhance child health and wellbeing if children are from Social Class V.

4.5. Conclusion.

It is suggested that the health of a child cannot be separated from the health of the family to which he/she belongs nor from the lifestyle of that family. However, socio-economic circumstances are not the only influences for it would seem that child health may also be affected by the available Health Service provision. The Black Report (Department of Health and Social Security, 1980a) offered a number of recommendations to overcome the prevailing inequalities in health experience. Among the Report's recommendations were the suggestions that more resources should be made available for the development of community antenatal, postnatal and child health services and that health education programmes should be developed to improve health knowledge. The Report particularly stressed the need for education in the field of child accident prevention; however, health education in the broadest sense was also acknowledged to be of value. But such recommendations were secondary to the eradication of poverty and redistribution of incomes which Klein (1983) described as 'a grandiose programme of social engineering'. Klein has criticised

the Black Report for resting its recommendations upon imprecise knowledge of the causal relationship between socio-economic conditions and health and for advocating general solutions instead of specific policy proposals.

However, it would seem that the Government holds the view that primary prevention through health education may improve the health of children (Department of Health and Social Security, 1981b). The health visitor as a community health educator clearly has a contribution to make in meeting the health education needs of the families she visits, although Klein (1983) doubted that health education would reduce inequalities in health because the higher social classes respond more readily than the lower social classes.

CHAPTER 5

HEALTH EDUCATION

5.1. Introduction.

Hine (1981) has argued that a review of Britain's health shows grounds for concern; this concern is expressed in the Black Report (Department of Health and Social Security, 1980a). Most deaths in the first year of life are due mainly to immaturity, birth injury and congenital abnormality (Office of Population Censuses and Surveys, 1980) where 'cure' services have an inadequate impact. It has also been noted that the United Kingdom infant mortality rates have fallen lower in the international league table, with many developed industrial countries overtaking the United Kingdom (Department of Health and Social Security, 1976c). Illsley (1980) has argued that such general comparisons are not valid since they are so dependent upon gross domestic product per head; Great Britain's fall in the league table thus parallels its relatively slow rate of economic growth.

Deaths in older children, though few in number, are in the main caused by accidents, cancers and congenital abnormalities where the scope for a curative approach is also limited. Indeed, McKeown (1976) has argued that present-day diseases are determined largely by human behaviour and can be controlled only by its modification. This theme was adopted by the Government in 1976 when categorical statements were made about prevention. The Court Report (Department of Health and Social Security, 1976a) said:

"The greatest single need in medicine in the next 25 years is to give prevention the degree of scientific and educational attention that has been given in the last 25 years to treatment."
(para. 5.22.)

And Prevention and Health, Everybody's Business (Department of Health and Social Security, 1976c) claimed that:

"Prevention is the key to healthier living and a higher quality of life for us all." (page 96).

The marked variation in the occurrence of illhealth in otherwise similar populations suggests that much illhealth is preventable. The regional and social class differences in both mortality and morbidity rates in early childhood, reviewed in the previous chapter, indicate that if the whole population were as healthy as the most favoured group; largely, the professional classes of South-East England (Department of Health and Social Security, 1980a), there would be a major improvement in child health.

The effectiveness of expensive curative medicine has recently been called into question. Klein (1983) has referred to the new critics of the National Health Service who argue that health care has not improved people's health. However, he suggested that such an argument was illfounded because the performance of health services was judged exclusively on statistics of mortality rather than on its contribution to the quality of lives (Morris, 1980). However, curative services clearly have their limitations and the cost-conscious Government has acknowledged that the labour-intensive nature of these services and new sophisticated techniques represent an avenue of ever-spiralling costs (Department of Health and Social Security, 1976c). Further, a wealth of research has indicated that hospital care, however minor, tends to be a traumatic experience for any child and therefore an experience that should be avoided if at all possible (Ministry of Health, 1959c; Robertson, 1970; Wilson-Barnett, 1979; Petrillo and Sanger, 1980; Jolly, 1981; Rodin, 1983).

It is increasingly accepted that a healthy childhood is an essential foundation for a healthy adult; a theme developed by the Court Report (Department of Health and Social Security, 1976a). Present Department of Health and Social Security policies reflect this belief with much emphasis being given to the available immunisation and vaccination programmes for whooping cough, diphtheria, polio, measles and rubella (Department of Health and Social Security, 1984). Government concern for the health of children is also expressed through antenatal policy documents urging improved education of parents (Department of Health and Social Security, 1982b). The continuing relatively high mortality and morbidity rates due to childhood accidents further emphasize the need for health education to prevent such occurrences and the research in the field of sudden infant death syndrome has suggested that some reduction in mortality may be achieved through health visitor intervention (Emery, 1981).

James (1968) has suggested that:

"Man is very rapidly becoming the cause of his own major reasons for death and disability through various errors of either omission or commission."
(quoted in Tones, 1977, page 10).

Many of the major health problems of childhood, such as accidents and infectious diseases, are indeed behaviourally induced and it would seem that, despite increasing expenditure, curative medicine is failing to provide the necessary solutions. Cassel (1976) has argued that disease, with rare exceptions, has not been prevented by the treatment of the sick but rather by the modification of those factors facilitating its occurrence. In particular, Cassel (1976) laid much emphasis upon the psychosocial factors influencing individual behaviour. The promotion of behaviour which

reduces the risks associated with the many and varied diseases of modern life would seem a logical development in health care provision, as would attempts to encourage individuals who are already 'at risk' to modify their behaviour appropriately. The Black Report (Department of Health and Social Security, 1980a) identified health education as one of the approaches for improving health status and it will be considered in the following review which is divided into five sections, which are:

- i) Movement towards health education.
- ii) Towards a definition of health education.
- iii) Becker's Health Belief Model.
- iv) Evaluation of Becker's Health Belief Model.
- v) Health visiting and Becker's Health Belief Model.

5.2. Movement towards Health Education.

Health education is not a new concept. It has a long history with origins in Classical Rome and Greece where there was interest in healthy living habits (McEwen, 1983). The Renaissance period has been noted for its interest in the prolongation of life. However, the formulation of the Germ Theory of Disease in the nineteenth century provided a rational basis for community health programmes although improvements in the health of the population at that time were due largely to advances in environmental living conditions with consequent control of infectious disease rather than changes in individual health behaviour. Lewis (1973) has observed a conceptual shift from the past to present times in terms of earlier emphasis on disease-cure to present-day emphasis upon health maintenance.

The Department of Health and Social Security (1976b) has identified changes in attitudes and behaviour as the most promising avenue for improvements in the health of

the nation. Although effective education and information have the potential to persuade the public of the importance and benefits of healthier living, the difficulties of effecting behaviour change should not be underestimated, as exemplified by smokers' resistance to health education programmes (Tones, 1977). The last two decades, however, have seen a growth in national and international interest in preventive medicine and health education. This interest has resulted in some instances in the development of the self-care movement in which individuals take action in ways which they perceive as enhancing their personal health. Katz and Levin (1980) have anticipated a considerable future growth of the self-care movement in the Western world, although they have pointed out that the movement represents a wide variety of ideologies rather than merely a desire on the part of individuals to engage in preventive health behaviour.

Currently Government policy seems to be directed at the further expansion of interest in self-care with the hope that the consequent prevention of disease will, in the long term, free resources of medical skill, hospital beds and facilities so that these scarce resources may concentrate on unavoidable disease (Department of Health and Social Security, 1977a). However, some have argued that health education on its own cannot achieve changes in the state of the nation's health. Illsey (1980) has called into doubt the efficacy of health education in influencing the attitudes and behaviour of individuals although he acknowledged that in relation to the immunisation of children, the approach had worked 'reasonably well'. Warner (1979) also drew attention to the success of primary prevention when individuals were immunised and Cochrane (1971) has claimed that the immunisation programme is the most effective part of the preventive medicine provision. Another critic of the belief that health education and the provision of prophylactic care alone can greatly enhance

the health status of individuals is Muir Gray (1979, 1980). He has argued that prevention of illhealth can only be achieved with an improvement in social and economic circumstances of individuals together with some State intervention.

However, health education is widely accepted as being one of the most important aspects of preventive medicine (Department of Health and Social Security, 1976b) and there is increasing support for a shift from treating disease to the maintenance of health. In 1968 the Health Education Council was founded following the recommendations made by the Cohen Committee (Ministry of Health, 1964) that health education should be promoted by a new and stronger central council. Since the Council's foundation, there has been considerable growth in health education as a subject in its own right with research being funded, for example, the C.I.N.E.* Curriculum Development Project at Chelsea College and the Leverhulme Trust Health Education Project at the University of Nottingham. Courses for certificates and diplomas in health education are now well established in Further and Higher Education Colleges; the training of health visitors, environmental health officers and nurses includes health education knowledge and perhaps, most importantly, posts of Health Education Officer have been established in the National Health Service structure. Anderson (1979) envisaged a continuing expansion in health promotion; a view which has been confirmed by the development of various Schools Council Projects in Health Education which have been reviewed by McCafferty (1979).

5.3. Towards a Definition of Health Education.

Over the years there have been many definitions of health education. It is a term that many use, assuming a commonly accepted meaning, although an agreed upon definition is problematic. The Cohen Report (Ministry of Health,

* Communication in Nurse Education

1964) reflected this confusion in stating:

"Health education means different things to different people." (para. 1.1.).

Sutherland (1979) summarised the confusion thus:

"Health and education are Humpty Dumpty words; whoever we are, we all think we know what they mean, more or less, until we talk about them carefully: when that happens, we discover that agreement on their meaning except in the most general and imprecise terms is difficult."(page 1)

In general terms, however, health education is concerned with the promotion of health, both in terms of positive wellbeing and of absence of some dysfunction or disease. The concern is chiefly with maximising individual as well as community potential in regard to physical, mental and social attributes, although it is difficult to determine the nature of such potential except in terms of normative and relativistic criteria.

The definition of health and wellbeing is as problematic as the definition of health education. Green et al (1980) have asserted that:

"Health means different things to different people, serves different purposes for different people, and is more or less important to different people." (page x).

Baric's definition (1974) overcomes the major difficulties involved in formulating definitions of health which all too easily become entangled with political and religious considerations; thus a useful definition may be:

"In societal terms health is defined as a state of optimum capacity of an individual for the effective performance of the roles and tasks for which he was socialised." (quoted in Tones, 1977, page 12).

In 1954 the World Health Organisation defined the aims of health education as threefold: i) to make health a valued asset, ii) to help individuals to become competent in and to carry out those activities they must undertake for themselves in order to realise fully the state of complete physical, mental and social wellbeing, and iii) to promote the development and proper use of the health services (World Health Organisation, 1954). These guidelines have been reiterated by the World Health Organisation in later literature (World Health Organisation, 1969; Standard and Kaplun, 1983).

The Holistic Definition.

Farrell and Robinson (1980) defined health education as the provision and reinforcement of information to enable individuals to assess risks to health and to use services appropriately. The Cohen Report (Ministry of Health, 1964) increased the scope of health education and suggested that there is hardly any aspect of life which can be excluded from the ambit of health education. With a similar perspective the United States Bureau of Health Education, established in 1974, adopted the following definition:

"A process with intellectual, psychological and social dimensions relating the activities which increase the abilities of people to make informed decisions affecting their personal, family and community wellbeing." (quoted in Dallis and Strasser, 1977, page 4).

The 'Preventive' Definition.

If health education is to be truly 'educational' it must employ ethical means which provide the individual with genuine understanding without the use of indoctrination attempts or emotional manipulation. Thus, the individual should have a total awareness of the range of behavioural options open to him without attempts to bias his choice. More typically, however, the overt aim of health education has been preventive, its goal being improvement in individual and community health status through behavioural change. A definition by Hochbaum (1971) included the element of individual choice and effective measurement:

".....the task of health education is to equip people intellectually and emotionally to make sound decisions of matters affecting their health, safety and welfare.....it tries not only to equip people with the means for making sound decisions, it also tries to influence the outcome of such decisions, and ultimately, it is this that determines whether we have been effective or not.....its specific goal is to improve peoples' health behaviour." (quoted in Tones, 1977, page 13).

Tones and Davison (1979) have provided two alternative but interrelated definitions. They suggested that health education exists to promote an understanding of health, the success of this approach being judged in terms of an individual's understanding of the issues. They also suggested that health education attempts to modify people's behaviour in order to prevent the development of health problems. Thus the concept of prevention was inherent in their view of health education.

The Select Committee on Preventive Medicine (House of Commons, 1977a) considered that prevention of illhealth acts at three levels - primary, secondary and tertiary. This differentiation has its origin in the work of Caplan (1964) and is widely adopted in health education literature (for example, Department of Health and Social Security, 1977a; Redman, 1980; Syred, 1981). Primary prevention is viewed as motivating behaviour in such a way that the incidence of a problem is reduced and the onset of any dysfunction avoided. Primary health education is therefore concerned with health behaviour, that is, the various social and psychological processes leading an individual who believes himself well to behave in such a way as to avoid future illhealth. For example, promotion of sound infant feeding practice, avoidance of home accidents and uptake of immunisations fall into this level. However, as Donaldson and Donaldson (1983) have pointed out, past strategies have failed to achieve the expected success.

Secondary prevention and associated health education is concerned with halting or deferring some pathological problem so that an individual may return to his pre-disease state. Concern is with the prevalence of a problem. Thus the emphasis is placed upon the early detection of deviation from the normal with subsequent appropriate treatment. Examples of this level are programmes designed to motivate parents to utilise available screening services such as the six week developmental assessment, the infant hearing test and toddler developmental assessment. Alternatively, attempts have been made to educate mothers so that they make the appropriate diagnosis of their infant's problem which leads to 'rational' action, that is, the seeking of medical advice where this is considered advantageous. Concern at the secondary level is with illness behaviour and those socio-psychological processes related to activities undertaken by a parent who witnesses symptoms of illhealth in her infant (Spencer, 1979).

Tertiary prevention is concerned with the management of illness and rehabilitation where there is established disease; it is concerned with maximising an individual's now limited potential by controlling dependency and minimising residual disabilities and complications. Tertiary health education is frequently associated with hospital contact and is linked with the classical conception of the sick role (Parsons, 1951).

Both primary and secondary health education are features of health visiting practice in particular. Much tertiary health education is more likely to be carried out in hospitals in relation to handicapped and frail infants. Health visitors, however, have a valuable role in continuing the education process once a child has been discharged from hospital (Cunningham and Sloper, 1977). The Court Report (Department of Health and Social Security, 1976a) identified the health visitor as a key worker in the preventive field through her ability to take health education into the home setting which it considered provided more effective help to parents and overcame the difficulty of educating mothers who did not attend child health clinics.

The Council for the Education and Training of Health Visitors (1972) identified health teaching as one of the main aspects of the work of the health visitor and Speakman's survey (1984) has suggested that 42.4% of the skills used by health visitors during client contact are associated with health teaching ('advising', 'counselling' and 'teaching' skills). The Syllabus for the training of health visitors has reflected this emphasis upon health education and stated that all health visitor courses should include consideration of:

"Promotion of good health for individual and community. Identification of need, primary and

secondary prevention.....Principles underlying effective health visiting.....Formal and informal teaching; the aims and scope of health education." (Council for the Education and Training of Health Visitors, 1979a).

The Guide to the Syllabus is designed to give further information to those involved in health visitor training which the Council for the Education and Training of Health Visitors hoped:

".....should improve the correlation of theory and practice for the benefit of health visitor students." (Council for the Education and Training of Health Visitors, 1982b).

The Guide to the Syllabus stated that the sociology component of a training course was expected to:

".....introduce students to the study of society and will allow for the study of the individual in his environment and the social pressures to which he may be subjected at different ages. It will demonstrate the variety of culture patterns.. ...It should provide a scientific background for understanding the social context to which health teaching, which is a particular responsibility of the health visitor, must be related."

It appears that Becker's Health Belief Model is the framework presented to health visitor students most frequently in this context. The following review will consider Becker's Health Belief Model as a possible framework for the organisation of health visitor health teaching.

5.4. Becker's Health Belief Model

Interest in human behaviour is not new. However, it is only in the twentieth century that science has generated the idea that health behaviour can be both understood and controlled (Berkanovic, 1976). Interest in health behaviour developed in the early 1950s in the United States when participation in prophylactic measures was noted to be poor despite being at no or minimal cost in financial terms (Rosenstock, 1974). A number of social scientists have attempted to develop a theory to explain the behaviour of individuals with regard to their health care in times of apparently good health. The variety of social-psychological models have been reviewed by McKinlay (1972) who demonstrated their many similarities. However, Becker's Health Belief Model, unlike the others, has the capacity to be operationalised and has been the subject of much empirical work.

The Health Belief Model was developed in the mid-1950s and is perhaps the oldest surviving framework that attempts to identify and critically evaluate the factors responsible for behaviour as it relates to health care (Galli, 1978). The Health Belief Model is grounded in a psychosocial approach in an attempt to explain health-related behaviour at the level of individual decision making and is focussed upon the prevention of disease rather than its control (Rosenstock, 1974; Maiman and Becker, 1974). The Model used Kasl and Cobb's definition (1966) of health behaviour:

".....an activity undertaken by a person believing himself to be healthy, for the purpose of preventing disease or detecting it in an asymptomatic stage."
(page 246).

Lewin's Theory

The Model drew heavily upon the work of Kurt Lewin (1935) in which the individual is thought to exist in a life space composed of regions. Some of these regions are positively valued, others are negatively valued while others are relatively neutral. A positively valued region contains a goal object and will reduce tension for the person entering it while the opposite is true of a negatively valued region. Diseases were conceived to be regions of negative valence and could be expected to exert a force moving the person away from that region unless in so doing required entrance to a region of even greater negative valence (Rosenstock, 1974). Thus, everyday life was perceived as a process in which an individual was subject to both positive and negative forces.

The origin of the Model is attributed to a special case of Lewin's theory, namely, goal setting in the level of aspiration (Rosenstock, 1966). The level of aspiration was defined in terms of the degree of difficulty of attainment of the desired goal. The choice between different levels of difficulty was said to be made on the basis of the relative valences of these levels for success or failure and the subjective probability of success at each level. Thus success that is highly improbable will not be chosen over reasonably probable success, despite the improbable success being more highly valued.

Lewin's theory (1951) was strongly orientated towards the individual's personal perceptions of the world and how they motivate his behaviour. Lewin hypothesized that behaviour depended upon mainly two variables: i) the value of an outcome to an individual and ii) the individual's estimate of the probability that a given action will result in that outcome (Rosenstock, 1974).

The Model.

As the concepts considered pertinent to health behaviour were refined and their relationships determined, a model was developed to link these concepts so that utilisation behaviour could be viewed holistically.

The Model has a phenomenological orientation and assumes that the subjective world of the perceiver determines behaviour rather than the objective environment (Rosenstock, 1966). Hence, the current subjective state of the individual is given greater weight than past experience (Rosenstock, 1974). Accordingly, the Health Belief Model proposed that the likelihood that a person will take action regarding a disease is determined both by the individual's psychological state of readiness to take action and by the perceived benefit of action weighed against the perceived cost or barriers involved in the proposed action. The individual's psychological state of readiness to take action is determined by both perceived susceptibility to the particular disease and the perceived severity of the consequences of contracting the disease. Thus action will not occur unless the individual believes in both personal susceptibility and the seriousness of the disease, should it occur. (See Figure 1).

A perceived benefit of taking action is the individual's evaluation of the recommended action in terms of its feasibility and its efficacy in reducing the threat (perceived susceptibility to and/or severity of the disease). The perceived benefit of an action is weighed against the perceived psychological, physical, financial and other costs of taking action (Maiman and Becker, 1974). In other words, even if an individual is ready to act, the likelihood of taking action will depend upon beliefs about the probable effectiveness of the action in reducing the health threat and the difficulties to be encountered in taking action.

INDIVIDUAL PERCEPTIONS

MODIFYING FACTORS

LIKELIHOOD OF ACTION

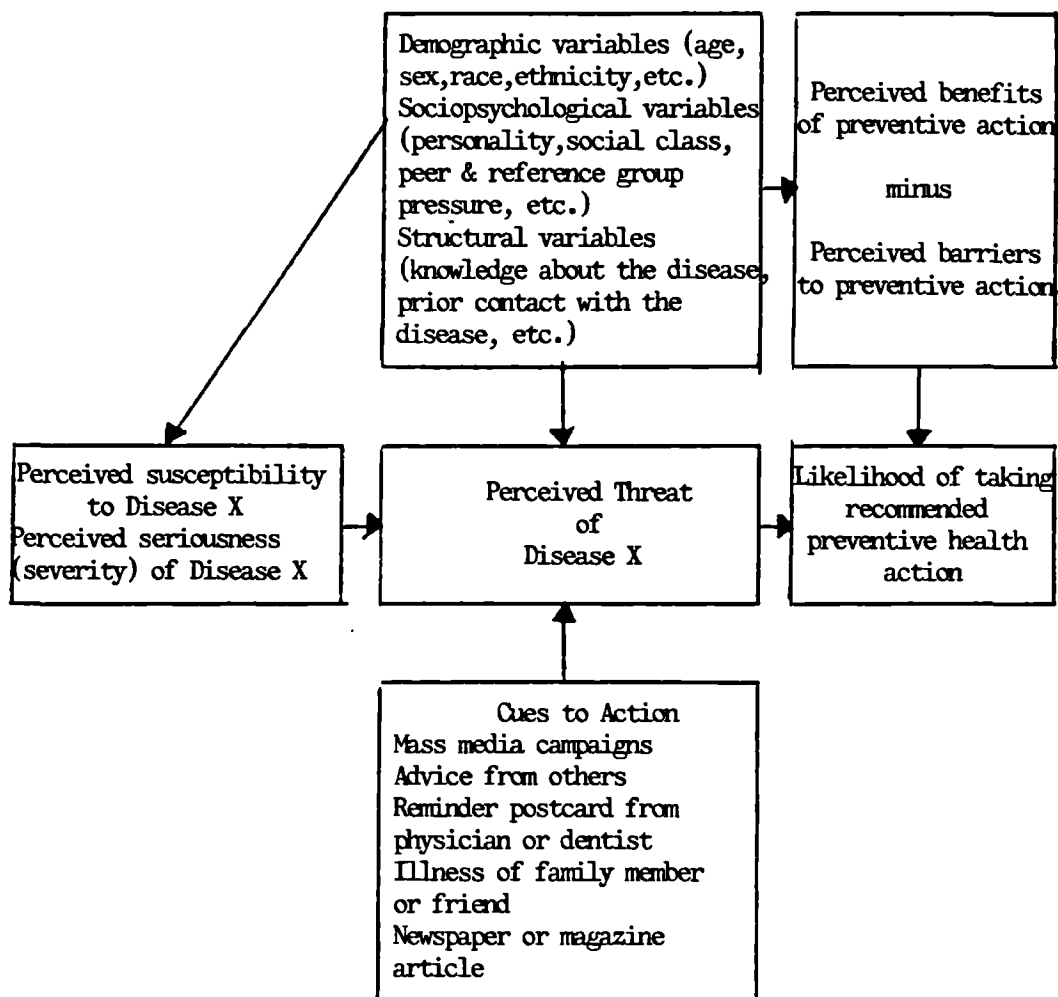


FIGURE 1.

THE 'HEALTH BELIEF MODEL' AS PREDICTOR OF PREVENTIVE HEALTH BEHAVIOUR (FROM BECKER ET AL, 1974).

Coe (1978) has argued that health beliefs are not isolated but integrated into a complex network of beliefs and values which are part of the culture of any society. He has thus suggested that any preventive measure follows more or less logically from beliefs about the causation of diseases and associated 'appropriate' behaviour. Coe also noted that the Model is the only model which incorporates elements of decision-making, together with social and psychological variables.

The Model also proposed that a stimulus or a 'cue to action' was necessary to trigger the appropriate behaviour. The cue might be internal, such as the perception of bodily states, or external, such as interpersonal interactions or the impact of mass media. The intensity of the cue necessary to initiate action was presumed to vary between individuals depending upon their level of psychological readiness to act; intense stimuli were required where there was a relatively low psychological readiness to act.

The Model accommodated modifying factors which served to condition the individual's perceptions of susceptibility, severity of illness and benefits of taking action. These modifying factors were: i) demographic variables, ii) structural variables such as difficulties of compliance, iii) attitudinal variables such as satisfaction with nursing, iv) interaction variables such as quality of staff-patient interaction and, finally, v) enabling variables such as source of advice (Becker, 1974).

Health motivation was introduced into the Model by Becker et al (1974) on the assumption that motives selectively determine an individual's perception of the environment, and thus his degree of interest in and concern about health matters. The desire to attain or maintain a positive state of health and to avoid illness was a dimension

of health motivation. The major dimensions of the Model that have been developed to explain motivation were perceived as: susceptibility, severity, benefits, barriers to action and cues to action.

Although the Model was developed originally to explain preventive health behaviour, several researchers have attempted to expand its use to explain other behaviours related to health status. For example, Rosenstock (1974) noted that the Model failed to acknowledge that an individual may believe himself ill even in the absence of symptoms. With regard to illness behaviour, that is:

".....an activity undertaken by a person who feels ill, to define the state of his health and to discover a suitable remedy." (Kasl and Cobb, 1966, page 246).

Kirscht (1974) emphasized the importance of symptoms as a potential threat to the individual which may arouse health motivation or act as a cue to action.

Becker et al (1974) modified the concept of personal susceptibility in order to apply the Model to sick role behaviour. Since some diagnosis of illness already exists, susceptibility was translated into the probability of progressive health deterioration or recurrence. Kasl (1974) recognised shortcomings in the Model with regard to explaining behaviour of those with a chronic disease, in particular the ongoing nature of the treatment with no improvement in health status and the limited social and professional support available to these individuals.

5.5. Evaluation of Becker's Health Belief Model.

A variety of criteria for evaluating theories have been suggested (Hage, 1972; Popper, 1959; Hardy, 1974).

The purpose of the Health Belief Model was to explain various behaviour related to health and therefore consideration of its empirical adequacy, its contribution to understanding and its usefulness to practitioners would seem appropriate criteria of assesment.

Empirical Adequacy.

Empirical adequacy refers to the degree of agreement between theoretical claims and empirical outcomes (Hardy, 1974). A theory cannot be part of a scientific body of knowledge unless its empirical support has been assessed through a thorough review of competent studies which address hypotheses deduced from the theory.

Mikhail (1981) has suggested that the variable of perceived susceptibility is supported more widely by research findings than any other variable in the Health Belief Model. She found a considerable amount of research which related an individual's perception of susceptibility to a disease to the pursuance of a wide variety of preventive health actions such as immunisation and screening for tuberculosis, cancer and other diseases. McKinlay (1972) also acknowledged the importance of perceived susceptibility to a disease to the pursuance of preventive health measures.

The positive association between perceived severity of a health condition and health behaviour has received increasing support from various research studies. While Mikhail (1981) has cited research concerning influenza vaccination, preventive dental visits and use of child health clinics, McKinlay (1972) doubted the precise influence of beliefs regarding the severity of an illness in subsequent health behaviour. However, additional evidence comes from research concerned with sick role behaviour (Gordis et al, 1969; Becker et al, 1972; Becker et al, 1974). More

recently, Champion (1984) found that the perceived seriousness of the condition of breast cancer was important for regular breast self-examination by women.

The inducing of high perceived severity through the use of fear was found to be effective in producing appropriate health behaviour only when there were accompanying instructions which an individual could use to cope with the threat or reduce the danger (Krisher et al, 1973; Levanthal, 1965). Without a recommended way to reduce the danger, individuals used denial as a defence mechanism to restore emotional balance. This curvi-linear relationship between fear arousal and action is referred to as the Yorke-Dodson Effect (Tones, 1977).

Research in psychology increasingly endorses the importance of perceived benefits and perceived barriers to action as determinants of health behaviour (Gatchel and Baum, 1983). Studies have revealed that pursuance of health behaviour is more likely when individuals believe the actions will be effective (Heinzelman, 1962; Haefner and Kirscht, 1970). Similarly, the effects of barriers to action have been considered in various research studies. While monetary cost is not a consideration in Britain, factors such as accessibility, convenience and potential pain have been found to be important barriers to uptake of health measures (Kegeles, 1963; Kegeles, 1967; Becker et al, 1977). However, more research is needed to investigate what constitutes barriers and the extent of their influence upon behaviour. For example, both McKinlay (1972) and Rundall and Wheeler (1979) have suggested that characteristics of the health care system itself discourage utilisation.

Research in the field of health motivation is more difficult to evaluate. Concern about health matters in general has been found to be positively correlated with uptake of prophylactic measures and treatment compliance

(Harris and Guten, 1979; Becker et al, 1972; Becker et al, 1978). However, health motivation has been operationalised in various ways, both as intention to comply and as belief in personal participation in health care (Mikhail, 1981). This in part may explain why there have been inconsistent findings with regard to the concept of health motivation. Not only does health motivation lack a definitive quality, but also it is clear that individuals may engage in various activities which affect health for reasons unrelated to health. For example, dieting may be undertaken to increase social desirability and the taking of exercise to engage in an organised social activity. The role of health motivation with regard to health behaviour is therefore unsubstantiated by research.

Specifically what constitutes a cue to action and how they affect behaviour is still undefined. Zola (1966) and Tones (1977) referred to the need for a trigger factor or critical incident as a final spur to action. Research has demonstrated that the mass media, contact with health workers, postal reminders and the presence of symptoms all influenced health behaviour (Mikhail, 1983; Sharp et al, 1983). However, a postcard reminder from a dentist is clearly inconsequential in comparison with the death of a friend although both events are considered in a similar manner in the Model.

The British research literature demonstrates a wealth of work in health education, ranging from large studies to small projects, which form the majority. Unfortunately, most of the research has no explicit theoretical base and as such does not address itself to the study of interactions between health beliefs and consequent health behaviour. Further, like much of the American research, modifying variables have not been tested independently so it is difficult to draw any conclusions. More research is needed to study

the interactions between health beliefs and the influence of different combinations of beliefs upon health behaviour. However, Kasl (1974) has argued that the variables are relatively independent. In contrast, Redman (1980) has doubted the total independence of the variables and suggested that the variables could be interrelated or cumulatively interrelated. This was not found by Champion (1984) whose research demonstrated that the variables were independent.

Contribution to Understanding of Practitioners.

A sense of understanding is an individual matter that may vary from one individual to another. Hardy (1974) defined understanding for the social scientist in terms of clarity of meaning of concepts and statements, full description of the relationship between variables, and new ideas and originality in viewing phenomena.

Despite criticisms about the empirical adequacy of the Model, the Health Belief Model gives insight into why people behave in certain ways with regard to their health and what may affect their decision-making process. It provides a framework to relate variables to individual health behaviour and accounts for some variations in behaviours in groups of individuals studied in a variety of settings. However, three significant elements are missing from the Model as a predictor of preventive health behaviour: i) social environment, including lay referral and social support, ii) doctor-patient interaction and iii) perception of symptoms and lay construction of illness and the sick role (Kasl, 1974). Langlie's (1977) work supports the view that social networks are important influences upon preventive health behaviour. Further, the postulation of a causative relationship between the five variables and health behaviour assumes that health behaviour results from health beliefs. It is possible that health beliefs, instead of preceding

and determining health behaviour, may develop along with the health behaviour as a result of experience with treatment and health workers (Becker et al, 1979). The Model also implicitly assumes that the individual person is the ultimate unit of analysis and that a generalisation can be made from a study of individual behaviour. This may not be possible.

The Model has provided theoretical definitions for the major variables but difficulties in operationalising some of them are still encountered. For example, Becker et al (1977) used 'worry about child's health' as one of the measures of perceived severity, whereas the same phrase was used in other studies as a measure of health motivation (Becker et al, 1978). Clarity of meaning is therefore yet to be achieved.

A sense of understanding is provided when relationships between variables are fully described. The Health Belief Model in this sense does not provide a complete understanding of health behaviour. Although the Model states that certain variables are related, the description of these relationships is not complete. The nature of these relationships for some variables, how much influence beliefs have upon behaviour and what kind and how much interaction there is between independent variables is not completely understood (Davidhizar, 1983). Although the modifying variables are thought to influence the individual's perceptions and beliefs, the nature and form of this influence and the conditions under which modifying variables act on behaviour are not clear. The inclusion of all modifying variables in an experiment makes the Model hard to test and hence empirical evidence is difficult to obtain.

However, the Health Belief Model has provided a framework towards understanding why some people do or do

not pursue prophylactic measures and Jette et al (1981) have asserted that discrete health beliefs do exist which would seem to support the dimensions of the Health Belief Model. Rosenstock and Kirscht (1974) acknowledged the Model's limitations by stating:

"The Health Belief Model is a partially developed theory, many of whose hypotheses have been tested and found useful in explaining behavior." (page 470).

They did not consider the Model complete, but rather as a scientific foundation for the understanding of health behaviour. Haefner (1974) referred to the Model as an orienting framework to guide both the collection of information and its interpretation rather than a theory. Further development of the Model is acknowledged as necessary to increase its contribution to the understanding of health behaviour. However, despite the Model's shortcomings, Langlie (1977) has asserted that the Health Belief Model has become the predominant explanation, not only for differences in the use of prophylactic services, but for differences in preventive health behaviour in general. And, as already stated, it is the Model most frequently presented to student health visitors.

Usefulness to Practitioners.

The usefulness of a theory may be measured by its ability to provide clear directions and guidance for practice. A useful theory should therefore enable the practitioner to exert control over the variable of interest by the manipulation of other variables of the theory (Hardy, 1974). To be useful for research, the theory should stimulate thinking and provide guidelines for future research (Johnson, 1974).

The usefulness of the Model for practice lies in whether health beliefs can be changed so that appropriate health behaviour becomes more likely. It seems that health beliefs are potentially modifiable and there is some empirical research to support this view, for example, in the use of paediatric clinics (Becker et al, 1977) and in improved treatment compliance (Becker et al, 1979).

The Model neither implies nor prescribes strategies for changing health behaviour. The most obvious strategy would seem to be direct persuasion but perhaps modification of the health care system (clinics, etc.) which could then alter beliefs may prove more useful (Rosenstock and Kirscht, 1974). The Model suggests that variables other than beliefs can be manipulated so as to produce the desired outcome; for example, barriers to action may be reduced. The flexibility of the Model enables a choice of intervention according to the specific situation and permits an acknowledgement of individual differences.

It may be argued that the usefulness of the Model is enhanced by its potential for application to a wide variety of behaviour related to health status. However, Davidhizar (1983) argued that the Health Belief Model:

".....as a theory is only partially developed and awaits more refinement." (page 471).

Mikhail (1981) concurred with this view acknowledging the paucity of research with regard to different age groups and different cultural backgrounds. Rosenstock (1974) suggested that health beliefs are more prevalent in whites than other racial groups, in higher socioeconomic status, in women rather than men, and in the relatively young rather than in the elderly, but he did not offer an explanation for these differences.

The Model provides a framework for a clearer presentation of ideas and helps to organise research findings in the area of health behaviour. The Model is therefore useful in reviewing past research and also serves as a framework for variables and concepts for future research. Indeed, Horn (1976) modified the Model slightly to understand change with regard to smoking behaviour. The Model also provides new questions and topics to be addressed. For example, future research may consider the nature and role of cues, the interrelations between different beliefs, the stability of beliefs and ways in which modifying factors work. It is therefore suggested that the Health Belief Model stimulates thinking as well as providing a framework for understanding health behaviour and future research and perhaps also theory development.

5.6. Health Visiting and Becker's Health Belief Model.

Both Dingwall (1977b) and Robinson (1982a) have suggested that health visiting lacks an underpinning theoretical framework, and despite the emphasis laid upon the acquisition of organisational and planning skills in health visitor training, it has been suggested that health visitors are vague about the assessment of priorities (Bolton, 1980). Further, MacFarlane (1982) questioned the efficiency of health visitor health education methods. In summary, it has been suggested that health visiting lacks an organisational framework on which to base its practice.

The Health Belief Model offers a framework on which health visitors may integrate their theoretical knowledge into their practice. It provides insight into why people behave in certain ways and accounts for some variations in health behaviour in groups of individuals. Although the Model does not prescribe strategies for changing health behaviour, it suggests which variables may be manipulated

so as to induce change in beliefs and thus produce the desired outcome. For example, health visitors may be able to reduce barriers to action through the introduction of walk-in child health clinics or may trigger pursuance of prophylactic measures through postal reminders or a timely home visit offering appropriate information.

The title of 'health visitor' means that such workers should be engaged in the promotion of health and the prevention of illhealth. This is confirmed by the 'official' description of health visitor work. The Council for the Education and Training of Health Visitors (1972) identified five main aspects of health visitor work which included: prevention of illhealth, surveillance of high risk groups, recognition and identification of need, and health teaching. However, as previously discussed in Chapter 3, it appears that different health visitors define their priorities according to fundamentally different criteria. Indeed it was suggested that health visitors use discretion in deciding how they apportion their own resources in terms of home visiting. This in part may explain why Dingwall (1977b) found that health visitor fieldworkers and their managers did not set the same objectives or priorities.

However, recent evidence has suggested that it is more important than ever that health visitors should allocate their resources where the need is greatest. For instance, Professor Stroud has claimed that the number of health visitors:

".....is insufficient, and that they are not up to their establishment and are nowhere near what they should have." (House of Commons, 1977b, para.12).

To endorse this, Dr. Carne in his evidence to the Short

Committee said:

"There is a shortage in many parts of the country of health visitors and child care has suffered as a consequence." (House of Commons, 1980b, para.1225).

A Memorandum from the Health Visitor Association to the Short Committee has emphasized the need for a sound basis on which to select families in need of health visitor support:

"As a result of the serious shortage of health visitors in many parts of the country, those affected are only able to undertake first visits following notification of a birth and then selected visiting of families obviously in need. The much more valuable routine visiting of all families, which enables the health visitor to detect and sometimes take action to prevent problems from arising or developing, is regrettably impossible." (House of Commons, 1980b, para. 338)

It is suggested that the Health Belief Model offers a framework on which the health visitor may organise the theoretical knowledge gained in her training so that it is integrated into her practice, so concentrating her resources where the need is greatest. The Model may therefore assist the health visitor to become an effective health educator. The possible relationship between health visiting and the Health Belief Model is depicted in Figure 2.

Clark (1983) has contended that there is no definition of what constitutes 'good health visiting practice'. However, at a time when health visitor resources are limited, 'good practice' must mean the allocation of scarce resources in areas of greatest need. In the area of child health,

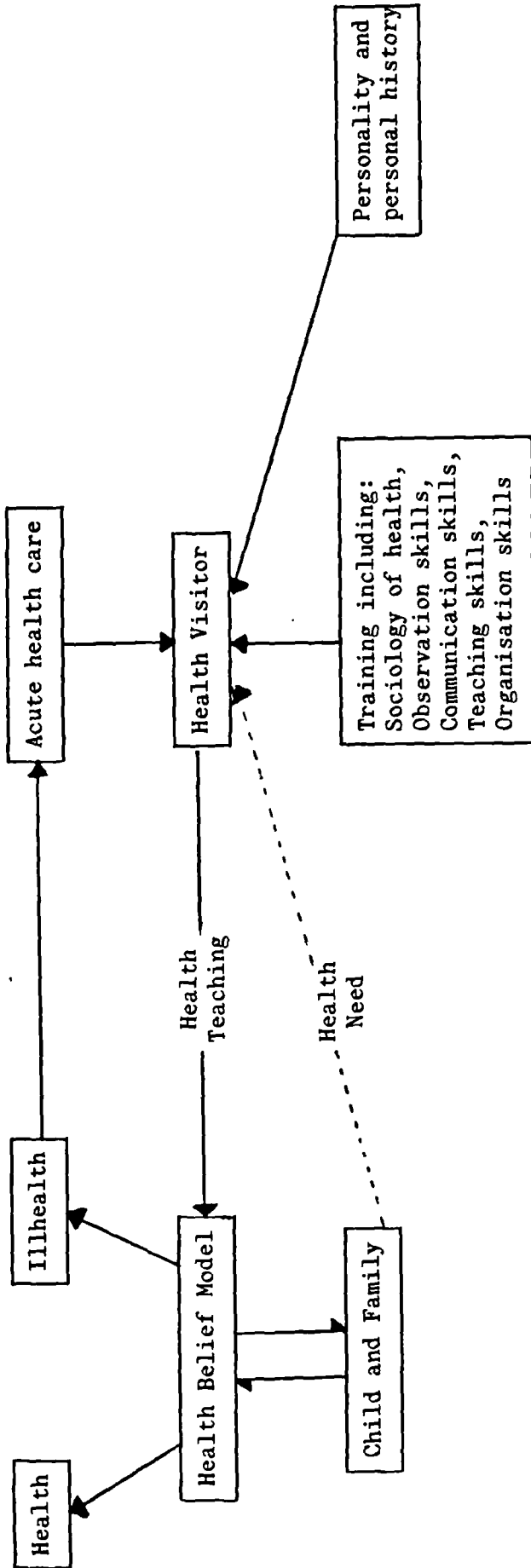


FIGURE 2. HEALTH VISITING AND THE HEALTH BELIEF MODEL

the greatest need is among those families with poorer health experience; an inequality which was discussed in Chapter 4 with regard to social class, regional differences, ethnic background and residence in inner cities. While poorer health experience may in part be explained by deleterious socio-economic circumstances of families, it is noteworthy that the uptake of prophylactic care was less among Social Class V families, a group in which ethnic minorities and inner city dwellers are well represented. It would therefore seem that some improvement in health experience could be effected by an improvement in knowledge of child health needs, accompanied by an increased uptake of prophylactic care among 'high risk' families - a task for which health visitors have been trained. The Health Belief Model offers a framework on which to organise what may be thought of as unrelated findings in the area of health behaviour and this will permit a clearer presentation of ideas at a time when health visitors are attempting to enhance their practice with the introduction of the health visiting process. The health visiting process has been introduced in a Health District in the South of England in an attempt to give a more comprehensive and efficient service (Wilson and Cowan, 1982). This attempt to enhance health visiting practice in itself suggests that some health visitors are aware that current practice does not maximise their resources in terms of time and expertise.

Thus it is suggested that the Health Belief Model could be used to organise health visitor practice so that resources are concentrated in the areas of greatest need and the attempts at health promotion tailored to individual families. The use of the health visiting process will permit health visitors to evaluate the effectiveness of their intervention (Rogers, 1982).

5.7. Conclusion.

Health behaviour is a relevant issue for health visitors who are concerned with promoting health and related changes in lifestyle. Understanding of such behaviour is essential if they are to obtain the cooperation of their clients and Becker's Health Belief Model provides relevant insights. It implies that attempts to influence the behaviour of clients should be based on better knowledge of their motives and health beliefs. This research project attempts to use some of these insights in an analysis of health visiting practice with parents and their children; an attempt will be made to explore the extent to which health visitors used a model to organise their work priorities with infants and their families.

CHAPTER 6

METHOD

6.1. Introduction.

The literature review has revealed the emergence of a quasi-autonomous occupation in the field of community health mainly concerned with preventive work among mothers and children. Despite health visiting's relatively long history, existing literature has suggested that no research has considered the contribution of health visiting to child health. Rather, previous research has focused upon the nature of health visiting activity and consumer views of health visiting. Available evidence has suggested that social circumstances have an important influence upon child health and wellbeing and the contribution of health visiting to ameliorate the 'handicap' of adverse social circumstances has not been described previously. Further, there has been no systematic survey of health visitor contact with individual infants and their families.

6.2. The Study Aims

The research was designed to describe the health experience of children during their first two years of life. A comparison was drawn between the experience of selected infants in an inner city district and two suburban districts which differed in terms of social characteristics and amenities. The research did not attempt to measure the health state of infants at a particular point in time but rather to describe a twenty-four month experience of selected infants in quantitative terms.

This was a descriptive study designed to provide data demonstrating a global impression of health visiting

practice, thus highlighting problems and potential research areas. This descriptive study represented an attempt at an epidemiological survey of the health of a group of infants over the first two years of their lives together with a review of the utilisation of the child health services currently available within the National Health Service. It was a systematic survey which focused on three areas:

- i) utilisation of National Health Service provisions.
- ii) contribution of health visitor home visiting to child health.
- iii) contact of families with selected support provisions outside the National Health Service.

The comparison of the experience of selected infants from different residential areas enabled the researcher to explore the importance of place of residence to child health and wellbeing. It also permitted a comparison of health visiting practice in different Health Authorities.

6.3. Design of Study

A retrospective design was selected as the most appropriate to achieve the stated aims. Such an approach is not uncommon (Moser and Kalton, 1981) and is particularly suitable for exploratory and descriptive studies (Abdellah and Levine, 1979). The study benefitted from this choice of design because it permitted two types of comparison to be made without the actual manipulation of a variable. Firstly, it allowed for comparison of three sample groups (inner city, suburb and affluent suburb) which were as closely matched as possible, having been selected in a similar manner and differing only in their location of residence. Secondly, it allowed a comparison to be drawn

between different utilisation levels of National Health Service provisions and other selected support facilities and aspects of the infant's social history.

An alternative design would have been a prospective study which entails the selection of a sample which is then closely followed forward in time, in this instance for the first twenty-four months of life. Such a design was employed by the National Children's Bureau in their study of all children who were born in one week of March, 1958 (Davie et al, 1972; Wedge and Prosser, 1973; Fogelman, 1976). The National Child Development Study was a large project which attracted substantial funding from both the Department of Health and Social Security and the Social Science Research Council and was therefore able to withstand the expense incurred through tracing a national cohort sample.

The choice of a prospective design would have presented many difficulties in the light of limited resources, coupled with the aim of gathering detailed information for a twenty-four month period of the lives of a selected population. Indeed, the collection of such data from one time residents of an inner city district renowned for its population mobility (London Health Planning Consortium, 1981; Jarman, 1981) would have posed an insuperable problem with regard to sample attrition.

A survey was selected as the means of gathering data retrospectively from health visitor records. The use of surveys is widely accepted as a means of gathering information systematically about behaviour patterns (Hoinville and Jowell, 1978; Abrahamson, 1979) and had the additional strength of permitting good coverage of the selected population.

6.4. Sample.

No sampling technique was employed because a census of health records relating to infants born in a selected cohort was undertaken. A birth cohort has been frequently used in epidemiological research (Abrahamson, 1979) since it allows the researcher to assume that members of such a cohort have made a fresh contact with contemporary society at their birth. Ryder (1977) has defined a cohort thus:

".....the aggregate of individuals.....who experienced the same event within the same time interval. In almost all cohort research to date the defining event has been birth." (pages 140-141).

The choice of a birth cohort allowed the researcher to assume that the infants had had the potential to enjoy a common experience of their particular epoch and it seemed an appropriate choice for a descriptive analysis of health experience. Thus all children known to be resident in the selected geographical areas on their second birthday were included in the sample. The geographical areas were derived from District Health Authority and Local Authority boundaries.

The sample was drawn from a series of cohort months. The inner city sample was derived from two series of four cohort months. The choice of two series of cohort months firstly, permitted minimal delay in data collection subsequent to the sample infants' second birthdays and secondly, allowed a comparison of seasonal variation in utilisation levels of prophylactic measures. Thus, the selected cohort months for the inner city district were: August, September, October and November, 1979 and January, February, March and April, 1980.

Access to the suburban samples was delayed. The selected cohort months for the suburban districts were: August, September and October, 1980. The choice of a cohort of three consecutive months to generate suburban samples was founded on the available population data which suggested such a cohort would yield a sample of one hundred infants. Resource constraints precluded the possibility of selecting cohorts of equal size in each district. However, it was considered that the smaller samples of one hundred infants in the suburban districts would be large enough to reveal any major differences between them and the inner city district and satisfy the restrictions of using the Chi-Square test (Blalock, 1960). The use of a different cohort in the suburban areas reflected the delay in access to those samples and the difficulty of collecting data in different locations simultaneously. To reduce the difference in the sample selection to the minimum possible, similar cohort months were chosen, albeit one year later.

The health visiting practice was potentially similar in all three sample areas. The health visitors maintained comparable health visitor records and carried caseloads of similar sizes (150 to 200 families).

6.5. Records as a Source of Data.

Lazarfeld (1977) has stated that:

"Man is a data-producing animal, wherever he goes he leaves certain kinds of data - court records, tax records, school records, birth and death records and the like. This leads to the possibility of using existing institutional data as indicators of complex social trends and relationships." (pages 78 to 79).

The use of health records seemed to offer much as a potential account of the early life of young children with regard to their health experience. But records are necessarily inadequate as regards absolute accuracy from the scientific point of view.

Webb et al (1977) considered the major advantages of archival sources in terms of the low cost of acquiring data and the inherent non-reactivity of the data. Both these attributes were important in this research project. In particular, the researcher was anxious that the data should be unbiased by the research process, which was clearly achieved in this instance since the records were maintained for purposes other than the research. The use of health records also permitted the collection of longitudinal data, in this instance, over a period of twenty-four months, without causing inconvenience to the research subjects.

However, records may have significant limitations as a source of social research data. Indeed, Webb et al (1977) have advised caution in their use because they may contain substantial errors. A factor worthy of consideration is the contextual nature of health records, that is, the interpretative scheme employed for encoding new information. Indeed, the phenomenological/ethnomethodological school has attacked the Durkheimian positivists by suggesting that 'facts' are not 'things'. Rather records are the final interpretation of events by an observer and therefore contain biases and interpretations which are value-bound and omissive.

The work of Garfinkel (1967) with regard to the generation and management of psychiatric clinic records exemplifies this theme. He suggested that there was a significant difference between official rules and current practice and that full interpretation of the content of

records required a thorough knowledge of the clinic-patient interactions. Garfinkel (1967) also suggested that categorisation of reasons for suicide reflected the personal knowledge and beliefs of the officials involved in making the categorisations, what Garfinkel called 'for all Practical Purposes'. From the same perspective, Sudnow (1967) addressed his interest to the way nurses reported events within the hospital setting. He suggested that events were reported to others by reference to their relative as against their absolute frequency, so that even deaths may become absorbed into ritual as commonplace in certain situations. Sudnow (1967) argued that each scene has a culture which prescribes typical frequencies of typical events which become absorbed into daily working life. Similarly, Cicourel (1968) argued that police juvenile records were only a source of data stripped of its contextual significance. Zimmerman (1969) in describing intake interviews of social workers, was able to demonstrate the importance of subsequent documentation as a means of establishing the facts of the case as identified by the institution as well as a minimum standard of work performance. Record content is therefore a reflection of work practices so that their interpretation depends upon the reader's knowledge of the order of that organisation and his specific interests.

Sjoberg and Miller (1973) have argued that, although modern organisations produce a vast amount of documentation, they usually lack the ability and the resources to monitor it in terms of consistency with 'official policy'. In view of these limitations, Maitland (1963) has suggested that only two types of medical records should be considered for use as a possible data source:

"1. The records made meticulously by a physician regarding his own patients because he wishes to learn from them.

2. Records kept regarding a particular group of patients by a suitable and adequately instructed person, specially assigned to the task." (Maitland, 1963, page 147).

The use of health visitor records would therefore seem promising as a potential data source because health visitors are obliged to maintain records to a reasonable standard in the course of their work. Health visitors are supposed to catalogue their total contact with their clients. Dingwall (1977b) considered this information management as one of the central features of health visitor work since it is the only area of health visitor performance open to peer view and assessment by supervisors. Notions of client privacy and role autonomy prevent examination of the other areas of health visitor practice except by the occasional student or infrequent researcher observing a health visitor in the execution of her work.

Although much literature has suggested that medical records are very limited as a data source, it may be argued that they are a privileged source of data of much value to researchers for they have the potential of yielding the 'expert' view of individuals over a period of the life span. Further, despite the weakness that records may not report reality, they have the strength of reporting as caregivers perceive the situation and are therefore the basis on which the service operates, which is an important attribute.

The use of records as a data source in this research project can be further justified because data extraction did not depend upon decoding the record content. Rather the records were perceived as providing a timetable of health events during the first twenty-four months of selected infants' lives as known and recorded by health visitors.

The Accuracy of Health Visitor Records.

The 1946 National Health Service Act placed the responsibility on Local Health Authorities to make arrangements for the care of nursing mothers and their children. The 1974 National Health Service Reorganisation brought child health clinics under Area Health Authority control. All children in contact with, or known to the Area Health Authority are allocated a health visitor and are invited to use the available child health clinic facilities. Three types of record are generated.

Clinic Record: (MCH46 or Consultation Record).

This record is used by the Medical Officer and health visitor in child health clinics and should record all clinic attendance. The nature of the consultation is also noted in the record, for example, developmental assessment, hearing test, immunisation or advice. The record is retained in the clinic until a child moves to another area.

Not all children attend Health Authority clinics, but rather their parents choose to attend their general practitioner for all their child health care. In such cases, the MCH46 records are used by general practitioners. A further confirmation of immunisation practice is gained through the Family Practitioner Committee payment system to general practitioners. A general practitioner claims for carrying out immunisations on a fee for service basis. On payment to a general practitioner, a confirmation of immunisation is forwarded to the health visitor to be appended to the child's health visitor records. The researcher took the view that general practitioners claim all their financial entitlements.

Child Record: (MCH8 or Home Visiting Record).

This record is held by the health visitor, one record corresponding to each child known to be resident in her district. It is issued by the Health Authority on notification of a birth. Subsequent movement of a family should result in these records being forwarded to the area of new residence, either because the health visitor acquires such information before a family moves or through the records being requested by the health visitor working in the area of new residence. This record notes any contact between the health visitor and the child as well as the nature of such contact, for example, home visit, telephone conversation and a synopsis of the interview.

Family Record: (MCH32)

This record is held by the health visitor. Information concerning the total family should be recorded on this form where it exists. MCH32 records are not used nationally.

Education, Training and Record Keeping.

The Council for the Training of Health Visitors was established by the Health Visitor and Social Work (Training) Act in 1962. The name was changed to the Council for the Education and Training of Health Visitors (C.E.T.H.V.) by Statutory Instrument in 1971 (8S1197/1221(C.31)). The Act stated that the Council should not only promote training but also approve courses including specifying conditions for admission to courses and for award of certificates for practice on successful completion of recognised courses (Council for the Education and Training of Health Visitors, 1982a). The expectations of the Council with regard to record keeping will be considered in some depth with a review of their pertinent documents.

The health visitor syllabus (Council for the Education and Training of Health Visitors, 1979a) includes the methods of record keeping as a topic to be covered in the course of training; a point emphasized in the Guide to the Syllabus (Council for the Education and Training of Health Visitors, 1982a). Many of the practical skills of health visiting are said to be acquired through apprenticeship to a health visitor fieldwork teacher. A fieldwork teacher must undertake an approved training course to gain certification to perform this role. Fieldwork teachers' courses (Council for the Education and Training of Health visitors, 1981) are expected to make probationary fieldwork teachers conversant with acceptable minimum standards of performance in health visiting practice. The course includes special tuition in the skills of fieldwork teaching. The Council has clear expectations of fieldwork teachers and published a pamphlet outlining their role (Council for the Education and Training of Health Visitors, 1979b). With regard to record keeping, the fieldwork teacher is expected:

".....to provide opportunities for students to acquire and exercise organisational skills, such as.....record keeping....." (page 2).

The fieldwork teacher is also expected to provide a continuing assessment of a student's progress throughout the course so that shortcomings in skills may be remedied.

The health visitor course falls into two parts: Part I is an academic course with limited practical experience under the supervision of a fieldwork teacher; Part II is a period of probationary practice which is assessed for its adequacy with regard to the certification of competence. Part I must be satisfactorily completed in terms of examination performance before progress onto Part II, which is examined by case study submissions, a health visitor practice assessment

and an oral examination. The final assessment of health visitor competence is undertaken by trained Health Visitor Assessors (Assessors of Supervised Practice), who submit a written report (Form HV/5) to the Panel of Examiners. The Form HV/5 is comprehensive in its coverage of health visitor practice skills and a particular section relates to the student's ability in record keeping. The final section of Form HV/5 requests comment on the particular strengths and weaknesses of the students. A satisfactory final assessment is a prerequisite to the award of certification to practice.

Dingwall (1977b) undertook an in-depth participant-observation study of health visitor training. He noted how the students received instruction in record keeping and management from both the tutors and fieldwork teachers. Indeed, he suggested that students learned that:

"Good record management was a sine qua non of good practice." (page 105).

Dingwall's observations suggested that recording was a skill that students were required to master because competence in that skill was an essential element in the presentation of competence in health visiting practice. He observed the acquisition by students of general procedural rules which included adherence to accuracy within an accepted interpretative scheme. Dingwall also noted that record keeping was examined orally at the end of the course during his observations.

Currently health visitor courses are ratified every five years through a visiting Panel from the Council.* The courses are assessed over two and a half days and a report with recommendations is subsequently forwarded to the college concerned. Approval for courses cannot be given for greater than a five year period.

* Replaced by the National Boards for Nursing, Midwifery and Health Visiting in July, 1983.

Record Keeping and Health Visiting Practice.

Guidelines regarding record keeping have been issued in both the Health Authorities in which data collection was undertaken. The inner city authority issued guidelines in June 1980 and specifically mentioned that records may be required as legal evidence and hence every attention should be given to their accuracy. The suburb and affluent suburb shared guidelines and they too reminded employed health visitors that accurate records are a prerequisite for satisfactory practice.

Whincup (1982) reviewed a dismissal case of a health visitor and it is noteworthy that the tribunal in particular laid great emphasis upon the health visitor's failure to maintain her records. In reaching its decision, the tribunal described how it saw health visitors' duties with regard to record keeping:

".....maintain very careful and accurate records. The importance of accurate and up-to-date record keeping is emphasized in their training, and its importance in avoiding a Maria Colwell type catastrophe is recognised by health visitors. Moreover, it is fundamental that records of visits and the current state of family health are recorded and should be readily available....." (cited, Whincup, 1982, page 74).

In the light of the evidence brought before the tribunal, most of which related to record maintenance as the only visible aspect of health visiting practice, the health visitor was considered to have been:

".....seriously at fault in the reasonably acceptable level of duty performance." (cited, Whincup, 1982, page 74).

Justification of the Use of Health Visitor Records.

The reality remains that health visitor records are produced for a purpose other than research. Undoubtedly, there is always the risk that they represent a poor record of health visitor contact with a family and a child's health experience in particular. However, it would seem that the record keeping process should have remained constant over time and reflect the shared definitions and expectations acquired by health visitors in the course of their training. The data may indeed be defective, but it offered a rich source of data otherwise beyond grasp as such information is generally considered confidential.

6.6. Data Collection.

The Instrument: (See Appendices A,B and C).

A questionnaire was designed to extract as much information as possible from the health visitor records in an ordered manner reflecting the known arrangement of such records, while also fulfilling the stated aims of the survey set out in section 6.2. of this chapter. The questionnaire consisted of 143 questions divided into ten sections, namely: identity, social history, prophylactic care, health visitor home visiting contact, other information, acute health care, family health, experience of childbirth, contact with selected support provisions and details of health visitor records.

Identity:

This section included information pertaining to date of birth, nearest clinic to place of residence and sex of the infant.

Social History (Questions 1 - 37):

This section was designed to extract demographic information which was considered pertinent to child health experience in view of the reviewed literature regarding inequalities in child health.

Questions 1 and 2 were concerned with the planning of and attitudes towards the pregnancy, while question 3 was designed to collect information regarding maternal age.

Questions 4,5,6,7,8 and 9 were designed to elicit information regarding parental resources. Thus information regarding the number of parents in the household, together with their amount of contact with the sample infant, was recorded as was the caretaker's marital status. The review of the literature had suggested that single parents were over-represented in inner cities and, further, that single parenthood was associated with poorer child health. The recording of parental marital status (question 6) permitted the comparison of the research data with data collected by the 1981 Census and therefore was a check on the validity of the questionnaire.

Questions 10,11,12 and 13 were designed to record information relating to parental occupation and employment. Such information allowed assignation of Social Class according to the Registrar General's classification. Both social class and unemployment had been identified in the literature review as important factors to child health status. The recording of social class (questions 11 and 13) and male unemployment (question 12) also permitted the comparison of research data with data collected by the 1981 Census and was a further check on the validity of the questionnaire.

Questions 14, 15,16,17,18,19 and 20 were designed to elicit information regarding ethnic background, country of birth and dominant cultural practices. The literature review had suggested that membership of ethnic minorities was associated with increased child morbidity due to the adverse socio-economic circumstances experienced by such families. Place of parental birth was also recorded in the 1981 Census questionnaire and such information permitted another comparison with the 1981 Census data.

Questions 21,22 and 23 were concerned with parental language skills, both in English and other first languages. It was considered important information since it had the potential to explain difficulties encountered by health visitors who attempted to use only the English language in their health education work.

Questions 24,25,26 and 27 recorded information about family structure. Family size was noted in the literature to be related to both social class and ethnic background. however, it was also noted to be associated with reduced uptake of prophylactic care.

Questions 28,29,30,31,32,33,34,35,36 and 37 were designed to record information related to the housing situation of the family and the mobility of that family during the first two years of the sample infant's life. Poor housing had been linked with poor child health in the reviewed literature and mobility of families has the potential to disrupt health care delivery in terms of health visitor home visiting and the establishment of a good relationship with a general practitioner. Category of occupation and mobility of householders was also recorded in the 1981 Census and recording of similar data (questions 28,34 and 35) allowed a further comparison with the 1981 Census data.

The social history section of the questionnaire was also designed to yield data which the Health Belief Model (Becker et al, 1974) had indicated was important to the pursuance of preventive health behaviour in terms of being "Modifying Factors".

Prophylactic Care (Questions 38 - 89):

These questions were designed to assess the uptake of prophylactic measures (six week developmental assessment, primary immunisation, measles vaccination, hearing test and toddler developmental assessment). Data was also to be collected with regard to possible 'Cues to Action' such as health visitor home visits, appointments or other contacts. The Health Belief Model had suggested that 'Cues to Action' could be influential to the uptake of prophylactic care.

Health Visitor Home Visiting Contact (Questions 90 - 95):

Questions 90, 91 and 92 were concerned with health visitor home visiting practice and thus recorded the number of home visits received by sample infants up to six months of age, one year of age and in the second year of life respectively. The literature review of health visiting had not revealed any similar work. Difficulty in access to homes was recorded in answer to questions 93, 94 and 95. Difficulty encountered in gaining access to families had the potential of explaining the amount of health visitor home visits.

Other Information (Questions 96,97 and 98):

Questions 96 and 97 were designed to identify sample infants who had been or were considered 'at risk' according to some criterion. It was noteworthy that the Observation Register (question 96) had survived the recommendation

by the Court Report (Department of Health and Social Security, 1976a) for its disbandment. Question 97 identified sample infants with a physical or mental handicap with special education needs. It was considered that both Registers could have been used by health visitors to prioritise their home visiting, as found by Perkins (1977).

Question 98 was concerned with infant feeding practice. Clark's review (1981) revealed that infant feeding was a topic frequently discussed between health visitors and parents, and it was considered that infant feeding practice could be a factor health visitors employed in designating priority visiting. Such data also provided a further check of validity since the collected data could be compared with the findings of Martin and Monk (1982 and 1983) regarding the prevalence of breast feeding and its association with various socio-economic variables.

Acute Health Care (Questions 99 - 110):

These questions were designed to collect data regarding sample infant morbidity as known by the health visitors through known use of different curative services (general practitioner, hospital inpatient services, hospital outpatient departments and Accident and Emergency Departments). Questions 107 and 108 were included because the inner city district had a Home Care Team in operation.

Family Health (Questions 111 - 126):

These questions were designed to elicit information regarding family health. Madge (1982) has suggested that there is an increased psychiatric morbidity rate in inner cities and Jarman (1981), in his survey, had found an increased psychiatric morbidity rate in the West End zone of London. It was considered that family illhealth could be a barrier to the uptake of prophylactic care.

Experience of Childbirth (Questions 127 - 131):

Maternal childbirth experience has been acknowledged as an important factor in child and family wellbeing (Deutscher, 1970; Kitzinger, 1981). Thus, information relating to this experience was considered important.

Contact with Selected Support Provisions (Questions 132 - 140)

Question 132 was designed to identify sample infant families who had received support from social workers, while questions 133 and 134 were designed to record dependence upon State income support in the form of Supplementary Benefit and Unemployment/Sickness Benefit, all of which have been associated with subsistence and poverty. Child care outside the home (questions 135 and 136) was considered important because it could make health visitor home visiting more difficult and influence the uptake of prophylactic care. The degree of support offered by mother-toddler groups was also recorded (question 137) since they could be important to the uptake of prophylactic care through their peer group influence. Question 138 was designed to record other sources of support for families. Questions 139 and 140 recorded information regarding Care Orders as it was considered that they may have disrupted normal parental caretaking.

Health Visitor Records (Questions 141,142 and 143):

Question 141 was concerned with the number of different health visitors who had undertaken home visits to the sample infant and his family because it was considered that stability of the health visitor-family relationship was important to successful health education. Question 142 was designed to identify the sample infants who had been geographically more mobile and therefore subject to different Health Service

provisions in terms of health visiting and other prophylactic care facilities. Question 143 was concerned with the reliability of the data source, namely, the completeness of the health visitor records.

The questionnaire was developed from a review of the relevant literature together with the researcher's knowledge gained from working as a health visitor in an inner city district. The pre-pilot questionnaire was discussed with a selected panel of five health visitors and two modifications were made. The panel health visitors suggested that health visitors would be reluctant to divulge if they knew whether a mother was engaged in prostitution and, similarly, it was felt that the stability of a parental partnership may not be known to new health visitors. Questions 4 and 5, enquiring about the number of partners in a household, were substituted to elicit data regarding maternal/paternal partnership behaviour.

The questionnaire was piloted in two inner city clinic areas with six health visitors drawing a sample from a birth cohort month (July, 1979) not included in the main study.

Validation of Record Keeping

Non-participant observation of two child health clinic sessions was undertaken in each clinic (sixteen in total) so that the method in which clinic records were maintained could be noted. It was not possible to undertake a similar observation of the maintenance of health visitor home visiting records because the researcher's presence would have had an expectancy effect.

Procedure:

Access was organised through District Health Authority community nursing management and Local Ethical Committee approval was gained. Data were collected by means of an interview with all health visitors practising in the selected District Health Authorities and holding health visitor records for infants included in the chosen birth cohort. Subsequent to an informal group meeting, individual appointments were made with the health visitors at times convenient to their work patterns. The interview took place at the sites selected by the health visitors, most frequently at their work bases.

The use of an interview was deemed the only means of gaining access to otherwise totally confidential information. Thus the health visitor was able to control access to the records by the researcher and was also able to ensure that only the requested information was recorded on the coding sheet. The coding sheet was numerically identified in order to preserve the anonymity of the children concerned. The health visitor records thus acted as an aide-memoire to the health visitors during the interviews.

Reliability and Validity

Reliability is concerned with the accuracy of data in terms of its stability. Although a test-retest procedure was not used, questions 24, 25, 26 and 27 regarding the number of children in a family, required a consistent knowledge of the family structure which was again tested with regard to question 113 through to question 122. The variable values were mutually exclusive and clearly defined. Further, the researcher carried out her own data collection so that there was no variation between different individuals involved

in data collection. A possible area of inaccuracy involved the calculation of frequency of family contact with child health clinics or health visitor home visits over the defined periods. Error was minimised by the researcher and the health visitors calculating contact levels independently and, where there was lack of agreement, the calculation was attempted a second time. The reliability of records as a data source has already been discussed, however, it is worth noting that the use of acute hospital services was assessed through hospital notifications of in-patient and Accident and Emergency Department usage, as well as health visitor recording. Similarly, maternal experience of childbirth was in part assessed through information sent to the health visitor by the Maternity Unit on the discharge slip. The health visitor records were therefore supplemented by information supplied by hospitals. Thus, every attempt was made to yield accurate and stable data within the limitations of the data source. The reliability of the data source in terms of its completeness was considered by question 143 of the questionnaire; this is reported in Chapter 7.

Validity is concerned with the extent to which the instrument actually measures what it purports to measure. In terms of face validity, the questionnaire included all items considered to influence childhood health which health visitor records could be expected to record. Thus, parental educational attainment was excluded since such information is not systematically recorded by practising health visitors. The items on the questionnaire were derived from a review of the literature, suggesting that the content of the questionnaire would elicit data pertinent to the areas of concern. However, some of the items on the questionnaire demanded information which may have been a reflection of health visitor perception rather than 'true' incidence. For example, questions regarding the social history of

an infant. While it was not possible to find comparative data with regard to all items, it was possible to compare some of the findings of this survey with 1981 Census data, relating to parental marital status, social class, paternal unemployment, ethnic background, category of housing, occupation and mobility of families. The similarity of the survey data with that of the 1981 Census will be discussed in Chapter 11. It may be argued that comparison of relevant findings with other credible data sources offered the opportunity for assessing the criterion-related validity of the questionnaire. Consideration of construct validity is not relevant since no attempt was made to measure an abstract concept.

The instrument was used without difficulty in different District Health Authorities which suggests that this method of data collection could be replicated to yield similarly reliable data.

6.7. The Pilot Study

Aims:

The pilot study was undertaken to reveal the acceptability of the designed questionnaire to practising health visitors and to reveal its adequacy for the purpose of the research project in terms of data collection.

Method:

The questionnaire was used in the manner described for the main data collection under the heading 'Procedure' (page 155). Data were gathered from a birth cohort not selected for the main study (July, 1979) and allowed a retrospective analysis of 38 infant health records derived from two clinic areas. Six health visitors were interviewed.

The interviews varied in length, depending upon the number of children known to them and falling into the pilot study cohort.

Results:

The order of the questions on the questionnaire appeared to reflect the arrangement of information on the health records which greatly facilitated the interview. None of the health visitors found any question unacceptable or ambiguous.

The data was not analysed in view of the small sample and the aims of the pilot study.

Conclusion:

The pilot study confirmed the acceptability of the designed questionnaire and suggested that the questionnaire would prove an adequate tool for data collection. The clarity of the questionnaire to the health visitors suggested that the researcher and the health visitors shared similar definitions of the terms employed. The limited size of the pilot study was justified in terms of its aims and the view of Kalton and Moser (1981), who have suggested that a pilot study is a matter of convenience, time and money.

Timetable of Data Collection:

Pilot Study	August, 1981
Cohort 1 (Inner City)	December 1981, January 1982
Cohort 2 (Inner City)	May and June, 1982
Cohort 3 (Suburbs)	November and December, 1982

6.8. Analysis of Data:

All the collected data were analysed by computer with use of the Statistical Package for the Social Sciences. Data was collected with little categorisation. Categories were created subsequent to a gross variance analysis to allow a meaningful analysis to be undertaken. The data was analysed for gross variance subsequent to the creation of meaningful categories. Chi-square tests were performed on raw data cross-tabulations to evaluate whether or not the frequencies which had been empirically obtained differed significantly from those which would be expected by chance.

6.9. Conclusion:

Despite the possible limitations of health visitor records as a data source, the researcher considered that they offered a source of unique data which had the potential to allow quantitative description of a selected population and their contact with the National Health Service and some selected support provisions. The choice of retrospective research design was justified on grounds of cost and convenience, particularly in view of the acknowledged population mobility in the selected inner city district. The inherent non-reactivity of the data was considered an additional strength. The developed questionnaire appeared to be both adequate and acceptable as the tool for data collection and the flexibility of the coding sheet permitted the data to be collected without categorisation until such categories were required for meaningful analysis of the data which is presented in the findings.

CHAPTER 7

THE FINDINGS I :
CHARACTERISTICS OF THE SAMPLE

Introduction to the Findings:

The background of the samples and the adequacy of the data base will be considered before the findings are described. The findings will be presented in four discrete sections reflecting the three areas of focus described in Chapter 6 on Method and a description of the sample.

Chapter 7 describes the characteristics of the sample and presents the findings with regard to the inner city sample before a comparison is drawn between residency in different localities.

Chapter 8 describes the utilisation of National Health Service provisions as measured in terms of uptake of the various facilities.

Chapter 9 describes the health visitor home visiting practice, that is, that part of health visitor practice in which health visitors are able to allocate their professional skills where they consider most appropriate.

Chapter 10 describes the contact of families with selected support facilities outside the National Health Service. These findings are considered last in view of their selective nature.

7.1. The Sample**The Inner City Sample**

The inner city sample consisted of 756 infants, 51.5% of whom were male and 48.5% of whom were female. The sample distribution in terms of cohort months was as illustrated in the table below; September 1979 yielded the largest sample

and April 1980 the smallest sample, but the difference was not large.

Table 1. Distribution of sample from the cohort months.

Cohort Month		Percentage Sample
August	1979	12.9
September	1979	14.2
October	1979	13.8
November	1979	12.0
January	1980	11.1
February	1980	11.8
March	1980	13.4
April	1980	10.8

The Suburb Sample

The suburb sample consisted of 127 infants, 51.2% of whom were male and 48.8% of whom were female. The sample was distributed between the cohort months as illustrated in the table, with the month of September 1980 yielding the smallest sample and August 1980 yielding the largest sample, but these differences were not great.

Table 2. Distribution of sample from the cohort months.

Cohort Month		Percentage Sample
August	1980	38.6
September	1980	28.3
October	1980	33.1

The Affluent Suburb Sample

The affluent suburb sample consisted of 97 infants, 59.8% of whom were male and 40.2% were female. The sample was distributed between the cohort months as illustrated in the table, with the month of August 1980 yielding the smallest sample and September 1980 yielding the largest sample but these differences were not great.

Table 3. Distribution of sample from the cohort months.

Cohort Month		Percentage Sample
August	1980	28.9
September	1980	36.1
October	1980	35.1

7.2. Completeness of Data Source (Question 143).

84.8% of inner city health visitor records were considered to be complete with a further 9.7% considered complete except in their omission of unsuccessful home visits. Only 4.5% of inner city health visitor records were considered incomplete in some substantial way.

95.3% of suburb health visitor records were considered to be complete with a further 3.9% complete except for the omission of unsuccessful home visits. Thus 0.8% of the records were considered incomplete. Likewise 97.9% of affluent suburb health visitor records were considered complete, the remaining 2.1% being complete save their omission of unsuccessful home visits.

7.3. The Characteristics of the Sample (Questions 3,4,5,6,7,8, 9,10,11,12 & 13).

The findings with regard to the inner city sample (n=756) will be presented before a comparison is drawn between residence in different localities.

The Parents

Maternal age on the birth of the cohort child ranged from 12 years to over 36 years, the majority being between 21 and 30 years of age.

Table 4. Distribution of maternal age on birth of cohort child as percentage of sample.

Maternal Age	12-16 Years	17-20 Years	21-25 Years	26-30 Years	31-35 Years	36 + Years
Percentage Children	2.1	10.2	28.3	30.1	18.3	11.0

Ninety four percent of the mothers had had only one partner during the life of the cohort child and only 3.6% had more than one known current partner at the child's second birthday. The majority of children came from families headed by a married couple although a large group of children lived in a household headed by a single parent.

Table 5. Marital status of the caretaker as percentage of sample

Marital Status	Married	Common Law Wife	Single	Other Single *
Percentage Children	68.6	3.6	22.9	5.0

* Includes divorced, separated or widowed.

Only 1.2% of sample children had unknown paternity. Paternal contribution to family life was considered in two ways - paternal contact with the child and paternal residency within the household. Of the sample, 76.5% of children had continuous contact with their fathers, while 5.9% had intermittent contact and 17.6% had no paternal contact. The percentage of fathers resident in the household amounted to 76.1%.

Twenty two percent of the mothers were engaged in full time employment and 14.2% undertook part time work. Of the fathers, 81.2% were fully employed, only 0.9% were involved in part time work and 17.9% were unemployed. There was a close association between unemployment of both parents ($\chi^2 39.43704.5df.p < 0.0001$).

Where the mothers were employed, they were attributed to a social class independent of their husbands.

Table 6. Distribution of parental social class as percentage of sample.

Social Class	I	II	III	IV	V
Mothers	10.6	9.1	18.0	16.5	45.8
Fathers	13.6	7.9	16.3	16.3	45.9

A number of parental attributes appeared to be closely related to one another. Maternal age was closely associated with marital status ($\chi^2 226.33590, 15df, p = < 0.0001$); younger mothers were more often single while older mothers were more often married. There was no relationship between maternal age and maternal employment status although young mothers were more likely to be supported by unemployed partners ($\chi^2 77.72048, 10df, p = < 0.0001$). Maternal age was also associated with social class attribution ($\chi^2 88.30780, 20df, p = < 0.0001$); descending maternal age associated with descending social class.

Marital status was independent of maternal employment status but closely related to paternal employment status ($\chi^2 128.80587, 10df, p = < 0.0001$); single mothers were more often supported by unemployed partners. There was a close association between marital status and social class ($\chi^2 73.93049, 4df, p = < 0.0001$); single parents more often coming from Social Class V.

Maternal employment was related, but not closely, to social class status ($\chi^2 16.62508, 8df, p = 0.0343$), and it is interesting to note that there was least maternal unemployment associated with Social Class II. Paternal employment status was an important factor with regard to social class attribution ($\chi^2 65.55798, 8df, p = < 0.0001$); unemployment was associated with descending social class.

Cultural Background and Competence in the English Language (Questions 14, 15, 16, 17, 18, 19, 20, 21, 22, 23)

The sample demonstrated the diversity of ethnic background among inner city residents; the most clear demonstration

of this was the perceived dominant culture in the household. Those cultures representing less than 4% of the sample (n=30) will not be reported in view of the insignificance of their numbers. The distribution of birth place is reported in Appendix D.

Table 7. Distribution of cultural background as percentage of sample.

Culture	Percentage Sample	Sample Number
United Kingdom	43.4	328
Eire	6.9	52
Mediterranean	9.5	72
North Africa	5.0	38
Indian Subcontinent	4.0	30
South East Asia	5.6	42
West Indies	14.0	106
Other	11.5	88

Despite this diversity of background, only 12.6% of sample parents had difficulty with spoken English, however, 15.1% were thought to be unable to read English and 7.3% were thought to be unable to read in their native language. Not surprisingly, there was a close association between perceived dominant culture and perceived literacy in English.

Table 8. Distribution of illiteracy in English by cultural background as percentage of parents of different cultures.

Cultural Background	Percentage Illiterate in English
North Africa	62.2
Indian Subcontinent	36.7
Mediterranean	31.9
South East Asia	31.0
Eire	11.5
West Indies	8.5
United Kingdom	5.1

Cultural background was closely related with other parental social attributes. Maternal age reflected a clear cultural distribution.

Table 9. Distribution of maternal age by cultural background as percentage.

Cultural Background	Maternal Age (Years)					
	12-16	17-20	21-25	26-30	31-35	36 +
United Kingdom	2.2	13.3	24.1	27.9	20.6	11.7
Eire	0	9.6	25.0	28.8	21.2	15.4
Mediterranean	0	4.2	34.7	27.8	19.4	13.9
North Africa	0	8.1	40.5	32.4	13.5	5.4
Indian Subcontinent	0	3.3	43.3	23.3	13.3	16.7
South East Asia	0	0	14.3	50.0	26.2	9.5
West Indies	8.5	18.9	40.6	20.8	5.7	5.7

Marital status also reflected a clear cultural distribution.

Table 10. Distribution of marital status by cultural background as percentage.

Cultural Background	Percentage Married Mothers
North Africa	94.7
Mediterranean	88.3
South East Asia	85.7
Indian Subcontinent	83.3
United Kingdom	69.2
Eire	67.3
West Indies	29.2

Maternal employment status showed some variation with regard to cultural background but it was not significant. Fewer West Indian (48.1%), South East Asian (40.5%) and Mediterranean (56.9%) mothers remained at home on a full

time basis; 70.4% United Kingdom mothers remained at home. Most full time employment was undertaken by West Indian (39.6%), South East Asian (38.1%) and North African mothers (36.8%), while most part time employment was undertaken by Mediterranean (22.2%) and South East Asian (21.4%) mothers. Paternal employment status showed a clear cultural distribution and illiteracy in English shared some association with paternal unemployment ($\chi^2 9.29844.2df.p=0.0096$).

Table 11. Paternal employment status by cultural background as percentage.

Cultural Background	Percentage Employed	Percentage Unemployed
United Kingdom	79.3	20.7
Eire	68.0	32.0
Mediterranean	95.6	4.4
North Africa	86.8	13.2
Indian Subcontinent	92.3	7.7
South East Asia	95.1	4.9
West Indies	66.3	33.7

Similarly, cultural background was related to social class as indeed was illiteracy in English ($\chi^2 68.40344.8df.p < 0.0001$); illiteracy was associated with attribution of Social Class 5.

Table 12. Social class attribution by cultural background as percentage.

Cultural background	SCI	SCII	SCIII	SCIV	SCV
United Kingdom	16.5	13.0	16.8	15.2	38.4
Eire	0	3.8	9.6	13.5	73.1
Mediterranean	1.4	6.9	8.3	15.3	68.1
North Africa	13.2	5.3	21.1	10.5	50.0
Indian Subcontinent	3.3	13.3	30.0	6.7	46.7
South East Asia	0	2.4	7.1	16.7	73.8
West Indies	0	0	14.2	17.0	68.9

Family Size (Questions 24,25,26,27).

A large proportion of families had only the sample child in the family (41.0%), while 36.6% had one other child as well. Families with three children amounted to 12.9% and 9.5% had four or more children. Most siblings of sample infants were also under school age.

Table 13. Age of siblings in inner city families as percentage

	Percentage Families
Families with no siblings	41.0
Families with one or more siblings aged: 1 - 4 years	35.4
5 -10 years	29.1
11-16 years	5.4
more than 16 years	4.5

Note: Table does not add up to 100% as there are overlapping categories.

The distribution of boys and girls was similar and there was no association between the sex of the children and family size. There was no association between maternal age and family size, however, single parents were more likely to have had only one child ($\chi^2 72.47690.40df.p=0.0013$). Unemployed mothers had more children than employed mothers ($\chi^2 43.51627.16df.p=0.0002$), while fully employed fathers were slightly more likely to have smaller families than unemployed fathers ($\chi^2 31.93949.16df.p=0.0102$). There was no clear relationship between social class and family size, although there was a slight trend towards smaller families in Social Class I but this was not significant. There was some association between family size and cultural background; North African, Indian Subcontinent and Southern Irish families tended to be larger.

Table 14. Family size by cultural background as percentage.

Cultural Background	Number of Children			
	1	2	3	4+
South East Asia	54.8	26.2	11.9	7.1
Mediterranean	43.1	45.8	8.3	2.8
West Indies	41.5	34.9	13.2	9.4
United Kingdom	41.0	40.6	10.8	7.6
Eire	32.7	28.8	23.1	15.4
Indian Subcontinent	30.0	30.0	13.3	26.6
North Africa	23.7	36.8	18.4	21.0

Housing (Questions 28,29,30,31,32,33,34,35,36,37,142).

Most families in the inner city lived in council accommodation (48.7%) and Housing Trusts were also an important source of accommodation for 17.9%. Owner-occupiers amounted to 16.8% of the families and 16.5% depended upon the private rental market. Flats were the most usual type of accommodation (80.7%), houses being occupied by 14.8% and 4.5% were housed in bedsitters. Most families had the use of two bedrooms (56.09%) and 18.5% had the use of three or more bedrooms but 15.6% of families had the use of only one bedroom. Most families had their own kitchen, however, 6.9% of the sample either shared their kitchen or were dependent upon bedsitter cooking facilities. Most families also had their own bathrooms, although 6.7% had shared bathing facilities or no access to such facilities. Most households consisted of three to four members (62.6%).

Mobility was considered in several ways - number of home moves, use of the Homeless Families Unit of the Borough Housing Department and movement between District Health Authorities. The majority of families (66.8%) did not move their residences in the first year of the child's life, 21.5% moved once and 11.6% moved two or more times. In the second year of life, 75.3% of families did not move, 19% moved once and 5.7% moved two or more times. Eight percent of families

had required the services of the Homeless Families Units and of these most families were homeless for four months or less (50.8%) although some families were considered homeless for the first 24 months of their child's life. Despite the relatively large amount of mobility, 81% of families had remained within the same District Health Authority during the 24 months under consideration, 15.5% had experienced two District Health Authorities while only 3.6% had been resident in three or more District Health Authorities.

Category of occupation was closely related to housing type, thus: 52% of houses were owner-occupied, 54% of flats were council tenancies and a further 21.5% were Housing Trust tenancies and bedsitters were mainly in the private rental market ($\chi^2 520.61810.18df.p < 0.0001$). Category of occupation and the quality of accommodation in terms of kitchen and bathing facilities were also related; poor quality housing being associated with the private rental market ($\chi^2 302.76574.18df.p < 0.0001$). Council tenancies were associated with previous use of the Homeless Families Unit ($\chi^2 181.16420.12df.p < 0.0001$). There was a trend in mobility in the first year of life which was maintained into the second year with regard to category of occupation. Those in council accommodation were the most mobile and owner-occupiers least mobile ($\chi^2 107.01349.36df.p < 0.0001$).

Maternal age was clearly related to category of occupation, younger mothers being more dependent upon the public housing sector ($\chi^2 152.47644.10df.p < 0.0001$). Marriage was associated with owner-occupation while single parents were more dependent upon the public housing sector (64.7% council tenancies and 23.7% Housing Trust tenancies) ($\chi^2 164.32487.30df.p < 0.0001$). Younger mothers were more mobile than older mothers ($\chi^2 147.52840.12df.p < 0.0001$) and also were more frequently dependent upon the Homeless Families Unit ($\chi^2 72.40371.42df.p = 0.0025$). Similarly, single parents were mobile in the first year of the child's life ($\chi^2 47.22645.30df.p = 0.0236$), however, there was no association regarding mobility in the child's second year. Single marital status was clearly associated with use of the Homeless Families Units ($\chi^2 42.03613.10df.p < 0.0001$).

Maternal employment was associated with both owner-occupation and private tenancies ($\chi^2 26.93599.12df.p=0.0079$) but there was no association with regard to the quality of housing or mobility. Paternal employment status was closely related to a number of accommodation variables. Unemployed fathers were more likely to be dependent upon the public housing sector while those in full time employment were more frequently owner-occupiers ($\chi^2 57.24937.12df.p<0.0001$). Paternal employment status was not associated with quality of housing but was important with regard to mobility, especially in the first year of a child's life ($\chi^2 35.35639.12df.p=0.0004$) and use of the Homeless Families Units ($\chi^2 23.39953.2df.p<0.0001$). Social class was closely related to category of occupation; Social Class I being associated with owner-occupation and Social Class V being associated with council tenancy ($\chi^2 385.70630.24df.p<0.0001$). Similarly, Social Class I was associated with least mobility in the first year and Social Class V with greatest mobility ($\chi^2 42.65747.24df.p=0.0109$); mobility in the second year was not related to social class. Social Class V was associated with Homeless Families Unit usage ($\chi^2 17.62336.8df.p=0.0242$).

Dominant culture was clearly associated with both category of occupation and type of housing and, to a lesser degree, to mobility.

Table 15. Categories of occupation by cultural background as percentage.

Cultural Background	Council Tenancy	Housing Trust Tenancy	Private Tenancy	Owner Occupation
West Indies	69.8	27.4	2.8	0
South East Asia	66.7	9.5	16.7	0
Eire	66.3	25.0	5.8	1.9
Indian Subcontinent	50.0	13.3	20.0	16.7
North Africa	47.4	13.2	28.9	7.9
United Kingdom	40.6	18.4	13.0	27.9
Mediterranean	40.3	20.8	27.8	11.1

Houses were more frequently occupied by families from the United Kingdom, while families from the Mediterranean lands and North Africa more frequently occupied bedsitters.

Families from North Africa, Indian Subcontinent, South East Asia and Eire were the most mobile in the first year and also in the second year but it was not statistically significant.

Health of Families (Questions 111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126).

Most mothers (93.8%) were considered to have good physical health; 6.2% were considered to have a significant health problem. Mothers considered to have good mental health amounted to 81.4% of the sample with 2% considered to be handicapped. The majority of fathers (97.3%) were considered to have good physical health and 91.7% were considered to have good mental health. Only 0.8% of fathers were considered to be handicapped. In view of the generally good health of parents and siblings, health status was not used further in the analysis of the data.

This Pregnancy (Questions 1 & 2).

Of the children, 62.8% were apparently the products of planned pregnancies and 79.4% of the pregnancies were welcome. There was a close association between the planning of a pregnancy and such a pregnancy being welcome ($\chi^2 283.04787$, 1df, $p < 0.0001$). Planned pregnancies were more frequent where the parents were married and conversely, unplanned pregnancies more frequent where the mother was single ($\chi^2 223.59045$, 3df, $p < 0.0001$). Maternal employment status was associated with both the planning of pregnancies and the attitude towards the pregnancy.

Table 16. Maternal employment status by planning of pregnancy as percentage.

Maternal Employment	Planned	Unplanned
Full employment	66.7	33.3
Part time employment	72.0	28.0
Unemployed	59.4	40.6

$\chi^2 7.30833.2df.p=0.0259$

Table 17. Maternal employment status by attitude towards pregnancy as percentage.

Maternal Employment	Welcome	Unwanted
Full employment	81.8	18.2
Part time employment	91.6	8.4
Unemployed	75.7	23.9

$\chi^2 13.82299.2df.p=0.0010$

There were more planned pregnancies with increasing maternal age ($\chi^2 107.63871.21df.p=<0.0001$) and there was also a clear association between increasing maternal age and positive attitudes towards the pregnancy ($\chi^2 129.68777.42df.p=<0.0001$). Paternal employment status was clearly associated with both the planning of the pregnancy and attitudes towards the pregnancy.

Table 18. Paternal employment status by planning of pregnancy as percentage.

Paternal Employment	Planned	Unplanned
Full employment	75.1	24.9
Unemployment	31.5	68.5

$\chi^2 90.53699.1df.p=<0.0001$

Table 19. Paternal employment status by attitude towards pregnancy as percentage.

Paternal Employment	Welcome	Unwanted
Full employment	88.8	11.3
Unemployment	48.4	51.6

$\chi^2 111.13846.1df.p <0.0001$

Social class was associated with planning of the pregnancy; Social Class I was associated with planned pregnancies while Social Class V was associated with unplanned pregnancies ($\chi^2 101.68111.4df.p < 0.0001$). Dominant culture was associated with both the planning of the pregnancies and attitudes towards the pregnancy.

Table 20. Planning of pregnancy by cultural background as percentage.

Cultural Background	Planned	Unplanned
Mediterranean	79.2	20.8
Indian Subcontinent	73.3	26.7
North Africa	73.0	27.0
South East Asia	66.7	33.3
United Kingdom	64.4	35.6
Eire	48.1	51.9
West Indies	38.7	61.3

Table 21. Attitude towards pregnancy by cultural background as percentage

Cultural Background	Welcome	Unwanted
Indian Subcontinent	93.3	6.7
North Africa	89.5	10.5
Mediterranean	88.9	11.1
South East Asia	81.0	19.0
United Kingdom	79.7	20.3
Eire	69.2	30.8
West Indies	60.4	39.6

The presence of another child in the family was associated with less planning ($\chi^2 26.60565.8df.p = 0.0008$), as was council tenancy compared with owner-occupation ($\chi^2 82.93490.6df.p < 0.0001$), mobility in the first year ($\chi^2 78.19344.6df.p < 0.0001$) and Homeless Families Unit usage ($\chi^2 39.91671.2df.p < 0.0001$).

Experience of Childbirth (Questions 127,128,129,130,131).

Maternal experience of childbirth was considered under four headings - childbirth experience, antenatal experience, confinement experience and puerperium experience which was based not only upon information in health visitor records but also upon information disclosed in hospital discharge letters. Of the families, 83.3% had hospital discharge letters retained within the health visitor records. In the opinion of health visitors a minority of mothers had a poor childbirth experience.

Table 22. Maternal childbirth experience as percentage

Childbirth Experience	Good	Fair	Poor	Not Known
Percentage of Sample	41.9	25.5	25.5	7.1

The majority had taken up antenatal care by the 16th week of pregnancy.

Table 23. Maternal antenatal experience as percentage.

Antenatal Experience	Percentage of Sample
Booked at 16 Weeks	73.2
Antenatal Problems	16.6
Limited or No Antenatal Care	4.2
Not Known	6.0

About one third of mothers had had uneventful confinement experiences.

Table 24. Maternal confinement experience as percentage.

Confinement Experience	Percentage of Sample
Uneventful	36.6
Intervention	32.5
Long Labour/Perineal Tear	18.2
Caesarian Section	12.8

The majority of mothers had uneventful puerperiums.

Table 25. Maternal problems experienced in the puerperium as percentage.

Puerperal Experience	Percentage of Sample
Uneventful	73.3
Medical or Gynaecological problems	14.4
Depression	5.5
Not Known	6.8

Much of the analysis relating to these variables yielded insignificant results. While not significant, mothers of 36 years or more had both the best and the poorest experiences of childbirth and there was a trend for older mothers to experience more depression in the puerperium. Caesarian sections were more frequent with increasing maternal age ($\chi^2 41.79042.20df.p=0.0029$) and while not significant, most episiotomies were undertaken in single child families and most intervention occurred where mothers were owner-occupiers. Mothers undertook less antenatal care where there were several children in the family ($\chi^2 76.59681.40df.p=0.0004$) and where there were three or more children in the family, mothers had more problems in the puerperium ($\chi^2 63.20605.40df.p=0.0111$). Mothers with unplanned pregnancies were less likely to take up antenatal care early but this was not significant ($\chi^2 10.21435.5df.p=0.0694$) and the cultural distribution of the uptake of antenatal care was not significant. Those from Eire and North Africa tended to have more limited antenatal care. Mothers in full time employment had more problems in the antenatal period but undertook their antenatal care as diligently as other mothers.

Infant Feeding Practices (Question 98)

A large proportion of infants were bottle fed only and cessation of initial breast feeding left a quarter of the sample being breast fed at 3 months of age.

Table 26. Infant feeding practice as percentage of sample.

Feeding Method	Breast Fed			
	Bottle Fed Only	Less than 6 Weeks	6 Weeks- 3 Months	More than 3 Months
Percentage of Sample	41.7	18.4	14.2	25.8

More bottle feeding and successful breast feeding was clearly associated with various socio-economic factors. More bottle feeding and less successful breast feeding occurred more frequently where the pregnancy was unplanned ($\chi^2 15.32093$, 2 df, $p < 0.001$) and among young mothers (less than 20 years of age) ($\chi^2 36.13486$, 18 df, $p < 0.005$). Similarly, Social Classes IV and V ($\chi^2 72.88793$, 16 df, $p < 0.0001$) and single marital status ($\chi^2 36.05427$, 3 df, $p < 0.001$) seemed to be associated with more bottle feeding and less successful breast feeding. Illiteracy was also associated with more bottle feeding ($\chi^2 15.15030$, 8 df, $p = 0.0563$) and increasing family size ($\chi^2 19.36605$, 9 df, $p = 0.0223$). Mothers living in council accommodation were more likely to have bottle fed while those who were owner-occupiers were more likely to have been successful breast feeding mothers ($\chi^2 68.63215$, 15 df, $p < 0.0001$). No clear relationship was demonstrated with regard to quality of housing (bathing and cooking facilities). However, greater mobility during the first year of life seemed to mitigate against successful breast feeding ($\chi^2 19.52405$, 6 df, $p = 0.0034$). Employed mothers were more likely to have breast fed than bottle fed initially ($\chi^2 25.36196$, 6 df, $p = 0.0003$), while paternal unemployment was clearly associated with bottle feeding ($\chi^2 29.88433$, 6 df, $p < 0.0001$). There was a distinct cultural pattern with regard to infant feeding practice.

Table 27. Distribution of infant feeding practice by cultural background as percentage.

Cultural Background	Bottle Fed	Breast Fed		
		Less than 6 Weeks	6 Weeks-3 Months	More than 3 Months
Eire	75.0	11.5	7.7	3.8
Mediterranean	51.4	11.1	20.8	16.7
United Kingdom	43.8	12.4	13.3	30.5
South East Asia	38.1	28.6	7.1	26.2
Indian Subcontinent	36.7	20.0	13.3	30.0
North Africa	34.2	28.9	15.8	21.1
West Indies	34.9	29.2	14.2	21.7

Successful breast feeding was associated with a good childbirth experience ($\chi^2 87.29930$, 12df, $p < 0.0001$) and problems during the antenatal period were associated with a preference to bottle feed and less successful breast feeding ($\chi^2 127.34617$, 12df, $p < 0.0001$).

7.4. Area of Residence (Clinic)

The location of the family on the child's second birthday was closely related to most of the socio-economic factors considered in this survey and there was a clear trend between inner city residency and affluent suburb residency with suburb residency located midway in this trend. Thus mothers tended to be older ($\chi^2 47.60645$, 10df, $p < 0.0001$), married ($\chi^2 34.74107$, 10df, $p = 0.0001$) and unemployed ($\chi^2 19.40922$, 4df, $p = 0.0007$) in the affluent suburb. Paternal unemployment was more prevalent in the inner city ($\chi^2 13.68466$, 4df, $p = 0.0084$) and there was a clear social class distribution between the different areas of residence.

Table 28. Distribution of social class by area of residence as percentage.

Area		Social Class				
		I	II	III	IV	V
Inner City	(n=756)	10.4	8.1	15.5	15.1	51.0
Suburb	(n=127)	19.7	5.5	22.0	19.7	33.1
Affluent Suburb	(n= 97)	45.4	19.6	13.4	10.3	11.3

$\chi^2 127.59845.8df.p < 0.0001$

The inner city was clearly associated with a greater diversity of cultural background ($\chi^2 105.22701.26df.p < 0.0001$) and illiteracy in English was only a problem in the inner city ($\chi^2 22.12781.2df.p < 0.0001$). Area of residence was not related to family size or structure, however, category of occupation and size of dwelling were related to locality. Thus, the public housing sector was an important source of accommodation in the inner city, while owner-occupation was the usual type of occupation in the affluent suburb ($\chi^2 198.50064.8df.p < 0.0001$). Likewise, houses were a feature of the affluent suburb while flats were the main type of accommodation in the inner city ($\chi^2 172.21878.4df.p < 0.0001$), and related to this, families in the affluent suburb had the use of more bedrooms in their homes ($\chi^2 93.68939.8df.p < 0.0001$). Inner city families appear to have been more mobile but it was not statistically significant and similarly, use of the Homeless Families Unit was a feature of the inner city families and suburban families ($\chi^2 6.45953.2df.p = 0.0396$).

Parental health status was similar in all three areas although there was a slight trend towards increased maternal morbidity in the inner city, but it was not statistically significant. More pregnancies were apparently planned in the affluent suburb than elsewhere ($\chi^2 16.81211.2df.p = 0.0002$), however, the attitude towards the pregnancy did not follow any other trends with suburb mothers having the most positive attitudes.

Table 29. Distribution of attitudes towards the pregnancy by area of residence as percentage.

Area	Attitude	
	Welcome	Unwanted
Inner City	79.4	20.6
Suburb	93.7	6.3
Affluent Suburb	87.5	12.5

$\chi^2 17.14803.2df.p=0.0002$

There was a lack of information with regard to maternal experience of childbirth in the affluent suburb and suburb—no information was available for 27.6% of mothers in the suburb and 25.8% of mothers in the affluent suburb. Residence in the inner city was related to more antenatal problems ($\chi^2 20.12955.8df.p=0.0099$) and episiotomy at delivery ($\chi^2 35.90016.8df.p<0.0001$) and eventful puerperiums ($\chi^2 45.09067.10df.p<0.0001$). Infant feeding practice was clearly associated with area of residence. Successful breast feeding occurred more frequently in the affluent suburb.

Table 30. Distribution of infant feeding practice by area of residence as percentage.

Area	Breast Fed			
	Bottle Fed only	Less than 6 Weeks	6 Weeks- 3 Months	More than 3 Months
Inner City	41.7	18.4	14.2	25.8
Suburb	44.4	21.8	11.3	22.6
Affluent Suburb	18.9	9.5	10.5	61.1

$\chi^2 56.23096.6df.p<0.0001$

CHAPTER 8

THE FINDINGS II :

UTILISATION OF NATIONAL HEALTH SERVICE PROVISIONS

Utilisation of the various Health Service provisions was measured in terms of uptake of the various facilities. The overall findings will be presented before a more detailed account of uptake by the inner city sample is considered. A comparison between residency in different localities will be considered in the presentation of the overall findings.

An analysis of the uptake of prophylactic measures did not support a seasonal variation in utilisation rates.

8.1. The Child Health Clinics (Questions 87,88 & 89)

Child health clinics were more frequently used by the inner city sample than by those resident in the suburbs. Indeed, mothers resident in the suburb as compared to the affluent suburb made least use of the clinics during the first six months of an infant's life. The different utilisation rates were found to be significant with regard to the first six months of life, the first year of life and also the second year of an infant's life.

Table 31. Child health clinic attendance by area of residence during an infant's first six months of life as percentage.

	Number of Clinic Visits			
	0	1-3	4-8	9-30
Inner City	5.3	16.0	43.8	34.9
Suburb	10.2	28.3	38.6	22.8
Affluent Suburb	6.2	34.0	34.0	25.8

χ^2 33.60944.6df.p <0.0001

Table 32. Child health clinic attendance by area of residence during an infant's first year of life as percentage.

	Number of Clinic Visits			
	0	1-5	6-10	11-30
Inner City	4.6	18.4	34.5	42.4
Suburb	7.9	31.5	25.2	35.4
Affluent Suburb	4.1	39.2	22.7	34.0

χ^2 33.18518.6df. $p < 0.0001$

Table 33. Child health clinic attendance by area of residence during an infant's second year of life as percentage.

	Number of Clinic Visits			
	0	1-2	3-5	6-30
Inner City	15.2	47.8	26.0	11.0
Suburb	32.5	46.8	17.5	3.2
Affluent Suburb	57.7	36.1	6.2	0

χ^2 116.01246.6df. $p < 0.0001$

Utilisation of child health clinics was more frequent during the first year of life as compared to the second year of an infant's life.

Sixth Week Development Assessment (Questions 38,39 & 41)

The uptake of the developmental assessment was high in all three areas of residency, ranging from 91.8% in the affluent suburb to 87.3% in the inner city. The majority of infants were given their assessment between the ages of five and seven weeks; 84.5% of all suburban infants and 69.6% of inner city infants. While 12% of inner city infants were late in their uptake, 6.8% were early in their uptake with 12.6% failing to accept the developmental assessment. Reasons for default will be presented in the next chapter. The majority of infants are brought for the assessment without an appointment;

79.3% in the inner city and 73.2% in both suburbs. 20.6% of infants in the affluent suburb took up the assessment subsequent to the issuing of an appointment, 11.8% of suburban infants and 9.0% of inner city infants.

The First Immunisation (Questions 45,46 & 48)

The uptake and type of the first immunisation varied according to locality.

Table 34. First immunisation uptake by area of residence as percentage.

	DPT *	DT *	None
Inner City	59.6	36.7	3.7
Suburb	55.1	40.9	3.9
Affluent Suburb	61.9	28.9	9.3

$\chi^2 9.03038.4df.p=0.0603$ (not significant)

* DPT refers to a combination of diphtheria, pertussis, tetanus and polio immunisation. DT refers to a combination of diphtheria, tetanus and polio immunisation.

While the majority of infants received their immunisation at the recommended age, in all areas more than 10% of the infants received their injections at five months of age or older.

Table 35. Age at first immunisation by area of residence as percentage

	4 months or less	5-7 months	8-24 months
Inner City	86.6	11.9	1.5
Suburb	73.6	14.9	11.6
Affluent Suburb	84.1	10.2	5.7

$\chi^2 37.83100.4df.p<0.0001$

Delay in uptake of the first immunisation was more frequent in the suburb. Reasons for the default will be presented in the next chapter. A well established appointment system for primary infant immunisation was a feature of the inner city while appointment systems were organised sporadically in the suburbs. Thus 90.7% of the infants in the inner city attended for immunisation subsequent to the issuing of an appointment as compared with 19.6% in the affluent suburb and 10.2% in the suburb.

The Second Immunisation (Questions 52,53 & 55)

The majority of all infants in all localities received their second immunisation, 94% in the inner city, 89.7% in the affluent suburb and 88.9% in the suburb ($\chi^2 6.10762.2df. p=0.0472$). However, the age at which the immunisation was given varied between the areas of residence.

Table 36. Age at second immunisation by area of residence as percentage.

	6 months or less	7-9 months	10-24 months
Inner City	78.2	16.3	5.5
Suburb	57.9	26.3	15.8
Affluent Suburb	73.6	14.9	11.5

$\chi^2 27.85052.4df. p < 0.0001$

Delay in uptake was more frequent in the suburbs and particularly in the suburb. Reasons for default will be presented in the next chapter. Appointments were issued and gained subsequent attendance for immunisation regarding 87.5% of inner city infants, 22.7% of affluent suburb infants and 10.2% of suburb infants.

Completion of the Primary Immunisation Course and the Third Immunisation (Questions 59,60 & 62).

The majority of infants in all localities received their third immunisation although the rate of uptake is lower than for the first and second immunisations. Thus 89.4% of infants in the inner city were immunised as compared to 83.5% in the affluent suburb and 77.2% in the suburb ($\chi^2 16.02197$, 2df, $p=0.0003$). Further, delay in uptake was more frequent in the suburbs.

Table 37. Age at third immunisation by area of residence as percentage.

	12 months or less	13-15 months	16-24 months
Inner City	78.7	15.1	6.2
Suburb	73.5	17.3	9.2
Affluent Suburb	69.1	16.0	14.8

$\chi^2 9.16431$, 4df, $p=0.0571$

Reasons for default will be presented in the next chapter. Appointments were issued and gained subsequent attendance for immunisation regarding 82% of inner city infants, 16.5% of affluent suburb infants and 6.3% of suburb infants.

The Measles Vaccination (Questions 66,67 & 69)

In comparison to the primary immunisation course, the uptake of the measles vaccination was considerably lower. Thus 65.2% of inner city infants were vaccinated as compared with 50.0% of affluent suburb infants and 37.0% of suburb infants ($\chi^2 40.54877$, 2df, $p<0.0001$). When infants were vaccinated varied according to area of residence.

Table 38. Age at measles vaccination by area of residence as percentage.

	14 months or less	15-17 months	18-24 months
Inner City	15.1	69.0	15.9
Suburb	46.8	29.8	23.4
Affluent Suburb	24.5	36.7	38.8

χ^2 54.32840.4df.p=<0.0001

Default reasons will be presented in the next chapter. Appointments were issued and gained subsequent attendance for vaccination regarding 59.6% of inner city infants, 5.2% of affluent suburb infants and 3.1% of suburb infants.

The Hearing Test (Questions 73,74 & 76)

The majority of infants received a hearing test: 90.7% of affluent suburb infants, 83.8% of inner city infants and 82.7% of suburb infants. Most infants received the hearing test before ten months of age.

Table 39. Age at hearing test by area of residence as percentage

	9 months or less	10-12 months	13-24 months
Inner City	77.9	19.9	2.2
Suburb	76.2	19.0	4.8
Affluent Suburb	93.2	6.8	0

χ^2 14.43339.4df.p=0.0060

Default reasons will be presented in the next chapter. Appointments were issued and gained subsequent attendance for a hearing test regarding 78.8% of inner city infants, 24.7% of affluent suburb infants and 10.3% of suburb infants.

The Toddler Developmental Assessment (Questions 80,81 & 83)

This assessment included any developmental assessment undertaken on a child between 12 and 24 months of age. The uptake of this provision was limited - 59.8% of inner city toddlers, 14.2% of suburb toddlers and only 7.2% of affluent suburb toddlers. Most of the inner city toddlers (83.8%) undertook this assessment before 16 months of age, 14.9% undertook the assessment between 17 and 18 months of age and the remaining 1.3% between 19 and 24 months of age. Reasons for default will be presented in the next chapter. Appointments were issued and gained subsequent uptake regarding 58.4% of inner city toddlers.

8.2. Receipt of Appointments (Questions 44,51,58,65,72,79 & 86)

It was clear that health visitors did not know whether appointments had been received. Health visitors therefore made an assumption that appointments which had been dispatched should have been received in due course.

8.3. General Practice (Questions 99,100,101 & 102)

Most infants were registered with a local general practitioner: 94.8% of affluent suburb infants, 94.5% of suburb infants and 86.2% of inner city infants ($\chi^2 11.68901.2df$, $p=0.0029$). Most infants had been registered locally with a general practice for 23 or more months of their lives (92.8% of affluent suburb infants, 91.3% of suburb infants and 81.3% of inner city infants).

Degree of contact with the general practitioner was a matter of judgement by the health visitors in the survey: only 13.6% of inner city infants were considered to have regular contact with their doctor as compared with 11.8%

of suburb infants and 6.2% of affluent suburb infants. The most frequent reason for contact with the family doctor was childhood infection: 93.8% of affluent suburb infants, 93.7% of suburb infants and 89.9% of inner city infants. Parental health problems were a cause of contact for 6.2% of inner city families.

8.4. Hospital Contact

Admission to Hospital (Questions 103 & 104)

One hospital admission was a more frequent occurrence for inner city infants and it was a trend which was maintained with regard to four hospital admissions although the numbers are very small. The causes of admission to hospital were similar in the three areas of residence.

Table 40. At least one hospital admission by area of residence as percentage.

	One Admission
Inner City	28.4
Suburb	23.6
Affluent Suburb	14.4

$\chi^2 9.21415.2df.p=0.0100$

Table 41. Causes of hospital admissions by area of residence as percentage.

	Inner City (n=304)	Suburb (n=44)	Affluent Suburb (n=22)
Infection	37.83	38.64	40.91
Medical Problem	39.47	25.00	22.73
Accident	6.91	15.91	9.09
Surgical Problem	12.83	15.91	22.73
Social Problem	2.96	4.54	4.55

The mean length of hospital stay was: 1.8 weeks in the inner city and affluent suburb and 1.4 weeks in the suburb.

One week was the shortest period for which there was a code. The mean age of hospital admission was: 8.2 months in the inner city, 10.4 months in the suburb and 8.5 months in the affluent suburb.

Hospital Outpatient Departments (Questions 105,106,107 & 108)

Inner city infants made more frequent use of hospital outpatient clinics than infants in the suburbs.

Table 42. At least one hospital outpatient appointment by area of residence as percentage.

	One Outpatient Appointment
Inner City	40.5
Suburb	22.0
Affluent Suburb	20.6

$\chi^2 27.21928.2df.p < 0.0001$

More frequent use of outpatient clinics by inner city infants was maintained with regard to six or more appointments, although the number became smaller (inner city: 9.0%; suburb: 2.4%; affluent suburb: 5.2%). The causes of outpatient appointments were similar in the three areas.

Table 43. Causes of hospital outpatient appointments by area of residence as percentage.

	Inner City (n=921)	Suburb (n=58)	Affluent Suburb (n=60)
Infection	10.97	15.52	3.33
Medical Problem	70.25	56.90	76.67
Accident	2.06	1.72	0
Surgical Problem	14.33	25.86	20.00
Social Problem	3.39	0	0

The mean age of hospital outpatient attendance was: 8.1 months in the affluent suburb, 8.8 months in the suburb and 9.0 months in the inner city. A Home Care Team only operated in the inner city area and ten infants (1.4%) had contact with the team.

Accident and Emergency Departments (Questions 109 and 110).

Suburb infants made more frequent use of Accident and Emergency Departments than inner city or affluent suburb children. Higher utilisation rates were recorded with regard to one and two visits to Accident and Emergency Departments, however, subsequent usage is difficult to assess in view of the very small numbers (2.0%; n=15). The causes of Accident and Emergency Department attendance were similar in the inner city and suburb.

Table 44. At least one attendance at an Accident and Emergency Department by area of residence as a percentage.

	One Accident and Emergency Department Attendance
Inner City	26.6
Suburb	29.9
Affluent Suburb	11.3

$\chi^2 11.99006.2df.p=0.0025$

Table 45. Causes of Accident and Emergency Department attendances by area of residence as percentage.

	Inner City (n=337)	Suburb (n=61)	Affluent Suburb (n=14)
Infection	44.81	47.54	
Medical Problem	20.18	1.64	
Accident	35.01	44.26	
Surgical Problem	1.78	4.92	
Social Problem	0	1.64	

The mean age of attendance at an Accident and Emergency Department was: 14.0 months in the inner city; 14.2 months in the suburb and 16.1 months in the affluent suburb.

8.5. The Relationship between the Uptake of Prophylactic Provisions

The Sixth Week Developmental Assessment

This infant assessment appeared to be related to the future uptake of other prophylactic measures in infancy: primary immunisation course, measles vaccination, hearing test, toddler developmental assessment and use of child health clinics generally.

Tables. Sixth week developmental assessment uptake by uptake of other prophylactic measures as percentage.

Table 46. Sixth week developmental assessment uptake by first immunisation uptake.

	DPT	DT	None
Developmental Assessment	63.2	35.8	1.1
No Assessment	35.8	43.2	21.1

$\chi^2 104.48601.2df.p < 0.0001$

Table 47. Sixth week developmental assessment uptake by second immunisation uptake.

	Immunised	Unimmunised
Developmental Assessment	97.1	2.9
No Assessment	73.4	26.9

$\chi^2 84.07507.1df.p < 0.0001$

Table 48. Sixth week developmental assessment uptake by third immunisation uptake.

	Immunised	Unimmunised
Developmental Assessment	92.9	7.1
No Assessment	65.3	34.7

$\chi^2 66.85450.1df.p < 0.0001$

Table 49. Sixth week developmental assessment uptake by measles vaccination uptake.

	Vaccinated	Unvaccinated
Developmental Assessment	67.6	32.4
No Assessment	48.9	51.1

$\chi^2 12.60809.1df.p=0.0004$

Table 50. Sixth week developmental assessment uptake by hearing test uptake.

	Tested	Untested
Developmental Assessment	87.7	12.3
No Assessment	57.4	42.6

$\chi^2 55.72001.1df.p=<0.0001$

Table 51. Sixth week developmental assessment uptake by toddler developmental assessment uptake.

	Assessed	Unassessed
Developmental Assessment	62.4	37.6
No Assessment	43.2	56.8

$\chi^2 12.76025.1df.p=0.0004$

The uptake of the sixth week developmental assessment was clearly related to future use of child health clinics; uptake of the developmental assessment was related to higher clinic usage with regard to the first six months of infant life ($\chi^2 281.16317.3df.p=<0.0001$), the first year of infant life ($\chi^2 202.94480.3df.p=<0.0001$) and also the second year of life ($\chi^2 31.96447.3df.p=<0.0001$).

The uptake of the assessment was not found to be related to contact with the general practitioner nor with usage of Accident and Emergency Departments. However, uptake was associated with hospital admission rates; namely, there was a lower uptake among infants who had had at least two hospital admissions ($\chi^2 3.71149.1df.p=0.0540$ (not significant)) and

this trend was maintained up to four hospital admissions but the numbers are very small. There was also a lower uptake among infants who had attended hospital outpatient appointments. This was a weak trend with regard to two hospital outpatient appointments, but was stronger with regard to three appointments ($\chi^2 4.85108.1df.p=0.0276$) and four appointments ($\chi^2 6.91256.1df.p=0.0086$).

The First Immunisation

The uptake of the first immunisation was related to the future uptake of other prophylactic measures in early childhood; completion of primary immunisation course, measles vaccination, hearing test, toddler developmental assessment and use of child health clinics generally. Further, the choice to include pertussis in the primary immunisation course appeared to be related to higher uptake rates.

Tables. First immunisation uptake by uptake of other prophylactic measures as percentage.

Table 52. First immunisation uptake by second immunisation uptake.

	Immunised	Unimmunised
First Immunisation DPT	98.2	1.8
First Immunisation DT	96.8	3.2
No Immunisation		100.0

$\chi^2 452.53804.2df.p<0.0001$

Table 53. First immunisation uptake by completion of primary immunisation course, i.e. third immunisation uptake.

	Immunised	Unimmunised
First Immunisation DPT	95.1	4.9
First Immunisation DT	89.2	10.8
No Immunisation		100.0

$\chi^2 252.02705.2df.p<0.0001$

Table 54. First immunisation uptake by measles vaccination uptake.

	Vaccinated	Unvaccinated
First Immunisation DPT	72.9	27.1
First Immunisation DT	58.6	41.4
No First Immunisation	7.4	92.6

$\chi^2 56.82527.2df.p < 0.0001$

Table 55. First immunisation uptake by hearing test uptake.

	Tested	Untested
First Immunisation DPT	88.4	11.6
First Immunisation DT	83.3	16.7
No First Immunisation	14.8	85.2

$\chi^2 102.50375.2df.p < 0.0001$

Table 56. First immunisation uptake by toddler developmental assessment uptake.

	Assessed	Unassessed
First Immunisation DPT	61.4	38.6
First Immunisation DT	61.7	38.3
No First Immunisation	14.8	85.2

$\chi^2 23.66266.2df.p < 0.0001$

The uptake of the first immunisation and, in particular, the inclusion of pertussis in the immunisation course was related to greater usage of child health clinics over the first two years of life.

Table 57. First immunisation uptake by child health clinic attendance in the first six months of life as percentage.

	Number of Clinic Visits			
	0	1-3	4-8	9-30
First Immunisation DPT	1.8	13.5	44.1	40.0
First Immunisation DT	4.3	19.1	47.3	29.2
No First Immunisation	70.4	25.9	3.7	0

$\chi^2 264.50608.6df.p < 0.0001$

The above trend was maintained with regard to the first year of life ($\chi^2 202.51736.6df.p < 0.0001$) and the second year of life ($\chi^2 55.60917.6df.p < 0.0001$).

The uptake of the first immunisation was not found to be related to contact with general practitioners, usage of Accident and Emergency Departments nor up to three hospital admissions, after which the numbers became very small. There was a lower uptake of the first immunisation among children who attended hospital outpatient appointments and those who frequently attended outpatient appointments were less likely to take pertussis in the primary immunisation course. This trend was maintained with regard to one hospital outpatient appointment and extended to six or more hospital outpatient appointments.

Table 58. First immunisation uptake by four attendances at hospital outpatient departments as percentage.

	Four Hospital Attendances
First Immunisation DPT	11.3
First Immunisation DT	19.5
No First Immunisation	14.8 (n=27)

$\chi^2 9.31311.2df.p = 0.0095$

The Second Immunisation

Similar to the uptake of the first immunisation, uptake of the second immunisation was related to the uptake of other prophylactic measures, namely: sixth week developmental assessment ($\chi^2 84.07507.1df.p < 0.0001$), completion of primary immunisation course ($\chi^2 383.39071.1df.p < 0.0001$), measles vaccination uptake ($\chi^2 64.85829.1df.p < 0.0001$), hearing test uptake ($\chi^2 124.27291.1df.p < 0.0001$), toddler developmental assessment uptake ($\chi^2 16.70279.1df.p < 0.0001$) and child health clinic usage.

Table 59. Second immunisation uptake by child health clinic attendance in the first six months of life as percentage.

	Number of Clinic Visits			
	0	1-3	4-8	9-30
Second Immunisation	2.8	14.8	45.5	36.9
No Second Immunisation	43.2	34.1	18.2	4.5

$\chi^2 159.64082.3df.p < 0.0001$

The above trend was maintained with regard to the first year of life ($\chi^2 157.53604.3df.p < 0.0001$) and the second year of life ($\chi^2 85.86631.3df.p < 0.0001$).

The uptake of the second immunisation was not found to be related to contact with the general practitioner, usage of Accident and Emergency Departments and up to two hospital admissions, after which the numbers became small. Attendance at hospital outpatient appointments was not significantly related to uptake of the second immunisation.

Completion of the Primary Immunisation Course.

The primary immunisation course is completed by the uptake of the third immunisation. The uptake of the third immunisation was related to the uptake of other prophylactic measures, namely: sixth week developmental assessment ($\chi^2 66.85450.1df.p < 0.0001$), measles vaccination ($\chi^2 141.27550.1df.p < 0.0001$), hearing test ($\chi^2 121.83567.1df.p < 0.0001$) and toddler developmental assessment ($\chi^2 31.93192.1df.p < 0.0001$).

The completion of the primary immunisation course was related to greater child health clinic usage. This relationship was demonstrated with regard to the first six months of life ($\chi^2 135.75182.3df.p < 0.0001$), the first year of life ($\chi^2 165.07277.3df.p < 0.0001$) and the second year of life ($\chi^2 131.29166.3df.p < 0.0001$).

Table 60. Completion of primary immunisation by child health clinic attendance in the first year of life as percentage.

	Number of Clinic Visits			
	0	1-5	6-10	11-30
Third Immunisation	1.9	15.2	36.6	46.4
No Third Immunisation	27.5	45.0	17.5	10.0

$\chi^2 165.07277.3df.p < 0.0001$

Completion of the primary immunisation course was not related to general practitioner contact and there was a trend regarding hospital admission rates and uptake but it was not statistically significant. Attendance at outpatient hospital appointments was not related to uptake, while attendance at Accident and Emergency Departments was found to be related.

Table 61. Completion of primary immunisation course by at least two attendances at Accident and Emergency Departments as percentage.

	Two Accident and Emergency Department Attendances
Third Immunisation	8.1
No Third Immunisation	16.3

$\chi^2 5.72854.1df.p = 0.0167$

The Measles Vaccination

The uptake of the measles vaccination is substantially lower than for the other prophylactic injections with an uptake rate of 65.2% of inner city infants. However, despite this lower uptake rate, the acceptance of the measles vaccination was related to the uptake of other prophylactic measures, namely: sixth week developmental assessment ($\chi^2 10.91382.1df.p < 0.0001$), first immunisation ($\chi^2 56.82527.2df.p < 0.0001$), second immunisation ($\chi^2 64.85829.1df.p < 0.0001$), completion of primary immunisation course ($\chi^2 141.27550.1df.p < 0.0001$), hearing test ($\chi^2 29.96251.1df.p < 0.0001$) and toddler developmental assessment ($\chi^2 13.68424.1df.p = 0.0002$).

Vaccinated children also made greater use of the child health clinics during the first six months of life ($\chi^2 44.39293$. 3df.p= <0.0001), the first year of life ($\chi^2 66.70726$. 3df.p= <0.0001) and the second year of life ($\chi^2 109.54872$. 3df.p= <0.0001).

Table 62. Measles vaccination uptake by child health clinic attendance in the second year of life as percentage.

	Number of Clinic Visits			
	0	1-2	3-5	6-30
Measles Vaccination	6.1	48.1	30.8	15.0
No Measles Vaccination	32.1	47.3	17.2	3.4

$\chi^2 109.54872$. 3df.p=<0.0001

General practitioner contact was not related to the uptake of the measles vaccination while there was a trend towards non-uptake where children had been admitted to hospital or attended outpatient clinic appointments or attended Accident and Emergency Departments. However, this trend was not statistically significant.

The Hearing Test

The uptake of the hearing test was related to the uptake of other prophylactic measures, namely: sixth week developmental assessment ($\chi^2 60.32725$. 1df.p= < 0.0001), first immunisation ($\chi^2 102.50375$. 2df.p=< 0.0001), second immunisation ($\chi^2 124.27291$. 1df.p=<0.0001), completion of primary immunisation course ($\chi^2 121.83567$. 1df.p=< 0.0001) and toddler developmental assessment ($\chi^2 33.22906$. 1df.p=<0.0001).

Children who had their hearing tested made greater use of the child health clinics during the first six months of life ($\chi^2 119.03974$. 3df.p=<0.0001), the first year of life ($\chi^2 175.23026$. 3df.p= < 0.0001) and the second year of life ($\chi^2 70.29829$. 3df.p= < 0.0001).

Table 63. Hearing test uptake by child health clinic usage in the first year of life as percentage.

	Number of Clinic Visits			
	0	1- 5	6-10	11-30
Hearing Test	1.0	14.6	36.4	48.0
No Hearing Test	23.1	38.8	24.8	13.2

$\chi^2 175.23026.3df.p < 0.0001$

General practitioner contact was not an important factor with regard to uptake of the hearing test. There were weak trends with regard to more hospital admissions, more hospital outpatient attendances and greater Accident and Emergency Department usage and lower uptake of the hearing test but the relationships were not statistically significant.

The Toddler Developmental Assessment

Uptake of this assessment was generally poor with only 59.8% of the inner city children being assessed as toddlers. However, despite this generally poor uptake, uptake of this assessment was related to the uptake of other prophylactic measures, namely: sixth week developmental assessment ($\chi^2 6.26263.1df.p=0.0123$), first immunisation ($\chi^2 23.66266.2df.p < 0.0001$), second immunisation ($\chi^2 16.707279.1df.p < 0.0001$), completion of primary immunisation course ($\chi^2 31.93192.1df.p < 0.0001$), measles vaccination ($\chi^2 13.68424.1df.p < 0.0001$) and hearing test ($\chi^2 33.22906.1df.p < 0.0001$).

The uptake of the toddler developmental assessment was related to greater child health clinic usage during the first six months of life ($\chi^2 27.93938.3df.p < 0.0001$), the first year of life ($\chi^2 31.34948.3df.p < 0.0001$) and the second year of life ($\chi^2 47.83272.3df.p < 0.0001$).

General practitioner contact and Accident and Emergency Department usage were not found to be related to uptake of the assessment and there was a trend towards lower uptake rates among children who had been admitted to hospital and

those who attended hospital outpatient appointments, although these relationships were not statistically significant.

Child Health Clinic Usage

There was a strong relationship between child health clinic usage in the first six months of life and subsequent usage.

Table 64. Child health clinic attendance in the first six months of life by child health clinic attendance in the first year of life as percentage.

Clinic Usage during first six months of life	Number of Clinic Visits in First Year of Life			
	0	1- 5	6-10	11-30
0 Visits	66.7	30.8	2.6	0
1 - 3 Visits	5.0	80.2	14.0	0.8
4 - 8 Visits	0.6	8.5	69.8	21.1
9 -30 Visits	0	0.8	4.2	95.0

$\chi^2 1156.80301.9df.p= 0.0001$

Table 65. Child health clinic attendance in the first six months of life by child health clinic attendance in the second year of life as percentage.

Clinic Usage during first six months of life	Number of Clinic Visits in Second Year of Life			
	0	1- 2	3- 5	6-30
0 Visits	53.8	28.2	17.9	0
1 - 3 Visits	31.4	52.9	12.4	3.3
4 - 8 Visits	10.6	58.0	25.7	5.7
9 -30 Visits	7.6	36.0	34.1	22.3

$\chi^2 159.96834.9df.p= 0.0001$

General practitioner contact was not an important factor with regard to child health clinic usage in the first six months of life. While clinic non-attenders in the first six months of life were not admitted to hospital more frequently

nor attended outpatient appointments more often than clinic attenders, there was a definite trend for infrequent clinic attenders (i.e. those attending the child health clinic between 1 and 3 times in the first six months of life) to have greater contact with hospitals although this was not statistically significant. Greatest Accident and Emergency Department usage with regard to the known Accident and Emergency Department attendance was among frequent child health clinic attenders (i.e. those attending the child health clinic between 9 and 30 times in the first six months of life).

Table 66. Child health clinic attendance in the first six months of life by at least one Accident and Emergency Department attendance as percentage.

	At least one Accident and Emergency Department Attendance
0 Visits	23.1
1 - 3 Visits	22.3
4 - 8 Visits	23.9
9 -30 Visits	32.2

$\chi^2 6.90189.3df.p=0.0751$ (not significant)

There was a strong relationship between child health clinic usage in the first year of life and child health clinic usage in the second year of life.

Table 67. Child health clinic attendance in the first year of life by child health clinic attendance in the second year of life as percentage.

Clinic Usage during first year of life	Number of Clinic Visits in Second Year of Life			
	0	1- 2	3- 5	6-30
0 Visits	70.6	17.6	11.8	0
1 - 5 Visits	30.9	54.0	12.9	2.2
6 -10 Visits	10.4	61.5	24.6	3.5
11-30 Visits	6.3	37.5	34.7	21.6

$\chi^2 219.30949.9df.p=<0.0001$

Neither general practitioner contact nor hospital admissions were related to clinic usage in the first year

of life, however, there was a consistent trend of infrequent clinic attenders (i.e. those attending between 1 and 5 times in the first year of life) attending more hospital outpatient appointments although the relationship was not statistically significant. Accident and Emergency attendance demonstrated a weak trend with regard to higher usage among clinic non-attenders and those attending child health clinics on a frequent basis.

Table 68. Child health clinic attendance in the first year of life by at least one Accident and Emergency Department attendance as percentage.

	At least one Accident and Emergency Department Attendance
0 Visits	26.5
1 - 5 Visits	23.0
6 -10 Visits	21.5
11-30 Visits	31.6

$\chi^2 8.38557.3df.p=0.0387$

General practitioner contact was not related to child health clinic usage in the second year of life, however, there was a relationship between contact with various hospital provisions. Indeed, at least one hospital admission was related to greater child health clinic usage in the second year of life, as was attendance at hospital outpatient appointments.

Table 69. Child health clinic attendance in the second year of life by at least one hospital admission as percentage

	At least one hospital admission
0 Visits	27.2
1 - 2 Visits	26.5
3 - 5 Visits	26.4
6 -30 Visits	42.2

$\chi^2 8.85279.3df.p=0.0313$

Table 70. Child health clinic attendance in the second year of life by at least one hospital outpatient appointment as percentage.

	At least one hospital outpatient appointment
0 Visits	36.0
1 - 2 Visits	37.0
3 - 5 Visits	42.6
6 -30 Visits	57.3

$\chi^2 12.79051.3df.p=0.0051$

The above trend was maintained with regard to any number of outpatient appointments up to a maximum of six appointments. A similar trend was found with regard to Accident and Emergency Department usage; the trend was clearly demonstrated with regard to three Accident and Emergency Department attendances.

Table 71. Child health clinic attendance in the second year of life by at least three Accident and Emergency Department attendances as percentage.

	At least three Accident and Emergency Department attendances
0 Visits	5.3
1 - 2 Visits	3.6
3 - 5 Visits	3.0
6 -30 Visits	12.0

$\chi^2 12.41789.3df.p=0.0061$

8.6. The Relationship between the Uptake of National Health Service Provisions and the Social History of Children.

The Sixth Week Developmental Assessment

A number of socio-economic factors were found to mitigate against the uptake of the sixth week developmental assessment. While maternal age, marital status and paternal employment status were found to be unrelated to uptake, maternal employment

status influenced uptake. ²⁰⁴ The lowest uptake occurred where mothers were unemployed ($\chi^2 5.97234.2df.p=0.0505$ (not significant)). Social class was related to uptake of this assessment, with Social Class II infants receiving fewer assessments.

Table 72. Sixth week developmental assessment uptake by social class as percentage.

	Uptake of Assessment
Social Class I	80.8
Social Class II	75.4
Social Class III	88.0
Social Class IV	90.4
Social Class V	89.6

$\chi^2 13.74568.4df.p=0.0082$

Cultural background, literacy in English and accommodation differences were not found to be important factors with regard to uptake, however, increasing family size was associated with lower uptake ($\chi^2 24.06444.8df.p=0.002$) and also greater delay in uptake. Mobility between different Health Authorities was an important factor with regard to uptake ($\chi^2 54.76796.3df.p<0.0001$); greater mobility was associated with less uptake. While planning of the pregnancy was not found to be related to uptake, other variables associated with the childbirth experience were related to the uptake of the assessment. For example; poor and fair experiences of childbirth seemed to be related to less uptake but, more significantly, lack of knowledge on the part of the health visitors about the maternal childbirth experience was associated with low uptake ($\chi^2 20.82746.4df.p=0.0003$). No uptake of the developmental assessment was also associated with lack of information about maternal antenatal care and late booking for such care ($\chi^2 40.23478.5df.p<0.0001$), and a confinement including a Caesarian Section reduced uptake ($\chi^2 13.18471.4df.p=0.0104$). Regarding the puerperium, lack of uptake was associated with a greater incidence of depression and other problems, together with lack of knowledge about the mother during the puerperium

(χ^2 30.10531.5df.p=< 0.0001). The uptake of the sixth week developmental assessment was clearly related to infant feeding practice; more bottle fed infants failed to attend clinics for their developmental assessment.

Table 73. Sixth week developmental assessment by infant feeding practice as percentage.

	Bottle Fed only	6 weeks or less	Breast Fed	
			6 weeks- 3 months	More than 3 months
Developmental Assessment	39.2	18.9	15.2	26.7
No Developmental Assessment	62.5	13.5	6.3	8.8

χ^2 19.45225.3df.p=0.0002

The First Immunisation

A number of variables concerning the social history of the infants were related to the uptake of the first immunisation. However, maternal age, marital status, family size and accomodation variables were not found to be related to uptake. With regard to parental employment status, lower uptake rates were associated with maternal unemployment (χ^2 9.86388.4df.p=0.0428) and while paternal unemployment was not associated with lower uptake rates, there was a trend to delay uptake where the fathers were unemployed. There were differences in uptake associated with both social class and cultural background.

Table 74. Social Class by first immunisation uptake as percentage

	DPT	DT	None
Social Class I	52.6	37.2	10.3
Social Class II	52.5	37.7	9.8
Social Class III	57.3	39.3	3.4
Social Class IV	57.0	43.0	0
Social Class V	63.7	33.9	2.3

χ^2 26.97309.8df.p=0.0007

Table 75. Cultural background by first immunisation uptake as percentage.

	DPT	DT	None
United Kingdom	56.2	41.0	2.9
Eire	40.4	53.8	5.8
Mediterranean	66.7	33.3	0
North Africa	65.8	21.1	13.2
Indian Subcontinent	76.7	13.3	10.0
South East Asia	59.5	40.5	0
West Indies	71.7	28.3	0

Illiteracy in English was also associated with an increased uptake of the pertussis combination ($\chi^2 15.64893.4df. p=0.0035$). Mobility between different Health Authorities was related to a reduced rate of uptake ($\chi^2 32.65903.6df. p=<0.0001$). Planning of the pregnancy was not associated with uptake although there was a trend to delay uptake where the pregnancy was unplanned. No confinement variable was associated with uptake while lack of health visitor knowledge about the childbirth experience, antenatal care and puerperium were important factors. There was a trend of reduced uptake among bottle fed infants as well as a trend of omission of the pertussis element in the primary immunisation course among bottle fed infants.

Table 76. First immunisation uptake by infant feeding practice as percentage.

	Bottle Fed only	6 Weeks or Less	Breast Fed	
			6 Weeks- 3 months	More than 3 months
DPT	39.0	18.0	14.6	28.4
DT	45.3	19.1	12.9	22.7
None	64.3	14.3	14.3	7.1

$\chi^2 11.70888.6df. p=0.0688$ (not significant)

Uptake of the second immunisation was related to more socioeconomic variables than uptake of the first immunisation. Both maternal age and accommodation variables were unrelated to uptake. However, although marital status was not related to the uptake rate, it was related to delay in uptake ($\chi^2 14.67271$.5df.p=0.0119). Similarly, paternal unemployment was related to the same trend. Maternal unemployment was related to lack of uptake ($\chi^2 8.21507$.2df.p=0.0164) and delay in uptake. Uptake rates in Social Classes I and II were significantly below the other Social Classes, with default rates greater than 10% ($\chi^2 17.47822$.4df.p=0.0016). Default was also related to cultural background with the lowest uptake rates being associated with the Irish and North Africans ($\chi^2 44.28488$.17df.p=0.0003) and further illiteracy in English was associated with lack of uptake ($\chi^2 4.29314$.1df.p=0.0383) and delay in uptake ($\chi^2 13.5841$.1df.p=0.0002). Increasing family size both increased default rate ($\chi^2 25.30646$.8df.p=0.0014) and delay in uptake ($\chi^2 27.79114$.8df.p=0.0005). Mobility between different Health Authorities was associated with default ($\chi^2 35.67524$.3df.p=<0.0001) as was previous use of a Homeless Families' Unit ($\chi^2 14.35179$.2df.p=0.0008).

The planning of the pregnancy was not related to uptake rates although there was a trend to delay uptake where the pregnancy was unplanned. Lack of health visitor knowledge about the childbirth experience, antenatal care and puerperium were significantly related to uptake. Bottle feeding was associated with failure to accept the second immunisation ($\chi^2 19.73435$.4df.p=0.0006).

Completion of the Primary Immunisation Course

While accommodation variables were unrelated to uptake, a number of variables were associated with trends in uptake of the final immunisation although such trends were not significant statistically. For example, a trend towards greater default was associated with young mothers, single

marital status and both paternal and maternal unemployment. Increasing family size was associated with less uptake ($\chi^2 32.77395.16df.p=0.0079$) and greater delay. Young mothers in particular delayed their acceptance of the third immunisation for their infants ($\chi^2 23.88139.10df.p=0.0079$). Social Class and cultural background were associated with different acceptance levels of the immunisation.

Table 77. Social class by third immunisation uptake as percentage

	Immunised
Social Class I	82.3
Social Class II	80.3
Social Class III	94.0
Social Class IV	97.4
Social Class V	88.6

$\chi^2 20.00551.4df.p=0.0005$

Table 78. Cultural background by third immunisation uptake as percentage.

	Immunised
United Kingdom	92.9
Eire	78.8
Mediterranean	94.4
North Africa	73.7
Indian Subcontinent	86.7
South East Asia	92.9
West Indies	91.5

There was an increased default rate among those illiterate in English ($\chi^2 12.97557.4df.p=0.0114$). Mobility between different Health Authorities seemed to mitigate against the completion of the primary immunisation course ($\chi^2 31.48287.6df.p<0.0001$) together with Homeless Families' Unit usage ($\chi^2 13.47987.4df.p=0.0092$). Lack of planning with regard to the pregnancy demonstrated a trend towards less uptake and, as with the other immunisations, lack of health visitor knowledge regarding the mother's total experience of childbirth was significantly

related to a failure to complete the primary immunisation course. Infant feeding was also related to the failure to accept the third immunisation.

Table 79. Distribution of third immunisation uptake by infant feeding practice as percentage.

	Bottle Fed only	6 Weeks or less	Breast Fed	
			6 Weeks- 3 Months	More than 3 Months
Third Immunisation	39.6	18.8	13.8	27.8
No Third Immunisation	65.0	13.8	15.0	6.3

$\chi^2 24.96417.3df.p < 0.0001$

The Measles Vaccination

The uptake of this vaccination was generally poor in the sample and few variables were found to be related to uptake. Thus maternal age, marital status, social class, literacy in English and mobility between Health Authorities were not found to be related to uptake. Although the analysis was not statistically significant, there were trends towards lower uptake where mothers and/or fathers were unemployed. Category of housing occupation and quality of housing were not related to uptake, however, there was more default among house dwellers ($\chi^2 10.84830.3df.p = 0.0126$). There was also a trend towards more default among larger families. The planning of the pregnancy and nature of the whole childbirth experience were not related to uptake, save the lack of health visitor knowledge of this experience. Both cultural background and infant feeding practice were related to uptake of the vaccination.

Table 80. Cultural background by measles vaccination uptake as percentage.

	Vaccinated
United Kingdom	64.1
Eire	54.9
Mediterranean	79.2
North Africa	65.8
Indian Subcontinent	76.7
South East Asia	54.8
West Indies	64.2

Table 81. Measles vaccination by infant feeding practice as percentage.

	Bottle Fed only	6 Weeks or less	Breast Fed	
			6 Weeks- 3 months	More than 3 months
Measles Vaccination	38.1	18.7	14.8	28.4
No Measles Vaccination	49.6	17.5	12.5	20.2

$\chi^2 10.86206.3df.p=0.0125$

The Hearing Test

Maternal age, like marital status, was not related to uptake. There was a trend towards lower uptake where there was paternal and/or maternal unemployment. Social class was related to uptake while cultural background was not an important variable with regard to uptake.

Table 82. Social class by hearing test uptake as percentage

	Tested
Social Class I	80.3
Social Class II	71.7
Social Class III	88.0
Social Class IV	90.4
Social Class V	83.4

$\chi^2 12.46876.4df.p=0.0142$

Although cultural background was not related to uptake of the hearing test, literacy in English was related to uptake with more default among illiterate parents ($\chi^2 10.53930.1df.p=0.0012$). Family size was also related to uptake; increasing family size mitigating against uptake ($\chi^2 17.93021.8df.p=0.0218$) and being associated with delay in uptake ($\chi^2 99.68522.14df.p<0.0001$). Nature of accommodation was not related to uptake although there was a trend towards more default among those living in poor quality housing with shared facilities but the numbers were small. Mobility between different Health Authorities appeared to mitigate against uptake of the hearing

test ($\chi^2 15.92558.3df.p=0.0012$) as did Homeless Families Unit usage ($\chi^2 7.60578.2df.p=0.0223$). There was more default where the pregnancy had been unplanned (not significant) and the uptake was more delayed where the pregnancy had been unplanned ($\chi^2 8.53833.2df.p=0.0140$). Health visitor lack of knowledge about the whole experience of childbirth was related to a greater default rate ($\chi^2 27.89376.4df.p= 0.0001$). There was a trend of reduced uptake of the hearing test among bottle fed infants.

Table 83. Hearing test uptake by infant feeding practice as percentage.

	Breast Fed			
	Bottle Fed only	6 Weeks or less	6 Weeks- 3 months	More than 3 months
Hearing Test	40.5	18.4	14.6	26.6
No Hearing Test	52.5	17.2	11.5	18.9

$\chi^2 6.61844.3df.p=0.0851$ (not significant)

The Toddler Developmental Assessment

The uptake of this provision was limited among the sample population and only two variables were found to be statistically related to the uptake. Thus maternal age, marital status, parental employment status, social class, cultural background, literacy in English and family size were not found to be related to uptake of this provision. There was a trend towards greater uptake among owner-occupier families and a trend towards more default with inferior quality housing as judged by shared amenities. Mobility between Health Authorities was associated with more default ($\chi^2 8.30063.3df.p=0.0402$) as was lack of planning of the pregnancy ($\chi^2 12.99335.1df.p=0.0003$). Infant feeding practice and maternal experience of childbirth were not related to the uptake of the developmental assessment.

Child Health Clinic Usage

Maternal age was associated with certain trends with regard to attendance at child health clinics. During the first six months and first year of an infant's life very

young mothers (12 to 16 years of age) were frequent clinic attenders, making more than nine visits in the first six months and more than eleven visits in the first year, while mothers over 36 years of age were frequently poor clinic attenders. In the second year of an infant's life young mothers (12 to 20 years of age) were frequently non-attenders. Marital status and parental employment status were not found to be related to clinic usage. However, social class and cultural background were associated with usage rates particularly during the first six months of an infant's life.

Table 84. Social class by clinic attendance during first six months as percentage.

	Number of Clinic Visits			
	0	1-3	4-8	9-30
Social Class I	18.2	20.8	44.2	16.9
Social Class II	13.1	24.6	32.8	29.5
Social Class III	6.0	16.2	47.9	29.9
Social Class IV	1.8	13.2	47.4	37.7
Social Class V	2.1	14.5	43.3	40.2

$\chi^2 61.88644.12df.p < 0.0001$

The above trend was maintained throughout the first year of an infant's life ($\chi^2 33.94753.12df.p = 0.0007$) and during the second year of life ($\chi^2 24.01890.12df.p = 0.0202$).

Table 85. Cultural background by clinic attendance during first six months as percentage.

	Number of Clinic Visits			
	0	1-3	4-8	9-30
United Kingdom	4.8	16.6	42.0	36.6
Eire	3.8	17.3	48.1	30.8
Mediterranean	2.8	6.9	55.6	34.7
North Africa	10.5	28.9	42.1	18.4
Indian Subcontinent	6.7	23.3	26.7	43.3
South East Asia	0	11.9	54.8	33.3
West Indies	0	14.2	43.4	42.5

The above trend was maintained during the first year of an infant's life but there was no statistical relationship during the second year of life. Literacy in English was not related to clinic usage during the first two years of life.

Both family size and category of occupation were related to clinic usage. Small families were more frequent attenders during the first six months of an infant's life ($\chi^2 70.43087$. $24df.p < 0.0001$) and during the entire first year of life ($\chi^2 101.02433$. $24df.p < 0.0001$). This association was maintained as a trend in the second year of life. Families accommodated in the public housing sector made greater use of the clinics both during the first six months ($\chi^2 34.84570$. $18df.p = 0.0099$) and the entire first year of life ($\chi^2 33.38991$. $18df.p = 0.0150$). This association was not maintained in the second year of life. Although the number of bedsit dwellers was small in the sample, these made particularly greater use of the clinics in the first year of life; a trend which was not maintained into the second year. Mobility between different Health Authorities was clearly related to clinic usage; the more mobile attending child health clinics less frequently. This association was maintained throughout the first two years of life. Thus with regard to the first six months of life, the statistical relationship was $\chi^2 40.95840$. $9df.p < 0.0001$, the first year of life $\chi^2 30.69921$. $9df.p = 0.0003$ and during the second year of life $\chi^2 25.00869$. $9df.p = 0.0030$. Homeless Families Unit usage was associated with reduced clinic attendance in the second year of life only ($\chi^2 13.52887$. $6df.p = 0.0354$).

Planning of the pregnancy was not related to clinic usage, however, although the nature of the confinement was also not related, maternal experience of childbirth, antenatal care and puerperium experience were related to clinic attendance. Lack of information on the part of health visitors about the childbirth, antenatal care and puerperium were closely related to lack of attendance in the first six months ($\chi^2 93.38906$. $12df.p < 0.0001$, $\chi^2 98.53139$. $12df.p < 0.0001$ and $\chi^2 71.25168$. $15df.p < 0.0001$ respectively). Maternal depression subsequent

to confinement mitigated against frequent clinic attendance during the first six months. Lack of information on the part of health visitors was related to low clinic attendance levels during the entire first year and during the second year of life.

Table 86. Statistical relationship between lack of information regarding childbirth experience, antenatal care and puerperium experience and clinic attendance in the first year and second year of life.

First Year of Life and:

Childbirth experience	$\chi^2 63.16823.12df.p=<0.0001$
Antenatal experience	$\chi^2 72.40069.15df.p=<0.0001$
Puerperium experience	$\chi^2 47.40129.15df.p=<0.0001$

Second Year of Life and:

Childbirth experience	$\chi^2 29.44948.12df.p=0.0034$
Antenatal experience	$\chi^2 28.70777.15df.p=0.0175$
Puerperium experience	$\chi^2 30.44021.15df.p=0.0104$

Infant feeding was clearly related to clinic attendance throughout the first year of life with breast fed infants attending clinics more frequently.

Table 87. Clinic attendance during first six months by infant feeding practice as percentage.

		Breast Fed			
		Bottle Fed only	6 Weeks or less	6 Weeks- 3 months	More than 3 months
0	Clinic Visits	62.5	17.5	5.0	15.0
1- 3	Clinic Visits	53.7	14.0	8.3	24.0
4- 8	Clinic Visits	39.3	18.1	14.8	27.8
9-30	Clinic Visits	37.9	20.5	17.0	24.6

$\chi^2 21.06549.9df.p=0.0124$

Infant feeding practice was not related to clinic attendance in the second year of life.

Admission to Hospital

Infants of very young mothers (12 to 16 years) appeared to be admitted more frequently to hospital as were infants of single parent families and Social Class V but these relationships were not statistically significant. Although cultural background was not related to hospital admission rates, there was a consistent trend towards more admissions among families where the parents were not literate in English. Parental employment status was related to admission rates; infants were more frequently admitted to hospital on two occasions where their mothers were unemployed ($\chi^2 6.24992.2df. p=0.0439$) or their fathers were unemployed ($\chi^2 22.31606.2df. p<0.0001$). Increasing family size was also associated with more frequent hospital admission, for example, two hospital admissions were more frequent where there were three or more children in the family ($\chi^2 17.46466.8df. p=0.0256$). Although there were no differences in admission rates regarding type of accommodation, infants living in public housing were more frequently admitted for hospital care and especially for at least one admission ($\chi^2 18.89530.6df. p=0.0043$) and access to shared household amenities was also associated with increased admission rates, for example, the relationship between shared amenities and at least two admissions was $\chi^2 8.60295.3df. p=0.0351$. Mobility was not related to hospital admission rates but use of the Homeless Families Unit was associated with more frequent admission and in particular to three admissions ($\chi^2 8.65935.2df. p=0.0132$). Infants of unplanned pregnancies tended to be admitted more frequently and bottle fed infants had higher admission rates than breast fed infants.

Table 88. Planning of pregnancy by at least one hospital admission as percentage.

	At least one hospital admission
Planned	24.9
Unplanned	33.8

$\chi^2 6.82804.1df. p=0.0090$

Table 89. Infant feeding practice by at least one hospital admission as percentage.

	At least one hospital admission
Bottle fed only	36.3
Breast fed: 6 weeks or less	26.8
6 weeks - 3 months	27.4
more than 3 months	17.1

$\chi^2 22.04727.3df.p=0.0001$

The above trend was maintained for two hospital admissions ($\chi^2 22.96868.3df.p=0.0001$).

Hospital Outpatient Clinic Appointments

Infants of very young mothers (12 to 16 years) attended hospital outpatient clinics more frequently as did those of single parents and Social Class V, but these relationships were not statistically significant. Cultural background was not related to outpatient attendance and, unlike the trend regarding hospital admissions, infants of parents literate in English were more frequent outpatient attenders although this trend was not statistically significant. There was a tendency for infants of unemployed mothers to attend outpatient clinics more frequently; this relationship was stronger regarding paternal unemployment, for example, the statistical relationship regarding four outpatient appointments was $\chi^2 10.21304.2df.p=0.0061$. Increasing family size was associated with more outpatient appointments, this held for both three appointments ($\chi^2 16.86478.8df.p=0.0315$) and four appointments ($\chi^2 19.63282.8df.p=0.0118$). Infants living in public housing had more outpatient appointments and in particular at least two appointments ($\chi^2 18.77204.6df.p=0.0046$). Greater mobility in the first year of life was related to more frequent use of outpatient clinics; this trend was not maintained regarding mobility in the second year of life. There was a consistent trend of greater outpatient use by families who had used the Homeless Families Units although the trend was not statistically significant. Infants of unplanned pregnancies tended to attend outpatient clinics more frequently than those of planned

pregnancies. As with hospital admissions, infant feeding practice was associated with outpatient clinic usage.

Table 90. Infant feeding practice by at least one hospital outpatient clinic appointment as percentage.

	At least one hospital appointment
Bottle fed only	45.9
Breast Fed: 6 weeks or less	38.7
6 weeks - 3 months	34.9
more than 3 months	35.8

$\chi^2 7.29723.3df.p=0.0630$ (not significant)

The above trend was maintained with regard to as many as six outpatient appointments.

Accident and Emergency Department Attendance

The number of children attending Accident and Emergency Departments during their first two years of life was not great so that statistical analysis was only able to demonstrate trends without levels of confidence. There was a trend for higher Accident and Emergency Department attendance where the mothers were young, single and from Social Class V. There were no differences in attendance levels where the mothers were employed or unemployed, however, there was a higher attendance associated with paternal unemployment. Although cultural background was not related to attendance levels, illiterate parents had a greater tendency to use Accident and Emergency Departments. Family size was not related to attendance levels. There was a higher attendance level among infants living in public housing and sharing household amenities, but mobility was not related to attendance levels, although use of the Homeless Families Unit was associated with more frequent attendance. There was a consistent trend of greater attendance levels among infants of unplanned pregnancies and those who had been bottle fed.

General Practice

Maternal age and parental status were not associated with differences in the use of the family doctor. However, while maternal employment status was not an important variable, paternal unemployment was associated with more frequent consultation regarding parental health problems ($\chi^2 24.0906.8df. p=0.0022$). Cultural background was related to general practice registration.

Table 91. Cultural background by local general practice registration as percentage.

	Local Registration
United Kingdom	88.6
Eire	98.1
Mediterranean	83.3
North Africa	71.1
Indian Subcontinent	73.3
South East Asia	76.2
West Indies	94.3

Illiterate parents reportedly had more general practice consultations regarding their own health ($\chi^2 191.84311.8df. p < 0.0001$). Social class was related to local general practice registration; infants of Social Class I being less frequently registered with a local family doctor.

Table 92. Social class by local general practice registration as percentage.

	Local Registration
Social Class I	65.4
Social Class II	82.0
Social Class III	86.3
Social Class IV	93.9
Social Class V	88.9

$\chi^2 37.34687.4df. p < 0.0001$

Parents in Social Class V reportedly had more general practice consultations regarding their own health problems ($\chi^2 29.79608$, 16df, $p=0.0191$). Family size was not related to differential general practice usage nor was residence in poor quality housing, that is where basic amenities were shared. Both house dwellers and those accommodated in the private sector (ownership and rental) were less likely to be registered with a local general practitioner ($\chi^2 397.05581$, 12df, $p<0.0001$). Infant feeding practice was not related to the use of the general practitioner, however, the existence of an unplanned pregnancy increased the likelihood of general practitioner consultation regarding parental health problems ($\chi^2 14.04832$, 4df, $p=0.0071$).

CHAPTER 9

THE FINDINGS III

HEALTH VISITOR HOME VISITING

Health visiting work has two elements with regard to child health care, the manning of child health clinics and home visiting families with young children. While the health visitor contribution to child and family welfare at child health clinics depends upon the voluntary attendance at such clinics by families, home visiting practice depends upon health visitors allocating their professional time as they see fit. In this context, health visiting activity was measured in quantitative terms, that is, the number of occasions on which a health visitor made contact with an infant in terms of home visiting. Firstly, health visitor home visiting patterns in the three localities will be described before a presentation of the relationship between home visiting practice and utilisation of Health Service provisions in the inner city. The relationship between home visiting practice and the social history of infants in the inner city will also be described. Finally, the use of the Observation Register will be described before presenting the ascribed default reasons regarding the pursuance of prophylactic measures.

9.1 Health Visitor Home Visiting (Questions 90,91,92,93,94,95, 141,42,49,56,63,70,77 & 84).

Health visitors in the inner city appeared to make more home visiting contacts than their counterparts in the suburbs. This relationship was a trend in the first six months of an infant's life, but the relationship became statistically significant with regard to an infant's entire first year of life and this relationship was maintained in the second year of life.

Tables demonstrating distribution of area of residence and health visitor home visiting.

Table 93. Area of residence by health visitor home visiting during the first six months of infant life as percentage

	Number of Home Visits			
	0	1-2	3-6	7-24
Inner City	4.2	31.8	50.6	13.4
Suburb	4.0	42.9	46.0	7.1
Affluent Suburb	2.1	41.2	47.4	9.3

$\chi^2 11.23101.6df.p=0.0815$

Table 94. Area of residence by health visitor home visiting during the first year of infant life as percentage.

	Number of Home Visits			
	0-2	3-6	7-10	11-24
Inner City	21.6	46.8	23.1	8.5
Suburb	31.7	49.2	15.9	3.2
Affluent Suburb	19.6	60.8	15.5	4.1

$\chi^2 18.89316.6df.p=0.0043$

Table 95. Area of residence by health visitor home visiting during the second year of infant life as percentage.

	Number of Home Visits			
	0	1-2	3-6	7-24
Inner City	10.8	47.9	33.9	7.4
Suburb	22.2	47.6	24.6	5.6
Affluent Suburb	28.9	54.6	11.3	5.2

$\chi^2 44.38529.6df.p=<0.0001$

The inner city health visitors recorded more unsuccessful home visits than health visitors in the suburbs with regard to the first six months of an infant's life ($\chi^2 12.89617.4df.p=0.0118$). This relationship was not maintained with regard to the entire first year of life, however, unsuccessful visiting was a greater feature of inner city health visiting practice in the second year of childhood ($\chi^2 20.70221.6df.p=0.0021$).

Of inner city health visitor records, 9.7% were known not to record unsuccessful visiting; the suburb and affluent suburb health visitors apparently recorded most unsuccessful home visits.

Tables demonstrating distribution of area of residence and unsuccessful home visiting as percentage.

Table 96. Area of residence by unsuccessful home visiting during the first six months of infant life.

	No Replies		
	0	1-3	4-20
Inner City	65.4	29.2	5.4
Suburb	78.0	18.9	3.1
Affluent Suburb	76.3	22.7	1.0

$\chi^2 12.89617.4df.p=0.0118$

Table 97. Area of residence by unsuccessful home visiting during the first year of infant life.

	No Replies			
	0	1-3	4-7	8-20
Inner City	57.4	32.2	8.4	2.0
Suburb	59.8	33.9	5.5	0.8
Affluent Suburb	69.1	25.8	5.2	0

$\chi^2 8.07681.6df.p=0.2325$

Table 98. Area of residence by unsuccessful home visiting during the second year of infant life.

	No Replies			
	0	1-3	4-7	8-20
Inner City	63.4	31.3	4.5	0.8
Suburb	78.0	20.5	1.6	0
Affluent Suburb	80.4	15.5	3.1	1.0

$\chi^2 20.70221.6df.p=0.0021$

Health visitor mobility was measured in terms of the number of different health visitors making a home visit to an infant and his family. Mobility of health visitors was greatest in the inner city and suburb and least in the affluent suburb.

Table 99. Area of residence by number of difference health visitors making a home visit as percentage.

	Number of Health Visitors			
	1	2	3-5	6-9
Inner City	19.7	29.6	48.5	2.1
Suburb	16.5	37.0	45.7	0.8
Affluent Suburb	41.2	37.1	19.6	2.1

$\chi^2 40.17878.6df.p < 0.0001$

Health visiting practice was very similar in the three localities as regards encouraging the uptake of the sixth week developmental assessment (95% of infants were visited), the uptake of the first immunisation (85% of infants were visited), the uptake of the second immunisation (62% of infants were visited), the uptake of the third immunisation (55% of infants were visited) and the uptake of the measles vaccination (69% of infants were visited). Uptake of the hearing test was less encouraged through home visiting in the suburb than in the inner city while the affluent suburb health visitors made more home visits than those in the inner city to encourage uptake.

Table 100. Area of residence by home visiting to encourage uptake of hearing test as percentage.

	Home Visit	No Home Visit
Inner City	66.4	33.6
Suburb	57.5	42.5
Affluent Suburb	74.2	25.8

$\chi^2 7.10444.2df.p = 0.0287$

The toddler developmental assessment was not a feature of prophylactic provision in the suburb nor the affluent suburb generally. Thus, while 69.4% inner city infants were visited to encourage uptake, only 9.4% suburb infants and 4.1% affluent suburb infants were similarly visited ($\chi^2 270.88459.2df. p < 0.0001$).

There was a strong relationship between home visiting practice in the first six months of an infant's life and subsequent home visiting support during the first two years of life.

Table 101. Home visiting practice in the first six months of life by home visiting practice in the first year of life as percentage.

Number of Home Visits	Number of Home Visits			
	0-2	3-6	7-10	11-24
0	83.9	16.1	0	0
1- 2	55.8	43.8	0.4	0
3- 6	0.5	63.5	32.8	3.1
7-24	0	1.0	47.5	51.5

$\chi^2 719.44278.9df. p < 0.0001$

Table 102. Home visiting practice in first six months of life by home visiting practice in second year of life as percentage.

Number of Home Visits	Number of Home Visits			
	0	1-2	3-6	7-24
0	25.8	54.8	12.9	6.5
1- 2	15.9	53.6	27.6	2.9
3- 6	7.9	47.9	37.4	6.8
7-24	5.9	33.7	40.6	19.8

$\chi^2 61.12625.9df. p < 0.0001$

Similarly, home visiting practice during the first year of an infant's life was closely related to home visiting practice during the second year of life.

Table 103. Home visiting practice in first year of life by home visiting practice in second year of life as percentage.

Number of Home Visits	Number of Home Visits			
	0	1-2	3-6	7-24
0- 2	20.4	56.2	20.4	3.1
3- 6	10.5	52.3	33.5	3.7
7-10	6.9	41.4	44.8	6.9
11-24	0	23.4	39.1	37.5

$\chi^2 143.23024.9df.p < 0.0001$

There was no relationship between the number of different health visitors known to a family and home visiting practice over the first two years of infant life.

9.2 Contact with Families (Questions 43,50,57,64,71,78,85)

Contact was considered to be established with families in the event of a home visit. This reflected the interpretation of events by different health visitors in retrospect of the period since relatively few health visitors in the inner city and suburb had retained the same caseload over time.

9.3. The Relationship between Home Visiting and Uptake of Prophylactic Provisions.

The Sixth Week Developmental Assessment

A home visit by a health visitor was important with regard to the uptake of this prophylactic measure.

Table 104. Home Visit prior to the sixth week developmental assessment by subsequent uptake of assessment as percentage.

	Assessed	Not Assessed
Home Visit	90.2	9.8
No Home Visit	23.3	76.7

$\chi^2 118.00288.1df.p < 0.0001$

Uptake of the sixth week developmental assessment was related to health visitor home visiting practice both during the first six months of an infant's life and the first year of life. There was no relationship between the uptake of the assessment and home visiting practice in the second year of an infant's life.

Tables demonstrating distribution of uptake of 6th week developmental assessment and home visiting practice as percentage

Table 105. Uptake of sixth week developmental assessment by home visiting during the first six months of life.

	Number of Home Visits			
	0	1-2	3-6	7-24
Developmental Assessment	1.1	32.6	53.3	13.1
No Developmental Assessment	25.5	26.6	31.9	16.0

$\chi^2 128.51518.3df.p < 0.0001$

Table 106. Uptake of sixth week developmental assessment by home visiting during the first year of life.

	Number of Home Visits			
	0-2	3-6	7-10	11-24
Developmental Assessment	19.6	48.5	23.7	8.2
No Developmental Assessment	35.1	35.1	19.1	10.6

$\chi^2 13.62781.3df.p = 0.0035$

There was no relationship between the uptake of the developmental assessment and the number of different health visitors with whom the family had had contact.

The First Immunisation

The uptake of the first immunisation was not only related to the experience of a previous health visitor home visit but such a home visit was also related to the parental decision to include pertussis in the primary immunisation course.

Table 107. Home visit prior to first immunisation by subsequent uptake of immunisation as percentage.

	DPT	DT	None
Home Visit	61.1	37.0	1.9
No Home Visit	52.6	36.0	11.4

$\chi^2 27.68515.2df.p < 0.0001$

The uptake of the first immunisation was related to health visitor home visiting practice during the first six months of an infant's life and the first year of life. There was no relationship between home visiting practice in the second year of life and uptake of the first injection.

Tables demonstrating distribution of uptake of first immunisation and home visiting practice as percentage.

Table 108. Uptake of first immunisation by home visiting during the first six months of an infant's life as percentage.

	Number of Home Visits			
	0	1-2	3-6	7-24
Immunised (DPT)	2.2	33.0	51.0	13.7
Immunised (DT)	3.3	30.1	53.6	13.0
Not Immunised	44.4	29.6	14.8	11.1

$\chi^2 119.27557.6df.p < 0.0001$

Table 109. Uptake of first immunisation by home visiting during the first year of an infant's life as percentage.

	Number of Home Visits			
	0-2	3-6	7-10	11-24
Immunised (DPT)	19.7	48.1	24.4	7.8
Immunised (DT)	21.1	46.9	22.2	9.8
Not Immunised	55.6	25.9	11.1	7.4

$\chi^2 20.90107.6df.p = 0.0019$

There was no relationship between the uptake of the first immunisation and the number of different health visitors with whom the family had had contact.

The Second Immunisation

There was no relationship between uptake of the second immunisation and the experience of a previous health visitor home visit. However, there was a relationship between uptake and health visitor home visiting practice during the first six months of an infant's life and the first year of life. This trend was maintained into the second year of an infant's life ($\chi^2 7.29909.3df.p=0.0630$ (not significant)).

Tables demonstrating distribution of uptake of second immunisation and home visiting practice as percentage.

Table 110. Uptake of second immunisation by home visiting during the first six months of an infant's life.

	Number of Home Visits			
	0	1-2	3-6	7-24
Immunised	2.7	31.5	52.9	13.0
Not Immunised	27.3	36.4	15.9	20.5

$\chi^2 74.07494.3df.p < 0.0001$

Table 111. Uptake of second immunisation by home visiting during the first year of an infant's life.

	Number of Home Visits			
	0-2	3-6	7-10	11-24
Immunised	20.0	48.0	23.7	8.3
Not Immunised	44.2	30.2	14.0	11.6

$\chi^2 15.94723.3df.p=0.0012$

Uptake of the second immunisation was not related to the number of different health visitors with whom the family had had contact.

Completion of the Primary Immunisation Course

Uptake of the third immunisation was not related to a previous health visitor home visit, although general home visiting practice was related to uptake.

Tables demonstrating distribution of uptake of third immunisation and home visiting practice as percentage.

Table 112. Uptake of third immunisation by home visiting during first six months of an infant's life.

	Number of Home Visits			
	0	1-2	3-6	7-24
Immunised	2.5	31.6	53.4	12.5
Not Immunised	18.8	33.8	26.3	21.3

$\chi^2 59.03997.3df.p < 0.0001$

Table 113. Uptake of third immunisation by home visiting during first year of an infant's life.

	Number of Home Visits			
	0-2	3-6	7-10	11-24
Immunised	20.0	47.9	23.7	8.3
Not Immunised	35.4	38.0	16.5	10.1

$\chi^2 11.16095.3df.p = 0.0109$

Table 114. Uptake of third immunisation by home visiting during the second year of an infant's life.

	Number of Home Visits			
	0	1-2	3-6	7-24
Immunised	9.5	48.6	34.7	7.3
Not Immunised	22.5	41.3	26.5	8.8

$\chi^2 13.26516.3df.p = 0.005$

Completion of the primary immunisation course was not related to the number of different health visitors known to the family.

Measles Vaccination

A health visitor home visit prior to the measles vaccination was not related to subsequent uptake. Further, the general home visiting pattern was not related to uptake except a weak association with regard to home visiting during the first six months of the infant's life.

Table 115. Uptake of measles vaccination by home visiting practice during first six months of an infant's life as percentage.

	Number of Home Visits			
	0	1-2	3-6	7-24
Vaccinated	3.0	30.5	53.9	12.6
Not Vaccinated	6.1	34.1	44.8	14.9

$\chi^2 8.07459.3df.p=0.0445$

There was no relationship between the number of different health visitors known to the family and the uptake of the measles vaccination.

Hearing Test

A previous home visit was related to subsequent increased uptake of the hearing test.

Table 116. Home visit prior to hearing test by subsequent uptake of test as percentage.

	Tested	Not Tested
Home Visit	68.0	32.0
No Home Visit	58.8	41.2

$\chi^2 3.82119.1df.p=0.0506$

The general home visiting practice over the first two years of life was also related to the uptake of the hearing test.

Tables demonstrating distribution of uptake of hearing test and home visiting practice as percentage.

Table 117. Uptake of hearing test by home visiting during the first six months of an infant's life.

	Number of Home Visits			
	0	1-2	3-6	7-24
Tested	1.9	31.4	53.9	12.8
Not Tested	14.9	34.7	33.9	16.5

$\chi^2 52.23940.3df.p < 0.0001$

Table 118. Uptake of hearing test by home visiting during the first year of an infant's life.

	Number of Home Visits			
	0-2	3-6	7-10	11-24
Tested	19.2	47.9	24.6	8.4
Not Tested	35.1	42.1	15.7	9.1

$\chi^2 13.34737.3df.p=0.0039$

Table 119. Uptake of hearing test by home visiting during the second year of an infant's life.

	Number of Home Visits			
	0	1-2	3-6	7-24
Tested	9.5	48.9	35.1	6.5
Not Tested	18.3	43.3	27.5	10.8

$\chi^2 12.25874.3df.p=0.0065$

Uptake of the hearing test was not related to the number of different health visitors known to the family.

Toddler Developmental Assessment

The uptake of this assessment was clearly related to a previous health visitor home visit.

Table 120. Home visit prior to toddler developmental assessment by subsequent uptake of assessment as percentage.

	Assessed	Not Assessed
Home Visit	95.8	4.2
No Home Visit	29.9	70.1

$\chi^2 369.81981.1df.p=<0.0001$

The general home visiting practice over the first two years of life was also related to the uptake of this assessment.

Tables demonstrating distribution of uptake of toddler developmental assessment and home visiting practice as percentage

Table 121. Uptake of toddler developmental assessment by home visiting during the first six months of an infant's life

	Number of Home Visits			
	0	1-2	3-6	7-24
Assessed	2.0	27.3	57.1	13.6
Not Assessed	7.3	38.6	40.9	13.2

$\chi^2 28.79599.3df, p < 0.0001$

Table 122. Uptake of toddler developmental assessment by home visiting during the first year of an infant's life.

	Number of Home Visits			
	0-2	3-6	7-10	11-24
Assessed	17.1	46.7	27.6	8.7
Not Assessed	28.1	47.2	16.5	8.3

$\chi^2 19.69907.3df, p = 0.0002$

Table 123. Uptake of toddler developmental assessment by home visiting during the second year of an infant's life.

	Number of Home Visits			
	0	1-2	3-6	7-24
Assessed	3.3	48.9	40.0	7.7
Not Assessed	22.2	46.7	24.5	6.6

$\chi^2 72.67967.3df, p < 0.0001$

There was no relationship between uptake of the toddler developmental assessment and the number of different health visitors who had had contact with the family.

Child Health Clinics

There was a strong relationship between home visiting practice during the first six months of life and subsequent child health clinic attendance during the first year of an infant's life.

Table 124. Home visiting practice during the first six months of infant life by child health clinic attendance in the first six months of life as percentage.

Number of Home Visits	Number of Clinic Visits			
	0	1-3	4-8	9-30
0	74.2	9.7	9.7	6.5
1- 2	2.9	20.0	43.8	33.3
3- 6	1.3	13.1	47.1	38.5
7-24	3.0	19.8	42.6	34.7

$\chi^2 331.75149.9df.p<0.0001$

Table 125. Home visiting practice during first six months of life by child health clinic attendance during first year of life as percentage.

Number of Home Visits	Number of Clinic Visits			
	0	1-5	6-10	11-30
0	48.4	32.3	9.7	9.7
1- 2	2.9	20.4	35.4	41.3
3- 6	1.6	14.8	36.9	46.7
7-24	5.0	23.8	31.7	39.6

$\chi^2 168.79558.9df.p<0.0001$

In comparison, there was a weaker relationship between home visiting practice in the first six months of an infant's life and child health clinic attendance during the second year of an infant's life.

Table 126. Home visiting practice during the first six months of an infant's life by child health clinic attendance in the second year of life as percentage.

Number of Home Visits	Number of Clinic Visits			
	0	1-2	3-5	6-30
0	25.8	35.5	35.5	3.2
1-2	15.8	50.8	25.4	7.9
3-6	12.0	49.5	25.1	13.4
7-24	20.8	39.6	28.7	10.9

$\chi^2 17.32814.9df.p=0.0438$

There was a strong relationship between home visiting practice during the first year of life and child health clinic attendance during the first year of infant life.

Table 127 .Home visiting practice during first year of life by child health clinic attendance during first year of life as percentage.

Number of Home Visits	Number of Clinic Visits			
	0	1-5	6-10	11-30
0- 2	12.3	19.8	30.2	37.7
3- 6	1.7	16.5	37.3	44.4
7-10	1.7	17.3	37.0	43.9
11-24	6.3	29.7	25.0	39.1

$\chi^2 42.72789.9df.p < 0.0001$

There was no relationship between increased home visits during the first year of life and child health clinic attendance during the second year of life. However, there was a strong relationship between home visiting practice during the second year of life and child health clinic attendance in the second year of life.

Table 128 .Home visiting practice during second year of life by child health clinic attendance during second year of life as percentage.

Number of Home Visits	Number of Clinic Visits			
	0	1-2	3-5	6-30
0	30.5	43.9	20.7	4.9
1- 2	13.5	53.6	24.6	8.3
3- 6	11.8	44.7	29.8	13.7
7-24	16.1	32.1	26.8	25.0

$\chi^2 41.14760.9df.p < 0.0001$

The number of different health visitors known to a family was not related to clinic attendance.

9.4. The Relationship between Home Visiting and Utilisation of Acute National Health Service Provisions.

Home visiting practice during the first two years of life was not related to contact patterns with the general practitioner. However, with regard to home visiting during the first six months and first year of life, health visitors appeared to give more support to families where the infant had been admitted to hospital.

Table 129. Statistical relationship between more home visiting and infant admission to hospital.

First Six months of Life:

1 Hospital Admission	$x^2 10.83631.3df.p=0.0126$
2 Hospital Admissions	$x^2 15.42926.3df.p=0.0015$

First Year of Life:

1 Hospital Admission	$x^2 15.30896.3df.p=0.0016$
2 Hospital Admissions	$x^2 21.18903.3df.p=0.0001$

This positive discrimination was not maintained with regard to home visiting in the second year of infant life with regard to one admission, however, greater home visiting support was offered to those having two hospital admissions ($x^2 15.88104.3df.p=0.0012$).

Home visiting and attendance at hospital outpatient appointments was also related with infants attending outpatient departments being visited more frequently than non-attenders.

Table 130 . Statistical relationship between more home visiting and infant attendance at hospital outpatient clinics.

First Six Months of Life:

1 Outpatient Appointment	$x^2 16.70449.3df.p=0.0008$
2 Outpatient Appointments	$x^2 10.36314.3df.p=0.0157$
3 Outpatient Appointments	$x^2 12.67426.3df.p=0.0054$
4 Outpatient Appointments	$x^2 15.67969.3df.p=0.0013$
5 Outpatient Appointments	$x^2 13.00532.3df.p=0.0046$
6 Outpatient Appointments	$x^2 10.63919.3df.p=0.0138$

First Year of Life:

1 Outpatient Appointment	$x^2 25.50710.3df.p=<0.0001$
2 Outpatient Appointments	$x^2 20.26791.3df.p=0.0001$
3 Outpatient Appointments	$x^2 21.66554.3df.p=0.0001$
4 Outpatient Appointments	$x^2 24.31960.3df.p=<0.0001$
5 Outpatient Appointments	$x^2 20.17720.3df.p=0.0002$
6 Outpatient Appointments	$x^2 19.14233.3df.p=0.0003$

Second Year of Life:

1 Outpatient Appointment	$x^2 13.70829.3df.p=0.0053$
2 Outpatient Appointments	$x^2 13.22776.3df.p=0.0042$

During the second year of life, greater home visiting support to infants and their families frequently attending outpatient appointments was evident in a trend towards more home visiting of such infants.

More home visiting was undertaken to infants who attended Accident and Emergency Departments. In the first six months of life, greater support was given to infants attending Accident and Emergency Departments twice ($x^2 14.80981.3df.p=0.0020$) or three times ($x^2 23.22234.3df.p=<0.0001$). This relationship was maintained as a trend towards greater home visiting support

during the entire first year of life; infants attending an Accident and Emergency Department at least three times received more home visiting ($\chi^2 14.60063.3df.p=0.0022$). Similarly, in the second year of life, there was a trend towards more home visiting support of those attending an Accident and Emergency Department; those attending an Accident and Emergency Department at least three times received more home visiting ($\chi^2 21.63602.3df.p=0.0001$).

9.5. The Relationship between Home Visiting Practice and the Social History of Children.

Health Visitor Home Visiting Practice during the First Six Months of Life.

Health visitors did not discriminate towards the young mother nor the single parent in their home visiting practice. There was a trend of less visiting of the employed mother while paternal unemployment was associated with slightly greater home visiting support.

Table 131. Paternal employment status and home visiting practice during first six months of life as percentage.

	Number of Home Visits			
	0	1-2	3-6	7-24
Father Employed	4.3	31.2	53.0	11.5
Father Unemployed	4.6	31.5	43.1	20.8

$\chi^2 8.97051.3df.p=0.0297$

Home visiting practice and social class of the families were related; Social Class V received the greatest home visiting support.

Table 132. Social class by home visiting practice during first six months of life as percentage.

	Number of Homes Visits			
	0	1-2	3-6	7-24
Social Class I	9.1	29.9	51.9	9.1
Social Class II	11.5	32.8	52.5	3.3
Social Class III	6.8	29.9	53.0	10.3
Social Class IV	0.9	47.8	38.9	12.4
Social Class V	2.1	28.0	52.8	17.1

$\chi^2 46.89514.12df.p= 0.0001$

Infants from different cultural backgrounds received similar amounts of health visiting support and home visiting practice was not related to parental literacy skills. Also, larger families did not receive more home visits than smaller families.

Increased home visiting support was not associated with poor quality housing, that is, the sharing of basic amenities, however, there was a trend towards more home visiting of those living in bedsitter accommodation. Residence in privately rented accommodation was related to least home visiting but public housing was not associated with increased home visiting as compared with owner occupation ($\chi^2 36.44167.18df.p=0.0062$). Family mobility was not related to home visiting practice.

Increased home visiting was associated with knowledge of an unplanned pregnancy, a confinement including a Caesarian section ($\chi^2 46.10547.9df.p=< 0.0001$) and medical problems or depression in the puerperium ($\chi^2 132.63154.9df.p=< 0.0001$). Lack of home visiting in the first six months was associated with lack of health visitor knowledge about maternal childbirth experience ($\chi^2 132.70868.9df.p=< 0.0001$), antenatal experience ($\chi^2 169.50120.9df.p=< 0.0001$) and puerperium experience ($\chi^2 143.63154.9df.p=< 0.0001$).

Table 133. Planning of pregnancy by home visiting practice during first six months of life as percentage.

	Number of Home Visits			
	0	1-2	3-6	7-24
Planned Pregnancy	4.0	34.2	51.0	10.8
Unplanned Pregnancy	3.9	28.1	50.2	17.8

$\chi^2 8.41626.3df, p=0.0381$

Table 134. Confinement experience by home visiting practice during first six months of life as percentage.

	Number of Home Visits			
	0	1-2	3-6	7-24
No intervention	9.4	33.0	46.0	11.6
Delay/Tear	1.5	27.7	60.6	10.2
Episiotomy only	1.4	37.9	47.7	13.1
Intervention	0	32.3	51.6	16.1
Caesarian Section	1.0	20.6	55.7	22.7

$\chi^2 47.67615.12df, p=<0.0001$

Table 135. Puerperium experience by home visiting practice during first six months of life as percentage.

	Number of Home Visits			
	0	1-2	3-6	7-24
Problems	3.6	50.0	32.1	14.3
Depression	0	19.5	53.7	26.8
Medical Problems	1.2	25.9	55.6	17.3
Uneventful	2.5	32.9	52.5	12.1
Unknown	26.7	33.3	28.9	11.1

$\chi^2 88.46793.12df, p=<0.0001$

There was no association between infant feeding practice and home visiting support.

Health Visitor Home Visiting during the First Year of Infant Life

The health visitors did not discriminate towards the young mothers, however, there was a trend of more home visiting

support for single parents ($\chi^2 26.40162.15df.p=0.0340$). Parental unemployment was related to slightly increased home visiting support while social class status was associated with increased visiting of families in Social Class V.

Table 136. Social class status by home visiting practice during the first year of life as percentage.

	Number of Home Visits			
	0-2	3-6	7-10	11-24
Social Class I	23.7	52.6	22.4	1.3
Social Class II	34.4	45.9	11.5	8.2
Social Class III	25.6	39.3	29.9	5.1
Social Class IV	27.6	45.1	18.6	8.8
Social Class V	16.1	48.7	24.4	10.9

$\chi^2 31.29026.12df.p=0.0018$

Neither cultural background nor literacy in English were associated with increased home visiting. Increasing family size was weakly associated with more home visiting while category of occupation with regard to housing was an important variable in contrast, with council tenancy being related to increased support.

Table 137. Category of occupation by home visiting practice during the first year of life as percentage.

	Number of Home Visits			
	0-2	3-6	7-10	11-24
Council Tenancy	21.0	43.9	23.7	11.4
Housing Trust Tenancy	11.9	61.5	20.0	0.7
Private Tenancy	35.5	33.9	25.6	5.0
Owner-Occupation	20.6	53.2	22.2	4.0

$\chi^2 39.45822.9df.p<0.0001$

Quality of housing did not appear to be related to home visiting practice; the sample infants living in bed-sitter accommodation (n=19) and with shared household amenities (n=32) were relatively few. Mobility was also not related to home visiting practice.

Increased home visiting was associated with knowledge of an unplanned pregnancy ($\chi^2 14.43364.3df.p=0.0024$), and the trend with regard to home visiting in the first six months and confinement experience was weakly maintained. Lack of home visiting in the first year was associated with lack of health visitor knowledge about maternal childbirth experience ($\chi^2 43.80756.9df.p=<0.0001$), antenatal experience ($\chi^2 36.09789.12df.p=<0.0001$) and puerperium experience ($\chi^2 48.13733.9df.p=<0.0001$).

Infant feeding practice was not associated with trends in home visiting practice.

Health Visitor Home Visiting during the Second Year of Life.

Health visitors appeared to show some positive discrimination in their home visiting practice towards younger mothers ($\chi^2 26.15823.15df.p=0.0364$) and single parents ($\chi^2 26.12320.15df.p=0.0367$). Unemployed mothers received more home visiting support than those who were employed ($\chi^2 13.98783.6df.p=0.0298$) and likewise, those families in which the father was unemployed.

Table 138. Paternal employment status by home visiting practice during the second year of life as percentage.

	Number of Home Visits			
	0	1-2	3-6	7-24
Father Employed	10.7	52.1	32.0	5.2
Father Unemployed	12.4	34.9	41.1	11.6

$\chi^2 16.07587.3df.p=0.0011$

The lower social classes received more home visiting support than the higher social classes.

Table 139. Social class status by home visiting practice during the second year as percentage.

	Number of Home Visits			
	0	1-2	3-6	7-24
Social Class I	9.0	65.4	21.8	3.8
Social Class II	18.0	52.5	24.6	4.9
Social Class III	9.4	55.6	29.9	5.1
Social Class IV	14.0	42.1	36.8	7.0
Social Class V	9.6	43.1	37.9	9.4

$\chi^2 26.56721.12df.p=0.0089$

The differences in home visiting to families of different cultural backgrounds were not marked although families from Eire and South East Asia received proportionately less support.

Table 140. Cultural Background by home visiting practice during the second year as percentage.

	Number of Home Visits			
	0	1-2	3-6	7-24
United Kingdom	8.9	50.6	33.1	7.3
Eire	17.3	38.5	32.7	11.5
Mediterranean	12.5	54.2	30.6	2.8
North Africa	10.5	57.9	21.1	10.5
Indian Subcontinent	6.7	40.0	50.0	3.3
South East Asia	16.7	35.7	40.5	7.1
West Indies	9.4	47.2	38.7	4.7
Total	10.9	47.9	33.8	7.4

Lack of literacy in English was not associated with more home visiting but large families received more visits than small families.

Table 141. Family size by home visiting practice during the second year of life as percentage.

Number of Children	Number of Home Visits			
	0	1-2	3-6	7-24
1	11.9	51.0	31.6	5.5
2	9.8	51.1	30.8	8.3
3	6.1	43.9	42.9	7.1
4 +	16.7	27.8	43.1	12.5

$\chi^2 22.27151.9df.p=0.0081$

Increased home visiting was associated with public housing sector tenancies but not with family mobility.

Table 142. Category of occupation by home visiting practice during the second year as percentage.

	Number of Home Visits			
	0	1-2	3-6	7-24
Council Tenancy	10.9	42.4	36.1	10.6
Housing Tenancy Trust	9.6	43.7	40.7	5.9
Private Tenancy	15.0	55.0	27.5	2.5
Owner Occupation	7.9	62.2	26.8	3.1

$\chi^2 31.15806.9df.p=0.0003$

The knowledge of an unplanned pregnancy was associated with increased home visiting in the second year.

Table 143. Planning of pregnancy by home visiting practice during the second year as percentage.

	Number of Home Visits			
	0	1-2	3-6	7-24
Planned Pregnancy	11.0	52.9	31.5	4.7
Unplanned Pregnancy	10.4	40.0	37.9	11.8

$\chi^2 20.46665.3df.p=0.0001$

Health visitor knowledge regarding maternal experience of childbirth, antenatal experience, confinement experience and puerperium experience were not strongly related to different home visiting practice. Lack of knowledge on the part of the health visitor was weakly related to less home visiting, however, depression in the puerperium was associated with continued increased home visiting support during the second year. Infant feeding was not associated with differential home visiting support.

Contact with different Health Visitors

Younger mothers tended to have more contacts with different health visitors ($\chi^2 31.27185.20df.p=0.0517$), however, marital status and parental employment status were not associated with more health visitor contacts. The lower social classes had a tendency to have known more health visitors ($\chi^2 41.05625.16df.p=0.0005$). There was no association between the number of different health visitor contacts and cultural background, although there was a trend of a greater number of different contacts where the parent was illiterate in English ($\chi^2 17.73871.8df.p=0.0233$). Further there was a trend of a greater number of different contacts for families living in public sector housing and poor accommodation. Health visitor knowledge of an unplanned pregnancy was also associated with a greater number of different health visitor contacts ($\chi^2 24.46008.4df.p=0.0001$). Infant feeding practice was not associated with the number of different health visitor contacts.

9.6. The Observation Register (Question 96).

The Observation Register is maintained by health visitors and clinic medical officers to monitor infants deemed to be 'at risk' more carefully. An Observation Register was maintained in all three localities and a similar proportion of infants were considered to be 'at risk' (13.8% inner city infants, 14.2% suburb infants and 15.5% affluent suburb infants).

Relationship between the Observation Register and Uptake of Prophylactic Provisions.

Use of the Observation Register was associated with reduced uptake of the sixth week developmental assessment ($\chi^2 10.18744.1df.p=0.0015$). There was no association between use of the Observation Register and uptake of the primary course immunisations, measles vaccination, hearing test or toddler developmental assessment. Further, there was no association between the use of the Observation Register and child health clinic attendance during the first two years of life. However, there was an association between the use of the Observation Register and home visiting practice.

Tables demonstrating distribution of the use of the Observation Register and health visitor home visiting practice as percentage.

Table 144. Use of Observation Register by home visiting during the first six months of infant life.

	Number of Home Visits			
	0	1- 2	3- 6	7-24
On Observation Register	0	29.1	46.6	24.3
Not on Observation Register	4.9	32.3	51.2	11.5

$\chi^2 16.58484.3df.p=0.0009$

Table 145. Use of Observation Register by home visiting during the first year of infant life.

	Number of Home Visits			
	0- 2	3- 6	7-10	11-24
On Observation Register	9.7	37.9	35.0	17.5
Not on Observation Register	23.5	48.3	21.1	7.1

$\chi^2 29.70148.3df.p<0.0001$

Table 146. Use of Observation Register by home visiting during the second year of infant life.

	Number of Home Visits			
	0	1- 2	3- 6	7-24
On Observation Register	8.7	35.0	36.9	19.4
Not on Observation Register	11.2	49.9	33.3	5.5

$\chi^2 28.09084.3df.p<0.0001$

Use of the Observation Register was not associated with greater contact with the general practitioner, however, it was related to greater hospital contact.

Table 147. Statistical relationship between use of the Observation Register and hospital contact.

1 Hospital Admission	x^2 39.33797.1df.p=<0.0001
2 Hospital Admissions	x^2 42.17440.1df.p=<0.0001
3 Hospital Admissions	x^2 23.84835.1df.p=<0.0001
1 Hospital Outpatient Appointment	x^2 78.17745.1df.p=<0.0001
2 Hospital Outpatient Appointments	x^2 103.99841.1df.p=<0.0001
3 Hospital Outpatient Appointments	x^2 131.82220.1df.p=<0.0001
4 Hospital Outpatient Appointments	x^2 151.75209.1df.p=<0.0001
5 Hospital Outpatient Appointments	x^2 148.00446.1df.p=<0.0001
6 Hospital Outpatient Appointments	x^2 161.31120.1df.p=<0.0001
1 Accident and Emergency Department Attendance	x^2 5.80167.1df.p=<0.025
2 Accident and Emergency Department Attendances	x^2 8.07825.1df.p=<0.001
3 Accident and Emergency Department Attendances	x^2 13.05262.1df.p=<0.0001

The Relationship between the Observation Register and the Social History of Children.

Use of the Observation Register was not associated with maternal age, marital status, social class, cultural background, literacy in English or family size. However, paternal unemployment was associated with use of the Observation Register (x^2 9.79174.1df.p=0.0015) but there was no association with maternal employment status. Use of the Observation Register was associated with the occupation of the public housing sector (x^2 22.89043.3df.p=<0.0001) and there was also a trend to use the Register for children in poor quality housing and occupying bedsitter accommodation. While the use of the Register was not associated with accommodation moves nor with the use of the Homeless Families Unit, it was associated with greater mobility between District Health Authorities (x^2 28.88179.2df.p=<0.0001). Health visitor knowledge

of an unplanned pregnancy was also associated with use of the Register ($\chi^2 8.55219.1df.p=0.0007$). Further, a poor maternal experience of childbirth was associated with use of the Register ($\chi^2 27.52426.3df.p=< 0.0001$) as were problems in the antenatal period ($\chi^2 22.99267.4df.p=< 0.0001$) and maternal depression in the puerperium ($\chi^2 24.4824.4df.p=< 0.0001$). The nature of the confinement was not an important variable. Finally, bottle feeding was associated with the use of the Observation Register ($\chi^2 18.89037.3df.p=0.002$).

9.7. The Handicap Register (Question 97).

Only a very small number of infants were deemed handicapped in the three districts, (2.9% inner city infants, 4.0% suburb infants and 6.2% affluent suburb infants).

9.8 Ascribed Reasons for Default regarding Prophylactic Measures (Questions 40,47,54,61,68,75 & 82).

Ascribed reasons for default were analysed in three ways: global default reasons; default reasons regarding invasive measures, that is, childhood injections; and default reasons regarding non-invasive measures, that is, developmental assessments and the hearing test. Lack of knowledge regarding possible default reasons was a greater feature of both the suburb and affluent suburb health visiting practice although it was also a feature of inner city health visiting practice.

Table 148. Ascribed reasons for default regarding uptake of all prophylactic measures by area of residence as percentage.

	Inner City (n=2402)	Suburb (n=417)	Affluent Suburb (n=258)
Common Cold	3.08	0.96	0.39
Medical Reason	11.41	7.67	10.47
Away	13.53	4.80	3.49
Refusal	26.14	9.11	16.28
Not Known	45.84	77.46	69.38

Table 149. Ascribed reasons for default regarding uptake of non-invasive prophylactic measures by area of residence as percentage.

	Inner City (n=929)	Suburb (n=111)	Affluent Suburb (n=33)
Common Cold	1.61	0	0
Medical Reason	4.41	4.50	9.09
Away	17.87	7.21	15.15
Refusal	27.99	8.11	15.15
Not Known	48.12	80.18	60.61

Table 150. Ascribed reasons for default regarding uptake of invasive prophylactic measures by area of residence as percentage.

	Inner City (n=1473)	Suburb (n=306)	Affluent Suburb (n=225)
Common Cold	4.01	1.31	0.44
Medical Reason	15.82	8.82	10.67
Away	10.79	3.92	1.78
Refusal	24.98	9.48	16.44
Not Known	44.40	76.47	70.67

CHAPTER 10

THE FINDINGS IV
USE OF SELECTED SUPPORT PROVISIONS

The contribution of the provisions in the three localities will be described before a presentation of the relationship between utilisation of these provisions and contact with Health Service facilities in the inner city.

10.1. Social Work (Questions 132, 139 & 140)

More families in the inner city district had experienced the support of a social worker as compared with families resident in the suburbs. No infants in the suburbs had been subject to Care Orders and only twelve infants (1.6%) in the inner city had been subject to Care Orders.

Table 151. Area of residence by social work assistance as percentage.

	Social Work Assistance
Inner City	26.5
Suburb	15.0
Affluent Suburb	7.2

χ^2 23.40770.2df. $p < 0.0001$

10.2 Dependence upon State Benefits as a Source of Income
(Questions 133 and 134)

More families resident in the inner city relied upon Supplementary Benefit payments as a source of family income; both with regard to their income prior to their child's second birthday and at the time of the child's second birthday.

Table 152. Distribution of receipt of Supplementary Benefit payments by area of residence as percentage.

	Inner City	Suburb	Affluent Suburb
Receipt of Supplementary Benefit at Second Birthday	18.9	16.5	4.1
Past Receipt of Supplementary Benefit during infant's life	11.5	6.3	3.1
No Receipt of Supplementary Benefit during infant's life	69.5	77.2	92.8

$\chi^2 25.89526.4df.p=<0.0001$

Reliance upon Supplementary Benefit payments was greater among suburb families as compared with families resident in the affluent suburb.

Receipt of Unemployment Benefit or Sickness Benefit was limited in all three localities. Only 7% of suburb families had received these benefits in the course of their infants' lives as compared with 6.2% of inner city families and 2.0% of affluent suburb families.

10.3 Day Care for Infants (Questions 135 & 136).

Day care for infants was provided from two sources: day nurseries and childminders. There was slightly greater use of day nursery provision in the inner city, especially with regard to very young infants who had had greater than twelve months experience of day nursery care at their second birthday.

Table 153. Area of residence by day nursery attendance as percentage.

	Less Than 12 Months Attendance	12 Months or More Attendance	No Attendance
Inner City	5.7	6.5	87.8
Suburb	0	6.3	93.7
Affluent Suburb	1.0	2.1	96.9

$\chi^2 14.61950.4df.p=0.0056$

Greater use of childminders was also a feature of the inner city sample.

Table 154. Area of residence by childminder attendance as percentage.

	Less than 12 Months Attendance	12 Months or More Attendance	No Attendance
Inner City	5.2	6.4	88.5
Suburb	2.4	0.8	96.9
Affluent Suburb	3.1	0	96.9

$\chi^2 15.86433.4df.p=0.0032$

10.4 Support Groups for Mothers (Question 137)

There were no significant differences between the use of support groups by mothers resident in different localities. Seventy five percent of inner city mothers had never attended a support group during their child's first two years of life, as compared to 77.3% of affluent suburb mothers and 84.3% of suburb mothers. In the three localities approximately 5% of mothers had a transient use of such groups with 11-19% of mothers attending support groups on a regular basis at their infant's second birthday.

10.5 Additional Family Support (Question 138)

Additional family support was gained in the main from two sources: the National Health Service and the education system, in particular from their welfare officers and peripetetic teachers. The National Health Service provided support in terms of speech therapy and physiotherapy mainly.

Table 155. Area of residence by additional help as percentage.

	National Health Service Help	Education Help	No Additional Help
Inner City	14.3	5.7	80.0
Suburb	4.7	2.4	92.9
Affluent Suburb	6.2	2.1	91.8

$\chi^2 18.83544.4df.p=0.0008$

There was a clustering of the use of certain support facilities. Thus the experience of the support of a social worker was clearly associated with past and current dependence upon Supplementary Benefit payments as a source of family income at an infant's second birthday ($\chi^2 176.09211.2df. p < 0.0001$). Greater use of day nursery provision was also related to the experience of social work support ($\chi^2 68.74256.2df. p < 0.0001$). However, while the use of childminders for day care of infants was not associated with social work support, support groups for mothers were rarely used by families who had had social work assistance ($\chi^2 28.13345.2df. p < 0.0001$). The dependence upon Supplementary Benefit payments as a source of family income was related to both the increased use of day nurseries ($\chi^2 59.44506.4df. p < 0.0001$) and childminders ($\chi^2 18.17290.4df. p = 0.0011$). The increased use of childminders was associated with past dependence upon Supplementary Benefit payments. There was no relationship between the receipt of Supplementary Benefit payments and the use of support groups for mothers but the use of both day nurseries ($\chi^2 16.56626.4df. p = 0.0023$) and childminders ($\chi^2 13.15432.4df. p = 0.0105$) were related to the reduced use of support groups for mothers. There was no relationship between the use of day nursery provision and the use of childminders.

10.6 The Relationship between Use of Provisions Outside the Health Service and the Social History of Infants.

Social Work Provision

Young and single mothers received more social work support than older and married mothers.

Table 156. Maternal age by social work assistance as percentage.

Maternal Age	Social Work Assistance
12-16 years	75.0
17-20 years	45.5
21-25 years	32.4
26-30 years	20.4
31-35 years	15.2
36 years or more	19.3

$\chi^2 53.04134.5df.p < 0.0001$

Table 157. Marital status by social work assistance as percentage.

Marital Status	Social Work Assistance
Married	15.6
Single	54.8

$\chi^2 119.55910.1df.p < 0.0001$

There were no differences in social work support to working or unemployed mothers, however, families headed by an unemployed father (66.1%) had significantly more social work support than other families (33.9%) ($\chi^2 144.57118.1df.p < 0.0001$). Social class and social work support were related; families of lower social classes received more social work support ($\chi^2 52.97729.4df.p < 0.0001$). There was some variation in the amount of social work support given to families of different cultural backgrounds with West Indian families (49.1%) receiving the most support. Families from Eire (30.8%) also received more support than other families ($\chi^2 56.27712.34df.p = 0.0095$). Illiterate parents (35.1%) received greater amounts of social work support ($\chi^2 5.87323.1df.p < 0.05$) than literate parents (24.8%). Family size was not related to social work support, however, accommodation differences were important with regard to social work support. Families accommodated in the public housing sector received the most support with owner occupation families receiving the least support ($\chi^2 57.24704.3df.p < 0.0001$). There was a trend of greater support for families living in bedsitter accommodation. Increased social

work support was also associated with accommodation mobility both during the infant's first year of life ($\chi^2 68.23847.4df. p < 0.0001$) and the infant's second year of life ($\chi^2 17.72904.4df. p < 0.001$). Families who made use of the Homeless Families Unit (77.2%) received significantly more social work support than other families ($\chi^2 58.95590.1df. p < 0.0001$).

Increased social work support was associated with knowledge of an unplanned pregnancy ($\chi^2 110.55231.1df. p < 0.0001$) and use of bottle feeding as a method of infant feeding ($\chi^2 35.73622.3df. p < 0.0001$).

Dependence upon State Benefits as a Source of Income

Supplementary Benefit Payments:

Young mothers were more dependent upon Supplementary Benefit payments than older mothers ($\chi^2 106.39037.6df. p < 0.0001$). It provided the only source of income for all mothers who were 16 years old or less and for more than 50% of mothers aged between 17 and 20 years. Single parents had a greater reliance upon Supplementary Benefit payments than married parents.

Table 158. Receipt of Supplementary Benefit payments by marital status as percentage.

	Married	Single
Receipt of Supplementary Benefit at Second Birthday	5.3	54.3
Past Receipt of Supplementary Benefit during infant's life	7.2	22.9
No Receipt of Supplementary Benefit during infant's life	87.5	22.9

$\chi^2 315.47785.2df. p < 0.0001$

Parental unemployment was clearly associated with dependence upon Supplementary Benefit payments (maternal unemployment $\chi^2 73.92749.4df.p = < 0.0001$) (paternal unemployment $\chi^2 293.11779.2df.p = < 0.0001$). Similarly, social class and dependence upon Supplementary Benefit payments were related; Social Class V families were most dependent on these payments as a source of family income.

Table 159. Receipt of Supplementary Benefit payments by social class as percentage.

	Social Class				
	I	II	III	IV	V
Receipt of Supplementary Benefit at Second Birthday	0	5.0	8.5	8.8	31.2
Past Receipt of Supplementary Benefit during infant's life	0	3.3	9.4	12.3	15.6
No Receipt of Supplementary Benefit during infant's life	100.0	91.7	82.1	78.9	53.2

$\chi^2 116.57940.8df.p = < 0.0001$

There was some variation in dependence upon Supplementary Benefit payments with regard to cultural background, with families from the West Indies (60.4%) and Eire (46.2%) most dependent ($\chi^2 126.10985.51df.p = < 0.0001$). Parental literacy skills and family size were not related to dependence upon Supplementary Benefit payments. While quality of family accommodation was unrelated to source of income, families accommodated in the public housing sector were more dependent upon Supplementary Benefit payments ($\chi^2 90.67046.3df.p = < 0.0001$). Mobile families were also more reliant upon Supplementary Benefit payments; this relationship was statistically significant with regard to both the infant's first year of life ($\chi^2 83.04969.5df.p = < 0.0001$) and the infant's second year of life ($\chi^2 22.46498.4df.p = < 0.001$). Use of the Homeless Families Unit was related to dependence upon Supplementary Benefit payments ($\chi^2 57.28477.2df.p = < 0.0001$).

Knowledge of an unplanned pregnancy was clearly related to dependence upon Supplementary Benefit payments as a source of income ($\chi^2 183.49244.2df.p < 0.0001$). Further, the use of bottle feeding as a method of infant feeding was related to Supplementary Benefit dependence ($\chi^2 32.44829.5df.p < 0.001$).

Unemployment and Sickness Benefits

No meaningful relationships were demonstrated with regard to the social history of infants and dependence upon unemployment and sickness benefits as a source of income.

Day Care for Children: Day Nursery Attendance.

Infants of young mothers had more day nursery places than other infants ($\chi^2 29.70890.6df.p < 0.001$) and similarly, infants from single parent families had more day nursery places ($\chi^2 86.18983.1df.p < 0.0001$). Maternal employment was related to greater day nursery usage ($\chi^2 28.46715.4df.p = 0.0001$) and there was a trend towards greater day nursery usage where there was paternal employment. Families of Social Class V also had more day nursery places than other families ($\chi^2 27.84373.5df.p < 0.001$) and there was some cultural variation with West Indian infants (35.9%) having the highest attendance level ($\chi^2 105.44362.51df.p < 0.0001$). Parental literacy skill and family size were not related to day nursery usage. However, residency in the public housing sector was associated with greater day nursery usage ($\chi^2 23.32003.4df.p < 0.001$). Quality of family accommodation was clearly related to day nursery usage ; there was a trend of greater usage among bedsitter dwellers but the sample numbers were very small (n=19). Family mobility and use of the Homeless Families Unit were not related to day nursery use.

Infants of unplanned pregnancies gained more day nursery places ($\chi^2 20.99703.2df.p < 0.0001$). There was no relationship between infant feeding practice and day nursery usage.

Childminder Attendance

Child care by childminders was not related to maternal age, marital status nor parental employment status. However, maternal full time employment was clearly related to use of a childminder for child care ($\chi^2 163.14908.4df.p < 0.0001$). Social Classes III and V made greatest use of childminders ($\chi^2 23.0254.5df.p < 0.005$). Cultural background, parental literacy skill and family size were not related to childminder usage. Families resident in private rented accommodation made most use of childminders for child care ($\chi^2 19.70009.4df.p < 0.005$). Quality of family accommodation, family mobility and use of the Homeless Families Unit were not related to the use of childminders for child care.

Infants of unplanned pregnancies received slightly more childminder care than infants of planned pregnancies ($\chi^2 6.992963.2df.p < 0.005$) and there was no relationship between infant feeding practice and the use of childminders for child care.

Support Groups for Mothers.

Maternal age and marital status were not related to the use of support groups. Support groups were more frequently used by unemployed mothers ($\chi^2 18.05740.4df.p = 0.0012$) and by mothers whose partner was also employed ($\chi^2 14.99038.4df.p = 0.0047$). Mothers from higher social classes made greater use of support groups than mothers from lower social classes ($\chi^2 26.05639.8df.p = 0.0010$). British mothers made greatest use of support groups as compared with mothers from other cultural backgrounds ($\chi^2 80.13248.26df.p < 0.0001$). Family size was not related to the use of support groups, however, parental literacy was related to greater use ($\chi^2 14.45408.2df.p = 0.0007$). Owner occupation of families was associated with greater use of support groups ($\chi^2 35.25604.8df.p < 0.0001$); mothers resident in council accommodation made least use of support groups. There was no relationship between the use of support groups and quality of family accommodation or family mobility or use of the Homeless Families Unit.

Planned pregnancy infants were associated with greater use of support groups ($\chi^2 9.64044.2df.p=0.0081$) by mothers and, similarly, successful breast feeding was associated with greater use of support groups ($\chi^2 28.33915.6df.p=0.0001$).

10.7. The Relationship between the Use of Selected Support Facilities and the Utilisation of Acute Health Service Provisions.

Social Work Provisions

There was no relationship between contact patterns with the general practitioner and social work support although families considered to have more parental health problems received more social work support. There was a clear relationship between infant hospital admissions and greater social work support ($\chi^2 26.27154.3df.p=<0.0001$).

Table 160. Statistical relationship between social work assistance and infant admission to hospital.

1 Hospital Admission	$\chi^2 34.29596.1df.p=<0.0001$
2 Hospital Admissions	$\chi^2 37.36076.1df.p=<0.0001$
3 Hospital Admissions	$\chi^2 16.98635.1df.p=<0.0001$

Attendance at hospital outpatient appointments and social work support were also related; families with infants attending outpatient appointments received more social work support.

Table 161. Statistical relationship between social work assistance and infant attendance at hospital outpatient clinics.

1 Outpatient Appointment	$\chi^2 32.30376.1df.p=<0.0001$
2 Outpatient Appointments	$\chi^2 34.88304.1df.p=<0.0001$
3 Outpatient Appointments	$\chi^2 27.08471.1df.p=<0.0001$
4 Outpatient Appointments	$\chi^2 37.45020.1df.p=<0.0001$
5 Outpatient Appointments	$\chi^2 34.14709.1df.p=<0.0001$

Attendance at Accident and Emergency Departments and social work support were related, with families whose infants were taken to Accident and Emergency Departments receiving more social work support. The relationship was statistically significant with regard to as many as three Accident and Emergency Department attendances ($\chi^2 17.70898.1df.p < 0.0001$).

Dependence upon Supplementary Benefit Payments

There was no relationship between receipt of Supplementary Benefit payments and contact patterns with the general practitioner nor reasons for such contact. However, there was a relationship between at least one infant hospital admission and receipt of Supplementary Benefit payments.

Table 162. Receipt of Supplementary Benefit payments by at least one infant hospital admission as percentage.

	At Least One Hospital Admission
Receipt of Supplementary Benefit at Second Birthday	39.2
Past Receipt of Supplementary Benefit during infant's life	39.1
No Receipt of Supplementary Benefit during infant's life	23.6
$\chi^2 18.94647.2df.p = 0.0001$	

Attendance at up to three hospital outpatient appointments and dependence upon Supplementary Benefit payments was related. Attendance for more than three hospital outpatient appointments was not related to source of income.

Table 163. Statistical relationship between receipt of Supplementary Benefit payments and infant attendance at hospital outpatient clinics.

1 Outpatient Appointment	$\chi^2 16.19467.2df.p = 0.0003$
2 Outpatient Appointments	$\chi^2 14.61105.2df.p = 0.0007$
3 Outpatient Appointments	$\chi^2 6.54157.2df.p = 0.0380$

Attendance at Accident and Emergency Departments and dependence upon Supplementary Benefit payments was related. The relationship was statistically significant with regard to as many as three Accident and Emergency Department attendances ($\chi^2 17.64754.2df.p=0.0001$).

Day Nursery Attendance.

While there was no relationship between contact patterns with the general practitioner and infant day nursery attendance, there was a clear relationship between parental illhealth as a cause of general practitioner attendance and infant day nursery attendance ($\chi^2 31.85601.6df.p=< 0.0001$). Infant attendance at the day nursery for a twelve month period or less was associated with two or more infant hospital admissions ($\chi^2 19.13991.2df.p=0.0001$). Similarly, infants who had attended a day nursery for twelve months or less had also attended hospital outpatient appointments more frequently; this relationship was statistically significant with regard to as many as six hospital outpatient appointments ($\chi^2 26.91390.2df.p=<0.0001$). There was a trend for infants who had attended a day nursery for twelve months or less to attend Accident and Emergency Departments more frequently than other infants.

Childminder Attendance.

There was no relationship between childminder attendance and contact patterns with general practitioners nor cause of such consultations. Further, there was no relationship between childminder attendance and contact with acute hospital facilities.

Support Groups for Mothers.

There was no relationship between the use of support groups by mothers and contact with acute Health Service facilities.

The Relationship between the Use of Provisions Outside the Health Service and the Utilisation of Prophylactic Health Service Provisions.

Social Work Provision

The uptake of prophylactic child health measures and social work assistance were generally not associated. There was a trend of greater non-completion of the primary immunisation course among infants whose families had had social work assistance and there was a lower uptake of the measles vaccination among these infants ($\chi^2 6.67969.1df.p = < 0.01$). While there were no differences regarding child health clinic attendances during the first year of infant life, social work assistance was related to infant non-attendance at child health clinics in the second year of life ($\chi^2 12.32676.3df.p = < 0.01$).

Dependence upon Supplementary Benefit Payments

Infants who came from families which were in receipt of Supplementary Benefit at the infant's second birthday had a significantly lower uptake of the sixth week developmental assessment ($\chi^2 9.21465.2df.p = 0.01$), however, there were no differences regarding the uptake of the first immunisation nor the choice of immunisation combination. There was a trend of reduced uptake of the second immunisation associated with dependence upon Supplementary Benefit payments and this trend became statistically significant with regard to completion of the primary immunisation course ($\chi^2 11.08924.2df.p = < 0.005$) and uptake of measles vaccination ($\chi^2 7.45096.2df.p = < 0.025$). There was a trend of lower uptake of the infant hearing test and the uptake of the toddler developmental assessment ($\chi^2 9.84025.2df.p = < 0.01$) was also reduced where families had been in receipt of Supplementary Benefit payments. There were no differences in child health clinic attendance rates during the first two years of infant life between families who had received Supplementary Benefit payments and families who had not received such payments.

Day Nursery Attendance

Infant attendance at day nurseries was not related to the uptake of prophylactic measures with the exception of the uptake of the infant hearing test. Infants who had a twelve months or shorter attendance at a day nursery had a significantly lower uptake of the hearing test while infants who had a greater than twelve month day nursery attendance had a significantly higher uptake of the hearing test.

Table 164. Infant attendance at day nurseries by uptake of hearing test as percentage.

	Hearing Tested	Hearing Not Tested
No Nursery Attendance	83.9	16.1
Nursery Attendance Twelve Months or Less	71.4	28.6
Nursery Attendance More than Twelve Months	95.3	4.7

$\chi^2 9.74669.2df.p=0.0076$

Day nursery attendance was not related to child health clinic usage.

Childminder Attendance

Infant attendance at childminders was unrelated to the uptake of prophylactic measures and attendance at child health clinics during the first two years of infant life.

Support Groups for Mothers

The use of support groups by mothers was related to a trend of higher uptake of prophylactic measures. This trend was weak with regard to the uptake of the sixth week developmental assessment, first immunisation and second immunisation and became stronger with regard to the uptake of later prophylactic measures. Thus use of support groups by mothers was related to a higher completion rate of the primary immunisation course ($\chi^2 7.01475.2df.p=0.03$), a higher

uptake of the infant hearing test ($\chi^2 8.69162.2df.p=0.013$) and a higher uptake of the toddler developmental assessment ($\chi^2 7.41222.2df.p=0.0246$). Use of support groups by mothers was not related to the uptake of the measles vaccination. Use of child health clinics in the first year of infant life was not related to maternal attendance at support groups, however, maternal attendance at support groups was related to greater use of child health clinics during the second year of infant life ($\chi^2 14.30578.6df.p=0.0264$).

10.8. The relationship between the Use of Selected Support Facilities and Health Visitor Home Visiting.

Social Work

There was a relationship between social work contact and increased health visitor home visiting. However, this relationship was weakest with regard to the first six months of infant life and strongest during the second year of infant life.

Table 165. Health visitor home visiting during first six months of infant life by social work assistance as percentage.

	Social Work	No Social Work
0 Home Visits	25.0	75.0
1- 2 Home Visits	24.2	75.8
3- 6 Home Visits	23.1	76.9
7-24 Home Visits	45.0	55.0

$\chi^2 20.57845.3df.p<0.001$

Table 166. Health visitor home visiting during first year of infant life by social work assistance as percentage.

	Social Work	No Social Work
0- 2 Home Visits	19.0	81.0
3- 6 Home Visits	23.6	76.4
7-10 Home Visits	30.1	69.9
11-24 Home Visits	51.6	48.4

$\chi^2 28.01393.3df.p<0.0001$

Table 167. Health visitor home visiting during second year of infant life by social work assistance as percentage.

	Social Work	No Social Work
0 Home Visits	15.9	84.1
1- 2 Home Visits	20.7	79.3
3- 6 Home Visits	32.3	67.7
7-24 Home Visits	51.8	48.2

$\chi^2 33.81255.3df.p < 0.0001$

There was a strong association between social work contact and the use of the Observation Register.

Table 168. Use of the Observation Register by social work assistance as percentage.

	Social Work	No Social Work
Infant on Observation Register	50.0	50.0
Infant not on Observation Register	22.8	77.2

$\chi^2 33.98740.1df.p < 0.0001$

Dependence upon Supplementary Benefit Payments

There was no relationship between receipt of Supplementary Benefit payments and health visitor home visiting during the first year of infant life. However, during the second year of infant life receipt of Supplementary Benefit payments was associated with more health visitor home visiting.

Table 169. Receipt of Supplementary Benefit payments by health visitor home visiting during the second year of infant life as percentage.

	Number of Home Visits			
	0	1-2	3-6	7-24
Receipt of Supplementary Benefit at Second Birthday	19.5	12.4	22.4	43.6
Past Receipt of Supplementary Benefit during infant's life	9.8	10.2	14.5	9.1
No Receipt of Supplementary Benefit during infant's life	70.7	77.3	63.1	47.3

$\chi^2 39.15312.6df.p < 0.0001$

Receipt of Supplementary Benefit payments was more weakly associated with the use of the Observation Register ($\chi^2 15.06834.2df.p=0.0005$).

Day Nursery Attendance

There was no relationship between day nursery attendance and health visitor home visiting patterns. However, there was a relationship between day nursery attendance and use of the Observation Register. Use of the Observation Register was associated with greater day nursery attendance.

Table 170. Day nursery attendance by use of the Observation Register as percentage.

	Less Than 12 Months Attendance	12 Months or More Attendance	No Attendance
Infant on Observation Register	8.7	14.4	76.9
Infant Not on Observation Register	5.2	5.2	89.5

$\chi^2 15.07056.2df.p=0.0005$

Childminder Attendance

There was no relationship between childminder attendance and health visitor home visiting patterns. There was also no relationship between childminder attendance and the use of the Observation Register.

Support Groups for Mothers

There was a weak trend of greater health visitor home visiting to families who had made use of support groups. This trend was evident with regard to the first six months of infant life ($\chi^2 14.30578.6df.p=0.0264$), the first year of infant life ($\chi^2 9.32144.4df.p=0.0535$) and the second year of infant life ($\chi^2 13.41719.6df.p=0.0369$). There was no relationship between use of support groups and use of the Observation Register.

10.9. Summary of Findings

Characteristics of the Sample

There was a clear relationship between the various socioeconomic factors considered in the survey and area of residence. There appeared to be a clear trend between features of inner city residency and affluent suburb residency with suburb residency located midway in this trend. Thus inner city families were more likely to be headed by a young, single mother of a lower social class than families in the suburbs. Paternal unemployment was a greater feature of inner city life as was cultural diversity and illiteracy in English. Further, housing varied according to locality with public sector housing and limited space in the home being more prevalent in the inner city as compared with the suburbs.

Parental health status was found to be similar in the three areas, although there was evidence of a small trend towards increased maternal morbidity in the inner city. The sample infants were more frequently the product of planned pregnancies in the affluent suburb and pregnancies were more positively viewed in the suburb. There was a clustering of phenomena associated with poor socio-economic circumstance.

Lack of information concerning maternal childbirth experience was a feature of health visiting in the suburbs as compared with the inner city. However, antenatal problems, episiotomies at delivery and eventful puerperiums were more frequent in the inner city. Breast feeding was more prevalent in the affluent suburb with similar proportions of bottle feeding taking place in the inner city and suburb.

Utilisation of National Health Service Provisions

Child health clinics were more frequently attended in the inner city as compared with the suburbs and had higher

attendance rates during the first year of life as compared with the second year of life. High prophylactic uptake dissipated with increasing infant age in the three areas. Uptake of the measles vaccination was generally poor and especially in the suburb. A formal toddler developmental assessment before an infant's second birthday was apparently only available in the inner city and its uptake was limited. Uptake of prophylactic measures in early infancy was associated with the uptake of prophylactic measures in later infancy.

Most infants had been registered with a local general practitioner throughout their first two years of life and the amount of general practitioner contact was similar in the three areas. The most frequent cause of contact was childhood infection. Hospital provision made a greater contribution to child health in the inner city, both in terms of inpatient and outpatient care. The causes for hospital contact in the three areas were similar with childhood infections and other medical problems being associated with admission and medical follow-up being associated with outpatient appointments. Accident and Emergency Department attendance was most frequent in the suburb and inner city with both infections and accidents being important causes for contact. Hospital contact in general was associated with lower uptake levels of prophylactic measures.

Poor socio-economic circumstance was related to reduced uptake of prophylactic measures after the sixth week developmental assessment and increased child morbidity. Bottle feeding and unplanned pregnancy were similarly associated with reduced pursuance of prophylactic care and increased child morbidity. General practitioner consultations regarding parental health status were related to paternal unemployment, parental illiteracy, membership of Social Class V and the occurrence of an unplanned pregnancy. Lack of health visitor knowledge regarding maternal experience of childbirth was associated with reduced uptake of prophylactic measures.

Health Visitor Home Visiting

More home visiting was recorded in the inner city as compared with the suburbs but was undertaken in similar proportions with regard to the selected prophylactic measures. Home visiting was clearly associated with the increased uptake of prophylactic measures and, in the case of the primary immunisation course, was associated with the increased uptake of pertussis. Home visiting prior to a particular prophylactic measure was not as important as general home visiting practice in the subsequent level of uptake. There was a clear relationship between child health clinic attendance and home visiting practice.

Home visiting practice was related to increased hospital contact but not to general practitioner contact. In the first six months of infant life health visitors appeared to positively discriminate towards families in Social Class V, families with known unplanned pregnancies and childbirth difficulties. Employed mothers, residence in the private rental market and a lack of health visitor knowledge about maternal experience of childbirth was associated with reduced health visitor home visiting.

In the first year of infant life health visitors positively discriminated in their home visiting practice towards families associated with the following characteristics: Social Class V, council tenancy, and known unplanned pregnancy. Health visitors showed some positive discrimination in their home visiting towards single parents, unemployed parents, large families and families with known confinement problems. Lack of health visitor knowledge regarding maternal experience of childbirth was associated with reduced home visiting.

In the second year of infant life health visitors showed positive discrimination towards young and single parents, unemployed parents, large families, public housing tenants and families with known unplanned pregnancies. Health visitors showed some positive discrimination towards families of the lower social classes and maternal depression during the puerperium.

The use of the Observation Register was associated with a lower uptake level of the sixth week developmental assessment but was not associated with variable uptake of other elements of prophylactic care. Its use was closely related to increased hospital contact in terms of inpatient and outpatient care and attendance at Accident and Emergency Departments. The use of the Observation Register was also clearly associated with increased health visitor home visiting throughout the first two years of infant life. Certain socio-economic variables were related to the use of the Register, namely; paternal unemployment, public housing tenancy, greater family mobility, unplanned pregnancies and problems associated with the maternal experience of childbirth and bottle feeding of infants.

Health visitor knowledge regarding default reasons pertaining to the uptake of prophylactic care was considered in the survey. Lack of such knowledge was an important feature of suburb and affluent suburb health visitor practice and was also notable in the inner city. Refusal of prophylactic measures was noted in the three areas, however, it was a more frequently attributed cause for default in the inner city.

Use of Selected Support Facilities.

Social work support and dependence upon Supplementary Benefit payments as a source of family income were greater features of inner city life as compared with affluent suburb life. The use of day care for infants outside the home was

also more prevalent in the inner city as compared with the suburbs. The use of support groups for mothers was variable in the three areas and did not offer support to a substantial group of mothers. Social work support was associated with greater dependence upon Supplementary Benefit payments and use of day nursery care. While dependence upon Supplementary Benefit payments was related to greater use of childcare outside the home, support groups for mothers were infrequently used by families who had had social work support and their use was variable among families dependent upon Supplementary Benefit payments.

Social work support was associated with poor socioeconomic circumstance as was the dependence upon Supplementary Benefit payments for family income. Day nursery care for infants was also related to poor socioeconomic circumstance, however, the use of childminders was most clearly associated with full time maternal employment. Support groups for mothers were more frequently used by mothers of unproblematic social circumstance.

Increased child morbidity was associated with social work family support, dependence upon Supplementary Benefit payments and increased use of day nursery care. Childminder attendance and the use of maternal support groups were not related to child morbidity. However, while the experience of social work support was not related to major differences in the uptake of prophylactic care except child health clinic attendance during the second year of infant life, dependence upon Supplementary Benefit payments was associated with reduced uptake of prophylactic measures. Day nursery care and childminder care were not related to the uptake of prophylactic care in general. The use of support groups for mothers was associated with increased uptake of prophylactic measures with the exception of measles vaccination uptake.

Increased health visitor home visiting in the second year of an infant's life was associated with social work

family support and dependence upon Supplementary Benefit payments although the increased use of the Observation Register was related to the use of both these provisions. Similarly, although day nursery care was related to increased use of the Observation Register, such families did not receive more home visiting. There was no relationship between the use of childminders and health visitor home visiting patterns. There was a weak trend of more home visiting among families using support groups for mothers.

CHAPTER 11

THE DISCUSSION I:

CHARACTERISTICS OF THE SAMPLE AND
UTILISATION OF NATIONAL HEALTH SERVICE PROVISIONS

The discussion will reflect the manner in which the findings have been presented. Thus, Chapter 11 considers the characteristics of the sample and utilisation of National Health Service provisions. Chapter 12 considers health visitor home visiting practice and the use of other selected support facilities. The implications of the research findings for health visiting practice will be considered.

11.1. The Characteristics of the Sample.

The Inner City Sample: The Parents:

The wide range of maternal age reflected the experience of the local obstetric units; the phenomenon of schoolgirl mothers is an acknowledged problem of inner city life and is the subject of a research project in this particular health district (Lawrence, 1984). The large number of single parent families in Inner London has been noted in previous studies by Jefferys (1970) and Jarman (1981) and the proportions in this study closely reflect the 1981 Census data (Office of Population Censuses and Surveys, 1983). The findings with regard to paternal contribution to family life complement those of single parenthood although it seems that single parenthood is not exclusively associated with no paternal contact. The discrepancy between 27.9% of infants belonging to single parent families and 23.9% of infants having non-resident fathers at their second birthday is difficult to explain except in terms of a few unstable parental relationships.

The level of paternal unemployment, at 17.9%, was similar to the male unemployment 1981 Census data (Office of Population Censuses and Surveys, 1983). However, there is no comparable data relating to working mothers, although it is worth noting that there is a greater opportunity for both full-time and part-time work in the inner city with the catering and hotel trade affording many opportunities.

The attribution of social class was based upon what the health visitors believed to be the parental occupations. In comparison with the head of the household 10% 1981 Census statistics (Office of Population Censuses and Surveys, 1984), it appeared that the health visitors deskilled parents by attributing them an occupation title which the Registrar General's classification accords a lower social class. However, several factors may account for this difference, namely: the 10% Census statistics are based upon calculations derived from a 10% random sample of total Census data, all heads of household are included with parents of infants submerged in the groups, the shortcomings of the Census semantic code and, finally, the existence of the three 'retired' categories in the Census data which bias the proportions attributed to the different social classes. The limitations of the Census classification of occupation are well acknowledged, not least because whole occupation groups are assigned to the social class without regard to individual differences in educational attainment and remuneration. The difference between the health visitor attribution and the Census data may also have arisen out of the increased amount of information held by health visitors who may have been able to ascribe occupation title more accurately, and thus 'chef' in the Census data may more accurately have been described as 'kitchen porter'. Clark (1981), in her review of health visiting research, noted that few studies had successfully recorded data relating to social class and that two studies appeared to show an over-representation

of families at the lower end of the social scale among health visitor clientele. It is noteworthy that the Child Health and Education in the Seventies study developed a composite index of social class to overcome the shortcomings of the traditional social class classification (Osborn and Morris, 1979).

The diversity of the sample's cultural background was similar to the 1981 Census data (Office of Population Censuses and Surveys, 1983). The very small difference between the Census data and the sample with regard to ethnicity lies in the different methods of data collection. The Census data relates to declared country of birth while the survey data relates to attributed country of birth and perceived dominant culture. Both the Acheson Report (London Health Planning Consortium, 1981) and Jarman (1981) also noted the cultural diversity of the Inner London population. The association between illiteracy in English and cultural background was not unexpected.

The importance of cultural background to social life has been acknowledged (Polgar, 1962) and this survey confirmed an association between maternal age, marital status, employment status and cultural background. The high incidence of male unemployment among West Indians was also noted in the Scarman Report (1982). The distribution of social class between the different cultural groups would appear to reflect their employment opportunities. For example, many Mediterranean and South East Asian parents are engaged in menial work in the catering trade, while those from Eire provide labour for the construction industry. The association between family size and cultural background found in this survey perhaps reflected the beliefs held by different cultural groups. For example, the importance of sons to North African and Indian Subcontinent families and the religious practices of those from Eire.

Housing is an important contributor to health and wellbeing and was included in Jarman's (1981) survey of London's characteristics. This survey's findings were similar to the 1981 Census data (Office of Population Censuses and Surveys, 1983), with the public housing sector being an important source of accommodation. The relatively high mobility of families in Inner London was noted by Jarman (1981) and the Acheson Report (London Health Planning Consortium, 1981) and this survey would seem to confirm this phenomenon. The 1981 Census data (Office of Population Censuses and Surveys, 1983) also found a high rate of mobility in the survey district.

The clustering of social phenomena has been noted by Rutter and Madge (1976), Blaxter (1981) and Madge (1982). The findings of this survey supported previous work in this field which has suggested that certain personal attributes such as single parenthood and West Indian background are associated with experience of disadvantages which include unemployment and poor housing. The high mobility of families within the geographical area may have been an expression of the desire to improve social circumstances without any consequent loss of community ties.

This Pregnancy:

Pregnancies were considered to be planned unless the health visitor records had recorded otherwise. The incidence of unplanned pregnancies (37.2%) was higher than anticipated. The relationship between planned and welcome pregnancies would seem reasonable although clearly not all unplanned pregnancies are unwanted. The relationship between planned pregnancies and other social phenomena would seem to support the traditional stereotype of a married couple of high social status with an employed breadwinner, living in their own accommodation.

Maternal employment was associated with both planning of pregnancies and a favourable attitude towards such pregnancies. This finding perhaps reflected the ability of these mothers to view their lives as more easily controlled with the planning of their reproduction according to their work commitments or financial plans. Lack of the feeling of personal control has been associated with negative attitudes in other fields (Wilson-Barnett, 1979).

The greater incidence of planned pregnancies with increasing maternal age complements the finding of more positive attitudes, both of which may be expected when parents are seeking to complete their families before middle age. The high incidence of unplanned and unwanted pregnancies among families headed by an unemployed father recorded a serious problem. The negative attitude towards such pregnancies probably reflected the concern over future financial security.

The relationship between cultural background and family life has been referred to previously and it is suggested that planning of reproduction is part of the same phenomenon. The high incidence of unplanned and unwanted pregnancies among West Indian and Irish mothers is noteworthy. The incidence of unplanned pregnancies appeared to be associated with other social phenomena of disadvantage noted by Madge (1982) and others.

Childbirth Experience:

Maternal childbirth experience has relatively recently been acknowledged as an important element of future child and family wellbeing (Deutscher, 1970; Kitzinger, 1981). The work of Kitzinger (1962) and Oakley (1981, 1980) has suggested that satisfaction levels among mothers are not as high as supposed and the findings of this survey, although dependent upon the health visitor 'view', would seem to

support the work of Kitzinger and Oakley. Although apparently 73.2% of the sample's mothers had complete and satisfactory antenatal care, 16.6% of the sample's mothers encountered significant antenatal problems. The high level of medical intervention evident in the confinement data would seem to support the assertions of Kitzinger (1980). The incidence of postnatal depression as noted by the health visitors was lower than that found by Oakley (1980), although Oakley suggested that confusion regarding the definition of postnatal depression was likely to result in disparate levels being noted in different studies. Oakley's (1980) sample apparently experienced more depression than recorded elsewhere, a finding she suggested was related to a discrepancy between psychiatrists and depressed people in their assessment of what depression 'is'.

Infant Feeding Practices:

The high incidence of bottle fed only infants can in part be explained by the health visitor recording methods. Health visitors make their first visit to newly delivered infants between the 10th and 14th day of life so that knowledge of initial feeding method may be limited and it is well known that many mothers cease to breast feed during the first two postnatal weeks (Houston et al, 1981; Martin and Monk, 1983). The decline in the incidence in breast feeding with increasing infant age has been noted in previous surveys (Eastham et al, 1976; Barnes and Barnes, 1976; Houston et al, 1981; Martin and Monk, 1983). The work of Houston and Howie (1981) and Kelly (1983) has suggested that increased professional support and advice can substantially increase the duration of breast feeding. Houston and Howie felt that health visitors could have a strong, positive impact on the course of breast feeding and stressed the importance of the right advice at the right time to help mothers continue breast feeding.

The association of bottle feeding with certain socio-economic variables has been found in previous work in this field (Martin and Monk, 1982; Hally et al, 1984; Jeffs, 1977).

Area of Residence:

The clear trend in the data relating to the various socio-economic variables and area of residence was comparable to the 1981 Census data (Office of Population Censuses and Surveys (1983) relating to these electoral wards. However, while the trend of higher social class occurred in the 10% Census statistics for these wards, the survey data suggested an over-attribution of Social Class I as well as the deskilling of others. There may be three reasons for this: the health visitors made the assumption that once a professional, always a professional, despite present occupation title which may fall into the Registrar General's classification of Social Class II; young professionals are resident and have young families in these areas, or health visitors attribute social class incorrectly. The difference between the distribution of social class between the suburb and affluent suburb occurred in similar proportions in the 10% Census statistics (Office of Population Censuses and Surveys, 1984). The existence of increased maternal morbidity in the inner city supported the findings of Jarman (1981) and the increased planning of reproduction in the suburbs, in particular in the affluent suburb, is probably a part of the 'affluent' way of life.

The lack of health visitor knowledge regarding maternal experience of childbirth was unexpected and must reflect a different recording method, although this is hard to understand since the health visitors in the suburbs had trained at the same London training colleges as had the inner city health visitors. The incidence of more antenatal problems and eventful puerperiums in the inner city complemented

the other data which suggested an increase in maternal morbidity in the inner city and it probably also reflected the poorer social circumstances of inner city inhabitants. Mothers in the suburb and the affluent suburb were both served by the same district general hospital, as compared to mothers in the inner city who mainly had their obstetric care in one of five hospitals. The low incidence of episiotomy at delivery in the suburbs probably reflected the obstetric practice at this particular district general hospital as well as the desires of a more articulate population.

The high incidence of breast feeding in the affluent suburb reflected the previous findings in this field (Hally et al, 1984; Martin and Monk, 1982), however, the particularly low incidence of breast feeding in the suburb is noteworthy and difficult to explain except in terms of social class differences in infant feeding practice.

11.2. Utilisation of National Health Service Provisions

Prophylactic Care:

The greater use of child health clinics in the first year of life found in this survey was also noted in the Court Report (Department of Health and Social Security, 1976a) and found by the Child Health and Education in the Seventies study (Butler, 1977). Butler (1977) also found higher attendance levels at child health clinics among his 'advantaged' and 'neutral' group which in part may explain the differential levels of attendance in the three areas in this study.

The universally high uptake of the sixth week developmental assessment was similar to the findings of Robinson (1982a). The general lack of appointments to encourage uptake would seem to support Dick's (1978) assertion that

mothers perceive their babies as vulnerable during the early months of life and are therefore anxious to avail their infants of all available medical services.

The uptake of the first immunisation was also universally high, the lowest uptake level was in the affluent suburb and this was not statistically significant. However, the finding may have been an expression of an increasing trend towards homeopathy among young professionals and several general practitioners in the affluent suburb were known to practise homeopathic methods. The majority of infants apparently received their first immunisation around the government recommended age (Department of Health and Social Security, 1984). In the three areas the uptake of primary immunisation was high and the inner city immunisation rates compare favourably with the rates quoted by Jarman (1981). The trend towards delay in uptake in the suburbs is notable. The use of postal reminders in the form of immunisation appointments was only a feature of the inner city provision so it is difficult to draw any conclusions although it is interesting that delay in uptake of primary immunisation is less of a feature in the inner city. The generally poor uptake of the measles vaccination was noted throughout the London area in Jarman's survey (1981); however, the findings of this survey are more favourable than his 1977 figures, although there remains much to be done to improve uptake, especially in the suburb area.

The vast majority of infants in the three areas received a hearing test, although for the 9.7% to 17.3% who did not receive a hearing test, the consequences in terms of identification of a potential problem may have been serious. There was a general lack of developmental assessment between the ages of twelve and twenty-four months of age, especially in the suburbs. The inner city area has a policy of offering such assessments in the child health clinic or in the home.

so the limited uptake of this provision in the survey was surprising.

The relationship between the uptake of the various prophylactic measures was not an unexpected finding. Clearly the uptake of the first primary immunisation is a prerequisite for the subsequent uptake of other immunisations. Attendance at a child health clinic for the sixth week developmental assessment would also seem to provide an opportunity to introduce parents to the available provisions and thus enhance attendance rates for subsequent prophylactic measures. The close association between child health clinic attendance rates in the first year of infant life and the uptake of prophylactic measures would seem to support the view that child health clinic sessions are able to encourage the uptake of prophylactic measures, despite the findings of Biswas and Sands (1984) and Bolton (1984) that the majority of clinic attendance is for infant weighing.

A relationship was found between various socio-economic factors and the pursuance of infant prophylactic care. The lack of uptake of prophylactic care among the less advantaged families supports the findings of previous work in this field (Davie et al, 1972; Wedge and Prosser, 1973; Department of Health and Social Security, 1976a; Dowling, 1978; Butler, 1977). The reduced uptake of the sixth week developmental assessment was related to fewer socio-economic variables than subsequent prophylactic measures, with only increasing family size, mobility and bottle feeding being statistically related. This supports Dick's (1978) assertion that infants are perceived as particularly vulnerable at an early age and in need of all available care. The association between Social Class II attribution and reduced uptake of the sixth week developmental assessment cannot be explained. Lack of health visitor knowledge about the maternal experience of childbirth and its association with reduced uptake of

prophylactic care in general would seem to suggest a lack of contact between the health visitor and the family; this will be discussed in the next chapter.

With increasing infant age, the findings suggested an increasing association between socio-economic variables and uptake levels. Thus, reduced completion rates of the primary immunisation course were related to increasing family size, ascending social class, cultural background, illiteracy in English, mobility and homelessness, unplanned pregnancies and bottle feeding. There was also a trend of reduced uptake with maternal youthfulness, single parenthood and paternal unemployment. These findings support the reviewed literature which suggested that the use of infant prophylactic services was influenced by the socio-economic background of the parents and also supports the postulated relationship between the individual's belief system and preventive health behaviour conceptualised in Becker et al's (1974) Health Belief Model. The possible influence of geographical distance upon the uptake of prophylactic care was not considered relevant in this study. All the child health clinics were within easy walking distance (a maximum of twenty minutes between place of residence and child health clinic) and further, McKinlay (1972) found that certain groups will still under-utilise even when a facility is only 'a stone's throw' away.

Acute Health Care:

The Acheson Report (London Health Planning Consortium, 1981) suggested that a large group (25%) of Inner London's population was not registered with a local general practitioner, while registration with a local general practitioner was common practice in the suburbs of Outer London. The findings of this survey did not reveal a general lack of registration with local doctors in the inner city and it seemed there was an association between high social class, good housing

and cultural background and reduced local registration. Families of high social class of more affluent circumstance would be able to avail themselves of the services of private doctors who have premises in the West End of London which was outside the inner city geographical boundaries and therefore their lack of registration with a local general practitioner may be understood in this context. The cultural association with the lack of local registration among North African and Indian Subcontinent families perhaps reflected the desire of some parents to consult a doctor who understood their way of life and language.

The survey data regarding consultation rates with general practitioners relied upon health visitor 'impressions' and therefore may not have been very reliable. However, it was interesting to note that the health visitors thought that there was a higher consultation rate for parental health problems where there was paternal unemployment. If this was indeed the case, it would seem to support the assertions of Brenner (1979) and Fagin (1981) that there is a relationship between unemployment and increased morbidity. In a similar way, the health visitors thought that there were increased parental health consultation rates in Social Class V which, if true, would support the findings of the Black Report (Department of Health and Social Security, 1980a) of increased morbidity among this group of the population. The nature of the data source makes interpretation of the findings regarding consultation rates of infants difficult, however, Brotherston (1976) expressed concern over the apparent lack of increased consultation rates among children of poor social circumstance who were more likely to suffer increased morbidity rates.

A high admission rate to hospital was noted in both the inner city and suburb. The principal causes of admission were childhood infection and other medical problems of a

non-infective nature which is a common feature of paediatric care in infancy. Although some hospital admissions were due to surgical problems, they were a relatively small proportion reflecting the desire of surgeons to perform surgery on bigger children who are more able to withstand the experience. The mean length of hospital stay was distorted by a minimum coding period of one week so that, had a minimum coding period been in terms of days, it is suspected that the mean length of stay would have been much reduced. The mean age of hospital admission reflected the fact that the survey was only concerned with the first two years of infant life, nonetheless, it was apparent that the majority of hospital admissions occur in the first year of life.

The inner city infants had many more outpatient appointments than their contemporaries in the suburbs. This may be the reflection of two factors; the proximity of several prestigious teaching hospitals needing full outpatient clinics for the teaching of medical students and the incidence of increased morbidity among children in the inner city. The principal cause of outpatient appointments was a medical problem, and secondarily, a surgical problem. Thus, the importance of childhood infections among hospital admissions disappeared in the outpatient clinics. The mean age of infants at hospital outpatient appointments reflected the early age at which infants are referred to paediatricians and other specialists in their first two years of life.

Higher rates of Accident and Emergency Department usage were noted in both the inner city and the suburb as compared with the affluent suburb. The principal causes of attendance at Accident and Emergency Departments were childhood infections and accidents. The use of Accident and Emergency Departments for the purpose of gaining treatment for infections has been noted by others (Kearns, 1982).

although purportedly general practitioners provide a primary care service to treat such infants. The occurrence of childhood accidents is a well documented phenomenon and the mean age of Accident and Emergency Department attendance of fourteen months and over in the three districts suggests that accidents were more frequent among more mobile infants whose curiosity is developing. The large number of infants in the inner city who attend Accident and Emergency Departments for a medical problem would seem to suggest that such an approach is perceived as a more rapid way of achieving a specialist opinion of doctors working in a prestigious hospital. Although it is difficult to draw conclusions with the small numbers available, the district general hospital serving the suburb and affluent suburb did not engage in the training of medical students and therefore may not have had the same amount of prestige. Alternatively, the district general hospital may have educated its local populace to seek the advice of their general practitioner in the first instance, although the high attendance rate at an Accident and Emergency Department in the suburb for a childhood infection would seem to undermine this view.

The data revealed a relationship between hospital contact and reduced levels of prophylactic care among infants. The reduced uptake of the sixth week developmental assessment among infants who had more frequent hospital admissions and those attending outpatient appointments is similar to the finding of Robinson (1982a). A lower uptake of pertussis in the primary immunisation course was noted among infants attending outpatient appointments and probably reflected the caution of hospital doctors to recommend the pertussis immunisation to 'vulnerable' infants. The trend of a lower uptake of immunisation among infants attending hospital may have reflected the increased morbidity of these infants. Completion of the primary course of immunisation should occur at the beginning of the second year of life so that the 'vulnerable

infant' syndrome which Dick (1978) asserted increased the uptake of prophylactic care in early life has less influence. Thus an Accident and Emergency Department attendance, together with other factors, may mitigate against the completion of the course of injections which are no longer perceived as important. There were weak trends relating to hospital contact and reduced uptake of the infant hearing test. This may have been due to two factors: the increased morbidity of the infants and lack of importance accorded a non-invasive prophylactic measure performed by health visitors as compared with the parental experience of hospital paediatric care. The generally low level of uptake of the toddler developmental assessment makes the interpretation of trends difficult, however, like the hearing test, this developmental assessment is performed by health visitors.

The relationship between hospital contact and attendance at child health clinics during the first two years of infant life is interesting. With regard to the first six months of infant life, although clinic non-attenders had no greater hospital contact than clinic attenders, infants who had hospital contact were infrequent attenders, attending child health clinics between one and three times in the first six months. Also it was notable that there was a high Accident and Emergency Department usage among frequent child health clinic attenders which suggests that the concerns of these parents may not be met in the child health clinics. With regard to the entire first year of infant life, infrequent child health clinic attendance continued among those attending hospital outpatient appointments. This trend of lower clinic attendance among hospital outpatient attenders may have reflected the view of parents that the hospital service was serving all their needs and/or the child health clinic was less prestigious and therefore less worth attending. With regard to the second year of life, when child health clinic attendance was much lower as compared with attendance

in the first year, hospital contact was associated with increased attendance levels. Such an association may be due to the increased morbidity of this group of infants whose parents desired the use of all available medical provisions to improve their infants' wellbeing and the attempts of hospital doctors to return the surveillance of these infants to the community services.

Increased morbidity of infants during the first two years of life as measured in terms of hospital admissions, outpatient appointments and Accident and Emergency Department attendances was associated with poor social circumstance. Thus parental unemployment, increasing family size, public sector housing tenancy, shared basic amenities, bottle feeding and unplanned pregnancies were associated with increased admission rates. The trend of increased admission rates among infants from single parent and Social Class V families, where the mother was very young (12 to 16 years of age) and the parents were illiterate complemented the statistically significant findings. This association between increased child morbidity and poor social circumstance has been noted previously (Douglas and Blomfield, 1958; Acheson, 1965; Davie et al, 1972; Wedge and Prosser, 1973; Wadsworth and Morris, 1978; Bassett, 1981; Bax et al, 1980). Indeed, the association between poor social circumstance and increased mortality and morbidity rates was the subject of inquiry in the Black Report (Department of Health and Social Security, 1980a). The higher outpatient attendance rates among infants of poor social circumstance complemented the hospital admission data, although it was interesting that there was a trend towards more outpatient appointments among literate parents rather than illiterate parents as had been found among the infant admission data. This perhaps reflected the desire of articulate parents to have an expert opinion regarding their infant's health and wellbeing. The trend of higher

Accident and Emergency Department attendance among infants from Social Class V families whose mothers were young and single parents or where there was paternal unemployment was found in previous studies of childhood accidents (Davie et al, 1972; Wedge and Prosser, 1973). The greater tendency of illiterate parents to use Accident and Emergency Departments may have been due to a lack of understanding of the health care structure or an increased level of childhood morbidity which was also reflected in the hospital admission findings.

11.3. Conclusion.

The findings of this survey were similar to other previous work in this field and reiterated the findings of the Black Report (Department of Health and Social Security, 1980a) and the earlier Court Report (Department of Health and Social Security, 1976a). The findings also lend support to the conceptualisation of the Health Belief Model (Becker et al, 1974) since the data has suggested variations in the uptake of prophylactic care according to various demographic and sociopsychological variables.

The Model suggested that the pursuance of preventive health behaviour is influenced by a number of 'Modifying Factors' among which are demographic variables such as age (maternal), ethnic background, marital status, family size and socio-psychological variables such as social class and reference or peer group. Other 'Modifying Factors' postulated were structural variables and 'Cues to Action' which will be discussed in the next chapter.

The data from this survey revealed a relationship between the social history of infants and the pursuance of prophylactic care, a relationship which was particularly strong regarding the uptake and completion of the primary immunisation course. Thus Becker et al's assertion that

demographic variables influenced health behaviour was found to hold with regard to cultural background and increasing family size in particular. Reduced uptake of prophylactic measures was also associated with maternal youthfulness and single parenthood. Similarly, Becker et al's assertion that socio-psychological variables influence health behaviour was upheld by the survey data with social class, paternal unemployment, unplanned pregnancies and mobility being associated with reduced uptake of prophylactic care. The association of bottle feeding with reduced uptake of prophylactic care is perhaps a further validation of the Health Belief Model because pursuance of a particular infant feeding method could be associated with certain underlying beliefs held by a mother regarding what is health enhancing behaviour. The importance of socio-economic variables to the uptake of child health clinic facilities during the second year of an infant's life further suggests that the Health Belief Model is able to account for some variations in health behaviour.

This survey appears to support the view that Becker's Health Belief Model offers a valid framework in which health visitors may organise their practice so that their resources are concentrated in the areas of greatest need, thus promoting health measures to families least likely to pursue prophylactic care. In summary, the Health Belief Model indicates barriers to the uptake of prophylactic care, thus identifying vulnerable families for health visitor attention.

CHAPTER 12

THE DISCUSSION II:

HEALTH VISITOR HOME VISITING AND
USE OF SELECTED SUPPORT PROVISIONS

12.1. Health Visitor Home Visiting.

The health visitors in the inner city appeared to make more home visits to families than their counterparts in the suburbs; this was expressed as a trend with regard to the first six months of infant life and became a statistically significant relationship with regard to the second year of infant life. None of the three districts had health visitor home visiting policies which expressly stated optimum visiting patterns so the variation in home visiting patterns would seem to reflect the selected performance of the health visitors themselves. The extent of home visiting by individual health visitors may have also reflected their other health visiting commitments such as group health education sessions and hospital liaison, although the three districts appeared to have similar work practices. The only organisational difference between the three districts was the geographical organisation of inner city and suburb health visitors in contrast to the attachment to general practice of health visitors in the affluent suburb. It has been suggested that attachment reduces the amount of home visiting undertaken (Watson, 1976) and encourages a greater amount of elderly visiting (Marris, 1971). However, the differences observed were not between the inner city and suburb and affluent suburb but between the inner city sample and the samples in the suburbs. A potential constraint on home visiting practice is the size of health visitor caseloads, however, the health visitor caseloads were of similar sizes, varying from 150 to 200 families.

The majority of sample infants and their families appeared not to present a problem with regard to home visiting access, although a minority (approximately 5%) were associated with access problems. This level of non-access home visits is slightly less than that recorded by the Jameson Committee (Ministry of Health, 1956) and considerably less than in the other studies reviewed by Clark (1981). This apparently low level of health visitor access problems may be due to the nature of this study which relied upon a retrospective analysis of health visitor records. Two factors may account for the variation: persistent non-access visits would cause health visitors to assume the removal of a family from their area and therefore the consequent removal of such a family from the health visitor caseload so that such infants would not appear in the sample and, secondly, there may have been an error in the recording of non-access visits. The non-recording of non-access visits was a feature of 9.7% of inner city health visitor records, however, it may have occurred more frequently since the infant's health visitor at the time of data collection was unable to account for the recording practice of previous health visitors. This was a greater problem in the inner city and suburb where health visitor mobility was high.

While there existed differences in the general home visiting practices of the health visitors in the inner city and suburbs, home visiting prior to the uptake of prophylactic measures was similar. The assumption was made that during a home visit prior to the date of a prophylactic measure, the health visitor would encourage the uptake of the prophylactic measure. The strong relationship between home visiting practice during the first six months and subsequent home visiting during the first two years of infant life suggests that frequency of contact fosters more contact between health visitors and young families. It was interesting that the mobility of health visitors did not interfere with this process.

The findings suggested that there was a strong relationship between home visiting practice and the uptake of prophylactic care. With regard to the sixth week developmental assessment, a home visit prior to the sixth week was important, as was general home visiting practice, which suggests that health visitors are effective in promoting the uptake of prophylactic measures. With regard to the uptake of the first immunisation, it was noted that a previous home visit enhanced the uptake of pertussis in the primary immunisation course. Perhaps, health visitors are able to persuade and reassure parents with informed answers as Dingwall (1977c) suggested in his personal evidence to the Royal Commission on the National Health Service. A home visit prior to the hearing test and toddler developmental assessment was also found to be important to the uptake of these measures, however, general home visiting was important to the uptake levels of all the prophylactic measures. This supported Dingwall's (1977c) assertion that postal reminders are a poor substitute for regular personal contact which allows a parent the opportunity to gain information relating to the health and wellbeing of their infant. Becker et al (1974) postulated that structural variables such as knowledge about a disease, perceptions about the regimen, including its safety, and structure of the medical care provision were 'Modifying Factors' which could act as potential barriers to uptake. Also considered as 'Modifying Factors' were 'Cues to Action' such as advice from others. This survey supported the conceptualisation of the Health Belief Model that preventive health behaviour may be influenced by 'Cues to Action', since it seems that health visitor advice made available during home visits is able to modify parental fears about the safety of the pertussis vaccine as well as increase parental knowledge about the efficacy of infant primary immunisation. Indeed, it seems that health visitors are able to influence health behaviour through proffering advice highlighting the value of all prophylactic

care, while also explaining the system of prophylactic provision so that uptake of the services is enhanced. The health visiting service is thus able to act as 'Cues to Action' which modify the influence of the structural variables as postulated by Becker et al (1974). The use of immunisation appointments as 'Cues to Action' is difficult to evaluate since they were only a feature of the inner city provision, however, it is interesting that delay in the uptake of primary immunisation was less of a feature in the inner city, perhaps suggesting that appointments did act also as 'Cues to Action'.

This survey found a strong relationship between frequent home visiting and high child health clinic attendance levels throughout the first two years of infant life. This contrasts with the work of Butler (1980), who suggested that health visitors compensated for poor clinic attendance in their home visiting practice. However, while home visiting probably encourages child health clinic attendance for infant weighing and the uptake of prophylactic measures, child health clinic attendance allows parents to request a home visit to discuss their child care problems in more detail. And health visitors are probably subject to the effect of needing to be valued by those they seek to help, thus the non-clinic attenders may cause negative feelings within the health visitor and cause her to view her achievements in encouraging a family to pursue prophylactic care as worthless.

Health visitor home visiting patterns were not related to general practitioner contact patterns, but were clearly related to known hospital contact of infants. This suggests that health visitors are able to respond to an identified need in terms of increased child morbidity, however, it may also be that health visitors seek to show concern to a family who are in contact with curative services so that such families do not make an unfavourable comparison of the community health service.

The limited research in the field of evaluating the effectiveness of health visiting has produced favourable results. However, the Sheffield Study (Carpenter and Emery, 1974 and 1977) provided considerably more contact for 'at risk' families with the health visiting service than was revealed in this survey of health records. Lauri's (1981) study was also based on frequent contact between public health nurses and families during the first twenty-four months of life. Although Luker's (1982) experimental study was concerned with a population of elderly women, the effectiveness of the health visitor intervention was assessed subsequent to monthly home visits during a four month period. However, it is noteworthy in this study how few families received frequent, regular contact with their health visitor. The vast majority of families received six or less home visits during the first six months of an infant's life and 35% of inner city families, 47% of suburb families and 43% of affluent suburb families received two or less home visits during these first months. Such limited contact is unlikely to yield the therapeutic results suggested in the research studies.

The home visiting contribution was limited with regard to the entire first year of life, with most families receiving six or less home visits during this period. Further, a substantial group of families (21.6% inner city, 31.7% suburb, 19.6% affluent suburb) received two or less home visits during this twelve month period which, on average, suggests a home visit once every six months. Butler's (1977) study found that 94% of his sample had at least one home visit during the first year of life and 45.9% received four or less home visits during this period. Thus it would seem the frequency of home visiting revealed in this study was similar to that found by Butler (1977). This limited home visiting contact in the inner city and suburb was particularly important because it suggested that the health visitor-client

relationship had little time to develop because in these districts health visitors rotated the responsibility of advising at the child health clinics. Further, the mobility of health visitors in these areas was noted to be high. Although lack of contact with a particular health visitor in the affluent suburb was a problem, the problem was greater in the inner city and suburb areas.

As in Butler's (1977) study, this survey revealed a decrease in home visiting to infants over one year of age. In Butler's study, the vast majority (86.5%) of infants were visited at least once during the second year of life and 24.2% of infants received five or more visits during this period. This study revealed a similar visiting pattern with more home visiting among the inner city sample as compared with the experience of infants in the suburb. However, for those families (10.8% inner city, 22.2% suburb, 28.9% affluent suburb) who received no home visits during the second year, the outreach quality of the health visitor service was not extended to them. Further, nearly half the infants in the inner city and suburb and just over half the infants in the affluent suburb received minimal health visitor home visiting of one or two visits during the second year. It is doubtful whether such minimal contact with families can sustain a full teaching programme. The large number of unknown reasons for default regarding the uptake of prophylactic measures emphasized the shallowness of this health visitor-client relationship.

According to Clark's (1981) review, health visitors spend between a quarter and a third of their time on home visits, the majority of which are to families containing young children (Perkins, 1977; Fitton, 1981; Clark, 1981; Speakman, 1984). However, despite this concentration of health visitor resources upon the home visiting of families with young children, both the Child Health and Education

in the Seventies Study (Butler, 1977) and this survey have suggested that health visiting resources cannot sustain adequate home visiting practice for meaningful health education. This limited home visiting practice would seem to have four detrimental effects, namely: a failure to respond to mothers' preferences for home visits as found by Orr (1980) and Foxman et al (1982); the continued existence of role confusion due to lack of contact between health visitors and clients as identified by Graham (1979); a potential loss in job satisfaction among health visitors who cite home visiting as the most enjoyable part of their work (Clark, 1973); and finally, the limitation of health education potential of health visiting. The limited extent of home visiting also limits the extent to which positive discrimination in terms of extra home visits can be effective. Indeed, positive discrimination in this survey was considered to have been shown where families received more than six home visits in the first six months of life, more than ten home visits during the first year and more than six home visits during the second year. Such priority visiting only applied to a minority of infants at all these ages, although such a pattern of visiting would seem to offer the only opportunity for the development of a good health visitor-client relationship. Houston and Howie (1981) emphasized the need for frequent and regular support of breast feeding mothers if the duration of breast feeding is to be increased.

However, whether health visiting alone can combat the effects of the poor social circumstance and poverty is doubtful. Alberman et al (1977) criticised the Court Report (Department of Health and Social Security, 1976a) for its preoccupation with medical matters to the exclusion of social policy issues, namely the limited investment in the health of mothers and children except in times of war. This study also considered the contribution of other family support provisions which will be discussed briefly before an attempt is made to outline the home visiting framework health visitors used.

12.2. Use of Selected Support Provisions

The findings regarding the use of selected family support provisions revealed that inner city families had a greater reliance upon these provisions than those sample families in the suburbs with significantly more infants living in families who had had social work assistance and who were, or had been, dependent upon Supplementary Benefit payments as a source of family income. Inner city infants also used more day care facilities outside the home than infants in the suburbs. The use of support groups for mothers in the three areas was similar with less than 20% of mothers using them on a regular basis at the infant's second birthday. The proximity of hospital facilities and perhaps greater child morbidity may have accounted for the availability of additional help to inner city families. The analysis of this limited data revealed a clustering of the use of these other provisions so that social work, dependence upon Supplementary Benefit and use of day nurseries were closely associated with one another.

Social work support was also associated with family attributes considered to indicate poor socio-economic circumstance, such as unplanned pregnancy, maternal youthfulness, single parenthood, paternal unemployment, West Indian and Irish background, parental illiteracy, poor housing, council accommodation, homelessness and mobility. Increased child morbidity in terms of hospital contact was also related to social work support. Similarly, dependence upon Supplementary Benefit payments was related to poor social circumstance and increased child morbidity. The use of day nurseries was related to some indicators of poor social circumstance, although maternal employment was a feature of both day nursery and childminder care of infants. The use of support groups for mothers was generally limited and seemingly the preserve of an advantaged social group.

It was noted in the findings that social work assistance was not associated with diminished uptake of prophylactic care, except greater clinic non-attendance in the second year of infant life. However, dependence upon Supplementary Benefit was associated with a trend of reduced uptake of prophylactic care with increasing infant age. Day nursery and childminder use was not found to be related to the uptake of prophylactic care. In contrast, the use of support groups for mothers was weakly related to increased uptake of prophylactic care which in part probably reflected the behaviour of a more advantaged social group.

12.3. The Framework Health Visitors used to Select Their Home Visits.

The Court Report (Department of Health and Social Security, 1976a) identified the health visitor as a key figure in the preventive services and by implication, suggested that the health visitor could ameliorate child health and wellbeing. However, both Dingwall (1977b) and Robinson (1982a) have asserted that health visiting lacks an underpinning theoretical framework on which to base its practice, a point developed by Bolton (1980), who found that health visitors were vague about their assessment of priorities. Indeed, the findings of this survey suggest that health visitors employ a variety of strategies to organise their home visiting practice.

During the early months of infant life, that is, the first six months, health visitors gave priority in their home visiting practice with regard to factors relating to the childbirth rather than factors associated with the infant's family life. Thus increased home visiting support was given to families where the pregnancy was known to be unplanned and where there had been a medical intervention during the infant's delivery and problems during the puerperium. However,

lack of health visitor knowledge pertaining to the events of childbirth was closely related to a lack of home visiting support. Health visitors also provided increased home visiting support to families headed by an unemployed father, Social Class V families and families with social work involvement. There was a trend of increased support to families in bedsitter accommodation, although families in the private rental market received less home visiting. It was clear that health visitors did not use maternal youthfulness, single parenthood, parental illiteracy, cultural background, large family size, mobility, poor housing, dependence upon Supplementary Benefit payments or bottle feeding as indicators of increased need for health education. Indeed, it would seem that the health visitors showed a preference for a medical model in the organisation of their home visiting practice. This view is supported by the further finding that increased home visiting was associated with infant hospital attendance and the use of the Observation Register, which reflected infant hospital contact. It is suggested that the health visitors used a medical model for the organisation of their work in view of the lack of an alternative framework.

The analysis of home visiting practice of health visitors during the entire first year of infant life demonstrated a move away from the medical model of need towards a consideration of the infant's family life and circumstance. Thus the health visitors provided more home visiting support to families in the lower social classes and those living in council accommodation and receiving social work assistance. Single parenthood, unplanned pregnancies, paternal unemployment and increasing family size were also factors which were associated with some increase in home visiting. However, the health visitors did not use maternal youthfulness, cultural background, parental illiteracy, mobility, poor housing, bottle feeding or dependence upon Supplementary Benefit payments as indicators of increased

need of health visiting. Health visitor knowledge concerning difficulties associated with the childbirth did not appear to be associated with differential home visiting support, although lack of health visitor knowledge about the childbirth was clearly associated with reduced home visiting. Home visiting during the first year of life, like home visiting in the early months, responded to increased child morbidity in terms of hospital contact and the use of the Observation Register was also associated with increased home visiting. It is suggested that, in the first year of infant life, the health visitors used a selected number of socio-economic factors to prioritise their home visiting practice, but continued to consider the medical model of need as useful to their practice.

The analysis of home visiting practice during the second year of infant life revealed a more positive attempt to compensate for social disadvantage in family life. Thus, the health visitors provided more home visiting support to young mothers, single parents, unemployed parents, families in Social Classes IV and V, large families, families accommodated in the public sector, families who had had social work assistance, families dependent upon Supplementary Benefit payments and infants who were the product of unplanned pregnancies. However, parental illiteracy was not considered important and families from Eire and South East Asia seemingly received proportionately less support. Lack of knowledge on the part of the health visitor regarding the maternal experience of childbirth continued to be weakly related to less home visiting, while depression during the puerperium was associated with increased home visiting in the second year. Home visiting was also related to hospital contact among infants and the use of the Observation Register. It is suggested that health visiting practice in the second year of life is more responsive to social disadvantage than the practice in the first year. This may be the result

of the realisation that social background of an infant is related to the uptake of prophylactic care and increased morbidity and therefore the health visitors are responding to the reduced uptake of prophylactic care and increased illness rates among these groups. Alternatively, the health visitors may be adopting a model similar to the Health Belief Model to replace the medical model as it becomes redundant as the infants grow and become less 'vulnerable'.

Butler (1977) suggested that, although the home visiting practice of health visitors in his sample did not reflect a bias towards the lower social classes, home visiting positively discriminated towards the disadvantaged. The disadvantaged group of children was identified by means of a Social Index which produced a rating score devised from a consideration of social class, parental education, residential district, housing tenure, space in dwelling, basic amenities and personal transport (Osborn and Morris, 1979). However, his assertion that positive discrimination was shown rests upon his finding that, in the first year of an infant's life, 63.8% of disadvantaged families had five or more home visits, 28.8% had between one and four home visits and 7.4% had no home visits. He compared this to the home visiting of the neutral and advantaged group where 46.9% had more than five home visits, 47.8% had between one and four home visits and 5.3% had no home visits. It would seem that health visitors in his sample showed some positive discrimination towards the disadvantaged but these proportions conceal the variations in sample sizes which may have a distorting effect since the disadvantaged group consisted of eighty children compared with 606 children in the neutral group and 166 children in the advantaged group. It is notable that Butler (1977) referred to a significance level of less than 0.01 when the data involved such large sample numbers. Butler (1977) described similar positive discrimination of health visitor home visiting

in the second year of infant life. However, even with the benefit of positive discrimination from health visitors, disadvantaged families in the Child Health and Education in the Seventies Study received limited home visiting which does not compare favourably with that suggested by Houston and Howie (1981). Further, Dowling's (1978) estimate that between 10% and 20% of all children entering school have some sort of developmental or medical problem, often treatable, which has gone undetected in the preschool years, is not surprising in view of the small amount of contact infants have with health visitors.

12. 4. Implications for Health Visiting Practice.

The limited amount of home visiting to infants in their second year of life must be of grave concern in view of the evidence that child health clinic attendance is much reduced. The limited amount of child surveillance during this period of early childhood is also of concern. It was also apparent that during the first year of life many families received a minimal amount of home visits. It is difficult to believe that the health visitors were able to use their skills to the full and sustain a comprehensive teaching and support programme for families with such limited contact.

The use of a medical model for the organisation of home visiting in the early months of infant life may reflect a lack of an underpinning theoretical framework in health visiting so that the health visitors returned to their nursing origins to assess need. However, this use of a curative approach is contrary to the underlying functions of health visiting which are to prevent illhealth and its consequences, identify problems in high risk groups, health teaching and provide advice and guidance (Council for the Education and Training of Health Visitors, 1972). While clearly infants subject to a traumatic birth may be more vulnerable than others, the reviewed literature, including the Black Report

(Department of Health and Social Security, 1980a), has suggested that social circumstance has a profound influence upon child health and wellbeing so that one would hope to find health visitors providing extra support to disadvantaged families. It was clear that only limited aspects of a family's social circumstance were considered of relevance to health visitor home visiting practice in the early months.

The lack of a clear framework for selecting families in need of increased home visiting support as demonstrated in this survey of recorded home visiting practice perhaps reflects the need to develop a more integrated health visitor training. This problem was noted by Dingwall (1977b) in his study of a health visitor training course. The problem is perhaps further exacerbated by the lack of a definition of what constitutes good practice (Clark, 1983), so that health visitors vacillate between a relationship-oriented approach and a problem-oriented approach to practice. The dependence upon an apprenticeship model for practical training during which a student health visitor may see only one model of practice which may not be the 'ideal' (Chapman, 1979; While, 1980) would seem to contribute to the 'problem' of health visiting.

The continued use of the Observation Registers, despite recommendations for their abandonment in the Court Report (Department of Health and Social Security, 1976a), requires further consideration in view of their potential influence upon home visiting practice. Perkins (1977) also noted in her study the continued use of Observation Registers.

The existence of such a large group of defaults ascribed to unknown reasons emphasises the lack of health visitor contact with families. It is inevitable that, for various reasons, families will decline to use available provisions and it is a means by which consumers may express their

dissatisfaction with a service. However, lack of knowledge about the failure to accept prophylactic measures may be a reflection of the general lack of contact with the infant population and their families and therefore the minimal amount of health education provided by the health visiting service.

12.5. Conclusion.

The case for apportioning health visitor resources in the areas of greatest need was made in Chapter 5 in view of the evidence to two House of Commons committees (1977b;1980b) suggesting that there is a shortage of health visitors and that only selective rather than routine home visiting is possible. It was suggested that 'good health visiting practice' must mean the allocation of scarce health visitor resources among families with poorer health experience. It was further suggested that the Health Belief Model (Becker et al, 1974) could be used to enhance health visitor practice by assisting in the identification of vulnerable families.

The conceptualisation of the Health Belief Model regarding the influence of demographic and sociopsychological variables upon preventive health behaviour and the findings of this survey were discussed in the previous chapter. The data from this survey also revealed a relationship between health visitor home visiting and the uptake of prophylactic care, a relationship which pertained to the uptake of all prophylactic provisions. Thus Becker et al's (1974) assertion that information from another (what they subsumed under 'Cues to Action') influences health behaviour, was found to hold. Indeed, the conceptualisation of the Health Belief Model was upheld by the survey data.

The Council for the Education and Training of Health Visitors (1972) identified health teaching as one of the

main aspects of health visitor work. It has been suggested that health visitor training reflects this emphasis with the expectation that qualified health visitors should be able to identify 'vulnerable' families and apportion their home visiting support accordingly. However, this survey revealed that 'medical' need is used to assess 'vulnerability' rather than 'social' need during the first six months of an infant's life, despite the large amount of literature demonstrating the relationship between adverse social circumstances and poor child health. Analysis of health visitor home visiting during the entire first year of infant life revealed a move away from the medical model of need towards a consideration of the infant's family life and circumstance. However, it was only during the second year of infant life that 'social' need was used to assess 'vulnerability', whether in response to increased morbidity and reduced uptake of prophylactic care among children or because health visitors had adopted a model similar to the Health Belief Model, can only be speculated. Indeed, this survey has revealed the need for an instrument to assist health visitors in their selection of families in need of more home visiting support.

The limited amount of home visits received by families supports the evidence presented to two House of Commons committees (1977b; 1980b) that there is a shortage of health visitors. Of particular concern is the very limited amount of home visiting support received by families during an infant's second year of life. The survey revealed that few families received six or more home visits, the majority received two or fewer home visits with a significant minority of families receiving no home visits and this despite the notably low child health clinic attendance rates during the second year of infant life. The need for a sound basis on which to select those families in need of more home visiting support is therefore of great importance.

CHAPTER 13

THE CONCLUSION

The Black Report (Department of Health and Social Security, 1980a) revealed a marked variation in the occurrence of illhealth in otherwise similar populations and suggested that much illhealth is preventable through health education coupled with social and economic change. The Court Report (Department of Health and Social Security, 1976a) posited the view that a healthy childhood is an essential foundation for healthy adult life and, like the Brotherston Report (Scottish Home and Health Department, 1973), the Court Report laid great emphasis upon the value of preventive paediatrics and they both particularly acknowledged the contribution of health visitors in this field of care.

In this thesis the emergence of health visiting as a quasi-autonomous occupation was traced through the historical literature. The relationship between health visiting and other occupational groups such as social workers, hospital nurses and general practitioners was considered to reveal an occupation which rests somewhere between nursing and social work. It was suggested that health visitors possessed four core skills (observational skills, communication skills, teaching skills and organisation skills) with which to perform their role, although it appeared that health visiting lacked both an underpinning theoretical framework and an agreed *modus operandi* on which to base its practice. However, the reviewed research revealed an occupation orientated around maternal and child health. No research has apparently been undertaken to consider whether current health visiting practice is efficient or effective and the Sheffield Study (Carpenter and Emery, 1977) is the only research to date to consider the effect of health visiting upon infant mortality rates. The review of the consumer satisfaction research

suggested that not all mothers enjoy the health visiting service which may in part be due to an uncertainty about what health visitors do.

Government publications support the belief that an improvement in child health may be achieved through the education of parents (Department of Health and Social Security, 1977b; Department of Health and Social Security, 1982b) and the uptake of prophylactic measures (Department of Health and Social Security, 1984). Becker's Health Belief Model (Becker et al, 1974) was evaluated as a potential framework for organisation of health visitor work in this field of health education. It was suggested that the Model would enhance health visiting practice by helping health visitors to prioritise their home visits so that their skills could be concentrated in the areas of greatest need, that is, disadvantaged families. The findings of the survey revealed that the conceptualisation of the Health Belief Model was sound. Both demographic and socio-psychological variables were found to be related to the uptake of prophylactic care and 'Cues to Action' in the form of health visitor home visits were found to encourage the pursuance of preventive health behaviour. Indeed, it would seem that the Health Belief Model could be used to select families least likely to pursue prophylactic care and therefore select families in need of more home visiting to promote the uptake of such care.

The findings of the survey confirmed the findings of the Black Report (Department of Health and Social Security, 1980a) and other research that the health of children cannot be separated from the family life which they experience. The characteristics of life in an inner city area in terms of poor social circumstance in comparison to life in the suburbs was confirmed. However, despite these disadvantages, the inner city infants in this study received more home

visiting support and achieved a higher uptake of prophylactic care in terms of child health clinic attendance than sample infants in the suburbs. But the findings revealed that, in general, the health visitors did not appear to employ a clear strategy in their organisation of home visiting. Further, it was suggested that the small number of home visits to each infant and his family called into question whether health visiting could be effective. It was posited that this limited amount of contact was unlikely to be able to sustain any programme of health teaching and support.

The health visitor role is a difficult topic to investigate and no attempt was made to consider the quality of the health visitors who had had contact with the selected infants and their families. The quality of health visitors is clearly critical to the health visiting experience of families. However, the concerns of this study were the health experience of selected infants and their families over a two year period. Since the survey reviewed all health visiting practice, it is perhaps a reflection of the general quality of health visitors rather than the particular quality of individual health visitors. Although a census of a birth cohort was used to select a sample, this census may have excluded infants from the cohort if the health visitors did not know that they were resident in the district at the time of their second birthday. The use of a birth cohort has been used in previous studies, however, it would have been preferable to have used identical cohort months for all the samples. The comparability of the samples with the 1981 Census findings suggested that the samples were representative of the residents in those areas.

The use of records as a data source was discussed in Chapter 6 and their limitations were acknowledged. However, health visitor records have the potential to provide a unique insight into child health and health visiting practice without

the use of a more direct intervention. The shortcomings of record keeping, however, remain an important consideration, although only 4.5% of the inner city and 0.8% of the suburb health visitor records appeared to be incomplete. One of the deficiencies of the use of this data source was a lack of data relating to the quality of family life, indeed the questionnaire was modified at the pre-pilot stage and a question relating to the stability of the parental partnership was removed.

Bolden (1981) suggested in his review of inner cities from a general practitioner point of view that all cities have the same general problems, although their magnitude varies. Similarly, although the research findings are not generalisable throughout Britain, they may be indicative of the health experience of infants in inner city areas and in the suburbs of other cities where similar social conditions and National Health Service provisions prevail. However, the data clearly reflects the particular experience of a selected group of infants and the health visitor recording practices of particular Health Districts in the London area. The findings are only indicative of global health visiting practice since the data was not analysed to reveal the particular practices of different health visitors. This reflected the aim of the study to describe the contribution of health visitor home visiting to child health rather than a particular health visitor's contribution to the health of an individual child.

Three areas of future research would seem to emerge from this study. The suggested topics are: a replication of this study outside London with the inclusion of a rural area; an investigation of how health visitors think they organise their home visiting practice; and the development of a health visitor priority scale similar to the Norton Scale (Norton et al, 1975), used by nurses for the assessment of pressure sore vulnerability.

Two needs emerged from this study: firstly, an increase in health visiting resources so as to allow the development of regular home visiting practice in which health teaching may become a reality; and secondly, a health visiting priority scale instrument which could be used by health visitors to assist them in the organisation of their home visiting practice so that positive discrimination towards families most in need may become a common feature of health visiting. The lack of a health visiting priority scale instrument and the associated agreed upon 'modus operandi' may explain why health visitors did not concentrate their resources among families in greatest need. The development of a priority scale instrument derived from the Health Belief Model (Becker et al, 1974) would seem to offer health visitors a tool which could enhance the quality of their practice. It would also help to integrate the sociology component of their training into their subsequent practice. Such a tool will be an important development because this study confirmed the evidence presented to two House of Commons committees (1977b; 1980b) that health visiting resources are very limited so that selective allocation of the limited resources will be necessary. This study has also suggested that such an instrument could be developed.

The stated aims of the research were achieved: to ascertain the utilisation levels of selected infants of National Health Service provisions; to describe the contribution of health visitor home visiting to the health experience of these infants; and to ascertain the contribution of selected family support provisions to the sample infants.

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APPENDIX A

HEALTH EXPERIENCE OF CHILDREN AGED 0 TO 2 YEARS
AND HEALTH VISITING PRACTICE

QUESTIONNAIRE

Identity:

Date of Birth: Day: Month: Clinic: Sex:

Social History:

1. Was the pregnancy planned or unplanned?
2. Was the pregnancy welcome or unwanted?
3. What was the age of the mother?
4. How many partners have there been in the household
 over the last two years?
5. How many partners are there in the household?
6. What is the caretaker's marital status?
7. Is the father known or unknown?
8. How many paternal contacts are there each month?
9. Is the father present in the household?

Parental Occupations:

10. Is the mother employed or unemployed?
11. What job does the mother do?
12. Is the father employed or unemployed?
13. What job does the father do?

Ethnic Origin, Country of Birth and Dominant Cultural Practices:

14. Where was the mother born?
15. Where was the maternal grandfather born?
16. Where was the maternal grandmother born?
17. Where was the father born?
18. Where was the paternal grandfather born?
19. Where was the paternal grandmother born?

**Ethnic Origin, Country of Birth and Dominant Cultural Practices:
(Continued)**

20. In your opinion, what are the dominant cultural practices in this family?
21. How well does the caretaker speak the English language?
22. How well does the caretaker write the English language?
23. Is the caretaker literate or illiterate in their own language?

Family Structure:

24. How many children are there in the family?
25. How many male off-springs are there in the family?
26. How many female off-springs are there in the family?
27. What are their ages (in years)?

Housing Situation:

28. In what category of ownership or occupation does this family live?
29. What type of accomodation does this family have?
30. How many bedrooms does the accomodation have?
31. Are the kitchen facilities separate, shared or bedsit?
32. Are the bathing and w.c. facilities separate or shared?
33. How many occupants are there in the household?
34. How many accomodation moves did the family make during the first year of this child's life?
35. How many accomodation moves did the family make during the second year of this child's life?
36. Has the family ever been under a Homeless Family Unit?
37. How long was the family under a Homeless Family Unit (in months)?

Prophylactic Care:

Uptake of Six Week Check-Up Facility:

38. Did the child have a six week check-up?
39. How old was the child at the six week check-up (in weeks)?
40. Why did the child default regarding the six week check-up?

Prophylactic Care:**Uptake of Six Week Check-Up Facility (Continued):**

41. Was an appointment given for the six week check-up and did the child attend subsequently?
42. Did the family have a home visit to encourage attendance at the six week check-up?
43. Was contact established with the family to encourage uptake of the six week check-up?
44. Did the caretaker remember receiving an appointment to the six week check-up?

Uptake of Immunisations:

45. Did the child receive a first immunisation? (including pertussis?)
46. How old was the child at the first immunisation (in months)?
47. Why did the child default regarding the first immunisation?
48. Was an appointment subsequently given for the first immunisation and did the child attend subsequently?
49. Did the family have a home visit to encourage attendance at the first immunisation?
50. Was contact established with the family to encourage uptake of the first immunisation?
51. Did the caretaker remember receiving an appointment to the first immunisation?

52. Did the child receive a second immunisation?
53. How old was the child at the second immunisation (in months)?
54. Why did the child default regarding the second immunisation?
55. Was an appointment given for the second immunisation and did the child attend subsequently?
56. Did the family have a home visit to encourage attendance at the second immunisation?

57. Was contact established with the family to encourage uptake of the second immunisation?
58. Did the caretaker remember receiving an appointment to the second immunisation?

59. Did the child receive a third immunisation?
60. How old was the child at the third immunisation (in months)?
61. Why did the child default regarding the third immunisation?
62. Was an appointment given for the third immunisation and did the child attend subsequently?
63. Did the family have a home visit to encourage attendance at the third immunisation?
64. Was contact established with the family to encourage uptake of the third immunisation?
65. Did the caretaker remember receiving an appointment to the third immunisation?

Uptake of Measles Vaccination:

66. Did the child receive a measles vaccination?
67. How old was the child at the measles vaccination (in months)?
68. Why did the child default regarding the measles vaccination?
69. Was an appointment given for the measles vaccination and did the child attend subsequently?
70. Did the family have a home visit to encourage attendance at the measles vaccination?
71. Was contact established with the family to encourage uptake of the measles vaccination?
72. Did the caretaker remember receiving an appointment to the measles vaccination?

Uptake of Hearing Test:

73. Did the child have a hearing test?
74. How old was the child at the hearing test (in months)?

Prophylactic Care:**Uptake of Hearing Test (Continued):**

75. Why did the child default regarding the hearing test?
76. Was an appointment given for the hearing test and did the child attend subsequently?
77. Did the family have a home visit to encourage attendance at the hearing test?
78. Was contact established with the family to encourage uptake of the hearing test?
79. Did the caretaker remember receiving an appointment to the hearing test?

Uptake of the Fifteen Month Check-Up:

80. Did the child have a fifteen month check-up?
81. How old was the child at the fifteen month check-up (in months)?
82. Why did the child default regarding the fifteen month check-up?
83. Was an appointment given for the fifteen month check-up and did the child attend subsequently?
84. Did the family have a home visit to encourage attendance at the fifteen month check-up?
85. Was contact established with the family to encourage uptake of the fifteen month check-up)?
86. Did the caretaker remember receiving an appointment to the fifteen month check-up?

Use of Child Health Clinic:

87. How many times did the child attend the Child Health Clinic during the first six months of life?
88. How many times did the child attend the Child Health Clinic during the first year of life?
89. How many times did the child attend the Child Health Clinic during the second year of life?

Health Visitor Contact Outside Clinics:

90. How many home visits were made during the child's first six months of life?
91. How many home visits were made during the child's first year of life?
92. How many home visits were made during the child's second year of life?
93. How many unsuccessful home visits were made during the child's first six months of life?
94. How many unsuccessful home visits were made during the child's first year of life?
95. How many unsuccessful home visits were made during the child's second year of life?

Other Relevant Information:

96. Is the child on the Observation Register?
97. Is the child on the Handicap Register?
98. Was the child bottle or breast fed?

Acute Health Care:**Family Doctor Contact:**

99. Is the child registered with a local general practitioner?
100. How long has the child been registered locally (in months)?
101. Is there a pattern of contact with the general practitioner?
102. For what reason does the family make contact with the general practitioner?

Hospital Contact:

103. What hospital admissions has the child had?

Age (in months)	Duration of Stay (in weeks)	Cause
--------------------	--------------------------------	-------
104. Has the child been admitted to hospital more than four times?

Hospital Contact (Continued):

105. What hospital outpatient appointments has the child had?
 Age Cause
 (in months)
106. Has the child had more than six outpatient appointments?
107. Has the child been under the Home Care Team?
 Age Period of Care Cause
 (in months) (in weeks)
108. Has the child been under the Home Care Team on more than three separate occasions?
109. Has the child attended an Accident and Emergency Department?
 Age Cause
 (in months)
110. Has the child attended Accident and Emergency Departments more than five times?

Family Health:

- What is the health of the family like?
 (physical, psychological, any handicaps)
111. Mother
112. Father
113. Siblings
- 114.
- 115.
- 116.
- 117.
- 118.
- 119.
- 120.
- 121.
- 122.
- Significant others, e.g. grandparents.
- 123.
- 124.
- 125.
- 126.

Experience of Childbirth:

- 127. What was the mother's experience of childbirth?
- 128. What was the mother's experience of antenatal care?
- 129. Was the confinement uneventful?
- 130. Were there any problems in the puerperium?
- 131. Is there any information available regarding the confinement (discharge slip)?

Other Agencies in Contact with the Family:

- 132. Have any social workers been involved with the family during the last two years? (Which agency?)
- 133. Has the family been involved with the Supplementary Benefit Office in the last two years?
- 134. Has the family been in receipt of unemployment or sickness benefit in the last two years?
- 135. Has the child ever attended a day nursery? (How long?)
- 136. Has the child ever been placed with a childminder? (How long?)
- 137. Does the child attend a mother and toddler group or mothers' club?
- 138. Does the family have contact with any other agencies?
- 139. Has the child been subject to a Care Order?

Age	Period of Custody
(in months)	(in weeks)
- 140. Has the child been subject to more than two Care Orders?

Health Visitor Records:

- 141. How many health visitors have had contact with the family during the last two years?
- 142. How many District Health Authorities have had contact with the family during the last two years?
- 143. Do the health visitor records seem complete?

APPENDIX B

CODING OF HEALTH EXPERIENCE QUESTIONNAIRE

Identity:

- Months:
- | | |
|-------------------|--------------------|
| 1. August 1979 | 7. March 1980 |
| 2. September 1979 | 8. April 1980 |
| 3. October 1979 | 9. Pilot |
| 4. November 1979 | 10. August 1980 |
| 5. January 1980 | 11. September 1980 |
| 6. February 1980 | 12. October 1980 |

- Clinics:
1. Inner City
 2. Suburb
 3. Affluent Suburb

- Sex:
1. Male
 2. Female

Social History:

1. Pregnancy:
 1. Planned
 2. Unplanned
2.
 1. Welcome
 2. Unwanted
3. Age of mother in years - maximum 36 years.
4. Number of partners in household over last two years.
5. Number of partners in household at present time.
6. Caretaker's marital status:
 1. Married
 2. Common Law Wife
 3. Single
 4. Divorced
 5. Separated
 6. Widowed
7. Paternity relationship:
 1. Known
 2. Unknown
8. Number of paternal contacts per calendar month.
Constant (maximum 16)
9. Father present in household:
 1. Yes
 2. No

Parental Occupations:

- | | | |
|-----|----------------------------------|-------------------------|
| 10. | Mother's employment: | 1. Full time employment |
| | | 2. Part time employment |
| | | 3. Unemployed |
| | | 4. Deceased |
| | | 5. Unknown |
| 11. | Registrar General's Social Class | |
| 12. | Father's employment: | 1. Full time employment |
| | | 2. Part time employment |
| | | 3. Unemployed |
| | | 4. Deceased |
| | | 5. Unknown |
| 13. | Registrar General's Social Class | |

Ethnic Origin, Country of Birth and Dominant Cultural Practices:

(Questions 14,15,16,17,18,19,20)

- | | |
|---------------------|-------------------------------|
| 1. England | 21. Sudan |
| 2. Scotland | 22. Other Arab |
| 3. Wales | 23. Other North Africa |
| 4. Northern Ireland | 24. Other North West European |
| 5. Eire | 25. West Africa |
| 6. Spain | 26. East Africa |
| 7. Portugal | 27. South Africa & Zimbabwe |
| 8. Italy | 28. South Africa |
| 9. Greece | 29. India |
| 10. Cyprus | 30. Pakistan |
| 11. Turkey | 31. Sri Lanka |
| 12. Lebanon | 32. Bangladesh |
| 13. Jordan | 33. Phillipines |
| 14. Syria | 34. Other South East Asian |
| 15. Iran | 35. Australia and New Zealand |
| 16. Iraq | 36. Canada |
| 17. Israel | 37. United States of America |
| 18. Egypt | 38. West Indies |
| 19. Saudi Arabia | 39. Central America |
| 20. Morocco | 40. Brazil |

**Ethnic Origin, Country of Birth and Dominant Cultural Practices
(Continued):**

- | | |
|---|-------------------------------------|
| 41. Colombia | 45. Peru |
| 42. Venezuela | 46. Other South American |
| 43. Guyana | 47. Other |
| 44. Chile | |
|
 | |
| 21. Spoken English: | 1. Fluent |
| | 2. Some understanding |
| | 3. Virtually no understanding |
| | 4. Interpreter used in conversation |
| 22. Written English: | 1. Literate |
| | 2. Illiterate |
| 23. Competence in native language: | 1. Literate |
| | 2. Illiterate |
| 24. Number of children in family | |
| 25. Number of male children (maximum 9) | |
| 26. Number of female children (maximum 9) | |
| 27. Ages of children in years | |
|
 | |
| Housing Situation: | |
| 28. Categories of occupation: | 1. Council |
| | 2. Housing Trust |
| | 3. Private rental |
| | 4. Homeless Family Unit |
| | 5. Squatting |
| | 6. Owner-occupier |
| 29. Type of accommodation: | 1. House |
| | 2. Flat |
| | 3. Bedsitter |
| 30. Number of bedrooms | |
| 31. Kitchen facilities | 1. Separate |
| | 2. Shared |
| | 3. Bedsitter |

Prophylactic Care:**Uptake of Six Week Check-Up Facility (Continued):**

- | | | |
|-----|---------------------------------|--------|
| 43. | Established contact: | 1. Yes |
| | | 2. No |
| 44. | Appointment receipt remembered: | 1. Yes |
| | | 2. No |

Uptake of Immunisations, Measles Vaccination, Hearing Test and Fifteen Month Check-Up:

(Questions 45 to 86)

Codes as for Uptake of Six Week Check-Up.

Use of Child Health Clinic:

- | | |
|-----|--|
| 87. | Attendance at clinic during first six months of life |
| 88. | Attendance at clinic during first year of life |
| 89. | Attendance at clinic during second year of life |

Health Visitor Contact:

- | | |
|-----|--|
| 90. | Number of home visits during first six months of life |
| 91. | Number of home visits during first year of life |
| 92. | Number of home visits during second year of life |
| 93. | Number of unsuccessful home visits during first six months of life |
| 94. | Number of unsuccessful home visits during first year of life |
| 95. | Number of unsuccessful home visits during second year of life |

Other Relevant Information:

- | | | |
|-----|--------------------------------|--------------------------------------|
| 96. | Child on Observation Register: | 1. Yes |
| | | 2. No |
| 97. | Child on Handicap Register: | 1. Yes |
| | | 2. No |
| 98 | Infant feeding: | 1. Bottle fed from birth |
| | | 2. Breast fed less than two weeks |
| | | 3. Breast fed less than six weeks |
| | | 4. Breast fed less than three months |

Other Relevant Information:

- Infant feeding (continued):
5. Breast fed less than six months
 6. Breast fed less than nine months
 7. Breast fed less than twelve months
 8. Breast fed more than twelve months

Acute Health Care:**Family Doctor Contact:**

99. Registration with local general practitioner:
 1. Yes
 2. No
100. Period of registration with local general practitioner in months.
101. Pattern of contact with general practitioner:
 1. Frequent i.e. usually once weekly
 2. Regular i.e. one to two contacts per calendar month
 3. Infrequent i.e. less than once monthly
 4. Irregular
102. Usual reason for contact with general practitioner:
 1. Childhood infection
 2. Childhood behaviour
 3. Maternal concern
 4. Maternal physical illhealth
 5. Maternal psychological illhealth
 6. Paternal physical illhealth
 7. Paternal psychological illhealth
 8. Caretaker illhealth

Hospital Contact:

Information relating to hospital admissions:

103. Cause of admission:
1. Infection
 2. Other medical problem
 3. Accident
 4. Surgical problem
 5. Social problem
 6. Safety Order
104. More than four hospital admissions:
1. Yes
 2. No
105. Information relating to hospital outpatient appointments
106. More than six hospital outpatient appointments:
1. Yes
 2. No
107. Information relating to contact with the Home Care Team
108. More than three separate contacts with the Home Care Team:
1. Yes
 2. No
109. Information relating to attendance at an Accident and
Emergency Department.
110. More than five separate attendances at an Accident and
Emergency Department:
1. Yes
 2. No

Family Health:

(Questions 111 to 126)

Physical Health

1. Good
2. Frequent infections
3. Ongoing medical problem
4. Frail
- 5.
- 6.
- 7.
- 8.

Psychological Health

1. Good
2. Neurosis
3. Anxious
4. Psychosis
5. History of neurosis
6. History of psychosis
7. Behaviour disorder
- 8.

Family Health (Continued):**Handicaps:**

1. Mental
2. Mobility
3. Endocrine
4. Neurological
- 5.
- 6.
- 7.
- 8.

Experience of Childbirth:

127. Mother's experience of childbirth:

1. Good/satisfying
2. Between satisfying and stressful
3. Traumatic/stressful
4. Not known

128. Mother's experience of antenatal care:

1. Booked by 16/40 and full care
2. Booked by 16/40 and limited care
3. Booked by 28/40 and full care
4. Booked by 28/40 and limited care
5. Unbooked
6. Major problems in antenatal care
7. Inpatient care
8. Not known
- 9.

129. Confinement:

1. Greater than eighteen hours in Stage I
2. Greater than one hour in Stage II
3. Third degree tear
4. Episiotomy
5. Forceps

129. Confinement (Continued):
6. Epidural
 7. Induction
 8. Emergency Caesarian Section
 9. Planned Caesarian Section
130. Problems in Puerperium:
1. Manual removal of placenta
 2. Cervical tear
 3. E.R.P.C.
 4. P.P.H
 5. More than two days depression
 6. Gynaecological problems
 7. Relatively uneventful
131. Discharge slip or confinement information available:
1. Yes
 2. No
- Other Agencies in Contact with the Family:**
132. Social worker involvement:
1. None
 2. Social Service
 3. Family Service Unit
 4. Welcare
 5. Section One Payment
 6. Hospital
 7. R.N.I.B.
 - 8.
 - 9.
133. Receipt of Supplementary Benefit:
1. Never
 2. None at present
 3. Receiving

134. Receipt of unemployment or sickness benefit:
1. Never, either benefit
 2. Received sickness benefit in past
 3. Received unemployment benefit in past
 4. Receiving unemployment benefit
 5. Receiving sickness benefit
135. Day nursery attendance:
1. Never
 2. For less than three months
 3. For less than six months
 4. For less than nine months
 5. For less than twelve months
 6. For less than fifteen months
 7. For less than eighteen months
 8. For greater than eighteen months
136. Placement with childminder:
1. Never
 2. For less than three months
 3. For less than six months
 4. For less than nine months
 5. For less than twelve months
 6. For less than fifteen months
 7. For less than eighteen months
 8. For greater than eighteen months

137. Attendance at a mother and toddler group or mothers' club:
1. Never
 2. In the past
 3. Attending presently
138. Contact with other agencies:
1. None
 2. Probation Service
 3. Education and welfare
 4. Sr.Cecilia (Morrocan welfare)
 5. Fostering
 6. Environmental Health
 7. Speech therapy
 8. Child guidance
 - 9.
139. Child subject to Care Order: Age in months
Period of custody in weeks
140. Child subject to more than two Care Orders:
1. Yes
 2. No

Health Visitor Records

141. Number of health visitors known to the family
142. Number of District Health Authorities experience by the family
- 143: Completeness of health visitor records:
1. Complete
 2. Records of some period missing
 3. Incomplete in some other way

APPENDIX C

HEALTH EXPERIENCE OF CHILDREN AGED 0 - 2 YEARS
CODING SHEET

IDENTITY 3PM MONTH CWN CMB 1 02 03 04 05 06 07 08 09 10 11
1 4 6 8 9 10 11 12 14 16 17 18 19 21 22 23

02 03 04 05 06 07 08 09 10 11 12 13 14 15 16
24 25 26 27 28 29 30 31 32 33 34 35 36 37 38

017 018 019 020 021 022 023 024 025 026 027 028 029 030 031
47 48 49 50 51 52 53 54 55 56 57 58 59 60 61

032 033 034 035 036 037 038
71 72 73 74 75 76 77 78

IDENTITY 3PM MONTH CWN CMB 2 038 039 040 041 042 043 044 045 046 047 048
1 4 6 8 9 10 11 13 14 15 16 17 18 19 20 22

049 050 051 052 053 054 055 056 057 058 059 060 061 062 063 064 065 066
23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

067 068 069 070 071 072 073 074 075 076 077 078 079 080 081 082 083 084
43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63

085 086 087 088 089 090 091 092
64 65 66 67 68 69 70 71 72 73 74 75

IDENTITY 3PM MONTH CWN CMB 3 093 094 095 096 097 098 099 100 101 102
1 4 6 8 9 10 12 14 16 17 18 19 20 22 23

093 094 095 096 097 098 099 100 101 102 103 104 105 106 107
24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46

098 099 100 101 102 103 104 105 106 107 108 109 110 111 112
48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69

098 099 100 101 102 103 104
71 72 73 74 75 76 77

APPENDIX D

Table 171. Distribution of maternal place of birth as percentage of sample.

United Kingdom	41.7
Eire	6.3
Mediterranean	9.4
North Africa	4.5
Indian Subcontinent	4.1
South East Asia	6.6
West Indies	13.5
Other	13.9

Table 172. Distribution of maternal grandfather's place of birth as percentage of sample.

United Kingdom	41.7
Eire	6.6
Mediterranean	9.4
North Africa	4.6
Indian Subcontinent	4.1
South East Asia	6.5
West Indies	13.4
Other	13.7

Table 173. Distribution of maternal grandmother's place of birth as percentage of sample.

United Kingdom	41.4
Eire	6.3
Mediterranean	9.4
North Africa	4.6
Indian Subcontinent	4.2
South East Asia	6.5
West Indies	13.6
Other	14.0

Table 174. Distribution of paternal place of birth as percentage of sample.

United Kingdom	37.0
Eire	6.4
Mediterranean	10.5
North Africa	6.9
Indian Subcontinent	5.2
South East Asia	5.4
West Indies	17.5
Other	11.1

Table 175. Distribution of paternal grandfather's place of birth as percentage of sample.

United Kingdom	36.7
Eire	6.5
Mediterranean	10.3
North Africa	6.9
Indian Subcontinent	5.2
South East Asia	5.4
West Indies	17.4
Other	11.6

Table 176. Distribution of paternal grandmother's place of birth as percentage of sample

United Kingdom	36.7
Eire	6.4
Mediterranean	10.2
North Africa	6.9
Indian Subcontinent	5.2
South East Asia	5.6
West Indies	17.5
Other	11.5