WELL CHILD CARE SERVICES IN NEW ZEALAND: AN INVESTIGATION INTO THE PROVISION AND RECEIPT OF WELL CHILD CARE SERVICES IN A HAWKES BAY SAMPLE

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ABSTRACT

Maternal and child care in New Zealand has traditionally been given by a variety of providers from the private and public sector. The reorganisation of the health services has effected all forms of health delivery including maternal and well child care or well child care services. Contracting of services in a competitive environment has been an important feature of the reorganisation process. Ashton (1995) notes that the system of contracting has facilitated the introduction of new approaches to health from new provider groups, which are not necessarily based on primary health care principles. This has led to confusion for providers and consumers alike. In 1996 a new national schedule which described the services recommended for maternal and child care was introduced called WellChild/Tamariki Ora. A questionnaire based on this schedule was administered to a sample of 125 parents of children under five years of age in Hawkes Bay to investigate issues relating to the provision and receipt of well child care services. Descriptive data showed that the major providers of services in the present study were doctors. There were significant differences found in the number of services received across a number of demographic variables such that generally fewer services were received by the less educated, the unemployed, single parent families, and Maori and Pacific Island people. Perceptions about the helpfulness of services received were not related to ratings of the child's health. Parents who received a greater number of Family/Whanau support services rated their children's health more highly. Findings are discussed in relation to the previous literature and recommendations are presented with particular emphasis on the implications for nursing and the role of nurses in providing well child care services.

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CHAPTER ONE

Background to the Present Study

1.0 Introduction

The restructuring of the New Zealand health system involving the decentralisation of decision making to regional level based on service groupings has had a significant effect on the delivery of health services (Malcolm, 1994). The introduction of the provider/purchaser split has allowed market forces to dominate health services as they have never done before, permitting new providers to win contracts for services previously provided by 'traditional' providers (Ashton, 1995). A number of both positive and negative consequences arise from this contracting environment. Ashton notes that the new structure has facilitated the setting up of innovative practices including Maori based services for Maori people and new opportunities for primary care providers. However Ashton further suggests this new environment has lead to confusion over the provision of services for both providers and consumers.

Well child care services in New Zealand have been traditionally offered to all children either by the Royal New Zealand Plunket Society[1] or by Public Health Nurses in New Zealand. Since the reorganisation of the health services there has been a reduction of services offered by Public Health Nurses and reorganisation of the Plunket society, necessitated by fiscal constraints, leading to a reduction of routine contacts including home visiting and the closure of many of the Karitane units (Bryder, 1998; Dow, 1995; Tuohy, 1997). To fill some of the gaps and to meet cultural expectations, the Regional Funding Authorities have funded other groups to cater for the needs of families with young children (Ashton, 1995; Durie, 1994). A confused picture has emerged for

[1] The Plunket Society was conferred the title 'Royal New Zealand' in 1980. In line with common usage, observed in reference to the Royal New Zealand Plunket Society in literature and reports, the full title 'Royal New Zealand' will not be used further in this study. The Society will be referred to as Plunket.

families and health workers. Access to service varies from place to place and there appears to be little communication between, or rationalisation of, well child care service providers. This present study sought to investigate issues related to the provision of well child care services in New Zealand. Specifically the study set out to: ascertain from a sample of parents of young children in the Hawkes Bay region who they relied on for the provision of well child care services and information contained in the WellChild/Tamariki Ora National Schedule funded by the Regional Funding Authorities (now the Health Funding Authority); to investigate which families received or did not receive well child care services; to examine the relationship between the family's perception of the helpfulness of services and the health status of their children; and to examine whether the number of services received was related to child health status.

Chapter one provides a contextual framework for the present study. The development of well child care services in New Zealand from the mid 1800s to the mid 1980s is described. The continuing case for well child care services in the 1990s is presented.

Chapter two provides an overview of the literature relating to health promotion models and approaches. The literature relating to well child care services is reviewed focusing on the benefits and barriers to well child care.

Chapter three describes the method and chapter four presents the results and an analysis of the data collected.

Chapter five contains a discussion of the results in relation to the aims of the study and previous literature. Limitations of the present research, implications for further research and conclusions are also presented.

For the purpose of the present study the term well child care is used to describe the range of services for children from birth to five years "that

usually take place in a primary health care setting and whose main goal is to promote and maintain wellness" (Tamariki Ora, 1993, p.15). These services are also frequently referred to in the literature as "Infant Welfare" (Baker, 1994; Board of Health, 1989; Humphries & Gordon, 1993; Lambie, 1951; Vehvilainen-Julkunen, 1994). Well child care services cover the anticipated needs of mother and child from conception to birth and on to the child's entry into school at five years of age. Services include antenatal care and education, during which time the health of the mother and developing foetus is monitored and the mother and family are prepared for the birth and care of the baby. After the baby is born, recommendations are given for the clinical care and protection of the child with regard to immunisation, hearing and vision, developmental issues and the management of childhood illnesses. Parenting advice is ongoing with reference to the management of the developing child's nutrition, behaviour and safety. At all stages it is expected that the family unit will be supported and encouraged to use the various specialist helping agencies available as need arises (WellChild/Tamariki Ora National Schedule, 1996).

1.1 Well Child Care Services – an Historical Overview

This section gives a brief overview of the early development of well child care services in New Zealand from three aspects; Family, Government and Community, from the mid 1800s to the mid 1980s.

The human baby is very vulnerable and without care could not survive (Szafram, 1996). Traditions of child care have built up over time, from practices established to reduce infant mortality, to give special care not only to the babies, but also their mothers so that infants may survive. Max (1990) notes that attitudes towards child care are determined by "the realities of life expectancy and infant mortality" (p.14). In the first decade of the century, in New Zealand, Dick (1987) notes that one in eight babies died before the age of one year. In New Zealand, as in other countries, the highest mortality risks were among the working classes and those who lived in cities (Humphries & Gordon, 1993).

Well child care services have been an integral part of the social and medical make up of western society to some degree throughout the ages according to Dick (1987). New Zealand inherited many of the traditions of British society as it was colonised. The country was administered on the British pattern and continued to be for many years after colonisation. Olssen (1991) notes that medical practitioners were trained overseas and brought with them the experience and practices of their teaching schools. Dr.Truby King, arguably the most controversial and dedicated proponent of well child care services in New Zealand and in Great Britain, was trained in Edinburgh (Olssen, 1991). Olssen notes that in spite of his uniquely personal style, Dr. King's "background and attitudes may have been typical of medical students graduating in the 1880s" (p.5). Lambie (1951) notes that nursing was also strongly influenced by the British traditions with Nightingale nurses introduced into New Zealand in 1883.

From these early influences, New Zealand's culture of well child care services has evolved. This culture developed through three different but interrelated mechanisms: the role of the family (or more precisely the mother's role), the Government role (via the Department of Health) and the role of the community which was developed largely through the auspices of Plunket.

1.1.1 The Role of the Family

In Victorian times, baby care was a private activity best left to the instincts and intuition of the mother according to Humphries and Gordon (1993). At the beginning of the twentieth century the raising of healthy children became a subject of major public and national importance. Humphries and Gordon note that it was the *duty* of women to produce strong *obedient* citizens upon whom the future strength of the nation depended. Olssen (1991) notes that Truby King, the founder of Plunket, "touched the fears and phobias of the urban and rural well to do" (p.6) and points out that the effects of imperial patriotism were strong in New

Zealand as well as throughout the British Empire. Humphries and Gordon agree that to produce good soldiers and workers it was considered essential that mothers followed the advice of medical experts. Olssen (1991) notes that the crusade to improve baby care was also rooted in a deep fear of social disorder and degeneracy of the *white race,* which were given as reasons for the downfall of civilisations such as Ancient Greece and the Roman Empire.

The first half of the twentieth century was the era of the baby care expert, baby care books, health visitors, routine inspections, clinics and infant welfare centres run by local authorities (Humphries & Gordon, 1993). Leaflets and books on infant feeding and the care of babies were produced by the Department of Health (Dow, 1995; Lambie, 1951). Olssen (1991) notes that baby care manuals were written in bullying, brow beating tones, particularly those by Truby King, whose methods were geared at toughening up the baby and making it independent of its mother as soon as possible. This toughening was, according to Olssen, in accord with the ideals of the time.

After the second World War, there was a new approach to mothering. Humphries and Gordon (1993) note that mothers were encouraged to form a close bond with their child, to create a loving relationship, to enjoy their babies and have fun. This new approach was thought to fit with the post war democratic freedom and the emergence of the welfare state (Humphries & Gordon, 1993).

1.1.2 The Role of Government

After the colonisation of New Zealand in the 1880s, it took time for any formalised medical services to develop (Parkes, 1991). Mothers had their babies at home with the assistance of family members, nurses with midwifery experience (but no formal qualifications, as these were not available) and doctors, if they were called. Parkes notes that by 1930 most babies were born in hospital and the lay midwife was barred from practising.

In 1900 the Health Department was established and New Zealand was divided for administrative purposes into four health districts with a Medical Officer of Health and a Nurse Inspector (Lambie, 1951). Lambie describes the period as being distinguished by concepts of public health service based on prevention not cure. Three movements that began in the late 1800s and early 1900s that addressed the needs of mothers and children are described by Lambie. First, in 1895, District Nursing was established by Miss Sybil Maud, in Christchurch. This service was established to assist the 'back blocks' rural settlers. The district nursing service was extended in 1909 to include Maori and was the beginning of the public health nursing services in New Zealand. The second movement Lambie describes, was the setting up of training schools for midwives at the St Helen hospitals, and third Plunket (discussed below) was founded in 1907 to address the need for education and support of mothers whose babies were dying from the effects of poor hygiene and feeding practices (Bryder, 1998: Lambie, 1951; Parry, 1982).

In 1938 the Social Security Act was passed which, according to Lambie (1951), had three significant effects on infant welfare. First, it gave every mother free maternity services. Second, there was a free public hospital service with a more technological approach, and third district nursing benefits were introduced. The later benefits resulted in urban areas having a coordinated service for infants, preschool and school age children, which also included services for tuberculosis, immunisation and venereal diseases. In the rural areas, each nurse gave a generalised service and in isolated areas nurses offered a combination of public health nursing and Plunket nursing services. Later, Lambie noted that there was a split between district nursing (home nursing) and public health nursing (infant welfare and school nursing) services.

1.1.3. The Role of the Community

In 1907, Plunket was founded, dedicated to the health and well being of mothers and infants (Moore, 1996). The vision of Dr Truby King, the founder of Plunket was that it should be a voluntary society with only a state subsidy so that "local communities would be involved in the shaping and delivery of services that were needed" (Moore, 1996, p.42).

Moore (1996) notes that Plunket was founded amid the dismal child health scene at the beginning of the century, when premature births and infectious diseases, particularly diarrhoea, took a huge toll on New Zealand babies. By 1930, Lambie (1951) notes that Plunket had set up six infant dietetic hospitals which were used as training schools for Karitane or well baby nurses, who were trained to go into homes and give advice on feeding and basic hygiene. Plunket also had a centre in Dunedin for training Plunket nurses and had over 120 nurses in the field. There was considerable controversy associated with the setting up of Plunket. Dr King's radical ideas on the principles of infant feeding were challenged by paediatricians (Dick, 1987). Dow (1995) notes that the Department of Health (DOH) had a somewhat stormy relationship with Plunket and a general difficulty in establishing appropriate lines between 'official' (publicly administered) and 'non-official' (privately administered) services in the field of child care. Dr King was chosen to head the Division of Child Welfare, but this did not strengthen the relationship between the DOH and Plunket. Dow records that Dr King used his position to mount attacks on those who challenged his methods and other colleagues. Dow notes that in the 1950s considerable friction was experienced between the Department, the medical and dental professions and voluntary agencies such as Plunket and the new Parent's Centre Movement.

In summary, well child care services can be seen to have been justified historically on the basis of tradition, imperial patriotism, poverty, the medicalisation of childbirth and child rearing, and governmental acceptance of social responsibility. Well child care services in New

Zealand developed at both government and community levels at the same time, historically.

1.2 Well Child Care in the 1990s

Although the justifications for well child care services from the early colonisation of New Zealand are of historical interest, they also have relevance in the context of the late 1990s. Issues such as infant mortality and poverty are of continued relevance in the present day. The following section discusses the continued need for well child care services in New Zealand and the changes in delivery of those services.

1.2.1 Infant Mortality

The previous section noted that, historically, a fundamental justification for well child care services was high infant mortality. The great reduction in infant mortality over the last three decades in New Zealand has been due, according to the Public Health Commission (1994), to a reduction in neonatal mortality from 14.5 per 1,000 live births in 1961 to 3.1 per 1,000 in 1995. The post natal mortality rate halved during this period and had dropped sharply from 5.9 per 1,000 live births to 4.0 per 1000 in 1991. However, Howden-Chapman and Cram (1998) note that the reduction of infant mortality relates to children of European extraction, not Maori. In spite of low neo-natal and peri-natal mortality rates compared to other Organisation for Economic Cooperation and Development (OECD) countries, New Zealand still has comparatively high rates of infant mortality (Ministry of Health, 1998a). The OECD monitors the human consequences of economic development in its member countries (Iatridis, 1994). New Zealand is rated 17th out of 21 OECD countries on the effects of social changes and the distribution of well being (Ministry of Health, 1998a).

Major predictors of poor pregnancy outcomes and infant deaths are low socioeconomic status and ethnicity (Andrews & Jewson, 1993; Bird & Bauman, 1998; Ministry of Health, 1998a; Public Health Commission, 1994). In New Zealand, infant death rates are higher for Maori than for

children of Pacific Island or European ethnic groups (Ministry of Health, 1996; Jackman,1993; Ministry of Health 1998a; Moore,1996; Public Health Commission, 1994). Similar findings based on ethnicity, and adverse social conditions have been noted in America for African-Americans by Givens and Moore (1995) and Koontz (1984).

1.2.2 Poverty

Socioeconomic disadvantage has a high correlation with poor health including maternal and infant health (Blaiklock, 1997; Hassal, 1996; Ministry of Health, 1998b; Public Health Commission, 1994; Redman, Booth, Smyth & Paul, 1992). The repercussions of low income are numerous, as those without adequate income cannot afford to provide adequate shelter, food and warmth, resulting in raised levels of family stress. Low birth weight, and increased vulnerability to respiratory and infectious diseases are more common among the poor (National Health Committee, 1998; Southall, 1988). Women, often the main caregivers of children, are most affected by poverty according to the National Health Committee (1998). There is increasing poverty in New Zealand, which includes not only those who are unemployed but also the working poor (Howden-Chapman & Cram, 1998). According to Howden-Chapman and Cram, Maori earn less for full time equivalent employment than non Maori. Between 1987 and 1991 the average earnings of Maori dropped from 83 to 80 percent of average adult earnings, and the proportion of the Maori population in low income groups increased from 28 to 34 percent. Leach (1997) notes that even for those in employment, sex equality in the workplace, and the prevalence of lifestyles dependant on two incomes, has created a new tier of poverty, as few households can survive on one income.

Poverty is relative to the living standards of the rest of society. Oppenheim and Harker (1996) consider that poverty is not the outcome of personal inadequacy, but of broader social, political and economic factors. It was estimated that in 1990, 26.4 percent of all New Zealand children came from families in the bottom two income deciles i.e. less

than $17,700 per annum (Jackman, 1993). Jackman notes that this rose to 34.6 percent in the subsequent two years to 1992. The National Health Committee (1998) reports a decline in after tax household income between 1981 and 1993, especially among single parents and Maori and Pacific Island households. The 1996 Census (Statistics New Zealand, 1998) notes that "the proportion of New Zealand residents receiving an annual income below $10,000 fell from 36.9 percent in 1991 to 36.6 percent in 1996." (p.13). However the 1996 census also notes that 40 percent of Maori and 42.7 percent of Pacific Island people receive less than $10,000 per annum.

Maori constitute 14.4 percent of the New Zealand Population and 4.8 per cent are Pacific Islanders (Statistics New Zealand, 1996a). It has been demonstrated that Maori and Pacific Islanders are over represented in the statistics relating to low income. Sixty per cent of the population are entitled to have Community Service Cards which entitle the bearers to receive subsidised health care in recognition of their low income status (Statistics New Zealand,1998). Of those who are eligible for community service cards 57 percent are Maori, 52 percent are Pacific Islanders and 36 percent are of European origin (Statistics New Zealand, 1998). In New Zealand it is estimated by Moore (1996) that the numbers of the very poor increased by 31% in the two years from March 1990.

Stephens and Waldegrave (1997) find that poverty has re-emerged in New Zealand with an increase in poverty related ill health including infant mortality. Hassal (1996) notes that the burdens of poverty are predominantly born by children and young people and those who look after them, poverty being greatest among lone parent families with female caregivers. The value of home visitation by a nurse for low income, at-risk mothers has been shown to be an effective means of improving parenting and child health (Olds, Henderson & Kitzman, 1994), and promoting the long term health of the mothers and their children (Olds, et al., 1997). Although New Zealand has the core of a universal, non targeted well child nursing service, delivered mainly by

trained Plunket nurses, Tuohy (1997) is concerned that the effectiveness and expansion of this service to address the increasing threat to children by poverty is seriously undermined. Favell (1997) agrees that there has never been enough funding for Plunket (the major providers) to provide the services recommended for well child care. The requirement for and lack of provision of extra services by health visitors in Britain (who are responsible for the delivery of well child care services) for poor families is also noted by Shepherd (1996).

1.2.3 Traditional Approaches to Well Child Care.

As noted above, there have been a number of traditional avenues for the provision of well child care services in New Zealand. From an historical and traditional viewpoint it has been accepted that parents need extra support emotionally, physically and materially to raise their children (Dick,1987; Dow,1995; Humphries & Gordon,1993; Lambie,1951; Olssen, 1991). Traditionally, well child care services or infant welfare have been the role of the nurse both internationally and in New Zealand (Bomar & McNeely, 1996). Loveland-Cherry (1996) notes that while medical practitioners have a vital part to play in supporting the health of mothers and their babies, there has been a long history of nursing input into family support. Plunket has offered a dedicated service for the care of children 0 - 5 years since its inception in 1907, which has largely been provided by their nursing staff (Bryder, 1998). Nursing services for well child care were also an integral component of the work of the Department of Health (Dow, 1995).

Reorganisation of the health services has had a profound effect on the delivery of well child care services by nurses. With the dissolution of the Department of Health in the late 1980s and the transfer of public health nurses initially to Area Health Boards and then to Crown Health Enterprises (CHEs) (Ministry of Health, 1996), the function of the public health nurse has been altered. The role of the public health nurse varies with each CHE. There appears to be no documented evidence to show how many public health nurses still have a role in well child care service

delivery. A letter sent to all the CHEs in New Zealand in 1997, revealed that only seven of the 23 CHEs utilised public health nurses for minimal and declining well child care services, mainly focused on families at risk, or those living in remote areas not covered by Plunket (see Appendix 1).

Well before the health reforms of the 1990s McInnes and Glover (1985) recognised that well child care was being provided in a confusing, inefficient and ineffective way. The existence of the two major well child care providers, Plunket and Public Health Nursing, led to overlaps in service in some areas and no service in others according to the Department of Health (1983). Bakewell-Sachs & Persily (1995) point out that the nature and range of services required over the child-bearing continuum adds to the problem of fragmentation and duplication of services. The proliferation of primary health providers, "general practitioners, at least five types of nursing services, social work services and a host of voluntary and self help groups" is commented on by Malcolm (1987, p.474). In spite of the priority given to primary health care by health systems in most countries, Malcolm (1994) suggests that there is conceptual confusion about what is meant by the term, with the result that primary health care, including well child care services is given by fragmented provider and community groups. A study by Holloway, Fuller, Rambaud and Eggers-Pierola (1997) in USA highlights the bewilderment of single, poorly resourced mothers at the maze of child care and social agencies available. In New Zealand, since the health reforms of the early 1990s, the Health Funding Authorities have funded new groups to undertake well child care services, beyond that given by the midwives and Plunket, notably the Iwi providers. O'Reilly (1998) considered that the fragmented approach to children's needs has come at great social cost and there appears to be little evidence that fragmentation of services has been addressed.

1.2.4 Medicalisation of Child Care

Well child care services have been traditionally based on the medical model according to Olssen (1991). Medicalisation is a term in general

use that Downie, Tannahill and Tannahill (1996) describe as an approach to a health problem that focuses entirely on the accepted wisdom of medical science and tends to ignore the social, cultural, political and environmental factors that have a bearing on health. Other arguments against medicalisation are based on charges of paternalism and social control (Matheson, 1992; Oakley, 1992).

Downie et al. (1996) note that paternalism, summed up in the phrase "We know what is best for you" (Crookes, 1992, p.205), fosters the belief that the ordinary person is not able, and should not even try, to cope with, or manage ordinary life experiences. Downie et al., and Eisenberg (1990) are concerned that the medicalisation of ordinary experience may lead to ordinary people losing confidence in their abilities, and an *unhealthy* reliance on others. This view is supported by Macdonald (1993) who suggests that the medical model encourages a passive non-participatory role between doctor and patients. According to Downie et al., the public largely accepts the *illness orientated* view of health. It can be argued that the medical profession may be the least well equipped for the prevention, or amelioration of many well child health concerns. Research conducted by Kitzman, et al. (1997) has demonstrated that nursing interventions, such as home visiting may be more appropriate.

The Declaration of Alma Ata 1978 convened by the World Health Organisation (World Health Organisation, 1988), argues against the mechanistic approach of the medical model and promotes an intersectoral approach to health. Macdonald (1993) suggests that provision of effective help is best carried out on a multidisciplinary basis, involving health professionals, community groups and family. Downie et al.(1996) agree that a participatory approach avoids the charge of paternalism and cites the development of self care groups, as an example of how this may be achieved. An example of a coordinated approach is the Strengthening Families (Whakakaha Whanau) initiative developed in New Zealand to involve the different agencies that work with families in the community (Department of Social Welfare, 1997).

Another example is Family Start, an intensive home based support programme for families with young children which was launched in April 1998 (The Ministers of Education, Health & Social Welfare, 1998). Family Start evolved out of the Strengthening Families concept and is being trialed in Whangarei, West Auckland and Roturua.

Public health concerns for the wider good may also seen as paternalistic (Knox, 1990). Beauchamp (1990) expands this idea and notes that the precept that what is in the interests of the individual, is in the interest of the community, is seen, by some, as the standard liberal fallacy. Downie et al. (1996) consider that the vulnerability of humans lies behind many basic values about how people should be treated in society, but when individual responsibility factors are ignored, or denied, it is patronising to human dignity.

Recognition that well child care services harbour elements of social control is congruent with the philosophy, described by Dreyfus & Ranibow (1982), of post modernism which has evolved over the late 19th and early 20th century in reaction to the ideology of scientism which validated the medical model. When one examines the social control arguments against well child care services, one can see the strong influence of post modern thinking. Arguments according to Oakley (1992) include authorisation of legal intrusion into working class family homes, legal controls over parental behaviour and, adds Eisenburg (1990), exerting pressure through child rearing practices, to bring the child into conformity with cultural norms.

Birth weight has been used as an example of social control by Oakley (1992), who sees the child on the scales, momentarily institutionalised and becoming the product of the professional attendants. However, although low birth weight may be used as an index of social and material deprivation, it is a major cause and correlate of perinatal and infant mortality, according to the Ministry of Health (1998a). It is obviously of

benefit to weigh babies and modern practices of informed consent for all procedures should obviate the charge of social control.

From an ethical point of view Manciaux and Sand (1990) caution that medicalisation has inherent risk factors. Preventive actions must be based on scientific evidence and yet, as new and conflicting scientific facts are discovered, guidelines and recommendations become obsolete and are replaced by new ones, which can be completely different. Manciaux and Sand, challenge medicalisation on the grounds that there is no complete guarantee of the harmlessness of preventive measures, Routine screening carries the risks of finding abnormalities which may resolve themselves if left alone, and yet the option to treat has to be considered. Manciaux and Sand also ask what reparation mechanisms exist to compensate the side effects of preventive acts?

In summary, the input of the medical profession into the detection, prevention and treatment of preventable disease of children with consequent lowering of infant mortality is not disputed, although ethical concerns have been raised. The recognition of the wider picture of the social and environmental aspects of health and the involvement of parents and person respecting methods to monitor child health have been demonstrated in the discussion to negate some of the negative connotations of medicalisation, paternalism and social control.

1.3 The Present Situation

The justifications for well child care services are still relevant in the 1990s. Infant mortality remains high in comparison with other Westernised countries and relative poverty is increasing. The effects of health reforms and fiscal restraints have reduced the numbers of the traditional providers, particularly nurses, of that care. Max (1990), commented that "There is no New Zealand wide philosophical or community agreed strategy which determines who is offered what, on the basis of what criteria, or whose responsibility it is" (p.161). However, different approaches to well child care services have been introduced in

recognition of the limitations of the traditional methods of delivery and in the light of research which highlights the need for a broader perspective of health in the context of the social, economic and political environment.

In 1993 the New Zealand Public Health Commission (NZPHC) published a report, Tamariki Ora (1993) which was the result of consensus conferences between health professionals and lay experts who were chosen for their standing in their fields and their project management skills. The purpose of the conferences was to obtain the information on which to prioritise health services for children and young people, with particular emphasis on reducing inequalities in the New Zealand health system. The subsequent report on the health status of New Zealand children and young people was disturbing: increasing 'epidemic' levels of child abuse, low immunisation rates and the higher incidence of Sudden Infant Death Syndrome (SIDS) among Maori babies, were a few of the many avoidable health risks identified for the under five years olds (Tamariki Ora,1993).

Tamariki Ora addressed the concepts of the Treaty of Waitangi[2], the United Nations convention on the Rights of the Child [3], the Principle of First Call[4], the Ottawa Charter[5] and the Alma Ata declaration[6]. Concern

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[2] The Treaty of Waitangi: Including the responsibility to govern, protect Maori interests and ensure that Maori people enjoy the rights and privileges of Citizenship. This means that Maori children and young people are guaranteed the right to enjoy at least the same health status as non Maori children and young people (Tamariki Ora, 1993,p.24).

[3] The United Nations Convention on the Rights of the Child. This states that all children have the right to: survival, protection and development (Tamariki Ora,1993,p.24).

[4] The Principle of First Call. The 1990 World Summit for Children Plan of Action stated: The principle of 'first call for children' – a principle that the essential needs of children should be given high priority in the allocation of resources. United Nations Children's Fund (UNICEF) calls this a new ethic for children: The child's one chance for normal development should be given a first call in our concerns and capacities. Children should be the first to benefit from (our) successes and the last to suffer from (our) failures (Tamariki Ora, 1993,p.25).

[5] Ottawa Charter, 1986. The Ottawa Charter emphasises a holistic view of health. Health is seen as a resource as well as an important dimension of quality of life which requires social and personal resources as well as physical capacities. Therefore, health promotion is not just the responsibility of the health sector, but also of society. Health promotion action means to: build healthy public policy; create supportive environments;

was expressed that these concepts should be incorporated in all aspects of child care in New Zealand. The desired outcomes of child health should be:

> happy, healthy, thriving well adjusted children and young people; constantly improving health status for children and young people; equal health status for all children and young people and a healthy social and physical environment where children and young people belong and in which they participate and are respected and valued (Tamariki Ora,1993,p.9).

To achieve these aims the national schedule for well child care (Well Child/Tamariki Ora National Schedule, 1996) was drawn up with the clear direction that: "every child and their family or whanau in New Zealand was entitled to receive services to assist families to improve and protect their children's health" (p.9). It was expected that there could be a number of different providers of the components of the schedule and that a team approach may be necessary to ensure a coordinated and integrated service (WellChild/Tamariki Ora National Schedule 1996). The importance of the close cooperation and consultation between providers of pregnancy and childbirth services was stressed. The three components of the WellChild/ Tamariki Ora National Schedule are health education and promotion, health protection and clinical assessment and family or whanau care and support.

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strengthen community action that supports health; develop people's personal skills and re-orient health services (Tamariki Ora, 1993,p.25).

[6] Alma Ata Declaration. The Alma Ata Declaration states that primary health care is: essential health care; based on practical, scientifically sound and socially acceptable methods and technology; universally accessible to individuals and families in the community through their full participation; as close as possible to where people live and work; the first level of contact of individuals, the family and community, with the national health system and involving a whole range of health workers; the first element of continuing health care process; provided as a cost that the community and country can afford (Tamariki Ora, 1993,p 25).

A briefing paper for the Ministry of Health (1996) includes the recommendation that health services must be part of an intersectoral approach to support families at risk. Services provided would need to include increased social support, intensive home visiting, and parenting skills education. The child health strategy (Ministry of Health, 1998c) directs health agencies to work with other agencies in the health sector to ensure maximum gains are made for child health. The Strengthening Families and Family Start programmes, described above, are examples of how Ministry recommendations are being realised.

In this chapter well child care services have been defined and the underlying principles examined. It has been seen that the influence of poverty on postnatal infant mortality has not diminished over the years. Traditional well child care services have been delivered in a fairly consistent manner in New Zealand but have been the subject of review subsequent to the health reforms of the late 1980s and early 1990s. The emergence of health promotion theories and international research has highlighted the need to look at child health from a much wider view point than that of medicine or health. The next chapter reviews the literature on health promotion and well child care services.

CHAPTER TWO

Literature Review

The aims of the present study as outlined in the introduction were: to determine who parents received well child care services from, as detailed in the WellChild/Tamariki Ora National Schedule; which parents received those services; how helpful those services were and how the receipt of services was related to child health status. In order to investigate these aims it is necessary to identify those well child care services that are of benefit to parents and children and the barriers that may prevent receipt of those services.

Beginning with an overview of health promotion models and approaches, this chapter links the activities of well child care services to the goals of health promotion which may be seen to be directed at the maintenance of well being as well as protection against ill health. The literature relating to well child care services will be reviewed, focusing on the benefits of well child care services on child health outcomes and barriers to the provision or receipt of well child care services. A number of factors that influence who receives services, including the nature of the provider and the ethnicity and socioeconomic status of the recipients, will be highlighted.

2.1 Health Promotion Theory

2.1.1 Well Child Care as Health Promotion.

One of the three strands of well child care services as identified in WellChild/Tamariki Ora National Schedule (1996) is health education and promotion. Downie et al. (1996) define health promotion as being the combination of health education, health protection and preventive measures such as immunisation and developmental surveillance. Downie et al. further emphasize that the aim of health promotion should be to work with people in a supportive way to raise self esteem and

confidence, to maximise their control over their own health management. The concepts of health promotion and primary health care are closely linked. Nutbeam (1996) asserts that primary health care, which is closely linked with health promotion, is essential health care that everybody should have access to and be involved in. Others agree that maternal and child care are essential elements of primary heath care (Friedman, 1992; Macdonald, 1993; Pender, 1987; Roth, 1996), a concept that has been accepted by the New Zealand Government as is evident by the research into and production of WellChild/Tamariki Ora National Schedule (1996). Nutbeam comments that there is tremendous scope for both planned and opportunistic health promotions through day to day contact between primary health care personnel and individuals in the community.

Primary health care is not just the domain of health professionals. Ideally, according to Macdonald (1993), health promotion should be an element of primary health care, but in a form that has moved away from the narrow, individualistic precept of health education based on the medical model. In his opinion, this move is in the spirit of the Declaration of Alma Ata :VI:

> Primary health care is essential care based on practical scientifically sound and socially acceptable methods and technology, made universally accessible to individuals and families in the community, through their full participation and at a cost that the community and country can afford in the spirit of self reliance and determination (Declaration of Alma Ata:VI, Macdonald, 1993, p.59)

These principles are highlighted in the WellChild/Tamariki Ora National Schedule (1996), "every child and their family or whanau, in New Zealand is entitled to receive" [well child care services](p.9), the importance of a team approach is also stressed with "close cooperation and consultation between providers" (p.9).

Pender (1996) makes the point that, to address the promotion of health, one must know what the desired outcome is and how the achievement of that outcome will be measured. According to the WellChild/Tamariki Ora National Schedule, on which the present study is based, the desired outcomes are improvement in the health of children, equality of health for children and a healthy environment where children are valued (see summary, 1.4, p.15).

2.1.2 Health Promotion in the Family

Pender (1996) notes that family environments have a crucial role in the development of health beliefs and practices, which persist through out the lifespan. To break the cycle of unhealthy practices, it is necessary to work with families to develop strategies for promoting family wellness. Casey (1996) concurs with Pender, noting that the family, as a system, generates, prevents or corrects health problems. Bomar and McNeely (1996) stress that families and their health do not exist in isolation but are part of a religious, cultural, social, political and scientific system.

The aim of health promotion, for Pender (1996), is a positive health experience throughout the life span. Pender's family health promotion model looks at the interactions between the general, health related and behavioural specific influences, with behavioural outcomes. Pender's model places the interaction in the context of the environment in which the family lives. The importance of the environmental context is also emphasised by Milio (1976) who notes that while individual and family behaviour can be changed, such changes must be made in the face of counterforces consisting of advertising, the prevalent way of life and reference group norms. As Downie, et al. (1996) point out, accepted norms of behaviour vary with socioeconomic, political and cultural circumstances. To change behaviours it is essential, according to Downie et al., to recognise that *norms*, which may be seen, by some, as *unhealthy*, may be essential for the maintenance of well being. Health promotion interventions must, therefore, be directed at the attainment

and maintenance of wellbeing, through attention to the norms, as well as protection against ill health.

2.1.3 Health Promotion as Empowerment

Pender (1987) describes health promotion as a combination of self care, professional care and social phenomenon. In keeping with this definition Downie et al. (1996) suggest that health professionals, in partnership with individuals and the community, should work towards raising self esteem and acquisition of empowering skills, which will help people to take control over their health, or the health of those they care for. Downie et al. stress that this approach requires sensitivity to the needs of the community and requires participation with the community rather than the traditional *top down* professional approach. This view is shared by Nutbeam (1996) who comments that health promotion must be done with people, rather than on them. Effective health promotion, the combination of health education, protection and prevention, should, according to Downie et al., "challenge people to look at themselves and their society in a new light and to alter radically the ways in which they perceive and pursue health" (p.ix).

Tones (1993; 1997a; 1997b) agrees that self-empowerment is the most effective form of health promotion. By this, Tones means that health education must be focused on the reciprocal relationship between individuals and their environments, giving people the skills to tackle potentially unhealthy behaviours or circumstances. Most importantly, individuals must believe that they are capable of achieving their goals. Macdonald (1993) also emphasises the interactive nature of health promotion citing the World Health Organisation definition of health promotion as "a mediating strategy between people and their environments, incorporating both personal choice and social responsibility for health" (p.148). He proposes that the most important question to ask is " What is there in your economic or social condition which impinges on you health?" (p. 149). However Downie et al.(1996) advocate caution in this approach, as the most disadvantaged, who have

the greatest needs, are the least able to exercise autonomy, and may be further disadvantaged by having their lack of power highlighted, without the tools, or the ability to challenge the system.

There is some debate as to the role of community as a mechanism for health promotion. For example Peterson (1994) argues that most community development has been developed as an aspect of state policy and remains enmeshed within dominant power structures. There is also concern about the devolution of health promotion strategies to community levels. For instance, Labonte (1990, cited in Peterson,1994) is concerned about the romanticisation of community and decentralisation of decision making, as he fears that the outcome may be the cessation of victimisation of powerless individuals only to victimise powerless communities. Further Labonte comments that community development in health promotion may be, at best, empty rhetoric and at worst provide a potential means of population regulation.

2.1.4 Components of Health Promotion

As already noted (2.1.1) Downie, et al. (1996) define health promotion as a combination of health education, health protection and prevention. Draper (1980) has described health education as having three levels. The first level is education about the body and how to look after it. This, says Draper, is a popular approach and essential for each generation. The second level provides information on how to access the most appropriate use of health services. According to Draper there is an increase in this type of education but it requires to be interactive and two way for maximum effectiveness. Draper stresses that the provision of lists and leaflets is not enough. Well child services would appear to use a combination of the first two levels. The third form of health education which, Draper considers is neglected in the main, looks at the macro picture of health and demonstrates the effects of national, regional and local policy on the wider environment.

Tones (1993;1997b), like Draper (1980), views health education approaches as being at different levels: educational; preventive; radical and self-empowerment. The aim of the health educational approach, in Tones' view, is limited to an understanding of the issues and stops short of actual behaviour change. Tones finds that the educational approach is often used to avoid the charge of coercion or persuasion, which may be unethical, and criticises this approach as being too superficial. On the other hand, the preventive approach, based on the medical model, seeks to use coercive methods to bring about measurable positive behaviour changes. Limitations to the preventive approach are, according to Tones, related to its adherence to the medical model which does not address the social economic and political causes of health problems. Kickbusch (1996) also notes that there is a failure of health, under the medical model, to adequately deal with the social and cultural context of health problems. Chadwick (1994) on the other hand, while accepting the narrowness of the medical model, recommends that to meet the needs of clients, midwives [and other providers of well child care] should aim for a balance between the medical approach and a more humanistic, holistic and sociological methodology.

The next level introduced by Tones (1997a) is the radical approach which goes *upstream* to consider what Draper (1980) described as the macro view of health and discover the underlying issues that effect health. The radical approach raises public awareness and, in Tones opinion, would need a degree of persuasive tactics to generate community action. Tones cautions that using this approach may be seen, by some, as subversive. Tones' fourth approach to health education is empowerment, discussed earlier.

A further taxonomy of health promotion is provided by Downie et al. (1996), who describe three approaches to health promotion; traditional (medical), transitional and modern. They consider that the overall philosophy of traditional medical health care is largely acceptable to the general public, i.e. the acceptance of the illness-orientated view of health

education and the medicalisation of health. However, in accordance with Draper (1980) and Tones (1997b), Downie et al. suggest that the traditional approach to health ignores socio-political factors and is based on the philosophy that if you tell people what to do, and they comply, then they will be well. Traditional health promotion, according to Downie et al., has a tendency to blame the victim as it is based on the underlying assumption that all people have freedom to choose their actions.

The transitional approach, outlined by Downie et al. (1996) utilises manipulative methods and employs the use of shock tactics and lurid images in a bid to change behaviour. In Downie et al's opinion the transitional approach has limited effect in its attempt to shock people into behaving sensibly. The continuing use of these tactics in road safety campaigns conducted in New Zealand suggests that others would not agree.

Downie et al. (1996) argue for the adoption of the *modern* approach which acknowledges the constraints to freedom of health choices while emphasising the positive view of health. The modern approach, as described by Downie et al., emphasises the need for participation, between health professionals and other persons in a helping role, and their clients. Pender (1987a) has a similar approach to participatory health promotion, as described by Tones (1997b) and Downie et al., she discusses definitions of health promotion including well being and actualising the health potential of individuals, families and communities and society. Participation includes listening and understanding other points of view and reasons why others think and act the way that they do. This is particularly relevant for well child care services, as those who have the greatest needs are often poor, have low educational achievements and belong to minority ethnic groups (Ministry of Health, 1998b). The life experiences and methods of coping utilised by the disadvantaged may be presumed to be vastly different from the majority of health professionals and others who assume a helping role.

It has been noted in the previous section that a major aim of health promotion is to emphasise the positive view of health (Downie et al., 1996). The goal of health promotion, according to Friedman (1992), is high levels of wellness, by maximising the potential of an individual in the environment in which s/he is functioning. Friedman is of the opinion that health promotion need not be disease or health problem specific but should relate to quality of life and well being. The goal described by Friedman echoes the aim of well child care services to have "happy healthy, healthy, thriving, well adjusted children" (Tamariki Ora,1993 p.31). Friedman suggests that health promotion and primary prevention present the greatest health challenges, but the role of prevention is minimised by adherence to the medical model, as noted by Tones in the previous section. This view is echoed by Macdonald (1993) who notes that unfortunately, primary health care becomes equated with primary medical care with the addition of preventive interventions such as immunisations.

In summary, it is clear from the literature that well child care services incorporate the principles of health promotion. There are many different approaches to health promotion but health promotion theories have common themes. For instance health promotion should be interactive, and recognise the wider issues that impinge on health, as health and wellbeing do not occur in a vacuum. The limitations to the medical model have been discussed and emphasis has been placed on the need for health professionals to work in partnership with other disciplines, the community and individuals, in this case, the families of children. In the next section the literature pertaining to the benefits of and barriers to well child care services will be explored.

2.2 Benefits of Well Child Care Services

Numerous studies have demonstrated the benefits to child health outcomes of the receipt of health education and promotion services such as: antenatal care (Blondel, Dutilh, Delour & Urzan,1993; Chavkin & Clair,1990; Joyce, Corman & Grossman,1988; Koontz,1984); breast

feeding (Duffy, Percival & Kershaw,1997; Public Health Commission,1994: Pugin, Valdes, Labbok, Perez & Aravena,1996; Reifsnider & Eckhart,1997); contraception (Puffer,1993; Westhoff & Rosenfield,1993); safety (Colley,1994: Levene,1990; 1992); and SIDS education (Bird & Bauman,1998; Olds et al., 1994; Public Health Commission,1994; Puffer,1993). In addition, research has shown the positive health benefits of receiving health protection services such as immunisation (Bomar and McNeely, 1996; Public Health Commission, 1994) and hearing and vision monitoring (Blake, 1997; Ryan,1996; Teplin, 1995). Further research has demonstrated the benefits of family support services in times of transition such as birth (Roth, 1996) and times of crisis such as postnatal depression (Gray, 1996; Roth,1996; Szafram,1996). The following sections briefly review the literature on some key well child care services with relation to the benefits for well child health. Services are discussed within the three components of the WellChild/Tamariki Ora National Schedule: health education and promotion; health protection and family /whanau care and support.

2.2.1 Health Education and Promotion

A number of key health education and promotion services have been identified in the literature which are also prominent within the New Zealand context, i.e. prenatal care and contraception, antenatal care, breastfeeding, Sudden Infant Death syndrome (SIDS) and safety issues.

2.2.1.1 Prenatal Care and Contraception

Prenatal care (prior to conception) of the mother is recognised as an important factor in child health (Wallace,1982; Benn,1997). Benn notes that a planned pregnancy enhances the possibilities of maximum health for the mother and lowers the exposure to risk factors. Raising the age of the mother for first births and increasing inter-pregnancy intervals has the potential to decrease infant mortality by at least 20% according to Westhoff and Rosenfield (1993). Puffer (1993) notes that the availability and utilisation of contraceptive services are a major factor in the reduction of unplanned pregnancies, abortion and infant mortality. The

discussion of contraception issues is advocated in the WellChild/Tamariki Ora National Schedule(1996) as part of the antenatal well child care services.

2.2.1.2 Antenatal Care

Antenatal care aims to ensure a healthy lifestyle of the mother during pregnancy, while monitoring the development of the foetus and recognising risk factors to the mother and her baby in time to plan effective measures to reduce them. Koontz (1984) notes that the positive outcomes of antenatal care include a reduction in the incidence of low birth-weight babies and preventable obstetric emergencies, with a lowering of maternal, perinatal and infant mortality. Women with poor antenatal care have a greater risk of adverse pregnancy outcomes (Chavkin & St. Clair, 1990; Blondel, et al. (1993). Miller (1993) attributes the lower rates of infant mortality in European countries as compared with the United States of America to the greater availability and utilisation of continuous antenatal services, social supports and financial benefits in the European countries. A correlation between under utilisation of antenatal services and not obtaining well child care services or completing immunisations, has been identified (Kogan, Alexander, Jack & Allen, 1998). Taking a different measure, Joyce, et al. (1988) highlight the cost effectiveness of good antenatal care, as a strategy for reducing infant mortality. There is a strong focus on health promotion in the antenatal well child care services and these health promotion activities are introduced in the antenatal period with the expectation that they will be reinforced in the post natal period according to the WellChild/Tamariki Ora National Schedule (1996). These activities include promotion of breastfeeding, the provision of information on reducing the risk of SIDS and prevention of injury (safety issues). These issues will be discussed in the following sections.

2.2.1.3 Breastfeeding

Studies have demonstrated the effectiveness of well child care services in the promotion of breastfeeding antenatally. Pugin, et al. (1996) note

that there is a significant increase in the number of women who continue to breastfeed past six months among those who have received prenatal [antenatal] education about initiating and maintaining breastfeeding. The positive effects of prenatal education, on breastfeeding, were also demonstrated in a study by Reifsnider and Eckhart (1997). A further study by Duffy, et al.(1997) demonstrated that *hands on* practical education methods in the antenatal period, were an effective strategy to increase breastfeeding rates. Lothian (1994) notes that the promotion of breastfeeding needs to include attention to lifestyle values, beliefs and expectations about parenting, which must include family members and friends. The concept of partnership, which was discussed in the section on health promotion is highlighted by Thorley, Rouse and Campbell (1997) who find that an increase in breastfeeding rates is one outcome of a system of antenatal care that they have developed in partnership with mothers. Numerous benefits are recorded for breastfeeding, apart from providing the specific nutritional requirements for the infant, breast milk affords the infant protection against many infections, including gastroenteritis, and lessens the likelihood of the development of 'Glue Ear' (Moxley, Sims-Jones, Vargha & Chamberlain,1996). Breastfeeding is an important factor in the reduction of Sudden Infant Death Syndrome (SIDS) (Public Health Commission,1994). For the mother, breastfeeding can be an effective method of child spacing and provides protection against the development of breast cancer (Short,1994).

2.2.1.4 Sudden Infant Death Syndrome (SIDS)

Goals to reduce the incidence of SIDS set by the Public Health Commission (PHC) (1994), were to increase full breastfeeding at three months from 60 percent in 1991, to 70 per cent by 1997, and 75 percent by the year 2000. The goal for breastfeeding at 6 months was to increase from 55 percent in 1991, to 75% by the year 2000. Health promotion initiatives, including well child care services, have reduced the rate of SIDS in New Zealand. A dramatic reduction In SIDS occurred during the period 1989-92. This drop coincided with the promotion of three risk factors, sleep position, breastfeeding and maternal smoking (Public

Health Ccommission,1994). In spite of this success, the PHC note that the risks of SIDS remains high for disadvantaged groups such as: those of low socioeconomic class; unmarried mothers; young mothers; mothers with minimal educational and mothers with minimal or no antenatal care. These groups have been identified by Bird and Bauman (1998), Olds, et al. (1994) and Puffer (1993) as being the most difficult to reach by health services. SIDS relates to the unexplained death of a child under one year of age. For children aged one years and over, in New Zealand, injuries account for the highest mortality rates.

2.2.1.5 Safety

The major cause of death for children ages 1-4 years in New Zealand is unintentional injury (Hanifan & Smith, 1998). Hanifan and Smith note that New Zealand has twice the unintentional injury rate of Great Britain and three times that of Sweden, with ninety percent of unintentional injuries and half of all deaths to children under five years of age occurring in or around the home. A combination of passive safety strategies and supervision is required to reduce injures to the pre-school child. Gilk, Kronenfeld and Jackson (1992) find that the supervisory style of the mother is an important factor, as mothers with a more protective style have fewer risks in their home environment. According to Colley (1994), research has demonstrated a positive correlation between knowledge of safety issues and the use of safety equipment in the home. Levene (1992) notes that antenatal classes are an appropriate time to educate parents about safety issues as they prepare for the birth of their child. The effectiveness of home visiting in the reduction of injuries, both intentional and unintentional has been demonstrated (Avens,1996; Kay,1989; Kitzman et al. 1996). The actual advice given by health visitors is questioned by Kay (1989) who found that most time was given by health visitors (the British counterpart of Plunket nurses) to advice on infant feeding (the original concern for high infant mortality by Truby King) and least to issues that affected childhood morbidity and mortality in the 1990s, i.e. childhood injury prevention. Langley (1994) finds that there is a correlation between low socioeconomic circumstances and

injuries as cost is a major barrier to the implementation of safety measures.

2.2.2 Health Protection and Clinical Assessment

2.2.2.1 Health and Development / Well Child Checks

The review of the literature to this point has demonstrated a strong case in favour of well child care services. The advantages of antenatal care, and health promotional activities have been outlined. The health and development check, or well child check may be seen as the core post natal well child care service. It is at these points of contact, between the parents and their child and the health professionals, that the *business* of well child care services is conducted. It is a time for parents to express their concerns and seek advice and for the health professional to ensure that the growing child is progressing within *normal* limits (WellChild/ Tamariki Ora National Schedule, 1996).

The venue for well child care services is the subject of some debate. While the trend appears to be towards encouraging mothers to bring their babies to clinics for their well child care services, Leach (1997) concludes that well child care services should be delivered initially in the home for vulnerable families, adding that there is no reliable measure of vulnerability. This need to establish the true needs of families by seeing them in their home situation is also stressed by Brown and Redman (1995). Kitzman et al. (1997) have demonstrated the advantages of delivering well child are services in the home situation especially for the disadvantaged who are least likely to bring their child to main stream general practitioner or nurse run clinics. However Vehvilainen-Julkunen (1994) has found that parents from all walks of life value the home visit for well child care services, as the advice given has more relevance for the whole family.

The Health and Development book, which was produced by the Department of Health in 1982 (Dow,1995) to standardise well child care services, is still, in an updated format, the main written resource. The

Health and Development book serves two purposes, first as a place to document the progress of the child's development, including immunisations when given, at each visit and second to be a source of much helpful advice for the parents. In January 1997 a new page was added in the form of an immunisation certificate which is required to be completed by the provider of immunisations and must be presented to early child care facilities on enrolment. All parents of children born in New Zealand receive a copy of the Health and Development book, which remains their property.

The emphasis on health promotion is continued postnatally with the addition of clinical assessment and preventive health services such as immunisation, hearing and vision checks. Clinical assessment begins with the clinical examination of the baby at birth and the last scheduled clinical check is at six weeks. There are at least seven well child care visits recommended in the WellChild/ Tamariki Ora National Schedule (1996) which are recommended to be begun in the home during the first two to four weeks of the infant's life and then in the surgery or clinic situation thereafter and continue at predetermined intervals until the child is five years of age.

2.2.2.2 Immunisation

The effectiveness of immunisation in protecting not only individual children, but whole communities, has been clearly demonstrated (Public Health Commission, 1994). Gadomski, Talarico, Abernethy and Cicirello (1998) find that immunisation is commonly used as a measurement of the effectiveness of well child care services. However, Brown, Melinkovich, Gitterman & Ricketts (1993) maintain that immunisation alone does not ensure that children will receive all aspects of preventive care. The Public Health Commission (1994) note that linkage to other well child care activities, may increase immunisation rates as long as the other activities are provided free of charge. Boyles (1997) notes a positive correlation between antenatal education and the uptake of immunisation. Gadomski, et al., found that barriers to immunisation

included: unmarried status of the mother; lack of co-residency with the grandmother; inadequacy of antenatal care; the multiparous mother and poverty. Mothers who scored low on perceived control measures also made under use of immunisation for their children even if they understood the benefits of immunisation. Bates and Wolinsky (1998) concluded that this anomaly was due to mothers believing that immunisation was supposed to prevent all forms of illness and became disillusioned if their children had other forms of disease. Costs of immunisation have been shown to be perceived as a barrier by some (Clark & Freed, 1998) and variation of charges by others (Brody,1996). Mothers have identified concern about the safety of immunisation according to Lannon, Brack, Stuart, Caplow, McNeill, Bordley and Margolis (1996) suggesting the need for more health education.

2.2.2.3 Hearing Loss and Visual Defects

The early detection of hearing loss in children is an important aim of preventive child health care (Eckel, Riching, Streppel, Damm & von Wedel, 1998). Blake (1997) also stresses the importance of early detection of hearing loss in infants and notes that one in 2000 infants in New Zealand are born profoundly deaf and many others have defective hearing as a result of otitis media with effusion (Glue Ear). The social effects of lost or impaired hearing are great, as hearing is vital for the normal development of language. Risk factors according to Blake, include low birth weight, severe neonatal illness and prematurity. The routine screening of hearing is an integral part of the well child care services and is recommended under the WellChild/Tamariki Ora National Schedule (1996), as an important part of the early detection of hearing loss.

Normal vision is also an important attribute to the developing child according to Ryan (1996) and Teplin (1995) who stress the benefits of early detection and diagnosis of visual problems. Espezel (1994) notes that there has been an increase in the numbers of children with visual problems which can, in part, be related to the improved survival rate of

premature and gravely ill babies. Assessment of visual development is recognised as a core component of effective well child care services by Teplin, who stresses the importance of close collaboration between parents and medical services through close questioning of the parents. This type of assessment is one of the components of the scheduled well child care checks (WellChild/ Tamariki Ora, National Schedule, 1996).

2.2.3 Family and Whanau Care and Support

It has been noted in the previous section (1.2.4) that well child care services have traditionally been based on the medical model. One of the limitations of the medical model noted is the tendency to ignore non-medical factors that have a bearing on health (Downie, et al., 1996). Macdonald (1993) stressed the importance of involving families, community and professional groups. Sherratt, Johnson and Holmes (1991) note that when working with families one needs to concentrate on the specific worries of parents and not to take too rigid an approach. An overall understanding of the particular needs, from the parents' point of view, is recommended to allow for the planning of appropriate and targeted services (Sherratt et al., 1991). The importance of support for the family or whanau is also stressed in Wellchild/Tamariki Ora National Schedule (1996).

The Public Health Commission (1994) identify a link between lack of social support and poor infant health. A significant outcome of family support is, according to the introductory comments of the Wellchild/Tamariki Ora National Schedule, the early detection of problems, which, if dealt with effectively, may avoid the development of more critical situations. As noted in section 1.2.3, parents need extra support emotionally, physically and materially to raise their children. Isolation and stress for many parents can be very damaging, according to Leach (1997) and of major concern, in the postnatal period, is the development of postnatal depression.

2.2.3.1 Postnatal Depression

Research conducted by Vines and Williams-Burgess (1994) has demonstrated that frequent well child care visiting lessens the development of depression for first time mothers who have been identified as being at risk. Conversely, Taylor (1989) observes concern at the number of women who not only develop post natal depression, but also the number whose condition goes unrecognized in spite of regular well child care visits. Vines and Burgess relate the amelioration of depression to raised levels of self esteem. A further study by Breenan (1998) identifies the negative effect that idealised constructions of motherhood have in not only influencing the practice of nurses, but also the expectations of mothers. These expectations may be a factor in the low self esteem which Vines and Burgess found contributed to the development or exacerbation of a depressed state in the post natal period. The concerns raised by Brennan, may be being addressed in the New Zealand context by the development of home visiting programmes delivering the services of well child care that are family focused and building on the cooperation between health, education and welfare agencies i.e. Family Start (discussed earlier).

2.2 Barriers to Well Child Care

In the previous section the benefits of well child care services have been discussed. In the following section the barriers to delivery or receipt of well child care services will be discussed. A number of factors have been identified in the literature as potential barriers to the receipt of well child care services. These factors are largely socioeconomic and include ethnicity, socioeconomic status and geographical location. In addition factors relating to the providers and recipients of services have also been identified as potential barriers to the receipt of services.

2.3.1 Ethnicity

In common with other forms of primary health care, well child care services are under utilised by the very groups that have the highest risk factors i.e. Maori, Pacific Island people and the economically disadvantaged, according to Malcolm (1996). Tofi (1996) notes that Pacific Island people do not make full use of available health services. According to the Public Health Commission (1994), Maori mothers stop breastfeeding earlier than non Maori or Pacific Island people. The trend towards early cessation of breastfeeding has also been noted among low income women and women of colour [sic] in the USA by Abramson (1992). Tipu Ora (Te Puni Kokiri, 1994) was developed in 1991 to address one possible explanation for under utilisation of well child care services, by Maori people in New Zealand, i.e. that services were not being delivered in a culturally appropriate manner. Tipu Ora is an holistic well child care programme, specifically for Maori care givers and their children. Early evaluation of the programme (1992-1994), piloted in the Rotorua area, has shown: a reduction in low birth weight; reduction of maternal smoking; an increase in breastfeeding (65 percent at 12 weeks) and an improvement in immunisation rates (Te Puni Kokiri, 1994). Plunket (1993) have also made steps to increase the cultural appropriateness of their services through the employment and training of nurses from different ethnic groups.

For immigrants, Friedman (1994) suggests that barriers to access may simply be being a member of a minority group, or being treated differently, or having no services in areas where immigrants gather. Friedman suggests that the health care system is one of the most sensitive social barometers and that it is easier to bring down formal conscious barriers, than informal unconscious barriers of unintentional discrimination.

2.3.2 Socioeconomic Status

A recurring theme in the discussion so far has been the fact that health promotion based on the medical model fails to address the underlying

socioeconomic factors which affect health (Downie, et al., 1996; Kickbusch,1996; Macdonald,1993; Tones,1997b). Chadwick (1994) is of the opinion that inequalities in antenatal care are related to social class, and expresses the concern that antenatal care has followed the same routine for most of this century and does not meet the needs of the socially disadvantaged.

There are major inequalities between populations. Children come from different social and economic groups, and the National Health Committee (1998) found overwhelming evidence that there is a correlation between poverty and poor health outcomes for children. The high correlation between poverty and infant mortality has already been discussed (1.1.2) noting that the unemployed solo mother is in a most disadvantaged position. The National Health Committee also found that education was a predictor of a person's socioeconomic status as low educational achievements are linked with poor health. As in other health related areas Dowswell, Towner and Jarvis (1996) note that the role of health services is limited if programmes do not address the underlying social issues.

Health promotion according to Downie et al. (1996) is concerned with facilitating true well being in adverse physical and social circumstances. The principle of equity according to Downie et al., means not only that like cases be treated equally, but that unlike cases be treated unequally. Downie et al. further advocate that the aim, of health promotion, should be for equality in outcomes not opportunity. This means, according to Downie, et al., that extra services may be necessary to raise a social group up to specified level of health. Moore (1996) calls for targeting precious resources into services for the underprivileged. Tuohy (1997) agrees, but not at the expense of universal care. However, Manciaux and Sand (1990) caution that health care [promotion] for all, but more for those in need may be counterproductive as it may have a labelling effect, and lead to victim blaming. The targeting of resources to the *needy* and *not the greedy* has been criticised. As Leach (1997) points out, all

families of young children are potentially at risk and there is no method reliable enough to determine who does and who does not need well child care services. This debate on targeted versus universal care highlights the potential for people to slip through gaps in provision. For example Moore (1996) considers that the pendulum has swung too far from the rigidity of well child care service delivery of former times and that nobody is taking responsibility for the medical and social care of children, especially the children of the poor. The introduction of the Lead Maternity Carer (LMC) in New Zealand is aimed at providing continuity of care, ideally from preconception to after birth. Hendry (1996) observes that by providing coordinated care it is envisaged that the mother and family will receive a quality service with less risk of conflicting advice and a healthy birth outcome.

2.3.3 Geographical Location

Several studies have been based on the hypothesis that there would be specific barriers to access to well child services related to geographical location, however the literature is inconclusive. A study by Earle and Burman (1998) on the under utilisation of well child care services in a rural area, found that the barriers to receipt of well child care perceived by the mothers studied, centred around issues of finance and inconvenience. Further studies by Lannon, et al. (1996) and Rosenbaum, Hughes and Johnson (1988) found similar barriers identified by mothers from urban groups. Similarly the recommendations from Earle and Bauman's study for education of mothers in the importance of well child care services and the provision of a quality services can not specifically be limited to rural services. A recommendation by Earle and Bauman that reminders for well child care appointments should be sent to the mothers, was also made for non rural communities by Campbell, Szilagyi, Rodewald, Doane & Roghmann (1994). A study by Conrad, Hollenbach, Fullerton and Feigelson (1998) found that that main reason for late entry into antenatal services by rural women of hispanic origin were related to the 'wanted-ness' of the pregnancy, rather than the limitations of rural living. An Australian study by Bull, Hemmings and

Dunn (1997) found that the support needs of pregnant and parenting adolescents, were not met in rural areas of Australia. However this group have been identified in all settings as being *difficult to reach* by other researchers (Kitzman et al., 1997) and are not specifically limited to geographical location. A study conducted on the adequacy of rural well child care services by Gadomski, et al. (1998) concluded that, using immunisation as a measure of the utilisation of well child services, coverage was at or below the national average. Dobie, Goer and Rosenblatt (1998) found that access to family planning was not good in rural areas. The importance of family planning in relation to infant mortality has been discussed. Although people in rural situations do face barriers to access, many of the barriers are shared by others in non rural areas. It is difficult to draw conclusions due to the equivocal nature of the findings in the literature.

2.3.4 The Recipients of Well Child Care Services

Barriers to well child care services have been identified by potential recipients as: not being able to take time off work; difficulty in getting other children looked after; parents' ill health; mis-perceptions of child's need for care; not being able to read literature available (Friedman, 1994); financial limitations and inconvenience (Earle & Burman, 1998); taking time off work, poor access to services and difficulty understanding the immunisation schedule (McCormick, Bartholomew, Lewis, Brown & Hanson, 1997). Further barriers to immunisation and well child care in general were identified by Lannon et al. (1996) as lack of flexibility in scheduling, and long waiting times, which conflicted with the realities of family life such as general chaos and lack of reliable transport. Simple remedies to poor attendance were explored by Earle & Burman (1998), who stress the value of reminding parents that well child care appointments are due. Campbell et al. (1994), conducted research in this area, and concluded that postcard reminders are an effective use of resources.

A further barrier to access to well child care services comes from the mothers themselves. Mothers who are at high risk both for themselves and their children, often do not access *main stream* services. It has been noted by Kassulk, Stenner-Day, Coory and Ring (1993), that those who need the most help are the least likely to seek it. It has been demonstrated that the underprivileged and the poor are the most at risk of poor health in the New Zealand community (Hassal, 1996; Howden-Chapman & Cram, 1998; Jackman, 1993; The Public Health Commission, 1994; Saunders, 1997). Robert and Pless (1995) note the association with single parent status and child injury. It has been suggested that the only way to reach high risk families, is to take services out into the community rather than to expect clients to come in to clinics or surgeries (Durie, 1994; The Public Health Commission, 1994; The Ministry of Health, 1998c). The value of home visiting should not be underestimated, according to Leach (1997) and Tuohy (1997). The positive health outcomes of home visiting for mothers and their infants from families with high socio demographic risk factors are well documented in research conducted by Kitzman, et.al. (1997), Olds et al. (1997) and Olds et al. (1994). Home visiting will be discussed further in the next section.

2.3.5. The Providers of Well Child Care Services

As noted in the previous section, home visiting has been identified as an effective strategy for meeting the needs of high risk families. However, according to Plunket (1995) and Tuohy (1997), home visiting, the very basis on which the Plunket service was established, has suffered most from continual constraints on funding. Similar concerns have been expressed by health visitors in the U.K.; Leach (1997) estimates that up to 60% of the work of health visitors can not be done because of funding constraints. The lack of funding may be due, in part, to the fact that, according to Salvage and Buxton (1997), despite the rhetoric most Westernized countries support secondary hospital services at the expense of primary preventive community health. Another factor may be the method of funding i.e. payment on volumes. A report by the

Ministerial Taskforce on Nursing (1998) notes that this method may shape the delivery of care by what the provider is funded for, rather than what the client needs are. Wilson (1995) agrees as she find that the *technical* model developed for well child care services has been shaped by funding requirements and does not meet the actual needs of the client. Salvage and Buxton (1997) are of the opinion that the actual work that nurses do to meet clients needs is not measured by appropriate criteria.

The effectiveness and efficiency of antenatal care is, according to Chadwick (1994), poorly researched and evaluated. Chadwick recommends that research into quality of care should include examination of the care provided from the viewpoint of provider and recipient as their perceptions may be different. McCormick, et al. (1997), in a study to identify barriers to immunisation also concluded that it is important to gain the opinions of both parents and providers of health care. A further study by Earle and Burman (1998) stresses the importance of asking the consumers of well child care the reasons for their under use of services. In a study conducted by Vehvilainen-Julkunen (1994) it was found that although both providers and recipients valued the services, there were differences in the perceptions of the two groups about the reality of choice of services. This finding, according to Vehvilainen-Julkunen, had utility in the planning and evaluation of future services.

General practitioners have also identified barriers to health education and promotion. Although some general practitioners argue that they are the most suited to assume primary responsibility for health education/promotion, others cite lack of remuneration, time or specific preparation as reasons why they would be unwilling to expand this role (Ford & Ford, 1983; Girgis & Sanson-Fisher, 1996; Pullon, 1994). Research conducted in Britain by Bowler and Gooding (1995) has shown that general practitioners require more evidence of the efficacy of health promotion and appropriate training to design and implement

programmes. Lack of appropriate training of physicians for health promotion, has also been identified by Osborn and Reiff (1983). According to Osborn and Reiff, physicians spend too little time on behaviour and development in well child consultations and there is a discrepancy between recommendations and practice. The lack of formal evaluation of practice, in the opinion of Osborn and Reiff, leads to inability to change practice. The formulation of minimal standards for well child care evaluation is advocated by Backes, Hostoffer, Osborn, Prater and Walker (1989).

Inadequate documentation has also been identified as a barrier to the effectiveness of well child care services particularly immunisation (Richardson, Selby-Harrington, Krowchuk, Cross & Williams, 1994). Richardson et al. see poor documentation as a quality issue and ask *what care have the children actually had?* Inadequate history taking and recording is a barrier to immunisation also identified by Watson, Feldman, Sugar, Sommer, Thomas and Lin (1996). Janes and Murtagh (1995) and Mustin, Holt and Connell, (1988) emphasise the necessity to keep good records of well child care, particularly to enhance the possibility of taking advantage of opportunistic visits to complete scheduled activities including immunisation.

2.4 The Present Study

Although many of the barriers to well child care cited in the literature reviewed appear not to be entirely applicable to New Zealand as in other countries, inequities in access to and utilisation of health services by underprivileged groups persist (Malcolm,1996). In the literature reviewed, several authors have recommended that in order to investigate the barriers to well child care it is essential to include the potential and actual consumers of well child care in the investigation process.

The present study sought to investigate issues related to the provision of well child care services in a New Zealand sample.

Specific aims were:

1. To determine who provided well child care services to parents of young children.
2. To determine which parents received or did not receive well child care services
3. To examine the relationship between parents' perceptions of the helpfulness of well child care services and the health status of their children.
4. To examine the relationship between the number of services received and child health status

CHAPTER THREE

Method

3.1 Design

Data was collected by cross-sectional survey method. Survey materials were developed from the WellChild/Tamariki Ora National Schedule January 1996. Demographic detail measures were sourced from the New Zealand Health Survey: A Picture of Health (Ministry of Health & Statistics, 1993). Survey materials were pretested and modified prior to their use.[7]

3.2 Subjects

The subjects were the parents of children under five years of age. Sixty per cent of the subjects were a non-probability convenience sample chosen by selecting every tenth name from the birth records for children born in Hawkes Bay during the previous five years. To ensure that the entire Hawkes Bay region was represented and that the numbers reflected the population sizes of the different areas within Hawkes Bay, sampling was done by geographical area, with the intention of reaching 30 families in both Napier and Hastings areas and 15 families in each of the Central Hawkes Bay and Wairoa areas. The remaining forty percent of the sample consisted of thirty participants each from rural Maori and urban Pacific Island communities who were recruited by leaders in their communities (see 3.3).

There was a greater response from the targeted communities compared to the birth record sample. In the Pacific Island community, one respondent declined giving a response rate of 96.6%: for Rural Maori

[7] The questionnaire was pretested on six mothers from different educational and socioeconomic backgrounds. It was initially thought that it would be necessary to have the research assistant help the mothers to complete the questionnaire but none of the mothers who were involved in the pretest thought that this would be necessary Amendments to the survey were based on their comments.

there was a 100% response rate; in Napier, there were twenty five respondents, response rate = 83.3%; for Hastings district there were sixteen respondents, response rate = 53.3%; Central Hawkes Bay had a 100% response rate and for Wairoa there were ten respondents a response rate of 66.6%. The final pool of subjects was 125 and the overall response rate was 83.3%. A sample description is provided in the results section.

3.3 Procedure

Birth Records Sample: Those selected were sent a letter inviting them to participate in the survey. A full description of the study was given with assurances of anonymity and confidentiality, and a statement of the rights of individuals to decline to participate or withdraw from the survey at any time was included. The recipients of the letter were advised that they would be contacted within one week by a research assistant to see if they would like to participate in the survey.

Research assistants were recruited from the Eastern Institute of Technology Nursing Degree course (second year). After signing confidentiality statements, each assistant was given a short training session to acquaint them with the questionnaires and to ensure that they would be able to give appropriate assistance to the participants if required. They were given lists of families that had been sent letters and were asked to contact them and make arrangements to visit. If the recipients of the letters were willing to take part, the assistants witnessed the signing of the consent form and presented, with suitable explanations, the questionnaire for completion. Each questionnaire was allotted a code number, the survey assistant kept separate lists of the code numbers and names of participants which were returned to the principal researcher with the completed questionnaires.

Targeted communities: Both these communities were contacted before the survey to invite their participation. Leaders in the communities, identified through health networks, were approached to request them to

invite parents of children under five years of age to take part in the survey. The leaders were given a training session, which included signing statements of confidentiality and ensuring that the leaders understood the questionnaires so that they could offer assistance, if required. The leaders were requested to deliver the questionnaires in the most culturally appropriate way for each group, however, consent forms were still required to be completed and each questionnaire was given a code number, which corresponded with the list of participants. On completion of the questionnaires the principal researcher collected them from the leaders, together with the consent forms and lists of participants and codes.

All questionnaires, lists of participants and code numbers were returned to the principal researcher for safekeeping. Questionnaires, lists of codes and consent forms were stored separately and securely and will be destroyed on completion of the study.

The research assistants and the leaders of the rural Maori and Urban Pacific Island Communities were reimbursed for their time with funds granted for this purpose from the Hawkes Bay Medical Research Foundation.

Ethical approval for the study was obtained from the Massey University Human Ethics Committee and the Hawkes Bay Health Care Human Ethics Committee.

3.4 Measures.

3.4.1 Biographical Information: Information was sought on the participant's relationship to the under five year old child and the relationship of the child to other family and extended family living in the same home as the child. The age of the youngest child was recorded. Ethnicity, education, employment status and income of the participant and spouse or partner were also collected. Questions were modelled on

the 1991 New Zealand Census of Population and Dwellings (Department of Statistics, 1993).

3.4.2 Well Child Care Services: The questionnaire followed a pattern of inquiry based on the components of the WellChild/Tamariki Ora National Schedule (1996). Participants were asked if they received well child care services. Participants were also asked to rate how helpful they found each of the services they received using a six point Likert scale (1 = not very helpful, 6= very helpful).

The WellChild/Tamariki Ora National Schedule is divided in to three parts: Health Promotion; Health Protection and Clinical Support; and Family or Whanau Care and Support. The questionnaire was designed to reflect the expectations described in the schedule for optimum care of children and their families from the antenatal period until the child's entry into school at five years of age. Antenatal care and education are not part of the WellChild/Tamariki Ora National Schedule but as the schedule anticipates that this care has been given and directs that the provider of post natal services reinforces the messages given, the receipt of antenatal care was relevant for inclusion in this survey.

3.4.3 Health Status of the Child: To ascertain the health status of their children, parents were asked to evaluate the child's health on a four point scale (4= poor to 1= excellent)[8]. Respondents were also asked if a specific diagnosis of asthma, glue ear, hearing or visual problems or other health problem had been made for their child. A further measure of the child's health status was taken by hospitalisations and number of visits to the general practitioner in the last year (the range was no visits to twelve or more).

3.4.4 Providers of Services: Participants were given cue sheets to help them identify which of the groups they turned to for advice for the

[8] For the purpose of analysis, scores on this scale were reversed for ease of interpretation.

various services asked about in the questionnaire. Fourteen categories were provided: Doctor; Midwife; Practice Nurse; Plunket Nurse; Public Health Nurse; Iwi Nurse; Dental Nurse; Family member; Friend; Community group; Chemist; Naturopath; Hospital or Other. Many of the participants gave combinations of these groups as their answers. To assist in the analysis of the data, categories were rationalised into six groups: Doctors; Midwives; Community based nurses (including Plunket Nurses, Public Health Nurses, Iwi Nurses and Dental Nurses); Family and friends; Community groups (eg. Antenatal class, La Leche, Parent Centre, Te Kohanga Reo etc); and others (including books, TV and video, other people).

NB: Chemists and Naturopaths were not chosen by any participants.

Copies of the information sheet, consent form, questionnaire and cue sheets are provided in Appendix 2.

CHAPTER FOUR

Results

4.1 Data Screening

Prior to the main analysis, data was screened for accuracy of data entry and missing data values.

4.2 Sample Description

As can be seen in Table 1, the majority of the informants in the survey (123, 98.4%) were mothers whose youngest child was under five years, with 95 (75.4%) under three years of age. Of these mothers, 48 (38.4%) were Maori, 46 (36.8%) were Pakeha and 26 (20.8%) were Pacific Islanders. Thirty-eight (30.45%) of the mothers were employed, 83 (66.4%) were unemployed or undertaking training programmes. Ninety (72%) of the mothers said they had a spouse or partner, 62 (49.6%) of whom were employed. Fifty-five (44%) of the mothers had no school qualifications. One hundred and twenty four of the babies in the sample were born in hospital, the other baby was born at home. Forty (32%) of the mothers had problems associated with the births. Thirty-four different problems were identified.

4.3 Analyses

The statistical package SPSS/PC was used to examine data and relationships among variables. Analyses were undertaken in three stages. First, descriptive information on who provided the services recommended in the WellChild/Tamariki Ora National Schedule and the parents' ratings of the helpfulness of those services are presented. Tests of significance on helpfulness scores across providers and non-parametric tests on the distribution of providers for each service could

not be undertaken due to the small cell sizes and missing data. Second, one-way analysis of variance (ANOVA) and t-tests were performed to examine demographic differences in the number of services received. Third, correlations are presented to examine the relationships between child health status, total helpfulness scores and the number of services received..

Table 1: Summary of biographical information (N=125).

	Number of Participants	% of Participants*
Age of Youngest Child		
< 1 year	31	24.8
1 year	37	29.6
2 years	27	21.6
3 years	18	14.4
4 years	8	6.4
5 years	2	1.6
Mother's Ethnicity		
Maori	48	38.4
Pakeha	46	36.8
Pacific Island	29	20.8
Informants Employment Status		
Employed	38	30.4
Unemployed	83	66.4
Marital Status (includes defacto)		
Partnered	90	72.0
Non-partnered	30	24.0
Mother's Qualifications		
No school qualifications	55	44.0
School qualifications	38	30.4
Trade/Professional Certificate or Diploma	16	12.8
University Degree	8	6.4
Other	4	3.2
Geographical Location		
Wairoa	10	8.0
Napier	25	20.0
Hastings	16	12.8
Central Hawkes Bay	15	12.0
Rural Maori	30	23.2
Urban Pacific Island	29	24.0

* Total %'s may not equal 100% due to missing data

4.4 Who Provided Well Child Care Services?

The following section provides descriptive information on who provided the services recommended in the WellChild/Tamariki Ora National Schedule.

4.4.1 Health Education and Promotion

There were fourteen services identified within this section (see Table 2) based on the WellChild/Tamariki Ora National Schedule (see Appendix 3). Eighty-three (66.4%) of the sample mothers received antenatal care. The majority of these, 58 (69.8%) from their doctors. The midwives gave antenatal care for 20 (24.0%) mothers. Thirteen mothers did not receive antenatal care because they did not think it was important, only four said that antenatal care was not available. Antenatal education was received by 61 (48.8%) of the mothers, 26 (42.6%) from doctors and 31(50.8%) from midwives. The main reasons for not receiving antenatal education were lack of availability, previous experience with children and travel problems. Twelve mothers did not think that antenatal education was necessary. As shown in Table 3 less than 50% of the total sample received advice on any particular antenatal subject.

One hundred and thirteen (90.4%) respondents said they had received advice on minor illness. Seventy six mothers (60.8%) said they knew what to do before a minor illness occurred. The major provider of information on minor illnesses was the doctor (59, 52.2%) followed by family (29, 25.6%) and community nurses (14, 12.3%).

One hundred and one (80.8%) mothers breastfed their babies although it was not established for how long. Eighty-nine of the mothers said they had problems with breastfeeding. The major source of assistance was from the community nurses (30, 33.7%) and the midwives (25, 28.0%). Family members also gave assistance to 15 (16.8%) of the mothers and the doctor gave assistance to 12 (13.4%).

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Table 2: Number and percentage of respondents receiving Health Education and Promotion services in total and from each provider group (N=125).

Variable	Total		Doctor		Midwife		Community Nurse		Family		Community Group		Other		Helpfulness*	
	No.	% of total sample	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	Mean	SD
Antenatal care	83	66.4	58	69.8	20	24.0	1	1.2	2	2.4	0	0.0	2	2.4	5.12	0.93
Antenatal Ed.	61	48.8	26	42.6	31	50.8	1	1.6	1	1.6	0	0.0	2	3.2	4.83	1.08
Minor illness	113	90.4	59	52.2	7	6.1	14	12.3	29	25.6	1	0.8	3	2.6	5.18	0.97
Breastfeeding	89	71.2	12	13.4	25	28.0	30	33.7	15	16.8	2	2.2	5	5.6	5.19	0.99
SIDS	92	73.6	20	21.7	28	30.4	38	41.3	0	0.0	3	3.2	3	3.2	4.95	1.14
CPR	84	67.2	10	11.9	20	23.8	3	3.5	3	3.5	35	41.6	13	15.4	5.25	1.01
Maternal nutrition	98	78.4	44	44.8	24	24.4	18	18.3	9	9.1	3	3.0	0	0.0	5.17	0.85
Stress and Fatigue	107	85.6	17	15.8	12	11.2	17	15.8	54	50.4	2	1.8	5	4.6	5.17	1.09
Contraception	102	81.6	82	80.3	9	8.8	2	1.9	6	5.8	0	0.0	3	2.9	4.97	1.15
Problems	79	63.2	18	22.7	11	13.9	31	39.2	15	18.9	1	1.2	3	3.7	5.05	1.15
Development	116	92.8	12	10.3	3	2.5	39	33.6	32	27.5	3	2.5	27	23.2	5.36	0.68
Safety	111	88.8	16	14.4	3	2.7	50	45.0	13	11.7	10	9.0	19	17.1	5.40	0.77
Dental	94	75.2	8	68.5	1	1.0	77	81.9	1	1.0	2	2.1	5	5.3	5.11	0.95
Baby gear	59	47.2	5	1.8	4	6.7	20	33.8	26	49.1	1	1.6	3	5.0	5.20	0.84

*Helpfulness scores range from 1- not very helpful to 6= very helpful.

Table 3: Subjects covered in antenatal education.

Subject	Number of participants (N=61)	Percent of total sample (N=125)
Nutrition	57	45.6
Weight gain	42	33.6
Smoking	49	39.2
Safety of child after birth	41	32.8
Drinking alcohol	45	36.0
Car seats	51	40.8
Financial problems	13	10.4
General health	57	45.6
Preparation for and support during and after birth	55	44.0
Other	16	12.8

Ninety-two (73.6%) mothers received advice on SIDS. The major providers of information on SIDS were the community nurses (38, 41.3%) followed by the midwives (28, 30.4%) and the doctors (20, 21.7%). CPR was taught to 84 (67.2%) of the mothers. The main providers of this service were community groups (35, 41.6%), including St. Johns Ambulance staff (22, 26.1%). Midwives also taught 20 mothers (23.8%).

The majority of mothers 98 (78.4%) received advice on their nutrition. Forty four (44.8%) from their doctors, 24 (24.4%) from midwives and 18 (18.3%) from the community nurse. One hundred and seven (85.6%) of the mothers received advice on stress and fatigue. The majority of the sample (54, 50.4%) that sought help for stress and fatigue turned to their families. The doctor and the community nurse gave advice to a further 31.6% of mothers.

One hundred and two (81.6%) of the respondents said they had received advice on contraception. Doctors were the major providers of advice (82, 80.3%). Seventy-nine (63.2%) of the respondents received advice on parenting skills. The major providers were the community nurses (31, 39.2%) and the doctors (18, 22.7%). The problems identified by parents are shown in Table 4.

Table 4: Problems identified by parents.

Problem	No. of participants (N=79)	% of total sample (N=125)
Sleep	39	31.2
Crying	33	26.4
Feeding	32	25.6
Temperament	20	16.0
Eating	17	13.6
Other	17	13.6
Socialisation	12	9.6
Toileting	11	8.8

One hundred and sixteen (92.8%) parents received advice on developmental stages, the major providers were community nurses (39, 33.6%) and families (32, 27.5%). One hundred and eleven (88.8%) respondents received advice on safety. The major provider of advice on safety was the community nurse (50, 45.5%). Subjects covered by the providers are shown in Table 5.

Table 5: Subjects covered in safety advice.

Subjects	No. of participants (N=111)	% of total sample (N=125)
Car seats	109	87.2
Safe home	101	80.8
Hot water	96	76.8
Sun	90	76.8
Play equipment	79	63.2
Fire	74	59.2
Supervision	74	59.4
Water	73	58.4
Road	73	58.4
Falls	70	56.0
Safe neighbourhood	54	43.2
Lead	31	24.8

Ninety four (75.2%) of the respondents received advice on dental health. The dental nurses were the main source of information about dental health (43, 45.7%), followed by community nurses (34, 36.1%). Advice on suitable clothing, nappies and bedding was received by 59 mothers (47.2%). The major providers of advice were their families (26, 49.1%) and the community nurse (20, 33.8%).

Mean helpfulness scores for these fourteen services ranged from 4.83 (sd=1.08) for antenatal education to 5.46 (sd=0.77) for advice on safety issues.

4.4.2 Health Protection and Clinical Assessment

There were four services identified within this section (see Table 6) based on the Well Child/ Tamariki Ora National Schedule.

Ninety-eight (78.4%) mothers received advice on birth, the major group the mothers turned to at this time were doctors (44,44.8%) followed by midwives (28, 29.5%) and family (21, 21.4%).

The Well Child /Tamariki Ora National schedule sets out a suggested plan for Well Child Checks, which are recommended to be conducted at home for the early visits and thereafter at a clinic or doctors surgery. Figure 1 Shows the number and percentage of participants who received each of the suggested visits.

	Time	Number	Percentage of total sample
N=125			
First home visit:	1 week	52	41.6%
	2 weeks	31	24.8%
	3 weeks	11	8.8%
	More than four weeks	24	19.2%
First Clinic/surgery visit:	1 week	7	5.6%
	2 weeks	12	9.6%
	3 weeks	7	5.6%
	More than four weeks	90	72.0%

Figure 1: Timing and location of initial well child checks

One hundred and sixteen (92.8%) of the children had well child checks. The major provider of well child checks, in the early weeks, was identified as the nurse, the majority of whom were community nurses (53, 42.4%) followed by the doctor (33, 28.8%). Nine respondents (4.8%) received well child checks from midwives during the post natal period. However, as can be seen by Table 7 the doctor continues to give consistent care to more children than the nurse does over a longer period.

Table 6: Number and percentage of respondents receiving Health Protection (Clinical) Services in total and from each provider group (N=125) *

Variable	Total		Doctor		Midwife		Community Nurse		Family		Community Group		Other		Helpfulness	
	No.	% of total sample	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	Mean	SD
Birth	98	78.4	44	44.8	28	29.5	3	3.0	21	21.4	0	0.0	2	2.0	5.40	0.92
Immunisation	106	84.8	73	68.8	5	4.7	19	17.9	2	1.8	1	0.9	6	5.6	5.27	0.96
Hearing	87	69.6	53	60.9	2	2.2	31	35.6	0	0.0	1	1.1	0	0.0	5.09	0.97
Vision	85	68.0	48	56.4	2	2.3	35	41.1	0	0.0	0	0.0	0	0.0	5.11	0.91

* Total %'s may not equal 100% due to missing data

As shown in Table 6, of the sample of 125 babies, 106 (84.8%) parents received advice on immunisation. However 115 (95.2%) of the babies were immunised up to date. Only 16 parents had found it difficult to decide to have their children immunised. Advice on immunisation was primarily given by doctors (73,68.8%) and community nurses (19,17.9%).

Table 7: Timing and providers of well child checks.

Time	Doctor		Midwife		Nurse		Neither		Doctor and nurse/midwife	
	No.	%	No.	%	No.	%	No.	%	No.	%
2-4 weeks	36	28.8	9	4.8	53	42.4	23	18.4	7	5.6
6 weeks	81	64.8	0	0	20	16.0	1	0.8	20	16.0
3 months	62	49.6	0	0	36	28.8	4	3.2	15	12.0
8-10 months	46	36.3	0	0	32	25.6	4	3.2	9	7.2
15 months	55	44.0	0	0	17	13.6	3	4.0	9	7.2
21-24 months	41	32.8	0	0	15	12.0	9	7.2	3	2.4
3 years	25	20.0	0	0	8	6.4	9	7.2	2	1.6

Eighty-seven (68.6%) of the respondents had received advice on the child's hearing. Doctors were the major providers of advice (53, 60.9%) with community nurses second (31, 35.6%). Eighty-five (68.0%) of the parents had received advice on the child's vision. Doctors were the most likely to give advice (48, 56.4%) followed by nurses (35, 41.1%).

Mean helpfulness scores for health protection services ranges from 5.09 (sd=0.97) for hearing services to 5.40 (sd=0.92) for advice on birth.

4.4.3 Family/Whanau Care and Support

There were four services identified within this section (see Table 8) based on the Well Child/Tamariki Ora National Schedule.

One hundred and eighteen families/whanau received advice on general concerns. Doctors were the main providers of this advice (86, 72.8%). Nurses and family provided advice in equal numbers (11, 9.3%). Twenty-six (20.8%) of the participants said they had suffered post-natal depression. The doctor (13, 50.0%) was their main source of assistance followed by family members (9, 34.6%).

Table 8: Number and percentage of respondents receiving Family/Whanau Care and Support services in total and from each provider group (N=125).

Variable	Total		Doctor		Midwife		Community Nurse		Family		Community Group		Other		Helpfulness	
	No.	% of total sample	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	Mean	SD
General concerns	118	94.4	86	72.8	8	6.7	11	9.3	11	9.3	1	0.8	1	0.8	5.35	0.84
Postnatal depression	26	20.8	13	50.0	1	3.8	1	3.8	9	34.6	0	0.0	2	7.6	4.36	1.80
Crisis	37	29.6	22	59.4	0	0.0	3	8.1	8	21.6	1	2.7	3	8.1	5.20	1.26
Government agencies	37	29.6	6	16.2	2	5.4	1	2.7	18	48.6	8	21.6	2	5.4	5.34	0.73

Four (15.3%) found the help they received very unhelpful. A time of crisis was experienced by 37 (29.6%) of the families. Twenty-two (59.4%) turned to their doctor for advice. Thirty-seven participants received advice on help with government agencies. Eighteen (48.6%) asked their family to support them and 8 (21.6%) found help from community groups.

Mean helpfulness cores for family/whanau care and support services ranged from 4.36 (sd=1.80) for postnatal depression advice to 5.35 (sd=0.84) for general concerns.

4.4.4 Support Groups

Participants were asked about the support groups they accessed. Forty three (34.4%) of the parents said that they had attended one or more support groups, see Table 9.

Table 9. Support groups available in parent's area and those attended.

Support Group	Available		Attended	
	No.	% of total sample	No.	% of total sample
La Leche	40	32.0	6	4.8
Karitane	48	38.4	14	11.2
Home help	68	54.4	6	4.8
Pregnancy help	54	43.2	4	3.2
Play group	83	66.4	30	24.0
Parent group	69	55.2	16	12.8
Parent centre	57	45.6	11	8.8
Coffee club	28	22.4	5	4.0
Other	8	6.4	7	4.6

4.4.5 Early Child Care Centres

Participants were also asked about the early child care centres they accessed. Sixty three (50.4%) of the sample said their children attended one or more early child care centres (see Table 10). Fifty three (42.4%) said that they attended with their children. Te Kohanga Reo, Kindergarten and day care were the most popular early child care centres. Ten (8%) gave cost as the reason they did not attend early child care.

Table 10: Early child care centres available in parents' area and those attended by child.

Child Care Centre	Available		Attended	
	No.	% of total sample	No.	% of total sample
Day care	84	67.2	21	16.8
Play centre	94	75.2	13	10.4
Te Kohanga Reo	101	80.8	24	19.2
Kindergarten	95	76.0	23	18.4
Pacific Island language nests	32	25.6	7	5.6
Other	4	3.2	2	1.6

4.4.6 Provider Most Seen

For the purposes of analysis the data were categorised into five demographic groupings. A new variable 'Employment Status' was created. This variable categorised respondents as belonging to one of three groups: Single unemployed or couple both unemployed; Single employed or couple with one employed; Couple both employed. Group one had no paid employment income, group two had one paid employment income and group three had two paid employment incomes. Respondents were asked to provide total weekly income but due to extensive missing data this variable was unable to be used. Mothers highest qualifications was recoded into three groups: no school qualifications; school qualifications and post school qualifications. Due to the small sample size, data could not be evaluated across the six geographical locations. This information was recoded into rural (Central Hawkes Bay, Wairoa and Nuhaka) and urban (Napier, Hastings and Cook Island Community). Table 11 presents the frequencies of numbers of people in each demographic group that predominantly use one of the four main providers of services. Small cell sizes precluded the use of any tests of significance. Doctors were the persons most seen across all variables.

Table 11: Main providers of services across ethnicity, employment, qualifications, location and marital status.

	Person most often seen				
	Doctor	**Family**	**Nurse**	**Midwife**	**Total**
Ethnicity					
Maori	24	8	8	4	44
Pakeha	18	2	16	10	46
Pacific Is	13	5	4	1	23
Employment					
Non paid	16	10	12	4	42
One paid	22	2	11	6	41
Two paid	14	3	5	4	26
Qualification					
No Qualifications	26	8	10	5	49
School Qualifications	14	6	12	6	38
Post school qualifications	14	2	5	6	27
Marital Status					
Spouse	43	12	20	12	87
No Spouse	10	4	9	4	27
Geographical location					
Urban	33	6	15	14	68
Rural	23	10	14	3	50

4.5 Who Received Well Child Care Services?

The following section presents analyses that assess differences in the number of services received, across demographic groups (Mother's Qualifications, Employment Status, Mother's Ethnicity, Location and Marital Status). Associations between child health status, total helpfulness and number of services received are presented.

One-way analysis of variance (ANOVA) was undertaken to test for differences across three of the five demographic variables (Mother's Ethnicity, Mother's Qualifications and Employment Status). In addition, Scheffe's ranges tests were undertaken for "multiple comparisons" among group means to reduce Type 1 error (Norusis, 1988).

4.5.1 Mother's Qualifications

Means and standard deviations for the number of services under the three parts of the Well Child Schedule across levels of mother's

qualifications are presented in Table 12. The number of health education and promotion services received was significantly different across mother's highest qualifications, F (2,114) = 4.83, < .01. Looking at the ranges test, mothers with no qualifications received significantly fewer health education and promotion services than those with school qualifications. There were no significant differences found in the receipt of health protection services or family support services across mother's qualifications.

Table 12: Means and standard deviations for number of services received across mothers highest qualification (N=117).

	No Qualifications (N=55)		School Qualifications (N=38)		Post School Qualifications (N=24)		
	M	SD	M	SD	M	SD	F
Health Education and Promotion services (14)	9.49	3.39	11.08	2.31	11.17	1.93	**
Health Protection services (4)	2.85	1.37	3.05	1.61	3.25	0.94	ns
Family Support services (4)	1.76	1.09	1.81	0.80	1.46	0.66	ns

**p<.01, ns=not significant

4.5.2 Employment Status.

Means and standard deviations for the number of services received across the three employment status levels are presented in Table 13. There was a significant difference in the number of health education and promotion services received across employment status (F (2,112) = 7.07, p< .01). Ranges tests showed that those with no paid employment income received significantly fewer services than those with both parents in employment. Those with one person employed also received significantly fewer services than those with both in employment. The number of health protection services received were significantly different between groups one and three, F(2,112) = 5.28,p< .01. Those with both in employment receiving significantly more services. The number of family/ support services received was not significant across employment status.

Table 13: Means and standard deviations for number of services received across employment status (N=115).

	Single or couple Unemployed (N=46)		Single or couple One person employed (N=42)		Couple both employed (N=27)		
	M	SD	M	SD	M	SD	F
Health Education and Promotion services (14)	9.70	3.14	10.10	2.70	12.07	1.63	**
Health Protection services (4)	2.57	1.36	3.17	1.08	3.40	0.89	**
Family Support services (4)	1.85	1.05	1.52	0.70	1.85	1.03	ns

** p,.01, ns= not significant

4.5.3 Ethnicity

Means and standard deviations for the number of services received across the three ethnic groupings are presented in Table 14. The number of health education and promotion services received was significantly different between groups across mother's ethnicity, F (2,117) = 4.82, p< .01. Ranges tested showed that Maori and Pacific Islanders received fewer services than Pakeha. Further analyses (not shown) showed that Maori and Pacific Islanders used Plunket services less than Pakeha F (2,117) = 8.54, p<.001.

Table 14. Means and standard deviations for number of services received across mother's ethnicity (N=120).

	Pakeha (N=46)		Maori (N=48)		Pacific Island (N=26)		
	M	SD	M	SD	M	SD	F
Health Education and Promotion services (14)	11.30	1.88	9.73	2.81	9.58	3.93	**
Health Protection services (4)	3.15	1.03	3.04	1.24	2.84	1.46	ns
Family Support services (4)	1.78	0.74	1.65	0.10	2.00	1.23	ns

** p,.01, ns= not significant

T-Tests were used to examine the differences in groups means across two of the demographic variables (geographical location and martial status). In these analyses, an F test of sample variances was carried out. If the probability of F was > .05, then it was assumed sample variances were equal and pooled variance estimates were used. If the probability of F was < .05, then it was assumed that sample variances

were unequal and separate variance estimates of F were used (Snedecor & Cochrane, 1980).

4.5.4 Geographical Location

Means and standard deviations for the number of services received across the two geographical location groupings are presented in Table 15. There were no significant differences in the three types of services received across geographic location.

Table 15: Means and standard deviations for number of services received across geographical location (N=125).

	Urban (N=71)		Rural (N=54)		
	M	**SD**	**M**	**SD**	**t**
Health Education and Promotion services (14)	10.56	3.10	9.96	2.65	ns
Health Protection services (4)	3.10	1.14	2.90	1.30	ns
Family Support services (4)	1.85	1.02	1.61	0.86	ns

ns= not significant

4.5.5 Marital Status

Means and standard deviations for the number of services received across marital status are presented in Table 16. The number of health protection services received was significant, t (43.93) = 2.51, $p<.05$, across marital status in that those with a spouse received significantly more of these services than did those without a partner. The number of health education and promotion services and the number of family support services received were not significant, across marital status.

Table 16. Means and standard deviations for number of services received across marital status (N=120).

	Spouse / partner (N=90)		No Spouse/ partner (N=30)		
	M	SD	M	SD	t
Health Education and Promotion services (14)	10.60	2.69	9.93	3.11	ns
Health Protection services (4)	3.17	1.11	2.50	1.31	*
Family Support services (4)	1.70	0.93	1.80	0.92	ns

• p.05, ns= not significant

4.6 Child's Health Status and Total Helpfulness

Table 17 presents the relationships between the dependent variables. Ratings of the child's health were positively correlated with the number of family support services received. The three categories of Well Child Services received were all positively correlated with each other.

Table 17. Correlations between child's health status, total helpfulness score and number of services received (N=125).

	Child's health status	Total helpfulness	Health Education and Promotion	Health Protection	Family support
Child's health status	1.00				
Total helpfulness	-.12	1.00			
Health Education and Promotion services	-.03	.01	1.00		
Health Protection services	-.07	.02	.56**	1.00	
Family Support services	.31**	.03	.35**	.18*	1.00

*<.05, ** p .01.

CHAPTER FIVE

Discussion

The review of the literature has demonstrated that well child care is beneficial for the health and welfare of children and their families. In New Zealand the Regional Health Funding Authorities purchase well child care through primary health care services antenatally and through a range of services postnatally. The expectation is that services for well child care are not limited to those provided by health services but that health service providers work in cooperation with other groups in the community to maximise the efficacy and effectiveness of well child care. The present study sought to ascertain from a sample of parents of young children in the Hawkes Bay region who they relied on for the provision of well child care services and information contained in the WellChild/Tamariki Ora National Schedule (1996). The study further sought to investigate the relationship between which families received or did not receive well child care services; to examine the relationship between the family's perceptions of the helpfulness of services and the health status of their children; and to examine whether the number of services received was related to child health status.

This chapter will discuss the findings of the study as they relate to the research aims and the previous literature. Limitations of the research will be discussed and implications for further research highlighted. Finally, conclusions regarding the study will be made focussing on the providers of well child care services

5.1 Who Provides Well Child Care Services?

The first aim in the present study was to determine who provided well child care services to parents of young children.

5.1.1 Health Education and Promotion Services

The findings from the present study show that in this sample the major provider of services was the doctor, over all services and demographic groups. However, there was a variation in the types of services provided between the various providers. Doctors were the major providers of antenatal care, advice on minor illnesses, maternal nutrition and contraception, which, with the possible exception of maternal nutrition, are all the clinical components of the health education and promotion services. Families, on the other hand, were the main providers in times of stress and fatigue by parents and for advice on the material needs of the baby. Families were also a close second to nurses for advice on development and to doctors for advice on minor illnesses. Nurses, both midwives and community based nurses, were the main providers of assistance with breastfeeding, general problems and developmental issues, which may be seen as a *hands on* activities. Nurses also delivered, more than other groups, advice on sudden infant death syndrome, safety issues and dental care.

The main community provider identified was St John's Ambulance, who were the main providers of instruction of cardio-pulmonary resuscitation (CPR). Midwives also provided instruction on CPR, and quite a few mothers found assistance from videos and books. Videos and books were also the source of information for some mothers on developmental and safety issues. The Health and Development book, issued to all mothers who give birth to children in New Zealand, was cited by several mothers, as being very useful.

The finding that doctors were the main providers is not surprising, accepting Downie, et al.'s (1996) observation that the traditional (medical) model of health is largely acceptable to the public. It may be seen as surprising, however, if one accepts that, in New Zealand, Plunket are seen to be the major providers of well child care services (Bryder,1998). The split between the various windows of opportunity for heath professionals to provide continuity of care may be a significant

factor in their utilisation. Nurses are limited in their involvement with families by the pregnant state of the mother for midwives and the arrival of the baby for the community based nursing services. Most doctors, on the other hand, give continuity of care throughout the family's life span.

As noted above, the services offered by the doctors, nurses, family and community were different. What is apparent from the findings of this study is that nursing input into well child care services is limited. These two observations raise a number of concerns about the effectiveness of health education and promotion as well child care services in New Zealand.

Firstly, the prominent role of the doctor in providing well child care services raises a number of issues. According to the literature, doctors express reservations about their role in health promotion. As noted by Ford and Ford (1983), although doctors consider they may be the best group to deliver health education and promotion they have many reasons why they do not. Issues such as lack of time, lack of remuneration and lack of special training have been cited by Girgis and Sanson-Fisher (1996) and Pullon (1994). So, although doctors do see more children over a longer period of time in the postnatal early childhood time frame, this may not mean that the health education and promotion component of the prescribed well child services is being delivered. Brown, et al.(1993) have found that immunisation figures are commonly used as a measure of the effectiveness of well child care services. However research by Brown, et al. has demonstrated that immunisation rates are not a reliable measure as receipt of immunisation does not ensure that children and their parents have received other aspects of preventive care (in this study over 95% of the children were up to date with immunisation).

The second concern raised by the present findings is that the potential for nurses to deliver health promotion services is jeopardized by their limited input into well child care services. Loveland-Cherry (1996) emphasied the importance of the role of the nurse in family health

promotion, not only as a provider of anticipatory guidance but also as an advocate between families and community systems. The effectiveness of the nurses working with the *hard to reach* has been noted by several authors (Kitzman et al.,1997; Leach,1997; Olds, et al.,1997). The value of nurses providing supportive-educative care to encourage families to achieve confidence and maintain control during transition periods in life such as are experienced with birth and early child rearing are stressed by Pender (1996).

Third, the present findings have implications for those who may find traditional health care delivery systems problematic. The literature emphasizes home visiting as an important tool in reaching the *hard to reach* i.e. the socioeconomically disadvantaged; young mothers and solo mothers (Kitzman, et al.,1997; Olds, et al., 1997; Olds, et al.,1994). Doctors, in New Zealand, seldom make home visits. Home visiting has in the past been the strength of nursing services such as Plunket. It has been noted by Tuohy (1997) that home nursing services have been curtailed by financial constraints, however it has also been noted that new initiatives such as Strengthening Families and Family Start, developed to meet the needs of targeted groups, are being implemeted (Ministers of Health, Education and Welfare, 1998). These *new* approaches are in line with Downie et al.'s (1996) concept of the modern approach to health promotion. That is, health professionals, other disciplines and lay people working together, acknowledging the relevance of circumstances and social factors on health outcomes. These methods may use a non-medical focus as the primary method of reaching the *hard to reach.* Such innovations may be seen to challenge the role of health professionals as primary care providers. As previously noted the differences of the services provided by the various providers require evaluation for effectiveness.

5.1.2 Health Protection Services

Health protection services, were also provided primarily by the doctors. It is interesting to note that for the birth, although the doctor is the major

provider, and the midwife, is as expected, the second provider, the family have also been identified as giving significant services at this time. The major providers of advice on immunisation were the doctors who were also the main providers of advice on hearing and vision. Nurses also gave advice on these matters, but to a lesser degree. As noted in the previous section, doctors are more likely to concentrate on the clinical aspects of well child care (Brown et al., 1993). However, research has demonstrated that the uptake of immunisation is increased as a result of antenatal advice (Boyles, 1997). A major barrier to immunisation is the socioeconomic status of the mother, which according Gadomski et al. (1998) has a negative effect on the uptake of most well child care services. To reach these mothers and their children other ways of providing well child care services are necessary, as the main stream medical services are frequently unable to reach them (Kitzman et al. 1997). The high rate of immunisation in the present study (over 95% of children were up to date with immunisation) indicates that for this sample, medical services are effective for health protection well child care services, particularly immunisation. Other well child care services will be discussed under 'Who received services?'

5.1.3 Family/Whanau Care and Support Services

In the present study the doctor was perceived by the participants as the main provider of family/whanau support. This may be a reflection of the cultural authority given to doctors by the majority of the population on health related issues (Boddy,1992) and also a consequence of the continuity of service offered by most doctors. It is noted by Slama, Redman, Cockburn and Sanson-Fisher (1989) that the trust that 'patients' have in doctors is related to their prestigious position and their knowledge. Slama et al. further note that respect for doctor's position and knowledge encourages many patients to follow their advice and accept their reassurances. Girgis and Sanson-Fisher (1996) also note that doctors are a reliable source of accurate information. Reliability is, according to Kassulk et al. (1993), the most important characteristic of information.

As family were one of the options for providers of services, the present study included family both as recipients and providers of family/whanau care and support. Although the literature stresses the role of the family and community, and recent initiatives have attempted to do this, in the present study the family did not play a crucial role in most services. The only exception being for assistance required for contact with government agencies. In this event, families helped each other, possibly drawing on their own experiences. It also may be relevant that there was a general unwillingness, by the respondents, to give details of income, demonstrating a distrust of perceived *others* regarding such personal, non health related details. Demi and Warren (1995) have found that reluctance to reveal source of income is common, particularly among socioeconomically disadvantaged families.

Very few mothers said that they had had postnatal depression or a time of crisis. For those who did, the doctor was the main provider of services with the family taking second place, nurses were seen to have little input with these problems. With reference to the literature on postnatal depression it is of concern that nurses were not seen as having a role by those who experienced this condition. Taylor (1989) observed that postnatal depression is often unrecognised in spite of frequent home visits. This finding does not support Wilson's (1995) claim that in New Zealand, 95 percent of referrals for post natal depression, were referred to Plunket initiated or consumer led support groups. It may be possible that the paucity of home visits, in New Zealand, identified by Tuohy (1997) contributes to the perceived lack of involvement of the nurses in the present study.

Finch (1994) notes that with regard to the supportive role of the family for well child care, there are variations both in the need for support and the ability of kin relations to provide it. Durie (1995) suggests that Maori mothers are more vulnerable as they often have their children at a younger age and are less likely than older women, or those of other

ethnic groups to accept or seek assistance for child care practices. It may have been argued that in the *old days* the extended whanau would have been on hand to give the necessary support, but with increased urbanisation and poverty whanau are less able to assist. Grandmothers, the traditional supporters, are often out at work and not able to care for their mokopuna (H. Beattie, personal communication, 19 October,1998).

Public health nurses have been traditionally well accepted by Maori according to Dow (1995) and Lambie (1951) and there is still an unmet and unacknowledged demand for public health nurses by Maori. (J. Rice, personal communication, July 10th, 1998). Plunket are making concerted efforts to meet this demand through the employment of Maori nurses. However, it was suggested by Max (1990) that ideally, Maori nurses should work along side the Plunket nurse, as Plunket was still perceived, by Maori, as being too rigid in its approach. The Ministerial Taskforce on Nursing (1998), noted that only ten percent of all nursing students are Maori, which is low in comparison with Maori health needs.

The supportive role, in the absence of the extended family, is vaguely assigned to the community according to Max (1990) who cites the Children's Commissioner Dr Hassall as advocating the recognition of the extended family of choice as a substitute for the extended biological family. These extended families may include Te Kohanga Reo, Plunket, new mothers groups and other schemes created for social cohesiveness (Max, 1990).

There were several community support groups available to the parents in the present study. However there was a markedly low utilisation of these services, which may be explained in part by the fact that the majority of the children in the sample were under three years of age, with 50 percent under two years of age. The majority of parents knew that most of the support groups were available, but only playgroups appeared to be utilised in any number. It was not possible from the data received to establish why. Early Child Care Centres, such as Day Care, Te Kohanga

Reo or Kindergarten, were used by over 60 percent of the sample. The continuity offered by these services may be congruent with the suggestion made earlier that they may represent the extended families. The low use of Pacific Island Language nests is of interest as 20.8 percent of the sample came from a Pacific Island community. It may be that closer family ties negated the necessity for external care providers.

5.1.4 General Issues

Much reliance is given to the written word in the present study. Several of the respondents referred to the use of the Health and Development book issued to the parents of all babies born in New Zealand. This book was introduced in 1982 to standardise the methods for recording of visits and advice given. However, many disadvantaged groups are not attracted by the written word and although they may be able to read, do not chose to do so (Adams, 1993). Adams notes that Health Visitors (in Britain) have addressed this issue in the past with the use of simple messages in pictorial form, Plunket have a similar approach. The problem of getting the pictures to the attention of those who need them most is problematical. The underprivileged, who have the most needs, are the least likely to access conventional health services (Olds, et al., 1997). The use of television and video presentations is ideal, but costs are high. An example of a successful non medically initiated safety intervention is seen in the sponsorship of road safety by the Macdonald's restaurant chain.

It appears that the most effective way to reach the disadvantaged and those who need the most help, is by taking the message to the parent on an individual basis (Kitzman, et al., 1997). However, Osborn (1989) and Roberts, et al. (1996) have found that the effectiveness of the individual approach can also be achieved with small, homogenous groups. This has been demonstrated with small groups of teenage mothers (Bull, et al., 1997).

Targeting of health service to disadvantaged groups has been advocated by Carcillo, Diegal, Bartman Guyer & Kramer (1995) who describe the positive outcomes of health care initiatives by increasing access and utilisation of comprehensive health services. In New Zealand the Tipu Ora project described earlier (Te Puni Kokiri, 1994) was developed to overcome the cultural barriers to well child care. The Hokianga project in Northland, New Zealand, delivers general health care services and is not confined to well child care. Kearns (1991) attributes its success to the use of free services, using community networks.

There is much written in the literature about community development and empowerment of communities (Downie, et al.,1996; Macdonald, 1993; Tones, 1993; 1997a; 1997b). Downie et al., sees community development as an extension of the modern approach to health promotion, which requires different groups to work together recognising the limitations of those in the community in their attempts to achieve improvement in their health or well being. The health promotion movement is essential, according to Downie, to facilitate a new sense of community responsibility or citizenship. Tones has proposed that an aim of health promotion should be to empower individuals and communities to take control. As has been found in the literature, these notions have developed in part in response to disillusionment with the scientific or medical approach (Dreyfus & Ranibow, 1982). However, in this study, there is little evidence, in the experience of the parents interviewed, that this is occurring. Is the doctor the main provider because there is no one else, or is the doctor the main provider because the public, as Draper (1980) commented, still accepts the traditional, medical view of health and is happy to leave health totally in the hands of medical practitioners?

5.2 Who Received Well Child Care Services?

The second aim of the study was to establish which parents received services. The expectation expressed in WellChild/Tamariki Ora, National Schedule (1996) that some of the health education and promotion services will have been presented in the antenatal period was not met as

over one third of the mothers did not receive antenatal care and over half did not receive antenatal education. Fifty nine percent of the sample were either Maori or Pacific Islanders, 66 percent were unemployed, 24 percent were solo mothers and 44 percent had no school qualifications. Maori or Pacific Island people and those with lower educational achievement and high unemployment received the least antenatal care and education.

These findings are congruent with the literature on utilisation of antenatal services, demonstrating that services are not reaching the areas of highest need and that to reach the areas or group of people with highest needs it is essential to deliver services in innovative ways (Blondel, et al.,1993; Chadwick,1994; Chavkin & St. Clair, 1990; Dawson, van Doorninck & Robinson, 1989; Joyce, et al., 1988; Kitzman et al.1997; Kogan, et al.,1998; Koontz,1984; Ministry of Health, 1998b; Public Health Commission, 1994; Schuster, Wood, Duan, Mazel, Sherbourne, & Halfon 1998). The need for a culturally appropriate approach has been addressed for Maori in the Tipu Ora projects (Te Puni Kokiri, 1994), previously described (2.2.1). It would appear that similar approaches should be developed for Pacific Island people. Government initiatives such as Strengthening Families and Family Start demonstrate an acknowledgment of the need to reach the *hard to reach* and a commitment to action outside the medical model as recommended by Macdonald (1993).

A Ministry of Health report (1998b) notes that many of the factors which are associated with infant mortality, specifically Sudden Infant Death Syndrome (SIDS), are to do with lifestyle. However lifestyle is not a matter of choice for the disadvantaged in society and poverty is greatest among single mothers and their children (Hassal, 1996). It has been demonstrated in America that home visiting by nurses during pregnancy and infancy has a positive effect on pregnancy outcomes, reduction of child injury, and subsequent pregnancies among mothers from low socioeconomic backgrounds (Kitzman, et al., 1997). Moore (1996)

advocates for targeted home visiting and realistic support for the families of the children of the poor. The need for realistic support is also stressed by Leach (1997) who describes the dire need of families who are 'left to get on with it' as a result of constraints on home visiting services. Tuohy (1997) also supports the idea of targeted services but, not at the expense of the existing universal services offered by Plunket. As noted by Brown and Redman (1995) advice given outside the home may reflect the *met needs* but the home visit may establish the *true needs* of families with children.

Pender (1996) while stressing the value of positive health throughout the lifespan, notes that it is essential to work with families to break the cycle of unhealthy practices. Pender further comments that such interventions can only be done once a trusting relationship has been built and is continued over a period of time. Favell (1997) finds that the WellChild/Tamariki Ora National Schedule shows little awareness of human relationships which take time and regular contact to develop (only seven visits are recommended in the first five years of life, although provision is made for additional discretionary visits to be purchased). Favell is of the opinion that unless these relationships are developed, mothers will not continue to use the services available, which may indicate why nursing services were under utilised by the sample studied.

5.3 Helpfulness of Well Child Care Services

The third aim of the study was to examine the relationships between the parents' perception off the helpfulness of well child care services and the health status of their child. There was no relationship between helpfulness and child's health status. This could be due to the lack of variability in the helpfulness scores. Any correlation coefficient is affected by the range of individual differences in the group (Anastasi, 1988). The restricted range of helpfulness in the present study may have contributed to an under estimation of the relationship between helpfulness and child's health status. Perhaps a more valid measure would have been a measure of client satisfaction. Locker and Dunt (1978) found that those

who were satisfied with medical care were more likely to seek more care and maintain a relationship with their advisers. Kassulk, et al. (1993) agree that people are more likely to request services if they have the experience that previous encounters have met their needs. Kassulk et al. recommend that *at risk* groups should be asked about what they perceive to be barriers to services, so that changes may be made. However, Locker and Dunt caution that questionnaires frequently illicit positive comment, as patients are reluctant to criticise. Therefore, it is important to evaluate the negative aspects of comments made. Locker and Dunt also note that failure to return to a provider may be either an indication of satisfaction or dissatisfaction and is therefore, not a reliable indicator. Hall, Milburn and Epstein (1993) note that sicker people are often less satisfied with medical care than well people which, by implication, may predict that the parents of well children would be satisfied with services.

5.4 Relationship of Well Child Care Services to Child's Health

The fourth aim of the study was to investigate the relationship between the number of services received and child health status. The advantages of the various well child care services were discussed in the literature and it would be expected that those who received the most services would be the most healthy. However, the only positive correlation found was between the number of family support services received in general, and the rating of the child's health. This finding may have been because the measures of health status were too blunt (this will be explored further in the next section) or, that numerating the services is not an adequate measure of receipt of services. A more useful measure may have been to investigate the quality of the services received.

5.5 Limitations to the Present Study

The present study has a number of limitations, which must be acknowledged. The cross sectional nature of the study limits the extent to which causal inferences may be made regarding the antecedents and

effects of study variables. The small sample size raises issues of statistical power namely the possibilities of demonstrating statistical significance (Beanland, Scheider, LoBiondo-Wood & Haber, 1999). Of concern is the possibility of finding *statistically significant* associations that may have occurred by chance due to the number of comparisons that have been undertaken. In the present study non-significant as well as significant results have been presented, as suggested by Rothman (1986), in order to interpret properly the p-values for the positive findings.

In spite of measures designed to ensure that the maximum data was collected i.e. by training research assistants to personally deliver the questionnaires and explain the necessity of completing all the questions and offering assistance if required, there was still a significant amount of missing data, especially relating to income. This was disappointing as the inclusion of socioeconomic factors would have probably enhanced the study. The difficulties of eliciting this information will have to be overcome in any future study. Demi and Warren (1995) note the importance of involving target group members in the planning and implementation of research projects to minimize the possibility of missing information.

The validity of self-reported measures of health status as used in this study may be questionable, i.e. do they reflect objective health status? However, Pennebaker and Watson (1998) emphasise that self-ratings of health are an important source in their own right. Idler and Kasl (1991) also support the use of simple self-reporting scales, as they find that the validity of the information has been demonstrated in epidemiological studies. A further problem associated with self-reported measures is the possibility for a response set such as social desirability (Demi & Warren,1995). Assurances of confidentiality were given in order to reduce the incentive for social desirability reporting. It must be acknowledged that this assurance of confidentiality did not assist the participants to divulge information regarding their income (as already noted above). The use of subjective measures such as self-reporting, in the present research was largely dependent on the nature of the

research and the economical and practical restraints associated with the research.

5.6 Implications for Future Research

The present research highlights potential future directions for research into the delivery of well child care services. From a review of the literature there appears to be little evidence of research into the barriers to the receipt of well child care services in the New Zealand context. Further research should be aimed at examining satisfaction with well child care services by consumers, as the present study failed to establish a link between services provided and health status of the child.

Much of the literature pertaining to primary care in general and maternal and child health in particular, suggests that there are limitations to the medical model and strongly recommends the development of a multidisciplinary approach to the delivery of well child care services. Other literature indicates the strength of the medical model, which appears to be relatively unchallenged in New Zealand. Research into the logistics of the proposed multidisciplinary approach would seem to be appropriate to avoid further fragmentation of services.

More research is required into the role of nursing for the delivery of well child care services. The effectiveness of nurses working to reach those who have the highest needs in the community is well documented (Kitzman, et al., 1997; Leach, 1997; Olds, et al., 1997). The changes in health care delivery, brought about by health reforms, provide opportunities for nurses to challenge the ways in which they work and the work that they do. The feasibility of combining current community services into nurse practitioner groups to reduce fragmentation of nursing services and to offer complementary service to doctors is also worthy of investigation.

5.7 Conclusions

It has been demonstrated that for the group of parents in the present study, doctors are the main providers of well child care services. It has also been found through the literature search that there are limitations to the medical model, which do not address the underpinning socioeconomic determinants of health. There has been further evidence to suggest that the health services as they exist today do not reach the most vulnerable and needy groups in the population, and that infant mortality is unacceptably high in New Zealand. The New Zealand government has already taken steps to address these issues by the introduction of programmes that may include health professionals but are not driven by them. This presents a challenge to the concept of well child care services and to those who provide them. Baker (1994) notes that "American well child care is the mutual invention of both the professional and the public, of physicians and mothers. It was developed through a process of negotiation and will run the risk of losing its relevance if not negotiated again" (p.6). This statement can equally be applied to the New Zealand situation.

The premise that nurses are the main providers of well child care has not been upheld in this study. Therefore the question must be, does nursing have a role in well child care services? If so, what is that role and how must it develop in light of the recommendations from the literature highlighted by this study?

Trnobranski (1994) notes that the future of community nursing is set to change and considers that it is imperative for nurses to examine the changing needs of society in the context of political reform and consider how their role may be developed and redefined. The logical reshaping of existing community nursing must build on the best of what has gone before and give shape to the future. Klerman (1997) challenges nurses to remember the inseparability of health and social aspects in the growth and development of children as they attempt to redefine the role of nursing.

A significant problem for nursing, identified in the Ministerial Taskforce Report on Nursing (1998) is the lack of developed leadership in the community. For well child care services lack of leadership is probably accounted for, in part, by the fact that the major providers, Plunket, are a private concern outside mainstream health services. The other traditional provider, the Department of Health, has since been disbanded without a comparative service being offered by the fragmented hospitals. The introduction of new initiatives such as Family Start and the contracting of well child services to providers other than Plunket may provide new opportunites for a new approach to leadership in community nursing with the development of partnerships between health professionals and other organisations.

Salmond (1997) notes that public health professionals have the obligation to work to change the system. McKnight and Van Dover (1994) find that nurses who do have the skills to work with communities and to advocate for them with governments and agencies at every level, are in a position to provide the necessary leadership for changes in health practice. However, they also note that few nurses are prepared educationally to function at this level. Wagener (1998) notes that for nurses to function in the advocacy role, they must be both trained for and allowed to step outside their traditional roles. Trnobranski (1994) notes that to reach the level of competency required nurses must have appropriate educational courses, possibly by providing higher studies for qualified community care nurses with suitable experience.

The Ministerial Taskforce on Nursing (1998) finds that "Nurses must be confident that the education and training they have received, fully supports their professional work both initially and through out their careers" (p.49), and recommends Polytechnics to offer undergraduate and postgraduate nursing programmes for the purpose of ensuring that education and clinical experience match the needs of the health sector. For nurses to work in communities these programmes must prepare

them not only to specialise in the care of families and their children, but also for working with other groups in society, both professional and lay, and to maximise the effectiveness of services provided.

There have been fundamental shifts in the perception, by nurses, of the nature and discipline of nursing according to Clark, Maben and Jones (1997) who note that students and qualified nurses perceive themselves as knowledgable doers with their practice well grounded in theory and research. Hawken (1989) notes that as the comprehensiveness of and level of nursing education has been increasing so has the desire of nurses for clinical autonomy and for nurses to make an independent contribution in health care through the nurse practitioner role.

Nurse practitioner programmes have been offered in the United States of America for many years (Hoekelman, 1998). Nurse practitioners provide effective services in cooperation with other heath professionals and community groups, not as a substitute for the doctor but to complement the doctor in a cost-effective way. These programmes are particularly effective where there was limited care available, notably among the disadvantaged. The Ministerial Taskforce on Nursing (1998) notes that 60 to 68 percent of primary care services could be provided by a nurse.

Practice nursing has developed rapidly while traditional community nurses groups are uncertain of their future according to Regan (1998). Regan notes that practice nurses must widen their scope and need to be offering acceptable and relevant nursing services to the community, as there is a need to remove the duplications and plug the gaps. Regan further suggests that nurses should be consulted about how to use resources better. Perhaps this consultation process should embrace the concept of reducing the fragmentation of nursing services. The New Zealand Nurse's Organisation have set up *think tanks* to explore new models for service delivery of community nursing services (Oliver, 1988a). It may be worthy to consider the amalgamation of current services into nurse practitioner groups.

Another approach may be to build on the services currently available. Midwives have been challenged by Chadwick (1994) to take a more holistic approach to antenatal care and deliver services specifically designed to decrease the risk of poor health outcomes for the disadvantaged and that balance the medical and non medical approaches. Chadwick's advice may usefully be extended to other providers of well child care and not be limited to antenatal care. Plunket could expand their role to work in partnership with community groups to include a wider range of support for families during their child bearing years.

An obstacle to the redefinition of nursing roles is, according to Cernik (1994), that not only do the purchasers of health services not realise the potential of community based nurses but the nurses themselves do not realise their potential. Cernik suggests that nurses must learn to exploit the contracting process in order to improve services and empower themselves. To do this nurses will need to find ways to demonstrate their effectiveness, as purchasing is based on sound evidence and the ability to demonstrate clinical effectiveness. Therefore, nurses must be more proactive, autonomous and accountable (Cain, 1998; Cernik, 1994).

The concept of nurse practitioner will inevitably be met with opposition but Keene (1988) is sure that there is room for the independent nurse practitioner. Keene notes the New Zealand Medical Association's failure to acknowledge the limitations of the medical model and their apparent misconception about what nursing is all about. Keene also acknowledges that the public may have difficulties with the concept. Gould (1998) points out that the fact that doctors are paid through fees for services, is a clear disincentive for them to encourage the patient to consult anyone else. This fundamental fact is very influential on the professional development of other primary care provides particularly practice nurses. However Oliver (1998b) finds that the medical press is full of reports of joint ventures mainly between Independent Practitioner Associations and

Crown Health Enterprises. There is also a much broader range of provider organisations in the community i.e. Iwi based providers and union health centres, which, according to Oliver, will have a profound effect on nurses working in the community.

Nurses in the community need to examine their roles and redefine their practice so that they may determine whether or not they have a role in well child care services, and if so, what that role should be.

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APPENDIX ONE

CENTRAL HAWKES BAY
HEALTHservices

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New Zealand

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06 - 858 7200

7 March 1997

Public Health Unit

Dear Sir/Madam

I am embarking on a research project for a masters degree in nursing at Massey University. My subject is well child care.

One of my areas of inquiry is Public Health Nursing. As a public health nurse myself, I am aware that there are many differences in the utilisation of public health nurses throughout the country.

Please would you let me know if you employ public health nurses, and if you do, do they give well child care to the 0-4 age group.

Yours faithfully

MORAG TILAH
PUBLIC HEALTH NURSE

APPENDIX TWO

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FACULTY OF
SOCIAL SCIENCES

DEPARTMENT OF
NURSING AND
MIDWIFERY

THE INFORMATION SHEET

Title:

Does the source of well child information and support make a difference to the knowledge attitudes and beliefs of parents and/or the health status of their children?

Principal Investigator:

This study has been designed by Morag Tilah, a Public Health Nurse employed by Health Care Hawkes Bay, to fulfil the requirements of a Masters degree in Nursing and Midwifery through Massey University. The project supervisor is Dr.Fiona Alpass, Research Coordinator, Department of Nursing and Midwifery, (06) 356-9099 Extension 7384.

10 November 1997

Introduction

Dear parent,
You are invited to take part in a study designed to find out who parents of children under five years of age, in Hawkes Bay, rely on for information relating to the health, development and safety of their children. The study will examine the relationship between the different sources of information and support that parents use and the knowledge attitudes and beliefs of those parents and the health of their children.
As a result of the reorganisation of health services in New Zealand there have been changes in the way in which Well Child /Tamariki Ora services are delivered. Instead of the choice being only between Plunket or Public Health nurses other community groups are also funded to deliver these services.

About The Study

- The aim of the study is to ask parents of children under five years of age who they rely on for the three parts of the Well Child/Tamariki Ora national schedule, which are health education and promotion, health protection and clinical assessment and family or whanau care and support.

- The purpose of the study is to ensure that all aspects of Well Child/Tamariki Ora are available to all children in Hawkes Bay.

- The study also aims to establish whether there is any difference in knowledge, attitudes and beliefs of parents or the health status of their children which may relate to the source of support and information they receive.

- Your name has been randomly selected from Hawkes Bay birth records. We invite you as a parent to participate in this study.

- You will be contacted in one weeks time by a trained research assistant to see if you wish to be included in this survey.

- If you agree to take part in this study the research assistant will ask you to sign a consent form so that we can use the information that you give us.

- The research assistant will interview you about your experiences of Well Child/Tamariki Ora services, using a questionnaire form.

Risks And Benefits

- There are no risks attached to your participation in this survey.

- A possible benefit to you will be the opportunity for you to express your opinion on the level of Well child/Tamariki Ora care that is available to you. The views of the participants will be made known to the Regional Health Authority via a report on this research project.

Participation

- Your participation is entirely voluntary (your choice). You do not have to take part in this study.

- If you do agree to take part you are free to withdraw from the study at any time, without having to give a reason and this will in no way affect your future health care.

General

- You have the right to refuse to be a participant, not to answer any particular question or withdraw from the study at any time.

- If you wish to have an interpreter, one will be available. (See request for interpreter form *).

Confidentiality

- No material which could personally identify you will be used in any reports on this study.

- Any information that you give will be treated in the strictest confidence. We will allocate you a code number rather then use your name on questionnaires. Only the main researcher, Morag Tilah will have a record of the names. Neither your name or the name of your child will appear on any reports about this study.

Results

- Once all the information has been analysed a summary of the study will be available to you.

Statement Of Approval

This study has received ethical approval from the Hawkes Bay Ethics Committee and the Massey University Human Ethics Committee.

Please feel free to contact the researcher if you have any questions about this study.

* REQUEST FOR AN INTERPRETER

English	I wish to have an interpreter.	Yes	No
Maori	E hiahia ana ahau ki tetahi tangata hei korero Maori ki ahau.	Ae	Kao
Samoan	Oute mana'o e iai se fa'amatala upu.	Ioe	Leai
Tongan	'Oku fiema'u ha fakatonulea.	Io	Ikai
Cook Island	Ka inangaro au i tetai tangata uri reo.	Ae	Kare
Niuean	Fia manako au ke fakaaoga e tagata fakahokohoko vagahau.	E	Nakai
	Other languages to be added following consultation with relevant communities		

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FACULTY OF
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MIDWIFERY

Participant Consent Form

Project Title: Does the source of well child information and support make a difference to the knowledge, attitudes and beliefs of parents and/or the health status of their children?

Principal investigator: Morag Tilah

Participant's name: .....

Address: .....

.....

.....

- I have read and understand the participant information sheet dated 10 November 1997 for volunteers to take part in the study designed to find out who the parents of children 0-5 years in Hawkes Bay rely on for support and information relating to the health, development and safety of their children, and if this has an affect on the knowledge, attitudes and behaviours of parents or on the health status of their children. I have had the opportunity to discuss this study and my questions have been answered to my satisfaction.

- I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time and this will in no way affect my future health care.

- I understand that my participation in this study is confidential and that no material which could identify me will be used in any reports on this study. I have had time to consider whether to take part.

- I understand that I may ask further questions at any time during the project.

- I understand that I have the right to change my mind, refuse to answer particular questions or withdraw from the project at any time.

- I .....(full name) hereby consent to take part in this study

..... Parent .....Date

- Signature witnessed by.....(full name and designation)

.....Witness.....Date

This project has been approved by the Hawkes Bay Ethics Committee, and the Massey Human Ethics Committee. This means that the Ethics Committees may check that this study is running smoothly, and has followed appropriate ethical procedures. Complete confidentiality is assured.

If you have any ethical concerns about the study, you may contact the Hawkes Bay Ethics Committee on 0-6 8440360 or the Massey University Human Ethics Committee.

Researchers:
Morag Scott Wingate Tilah
Dr. Fiona Alpass

Contact Phone Number for researchers: (06) 356-9099 Extension 7384

For Office use

Well Child Care Questionnaire

For the purpose of this questionnaire, Well Child Care refers to the advice and support that health workers, parents, families and the wider community give to the parents of babies to promote the health and wellbeing of children in infancy.

There are many places that we go to for advice, support and information. Some of us are surrounded by large families or groups of friends, others are quite solitary. Some of us like to talk about our concerns while others like to get information out of books or magazines. As you answer this questionnaire please try to be as open as possible. There are no wrong answers and any information that you give will be treated in the strictest confidence. The aim of this survey is to determine whether all children and their families have access, if they want it, to well child care information and activities, in the manner best suited to their needs.

Unless otherwise stated, questions will be directed at your experiences with your youngest child.

.....

Interview conducted with (circle one)
Mother
Father

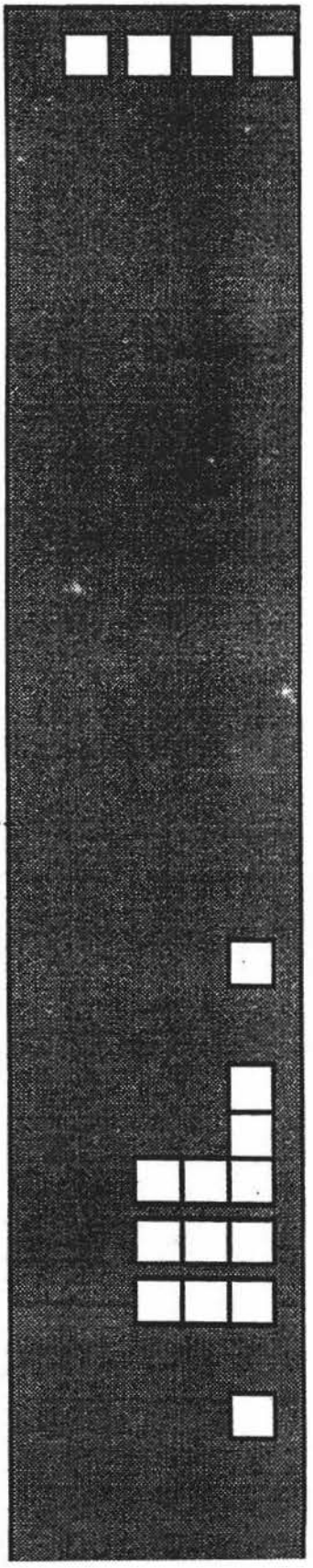
Family living with the child (circle as many as applicable)
Mother
Father
Siblings: give number ☐

Grandparents: give number ☐

Others: give description and number ☐

.....

Age of youngest child (cricle one) **0 1 2 3 4 5**



2 Well Child Care Questionnaire

Ethnicity: (Circle one option)

For office use

Mother

1. Maori
2. European
3. Pacific Islander
4. Other

Father

1. Maori
2. European
3. Pacific Islander
4. Other

Are <u>YOU</u> engaged in any paid employment (circle one) Yes No

If NO

Circle the category which is **<u>most</u>** appropriate for you, circle only one option.

1. Unemployed
2. Retired
3. Student/retraining
4. Beneficiary (ACC, sickness etc.,)
5. Other (Please state)

If YES

How many hours do you work each week on average.

Circle one 1. **1-10.** 2. **11-20.** 3. **21-30.** 4. **31-40.** 5. **over 40**

Total income (excluding partner) (circle one)

1.$10,000 or less per year
2.$10,001 - $15,000 per year
3.$15,001 - $20,000 per year
4.$20,001 - $25,000 per year
5.$25,001 - $30,000 per year
6.$30,001 - $35,000 per year
7.$35,001 - $40,000 per year
8.$40,001 - $50,000 per year
9.$50,001 - $70,000 per year
10.$70,001 and over per year
11. Self employed, income fluctuates.

3 Well Child Care Questionnaire

For office use

Do you have a partner / spouse (circle one) Yes No

Is YOUR PARTNER / SPOUSE engaged in any paid employment
(Circle one) Yes No

If NO

Circle the category which is **most appropriate** for your partner, circle only one optio

1.Employed
2. Retired
3. Student/retraining
4. Beneficiary (ACC, sickness etc.,)
5. Other (Please state)

If YES

How many hours does your partner work each week on average
(Circle one) 1. **1-10.** 2. **11-20.** 3. **21-30.** 4. **31-40.** 5. **over 40**

Total income (excluding your income)

1.$10,000 or less per year
2.$10,001 - $15,000 per year
3.$15,001 - $20,000 per year
4.$20,001 - $25,000 per year
5.$25,001 - $30,000 per year
6.$30,001 - $35,000 per year
7.$35,001 - $40,000 per year
8.$40,001 - $50,000 per year
9.$50,001 - $70,000 per year
10.$70,001 and over per year
11. Self employed, income fluctuates.

Highest Qualifications: (circle one)

Mother
1. No school qualifications
2. School C Pass, 6th form Certificate, UE, Bursary
3. Trade or professional Certificate/ Diploma
4. University Degree, Diploma or Certificate
5. Other

Father
1. No school qualifications.
2. School C Pass, 6th form Certificate U.E., Bursary
3. Trade or professional Certificate/ Diploma
4. University Degree, Diploma or Certificate
5. Other

ANTENATAL CARE and EDUCATION

For office use

Did you receive antenatal <u>care</u> for your most recent pregnancy?

(circle one) yes no

If **YES**:

Who did you receive antenatal care from? ***Refer to cue card A.***

Enter the number which appears in front of the **<u>main</u>** provider ☐

Please rate how helpful this was (circle one)

not very helpful 1--------2----------3---------4----------5--------6 very helpful

If **NO**

What would be the main reason that you did not receive antenatal car

(circle one)

1.Not Available

2.Did not like the group/class /provider

3.Did not think antenatal care was important?

4. Other.

Did you receive antenatal <u>education</u> for your last pregnancy

(circle one) yes no

If **YES**:

Who did you receive antenatal education from?

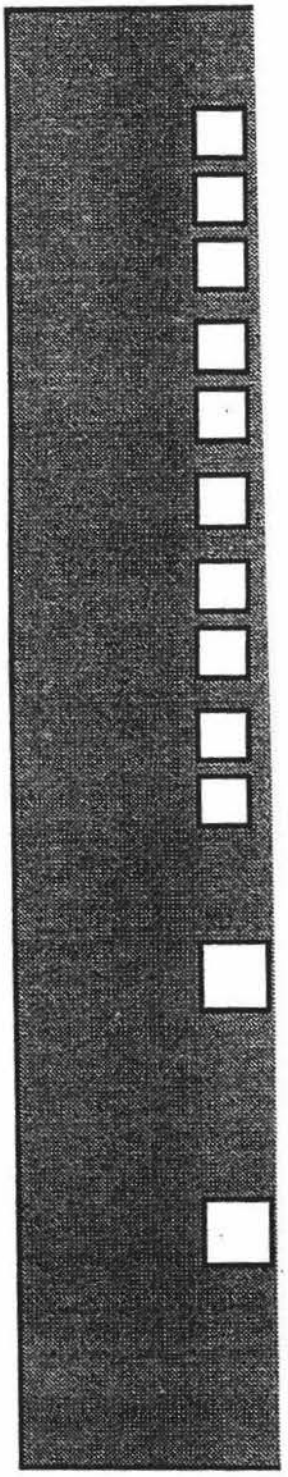
Refer to cue card A.

Enter the number which appears in front of the **<u>main</u>** provider ☐

5 Well Child Care Questionnaire

What subjects were covered? (Circle subjects covered)

For office



1.Nutrition

2.Weight gain

3.Smoking

4.Safety of child after birth

5.Drinking alcohol

6.Car seat.

7.Financial problems.

8.General health

9.Preparation for and support during and after birth.

10.Other, specify.....

Please rate how helpful this was (circle one)

not very helpful 1--------2---------3---------4---------5--------6 very helpful

If **NO**

What would be the main reason that you did not receive antenatal education ? (circle one)

1.Not Available

2.Did not like the group/class teacher

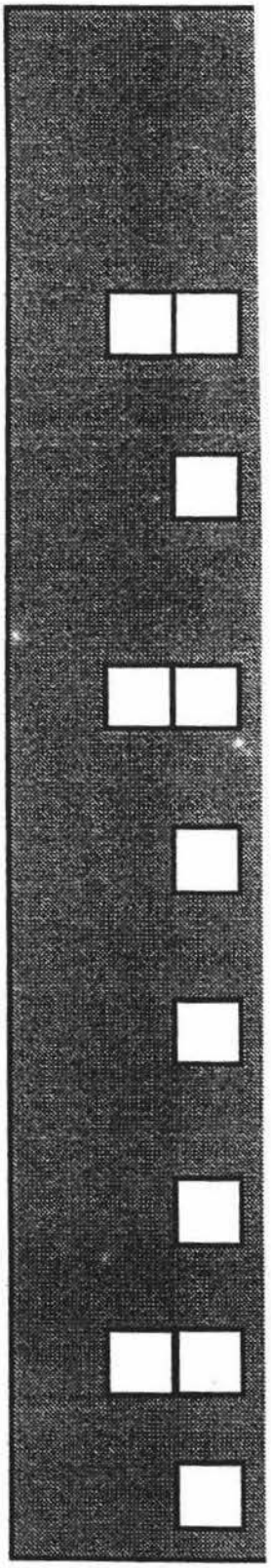
3.Did not think antenatal education was important?

4. Other.

6 Well Child Care Questionnaire

HEALTH EDUCATION AND PROMOTION

For office use



MINOR ILLNESSES

Where did you learn about the recognition and management of minor illnesses such as colic, crying, minor skin complaints, fever? Refer to cue card A.

Enter the number which appears in front of the **main** provider. ☐

Did you know what to do before these minor illnesses took place?

(circle one) yes no

Who did you turn to for support and advice when your child had a minor illness. Refer to cue card A.

Enter the number which appears in front of the **main** provider. ☐

Please rate how helpful they were (circle a number)

not very helpful 1--------2---------3---------4---------5--------6 very helpful

INFANT FEEDING

Was your baby breastfed? (circle one) yes no

If YES

Did you have any difficulties with breast feeding?

(circle one) yes no

Who did you turn to for advice? ***Refer to cue card A.***

Enter the number which appears in front of the **main** provider. ☐

Please rate how helpful they were (circle a number)

not very helpful 1--------2---------3---------4---------5--------6 very helpful

SUDDEN INFANT DEATH SYNDROME - SIDS/ COT DEATH **For office use**

Did anyone speak to you about the prevention of SIDS/ Cot death

(circle one) yes no

Who was that? Refer to cue card A.

Enter the number which appears in front of the **main** provider. ☐

Please rate how helpful they were (circle a number)

not very helpful 1-------2---------3---------4---------5--------6 very helpful

Were you taught how to give CPR? (circle one) yes no

Who by? ***Refer to cue card A.***

Enter the number which appears in front of the **main** provider. ☐

Please rate how helpful they were. (circle a number)

not very helpful 1-------2---------3---------4---------5--------6 very helpful

MATERNAL HEALTH

NUTRITION

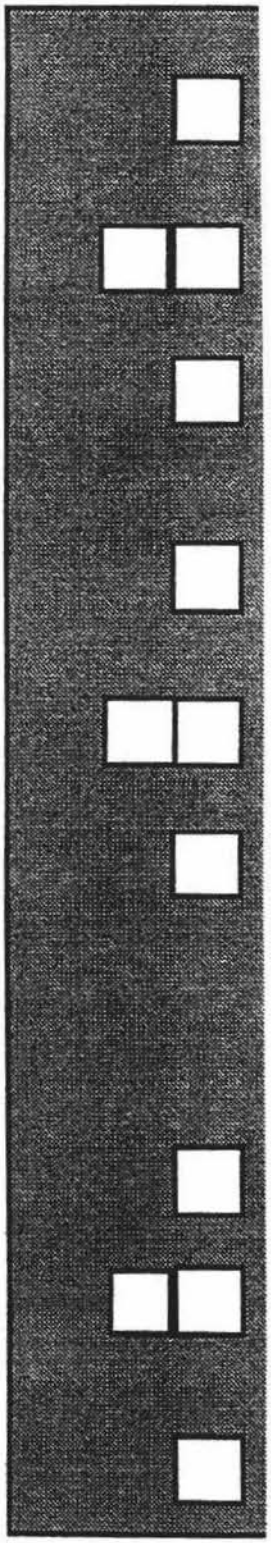
Did anyone give you advice on your own needs? (circle one) yes no

Who gave you this advice? ***Refer to cue card A.***

Enter the number which appears in front of the **main** provider. ☐

Please rate how helpful they were (circle a number)

not very helpful 1-------2---------3---------4---------5--------6 very helpful



STRESS AND FATIGUE.

For office use

Who did you turn to for support and advice about stress and fatigue?

Refer to cue card A.

Enter the number which appears in front of the **main** provider. ☐

Please rate how helpful they were (circle a number)

not very helpful 1-------2---------3---------4---------5--------6 very helpful

CONTRACEPTION

Did anybody raise the question of contraception before or after the most recent baby's birth? (circle one) yes no

Who was this? ***Refer to cue card A.***

Enter the number which appears in front of the **main** provider. ☐

Please rate how helpful they were (circle a number)

not very helpful 1-------2---------3---------4---------5--------6 very helpful

PARENTING SKILLS -BEHAVIOUR

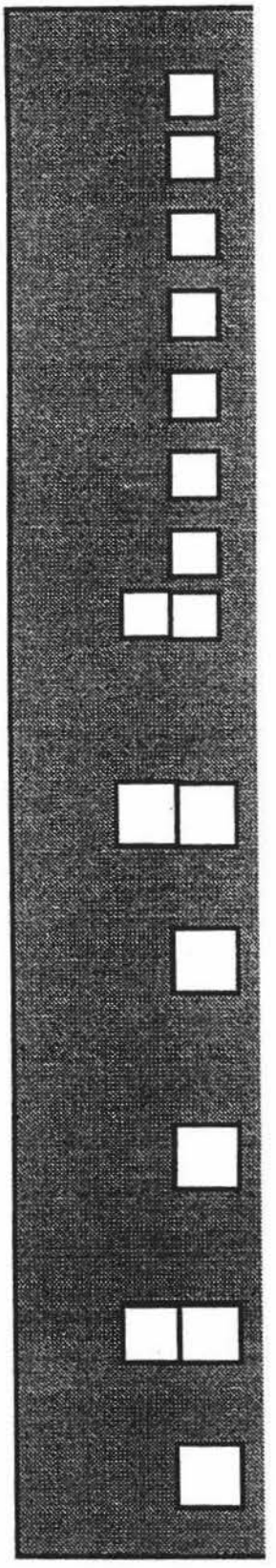
Did you have any problems with your child's behaviour?

(circle one) yes no

9 Well Child Care Questionnaire

What problems were of concern to you?

For office use



(circle as many options as necessary)

1. Temperament
2. Sleeping
3. Crying
4. Feeding.
5. Toileting,
6. Eating
7. Socialization
8. Other

Who did you turn to for help with these problems?

Refer to cue card A.

Enter the number which appears in front of the **main** provider. ☐

Please rate how helpful they were (circle a number)

not very helpful 1--------2---------3--------4---------5--------6 very helpful

DEVELOPMENTAL STAGES

Were you prepared for the things your baby could do as it grew?

(circle one) yes no

Who did you learn this from? ***Refer to cue card A.***

Enter the number which appears in front of the **main** provider. ☐

Please rate how helpful they were

not very helpful 1--------2---------3--------4---------5--------6 very helpful

10 Well Child Care Questionnaire

SAFETY **For office use**

Have you been given advice on safety issues?

(circle one) yes no

What safety issues have been discussed

(Circle as many as necessary)

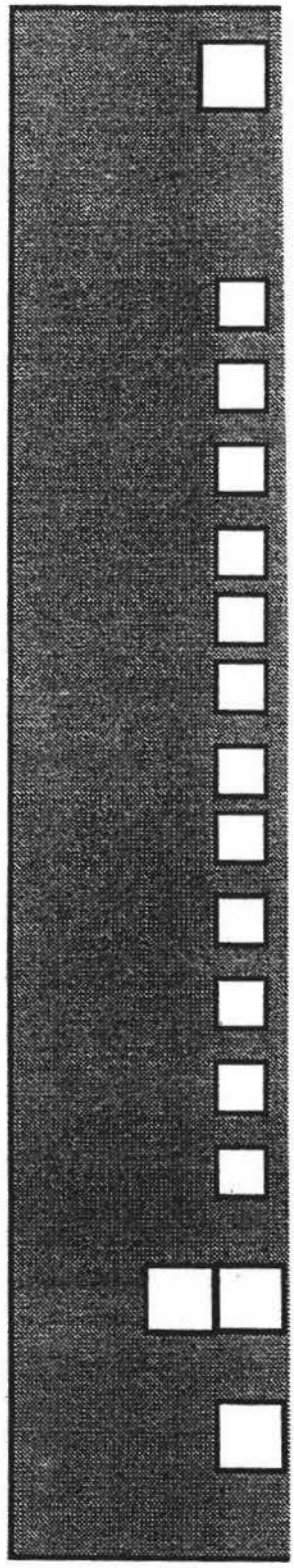
1. Car seats
2. Fire
3. Falls
4. Hot water
5. Sun exposure
6. Lead poisoning
7. Supervision
8. Water/submersion inside and outside (pool fences)
9. Road safety
10. Play equipment
11. Safe home
12. Safe neighbourhood

Who advised you about these issues? ***Refer to cue card A.***

Enter the number which appears in front of the **main** provider. ☐

Please rate how helpful they were. (circle a number)

not very helpful 1-------2---------3---------4---------5-------6 very helpful



11 Well Child Care Questionnaire

DENTAL HEALTH **For office use**

Have you been given advice about dental health for your child? (circle one) yes no

Who by? ***Refer to cue card A.***

Enter the number which appears in front of the chosen provider. ☐

Please rate how helpful they were. (circle a number)

not very helpful 1-------2---------3--------4---------5-------6 very helpful

GENERAL

Did you require any advice regarding suitable clothing, nappies or bedding?

(circle one) yes no

Who did you turn to for advice? ***Refer to cue card A.***

Enter the number which appears in front of the chosen provider. ☐

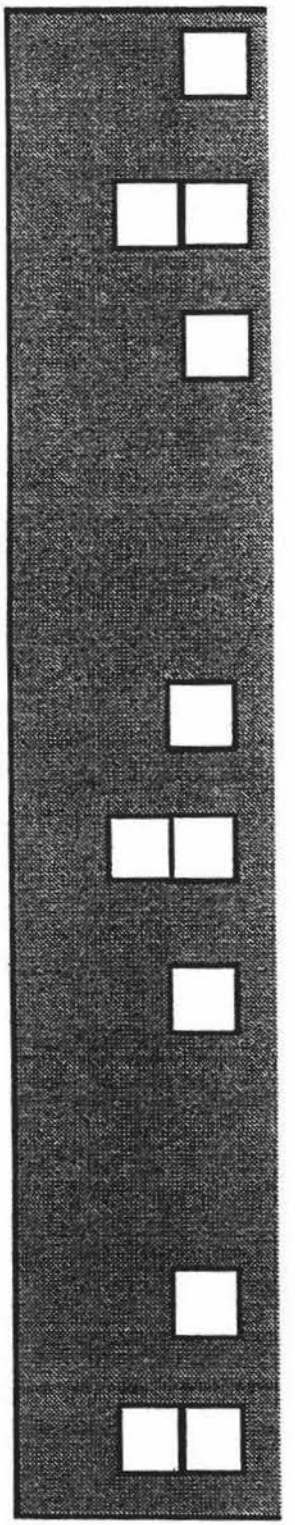
Please rate how helpful they were. (circle a number)

not very helpful 1-------2---------3--------4---------5-------6 very helpful

Do you consider that the advice that you have been given about the issues discussed so far was given in a manner culturally appropriate to you? (circle one) yes no

Comment:.....

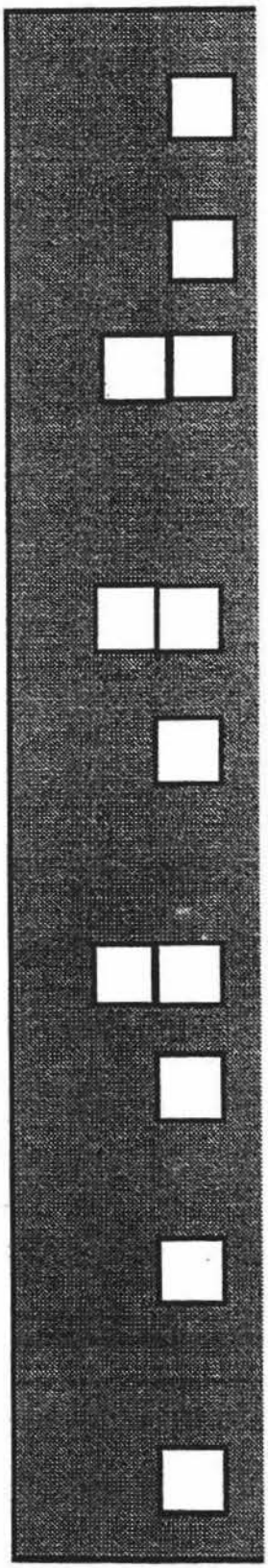
.....



12 Well Child Care Questionnaire

HEALTH PROTECTION AND CLINICAL ASSESSMENT

For office use



BIRTH

Where was baby born? 1.**At home.** 2.**In hospital.**3. **Other.** (circle one)

Were there any problems associated with the birth of your baby?

(circle one) yes no

Comment .....

.....

Who did you turn to for support and advice at this time?

Refer to cue card A.

Enter the number which appears in front of the chosen provider. ☐

Please rate how helpful they were. (circle a number)

not very helpful 1--------2---------3---------4---------5--------6 very helpful

WELL CHILD (HEALTH AND DEVELOPMENT) CHECKS

Who carries out these checks? ***Refer to cue card A.***

Enter the number which appears in front of the **main** provider. ☐

Did the person that carries out the checks visit you at home.

(circle one) yes no

How old was baby when you received your first home visit

(circle one) **1.** weeks. **2.** weeks. **3.** weeks. **4.**more than three weeks

How old was baby when you first visited a clinic with your baby.

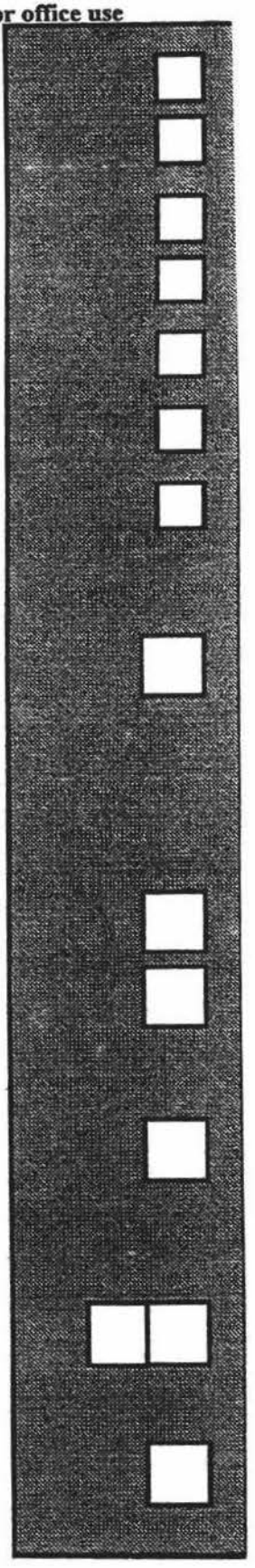
(eg Plunket, G.P.).

(circle one) **1.** week. **2.** weeks. **3.** weeks **4.** more than three weeks

13 Well Child Care Questionnaire

Who checked your baby at:

For office use



two to four weeks (circle one) Doctor Nurse neither

six weeks (circle one) Doctor Nurse neither

three months (circle one) Doctor Nurse neither

eight to ten months (circle one) Doctor Nurse neither

fifteen months (circle one) Doctor Nurse neither

21 - 24 months (circle one) Doctor Nurse neither

three years (circle one) Doctor Nurse neither

Please rate how helpful baby checks were, overall. (circle a number)

not very helpful 1--------2---------3---------4---------5--------6 very helpful

IMMUNISATION

Has your baby been immunised? (circle one) yes no

Are baby's immunisation up to date? (circle one) yes no

Did you have any difficulty deciding whether or not to have your baby immunised? (circle one) yes no

Who did you turn to for advice on immunisation?

Refer to cue card A.

Enter the number which appears in front of the **main** provider. ☐

Please rate how helpful they were. (circle a number)

not very helpful 1--------2---------3---------4---------5--------6 very helpful

14 Well Child Care Questionnaire

HEARING **For office use**

Has anybody given you advice about your baby's hearing?

(circle one) yes no

Who advised you? ***Refer to cue card A.***

Enter the number which appears in front of the **main** provider. ☐

Please rate how helpful they were. (circle a number)

not very helpful 1-------2---------3--------4---------5--------6 very helpful

VISION

Has anybody given you advice about your baby's vision?

(circle one) yes no

Who advised you? ***Refer to cue card A.***

Enter the number which appears in front of the **main** provider. ☐

Please rate how helpful they were. (circle a number)

not very helpful 1-------2---------3--------4---------5--------6 very helpful

GENERAL

Are you satisfied with the person or persons that do your baby's well child checks? (circle a number)

Not satisfied 1.....2.....3.....4.....5.....6 very satisfied

Are your concerns listened to? (circle a number)

Never 1.....2.....3.....4.....5.....6 all the time

15 Well Child Care Questionnaire

Are your questions answered to your satisfaction?

(circle a number) Never 1.....2.....3.....4.....5.....6 all the time

Are there any areas concerning your child's health and development that you would like to know more about?

(circle one) yes no don't know

What are these? .....

.....

Would you have liked some other person to do your well child care checks? (circle one) yes no

Who would that be? ***Refer to cue card A.***

Enter the number which appears in front of the chosen provider ☐

Would you have liked some other method of well child checks

(circle one) yes no

What would that be?.....

.....

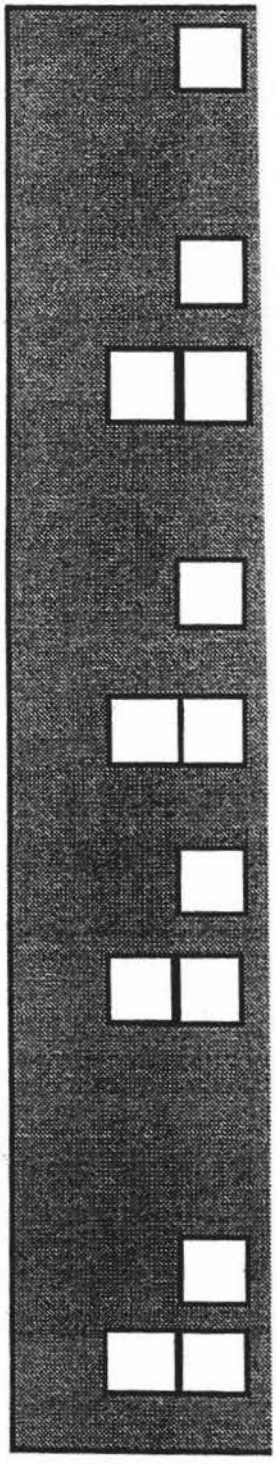
FAMILY OR WHANAU CARE AND SUPPORT

Did you have the support person(s) that you wanted at the birth of your baby? (circle one) yes no

If No, why not? .....

.....

For office use



16 Well Child Care Questionnaire

Who do you turn to if you or your whanau have concerns about matters relating to pregnancy or birth or the health and development of your child?

Refer to cue card A

Enter the number which appears in front of the chosen provider ☐

Please rate how helpful they were. (circle a number)

not very helpful 1-------2---------3---------4---------5-------6 very helpful

Have you suffered from post natal depression? (circle one) yes no

If YES, who did you turn to for support and advice?

Refer to cue card A

Enter the number which appears in front of the chosen provider ☐

Please rate how helpful they were. (circle a number)

not very helpful 1-------2---------3---------4---------5-------6 very helpful

Have you or your family/whanau had any time of crisis since baby was born? (circle one) yes no

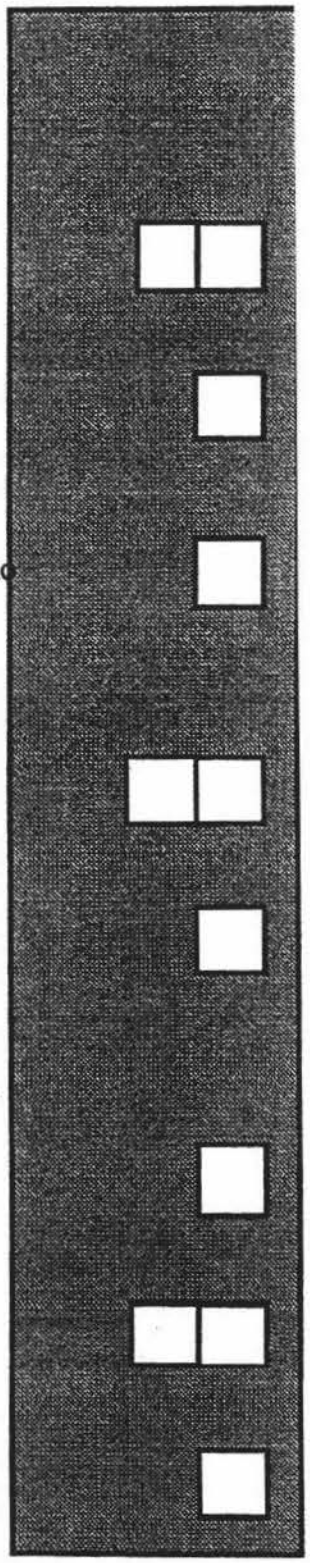
Who did you turn to for help at this time? ***Refer to cue card A***

Enter the number which appears in front of the chosen provider ☐

Please rate how helpful they were. (circle a number)

not very helpful 1-------2---------3---------4---------5-------6 very helpful

For office use

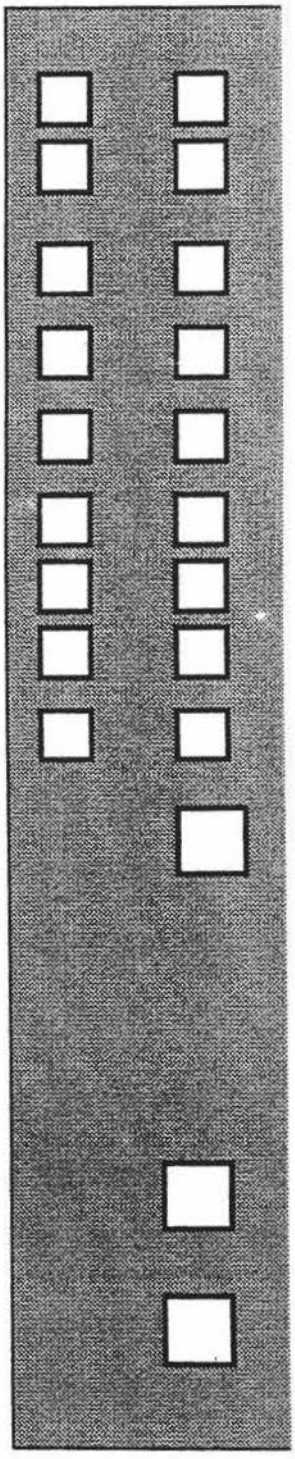


17 Well Child Care Questionnaire

SUPPORT GROUPS

Are any of the following available in your area?

For office use



(tick left hand box)

1. La Leche ☐ ☐
2. Karitane Unit ☐ ☐
3. Home help ☐ ☐
4. Pregnancy help ☐ ☐
5. Play groups ☐ ☐
6. Parents groups ☐ ☐
7. Parents centre ☐ ☐
8. Coffee clubs ☐ ☐
9. Other (specify).....

Do you attend any of these groups (circle one) Yes No

(go back and tick the right hand box of those groups that you attend)

If YES which of the groups best meets your needs?

Enter the number which appears in front of the **main** group ☐

Please rate the group that you attend the most?

not very helpful 1-------2---------3---------4---------5--------6 very helpful

If NO Why don't you attend any of these groups? (circle one)

For office use

1. Not Available

2. Did not like the group / class teacher

3. Did not think group support was important?

4. Other.

EARLY CHILDCARE CENTRES

Are any of the following available in your area? (tick left hand box)

1.Day care facilities

2.Play centres

3. Te Kohanga Reo

4.Kindergarten

5.Pacific Island language nests

6.Other.....

Does your child attend any of these centres (circle one) yes no

(go back and tick the right hand box of those groups)

If YES Do you spend time there as well? (circle one) yes no

If NO Why does your child not attend any of these centres? (circle one)

1.Not Available

2.Did not like the group

3.Can't afford to

4.Did not think early childcare is necessary?

5.Other

GOVERNMENT AGENCIES

For office use

Have you asked other people to help you make contact with government agencies such as Income Support? (circle one) yes no

If YES who have you asked? ***Refer to cue card A***

Enter the number which appears in front of the chosen provider ☐

Please rate how helpful they were. (circle a number)

not very helpful 1-------2---------3---------4---------5-------6 very helpful

Are there areas of support for yourself or your family/whanau that are not available to you in your community? (circle one) yes no

What are they?

.....

.....

GENERAL HEALTH

I would like to ask you some questions about you child's state of health.

Overall would you say your last child's health is: (circle one)

1.Excellent

2. Good

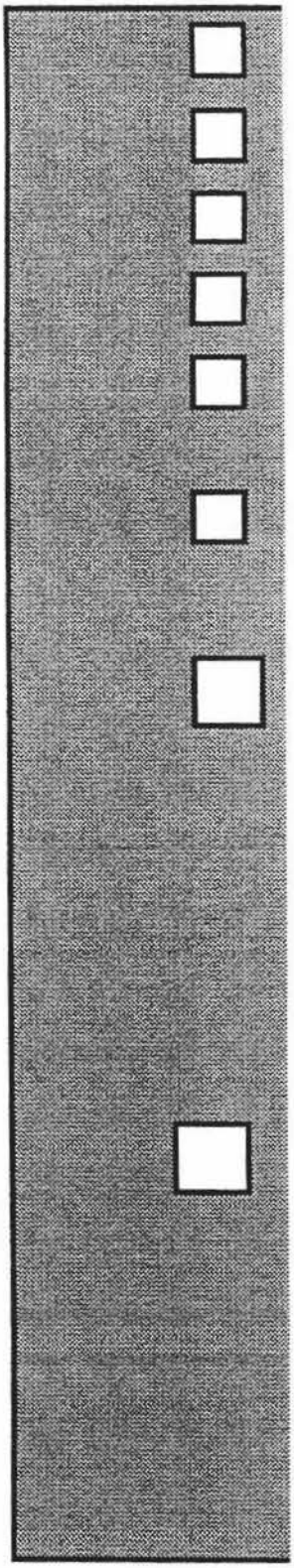
3. Not so good

4. Poor

20 Well Child Care Questionnaire

Have you been told by a doctor that you child has:

For office use



Asthma (circle one) yes no

Glue Ear (circle one) yes no

Hearing problems (circle one) yes no

Vision problems (circle one) yes no

Other health problems (circle one) yes no

Please specify other problems.....

Has your last child been hospitalised (circle one) yes no

What was this for? (circle as many options as necessary)

1.After an accident

2.Medical treatment

3.Surgery

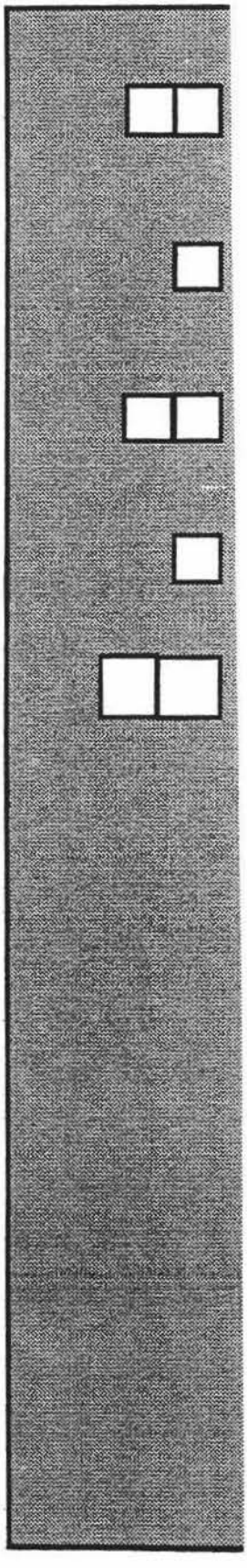
Since this time last year how many times have you taken your last child to the doctor, I mean a family doctor not a specialist

(circle one)

1. None
2. 1-5 times
3. 6-11 times
4. 12 time or more
5. Don't know

21 Well Child Care Questionnaire

For office use



Who would be the FIRST person you would go to for advice

if your child has a minor illness. ***Refer to cue card B***

Enter the number which appears in front of the chosen provider ☐

Please rate how helpful they are. (circle a number)

not very helpful 1-------2---------3---------4---------5-------6 very helpful

Who would be the FIRST person you would go to for advice

if your child has a more serious illness. ***Refer to cue card B***

Enter the number which appears in front of the chosen provider ☐

Please rate how helpful they are. (circle a number)

not very helpful 1-------2---------3---------4---------5-------6 very helpful

What is the MAIN reason for NOT consulting a doctor? (circle one)

1.Saw nurse instead

2.Got advice/prescription over the phone from doctor or nurse

3.No need to see a doctor

4.Not serious enough to see a doctor

5.Doctor can't help with this condition

6.Don't like going to the doctor

7.Don't like seeing the doctor every time

8.Can't spare the time

9.Doctor costs too much

10.Can't get an appointment

11.No doctor nearby

12.Don't have a doctor

13.Can't get anybody to mind the other children

14.Lack of transport

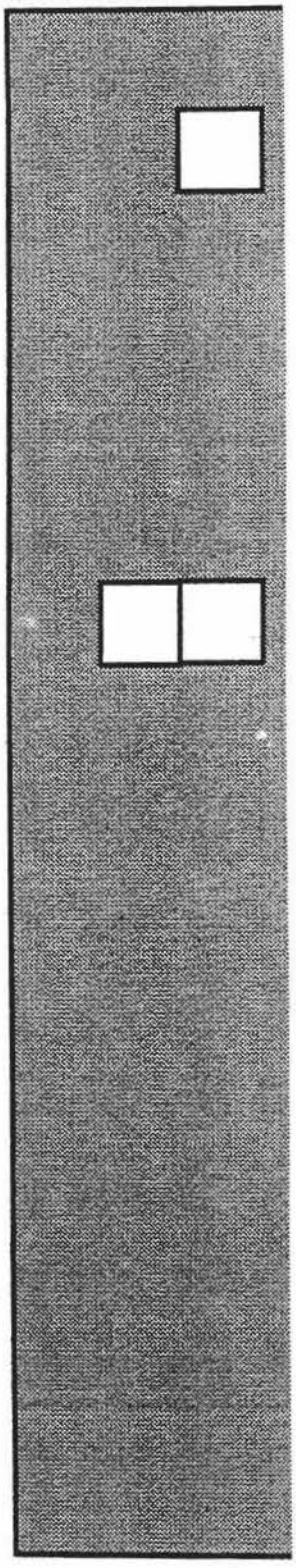
15.Other

16.Don't know

22 Well Child Care Questionnaire

Thinking about the last time you took your last child to see a doctor how satisfied were you? (circle one)

For office use



1. Very dissatisfied
2. Dissatisfied
3. Neither satisfied or dissatisfied
4. Satisfied
5. Very satisfied

What was the main reason that you were NOT satisfied with the care from the doctor (circle one)

1. Had to wait too long
2. Couldn't see the usual doctor/ had to see a locum
3. Cost too much
4. Couldn't get an appointment soon enough / at a convenient time
5. Doctor didn't spend enough time / was not thorough enough
6. Didn't like doctor's manner
7. Couldn't talk to doctor/ doctor wouldn't listen
8. Didn't like receptionist's manner
9. Didn't like the nurse's manner
10. Doctor made the wrong diagnosis
11. Doctor didn't give any treatment
12. Doctor only prescribed drugs
13. Doctor gave the wrong treatment
14. More than one reason/ can't give main reason
15. Don't know
16. Other specify.....

23 Well Child Care Questionnaire

Thinking about the last time you took your last child to see a nurse how satisfied were you? (circle one)

1.Very dissatisfied

2.Dissatisfied

3.Neither satisfied or dissatisfied

4.Satisfied

5.Very satisfied.

What was the main reason that you were NOT satisfied with the care from the nurse.(circle one)

1.Couldn't contact her

2. Couldn't get an appointment soon enough / at a convenient time

3. Nurse didn't spend enough time / was not thorough enough

4. Didn't like nurse's manner

5. Couldn't talk to the nurse/ nurse wouldn't listen

6. Nurse made the wrong diagnosis

7. Nurse didn't give any treatment

8. Nurse not able to prescribe drugs

9. Nurse gave the wrong treatment

10. More than one reason/ can't give main reason

11. Don't know

12. Other specify.....

For office use

24 Well Child Care Questionnaire

Has there been a time when you got a prescription from the doctor for your last child but did not take it to the chemist?

(circle one) yes no

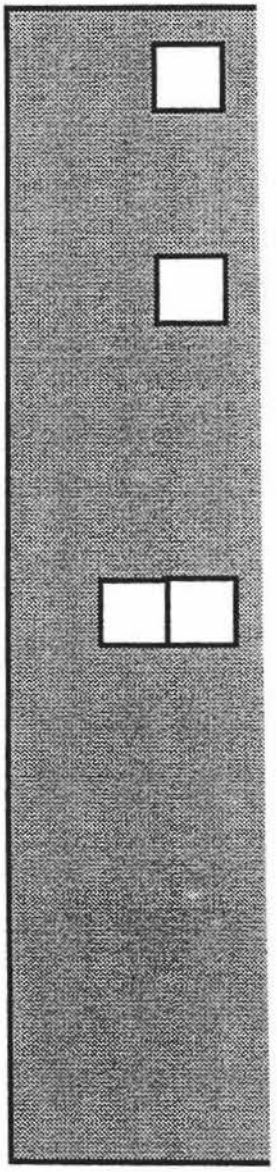
Has there been a time when you took a prescription to the chemist for your last child but did not pick it up?

(circle one) yes no

What was the main reason that you either did not take the prescription to the chemist or pick it up? (circle one)

1.Cost too much
2. Can buy cheaper over- the -counter medicine
3. Condition got better by itself
4. Thought the medicine wouldn't work/ medicine makes it worse
5. Will pick up medicine only if really needed,
   (doctor wrote the prescription, just in case)
6. Forgot/ couldn't be bothered
7. More than one reason / can't give one main reason
8. Don't know
9. Other specify.....

For office use



That is all the questions we have for you. Thank you for your time and effort in completing this questionnaire.

IN CONFIDENCE.

25 Well Child Care Questionnaire

This is cue card A.

Enter the number which appears in front of the chosen provider in the box with the light outline

1.Doctor

2. Midwife

3. Practice Nurse

4.Plunket Nurse

5.Public Health Nurse

6.Iwi Nurse

7.Dental Nurse

8.Family member

9. Friend

10. Community group (please specify which group, when you select this option)

11. Health and Development (Plunket) book

12. Other - please specify

26 Well Child Care Questionnaire

This is cue card B.

Enter the number which appears in front of the chosen provider in the box with the light outline

1.Doctor

2. Midwife

3. Practice Nurse

4.Plunket Nurse

5.Public Health Nurse

6.Iwi Nurse

7. Dental Nurse

8.Family member

9. Friend

10. Community group (please specify which group, when you select this option)

11. Chemist (pharmacist)

12. Naturopath

13. Hospital

14.Other - please specify

APPENDIX THREE

WellChild *Tamariki Ora* NATIONAL SCHEDULE

FROM BIRTH TO 8 MONTHS

HEALTH EDUCATION AND PROMOTION

Key Topics to Include:

Recognition of illness

Management of minor illnesses including colic, crying, minor skin complaints, fever

Breastfeeding promotion - support and supervision of early postnatal breastfeeding

Advice on maternal nutrition

Support of infant feeding - instructions as necessary

Contact plan for emergencies - include local agencies list plus 24 hour advice contact numbers

SIDS prevention, including:
- sleep position
- smokefree environment and bedsharing
- breastfeeding promotion

CPR information/education

Promotion of parenting skills, including:
- behaviour in first six weeks and other development stages
- dealing with temperament
- healthy sleep patterns
- understanding why babies cry
- feeding
- infant/toddler behaviour: management strategies
- clothing, nappies
- bedding, room temperature
- ear health

Education and promotion of infants' developmental needs

Promotion of immunisations: culturally appropriate explanation sessions on immunisation and screening process for all parents or whanau

Promotion of smokefree environment

Dealing with caregiver stress and fatigue

Contraceptive advice for mother/parents

Community networking with other well child care providers

Promotion of safe environment
- car seats
- fire safety
- prevention of falls
- hot water
- sun exposure
- lead exposure
- poison, drugs etc
- ensure safe & appropriate child care

Promotion of appropriate nutritional needs:
- introduction of solids
- prevention of iron deficiency etc

Recognise rights of the child

Ensure resources are:
- culturally and socially appropriate
- delivered in a culturally and educationally appropriate manner

Collaboration with other providers

HEALTH PROTECTION AND CLINICAL ASSESSMENT

BIRTH

Brief clinical assessment, including Apgar Score
Initial breastfeed
Vitamin K (IM)

WITHIN 24 HOURS ** See Note 1 re Vitamin K*

Full clinical examination including:
- observe infant
- weight
- head circumference
- hips
- cardiovascular system
- eyes

Hepatitis B vaccine & immunoglobulin for infants of hepatitis B antigen +ve mothers

BCG if indicated, per national TB guidelines

Assessment of risk of sensorineural hearing loss or blindness and referral if necessary

5 DAYS ** See Note 1 re Vitamin K*

Review:
- antenatal and family history
- birth events

Full clinical examination including:
- observe infant
- weight
- head circumference
- hips
- cardiovascular system
- eyes

Metabolic screening ("Guthrie") test must be done by 5 days, can be taken 48 hrs after feeding introduced

2 - 4 WEEKS ** See Note 2 re additional services*

Growth/weight & nutritional assessment (includes maternal nutrition)
Observe infant

6 WEEKS ** See Note 1 re Vitamin K*

Informed consent to Immunisation Programme

Fill in Immunisation Certificate if non consent

Immunisation (as per Immunisation Schedule)

Clinical examination including:
- observe infant
- weight
- head circumference
- hips
- cardiovascular system
- eyes
- testicular descent

Developmental assessment
- observation and questioning

Questioning on hearing and vision (Audiology check for infants assessed at birth as at risk of hearing loss; and/or opthalmology check if assessed risk of blindness)

Ongoing review of growth and nutrition

3 MONTHS

Immunisation (as per Immunisation Schedule)

Nutritional assessment/weight

Questioning of hearing and vision

Developmental assessment - observation and questioning

5 MONTHS

Immunisation (as per Immunisation Schedule)

Nutritional assessment/weight

Questioning of hearing and vision

Developmental assessment - observation and questioning

8 - 10 MONTHS

Check immunisations

Nutritional assessment/weight

Questioning on hearing and vision

Check for squint

Developmental assessment - observation and questioning

Tympanometry (in line with *Preventing Child Hearing Loss*, PHC 1995)

FAMILY OR WHANAU CARE AND SUPPORT

Key Elements:

Support person with mother at birth

Opportunity to discuss parental or whanau concerns at all contacts

Listen and respond to family or whanau concerns

Review of psychosocial and environmental circumstances including cultural support

Assessment of risk/presence of postnatal depression; ensure appropriate referral/management

Promote family or whanau support

Assessment of need for additional support for families in difficult circumstances or infants at higher risk of adverse health outcomes

Crisis intervention if needed

Promotion of community networking

Assessment of parental relationship with child

Mutually agreed plan of services between provider and family or whanau

Contact numbers for:

Crisis support and intervention eg
- GP/Midwife
- NZ Children and Young Persons' Service
- Public Health/rural District Nurse

Support groups such as:
- La Leche
- Karitane Unit
- Home Help
- Pregnancy Help
- play groups
- coffee clubs

Provision of care activities, and link with culturally safe support networks, and/or referral as necessary

Support for families in their contact with agencies such as NZ Income Support Service for child care subsidies etc

WellChild *Tamariki Ora* NATIONAL SCHEDULE

FROM [illegible] TO SCHOOL [illegible]

HEALTH EDUCATION AND PROMOTION	HEALTH PROTECTION AND CLINICAL ASSESSMENT	FAMILY OR WHANAU CARE AND SUPPORT
Key Topics to include:	**15 MONTHS** Immunisation (as per Immunisation Schedule) Sign Immunisation Certificate for completed early childhood immunisations Weight Questions on hearing and vision Check for squint Developmental assessment - observation/questioning (including language, mobility, behaviour) Tympanometry (in line with *Preventing Child Hearing Loss*, PHC 1995)	***Key Elements:***
Education on the management of common childhood illness		Listen and respond to family or whanau concerns
Promotion of home and environmental safety - home hazards - water - medicines, poisons - hot water - car seat - road - sun - safe home/neighbourhood - safe playgrounds - water safety/pool fencing etc		Review of psychosocial and environmental circumstances
Education about and promotion of developmental needs of young children - play - language - appropriate nutrition etc	**21 - 24 MONTHS** Questions on hearing and vision Check for squint Weight/Height Developmental assessment - observation/questioning (including language, mobility, behaviour) Review immunisation Dental assessment/enrolment	Assessment of need for additional support for families or whanau in difficult circumstances, and provide support, link with community resources/support groups, and referral to other agencies if necessary
Promotion of dental health & enrolment with dental service		Support for families or whanau in their contact with agencies such as NZ Income Support Service for child care subsidies etc
Promotion of parenting skills, including: - behaviour management - toileting - sleeping - socialisation with others - eating - minor illness management etc	**3 YEARS** Questions on hearing and vision Weight/Height Developmental assessment - observation/questioning (including language, mobility, behaviour) Tympanometry Visual acuity and check for squint Dental enrolment/assessment if not done earlier Review immunisation	Mutually agreed plan of services between provider and family or whanau
Promotion of 'Keeping Yourself Safe'	**SCHOOL NEW ENTRANT** Review immunisation Review child's history with parents/caregiver and school, taking regard of Privacy legislation Effective hand-over between well child care providers If indicated, physical/psychosocial/developmental assessment Dental assessment Tympanometry and audiology assessment Test eyes for acuity and squint	Facilitate involvement in child's preschool, Kura Kaupapa Maori activities
Discussion and promotion of preschool education facilities, Kohanga Reo, PAFT etc		Promote family or whanau support, community development issues that relate to child health
		Facilitation of community networking

Note 1 If IM Vitamin K is not given then a total of 3 oral doses of Vitamin K are to be given/offered at intervals marked with an *

Note 2 Additional discretionary services may be purchased and used as needed in the early weeks, or later.