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**THE NURSE PRACTITIONER-LED PRIMARY HEALTH
CARE CLINIC:
A COMMUNITY NEEDS ANALYSIS**

A thesis presented in partial fulfilment of the requirements for the degree of
Master of Philosophy in Nursing
at Massey University

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ABSTRACT

Aim. To determine the feasibility of establishing a nurse practitioner-led, family focused, primary health care clinic within a primary school environment as an alternate or complementary way of addressing the health needs of ‘at risk’ children and families to the services already provided by public health nurses.

Method. Utilising needs analysis method, data was collected from three sources – known demographic data, 17 key informant interviews and two focus group interviews. Questions were asked regarding the health needs of the community, the perceptions of participants regarding the role of the public health nurse in order to determine if a public health nurse would be the most appropriate person to lead a primary health care clinic, and the practicalities of establishing a clinic including the services participants would expect a clinic to provide. Analysis was descriptive and exploratory.

Results. A wide range of health needs were identified from both the demographic data and from participant interviews. Findings also showed that participants’ understanding of the role of the public health nurse was not great and that community expectations were such that for a public health nurse to lead a primary health care clinic further skills would be required. Outcomes from investigating the practicalities of establishing a nurse practitioner-led clinic resulted in the preparation of a community-developed model that would serve to address the health needs of children and families in the area the study was undertaken.

Conclusion. Overall findings indicated that the establishment of a nurse practitioner-led, family focused, primary health care clinic in a primary school environment is feasible. While a public health nurse may fulfil the role of the nurse practitioner, it was established that preparation to an advanced level of practice would be required. It is likely that a similar model would also be successful in other communities in New Zealand, however the health needs identified in this study are specific to the community studied. Further community needs assessments would need to be completed to ensure health services target health needs specific to the communities involved.

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**THE NURSE PRACTITIONER-LED PRIMARY HEALTH
CARE CLINIC:
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...elementary school-based health centers can be a cost-effective strategy for addressing children's health and educational needs...they can reach children and their families in a way most other community-based agencies cannot. The elementary school years are the time when active intervention can yield comprehensive, life-long benefits for children. (US National Health and Education Consortium in Wenzel, 1996, p. 125)

CHAPTER ONE – INTRODUCTION

Schools are a focal point in the community for many families. For this reason, a school can also be seen as a natural environment for the provision of health services (Lightfoot & Bines, 1997; Uphold & Graham, 1993). What follows is the study of a school, the community that surrounds that school, and the role of the Public Health Nurse in both the community and the school.

I have been a Public Health Nurse since 1996 with the vast majority of my work being with school aged children and their families. My work as a Public Health Nurse involves visiting up to six schools per week and making home visits to families where children are identified as having a health concern that needs addressing. It is part of my role to have an extensive understanding of the community in which I work, knowing what resources are available to children and families in the area and how to link families with them. Over time it has become increasingly clear to me that much of my work only touches the surface of many of the health needs I see in the community. Intuitively, I feel that there must be a better way to meet these needs.

My concerns have been echoed by the service I work for and in late 1997, a group of Public Health Nurses (PHNs) from the Child and Youth Team of the Child and Family Community Health Services, Auckland Healthcare, including myself, met to discuss plans for future primary health care service delivery to Central Auckland schools. The role of the PHN in schools was discussed in detail.

The Public Health Nurse

The current role of the PHN in the Child and Youth Team is to provide school-based primary health care including health assessment and monitoring for school-aged children, youth and their families/whanau, provide assessment, case co-ordination and referral services for specific health needs of school age children and young people, facilitate health promotion programmes including Health Promoting Schools (New South Wales (NSW) Department of Health, NSW Department of School Education, Catholic Education Commission, NSW, Association of Independent Schools, NSW, 1996), and provide child protection assessment, monitoring and referral. Public Health Nurses also provide immunisation programmes and immunisation information as accredited non-medical vaccinators (Edmonds, 1999). The PHNs work as part of a multi-disciplinary team including Maori and Pacific Island Community Health Workers, Social Workers, Medical Officers, Dieticians, and Health Promoting Schools Facilitators. The PHNs visit schools usually once per week and are available for home visits if required.

Locus of Control

Referrals are made to the PHN - on the whole - from teachers, general practitioners, hospitals, and the child's own self-referral. The issue of referrals was identified by the group of PHNs as a source of difficulty. Most referrals are made when a child is recognised by a school staff member as having a health issue that needs addressing, for example, obesity, impetigo, or behavioural problems. The family may be approached prior to the school making the referral, but usually it is the PHN who makes

initial contact with the family. Referrals do not often come from the family directly. It appeared to the PHNs that in many cases the family had not recognised the importance of a health issue that needed addressing, had not recognised that there was a health issue at all, or had recognised that there was an issue but were unable to access appropriate health care services. The family had lost the locus of control. Often the PHN turning up at the house out of the blue was a surprise to the family and in many cases seen by the family as threatening. This made health intervention challenging to say the least. Although the PHN can offer a variety of means of addressing health issues including education, referral and support, it can often take weeks, months or sometimes even years to gain the trust of the family to the extent that health intervention will be effective. The length of time it takes to gain the trust of a family in order to make effective health interventions is supported by Ministry of Health literature that suggests that the success of a programme with an individual depends on the health professional building a trusting relationship with one or more family members (often the mother) and providing an intensive service (Ministry of Health, 1998a).

The PHNs suggested that there should be a better way to provide primary health care services to children and families that would encourage families to access primary health care earlier and more frequently, and in a manner that would assist in returning the locus of control to the family. With a caseload of up to 12 schools each and being 'on the road' most of the week, current primary healthcare service delivery by PHNs does nothing to encourage families to contact the PHN directly. A nurse practitioner-led, family focused, primary health care clinic based in a primary school was mooted as a possible model that would address these issues.

The aim of this study is to undertake a community needs analysis in order to determine the feasibility of establishing a nurse practitioner-led, family focused, primary health care clinic within a primary school environment as an alternate or complementary way of addressing the health needs of 'at risk' children and families to the services already provided by the PHN. It was suggested that this model may encourage families to access primary healthcare in a setting where they felt comfortable i.e. schools. A user-friendly environment that encouraged families to take the initiative in accessing primary health care would serve to empower families to take control of their own health care. Some of the difficulties associated with the PHN approaching the family would be alleviated.

Current Health Status of Children

The clients that PHNs are more likely to see include children and families from low income households, Maori, Pacific Island people and refugees (L. Edmonds, personal communication, 3 March, 1999). Research shows that children from low-income families and school-aged children of working parents are at highest risk for limited access to health care. Transportation difficulties and inconvenient clinic hours are other factors that serve to limit access to primary healthcare services for these groups (Jones & Clark, 1997). Poverty, failure to recognise the importance of health issues, cultural and language barriers, and fragmented services are also seen as barriers to accessing health services (Ministry of Health, 1998a).

Statistics (Ministry of Health, 1998a; 1998b) indicate that current primary health care provision in New Zealand is inadequately meeting the needs of at risk

children and their families – particularly those from lower socio-economic groups who are also Maori, Pacific Island people and refugees. For example, the injury hospitalisation rate for all children under the age of 15 years old increased from 1629 per 100,000 population in 1988 to 2044 per 100,000 population in 1995. The number of homicide deaths increased for children of all ages from 1980-84 to 1990-94. Compared to earlier decades, mood disorders - particularly mild and moderate depression - are now more widespread, and are appearing at an earlier age. Over the past 20 years there has been a consistent increase in the prevalence of asthma. There has been a decline in the overall incidence of most vaccine-preventable diseases, but immunisation coverage is not sufficiently high to prevent measles or pertussis epidemics. There has been no decrease in rates of acute rheumatic fever since the early 1980s (the annual age-standardised hospitalisation rate for Maori under age 30 years is over four times the national rate). The meningococcal disease hospitalisation rate continued to increase in 1997. Pacific Island children are admitted to hospital for pneumonia at four times the rate for all children (Ministry of Health, 1998a; 1998b). In 1996, 54% of refugees had some degree of iron deficient anaemia (Auckland Healthcare 1996, December). It is clear that new directions for primary health care service provision are needed.

Nurse Practitioner-led Clinics

Internationally, nurse practitioner-led, family focused, primary health care clinics have been shown to be an effective means of addressing the primary health care needs of at risk groups such as children and those from low income groups (Jones & Clark, 1997; Wenzel, 1996; Velsor-Friedrich, 1995; Walter et al., 1995; Dryfoos, 1988; Keenan, 1986; Kirby, Waszak and Ziegler, 1989). As discussed earlier, schools are also

considered a natural environment for the provision of health services due to the central focus of schools in the everyday life of most families (Lightfoot & Bines, 1997; Uphold and Graham, 1993). Norrish (1995) advocates for the nurse to move beyond traditional boundaries and into roles that allow the nurse the autonomy to meet the needs of their clients as they see fit. The World Health Organisation (1986) also indicates that the nurse's role in primary health care is as a direct care provider, teacher and educator of health personnel and of the public, supervisor and manager of primary health care services, and researcher and evaluator of health care services.

Community Needs Analysis

In 1997, when our group of PHNs first met, it was recognised that research into the feasibility of establishing a nurse practitioner-led, family focused, primary healthcare clinic in New Zealand was essential. Two preliminary questions were identified. What would the feasibility of establishing a nurse practitioner-led, family focused, primary health care clinic in a primary school be and what skills, experience and qualifications would a public health nurse need to run such a clinic? I have focused on the first question. In doing so I have selected community needs analysis as the most appropriate method for undertaking this study. Community needs analysis is seen as a means of identifying the health needs of a community and as a first critical step in shaping the design of project interventions. Community needs analysis results in a compilation of information that indicates the ultimate direction of planning for a project (Haglund, Weisbrod & Bracht, 1990). For the purposes of this study, one school has been selected for a case study and that school and its surrounding physical and social environment constitutes the community.

In undertaking this community needs analysis, I have examined three areas – the health needs of the community in question, the knowledge of the community with regards to the services provided by the PHN and the practicalities of establishing a nurse practitioner-led, family focused, primary health care clinic. Health needs are identified as this enables services to be targeted to meet identified needs directly. The practicalities of establishing the clinic are discussed as this gives an indication of what the community would most like to see provided at a clinic. The purpose of examining the knowledge of the community with regards to the services provided by the PHN is twofold. Firstly, as the original intention of the group of PHNs was to examine ways for PHNs to deliver primary health care services to schools in the future, factors surrounding current service provision needed to be examined. Secondly, it needed to be established if a PHN would be the most appropriate person to run a nurse practitioner-led primary health care clinic. What is the community's perception of the PHN? Is the community's knowledge and understanding of what a PHN does sufficient enough to ensure that if a clinic run by a PHN were established it would be used by the community? These questions needed to be answered.

The Nurse Practitioner

Hinder (1999) has developed a portfolio of skills required by an advanced public health nurse practitioner. It is my belief that the person employed to run a nurse practitioner-led primary health care clinic would need to meet the criteria outlined in Hinder's portfolio. This portfolio is attached as appendix one. Specific elements from Hinder's portfolio include requirements that the advanced public health nurse practitioner have relevant post graduate qualifications, meets the competencies required

for prescribing of medications, and the ordering and interpreting of diagnostic tests, and has proven skills in health promotion. The advanced public health nurse practitioner is skilled in facilitating family centred care, facilitating the health promotion process, undertaking service and clinic management, has a commitment to professional practice, utilises research and evidence based practice, and has a commitment to professional education. It is my belief that all of these skills are essential for a public health nurse to have prior to running a nurse practitioner-led primary health care clinic. Public Health Nurses at the present time are not required to have all of these skills in order to work effectively in their current role. When undertaking the interviews for this research, I have asked questions specifically about a nurse-led clinic and have not discussed the concept of a nurse practitioner with participants. The implication was that the person who would run the clinic would be a public health nurse or similar. By not discussing the concept of a nurse practitioner with participants, the participants knowledge of the role of the PHN and the services they would expect a clinic to provide would confirm or refute my bias that the public health nurse would need the advanced skills outlined by Hinder (1999).

In summary, this study is a community needs analysis that examines the feasibility of establishing a nurse practitioner-led, family focused, primary health care clinic in a primary school environment. The health needs of the community are explored using demographic data and information obtained from interviews. The perceptions of the participants regarding the role of the PHN are examined in order to determine if a PHN is the most appropriate person to run nurse practitioner-led clinic or if further skills to the level of an advanced public health nurse practitioner would be required. Finally, the practicalities of establishing a clinic including the services

participants would expect a clinic to provide are examined.

Thesis Overview

This thesis has been collated in order to present the findings from the study in a concise and comprehensive manner for the reader. Large volumes of both quantitative and qualitative data have been combined to paint an extensive picture of the community in question and indicate the feasibility of establishing a nurse practitioner-led, family focused, primary health care clinic. Appendices have been used to reduce the amount of raw data presented in the body of the thesis and need to be referred to where indicated in order to gain an accurate picture of the findings and in order to follow a comprehensive audit trail.

This chapter has provided a background introduction to the thesis and provided justification for the study itself. The notion of a nurse practitioner-led primary health care clinic as an alternate or complementary means of addressing the health needs of at risk children and families to the services currently provided by the PHN has been introduced.

Chapter two presents a literature review that focuses on three specific areas. The first area is school-based clinics – predominantly international literature is presented that focuses on examples of valid research into school based clinics. This is supplemented with a number of case studies that provide the reader with an understanding of the concept of school-based clinics. The second area presents examples of needs analyses that have resulted in health change. The presentation of this

area assists in justifying community needs analysis as a valid and appropriate means of undertaking the study. The final area is current school based health initiatives in New Zealand. Examining current school based initiatives provides the reader with an understanding of the current context within which primary school-aged children receive primary health care services.

Chapter three examines the method used to undertake the study and includes discussion on issues such as the advantages and disadvantages of community needs analysis, the process followed to undertake the study, and ethical issues. Techniques of data collection are examined and clarified, and the use of Miles and Huberman's (1984) techniques of qualitative data analysis as used in this study are outlined.

Chapter four introduces the first of the data collected for the research. The profile of the community is outlined using demographic data collected from available data sources including the Ministry of Health, Statistics New Zealand and the CD ROM Supermap that provides data from the 1996 New Zealand census. The data is presented in sections including the community profile, school profile and health statistics.

Chapter five builds on the community profile introduced in chapter four and presents the results of interviews undertaken with two focus groups and 19 key informants. The results of the interviews are split into three sections – the health needs of the community, the Public Health Nurse and the clinic. This split assists in clarifying the results for the reader and is a natural division of the questions asked in the interviews.

Chapter six discusses the combined results from both chapters four and five in detail. The demographic data compiled in chapter four is combined with the data obtained from the interviews to complete the picture of the community being studied. The community's perception and views on the role of the PHN are discussed, and the practicalities of establishing a nurse practitioner-led primary health care clinic are outlined.

The concluding chapter – chapter seven – brings the thesis to a close and gives a final indication of the feasibility of establishing a nurse practitioner-led, family focused, primary health care clinic in a primary school environment in New Zealand. The thesis concludes with a series of recommendations regarding the establishment of such a clinic.

CHAPTER TWO – LITERATURE REVIEW

As previously stated, the aim of this research is to undertake a community needs analysis in order to determine the feasibility of establishing a nurse practitioner-led, family focused, primary health care clinic within a primary school environment. An integral part of this research is to examine other initiatives similar to the one outlined above in order to provide background understanding of the topic and to ensure important aspects of this research are not missed.

Three areas form the basis of this literature review. The first area to be examined is school-based clinics. The focus is specifically on primary or elementary school level clinics, their establishment, purpose and success. The review addresses the question: what examples are there that show that a nurse practitioner-led primary health care clinic in a primary or elementary level school is a successful means of addressing the primary health care needs of children and families? The second area focuses on examples of community needs analyses that have sought to establish change in health care services. Such examples show why a community needs analysis is imperative prior to the establishment of health initiatives. The third area examines examples of school-based primary health care initiatives in New Zealand that have already been established and are functioning at the present time. Exploring examples of current primary school-based health initiatives enables the reader to understand the context in which primary healthcare services are provided to New Zealand school aged children at the present time.

SCHOOL BASED CLINICS

There are over 500 school-based clinics (SBCs) currently operational across the United States of America (Weathersby, Lobo, & Williamson, 1996). Usually led by nurse practitioners, these clinics have traditionally focused on adolescent health and provide services such as primary health care, physical examinations, laboratory tests, pregnancy testing, birth control information and referral, nutrition education, and counseling (Kirby et al., 1989). The majority of literature on SBCs also focuses on clinics functioning at the adolescent level. The literature discusses issues such as the function of SBCs, financing issues, access, evaluation, utilisation, impact and potential, and gives case studies of a variety of different kinds of SBCs (see Walter et al., 1995; Dryfoos, 1994; Fisher, Juszczak, Friedman, Schneider & Chapar, 1992; Bocchino, 1991; Goldsmith, 1991; Kirby et al., 1989; Dryfoos, 1988). There is far less literature available on SBCs functioning at the primary school level - most is descriptive as opposed to evaluative. The following discussion examines some of the more relevant literature that is available on primary school level clinics.

Over one-quarter of all SBCs are located in elementary schools (Schlitt, Rickett, Montgomery, & Lear, 1995). Elementary or primary level school based clinics have a family focus and function in collaboration with families and schools rather than focusing solely on the individual. Wenzel (1996) discusses a school-based clinic for elementary schools in Phoenix, Arizona. In this example, a community hospital, a school district and a private paediatrician's office collaborated to ensure children enrolled at five elementary schools had access to health care services. Services were provided by a paediatric nurse practitioner who visited each of the five schools one day

per week. Services provided included diagnosis of minor or chronic illness, health screening, health promotion counseling, and immunisations. Tympanometry and haemoglobin screening were also available and the nurse practitioner had limited prescribing rights. Parents were encouraged to be present during the visit. If the parent was not present, written consent was obtained prior to seeing the child and a summary of findings and recommendations were sent home with the child after the visit. Care was provided in an environment that was familiar to the children. The paediatric nurse practitioner also did home visits where this was necessary.

Wenzel indicates possible methods that could be used for evaluation of a school based primary health care clinic programme with regards to cost but does not give any cost-benefit analysis. Overall results from the setting up of this style of clinic, however, showed that the model was efficient for several reasons. These included the fact that there was no expense associated with location due to the use of pre-existing facilities, and provision of the nurse practitioner, laboratory services and radiology services by the local hospital. Encouraging was the fact that following establishment of the clinic, there was a discernible decrease in the absentee rate at three of the five participating schools. Wenzel also indicates that the hospital supporting the program gained due to a reduction in the number of children using the hospital emergency department as a primary care site (Wenzel, 1996). This factor has important implications for the New Zealand setting. For example, many of the presenting issues at New Zealand's largest children's hospital, including mild asthma and viral illnesses, could easily be addressed in the community. Asthma admissions, for example, are largely avoidable through the provision of accessible primary health care services (Crampton, 1998). The

high cost associated with tertiary institutions providing primary health care could potentially be avoided by the establishment of nurse practitioner-led clinics in New Zealand schools. As in Wenzel's study, such clinics may serve to decrease numbers of children using emergency departments for primary health care.

Jones and Clark (1997) also describe health care provided by paediatric nurse practitioners in elementary school-based clinics. In Arlington, Texas, a travelling team of health professionals including a paediatric nurse practitioner, social worker and clerk provide on-site health care to children and their siblings (younger than 13 years of age) one day per week in each school (four schools). More than 50 percent of the children in the community were from minority cultures (e.g. Black American, Hispanic, Asian) and considered medically underserved. The goal of the SBC was to provide health promotion, prevention, and intervention to children and their siblings who had no "medical home" (a term used in the United States of America that implies the person concerned has appropriate access to and uses a regular health care provider e.g. paediatrician).

The aim of the Jones and Clark study was to establish that a larger proportion of children who were using the school-based services would have access to screening services and follow-up than those children who were not using the clinics. This led them to undertake a comparative study using a 'quasi-experimental longitudinal research protocol'. Data was obtained from a record review of students who participated in a SBC and compared with students who attended a school that had no SBC but had been to see the school nurse. The samples were both convenience samples. The data was analysed using descriptive statistics, non-parametric statistics

and the *t* test. As in Wenzel's study, Jones and Clark found one of the effects of the school-based clinic was a change in the number of children using emergency departments for primary health care. In this case, findings showed that those children who were seen at the school-based clinic had no hospitalisations during the study period whereas the non-school-based clinic comparison subjects had a greater proportion of emergency department visits and significantly fewer early periodic screening, diagnosis, and treatment (EPSDT) health maintenance visits. Findings also indicated that greater availability of care may have encouraged parents to seek early preventative care for their children (Jones & Clark, 1997).

Outcome evaluation of school-based clinics and health services that target low socio-economic communities is complex. Although Jones and Clark's study meets requirements for reliability and validity, further replication would be required to ensure that the method would be consistent enough for use by others seeking to undertake evaluative studies similar to Jones and Clarks. Dryfoos (1994) indicates that working with a school population makes it difficult to track individuals over time to determine whether or not they used services and to what effect. She cites student turnover as high as 40% as one of the inherent difficulties (Dryfoos, 1994). Similarly, Dignam and Alpass (1998), in an attempt to evaluate primary health care services provided to families through schools in Central Auckland by a multi-disciplinary team that included public health nurses, found difficulties in accessing sufficient participants for their study to allow for generalisable findings. Issues such as the highly mobile nature, low socio-economic status, and multi-cultural nature of the users of the multi-disciplinary team were indicated as potential problems in accessing participants (Dignam & Alpass, 1998). Recommendations were for the development of a multi-method approach to data

collection. Other issues such as the difficulty and costs associated with evaluative survey design in populations of high health need and low socio-economic status were also cited as factors that need to be taken into consideration in evaluation design.

The United States based Bureau of Primary Health Care (1995) has attempted to address some of the difficulties associated with establishing and evaluating school based clinics by publishing an idea book. Based on a series of case studies, issues surrounding design, implementation and evaluation of school-based clinics have been examined. Recommendations include establishing a core planning group to carry the project from concept to reality, undertaking a community needs assessment in order to identify health needs and to gain the support and involvement of the community, encouraging parental involvement from the outset, and developing procedures for self-assessment and evaluation. The idea book recommends strategies for addressing issues such as hours of operation, staffing levels, and what services should be provided (Bureau of Primary Health Care, 1995).

The idea book recommends that school-based clinics track at the very least the number of clients who use the health service, what services are provided, and user satisfaction with the service. However, the idea book is lacking in its suggestions for addressing difficulties associated with evaluation of typical SBC users who are often highly mobile, come from low socio-economic groups and whose first language may not be English.

By using a case study approach, the idea book has used practical examples of functioning school-based clinics to develop its recommendations. In addition to

providing practical steps in the process of establishing a clinic, the case studies themselves serve to reinforce the school-based clinic as an effective means of addressing the health needs of school-aged children and young people. For example, there have been several notable outcomes for children and families attending the primary school level Fort Pierce Family Service Centre in Fort Pierce, Florida. Since the family centre opened, more children in the community have received health services, agencies and community groups have formed more co-operative relationships, and there has been a dramatic increase in compliance with appointments. Before the centre opened, patient no-show rates for recommended services exceeded 47%; compliance is now about 90% (Bureau of Primary Health Care, 1995). However, similar to the problems indicated by Dryfoos (1994), one of the problems facing the Fort Pierce Family Service Centre is the high student mobility rate – 38% during 1992-93 – that has served to limit the extent to which further evaluation of services can be undertaken (Bureau of Primary Health Care, 1995).

Also an area of concern to providers of primary health care services in this country is the large number of ‘no-shows’ to appointments arranged on behalf of the client with tertiary medical and health service providers. The current rate of non-attendance at scheduled outpatient appointments at New Zealand’s largest children’s hospital is 18.23% (M. Rea, personal communication, June 22, 1999). Factors associated with poverty, failure to recognise the importance of health issues, cultural and language barriers, and fragmented services are seen as the greatest barriers to access to child health services (Ministry of Health, 1998a). If, as at the Fort Pierce Family Service Center, a school based clinic improves attendance rates at scheduled

appointments, it is possible that establishment of such a clinic in this country may have similar benefits.

With regard to the appointment of appropriate staff, the idea book suggests that the person appointed to lead a school-based clinic be experienced in working with children and young people. The appointee must also be prepared to become involved in the community beyond the level of simply providing a health service. The book cites one example of a nurse practitioner who doubles as a coach for the school soccer team. The nurse practitioner found that this increased her contact with students, families and school staff and fostered a level of communication between the school, clinic and community that had previously been absent. The idea book recommends that staff need management, political, and entrepreneurial skills as well as clinical skills, and that strong leadership will assist in keeping a network of community resources together (Bureau of Primary Health Care, 1995).

Another example of an elementary level school-based clinic that utilises nurse practitioners is a clinic in New York's Community School District 13. McClowry et al. (1996) describe the establishment and current operational status of a nurse practitioner-led clinic that has been set up in collaboration with a local university.

When planning for the clinic first took place, several schools were considered for participation. The school where the clinic was eventually established was chosen because of the enthusiasm of the school principal and a supportive and active Parent-Teachers Association. McClowry et al. indicate that these are critical requirements for the successful implementation and operation of a school based clinic. A Community

Advisory Board was established and multiple focus groups were held with community members. The provision of high quality care has facilitated the development of trust and understanding among community users of the clinic. McClowry et al. emphasise that a key aspect in the establishment and continuation of a school-based clinic is the importance of gaining the trust of community members: “The success of any community initiative requires gaining trust.” (McClowry et al., 1996, p. 21).

The clinic provides services in two ways. The Child Health Care Centre provides services such as health maintenance, episodic health care, asthma self-management and first aid. Immunisations, physicals, lab tests, medication prescription and administration are also all catered for at the facility. The other service is the Family Center that provides mental health services including social skills programmes and individual sessions. Another programme offered at the Family Centre is the INSIGHTS programme. This is a 10-week programme where parents, teachers and children are taught management strategies for conduct disorders.

Both facilities are staffed by nurse practitioners and provide clinical placements and learning experiences for baccalaureate, masters and doctoral nursing students from the university. The clinic provides numerous research opportunities for the students as well as hands on clinical involvement with children and families. For example, a comprehensive four-stage development programme is utilised with each new service established at the clinic. Planning occurs at level one, pilot testing occurs at level two, reassessment at level three and at level four the new service is either abandoned, tested with revisions or designated as an established service or programme.

With regard to formal evaluation of the school-based clinic's impact, the elementary school with the SBC is being compared with another elementary school without an SBC but with children with similar sociodemographic characteristics. The anticipated outcomes include enhanced health, competency and academic achievement of the children, fewer behavioural problems exhibited by the children, a reduction in the number of distressed parents and increased parental competency (McClowry et al., 1996).

Further examples of SBCs can also be accessed through the Internet. Zuniga (1996), in a newspaper article accessed online, describes a school-based clinic in Sherman Elementary School in Houston, Texas. A nurse practitioner provides wellness-based care for more than 1000 students. The clinic provides health screening services, treatment of acute minor illness (the nurse practitioner has prescribing rights) and preventative treatment for chronic illnesses such as asthma (Zuniga, 1996). While this information provides more background on SBCs at the primary school level, it must be taken at face value and any research base can not be confirmed.

Another on-line example of a school-based clinic is that of the Greene County School Health Cottage established by University of Virginia School of Nursing Primary Care Community Nursing Center in collaboration with Greene County Public Schools. This model provides a clinic based in a semi-permanent mobile trailer centrally located on a campus consisting of four schools – high school, middle school, elementary school and primary school. Greene County is designated as a medically underserved area. Services are provided by a school nurse, nurse practitioner, and graduate nursing students from the University of Virginia. Services provided include health screening

and assessment, monitoring of immunisations, early identification and treatment of common health problems, management of chronic conditions, case management of children with developmental and long term health problems, health education and promotion of healthy lifestyles, and referral to other services as needed. According to the authors, this model of health care delivery improves access to care for children and results in fewer absences from school due to immediate treatment of acute illness, decreased length of illness, and improved management of communicable diseases. Families benefit from lower medical costs and decreased loss of work time due to family illness (Greene County School Health Cottage, 1998).

In Brown County, Indiana, a school-based clinic has been established in conjunction with the University of Indiana School of Nursing. The Brown County Health Support Clinic was established following the undertaking of a community assessment that took approximately six months. A variety of key informants were interviewed. As a result the clinic was set up in two primary schools and is open from 4-8pm one night per week targeting issues such as hypertension, adolescent suicide and pregnancy, child abuse and neglect and acute minor illnesses such as otitis media. An annual fee of \$5 per family per year assists with funding, and both service delivery and health outcome research is currently taking place. The clinic provides clinical placements for baccalaureate level nursing students from the University of Indiana. The hours of operation allow for greater attendance by parents and families (Krothe, 1998).

In summary, the literature on SBCs outlined above provides clear examples of functioning school-based clinics at the primary school level. Studies show that nurse practitioner-led clinics at the primary school level decrease the number of children using

emergency departments for primary health care, decrease school absence rates, may encourage parents and caregivers to seek earlier preventative health care for their children, and increase compliance with scheduled appointments for recommended health services (Jones & Clark, 1997; McClowry et al., 1996; Wenzel, 1996; Bureau for Primary Health Care, 1995). Evaluation of school-based clinics has, however, been identified as a source of difficulty due to the often highly mobile nature of users of the clinics (Bureau of Primary Healthcare, 1995; Dryfoos, 1994). At the secondary school level, studies show that nurse practitioner-led clinics are a cost effective, appropriate and effective means of providing accessible primary health care to adolescents and have also proven to be successful in altering risk-taking behaviour (Goudie, 1996; Newland & Rich, 1996; Walter et al., 1995; Dryfoos, 1994; Ramsey, Edwards, Lenz, Odom & Brown, 1993; Fisher et al., 1992; Bocchino, 1991; Goldsmith, 1991; Donovan, 1989; Kirby et al., 1989; Dryfoos, 1988; Keenan, 1986.)

COMMUNITY NEEDS ANALYSES

A community needs analysis or assessment can be defined as the process of assessing and defining needs, opportunities, and resources involved in initiating community health projects (Haglund et al., 1990). The outcome of a community needs analysis results in a compilation of information that will indicate the ultimate direction of planning for a project. The aim of this research has been to undertake a community needs analysis in order to determine the feasibility of establishing a nurse-led primary health care clinic. It is helpful to examine examples of other studies that have sought to undertake community needs analyses with a view to initiating some kind of health

service change. The examples that follow emphasise the importance of undertaking a needs analysis prior to the establishment of any new health initiative.

The first example describes the use of a community needs analysis prior to the establishment of a nurse-led primary health care clinic. Although not school based, the principles underlying the establishment of the clinic in the example are similar to those of this research.

Glick, Hale, Kulbok and Shettig (1996), undertook a community needs analysis prior to establishing a community based clinic within a housing project in Charlottesville, Virginia, USA. Their method used a windshield survey (a drive through the community assessing overall environment and living conditions), face to face interviews, and focus group interviews with residents and community leaders. The researchers compared local statistical data from Charlottesville with state-wide data, as well as resident survey responses. This provided information regarding health needs that came from both the personal perspectives of residents, as well as known demographic data. Interestingly the perceived health needs of the community from the key informant interviews were different from those of the residents. Where key informants thought that social and behavioural issues surrounding parenting, teenage pregnancy and drug abuse were problems, the residents considered physiological conditions such as hypertension and arthritis were the issues. Community leaders felt that assistance with child growth and development and parenting were the most needed services, residents indicated that lack of transportation, cost and location of agencies as major obstacles. Establishing a primary health care clinic that focused on improving access to health services, provided health promotion and education to groups and

individuals, and addressed physiological concerns allowed many of the identified needs to be addressed, both from the key informant perspective and the resident's perspective.

Integral to the success of the clinic was obtaining the trust of community residents. Using the principles of community development, partnership and "ownership" as advocated at the 1978 International Conference on Primary Health Care held at Alma-Ata, Glick et al. used meetings with a variety of different community groups to present the findings of the needs analysis and empower residents to take an active part in "owning" the new community health clinic. One of the biggest barriers to the success of the nurse-managed primary health care clinic was the time lapse between the research and the establishment of the clinic. This time lapse contributed to a decrease in trust from community members that needed to be re-established once the clinic was underway. Despite this, the clinic has been established and is now an integral part of the community. As the clinic continues to function, research is being undertaken that will evaluate the partnership approach, use and acceptance of nursing clinic services, and outcomes of care. Specifically, the researchers hope to be able to contribute to the growing body of evidence that primary care based in neighbourhoods and delivered by nurse practitioners is efficient, culturally appropriate and cost effective (Glick et al., 1996).

Unless funders and providers know what their clients needs are, resources can be poorly directed and little or no health change may occur. The above example referred specifically to a community needs analysis that was used to establish a successful nurse-led primary health care clinic. The following studies look at broader examples of the use of needs analyses to initiate health change but are still focused

within the health care environment and provide weight to the argument that community needs analyses are vital prior to the establishment of new health initiatives.

One example of a needs analysis is that undertaken by Public Health Nurses in the Central Auckland area in 1992. Cole, Cave, Corbett, Warburton and Edmonds (1992) undertook a postal survey of Central Auckland schools and parents. The study sought to determine whether staff and parents in Primary, Intermediate and Secondary Schools were satisfied with the service they received from Public Health Nurses, to identify the health services needed within schools that could be met by Public Health Nurses and other community health services staff, and to assist with the development of strategies to improve community health service to schools. The response rate to the postal survey was 56% from schools and 63% from parents (Cole et al., 1992).

The health problems identified by teachers in the study included children away from school for a long time, no-one to look after the child when sick, the parent not taking the child to the doctor, poor hygiene and poor quality of clothing, running noses/colds, child abuse and behaviour problems/self esteem issues. Other identified issues included ear problems, headlice, school sores, asthma, infectious illness/low immunisation rates and expense of visiting the doctor. These issues were identified with no prompting in a written, postal survey. Parents reported similar health problems to the teachers (Cole et al., 1992).

When asked what health issues the Public Health Nurse deals with most effectively, respondents pointed out that the Public Health Nurses' ability to home visit was important as was their knowledge of community resources, child development and

communicable diseases. This response did not answer the question specifically but gave the researchers a broad idea of the respondents' perception of the PHN role. Respondents also appreciated the Public Health Nurse's ability to respond quickly to health issues and have good follow up systems in place. They also stated that Public Health Nurses had a good working relationship with staff (Cole et al., 1992).

With regard to health education and health promotion, the study found that teachers considered the top priorities for students in this area were nutritional needs, asthma, biculturalism as it applies to health and 'other' issues including those of safety and lifestyle e.g. sexuality. Teachers identified their own health education and health promotion needs as abuse awareness and education, biculturalism as it applies to health, and vision and hearing impairment education (Cole et al., 1992). Biculturalism as it applies to health refers to the importance of recognising and treating Maori health issues in a manner that is culturally appropriate and recognises the influence that being Maori can have on health. The Treaty of Waitangi signed in 1840 guarantees that Maori have certain inalienable rights associated with areas such as land ownership and the Crown (Sinclair, 1991). Ensuring Maori are treated in a culturally appropriate manner that recognises the articles of the Treaty of Waitangi has, in recent years, seen the introduction of numerous courses to address these issues particularly in the fields of health and education.

The study findings of Cole et al. resulted in several recommendations. These recommendations lead to changes in activities such as streamlining the referral and feedback process for Public Health Nurses, and focusing on asthma education and asthma management. The needs analysis allowed the Public Health Nurses to focus on

those areas of greatest need within the schools they were working, and improve methods of communication and accessibility to the service (L. Edmonds, personal communication, 23 April 1998).

Another example of a health needs analysis is that undertaken by Blakely (1996) in Porirua, New Zealand. Blakely sought to determine the health needs of Cambodian and Vietnamese refugees in the Porirua region in order to develop options for health promotion for this particular group of refugees. Twelve families were interviewed representing 68 individuals. Questions were asked about health needs, health service utilisation and barriers to health care. Eight key informant interviews were also held.

Findings from the family interviews indicated that 26 of the 68 individuals suffered from poor health and health service utilisation was high. Key informant interviews suggested undiagnosed psychiatric morbidity and problems accessing interpreting services. Other findings indicated financial constraints, language difficulties, inability to keep warm and social isolation. Options for health promotion were found to be addressing basic needs of finance, language difficulties, warmth and social isolation, ensuring adequate interpreting services in health care and addressing general and specific health concerns such as stress and mental health (Blakely, 1996). Blakely also suggests possible solutions to these problems and gives examples of similar findings from other studies.

Further examples can be found in literature from outside of New Zealand. Firstly, following a ten year infant mortality crisis in Boston, USA, that saw three

increases in the infant mortality rate over the ten years from 1984 to 1994, a comprehensive community needs analysis was undertaken in order to develop a city-wide maternal and child health improvement agenda (Rorie, Richardson, & Gardner, 1997). The community needs analysis found that there were previously unrecognised gaps in access to the health care system for women such as young teens, poor women and black women. It also found that there was a lack of prenatal care that addressed issues such as low infant birth weight and that there were gaps in information about barriers to care and infant mortality statistics (Rorie et al., 1997).

As a result of this needs analysis, one initiative that was established was the Boston Healthy Start Initiative. Part of this was the establishment of community based services to provide 24 hour midwifery care to four health centres located within the three communities identified as most affected by high infant mortality rates (IMR). As a result of these initiatives, the average IMR was 10% lower between 1993 and 1995 than the average rate between 1990 and 1992 (Rorie et al., 1997). These figures provide good evidence that the initiatives established as a result of the needs analysis targeted the correct areas and that positive health change occurred as a result.

Secondly, in Great Britain, a recent development within the health care sector has been the expectation that general practitioners (GPs) will become increasingly responsible for assessing their patient's health care needs and providing care accordingly (Ruta et al., 1997). A project based at the Alyth Health Centre in Alyth, Great Britain, sought to determine whether information on health and health care needs, when used as a basis for a priority setting exercise, could provide a useful first step in planning primary care provision within a practice (Ruta et al., 1997).

Using a three stage process of, firstly, information gathering from a variety of different sources, secondly, identification of key findings and discussion of associated issues, and thirdly, priority setting of proposals for practice development, it was found that needs analysis is useful in planning primary care provision (Ruta et al., 1997). Other benefits obtained from undertaking the project included the powerful effect on team building and the acquisition of new skills in public health. The project required those involved to become familiar with valid, replicable and reliable research techniques.

The project also uncovered some potential problems with the concept of primary care planning - particularly with regards to current funding arrangements in general practice in Britain. The need to employ a needs assessment co-ordinator and the importance of the health authority being willing and able to transfer funds from secondary to primary care were also noted as requirements (Ruta et al., 1997). These factors are also important to note from the New Zealand perspective. If comprehensive needs analysis is to be undertaken by primary health care services in New Zealand, then it is likely that health funding authority provisions will be a significant factor as will the need to employ public health/needs assessment specialists. The benefits of needs assessment as found in this and other studies will need to be recognised by funding authorities when funding decisions are made.

Another example of this kind of use of community needs analysis in Great Britain is a study done by Murray and Graham (1995) to compare four complementary methods of practice based needs analysis. Murray and Graham undertook a comparative study of four methods for the collection of health needs data. These

included rapid participatory appraisal (including interviews with a range of informants, direct observation of the neighbourhood and examination of existing documents); a postal survey; analysis of routinely available small area statistics; and collection of practice held information. Murray and Graham used a council estate of 670 homes in Edinburgh to undertake the study and found that each method produced different insights into both health and health care needs (Murray & Graham, 1995).

Conclusions from the study showed that utilising an appropriate mix of all four methods would contribute to the results of the needs analysis being more widely relevant and accurate. This was particularly the case where the results are compared against data from at least two of the other methods used in the study (Murray & Graham, 1995). Although the study was undertaken as a means of comparing methods, the participatory appraisal method resulted in health change for the community – bus routes were altered, children’s play areas were fenced off and alterations to medical facilities were made including the provision of a ramp for disabled users (Murray & Graham, 1995). Once again this indicates that the use of needs assessment in health service planning is a technique that is appropriate for implementation within a health care system similar to that of New Zealand’s and that health change can result if needs assessment is undertaken appropriately.

SCHOOL-BASED PRIMARY HEALTH CARE INITIATIVES IN NEW ZEALAND

There are no nurse practitioner-led primary health care clinics in any New Zealand primary schools at the present time. There are numerous nurse-led health

clinics based in secondary schools. In South Auckland, an initiative is underway that assesses sore throats in an attempt to decrease the rate of rheumatic fever. Ear Nurse Specialists visit schools on a regular basis in order to assess and treat ear problems in children. There are Self Referral Clinics in many schools run by Public Health Nurses. There are a number of social service providers attached to schools that provide associated health services such as parenting skills programmes and counseling, and there is a recent initiative aimed at improving co-ordination of services to 'high risk' children and their families. Services such as secondary school clinics, sore throat clinics, ear nurse services and self-referral clinics provide health services targeted largely at individual children and their individual health problems. Health interventions that have been found to be most effective and appropriate are those that view the child in the context of family (Ministry of Health, 1998a; Wright & Leahey, 1990). This section will review some of the school-based services that are available to children, young people and their families at present in New Zealand and will also point out some of the needs that these services fail to meet. As discussed previously, this will allow the reader to understand the context in which primary health care services are currently provided to New Zealand primary schools.

A recent initiative aimed at improving the well-being of families is Strengthening Families. This initiative involves the Ministries of Health and Education and the Department of Social Welfare working together with their respective sectors, to achieve better outcomes for families 'at risk'. Families 'at risk' are defined as families at risk of poor outcomes for their children in terms of health, education and safety. The focus of Strengthening Families is on achieving collaboration across the areas of health, education and welfare; assisting families to meet their care, control and support

responsibilities to their children; and improving the ability of families to resolve difficulties and problems and maximise outcomes and opportunities for their children. Strengthening Families goal is to achieve better outcomes for families and children, clearer definitions of the role and responsibilities of the three sectors working with families 'at risk', and better use of existing resources ("Strengthening Families", 1997).

There are three main areas of work for Strengthening Families. Stream One is the local co-ordination project. In each community, a local approach to helping people at the front-line work more closely together in the interests of individual children and young people has been established. The project enhances collaboration at a local level between health, education and social welfare services for families 'at risk'. Stream Two is national level co-ordination. This stream focuses on work at a national level in order to improve overall cost effectiveness, co-ordination and accountability of policies and services for families at risk. Stream Three looks at reciprocal obligations. This area analyses the obligations of parents to their children and looks at ways the income support structure can encourage parents to meet these obligations and work-related expectations ("Strengthening Families", 1997).

Strengthening Families is a long overdue initiative aimed at coordinating services to 'at risk' children, young people and their families. Strengthening Families approaches the issue of enhancing services for this group of people from the local, national and political levels. Its aim is to improve services to children, young people and their families who are considered 'at risk'. One of the disadvantages of Strengthening Families is that it focuses solely on the 'at risk' child, young person or family. The aim of a nurse practitioner-led primary health care clinic would be to

provide primary health care services to all children and their families regardless of whether they are considered 'at risk' or not.

The Ministry of Health (1998a) sees a lack of integration and co-ordination as a barrier to effective health service delivery. Using a nurse practitioner-led primary health care clinic as a base would be an ideal way of providing Strengthening Families at a local level. This would enhance both the services of the primary health care clinic and Strengthening Families. Collaboration of health initiatives is the key to improving the health of all children, young people and their families. Indeed, one of the key interventions identified as having the potential to lead to the greatest health gain for New Zealand children is improved health service delivery (Ministry of Health, 1998a).

Already there is one example of where Strengthening Families is being run within the boundaries of a primary school. The Kelvin Road Whanau Centre is a primary health care initiative that incorporates several functions in a purpose built facility in Papakura, South Auckland. Running since 1992, the Whanau Centre is funded by the Pacific Foundation and provides the services of a Family Support Team, a Plunket facility, a HIPPY (Home Instruction for Preschool Youngsters) programme, and a pre-school. The facility is located in the grounds of the Kelvin Road Primary School.

The Family Support team consisting of family support workers and social workers co-ordinate the Strengthening Families programme as well as providing assistance with such things as basic living skills, relationships, parenting skills and counseling. There are a number of educational and support groups run through the Whanau Centre. These include parenting groups for parents of pre-school, school and

teenage children, drivers license courses, health education talks, kids groups for children from the Kelvin Road Primary School including "Relating Positively" which focuses on skills for children when relating to others, and holiday programmes. All the courses are free although a 'koha' (donation) is appreciated ("Kelvin Road Whanau Centre", 1998).

The Family Support Team accepts self-referrals, referrals from the courts and Children, Young Persons and their Families Service, Public Health Nurses and through the school. At the end of each term a newsletter is sent home with each child at the Kelvin Road School outlining the upcoming courses and services available to families (R. Nash, personal communication, 23 April, 1998).

The Kelvin Road Whanau Centre prides itself in maintaining close connections with the Kelvin Road Primary School although it is run by The Pacific Foundation. Aside from running groups for children from the primary school, many of the pre-school children go on to attend Kelvin Road Primary School as do many of the children who have participated in the HIPPY Programme (R. Nash, personal communication, 23 April, 1998). The comprehensive social services provided by the Whanau Centre provide the children and their families, including those who have yet to start at the school, a head start in life that those without access to similar services miss out on. For example, children who have participated in pre-school and/or have undertaken the HIPPY programme are said to be well ahead of their peers who have not attended pre-school or undertaken a HIPPY programme once starting at primary school (J. Hall, personal communication, 12 October, 1997). Recent evaluation of the HIPPY programme confirms that disadvantaged children completing the programme are outdoing their peers (BarHava-Monteith, 1998).

The Kelvin Road Whanau Centre is an excellent example of a functioning centre providing comprehensive social services to children and families as well as Plunket services to the under five's. The only area this centre fails to address is the physical health needs of children and families over the age of five. A nurse practitioner-led clinic set up in a facility such as this would address this need.

Another recent health initiative that aims at providing primary health care to schools is Self-Referral Clinics (SRCs). Public Health Nurses throughout New Zealand run these Clinics. Usually held in Intermediate (10-13years) and Secondary Schools (13-18years), SRCs have been established as a means of providing young people with access to primary health care within their school that is private and confidential. Clinics are run during school hours, usually once per week at lunch-time, morning interval or after school.

There is a rigorous protocol that Public Health Nurses follow prior to the establishment of a SRC in a school. Firstly, the idea is discussed with the school staff in order to gain their support for the initiative. Secondly, the Board of Trustees is usually approached and the concept discussed with this group. If these two steps are successful and the school supports the initiative, then the Public Health Nurse will consult with parents and caregivers. Once community support has been obtained, the PHN must then negotiate with the school for a location to hold the SRC. Ideally this will be in a room that can be accessed privately by students without the knowledge of staff or other students. This is often the most difficult part as space is often at a premium in schools. Some SRCs are held in offices, others in sickbays, some schools are able to offer a room that is used solely for the SRC. Once these arrangements have been finalised, the PHN

then negotiates a time to hold the clinic and advertises it around the school. This is done by word of mouth, by posters and by the PHN talking to individual classes or at assemblies and inviting students to come along.

The PHN has a multi-faceted role in the SRC setting. The Clinics can be very different from school to school and especially between age groups. Where a PHN working in a SRC in a Secondary School may deal mostly with issues such as sexuality, contraceptive advice, and suicide, in an Intermediate School, the issues may be more associated with pubertal change, and making and keeping friends. Issues common to all levels include family problems, physical and sexual abuse, school problems, peer pressure and self esteem issues.

The PHN does not provide counseling but is able to make professional nursing assessments and refer urgent cases on where required. In some cases the PHN is able to provide support for the young person when they are having difficulty talking with their parents or with other agencies. The PHN has strict guidelines to follow when working with young people and although confidentiality is important, the PHN always informs the young person that in some cases it may be necessary to discuss the issue with others although this will only be done with the young person's knowledge. Examples where this may be necessary include suicidal ideation and abuse (Auckland Healthcare, 1996, September).

Self Referral Clinics have yet to be formally evaluated although it is hoped that this will be occurring some time over the next two years depending on funding availability. If the numbers of attendees are anything to go on, however, some Central

Auckland school SRCs are seeing over 50 students per month (Cleland-Weiss & Clendon, 1998). Having been involved in the establishment and running of four SRCs in the past two years, it is the researchers' opinion that SRCs provide an appropriate and accessible means of providing primary health care to young people and encourages them to be aware of and take responsibility for their own health needs. One of the current pitfalls in SRCs is that they focus predominantly on the individual student. A nurse practitioner-led primary health care clinic would greatly extend the services currently provided by SRCs and allow for active involvement of parents, caregivers and community.

Health Promoting Schools is a recent initiative being piloted in Auckland and Northland schools that encourages the participation of parents, caregivers and the community in the school. Developed originally by the World Health Organisation, a Health Promoting School is one that extends the learning environment from what is taught inside the classroom to how a student's well being is supported outside the classroom (New South Wales (NSW) Department of Health, NSW Department of School Education, Catholic Education Commission, NSW, Association of Independent Schools, NSW, 1996). A Health Promoting School recognises the essential role that health and physical education play within the school curriculum. It also recognises the influence that the school's cultural values, physical and social environment can have on the well being of students and staff. It also values the contribution which parents and other community members can make to the health of the school community (NSW Department of Health et al., 1996).

In New Zealand, development of the Health Promoting School's philosophy is being facilitated by co-ordinators employed by the local health service but working within selected schools. In Central Auckland, for example, there is one co-ordinator for eleven schools in the pilot scheme. The co-ordinator is responsible for facilitating the process of establishing Health Promoting Schools in each of the eleven schools. This involves gaining support from the school, establishing a health committee within the school (ideally made up of students, staff and community members), facilitating a needs assessment and helping the health committee develop action plans to address the identified needs. Another school involved in the pilot has a single co-ordinator for the one school, employed half by the school (Ministry of Education) and half by Auckland Healthcare Limited (one of Auckland's publicly funded healthcare providers).

The establishment of Health Promoting Schools in Auckland and Northland is being independently evaluated by Phoenix Research. Preliminary findings have generally been supportive (Phoenix Research, 1997). It is hoped that Health Promoting Schools will continue beyond the initial three-year pilot scheme and that Public Health Nurses will become facilitators of the project once the three-year pilot has ended (J. Moffat, personal communication, May 12, 1998). Schools that are involved in the Health Promoting School's pilot programme have already made a commitment to place health as a priority for their children. The holistic approach to health encouraged by the Health Promoting Schools philosophy would complement a health education and health promotion focus of a nurse practitioner-led clinic.

CONCLUSION

This chapter has looked at numerous examples of nurse practitioner-led primary health care clinics. The examples confirm that such clinics based in primary or elementary level schools are a successful means of addressing the primary health care needs of children and families (Jones & Clark, 1997; McClowry et al., 1996; Wenzel, 1996; Bureau for Primary Health Care, 1995). The chapter has also examined examples of needs analyses that have resulted in health change, and examples of current school based health initiatives in New Zealand. All three areas provide a background understanding of the issues surrounding nurse practitioner-led primary health care clinics internationally, the importance of community needs analysis as a preliminary tool in health planning, and the context of current primary health care provision in primary schools in New Zealand. Examples have also been given of how a nurse practitioner-led clinic established in a primary school in this country may complement and enhance many of the services already provided. The next chapter discusses the method used for this research in detail.

CHAPTER 3 – METHOD

In this chapter the method used to undertake this research – community needs analysis - will be outlined. The background to community needs analysis will be examined and validated as an appropriate means of research. Data collection techniques, including demographics, key informants and focus groups will be discussed, and, finally, organisation, analysis and techniques to assist interpretation will be described.

COMMUNITY NEEDS ANALYSIS

Community needs analysis can be defined as the process of assessing and defining needs, opportunities, and resources involved in initiating community health projects (Haglund et al., 1990). Harvey (as cited in Billings & Cowley, 1995) considers community needs analysis simply as an illustration of factors that must be addressed to improve the health of a population. As mentioned in chapter two, the outcome of community needs analysis results in a compilation of information that will indicate the ultimate direction of planning for a project. Community needs analysis is a first critical step in shaping the design of project interventions as well as adapting those plans to unique community characteristics (Haglund et al., 1990).

The product of community needs analysis is a dynamic community profile that combines quantitative data on health and illness statistics and demographic indicators with qualitative information on political and socio-cultural factors (Haglund et al., 1990). The community profile looks at history, local government, current resources,

readiness and potential for health change, as well as incorporating community members' views on the proposed health change. Lillie-Blanton and Hoffman (1995) claim that:

The methods used in needs assessments vary but are based upon techniques used in epidemiology, health services research, and the social sciences. The techniques, when applied with a sensitivity to a community's past experiences and present concerns, are an excellent tool for understanding the needs of a community. (Lillie-Blanton & Hoffman, 1995, p.226.)

Integral to this project has been establishing the level at which the community would be willing to accept and utilise a nurse practitioner-led initiative.

Examples of Community Needs Analyses

Community needs analysis and needs assessment are increasingly accepted methods of research for health service providers. As previously noted in chapter two (pages 25-33), successful examples of both can be found throughout British and North American literature. Ruta et al. (1997) describe the use of needs assessment in order to improve planning for the provision of health services in Alyth, Great Britain. Their study confirmed many of the primary care teams' perceptions of how well their practice's needs were being met, confirmed that there were some unmet needs, and also showed some unmet needs that the team were not aware of (Ruta et al., 1997). Rorie, Richardson & Gardner (1997) describe the use of community needs analysis to develop a city-wide maternal and child health improvement agenda. Such examples of

community needs analyses and needs assessment in health research indicate the increasing validity and acceptability of these forms of research.

Advantages of Community Needs Analysis

One of the advantages in the process of community needs analysis is that it offers an opportunity for involvement of the community in a community health project at or from the initial stages of the project. Health is considered as something that is promoted through partnerships that involve collaborative working relationships and meaningful interactions between health care providers, the community, and local government and resources. It is not something that is 'given' to a community by health care providers (Bushy, 1997). Involving local community members and organisations in the study process increases awareness and ownership of the program (Haglund et al., 1990). This, in turn, results in increased utilisation of services.

A second advantage to community needs analysis is that the outcome provides a unique community profile that can be used to specify future directions for health planning (McClennan Reece, 1998). Services can then be targeted directly to meet identified needs.

Disadvantages of Community Needs Analysis

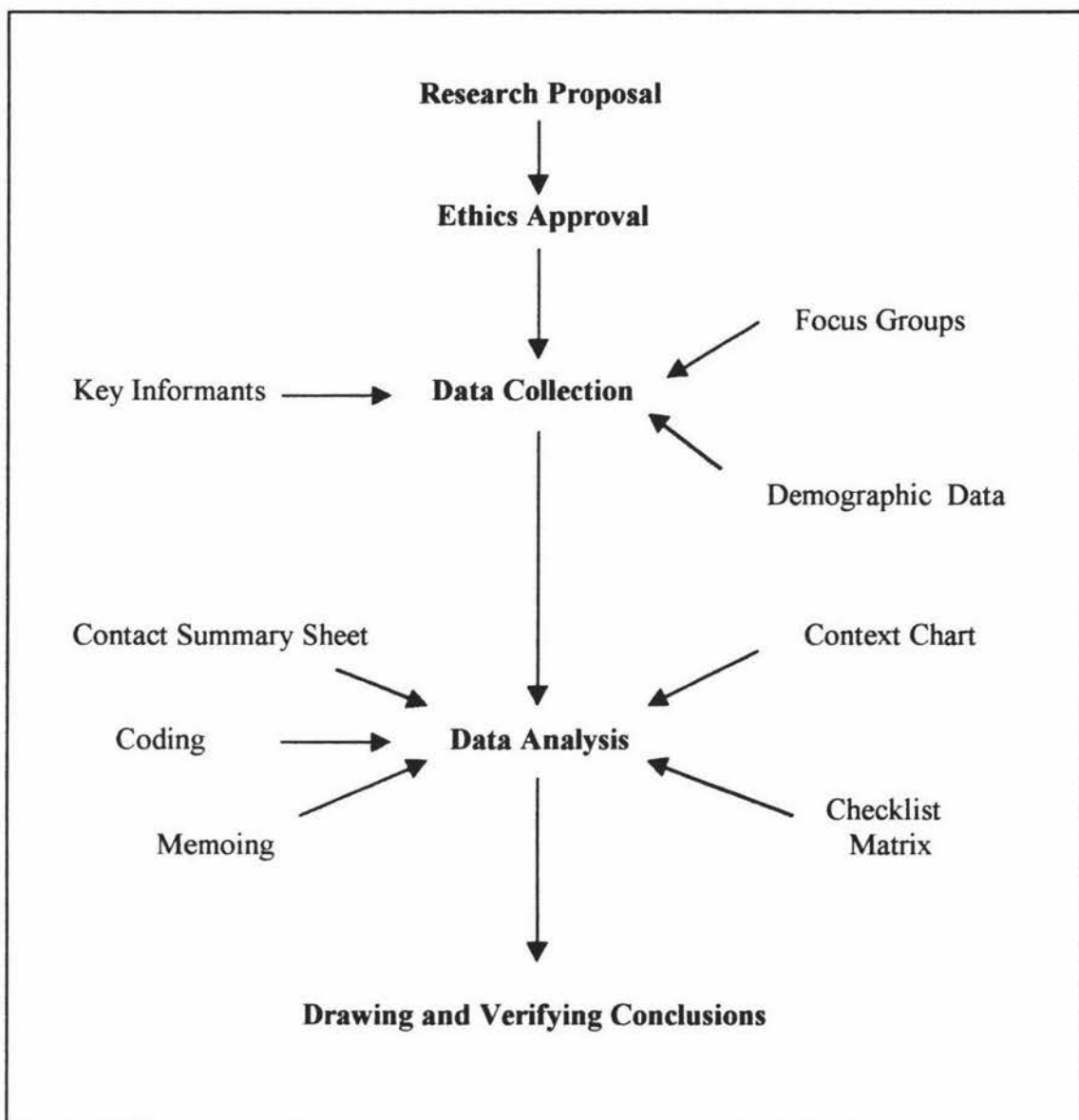
It is important to recognise the limitations of community needs analysis. Although a community needs analysis can provide valuable data about a community and give indications for the direction of health services, it can not provide the answers to all health problems. There are two main areas that need to be considered in conducting a

community needs analysis. Firstly, some of the data used for quantitative comparison may not be available for the specific group being studied. For example, census data may not match the exact community being studied. Also to be considered when using quantitative data is that incidence does not necessarily indicate need and that such classifications as those found within census data may lead to professional stereotyping rather than recognising individual variation within the classifications (Billings & Cowley, 1995). These factors certainly point toward the importance of using a combination of data sources above and beyond quantitative sources that may include focus groups and key informant interviews. Secondly is the issue of creating expectations in a community about services that may be provided. Raising community awareness about health issues and needs may lead to unrealistic expectations among community members which need to be clarified from the outset (Declercq, Bichell, & Center, 1997). As long as these limitations are recognised and allowed for, community needs analysis remains a valid form of academic enquiry.

THE RESEARCH PROCESS

Figure 3.1 (page 47) displays the research process in a diagrammatic format. In the following sections this diagram will be used as the basis for describing the research process.

Figure 3.1 The Research Process



Research Proposal

The first stage in preparation of this research was the development and writing of a research proposal.

Ethics Approval

The preparation of the research proposal allowed the researcher to apply for ethics approval from the appropriate ethics committees. In this case it was necessary to approach both the Massey University Human Ethics Committee and the Health Funding Authority Northern Region North Health Ethics Committee (Formerly the North Health Human Ethics Committee). Although applications were made to both committees, it was necessary only to gain approval from the Massey University Human Ethics Committee. The study was not considered to be within the jurisdiction of the North Health Ethics Committee and was therefore not considered to need formal approval. See appendix two for copies of letters from both Ethics Committees.

Data Collection

Figure 3.2 - Sources of Data (page 49) - shows the sources from which data has been obtained for the purposes of this research. In the following paragraphs each area of data collection, including study parameters, demographic data, key informants and focus groups is outlined and the process of identifying and justifying the inclusion of each group within the research is detailed.

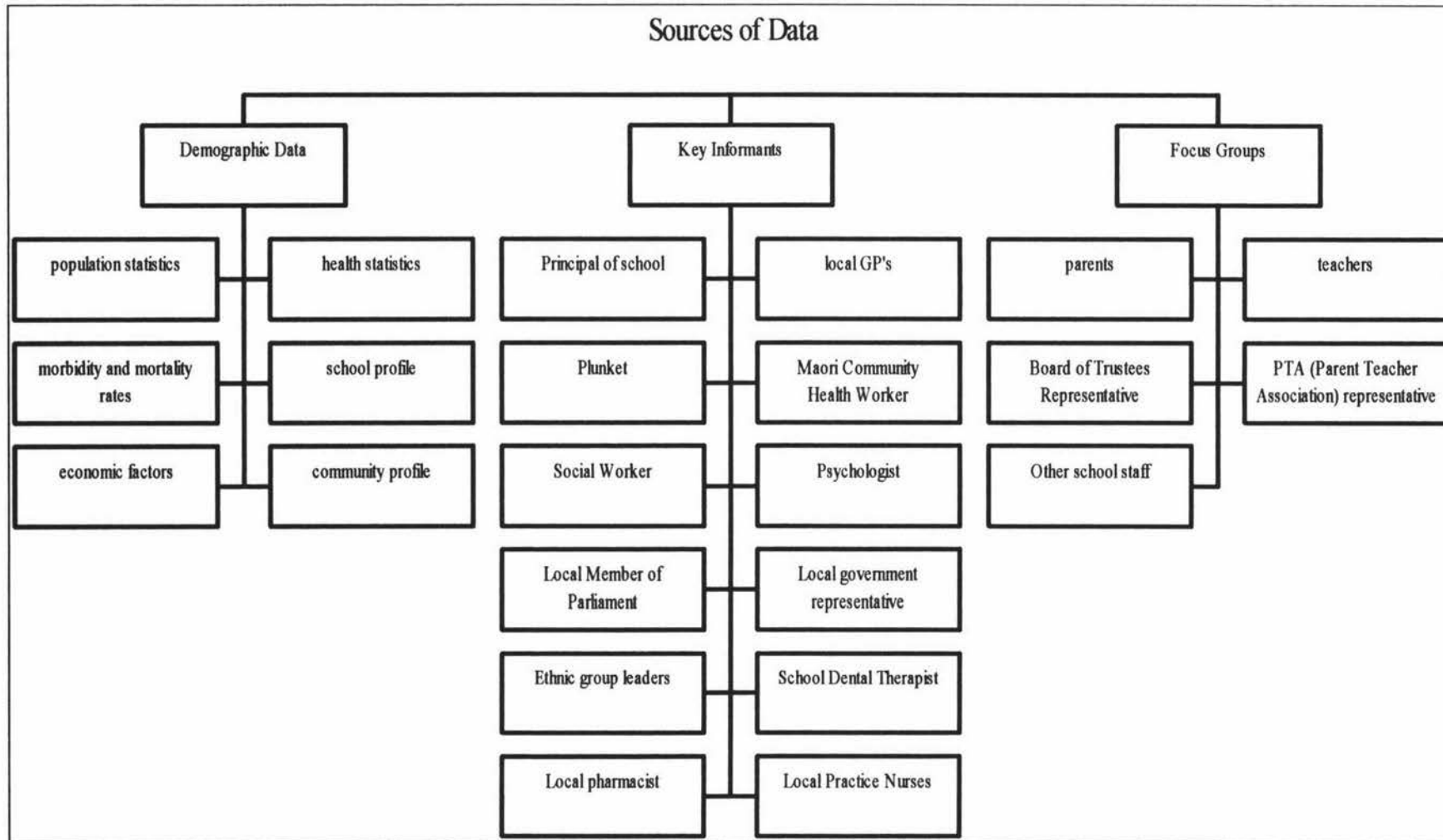


Figure 3.2 Sources of Data

Study Parameters

Definition of the community to be studied has been the key to the success of the research. For the purposes of this research, one school has been selected for a case study and that school and its surrounding physical and social environment constitutes the community. The school has been selected based on socio-economic indicators, Ministry of Education decile ranking (a ranking assigned to each school based on the socio-economic status of it's student population where 1 is the school with the lowest socio-economic status and 10 is the highest), ethnic diversity and population. The school that is the focus of this study has a decile ranking of less than four and has a school population of more than four hundred. It also has a considerable ethnic diversity. It is located in an urban area. By identifying these parameters for the research, other urban school settings that match the criteria may be able to use the research findings for their own purposes, however the needs indicated are specific to the school and community studied.

Demographic Data

The collection of demographic data ensures that the total data collected is seen in the context of the socio-economic status of the community as well as in the opinions of the community members and workers within the area. It is used to enable the researcher and the reader to create a picture of the community being studied and allows for a greater understanding of the issues facing the residents in the community. Many needs analyses focus solely on demographic indicators of need and disregard the importance of balancing demographic data with the views and opinions of community members (Billings & Cowley, 1995).

In this community needs analysis, the community is described according to population, age, sex and ethnicity factors. Family structure, education levels, and economic indicators such as beneficiary rates and un/employment rates are also used. Mortality and morbidity rates, and health indicators of government identified target groups - Maori, Pacific Island and children – are examined. An attempt has been made to extrapolate the health data for the target groups to the community under study.

A description of currently available health and social services provided to the school and available within the immediate geographic area of the selected school has been included in order to complete the picture of the community.

The demographic data has been sourced from readily available population statistic sources including the 1996 Census (Supermap, 1997), Ministry of Health publications (Ministry of Health, 1997a; 1997b; 1998a; 1998b), Statistics New Zealand publications (Statistics New Zealand, 1995; 1998) and Auckland Healthcare (1996b).

Key Informants

In order to complete the total picture of the community and incorporate the demographic data on the community with the opinions of its residents, surveys to gather data on the perceptions and views of the community have been undertaken. The first group of participants is the key informants.

For the purposes of this research, the key informants are considered to be those members of the community who hold positions within healthcare or social services or

who hold positions of authority and respect within the community in question. They include healthcare and social service providers, local and national government representatives and community members. The combination of data from key informants, the focus groups and the demographic data results in the accumulation of the greatest possible knowledge about the community itself. The benefits of consultation with members of the community in this manner ensures that the views and opinions of the community members themselves are heard and provides greater weight to research findings – particularly where the research may be used to apply for funding or for policy change (Billings & Cowley, 1995).

The key informants used for this research, starting with the Principal of the selected school, were invited to take part in an interview. During that initial interview the Principal was asked the names of other key informants who could be interested in the project. Key informants were then approached by telephone or in person and the topic was introduced. If the potential informant was interested a letter was sent inviting the informant to take part in the study and information about the study was presented formally. Each key informant was asked if they knew of other key people who could be interested in participating. The use of this snowball technique enabled identification of key informants throughout all sectors of the community. Because potential informants held key professional roles within the community, this technique of snowballing was not considered to be a breach of confidentiality. Their roles in the community are part of the public domain. Where participants agreed to take part, they were given the option of using a pseudonym. The key informants were not in a position to know the identity of other participants.

Healthcare and social service providers in the community invited to take part in an interview consisted of those health and social service providers in the immediate geographic vicinity of the selected school. If participants consistently identified further providers then these people were also invited to take part in an interview.

Focus Groups

The final area of data collection was the use of two focus group interviews. Focus groups are defined as a group of usually 4 to 15 people assembled for a group discussion who have been chosen on the basis of certain characteristics which make them suitable for discussing the topic of the research (Reviere, Berkowitz, Carter & Ferguson, 1996; Polit and Hungler, 1995; Kreuger, 1994) and/or who are members of an existing group that the researcher approaches and interviews in a setting appropriate to the group (Frey & Fontana, 1993). Focus groups are led by a moderator or facilitator who is able to guide discussion and ensure participation by all present. The facilitator must be knowledgeable about the topic under discussion and about the nature and characteristics of focus groups (Reviere et al., 1996). There are several different varieties of focus group interviews including pure focus groups, brain storming, nominal and delphi groups, and natural and formal field interview groups. Each follows a series of criteria making it most appropriate for the particular purpose of that focus group (Frey & Fontana, 1993).

The use of focus groups as a method to be used during needs analysis is strongly advocated (Billings & Cowley, 1995). Advantages to using focus groups include:

- the knowledge that consumers are aware of their contributive strengths and limitations in the needs assessment process (Billings & Cowley, 1995)
- that people are placed in natural, real life situations that allow them to be relaxed and often to express thoughts more readily (Morgan, 1993)
- a format which allows the researcher to probe more deeply into issues as they arise without being limited by a quantitative survey (Kreuger, 1994)
- a high level of validity and findings can be easily presented in non-technical language that can be understood by the average reader (Kreuger, 1994).

There are some limitations to the use of focus groups, however. These can include:

- the researcher having less control over a focus group than over individual interviews
- greater difficulty in data analysis as it must be considered within the context of a group situation and discussion may be influenced by group processes
- the need for careful consideration with regards to location, variance from group to group, difficulty and time required to assemble a group
- individuals being stifled rather than stimulated by group discussion (Kreuger, 1994; Frey & Fontana, 1993).

In this research, using the criteria defined by Frey & Fontana (1993) two formal field group interviews were used in a pre-set location, where the role of the interviewer was somewhat directive and the question format was semi-structured. Members of two established groups (a parent group at the school and a health promotion group (Health Promoting Schools Committee) made up of parents and school staff)

were invited to take part in two focus groups following the same semi-structured interview plan as that used for the key informant interviews discussed earlier. The Health Promoting Schools facilitator in the health promotion group invited the group members to take part in a focus group discussion that was then led by the researcher. A member of this first group then invited members of the second (parent) group to take part in the second focus group that was then also led by the researcher. Representatives from the school Board of Trustees and the Parent Teachers Association were present in the first focus group. The first focus group had three participants and the second focus group had four participants.

The Interview Schedule

Interviews with all participants followed a semi-structured interview plan (See Appendix 3) with questions based on the necessity of establishing the health needs of the community in question, the knowledge of the community with regards to the services provided by the Public Health Nurse, and the practicalities of establishing a nurse practitioner-led primary health care clinic. The semi-structured interview plan was pre-tested on a person in a position to be considered a key informant within an urban area outside of the study area and adjustments were made accordingly. The semi-structured interview questions and the justification for the inclusion of each question in the study follow.

Question 1.

What do you consider to be the health needs of your community – in particular the children and families of your school? Try to think as broadly as possible when you think about health, so not just physical health but also mental health and spiritual health.

Justification

This question was asked in order to establish the health needs of the community in question through the eyes of the community residents and those health care and social service providers who work in the area. The reason for this was to establish what issues people consider to be the most important and whether they could be addressed by a nurse practitioner-led primary health care clinic based in the local primary school.

Question 2

What Clinics are available in your community for your school children and families with regards to preventing ill health?

Justification

This question was asked in order to establish two things: a) what clinics were already available within the community studied that focused on preventative health care

and were accessible for the community and b) what knowledge community members and key informants had of clinics that focused on preventative health care. If clinics already existed that focus on preventative health care for school age children then this would have to be considered very carefully before establishing any more clinics in the area. Also of importance is establishing the knowledge base of the community regarding preventative health care as this could have implications for later utilisation of a clinic. For example, if participants' knowledge regarding accessing existing preventative health care is poor then utilisation of a clinic that focused on preventative health care could also be poor if appropriate promotion was not undertaken.

Question 3

Has there ever been any health clinic or service run in this community that hasn't worked? Can you give examples?

Justification

The purpose of asking this question was to establish if there had been any previous health clinic or health service established in the area that had been set up and then failed or been relocated and why. If any clinic or service had been established and failed, this could have implications for the establishment of a new clinic in the area and provide an idea of pitfalls to be avoided in the setting up and continuation of a new clinic or service.

Question 4

Can you think of any ways in which the health needs you outlined above could be addressed?

This question is placed in this position although it is logical that it would follow directly on from question one. It was asked as question number four in the semi-structured interview plan in order to check for reliability of response from participants throughout the interview.

Justification

The community often has many ideas on ways in which health needs can be best addressed within their community. By asking this question, ideas regarding the ways community members and those working in the community felt health needs could be best addressed were elicited. Potentially, the ideas could then be incorporated into any new health initiative as appropriate. As noted earlier, one of the advantages of community analysis is involvement of the community in the study process which in turn increases awareness and ownership of the programme should a new initiative be established (Haglund et al., 1990).

Question 5

Your school has a Public Health Nurse who visits regularly. What services does she/he provide to your school?

Justification

Public Health Nurses already provide regular health services to schools in the Auckland region. Running a primary health care clinic within a school could be seen as a natural extension of the service the PHN already provides. If this were to be the case then gauging the community's opinion and knowledge regarding the services provided by the PHN already would give a background to what services those people would expect as a minimum to be provided within a regular health clinic at the school. This question also provides useful information for the providers of Public Health Nursing services to schools as it shows the community's perception of current PHN services. PHN service providers can then build on this knowledge to enhance and improve their service to the community.

Question 6

Have you ever used the services of the Public Health Nurse?

Justification

As previously mentioned (page 4), Public Health Nurses already provide school based health services. This questions examines peoples utilisation of PHN provided services to the school and makes it possible to draw conclusions regarding current usage. From this it can be assumed that people would continue to use a PHN service in the future if it continued at least at it's current level of provision. The

question also gives some indication of whether or not people would use a primary health care clinic run by the Public Health Nurse at the school.

Question 7

Can you think of any other services that the Public Health Nurse could provide to the children and families in your community?

As for questions one and four, it would seem logical that this question should follow question five. However, it has been placed in this position in the interview plan in order to check for reliability of response from participants throughout the interview.

Justification

This question has been used to determine what services participants could foresee a Public Health Nurse providing in an ideal world with unlimited funding and possibly further education. Given that participants knew that the PHN already provides school based health services, this question is useful to provide information about what the community thinks the PHN could provide over and above what he or she already provides to the school. The results may then be used to help decide what services the community believes a nurse practitioner-led clinic could provide at the school.

Question 8

Do you think that a clinic run by the Public Health Nurse in your school available to children and their families would be a service that you would use:

- a) If it were free?*
- b) If you had to pay – how much would you be willing to pay?*

Justification

This question was asked in order to establish whether participants thought people would be willing to pay for the use of a clinic run by the PHN at the school. If they thought that people would be willing to pay, then it was asked how much they thought people would pay. The answer to this question provides the basis for whether or not to charge clients if a clinic is set up and how much to charge them. (Funding arrangements may dictate whether it is necessary to charge or not. However, this question gives the community's perception on charges if there was a choice.)

Question 9

What services would you expect a clinic like this to provide?

Justification

This question provides the basis for what services could be offered within a nurse practitioner-led primary health care clinic based in a primary school. This allows for the establishment of a clinic that would provide services that are indicated by the

community as being wanted and needed. This ensures services provided are more likely to be used.

Question 10

Would the children and families in this community use a clinic like this?

Justification

This question was asked to find out whether participants thought that community members would use such a clinic. After all there is little point in establishing such a service if it were thought that no one would use it.

Question 11

For the community to have access to a health care clinic, what would be the best opening hours?

a) 9-12 b) 9-5 c) 11-2 d) 4-8pm e) other _____

Justification

This question was asked in order to obtain participants perceptions on what they thought the most appropriate opening hours were in order to ensure that the community had optimum access to the clinic in order to meet their needs. This then

gives the administrators of such a clinic an idea of when maximal usage may occur according to the community and planning can be done accordingly.

THE PROCESS OF ANALYSING THE DATA

The Quantitative Data

A comprehensive description of the community was undertaken and resulted in sufficiently extensive quantitative data that it has been collated into a chapter on its own (Chapter Four). Analysis was exploratory and descriptive.

The Qualitative Data

In order to obtain results that will be useful for decision-making purposes, it is necessary to compile, analyse and interpret the data in an appropriate manner. The process of ordering and analysing the qualitative data in order to identify health needs utilised techniques incorporating the use of coding and matrices. These techniques allow for appropriate data reduction, display and verification (Miles & Huberman, 1984). Utilising these techniques ensured large quantities of qualitative data were effectively analysed without loss of meaning or gross generalisation.

Qualitative data analysis used the following techniques as adapted from Miles and Huberman (1984):

1. Context chart – uses graphics to map inter-relationships among organisations and people in order to clarify individual behaviour. Also includes text about participants. (See Appendix 4.)
2. Checklist matrix – used to analyse field data. Enabled organisation of several components of a single, coherent variable. (See Appendix 5.)
3. Coding – used to classify groups of words into categories to enable easier analysis. (See Appendix 6.)
4. Contact summary sheet – a single sheet containing focusing and summarising statements about an interview in order to provide a summary of the interview. (See Appendix 7.)
5. Memoing – used during analysis to write up ideas about patterns and themes that became clear during coding.

The process undertaken by the researcher started with the audio recording of each interview with consent of the participant/s and the researcher making notes during the course of the interview. Following each interview, the researcher used the contact summary sheet to make notations of the main points made during the interview. Toward the end of undertaking the interviews, memoing was used to note themes and ideas that became clear as the research progressed. Once the interviews were complete, the researcher compiled the information gained from the note taking, contact summary sheets and memos to create a checklist matrix for each question. This displayed the responses to each question in a format that allowed the researcher to then undertake coding of each question.

Conclusion

The final analysis incorporated the quantitative and qualitative data and was both exploratory and descriptive. The health needs of the community were identified, perceptions of the role of the Public Health Nurse were examined and the degree to which the community was willing to accept and support the establishment of a nurse practitioner-led clinic and what services they would require was established.

CONCLUSION

In this chapter the method of community needs analysis and how the method has been employed for this study has been discussed. Community needs analysis has been shown to be a valid form of academic inquiry and the advantages and disadvantages have been discussed. The manner in which the data has been collected, organised and analysed has also been discussed.

The following chapters detail the results from the data collection. In chapter four the demography of the community being studied is described, and in chapter five, the results of the interviews held with the focus groups and the key informants are outlined under three major headings: Health Needs, Public Health Nurses and The Clinic.

CHAPTER 4 – THE DEMOGRAPHY OF THE COMMUNITY

This chapter discusses the demographic profile of the community studied. It also looks at key health statistics for target groups in the area that were identified from the demographic profile as possibly having greater health needs. Those groups are children, Maori, Pacific Island people, Asians and refugees.

The chapter has been divided into two sections. Firstly, the community profile including the demographics of the community, the health and social services available in the community, and the school profile. Secondly, health statistics including child health statistics, Pacific island health statistics, Maori health statistics, Asian health issues and Refugee health issues.

This information is needed in order to present the greatest possible understanding of the area studied from the perspective of known demographic and health data. Once this is combined with the data obtained from the key informant and focus group interviews in later chapters, the knowledge regarding the community will be sufficient for identifying the feasibility of establishing a new health initiative and funds can be targeted appropriately.

COMMUNITY PROFILE

The community studied for this research is located centrally in a large urban area. There are three main shopping areas within the community. One has a largely Indian focus with numerous retailers providing items such as halal meats, Indian fabrics,

Indian restaurants and curried and spiced foods. One has a largely Asian focus with Chinese medicine, Asian restaurants, and two Asian food supermarkets, and the third is a large shopping mall with a variety of retail, food and service outlets. There are three schools within the area – one primary school (the focus of this study), an intermediate school, and a Maori immersion school (a school where the language of teaching is Maori). There is one kindergarten and several day care centres. There are numerous churches and religious organisations from a variety of denominations. There is a mixture of housing including ex-state housing blocks, current state housing blocks, older, renovated bungalows and villas, new townhouse complexes and numerous subdivided sections that have had townhouses built on them.

Demographics of the Community

The following demographic data give an indication of the make up of the community in comparison with the national norms. The demographics are taken from the 1996 census using the CD ROM Supermap (1997), published by the Department of Statistics and provided by Auckland Healthcare's Public Health Protection Unit. The demographics are for an area made up of three census area units which correspond directly to the zoning depicted by the school for its student intake. This is an area approximately 8 kilometres square.

The figures found in Table 4.1 (page 70) allow some assumptions about the community being studied to be made. The ethnic breakdown shows that there is a lower percentage of European and Maori residents but a higher than average number of Pacific Island and Asian residents. Pacific Island ethnicity includes people from the

South Pacific Islands including Samoan, Cook Island Maori, Tongan, Niuean, Tokelauan, Fijian, Tuvalu, Papua New Guinea, Vanuatu, Solomon Islands and Kiribati, as well as those people of Pacific Island ethnic origin born in New Zealand (Ministry of Health, 1997b). Asian ethnicity includes people from China, India, Laos, Vietnam, Cambodia, Thailand, Japan, The Philippines, Malaysia and Sri Lanka. The border of this region stretches from east of the Iran/Iraq border to the Philippines and West Irian (Statistics New Zealand, 1995). The percentage of families that are one parent families is 19%, slightly higher than the national figure, and 35% of residents receive some kind of income support payment. The percentage of residents that have a qualification higher than or equal to school certificate is 66%. The median personal income is \$2122.50 lower than the national median personal income of \$19,915. The rate of unemployment is slightly higher than the national rate and the rate of gainful employment is lower.

What these figures indicate is that the community overall has a high Pacific Island and Asian population, unemployment rates are high and the median personal income is low. Of note is that two thirds of residents have a reasonable level of education – 66% have school certificate or higher. Further breakdown of educational categories shows that 28.3% of those with qualifications have a trade or advanced trade certificate or other tertiary qualification (below the level of a bachelor's degree). This confirms the high Pacific Island population who are traditionally less likely to attend university (Ministry of Health, 1997b). In conclusion, these factors indicate that this community is more likely to be prone to health problems identified as typical of middle to lower socio-economic areas and those with higher Pacific Island and Asian populations.

The Social Deprivation Index (NZDep96)

The New Zealand Social Deprivation Index (NZDep96) provides a deprivation score for each census meshblock in New Zealand (a meshblock contains a median of 90 people). The scale of deprivation divides areas into tenths. For example, a value of ten indicates the meshblock is in the most deprived 10% of areas in New Zealand (Crampton, 1998). The NZDep96 reflects eight dimensions of deprivation – communication, income, employment, transport, support, qualifications, owned home and living space (Crampton, 1998). Each dimension has an associated variable – for example, communication calculates the proportion of people with no telephone, employment calculates the proportion of people aged 18 to 59 years old who are unemployed.

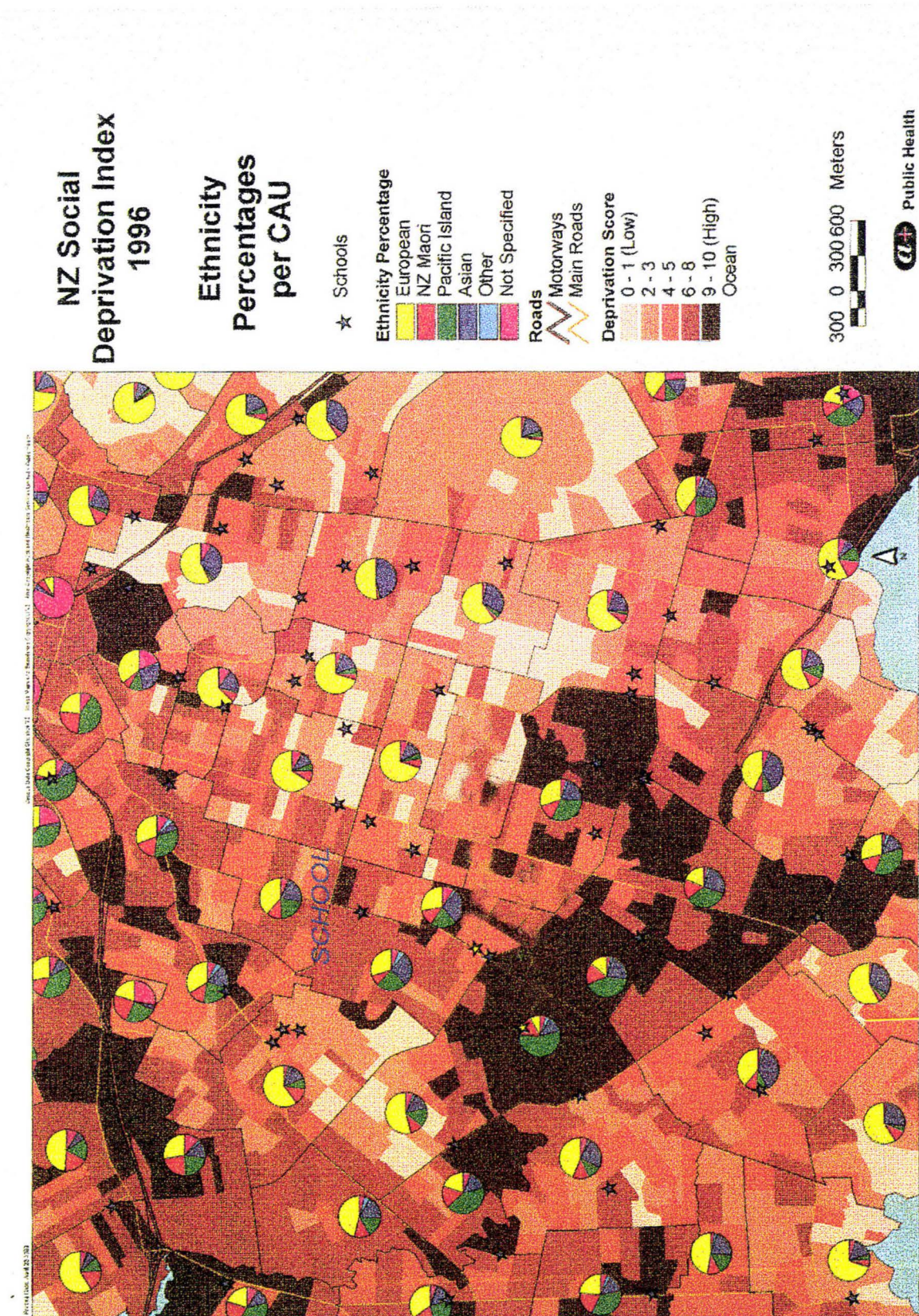
The New Zealand Social Deprivation Index found in Figure 4.1 (page 71) shows the school being studied is in an area that has largely a medium high (6-8) deprivation score, and a high Asian and Pacific Island population. This confirms that the community studied has needs associated with middle to low socio-economic status and those with high Asian and Pacific Island populations.

Figure 4.2 (page 72) shows the incidence of specified infectious diseases in the community. There have been no cases of the specified diseases in the area surrounding the school being studied.

Table 4.1 Community Demographics Compared With National Demographics

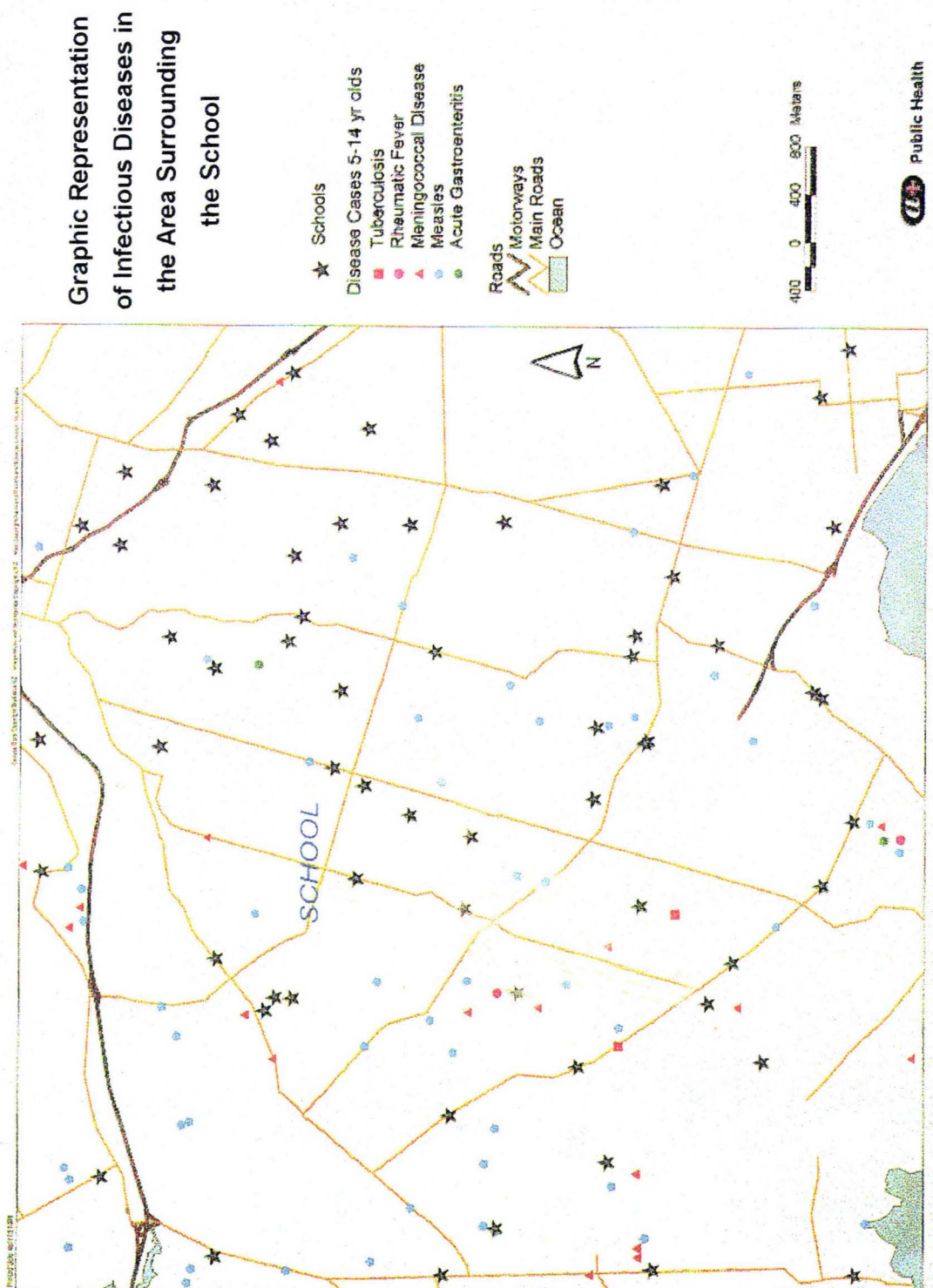
Topic	Area Studied	New Zealand
• Total Population	9628	3,681,000
• Male	48% (4623)	48% (1777462)
• Female	52% (5052)	52% (1840840)
• Children <14 years	19% (1866)	23% (832100)
• % of elderly > 65 years	10% (1005)	11.5% (422667)
• Ethnicity –		
European	54% (5187)	72%
NZ Maori	8% (798)	(2,496,552)
Pacific Isl.	13% (1287)	15% (523371)
Asian	18% (1755)	6% (202233)
Other	2% (183)	5% (173502)
Not Specified	5% (468)	0.5% (16422)
• Total # of Dwellings	3629	1,400,000
• Total # of Families	2310	
• Total # of one Parent Families	19%(450)	18%
• Number of people gainfully employed in the workforce	48% (4608)	58%
• Total Number Unemployed	5% (507)	4.9%
• Median Personal Income	\$17,797	\$19,915
• Total number receiving income support payments	35% (3342)	27% (987228)
• Average Age	33	34
• Highest Qualification		
- School Certificate or higher	66% (4359)	58% (1491675)
- No Qualification	26% (1728)	31% (805311)
- Not Specified	8% (564)	6% (154098)

Figure 4.1 New Zealand Social Deprivation Index, 1996, Showing School at Centre of Study



Census Data Copyright Statistics NZ Image Maps and Boundaries Copyright LINZ Map Copyright Auckland Healthcare Services Limited – Public Health

Figure 4.2 Graphic Representation of Infectious Diseases in the Area Surrounding the School



Health and Social Services Available Within the Community Studied

- Within the boundaries of the community and school being studied the following services are available:
 - 16 General Practitioners
 - 3 Dental Centres
 - Plunket (A New Zealand scheme that provides well child checks for children and infants under the age of 5 years)
 - 2 Optometrists
 - 6 Pharmacies
 - A Family Planning Centre
 - A Family Life International Pregnancy Centre
 - 2 Chinese Medicine practices
 - 1 Podiatrist
 - A Chinese massage centre
 - A Natural therapies clinic and retail outlet

- Services available to or at the school include but are not limited to:
 - Special Education Services (SES)
 - A Public Health Nurse
 - A Dental therapist – not at school full time
 - Health education programmes e.g. DARE (Drug and Alcohol Resistance Education), KOS (Keeping Ourselves Safe)
 - A School psychologist

- Services available to residents in the area but not necessarily based in the area include but are not limited to:
- Mental Health Services including CCAFS (Community Child, Adolescent and Family Service) for children
- A support group for immigrant women
- Maternity Services including antenatal and postnatal care
- Access to private accident and medical centres
- Access to emergency medical treatment through normal channels e.g. 111 system

School Profile

The school at the centre of this research collects certain statistics when a child enrolls at school. A form that is used in many schools throughout New Zealand is given to the parent or caregiver of each child enrolling to be completed and returned to the school. This form collects information such as ethnicity, parent/caregiver names, occupations, address, telephone and health needs of the child. Discussions with the school's administration officer found that the forms are not well filled out with much of the data incomplete. The school ensures that basic data is present such as contact phone number, but the remainder is not stringently followed up on. However, the following tables give an indication of the profile of the school compared to local and national figures. Table 4.2 (page 75) shows the enrolment data, Table 4.3 (page 75) shows the broad ethnic breakdown, Table 4.4 (page 75) shows a more specific ethnic breakdown into country of origin and Table 4.5 (page 76) shows health concerns listed by the parent or caregiver.

Table 4.2 Enrolments (1998)

Enrolment Category	Number
Total Number Enrolled	680
Male	47% (317)
Female	53% (363)

Table 4.3 Broad Ethnic Breakdown (1998)

Broad Ethnic Breakdown	School	(Local Figures)	(National Figures)
European	28%	54%	72%
NZ Maori	11%	8%	15%
Pacific Island	20%	13%	6%
Asian	34%	18%	5%
Other	6%	2%	0.5%

Table 4.4 Specific Ethnic Breakdown (1998)

Ethnicity	Number	Ethnicity	Number
Algerian	1	Korean	7
Arabic	1	Macedonian	2
Bangladeshi	36	Malaysian	2
Bengali	1	Maori	76
Bolivian	2	Niuean	15
Burmese	1	Other	2
Chinese	70	Pakistani	7
Cook Island	19	Peruvian	2
Croatian	1	Polynesian	1
Ethiopian	1	Rarotongan	3
European	178	Russian	6
Fijian	3	Samoan	57
Fijian Indian	14	Serbian	2
Filipino	2	Somalian	9
Indian	83	Sri Lankan	8
Iranian	6	Thai	5
Iraqi	3	Tokelauan	3
Japanese	2	Tongan	38

Table 4.5 Health Concerns Identified By Caregiver At Enrolment (1998)

Health Concern Identified by Caregiver	Number
Allergy	25
Asthma	34
Bee stings	6
Bronchitis	1
Eczema	4
Epilepsy	2
Glue ear	1
Hayfever	1
Sight	1

There does appear to be inconsistencies in Table 4.5 that may reflect the number of forms incompletely returned to the school. For example, the health concerns listed do not reflect the health needs of refugee people as discussed later in this chapter. This may be due to poor English skills of refugee people. Also the number of health concerns listed is equivalent to only 11% of students. This figure does not appear to be accurate especially given that an estimated 44% of New Zealand children experience asthma symptoms alone at some time before age 15 (Ministry of Health, 1998b).

The statistics do show that the school at the centre of this study has a similar ethnic breakdown to the community with a high Pacific Island population and a high Asian population. When examining the more specific ethnic breakdown, it is important to note the high numbers of people from refugee countries, for example, Bangladesh, Ethiopia and Somalia. Once again, these figures indicate that many of the health problems faced by the children at the school will be similar to those suffered by people from lower socio-economic groups, Pacific Island, Asian and refugee populations.

HEALTH STATISTICS

The following statistics indicate the major health issues for several target groups – children, Pacific Island people, Maori and refugees. There is also a brief examination of Asian health issues. These groups have been identified from a variety of sources as those with the greatest health needs within the community studied, within Auckland and nationally (Auckland Healthcare, 1996b; Durie, 1994; Ministry of Health, 1997a; 1997b; 1998b). The statistics provide a background understanding of the major health issues facing each group which, when combined with the interview data in later chapters, is essential for understanding the overall health needs of the community. For a more detailed discussion on the implications of how the health statistics fit in with the findings of this research see chapter six.

Child Health Statistics

The following statistics are offered by the Ministry of Health (1998b).

- The total number of children aged 0-14 living in NZ is 832,100 (23% of the total population).
- 60% are European, 24% Maori, 7% Pacific Island, 5% Asian, 0.5% other and 4% unknown.
- The child mortality rate (ages 0-14years) is 76 deaths per 100,000 children. Major causes of death include SIDS (Sudden Infant Death Syndrome), injury, poisonings, and cancer. Internationally, New Zealand is ranked 15th out of 21 OECD countries for the 0-4 year mortality rate. This is a fall from a position of 6th in 1960.

- The child morbidity rate (defined as hospital admissions which excludes attendance at outpatient clinics and emergency departments so is therefore an underestimate) for ages 0-14years is 13,450 hospitalisations per 100,000 children. Major causes of hospitalisation include: respiratory conditions, infectious and parasitic disorders, injury, and poisoning.
- The Ministry of Health Goal (1997a) is to improve and protect the health of children. According to the Ministry of Health (1997a), recommended objectives for achieving this goal are:
 - to reduce *tobacco* use, exposure to environmental tobacco smoke, and their adverse health consequences
 - to protect children from preventable *infectious diseases*
 - to continue the reduction in rates of *sudden infant death syndrome* (SIDS)
 - to reduce death rates and disability from *unintentional injuries*
 - to reduce *hearing loss* in children in the under five age group
 - to reduce death rates, injury and disability from *child abuse*
 - to reduce disability and death rates from *asthma*.
- Comments from the Ministry of Health (1997a) on the goals outlined above include:
 - Immunisation – A North Health survey in 1996 found 63% of children aged two years and 69 % of children aged three years to be fully immunised. (North Health includes the area of New Zealand from the Bombay Hills approximately 50km south of Auckland City northwards.) Immunisation targets for the year 2000 are to

increase the proportion of New Zealand children with completed early childhood immunisation by the time they are two years old to 95%.

- Rheumatic Fever – acute rheumatic fever can lead to chronic rheumatic heart disease which is a significant cause of premature death. The annual age-standardised hospitalisation rate in the years 1990-1994 for those under age 30 years was 8.3 per 100,000 people. The target is to reduce the age-standardised hospitalisation rate to 5 per 100,000 people by the year 2004.
- SIDS (Sudden Infant Death Syndrome) – there is inconclusive evidence of any recent changes in the total SIDS rate, following a dramatic decrease in total SIDS over the period 1989-91. The total SIDS rate in 1991 was 2.5 per 1000 live births and for Maori was 6.9 per 1000 live births. Sudden Infant Death Syndrome targets are to reduce the total SIDS rate to 1.0 per 1000 live births or less by the year 2000 and the Maori rate to 4.5 per 1000 live births.
- The current prevalence of hearing loss at school entry for Maori is 13.5%, for Pacific children 15.7% and for the total population 6.7%. The year 2000 target is to reduce hearing loss in children at school entry to 5% or less for Maori, Pacific and other children.
- Child abuse – the mortality rate for child abuse for the period 1990-94 was 1.23 per 100,000 people. Hospitalisation rates are 22.9 per 100,000 people. The Ministry of Health target for addressing child abuse in New Zealand is to reduce the mortality rate among children aged 0-14 years from injuries inflicted by other persons to 1 per 100,000 people or less by the year 2002.
- Asthma – in 1995, asthma accounted for 5869 hospitalisations among New Zealand 0-14 year olds. An estimated 44% of New Zealand children experience asthma symptoms at some time before age 15. Between 1988 and 1995, Maori children

were consistently hospitalised for asthma at more than twice the rate of non-Maori. Differential access to asthma care, including prophylactic medication, has been implicated in this disparity (Ministry of Health, 1998b). Targets have not been set by the Ministry of Health to address their stated goal of reducing disability and death rates from asthma.

- Tobacco use – parental tobacco smoking during and after pregnancy is related to SIDS. Environmental tobacco smoke increases the childhood risk of croup, pneumonia, bronchitis and bronchiolitis by 60 % in the first 18 months of life, increases the risk of asthma by 50%, and is a cause of glue ear (Ministry of Health, 1998b). Ministry of Health targets in this area include reducing the percentage of pregnant women smoking any type of cigarette to 20% or less by the year 2000.
- Unintentional injuries – in 1996 there were 63 pedestrian deaths. Of these around ¼ were children aged 0-14 years. The target in this area is to reduce the annual number of pedestrian deaths to 50 or fewer by the year 2001.

Pacific Island Health Statistics

The following statistics and comments are referenced to the Ministry of Health (1997b).

- The Pacific Island population in New Zealand is 202,233 (6% of the total population).
- In 1995 the hospitalisation rate for infants under one year of age was 39% higher than the national rate, while that for 1-4 year olds was 28% higher. Among 10-14 year olds, the hospitalisation rates for Pacific Island children for acute rheumatic fever, pneumonia and middle ear infections were well above the national rates.

- Pacific Island children are admitted to hospital for pneumonia at four times the rate for all children and for acute rheumatic fever at five times the national rate.
- SIDS rates in Pacific infants have not decreased and may have increased.
- In 1995 the major causes for hospitalisation for Pacific Island males (all age groups) were unintentional injuries (including motor vehicle crashes), respiratory diseases, perinatal conditions and disease of the digestive system.
- Respiratory diseases and genitourinary diseases head the list for hospitalisation of Pacific Island females.
- The current health status of Pacific Island people can largely be attributed to several factors including: the low socio-economic status of Pacific Island people; the nature of the illnesses; lack of access to appropriate services; delay in seeking treatment and lack of follow up and support to manage the illness or necessary treatment.

Maori Health Statistics

The following statistics are taken from Statistics New Zealand (1998) and the Ministry of Health (1997a; 1998b).

According to Durie (1994) there is some debate over the accuracy of Maori health data due to much of the data being sickness and illness focused and failing to incorporate at least the dimensions of wairua (spirituality), hinengaro (mental health), tinana (body, physical health), and whanau (extended family). While this comment reflects how Maori perceive health, the following data gives some indication of the state of Maori health at the present time when compared to health data for other New Zealand ethnic groups.

- In 1996 Maori made up 15.1% of the total population of New Zealand.
- The age standardised mortality rate for Maori was 9.79 per 1,000 people in 1995 compared to 5.86 per 1,000 for the total New Zealand population.
- The two leading causes of death for Maori in 1994 were cancer and ischaemic heart disease (these are the same for the total population).
- The mortality rate for Maori children aged 0-14 years (1992-94) is 115.9 per 100,000 people. (For non-Maori it is 74.7 per 100,000 people.)
- In 1992, Maori children were only 70% as likely to be fully immunised as were other children.
- The Rheumatic Fever annual age-standardised hospitalisation rate for Maori under age 30 years is over four times the national rate.
- Hospitalisation for child abuse is 3.7 times more common among Maori children than non-Maori children.
- Risks for Maori are particularly high for respiratory disease, diabetes, cataracts, kidney disease, circulatory disease, female reproductive system disorders and complications of pregnancy and childbirth.

Asian Health Issues

There is little information available on health issues for Asian people in New Zealand. Qualitative data obtained from interviews taken by Co and MacDonald (1997) indicate that the major illnesses affecting the new Asian population in Auckland include alcoholism, domestic abuse and depression. Co and MacDonald indicate that these are in many ways due to ill adjustment after immigration. The focus of their study was predominantly the Chinese Asian population who have immigrated to New Zealand

over the past decade. Co and MacDonald do not examine health issues for other Asian ethnic groups such as Indian or Sri Lankan. One of the recommendations from the Co and MacDonald study is that an in-depth study into the health needs of the Asian population in New Zealand be undertaken. The author of this study supports that recommendation.

Refugee Health Issues

New Zealand has been accepting refugees from prior to World War II. The nationality of the refugees has changed over time but most recent documented intakes (July 1995 to June 1996) are from the Middle East, Northeast Africa and Southeast Asia (Auckland Healthcare, 1996, December). People entering New Zealand come in under any one of several categories – visitors, immigrants, asylum seekers and quota refugees. Refugees are further classified for entry under the categories Women at Risk, Emergency, Protection, Medical/disabled and Family Reunification (Reeve, 1996).

Since 1979, all New Zealand's quota refugees are screened upon entry into New Zealand at the Mangere Refugee Resettlement Centre (MRRC) in Auckland (Reeve, 1996). Just over half of all refugees screened during this time settled in the Auckland area (Auckland Healthcare, 1996, December). The aims of screening at MRRC are to prevent the spread of imported infectious diseases to the New Zealand community, assess the impact of the health needs of the refugees on the health providers of New Zealand, detect and manage by treatment or referral as appropriate the health needs of the refugees, and prevent future health problems (Reeve, 1996).

The statistics identifying health issues for refugees include the following items issued by Auckland Healthcare (1996, December):

- Approximately 70% of 687 refugees screened in the year to June 1996 required referral to one or more secondary health care services for further assessment or treatment.
- 13% of refugees screened in the year to June 1996 reported suffering imprisonment, physical beating or torture prior to arrival in New Zealand. These types of traumas often result in ongoing mental health problems, in particular Post Traumatic Stress Disorder.
- 7% of the annual refugee quota were referred for ongoing management of mental health issues.
- Health needs are often associated with poor nutrition. Haematological parameters suggest 54% of refugees had some degree of iron deficiency.
- Infectious diseases such as tuberculosis (TB) and the human immune deficiency virus (HIV) are screened for and treated.
- For the 12 months to June 1996, up to 46% of all refugees were infected with TB, 1.7% were confirmed as HIV positive.

Additional/Special Problems:

- Female circumcision or female genital mutilation (FGM) presents special problems (Ahmed, 1996). Exact numbers of women suffering from FGM in New Zealand are unknown, however it is estimated that there are around 80 million girls and women around the world affected by this problem. With increasing numbers of refugee women coming to New Zealand from areas where FGM is commonly

practised it is becoming more likely that New Zealand health professionals will see increasing numbers of women suffering from FGM (Ahmed, 1996).

- Poor or no English language skills contributes to difficulties in seeking and maintaining health care once settled in New Zealand.

CONCLUSION

In this chapter the demographics of the community have been studied in detail. Population statistics followed by a comprehensive description of the community paints a picture of a middle to lower socio-economic community with a high Pacific Island and Asian population. European and Chinese residents appear well catered for, however, services targeted specifically at Pacific Island, Maori and refugee populations are lacking. The accompanying health data provides background information on the health needs of those groups specifically identified as having higher health needs within this community, namely children, Pacific Island people, Maori, Asian and refugees.

The following chapter examines the results of the interviews undertaken with key informants and focus groups. The results are then combined with the demographics to provide a detailed discussion in chapter six.

CHAPTER 5 – RESULTS

This chapter outlines the results from the interviews undertaken with the participants of this study - two focus groups and 17 key informants. The participants came from a variety of backgrounds. As the background of each participant can influence the participant's response to questions, the researcher has attempted to interview a wide range of community members in order to gain as many differing opinions as possible. The relationships between participants are also important to understand as this too can have an effect on the study outcome. In this study, several of the participants represented two parts of the community. For example, the school psychologist works at the school so is linked intrinsically with it. She is also a health and social service provider and therefore also holds views associated with this role. Appendix four displays a context chart that maps inter-relationships between the participants and also provides details on the background of each participant. The reader may wish to refer to appendix four prior to reading this chapter in order to fully understand the context in which the findings below are made.

The same semi-structured interview schedule was used to interview all 17 key informants as well as the two focus groups. The data from each focus group were combined for analysis making an equivalent of two interviews. This makes an equivalent total of 19 interviews. All answers given have been incorporated. For example, if each participant gave two examples of a health need then all examples were included for analysis. See chapter three (pages 56-63) for a discussion on the semi-structured interview schedule.

The semi-structured interview plan (See Appendix 3) was laid out in such a fashion as to split certain questions to ensure the responses given by participants were reliable throughout the data. This applies to questions one and four (pp. 88-92) and questions five and seven (pp. 96-99). In order to avoid confusion for the reader these questions have been placed next to one another when laying out the data below.

The results are presented in sections: Health Needs; Public Health Nurses; and The Clinic. The applicable questions are placed under each section with a few examples of participant responses and comments regarding the results. Participant responses are placed within quotation marks and written in italics. The category of respondent is placed after each quotation. At the end of each section is a conclusion. A summary that combines the more pertinent findings concludes the chapter. Further details on the analysis undertaken are attached in appendices five, six and seven, Checklist matrices, Coding and Contact Summary Sheets. These appendices are designed to provide a clear audit trail of how the researcher determined the findings presented in the next and subsequent sections.

HEALTH NEEDS

The health needs of the community in question and the ways in which participants feel the health needs could be addressed are examined in this section. Also examined is the existence of preventative health clinics that already address the health needs of the community. In addition, participants' knowledge of clinics that were established but failed is explored. Such information is vital prior to the establishment of any health clinic or service within the community. Without this information, health

needs may be left unaddressed, duplication of services might occur, and new clinics or services may fail for the same reasons as previous clinics or services have failed. As mentioned in chapter three (page 49), community analyses are undertaken for these very reasons (McClennan Reece, 1998).

Question 1.

What do you consider to be the health needs of your community – in particular the children and families of your school? Try to think as broadly as possible when you think about health, so not just physical health but also mental health and spiritual health.

Results

When answering this question, participants have tended to abbreviate their responses to a single description or statement - for example, asthma. Asthma as such is not a health need, it is a health condition. When participants talked of asthma as a health need, when prompted, they meant the need for management of, and education regarding, asthma in the community. The abbreviation of health needs applied to most of the responses to this question. The researcher has expanded on the abbreviated terms in this chapter in order to interpret the results for the reader. The following comments provide an indication of the thoughts that participants had regarding specific health needs they identified during the interviews.

“...asthma... lots and the whole age spectrum as well”

Medical Practitioner

"...immunisation...need to increase understanding and increase availability especially with the multi-ethnic mix in the community"

Pharmacist

"...just being around the playground at morning tea and lunchtime...there's a large number who don't come to school with lunch and there's a large number of children who get lunch brought to them...McDonalds, KFC, fish and chips..."

Parent Focus Group Parent #2

"We can't be getting the best work from kids if they haven't got a good balanced nutritional diet"

Parent Focus Group Parent #3

"...with a lot of the immigrant population at school they need more educating...things like runny noses, ear infections that they may not have in their own country."

Indian Community Representative

"...parent/caregiver education...the medical side of it possibly, but also matters to do with positive parenting, knowledge about how to deal with special needs children or highly behaviourally challenging children."

Health Promotion Focus Group Member #1

Comments

Participants were able to identify a range of health needs across a broad spectrum that included physical health needs, social health needs, mental health needs and educational needs. Nutritional needs were most frequently mentioned by participants – this included lack of lunches and poor quality lunches as well as concerns regarding high consumption of takeaway foods, soft drinks and 'junk' foods. There was concern that poor diet would affect a child's ability to learn, as well as affect his or her behaviour both in the classroom and in the playground. Other health needs mentioned frequently by participants included the need to address problems in the community with regards to the management and control of asthma, the need to provide education programmes about, and treatment of, headlice and impetigo, and the need to address poor levels of immunisation. The need to address poor or inappropriate parenting skills

and the prevalence of behavioural problems were also frequently mentioned. The lack of information available in the community about health issues, including when and how to treat the child, and poor access to health care were commonly referred to. The prevalence of mental health problems and basic health needs of refugee and migrant populations were noted frequently as was the need for health education of parents. See appendix six (Coding) for a comprehensive list of health needs as indicated by the participants.

Question 4

Can you think of any ways in which the health needs you outlined above could be addressed?

This question is placed in this position when presenting the results as it follows on from question one. It was asked as question number four in the semi-structured interview in order to check for reliability of response.

Results

Participants indicated a broad range of ways the health needs they identified could be addressed. These included such things as providing a nurse-led clinic, increasing funding to existing services, improving access to services and ensuring services were multi-lingual and culturally appropriate. Providing multi-lingual pamphlets and a health information service were other ways participants indicated health needs could be addressed. Participants also indicated that more health education

was needed, support groups could be established, and current resources could be better utilised. Participants also suggested improved service co-ordination as a way health needs could be addressed. See appendix six (Coding) for a comprehensive list of the ways participants indicated health needs could be addressed. The following comments summarise some of the ideas participants had regarding addressing health needs in the community.

"...if you had something at the school...and with prescribing rights for ear infections and school sores and dressings, that would be an amazing situation."

Practice Nurse #2

"...setting up a support system where we're able to enhance knowledge...that's working together as a team and opening up those choices and boundaries for families to be able to access [the service] in an appropriate manner pertaining to their needs."

Maori Community Health Worker

"...a nurse practitioner [led primary health care clinic] is the sort of thing because you'd have your health professionals there as the workers but your community would hold the focus"

Social Worker

"I think a multi-lingual type info. [service], it's got to go out in all languages basically to have any kind of effect."

Parent Focus Group Parent #1

"...that would be another thing is that I actually think all these agencies whether they're government or non-governmental agencies there has to be co-ordination and that's really difficult."

Refugee Worker

"Having a nurse in the school would be one alternative...I find that if I've got a difficult client that I want to see then I'll often bring them into the school because they think that school is a safe place to be..."

Public Health Nurse

Comments

The more frequently mentioned ways participants saw health needs could be addressed included the setting up of a nurse-led clinic, better co-ordination of existing

services and through addressing the multi-cultural aspects of the community. There were numerous calls for health providers to provide more culturally appropriate services and in appropriate languages. Two themes recurring throughout the research are mentioned by participants for the first time when answering this question – that school is seen as a safe place and that there needs to be better access for families to health information so that families can make their own decisions about health care.

Question 2

What Clinics are available in your community for your school children and families with regards to preventing ill health?

Results

Table 5.1 shows the clinics and services that participants could name.

Table 5.1 Clinics and Services Participants Named.

Preventative Clinics	<ul style="list-style-type: none"> • Plunket • Dental Therapist • Ear Van (intermittent and mobile)
Services	<ul style="list-style-type: none"> • Public Health Nurse • Medical Officer • Vision Hearing Testers • Special Education Service • General Practitioner (GP)/Medical Centres • Community Dietician
Other	<ul style="list-style-type: none"> • Parents as First Teachers programme • Schools • Nurse Practitioner • Migrant women's support group based in a neighbouring suburb • Police • Citizen's Advice Bureau • Sport and Education Trusts • Preventative programmes such as DARE (Drug and Alcohol Resistance Education) • Kindergarten • Starship • Churches • Well Women's Nursing Service (WANZ)

Comments

There are few actual clinics existing known to those interviewed that provide preventative services in the community in question. Plunket, dental therapists and possibly GPs/medical centres are the only ones that provide actual clinic based services on a permanent basis. General Practitioners/medical centres provide mostly acute services as opposed to advertised preventative clinics. The 'ear van' provides a mobile service to the community and the Nurse Practitioner and WANZ services are provided outside the area. The other services are all provided on a part time basis and can not be

considered clinics as such. Public Health Nurses, Plunket and the dental therapist were the clinics or services mentioned most often.

Question 3

Has there ever been any health clinic or service run in this community that hasn't worked? Can you give examples?

Results

Table 5.2 Health Facilities that Participants Named that had Failed and Why.

Health Facility	Reason for Failure/Relocation
<ul style="list-style-type: none"> • Local Maternity Clinic • Casual Child Care Facility (creche) • Pacific Island Health Promotion Centre (named by researcher) 	<ul style="list-style-type: none"> • Relocated/centralised to Women's Hospital • Closed due to lack of utilisation • Disestablished due to poor utilisation

Comments

Only two participants could name a health service that hadn't worked. A creche in a neighbouring suburb and a local maternity services clinic. (The maternity services clinic was established following the closure of the local maternity hospital in order to continue providing maternity services to the area following protests by residents. It is possible that this facility was centralised after local protest died away.) The researcher was able to name a Pacific Island Health Promotion centre in a nearby suburb that had been disestablished due to lack of appropriate utilisation. The Chairperson of the local Community Board made the comment that many of the

voluntary groups in the area are struggling to get funding for their continued existence and that closures of other health services are possible due to lack of funding.

Health Needs: Conclusion

Participants were able to identify a broad range of health needs including physical health needs, social health needs, mental health needs and educational needs. The most prominent health needs identified by the participants included the prevalence of asthma in the community (management and control), poor nutrition of children, poor or inappropriate parenting skills, high refugee and migrant population health needs, and the need for more health education of parents.

The participants suggested that some of the best ways to address these needs was through the setting up of a nurse-led clinic, providing better co-ordination of existing services, and providing multi-lingual, culturally appropriate health services. The greatest majority of suggestions were to have a nurse or clinic at the school.

Actual clinics already providing preventative services addressing the health needs participants named were limited – Plunket, the Dental Clinic and the ‘ear van’ were the only clinics already existing to address the health needs named by participants. Participants were unable to name any preventative health clinic in the area that had been established and then failed.

PUBLIC HEALTH NURSES

This section examines participants understanding of the services the Public

Health Nurse (PHN) provides to the school, participant utilisation of these services and if participants could think of any additional services the PHN may be able to provide. As discussed in chapter one (page 4) PHNs already provide regular health services to schools in the Auckland region. Leading a primary health care clinic within a school could be seen as a natural extension to services the PHN already provides. Examining what the community's perception is of the role and services provided by the PHN, in order to ascertain whether the PHN may be the most appropriate person to run a nurse practitioner-led clinic, is imperative. The question to be answered is whether the community's knowledge and trust of the PHN's role is extensive enough that the community would feel safe in using a clinic run by the PHN. Similarly, could the community see any extension to the services already provided by the PHN? The answers to these questions will ensure that if a nurse practitioner-led clinic is established in the school it would be either complementary or additional to those services already provided by the PHN and would be less likely to double up on services already provided.

Question 5

Your school has a Public Health Nurse who visits regularly. What services does she/he provide to your school?

Results

These results have been listed following coding that took place from the checklist matrices. (See Appendix 5.) Some of the examples participants gave of the services PHNs provide included health education, following up on children's health

needs, dealing with health issues such as encopresis and enuresis, child protection, and facilitation of health promotion programmes. Some comments participants gave regarding the services provided by the PHN follow. See appendix six (Coding) for a comprehensive list of the services that participants could name.

"...as a parent if you have an issue you can arrange to see her on that day and if a teacher has an issue about a certain child then they can refer to her..."

Parent Focus Group Parent #2

"The Public Health Nurse system where the Public Health Nurse comes into the school on a regular basis and that's a really supportive network and one that we would hate to lose..."

Principal

"I think she ...follows up on medication...I've been here two years and haven't met her."

Dental Therapist

"...asthma education, advocacy between the child, teacher, parent...her door's always open..."

Maori Community Health Worker

Comments

Most participants recognised the educative role of the PHN and most saw involvement with children and were able to give examples of why children were seen. Most were also aware of home visiting capabilities. Two participants were unaware of what a PHN did at all and some were not altogether clear on the services the PHN provided. Although participants were able to articulate the visible aspects of PHN work i.e. child health, education and child protection, they were less able to articulate the more hidden aspects of the PHN's work e.g. advocacy, referral, networking, and health promotion. On the whole participants appeared to be generally aware of the services provided by the PHN to the school.

Question 7

Can you think of any other services that the Public Health Nurse could provide to the children and families in your community?

This question has been placed in this position in the research when presenting the results as it follows on from question five. It was asked as question number seven in the semi-structured interview in order to check for reliability of response.

Results

These results list the services participants indicated that PHNs could provide over and above what they already provided, as well as an indication of whether the suggestion was new or had already been implemented. The suggestions were compiled from the checklist matrices and categorised by the researcher. The answers to this question show poor understanding of what the PHN already does despite the answers to the previous question where most participants were able to tell of at least one thing the PHN did. Many of the suggestions (over half) are already undertaken by the PHN despite limited time and numbers.

Table 5.3 Suggestions Made by Participants for Further Services that the PHN Could Provide.

Key

New Suggestion ☺

Already Been Implemented ✓

Suggestion for Service	
• More PHNs	✓
• Targeting of individual children	✓
• Work in the home with the family	✓
• More involvement with individual issues e.g. healthy eating e.g. go shopping with family	✓
• Fun clinic for pre-schoolers and parents	☺ New
• Small group puberty lessons for older children	✓
• Free nit shampoo	✓
• Free scabies cream	✓
• Family counselling	☺ New
• Full time service – would help educate parents	☺ New
• On-site health nurse	☺ New
• More advertising to promote the service	☺ New
• Mobile service is ideal as opposed to fixed location	✓
• Prescribing rights	☺ New
• Accident prevention focus	✓
• First aid for teachers	✓
• Asthma education in schools	✓
• Case co-ordination	☺ New
• Need for greater social work input into schools	☺ New
• Increase health promotion scope	✓
• A clinic service	☺ New
• Health education	✓
• Combine PHN/District Nurse/school nurse role	☺ New

Comments

The major findings from this question indicate that participants want more – more PHNs, more involvement with individual issues by the PHN, more advertising of PHN services, more time for education, more support to parents, more time spent at the school by the PHN and more of what they already do. New suggestions include providing a clinic service, providing case co-ordination/management, and prescribing.

Question 6

Have you ever used the services of the Public Health Nurse?

Results

The following comments were made by participants about their usage of the PHN, whether as a health professional making a referral, using the PHN for themselves or if the PHN had contacted them.

Referral as Health Professional

"Frequently it's for the Health Camp issues...occasionally it's been for the follow ups for suspected neglect or suspected abuse...we try to be proactive but the PHNs are more appropriate in that situation."

Practice Nurse #1

"It may not be a referral, it may be a sort of checking out more...have you seen...is there a need to be involved..."

Social Worker

"[we use the PHN] more so now...because with having been in the PHN system I know the shortcuts and I know the ways around."

Practice Nurse #1

"...if I'm wanting to find something out I end up having to go through ten phone calls to get to the person required – always!"

Practice Nurse #2

Referral for Self

"I think most people have talked to her...I asked her about my sons health at one stage..."

School Psychologist

Contacted by PHN

"We've had phone conversations with her [for the 5 year check]...our Public Health Nurse is very friendly, she did tell me if I needed any help she's only a phone call away...touch wood I haven't needed her."

Indian Community Representative

Comments

The results from this question showed that most participants had used the PHN. Either as health professionals making a referral, for advice for themselves, or had been contacted by the PHN regarding a health issue about their child as a part of the 5 year old check forms that the PHNs follow up on. On enrolment at school each child's parent is given a health check form that is returned to the PHN, the PHN then follows up on any health concerns that may need addressing. A recurring theme when participants answered this question was the confusion that some appeared to have regarding which PHN did what and how to contact one. Having some knowledge of the PHN system seemed to ease the process of accessing PHN services.

Of note is that although no member of the parent focus group had referred to or used the PHN, two staff members interviewed had used the PHN for themselves. These two staff members also referred children and/or families to the PHN on a regular basis. It is possible that this could indicate that as use and trust of the PHN grew, staff members felt more comfortable using the PHN for themselves.

Public Health Nurses: Conclusion

Most participants recognised the educative role of the PHN and his/her involvement with children and families. Participants were less able to articulate the more hidden aspects of PHN work such as advocacy and referral. However, when asked what other services the participants could see the PHN providing, the suggestions were largely for services already provided by the PHN. Most of the participants had had reason to refer to or use PHN services.

THE CLINIC

The following four questions examine the practicalities of the establishment and running of a nurse practitioner-led primary health care clinic in the primary school. Would people pay for the clinic – if yes, how much? Would the children and families in the community use the clinic? What services would participants expect the clinic to provide and what opening hours would be the best utilised by the community. The answers to these questions help to ensure the establishment of any new health clinic or service will meet the needs of the community in the most appropriate way for that community. There is little point in establishing a new health service in a community without these answers.

Question 8

Do you think that a clinic run by the Public Health Nurse in your school available to children and their families would be a service that you would use:

a) *If it were free?*

b) *If you had to pay – how much would you be willing to pay?*

Results

Some of the participants views on whether people would pay for a clinic service or not are outlined below. See appendix six (Coding) for a comprehensive list of comments made regarding whether participants thought people should pay or not.

Participants views on paying for a clinic service

“It probably should be free... but...if it’s free people would tend to overuse it...but at the same time if you had a nominal amount like one dollar then I think in actual fact people for some reason actually believe in it more and believe that it’s worthwhile...”

Refugee Worker

“most people would pay – there would be those who can’t pay”

Chairperson of Community Board

“I think if they’re getting the service and it’s a good service then people are prepared to pay.”

Plunket Nurse

“...maybe you should make it a sort of a donation thing.”

Social Worker

“[koha] would alleviate some of the problems...so that they know that that service isn’t there to abuse.”

Maori Community Health Worker

“I think if they do have to make a payment, what’s wrong with a koha...”

Health Promotion Focus Group Member #2

Participant view on not paying for clinic services

“I think free would be the catch...then you’re really going to attract the people who need it.”

Parent Focus Group Parent #2

Comments

From the answers to this question, it seems some expectation of a koha (donation) would be appropriate as this would attach value to the service and therefore increase the likelihood that people would be willing to trust the information they were given. One participant stated firmly that she would not use the clinic whether there was a charge or not as she accessed health care through existing services. There were concerns that if a clinic were free this may lead to overuse or inappropriate use.

Question 9

What services would you expect a clinic like this to provide?

Results

Services that participants indicated a nurse-led primary health care clinic could provide have been coded from the checklist matrix. (See Appendix 5: Checklist Matrices.) The services mentioned most frequently by participants included providing health information and health education, health counselling and health service co-ordination. Participants also indicated that they would like to see physical health needs addressed – for example, the provision of immunisation and treatment of minor injury and illness. Participants could also see a nurse in a clinic providing facilitation of outside health services – for example a general practitioner clinic, a dietician clinic and mental health clinics. Participants also indicated that a clinic would be somewhere they could go for health assessment and referral. The following comments provide the reader with an understanding of how participants saw a nurse-led primary health care

clinic in their community. See appendix six (Coding) for a comprehensive list of services indicated by participants.

"Parents could approach [the clinic] for general health issues, minor illnesses, regular treatment for those who did have things like impetigo, sores and things like that that needed regular dressings."

School Principal

"There's definitely an opportunity to do asthma education..."

Practice Nurse #1

"If there was a clinic here it could give a check on the children's health...if there is a problem we could pick it up much earlier particularly ears for example... there's so much [of a] problem with glue ear."

School Psychologist

"...by giving them knowledge really so that they can do it themselves and that's what we'd be able to provide in a clinic like this...common sense treatment or prevention, just keeping themselves well, putting our energy into wellness and just giving them information."

Public Health Nurse

"Somewhere for parents to go if they've got a concern with an ear infection or a sore throat, just that initial step before they move onto the bigger one...she could recommend that you really need to do something about it."

Indian Community Representative

"Immunisation awareness and choices...I know there are a lot of people that go through that [decision making process]"

Parent Focus Group Parent #4

"I think there should be things like parenting and if you do have a lot of immigrant families it would be a good venue to pull people together...the whole well-being."

Refugee Worker

"Relationship building...family planning...that would be a possibility too."

Plunket Nurse

"Some kind of antenatal classes for cultural groups because different groups deal with pregnancies in different ways."

Parent Focus Group Parent #1

"I think there needs to be more made of the counselling services...you're addressing the holistic issues not just the physical issues."

Plunket Nurse

“...an educative role in the haircare, the skincare, the clothes...that can be for both child and family.”

Practice Nurse #1

Comments

Participants could see the clinic providing a broad range of services. Those that stand out include the provision of health education and information and physical health care. Facilitation of other services such as social services and specialised health care such as occupational therapy etc. would also play a role. Many of the services listed are well within the scope of practice for PHNs and other community health nurses already. Further skills required would include advanced physical assessment skills and further training in the provision of basic counselling. A couple of participants were reticent believing the infrastructure for providing primary health care services was already present – they indicated that a general practitioner and practice nurse could provide such services.

Question 10

Would the children and families in this community use a clinic like this?

Results

Participants overwhelmingly indicated that they thought children and families in the community would use a nurse-led primary health care clinic. Most had comments regarding this. For example, several participants indicated that initially it would be difficult and would take time to get people to use the clinic. Participants thought the

school was a good location for a clinic as parents consider school a safe place. The quotes that follow give an indication of what participants' thoughts were on whether children and families would use a nurse-led primary health care clinic.

"I do, but it would take time and it would be hard work in the beginning as I said. I think yes, I definitely think they would."

Social Worker

"Yeah, I think they would actually, and I think if you did the groundwork, you sold it, you said this is what we're for, I think it would be used..."

Refugee Worker

"I think they would...there's a real need...providing information written in people's own language [will be important]"

Parent Focus Group Parent #1

"...they would once they become familiar with [it]...it would be well situated."

Health Promotion Focus Group Member #1

"...it would be used, it would be free, it would provide a service, there'd be no reason why it wouldn't work..."

Medical Practitioner

Comments

Two participants indicated that they did not know if people would use such a clinic and one participant did not answer the question. The two participants who indicated they didn't know whether people would use the clinic were the PHN and the school psychologist.

Question 11

For the community to have access to a health care clinic, what would be the best opening hours?

a) 9-12 b) 9-5 c) 11-2 d) 4-8pm e) other _____

Results

The table below (Table 5.4) presents the opening times that the participants indicated most frequently as compiled by the researcher from the checklist matrix (Appendix 5).

Table 5.4 Optimum Opening Hours for a Nurse-led Clinic According to Participants.

Option	Number who indicated this option
<ul style="list-style-type: none"> • 2 sessions per day incorporating before and after school sessions e.g. 8.30-12 and 3-6pm. 	7
<ul style="list-style-type: none"> • all day during regular school hours 	6
<ul style="list-style-type: none"> • evenings only 	4
<ul style="list-style-type: none"> • open on the weekend e.g. Saturday morning 	1
Total	<hr style="width: 50px; margin: 0 auto;"/> 18

One participant did not answer this question.

Comments

Opening for two sessions per day with an overlap before and after school would appear to be the best solution as this would mean most of the suggestions would be catered for. It would also be worth trialing one late evening session per week as well as a Saturday morning session depending on community demand.

The Clinic: Conclusion

Participants were positive that community members would use a nurse-led primary health care clinic at the school. They had some comments to make regarding

this, particularly associated with the difficulty that would probably be associated with setting the clinic up and initially getting people to attend. On the whole, participants thought that most people would be willing to make some kind of payment for clinic services received, even if only a donation. They also thought that the best hours for opening would be those that provided for an overlap before and after school in order to increase accessibility for people. Services that participants thought that a clinic could provide include assessment, referral, service co-ordination and facilitation, health education and information, physical health care, and counselling.

SUMMARY OF RESULTS

Summarising the results found above participants indicated the following health needs:

- Physical health needs – the prevalence of asthma, ear problems and infectious diseases.
- Social health needs - poor nutrition, poor parenting skills.
- Mental health issues such as anger management, behavioural problems and isolation.
- Poor access to health services
- Refugee and migrant health needs
- The need for health education of parents

Ways of addressing health needs indicated by participants include:

- providing a nurse-led clinic
- providing better funding
- providing better access to services

- providing a multilingual/culturally appropriate service
- providing multilingual pamphlets
- providing a health information service
- providing education
- setting up support groups
- using current resources
- providing service co-ordination.

What participants may not have realised is that many of these suggestions could be provided by a nurse practitioner-led primary health care clinic. Therefore, it was not surprising that when participants were asked what services they felt a nurse-led primary health care clinic could provide, the answers were very similar to those listed above:

- accessibility
- culturally appropriate services
- health information
- health education
- addressing social health needs including counselling and support groups
- service co-ordination
- facilitation of other health services e.g. occupational therapist, GP, paediatrician, dietician, physiotherapist
- addressing physical health needs including providing immunisation, monitoring and basic health care
- assessment and referral.

Specific examples of how the health needs suggested by the participants fit with the services that could be provided by a nurse practitioner-led clinic are given in Table 5.5:

Table 5.5 Ways Suggested by Participants that Specific Health Needs may be Addressed by a Nurse Practitioner-led Primary Health Care Clinic.

Health Need indicated by Participant and Health Data	Possible Service Provided By Clinic as Suggested by Participants
Asthma	<ul style="list-style-type: none"> • Asthma education • Asthma management • Referral • Co-ordination of medical and other services
Nutrition	<ul style="list-style-type: none"> • Information on health issues e.g. nutrition • Facilitation of clinics e.g. GPs, CCAFS, nutritionist • Following up on referrals from teachers for e.g. unwell child, poor diet, falling asleep, basic health care • Blood testing
Poor/inappropriate parenting skills	<ul style="list-style-type: none"> • Parenting programmes • Counselling • Referral to counselling • Education on parenting skills – whanaungatanga • Facilitation of parenting, socialisation and culturalisation programmes
Behavioural problems	<ul style="list-style-type: none"> • Assessment • Referral • Facilitation of clinics e.g. GPs, CCAFS
Childhood illnesses e.g. otitis media, scabies, impetigo, headlice, eczema, viral and bacterial infections	<ul style="list-style-type: none"> • Assessment • Preventative health role – education • Immunisations • Dressings • Health checks • Recognising the signs and symptoms of the unwell child • Referral • Pharmacy delivery service • GP clinic • Co-ordination of medical and other services

CONCLUSION

The results outlined in this chapter have covered Health Needs, Public Health Nurses and the practicalities of running a nurse-led primary health care clinic in a primary school from the perspective of the 17 key informants and two focus groups. A brief summary (pages 109-111) shows how the results combine to give an indication of the overall findings from the research. In the following chapter these findings will be discussed in detail. The demographic data from the community profile and health statistics will also be incorporated in order to show the feasibility of establishing a nurse practitioner-led primary health care clinic in a primary school in the specific area studied.

CHAPTER 6 – DISCUSSION

The aim of this study was to undertake a community needs analysis in order to determine the feasibility of establishing a nurse practitioner-led, family focused, primary health care clinic within a primary school environment. In this chapter the results of the study are discussed in detail. The demographic and health statistics on the school and community are examined in relation to the qualitative interview data, and the strengths and limitations of the method of community needs analysis in relation to the research is discussed.

Health Needs

The demographic data about the community being studied showed an area with a particularly high Pacific Island and Asian population. Low-income groups were a feature of the area. Health data obtained from the Ministry of Health, Statistics New Zealand and Auckland Healthcare indicated that health issues specific to these groups include such things as high rates of rheumatic fever, high rates of middle ear infection, low immunisation levels, and asthma in children. Post traumatic stress disorder in refugees, high rates of SIDS (Sudden Infant Death Syndrome) in Pacific children, and increasing rates of mental health problems such as depression were also referred to in the demographic data (Ministry of Health, 1997a; 1997b; 1998a; 1998b; Auckland Healthcare, 1996, December).

Health needs indicated by participants included such things as the need to address asthma management and control concerns, the need to decrease the prevalence

of infectious conditions such as headlice and impetigo, and the need to decrease rates of ear problems such as otitis media. Other health needs included the need to address poor nutritional choices, low immunisation levels, and poor parenting skills. Participants also identified mental health issues such as anger management, isolation and behavioural problems. Poor access to health services, refugee and migrant health needs and the lack of parent health education were also considered by participants as needing to be addressed.

The health needs indicated by the health data and the health needs indicated by participants are, as expected, similar. For example, low immunisation levels, the need to address asthma concerns, and the need to decrease the prevalence of ear problems. They are generally all health needs associated with lower socio-economic groups, specific ethnic and population groups, and children. There is a difference in the concern participants expressed regarding infectious conditions. Although participants indicated there was a need to address the prevalence of infectious conditions in the community such as headlice, impetigo and scabies, and viral infections such as coughs and colds, infectious conditions such as those mentioned by participants are not considered serious illnesses by public health officials. Auckland Healthcare data showed there were virtually no cases of serious infectious diseases including tuberculosis, rheumatic fever, meningococcal disease, measles or acute gastro-enteritis in the surrounding area in the previous three years. This does not detract from participant concern regarding the conditions they mentioned, merely puts it in perspective when compared with life threatening conditions such as those covered by public health data. Both the conditions discussed by participants and those covered by public health data are still, however, associated with lower socio-economic groups and overcrowding. A deterioration in

living conditions in the area studied would likely see an increase in the prevalence of those diseases of concern to public health officials such as meningococcal disease and gastro-enteritis.

Also worth noting was the emphasis participants placed on the need to address nutritional choices made by children and families. The numbers of children who had poor quality or inadequate lunches and the increasing number of children presenting as overweight were of concern to participants. This is reflected by the Ministry of Health (1998b) who have expressed concerns over the potential number of children presenting as obese although the prevalence of obesity in New Zealand has yet to be determined. Also of concern to Ministry of Health officials are issues surrounding the quality of food choices (Ministry of Health, 1998b).

A second area that was prominently identified by participants was health needs associated with refugees and new migrants. Mental health needs and language difficulties were specifically mentioned. Findings from Blakely's 1996 study of refugees in Porirua are similar. Blakely's key informants identified psychiatric morbidity and problems accessing interpreting services. Health needs of refugees identified from demographic data include post traumatic stress disorder and female genital mutilation (FGM). Ahmed (1996) recommends education of health professionals about FGM in order to allow health providers to offer care that is sensitive and non-intrusive. Participants suggested the provision of services such as mental health counselling for refugees and new migrants in order to address many of the health needs faced by these particular residents of the community.

The demographic data fails to identify poor parenting and a lack of health education as were identified by participants. This indicates a warning about relying solely on demographic data as an indication of need. As discussed in chapter three it is important to utilise a combination of data collection techniques such as those used in this research in order to identify as many health needs as possible. As a result, health services can be targeted to meet identified needs. In this case needs associated with parenting skills and a lack of parent health education as identified by participants in this study, but were not identified by the demographic data, can be addressed.

Poor access to health services was also identified as a concern to participants. The Ministry of Health (1997b) acknowledges poor access to health services due to factors such as a lack of transport, low income or unemployment impacts directly on the health status of people. One of the key Ministry of Health (1998c) strategies for child health is that child health and disability support services should be available as close to home as possible, within the bounds of quality and safety. The provision of a nurse practitioner-led primary health care clinic established in the primary school at the centre of this study would certainly address this issue.

Other health needs indicated by participants that were specific to the area studied included mental health needs of those from higher socio-economic groups such as the difficulty working parents have fitting in the needs of children and care when parents are unavailable. Isolation of first time mothers was also indicated as an issue in this area.

Although few of the health needs identified by participants were different from those that could be obtained directly from the demographic data, it is useful to have the demographic data confirmed by the thoughts of participants in this study. It is possible that participants could have been 'socialised' into accepting specific issues as problems - possibly through media exposure. However, merely the fact that the participants were asked their views on the subject could be, as suggested by Haglund et al. (1990), sufficient to increase awareness and ownership of a clinic if one were established.

When comparing the health needs identified in this study with those found in other studies, similarities are present when this study is compared with Cole et al.'s 1992 needs analysis of primary, intermediate and secondary schools in Central Auckland. Health issues discussed in Cole's study included the absence of children from school for long periods of time, the lack of anyone available to look after the child when he or she is sick, parents not taking the child to the doctor, poor hygiene and lack of appropriate clothing, running noses/colds, child abuse and behaviour problems/self esteem issues. Other identified issues included ear problems, headlice, school sores, asthma, infectious illness/low immunisation rates and the expense of visiting the doctor. Participants in this study expressed similar health concerns. The notable exception is the need to address nutritional problems in the community, which although strongly indicated by this study as a health concern that needed to be addressed, was only indicated as an area needing health education and promotion in Cole's study.

From the comparison of this study with Coles' study it is possible to assume that steps taken to address these health issues since 1992 have not been successful. Many of the health needs indicated appear to be endemic in the community and current

means of addressing them are obviously not working. A nurse practitioner-led primary health care clinic in the local primary school may provide a more effective means of addressing the health needs than those methods currently being used.

Glick et al. (1996) established a nurse practitioner-led clinic following a community needs analysis. Results of their needs assessment found that there were differences between the needs identified by key informants and those identified by residents. For example, where teenage pregnancy and drug abuse were considered issues by key informants, residents were convinced that physiological conditions such as hypertension and arthritis were greater problems. In the community studied for this research there was no apparent difference in the needs identified by the parent focus group, the health promotion focus group or the key informants. All suggested a broad range of needs both physical and social. Although the demographic data failed to identify poor parenting skills and a lack of parent education that were pointed out by participants, the combined identification of all the needs allows the services provided by the clinic, if established, to be targeted directly to meet these needs.

Haglund et al. (1990) indicate that one of the purposes of undertaking a community needs analysis is to assist in shaping the design of project interventions and adapting the design to unique community characteristics. The fact that the health needs indicated by the demographic data and the health needs identified by the participants in this study were relatively similar provides very useful information for the design and establishment of a nurse practitioner-led primary health care clinic in the area being studied.

A word of caution, however. Many participants were directly associated with the school being studied either through work or as a parent. As a result, participants didn't always see the broad focus of the study as including families. Many of their responses to the question on health needs focused specifically on the health needs of children. The health needs indicated by participants may therefore not be as applicable to families as to children except where specifically indicated. This is a limitation of the study as there is less information available about the health needs of families than about children. Children must be seen in the context of family and health needs must be addressed through strategies designed to take this into consideration. Current research indicates that successful child health programmes focus on families, have flexibility, and use nurses as well as well trained para-professionals (American Academy of Pediatrics, 1998).

Strategies for Addressing Health Needs

Participants had numerous suggestions for ways in which they considered the health needs they had identified could be addressed. By far, the greatest number of suggestions were for a nurse or clinic at the school. The fact that this research was openly considering the possibility of establishing a nurse-led primary health care clinic may have influenced participants' answers in this area. The results, therefore, must be viewed with caution. However, the participants in this study came from a broad range of backgrounds including medical practitioners and other health providers. Not all participants would have been influenced by the knowledge that a nurse-led clinic was being considered. Therefore, the researcher considers the concept of a nurse-led clinic a good idea.

Another area that participants strongly indicated could be a way of addressing health needs was for a multi-lingual/culturally appropriate service. The ethnically diverse school and community with a wide range of language skills indicates that any service to be established must have ongoing and unlimited access to interpreting and translation services and that this must be seen as a priority. It may be appropriate to consider undertaking active recruitment of people involved in either running the clinic or involved in providing services from the clinic who can speak more than one language.

It is also of note that many of the Ministry of Health's (1998c) strategies for addressing the health needs of children are similar to the strategies participants indicated could be used to address health needs. Ministry of Health strategies include providing child health and disability support services that are culturally safe, culturally acceptable and value diversity. As discussed above, participants in this research also noted the need for culturally appropriate services. Another Ministry of Health strategy is that staff should work together, and with staff from other sectors, to benefit the child. The Strengthening Families programme discussed earlier (pp. 34-36) is one example where this strategy has been put into practice. Similarly, participants in this study indicated that service co-ordination was a needed means of addressing health concerns. One area that Ministry of Health strategies do not address, that participants in this study considered as a way to address health needs in the community, is the provision of health information. Participants – parents in particular - indicated that there was a lack of information available in the community to assist them to make decisions about the health care of their children - be that for immunisation, knowing when a child needed intervention by a doctor, or simply how to treat a viral illness. Access to appropriate

health information was lacking. Consideration of this fact by the Ministry of Health when next developing strategies for child health would be appropriate.

Existing Preventative Services

Participants could identify a variety of sources of primary healthcare that although clearly did not provide participants with the readily accessible information that they required, were still acknowledged by participants. Plunket, the dental therapist and the PHN were mentioned most frequently. It is important to note that when participants were answering the question about clinics that already existed to prevent ill health, Plunket and dental therapist were prompts and some participants may have known that the interviewer was a PHN. This could be one of the reasons why these particular clinics/services were mentioned most frequently.

General Practitioners/medical centres were also mentioned several times as providing preventative services. This is useful information for GPs to know as it indicates that community perceptions are that GPs and medical centres do provide preventative health services. It is also a positive factor that most participants knew PHNs provide preventative health services. Practice nurses could name the greatest number of preventative clinics/services of all those interviewed. As part of a nurses' role is to link clients with other services and provide patient advocacy (Pearson, 1999), it is pleasing to note that nurses were the health care providers with the greatest knowledge about preventative services. Participant responses to this question also indicate that participants largely understand the meaning of preventing ill health and that they know where to go to access such services. These factors indicate that the

utilisation of a nurse practitioner-led primary health care clinic would be high if the community knew that a primary health care clinic existed and how it could be accessed.

Despite probing by the researcher, the results of this study indicate that although there are primary health care services in the area, there are no other services currently existing in the area that focus solely on addressing the health needs of children and families at the primary school level. Plunket services are infant and pre-school focused, the dental therapist provides a specialised service for dental concerns and GP/medical centres main focus is providing an acute service to largely unwell clients or those with chronic conditions. Although there is room for expansion by GPs and medical centres into wellness focused clinics, this has yet to be taken up by the medical practitioners concerned. One GP in the area had made provision at the surgery for the setting up of preventative clinic services such as counselling but due to the uncertainty at the time surrounding *per capita* funding had decided to put this initiative on hold. The area set aside for the provision of such services had been sublet to another business not related to the health arena.

Health Services that have Failed

Only two participants could name a health facility that had failed – a child care centre (creche) at a shopping centre in a nearby suburb and a local maternity clinic which provided pregnancy care. It is uncertain if participants were unable to name any facilities that had closed down because there were none or because participants just didn't know of any or had forgotten. The only other health service provider closed down that was not mentioned but was known to the researcher was a Pacific Island

Health Promotion Centre in a neighbouring suburb that provided preventative health services to the Pacific Island Community.

In terms of planning for the establishment of a nurse practitioner-led primary health care clinic in the primary school, it is pleasing to note that no other similar services in the area have been established and have failed. The concept of a nurse practitioner-led primary health care clinic, therefore, is not an initiative that has been attempted in the past – at least not as far as the researcher could establish.

Public Health Nurses

One of the areas of this research that has provided surprising findings has been the information gathered on Public Health Nurses. Participants' knowledge about the role of the PHN, on the surface, appeared good. Participants were all able to give examples of what services the PHN provided. However, when probed to discover what other services the PHN could provide to the school, participants were more likely to mention something that the PHN already did. This factor has implications for PHNs if they wish to enhance and advocate their service if people don't actually know what they do.

Participants' lack of knowledge about the role of the PHN also has implications for this study. Part of this study examined what the community's perceptions were of the role and services provided by the PHN in order to ascertain whether the PHN may be the person most appropriate to run a nurse practitioner-led clinic. Was the community's knowledge and trust of the PHNs role extensive enough that the

community would feel safe in using a clinic run by the PHN? As participants' knowledge about PHNs was less than anticipated the answer to this is not clear. Although it was positive that participants wanted more of the services already provided by the PHN, the new suggestions that were offered indicated that the current skills, knowledge and experience of the PHN are not, at present, sufficient to meet the expectations of the community. For example, participants indicated that counselling is a new service that a public health nurse could provide. Participants also indicated that the provision of counselling would address some of the health needs of the community and that counselling is a service that could be provided at a nurse practitioner-led primary health care clinic. At present, however, counselling is not a service most PHNs are qualified to provide. This confirms the researchers' belief that a PHN would have to be prepared to an advanced public health nurse practitioner level in order to run a nurse-led, family focused, primary health care clinic such as the one proposed in this research. An advanced public health nurse practitioner who meets the criteria laid out in Hinder's (1999) portfolio would be able to meet the expectations of the community with regards to the provision of health services such as counselling whereas current PHN services cannot.

Utilisation of Public Health Nurse Services

Most participants had referred to the PHN and several indicated that they had approached the PHN for advice for themselves as well. This indicates that providing a service that targets children, families and adults would be a successful model. The researcher has been unable to find examples from the literature that indicate that a community's acceptance of and willingness to support a new health initiative decreases

because certain target or funding criteria limits access to a clinic. It is logical, however, that if a nurse practitioner-led clinic in a primary school were only able to see children who attended the school and the remainder of the family's health was poor, then it is likely that the health needs of the family will remain unaddressed and continue to impact on the child/children.

The Nurse Practitioner

The overall aim of establishing a nurse practitioner-led primary health care clinic in a primary school is to improve accessibility for children and families to primary health care and to improve the overall health of children and families. It has been established that a public health nurse who meets the criteria in Hinder's (1999) portfolio of the advanced public health nurse practitioner is the most appropriate person to run a nurse practitioner-led primary health care clinic.

The nurse practitioner can be defined as a nurse who is prepared at an advanced educational level beyond a first degree. The nurse practitioner is someone who can make professionally autonomous decisions and who can receive patients/clients with undifferentiated and undiagnosed problems. A nurse practitioner screens patients/clients for disease risk factors and early signs of illness and develops a care plan with an emphasis on preventative measures. A nurse practitioner specialises in providing counselling and health education. She or he has the autonomy to admit or discharge patients/clients and the authority to refer to health providers (Ministerial Taskforce on Nursing, 1998). Hinder (1999) indicates that the nurse practitioner has an extensive scope of practice encompassing clinical knowledge, management skills,

teaching ability and research implementation. The American Nurses Association and the United Kingdom Central Council both recommend that the nurse practitioner should be prepared to Masterate or PhD level (as cited in Hinder, 1999).

Why, though, is a nurse practitioner more appropriate to provide care in a school based primary health care clinic than a doctor is? There are numerous reasons for this. Research indicates a growing acceptance of the role of the nurse practitioner by the general public and by medical practitioners (Chambers, 1998). Nurse practitioners provide care that is complementary to that of doctors (Chambers, 1998) and that is considered appropriate and cost effective (Moody, Smith & Glenn, 1999). Nurse practitioners are also considered more approachable than doctors are (Chambers, 1998). One participant in this research agrees and indicated that in many ways she finds a nurse more approachable than a doctor and that in her opinion this may increase people's use of the clinic. There is less likelihood that a consultation with a nurse practitioner will result in a prescription for medication as an outcome (Moody et al., 1999). The nurse practitioner provides more preventative health care using a holistic nursing model (Pearson, 1999) and in some cases clients appear to appreciate that the nurse practitioner is often from a similar social background (Chambers, 1998). Research also found many people were more willing to use the nurse practitioner than the GP because they found the nurse was more likely to communicate better with them than the GP was (Chambers, 1998). The Office of Technology Assessment in the USA also found that patients were more satisfied with the care they received from nurse practitioners than from physicians in terms of "personal care exhibited, reduction in the professional mystique of health care delivery, amount of information conveyed, and cost of care" (as cited in Chambers 1998, pp. 46-7). In the United States, nurse practitioner-led school based

been shown to improve access to primary healthcare for 'at risk' children and families and decrease the number of visits to the emergency department for primary healthcare (Jones & Clark, 1997; Wenzel, 1996). These factors all serve to increase the likelihood that a nurse practitioner-led clinic will improve health outcomes for children and their families, particularly those children and families considered 'at risk' who have been traditionally less likely to access primary health care services (Jones & Clark, 1997).

These factors do not imply that a medical practitioner has no role in a primary health care clinic in the primary school. Indeed, collaboration with general practitioners and other health service providers in the area will be imperative to the successful establishment and continuation of a clinic. The research discussed above does, however, appear to indicate that community members may be as likely or more likely to access a nurse practitioner-led primary health care clinic than a doctor-led clinic.

The General Practitioner and Nurse Practitioner Relationship

The relationship of the GP to a nurse practitioner working in a primary health care clinic in a primary school is an area that would need to be monitored carefully if a nurse practitioner-led clinic were established. The likely services provided by the nurse practitioner have the potential to overlap with GP services in one or two areas – for example, treatment of minor illnesses, prescription of medications and referral to specialists. General Practitioners could view this as a threat to the services that they provide. In fact the two medical practitioners interviewed for this research indicated that in their view, providing a preventative healthcare service only wouldn't work and that a GP practice and Practice Nurse could provide such services. In their opinion, the

infrastructure was already present and that setting up from scratch could be difficult. It may indeed be the case that a degree of infrastructure is present, however neither medical practitioner as indicated above (page 122), had taken advantage of this fact and established a primary health care, wellness focused clinic.

Chambers (1998) discusses the role of the nurse practitioner in general practice in Great Britain. As discussed earlier (page 126), nurse practitioners provide care that is complementary to that provided by the doctor. This, in turn, enhances the overall service provided to clients. There is no reason why a nurse practitioner based in a primary school in New Zealand should not have an equally complementary relationship with local GPs as nurse practitioners have with GPs in Great Britain.

If a nurse practitioner-led primary health care clinic were to be established, members would need to work in collaboration with other service providers in the area in order to ensure optimum health outcomes for all children and families in the area. One alternative suggested by the participants in this study was that a GP could be employed to provide GP services on a regular basis at the nurse-led clinic. Similarly, mutual referral from the GP to the nurse practitioner and from the nurse practitioner to the GP as discussed in Chamber's research will assist clients to gain the greatest health benefits. Obtaining the support and trust of local GPs as well as the local community will be necessary to ensure success of the clinic occurs.

Clinic Utilisation and the Importance of Gaining the Trust of the Community

The importance of gaining the trust and support of the community can not be underestimated. McClowry et al. (1996), when discussing the establishment of an elementary school based clinic in New York City, emphasise that the success of any community initiative requires gaining trust. McClowry et al. found that establishing a Community Advisory Board, utilising multiple focus groups in evaluation of the clinic, and ensuring the care provided by the clinic was of high quality, facilitated the development of trust and understanding among the community users of their facility. Use of their clinic has been high – 75% of children for whom clinic services are available have had consents signed by their parents so they can receive services. Glick et al. (1996), however, found that the gap between the raising of community awareness and support for the establishment of a nurse practitioner-led primary health care clinic and the actual establishment of the clinic served to damage relationships that had been previously developed with residents in the area. Community residents were hesitant to use the clinic as they did not know how long it would last given the length of time it had taken to establish it. Subsequently, initial utilisation of the clinic was poor. Glick et al. are hopeful that participation and trust in their newly established clinic will slowly grow. Glick et al.'s problems with community utilisation of their clinic, combined with the concerns raised by participants with regards to community utilisation in this study (discussed below), indicates that a newly established primary health care clinic within a primary school in New Zealand could have similar problems if factors such as establishing and maintaining trust are not taken into consideration.

Participants pointed out that not gaining community and GP support would be potential barriers to the successful establishment of a nurse practitioner-led primary health care clinic in the school. Participants considered that it would be important to get the community behind the service and that doing the groundwork first using interpreters and cultural educators would be one way of achieving this. Participants thought that getting people in to use the clinic would be difficult and slow at first. Participants did indicate clearly, however, that children and families in the area being studied would use a nurse-led primary health care clinic in a primary school once the trust and support of the community had been obtained.

Of all the participants, the PHN and the School Psychologist were the only two who indicated that they were unsure if the community would use a nurse practitioner-led primary health care clinic. The PHN was not specific about why she thought this. Whether the difficulty in getting people to attend at first was an issue or if she just thought they may not use it was unclear:

"It might be a bit dreamy, I'm not sure whether they would come or not...I don't know."

The School Psychologist was able to be a little more specific in her reasoning. She thought that most parents did go to their GPs regularly and that this may mean that they would be less likely to use a nurse practitioner-led primary health care clinic:

"I don't know that because the number of parents here who are on Community Services Cards...they do actually go to their GPs fairly regularly"

Despite this, the School Psychologist indicated that she did think the school might be a more culturally appropriate place for people to come for primary healthcare than a general practice surgery.

Benefits of a Nurse Practitioner-led Primary Health Care Clinic

Participants indicated that a nurse practitioner-led primary health care clinic would also provide certain benefits to the school and community in which it was established. For example, participants were adamant that school is considered a safe place. Some indicated that this should be taken advantage of. Participants also thought that school might be a more culturally appropriate place for people to come to and that a clinic attached to the school would increase access and availability of primary health care services to groups such as new immigrants. One of the participants in this research indicated that an added advantage to a nurse practitioner-led primary health care clinic was the fact that if the clinic was on site at school then school staff would have access to it as well as community members.

Charging for Services

A second area of this research with surprising findings was the emphasis placed by participants on the possibility of charging users of a clinic. The researcher had assumed that a primary health care clinic would need to be free in order to encourage attendance. However, the participants in this study indicated that a koha (donation) would be an appropriate means of attaching value to the services received. Krothe (1998) had found that charging families a yearly subscription was the best way to obtain some recompense for services provided in her school based clinic in the USA. However, when participants in this research were offered a yearly subscription as a possible alternative in the course of discussion around this issue they were emphatic that this would not work nor be appropriate.

Clinic Services and Hours of Operation

Thus far, the health needs of the community have been established and strategies for addressing the health needs from the participants' perspective have been discussed. It has been established that there are no existing preventative services that address the health needs of children and families at the primary school level and there have been no applicable failures of health services in the area. A PHN qualified to an advanced public health nurse practitioner level would be the most appropriate person to run a clinic and participants suggested that a 'koha' system of payment for services would be appropriate. However, the services that a nurse practitioner-led primary health care clinic would provide have not been discussed in detail, nor has participant views on opening hours. What services did participants see a nurse-led primary health care clinic providing? What hours did they consider the most appropriate for the provision of services?

The most popular suggestions from participants regarding what services they would like a nurse-led clinic to provide were health information, health education, health counselling and health service co-ordination. The provision of diagnosis and treatment of minor illness and injury – particularly with the possibility of nurse prescribing in the near future - was also popular. Given the holistic approach of nursing to health care and the emphasis that nursing places on health education and illness prevention (Pearson, 1999) it is encouraging that participants identified wellness care as opposed to disease treatment as services they would expect a clinic to provide. Participants were clearly aware of nursing's focus in these areas.

Other areas participants saw a nurse-led clinic providing services in included providing facilitation of outside health services – for example a general practitioner clinic, a dietician clinic and mental health clinics. Participants also indicated that a clinic would be somewhere they could go for health assessment and referral.

With regard to participant expectations for services at a clinic and examples from currently operational school-based clinics in the USA, the expectations are inline with what is provided overseas. For example, services provided at a school based clinic in Phoenix, Arizona (Wenzel, 1996) include health screening, health promotion counselling and immunisation. Similarly, Jones and Clark (1997) discuss the provision of health promotion, prevention and intervention. Nurse practitioners in both studies had prescribing rights.

Participants suggested that opening for two two-hour sessions per day would be the most appropriate hours for providing services at a primary health care clinic based in the primary school. Participants thought most families would be able to access services during these hours – particularly when dropping children off at school or picking them up. Overseas examples had a range of examples stretching from one night per week (Krothe, 1998) to a full time 40 hour week (Bureau of Primary Health Care, 1995). The only way to confirm the most appropriate opening hours in New Zealand will be through evaluation once a clinic is established. However, participant suggestions give a clear indication of where the clinic should start.

Strengths and Limitations of Community Needs Analysis

The preceding discussion has centred on the outcomes of this research with little attention paid to the method used to obtain the results. It is equally important to discuss the strengths and limitations of the method in order to ensure those who undertake similar projects can be aware of benefits and pitfalls and take appropriate measures to utilise or avoid them. As mentioned earlier, one of the advantages of community needs analysis is that involving community members and organisations in the study process increases awareness and ownership of the program (Haglund et al., 1990). Certainly one of the outcomes of this research has been an increase in the knowledge of the community with regard to the possible establishment of a nurse practitioner-led primary health care clinic in the school. This can be considered an advantage if a new clinic is established in the school. However, it can be considered a disadvantage if a clinic is not established in the school due to unrealised expectations of participants in the study. Although it has been emphasised to participants throughout the study that a clinic may not be established, the participants are still hopeful that it will occur and that if this fails to happen there will be disappointment.

Despite the possibility that a nurse practitioner-led primary health care clinic may not be established in the school being studied, the comprehensive community profile and health needs analysis will provide useful information on its own to the community. The information obtained about the Public Health Nursing service will also provide useful information to the public health nursing service providers to act upon if they choose.

The use of focus groups (group interviews) proved a useful way of obtaining access to individuals who would have been more difficult to access separately. For example, the Parent Focus Group was comfortable meeting with the researcher in their own surroundings as an established group but indicated that they would have been less likely to meet with the researcher individually. Kreuger (1994) discusses the issue of individuals being stifled rather than stimulated by group discussion. However, in this research, the opposite seems to be the case. Although one parent appeared to be initially more involved in the discussion, by the end of the interview, all parents had had largely equal involvement in the conversation.

One of the biggest problems facing the researcher was accessing key informants. Medical Practitioners were the most reluctant to take part. Although the researcher wrote letters and sent information sheets to several general practices, in the end, the researcher personally approached four general practices in the area, gained one formal interview and was able to make notes for use in the research with one other. The researcher would have preferred more formal discussion with GPs in the area, however, the results from the two medical practitioners who did agree to take part can give a broad idea of what others in the area may think. The fact that other GPs were reluctant to take part may indicate that they were too busy to take the time for involvement and support for the initiative cannot be assumed.

A second area that proved problematic was in the reduction and presentation of results. The researcher had several attempts at presenting the results in a manner easily understood for the reader. Eventually, the only way to clearly present the results was to

provide the most common perceptions of participants in the text and list the remainder in appendices.

Conclusion

In this chapter the results of this research have been discussed in detail. The health needs of the community have been described in relation to those indicated by participants and those indicated by the demographic data. Possible means of addressing the health needs have been discussed, and the role of the PHN in relation to a nurse practitioner-led primary health care clinic has been examined. The practicalities of establishing a clinic have also been discussed. Aspects from the literature review have been incorporated throughout the chapter for comparative purposes. The strengths and limitations of community needs analysis method have also been examined. The following chapter will conclude the research by examining if a nurse practitioner-led primary health care clinic is feasible.

CHAPTER SEVEN – CONCLUSION

IS IT FEASIBLE?

The health needs identified by this research included examples such as the need to address poor nutritional choices by children and families, the need to address physical health concerns such as the management and control of asthma and low immunisation rates, and the need to address the health needs of the refugee and migrant population. Strategies offered by participants for addressing the health needs included providing a nurse-led clinic, providing a multi-lingual, culturally appropriate service, and providing a health information service. On further examination of the concept of a nurse-led primary health care clinic, services participants indicated a nurse at such a clinic could provide included health information, mental health counseling, and physical treatment of minor illness and injury. Many of the services participants considered could be provided at a nurse-led clinic were similar to the strategies offered by participants for addressing the health needs of the community.

On exploring participants' thoughts on whether a public health nurse would be the best person to run such a clinic, some services were beyond the current scope of practice of the public health nurse. As a result, the researcher concludes that a clinic would need to be run by an advanced public health nurse practitioner who meets the criteria outlined in Hinder's (1999) portfolio (See Appendix 1). These criteria include skill in facilitating family centred care, skill in facilitating the health promotion process, and expertise in undertaking service and clinic management. The advanced public health nurse practitioner will meet New Zealand Nursing Council criteria for the

prescription of medication (to be released late 1999), is skilled at interpreting laboratory results and is able to undertake comprehensive physical and social assessment of the family and the individual. She or he would have the ability to work inter-ethnically with the refugee and migrant population in the area and be skilled in mental health/trauma counseling.

Participants indicated that given good promotion, appropriate opening hours and sufficient time to become established, the children and families of the community would use a nurse-led, family focused, primary health care clinic at the school. Participants considered school a safe place and thought that families may be more likely to use a nurse-led clinic because of this. Participants also thought that many community members would be willing to contribute toward the cost of care through a 'koha' (donation) system of payment.

Other outcomes from the interviews that indicate a primary health care clinic led by a nurse practitioner would be successful include the fact that there are few other clinics in the community that address the primary health care needs of the community. Plunket, the dental therapist and the ear van are the only ones. These clinics provide intervention for specific physical concerns to do with teeth and ears, and provide wellness care for under five-year-olds. A primary health care clinic led by a nurse practitioner would provide services far broader than this with a focus on the five to ten year age group and their families although also providing services for community members outside these parameters as appropriate. Participants could only provide one example of a health clinic that had failed, although the researcher knew of a Pacific

Island Health Promotion Centre in a neighbouring suburb that had closed down due to poor utilisation.

The results of this research indicate that a nurse practitioner-led clinic established in a primary school in the community at the centre of this study could provide as equally an appropriate health service as the examples given from overseas literature. It is likely that a similar model would also be successful in other communities in New Zealand, however the health needs identified in this study are specific to the community studied. Further community needs assessments would need to be completed to ensure health services target health needs identified by the communities involved. Other health service providers may, however, wish to utilise the method used in this research. The method is transferable to other communities and has proven an appropriate means of identifying health needs and determining the feasibility of a primary health care service initiative.

Do these factors indicate that a nurse practitioner-led, family focused, primary health care clinic established in the specific primary school studied for this research is feasible? The outcomes from this research suggest that yes, it is feasible. A compilation of the results as participants saw it suggests that it would look like this:

- A clinic established in a primary school run by an advanced public health nurse practitioner with experience and qualifications in child and family nursing, community nursing and public health including advanced assessment skills (physical and social) and experience/qualifications in mental health counselling.
- The clinic would be open two sessions per day that overlap the before and after school hours – for example from 0800 to 1000 and from 1430 to 1600 and

possibly one evening per week and/or a weekend morning. This would also allow time during the day for home visiting.

- A 'koha' system of payment for services would ensure the information, advice, referral or treatment was suitably valued.
- The clinic would provide the following services:
 - Accessibility.
 - Assessment.
 - Referral.
 - Facilitation of clinics e.g. GP, dietician, Community Child Adolescent and Family Mental Health Services, Family Planning, Refugees as Survivors, social worker, Maori Community Health Workers.
 - Case co-ordination.
 - Service co-ordination.
 - Health information.
 - Health counselling.
 - Monitoring of children and families in cases of child protection.
 - Physical health care including but not limited to health assessment, monitoring, prescribing of medications (e.g. antibiotics - when legislation gives mandate for nurses to prescribe), dressings, immunisations, asthma management.
 - Health education – parent, family, classroom, groups.
 - Facilitation of support groups.
 - Home visiting.
- The clinic would provide care that is appropriate to all cultures and religions.

- Addressing the health needs of the refugee and migrant population in the area would be seen as a prerogative and access to translation and interpreting services would be made a priority.

RECOMMENDATIONS

- That an advanced public health nurse practitioner-led, family focused, primary health care pilot clinic be established in either the primary school that was the focus of this research or one that is similar.
- That process and outcome evaluation takes place throughout the term of the pilot project.
- That the process of networking and gaining community and health and social service provider support take place prior to the establishment of the clinic.
- That the clinic works closely with local GP's and other health providers in the area to ensure co-operation and collaboration takes place.
- That a nurse who meets the advanced public health nurse practitioner requirements outlined in Appendix 1 be employed to lead the clinic.
- That the provision of interpreting and translation services be made a priority both during and after establishment of the clinic.

CONCLUSION

This research has undertaken a community needs analysis with the aim of determining the feasibility of establishing a nurse practitioner-led, family focused, primary health care clinic in a primary school environment. Community needs analysis

has proven to be an effective means of undertaking the research. The method of community needs analysis has not only allowed the compilation and analysis of large tracts of quantitative and qualitative data, it has also increased participants' awareness and understanding of the health issues facing the community and how these may be addressed.

Participant's perceptions of the role of the public health nurse have also been examined. Findings showed that participants' understanding of the role of the public health nurse was not great and that community expectations are such that for a nurse to lead a primary health care clinic further skills would be required. He or she would need to be qualified to an advanced public health nurse practitioner level.

The practicalities of establishing a nurse practitioner-led, family focused, primary health care clinic have also been examined. This has resulted in the preparation of a community-developed model that will serve to address the health needs of the children and families in the area studied in an effective and appropriate manner.

New directions for primary health care service provision are indicated in New Zealand. The results of this research resoundingly indicate that establishing a nurse practitioner-led, family focused, primary health care clinic in a primary school is feasible as one of those new directions.

GLOSSARY OF TERMS

AIDS: Acquired Auto Immune Deficiency Syndrome. A serious disease of the immune system, caused by infection with the human immunodeficiency virus (HIV), allowing the establishment of particular diseases which may cause the death of the affected person (Ministry of Health, 1997b).

At risk: Children and/or their families who are in need of extra services because of the risk of poor health, education or welfare outcomes due to social and economic factors (Ministry of Health, 1998a).

Checklist Matrix: Used to analyse field data. Enables organisation of several components of a single, coherent variable.

Coding: Used to classify groups of words into categories to enable easier analysis.

CCAFS: Community Child, Adolescent and Family Mental Health Services

Contact Summary Sheet: A single sheet containing focusing and summarising statements about an interview in order to provide a summary of the interview.

Context Chart: Uses graphics to map inter-relationships among organisations and people in order to clarify individual behaviour. Also includes text about participants.

DARE: Drug and Alcohol Resistance Education – a Police run education programme.

Decile ranking: a ranking assigned to all New Zealand schools based on the socio-economic status of its student population where 1 is the school with the lowest socio-economic status and 10 is the highest.

Ear Van: A mobile nurse lead service that provides diagnosis and treatment of minor ear problems in children.

EPSDT: Early periodic screening, diagnosis and treatment – an American health intervention programme.

Encopresis: Involuntary passage of faeces.

Enuresis: Incontinence of urine – especially bedwetting.

FGM: Female genital mutilation.

Focus Group: A group of usually 4 to 15 people assembled for a group discussion regarding a topic of research.

GP: General practitioner

Halal: Meat from animals that have been killed according to Muslim law (Hanks, 1990).

Health Camp: A residential camp that children can attend where social and physical health needs are addressed.

Hinengaro: Mental health.

HIPPY: Home Instruction for Pre-school Youngsters programme.

IMR: Infant Mortality Rate.

Intermediate School: Ages 10 – 13 years.

KOS: Keeping Ourselves Safe – a Police run education programme.

Key Informant: Member of the community who holds a position within healthcare or social services or who holds a position of authority and respect within the community being studied.

Koha: Donation, gift.

MRRC: Mangere Refugee Resettlement Centre.

Morbidity: Illness.

Mortality: Death.

OECD: Organisation for Economic Co-operation and Development. The OECD countries are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, South Korea, Luxembourg, Netherlands, New

Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom and United States.

Plunket: A New Zealand scheme that provides well child checks for children and infants under the age of 5 years.

Primary Health Care: Essential health care made universally attainable to individuals and families in the community by means acceptable to them, through their full participation and at a cost that the community and country can afford. It forms an integral part of the country's health system of which it is the nucleus, and of the overall social and economic development of the community (Ministry of Health, 1998a).

Primary School: Ages 5 - 10 years.

PHN: Public Health Nurse.

Rate: In epidemiology a rate is the frequency with which a health event occurs in a defined population.

RCpN: Registered Comprehensive Nurse.

RGON: Registered General and Obstetric Nurse.

SBC: School-based Clinic.

Secondary School: Ages 13 – 18 years.

SRC: Self-Referral Clinic.

SES: Special Education Service.

SIDS: Sudden Infant Death Syndrome.

Tinana: Body, physical health.

Treaty of Waitangi: The Treaty of Waitangi is New Zealand's founding document. It establishes the relationship between the Crown and Maori as Tangata Whenua (first peoples) and requires both the Crown and Maori to act reasonably towards each other and with utmost good faith (Ministry of Health, 1998a).

TB: Tuberculosis.

VHT: Vision hearing test.

Wairua: Spirituality.

WANZ: Well Women's Nursing Service.

Whanau: Extended family.

Whanaungatanga: Relationship, kinship.

WHO: World Health Organisation of the United Nations.

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APPENDIX 1**Portfolio of Skills Required by an Advanced Public Health Nurse Practitioner****(Hinder, 1999)****Personal Specifications**

	Essential	Preferred
Education	<ul style="list-style-type: none"> • RGON, RCpN and/or Bachelors Degree. • Relevant postgraduate specialist study at 8000 level on the New Zealand Qualifications Authority Framework. 	<ul style="list-style-type: none"> • Masters degree.
Experience/ Knowledge	<ul style="list-style-type: none"> • 2 years at Level 4 Public Health Nursing professional competency level. • Ability to work in an appropriate/culturally safe manner. • In-depth understanding of the Treaty of Waitangi. 	
Specific Competencies	<ul style="list-style-type: none"> • Proven ability to work effectively in a leadership role. • Ability to work effectively in autonomous practice. • Advanced clinical assessment skills. • Proven skills in: <ul style="list-style-type: none"> - Health promotion - Networking/communication - Time management - Organisational skills. • Qualified in: <ul style="list-style-type: none"> - Prescribing medications - Ordering and interpreting diagnostic tests - Specialist referral. • Research embedded practice. • Project development skills. • Current drivers license. 	
Personal Competencies	<ul style="list-style-type: none"> • Commitment to professional development. • Facilitator/negotiation skills. • Accountable/adaptable. • Motivator/innovative practice. • Commitment to primary health care 	

Core Competencies

<p>1. Facilitate Family Centred Care</p> <ul style="list-style-type: none"> • Assesses the health needs of the individual or family. • Provides appropriate intervention or facilitation of identified health issues. • Practices in a culturally appropriate manner. • Demonstrates commitment to working in ‘partnership’ within the principals of the Treaty of Waitangi. • Uses advanced knowledge linked to evidence based intervention that is supportive of positive health outcomes. • Uses a collaborative approach, which is based on active participation, negotiation and partnership with clients and their families focusing on strengths and potential. 	<p>2. Facilitation Of The Health Promotion Process</p> <ul style="list-style-type: none"> • Demonstrates commitment to health promotion that fosters productive health behaviours and disease prevention. • Works within a community development framework as per the strands of the Ottawa Charter: <ul style="list-style-type: none"> - enabling - advocating - mediating - supporting - strengthening - empowering
<p>3. Service/Clinic Management</p> <ul style="list-style-type: none"> • Co-case manages with specialist providers as appropriate. • Makes appropriate specialist referral as required. • Works in an independent collaborative manner. • Effectively manages use of resources within the clinic. • Uses formative process and outcome evaluation measures. • Demonstrates clinical leadership and teamwork skills. • Maintains client database for follow-up consultation, referral and outcomes. • Monitors self, peers and health delivery system through quality assurance, total quality management and as part of continuous quality improvement. 	<p>4. Professional Practice</p> <ul style="list-style-type: none"> • Incorporates professional and legal standards into practice. • Develops a base for personal ethics in practice as related to client issues and professional code. • Practices nursing in accord with principals that promote client interest and that acknowledges the clients’ individuality, abilities, culture and choice. • Receives formal and ongoing clinical and professional supervision.

5. Research Based Practice	6. Professional Education
<ul style="list-style-type: none">• Shows scholarly research enquiry into practice, this includes:<ul style="list-style-type: none">- developing best practice principles based on evidence- facilitating the creation and evolution of nursing practice and nursing knowledge- demonstrating commitment to the evaluation of current/topical nursing literature.	<ul style="list-style-type: none">• Undertakes personal responsibility for ongoing development of own nursing knowledge.• Demonstrates commitment to the ongoing knowledge development of the nursing team.

APPENDIX 2

Letters from the Massey University Human Ethics Committee and the Health Funding Authority Northern Region North Health Ethics Committee.



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**FACULTY OF
BUSINESS STUDIES**

**DEPARTMENT OF
HUMAN
RESOURCE
MANAGEMENT**

27th May 1998

Jill Clendon
1B Kenneth Ave
Sandringham
AUCKLAND

Dear Jill

Thank you for your letter of 16th May and your revised information sheets. Thank you also for your explanations to some of the points raised in our letter of 5th May.

The amendments you have made and the explanations you have given now meet the requirements of the Human Ethics Committee and the ethics of your proposal are approved.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Philip Dewe'.

**Professor Philip Dewe
Chairperson
Human Ethics Committee**

Health Funding Authority

email: sandrah@hfa.govt.nz

4 May 1998

Ms J Clendon
1B Kenneth Avenue
SANDRINGHAM

Northern Office
91-95 1st Eden Road
1st Eden
Private Bag 92522
Wickesley Street
AUCKLAND
New Zealand
Telephone 09 257 4300
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Dear Ms Clendon

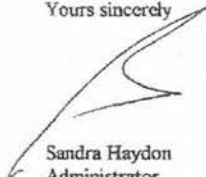
98/050 PRIMARY SCHOOL HEALTH CLINICS: A COMMUNITY NEEDS ANALYSIS. A STUDY TO ASCERTAIN THE FEASIBILITY OF ESTABLISHING A NURSE PRACTITIONER-LED, FAMILY FOCUSED, PRIMARY HEALTH CARE CLINIC WITHIN A PRIMARY SCHOOL ENVIRONMENT

The above proposal was considered by Ethics Committee X at the meeting held on 29 April 1998.

Ms Clendon agreed that reference to children should be deleted from the study.

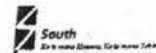
The Committee agreed that the proposal does not require to be submitted for ethical approval. The Committee noted that the proposal was concurrently being examined by the Massey ethics committee and in any case the committee saw no ethical problems with the proposal.

Yours sincerely



Sandra Haydon
Administrator
Ethics Committees

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APPENDIX 3

Semi-Structured Interview Plan

1. What do you consider to be the health needs of your community – in particular the children and families of your school? Try to think as broadly as possible when you think about health, so not just physical health but also mental health and spiritual health. (Prompt where necessary e.g. suicide.)

2. What clinics are available in your community for your school children and families with regards to preventing ill health? (Prompt where necessary e.g. plunket, dental clinics.)

3. Has there ever been any health clinic or service run in this community that hasn't worked? Examples?

4. Can you think of any ways in which the health needs you outlined above could be addressed? (Prompt where necessary e.g. health clinic, ear clinic etc.)

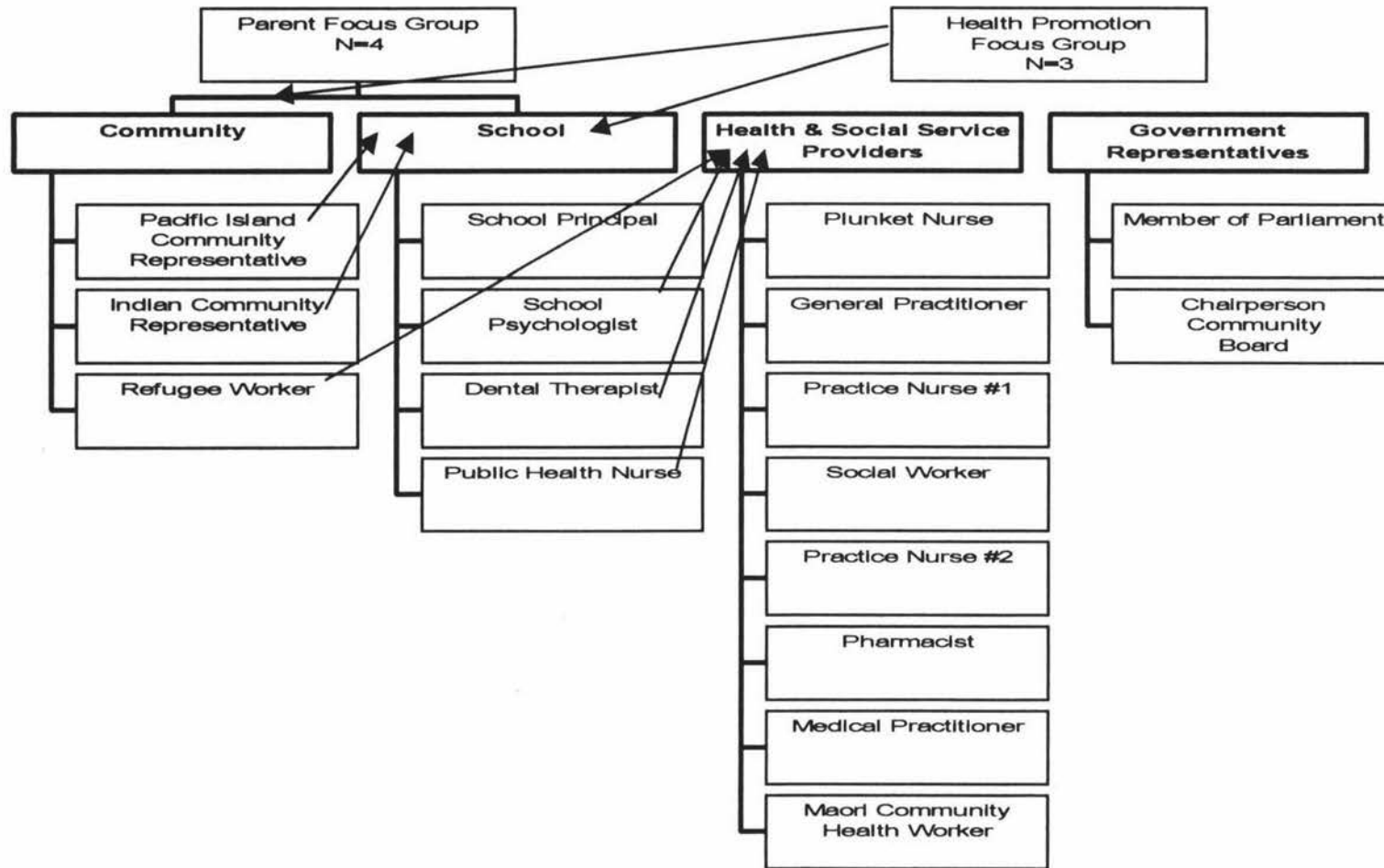
5. Your school has a Public Health Nurse who visits regularly. What services does she/he provide to your school?

6. Have you ever used the services of the Public Health Nurse? (This question will be adjusted depending on who is being interviewed)

7. Can you think of any other services that the Public Health Nurse could provide to the children and families in your community?

8. Do you think that a clinic run by the Public Health Nurse in your school available to children and their families would be a service that you would use?
- a) If it were free
 - b) If you had to pay – how much would you be willing to pay?
- (This question will be adapted depending on who is being interviewed.)
9. What services would you expect a clinic like this to provide? (Prompt where necessary e.g. immunisations, health checks, counselling.)
10. Would the children and families in this community use a clinic like this?
11. For the community to have access to a health care clinic, what would be the best opening hours?
- a) 9-12
 - b) 9-5
 - c) 11-2
 - d) 4-8pm
 - e) other e.g. _____

Context Chart



Context Chart Text

Focus Groups

Parent Focus Group

Consisted of four parents - links to both the school and the community. All the parents had children attending the school and all were also members of the local community. Important to note that the members of this group were all pro-active in a sense that they belonged to a group such as the parents group – they were willing to become involved with the school and had an obvious interest in belonging to a group that supported the school and provided support to them as parents.

Health Promotion Focus Group

Consisted of one parent and two teachers – links again to both the school and to the community. This focus group is an existing group known as the Health Promoting School's Health Committee. The school at the centre of this study is one of 11 schools in Central Auckland taking part in a Health Funding Authority pilot project to introduce the World Health Organisations' Health Promoting Schools concept. As a part of this, the school establishes a health committee that is responsible for the health of the whole school community. A Health Committee usually consists of parents, school staff, and a facilitator, the school's PHN and in some cases students. It is important to note that the members of this group have a good working knowledge of the health issues facing the school and to a certain extent the community.

Key Informants

The Community

Pacific Island Community Representative – This is a Pacific Island woman who was interviewed because she is a member of the Pacific Island community who are well represented in the study area. She also holds a key position in the school being studied so has a high standing within the community.

Indian Community Representative – this person was interviewed as she is a member of the Indian Community who are also well represented in the community. Born in New Zealand, she has children who attend the school being studied.

Refugee Worker – This woman has been working with refugees in the study area for many years and has both a professional and personal understanding of many of the issues facing the refugee and migrant population in the area. She works professionally with refugees but has asked that her views be represented as her own rather than her organisations and for this reason has been put under the category of Community.

The School

Principal – the principal of the school was interviewed due to her knowledge of the school and it's needs as well as her knowledge of the community.

School Psychologist – the school psychologist is employed directly by the school to provide psychology services to the children at the school and in some cases, their families. The School Psychologist is both representative of the school and of health and social service providers.

Dental Therapist – the dental therapist has been providing dental services to schools in the area for many years. She is based at the school being studied for lengthy periods of time and is therefore both representative of the school and as a health and social service provider.

Public Health Nurse – the PHN at the school being studied has been there for 5 years. She is representative of both the school and as a health and social service provider. The PHN had prior knowledge of the research before being interviewed and this may have influenced her views and opinions.

Health and Social Service Providers

Plunket Nurse – one of two Plunket Nurses at the local Plunket Clinic, this participant also has experience as a Public Health Nurse.

General Practitioner – the General Practitioner did not want to be interviewed but did allow the researcher to take notes as a conversation was taking place and later gave verbal consent for the use of those notes as long as there were no quotations used from the notes.

Practice Nurse #1 – based in a general practice of 4 doctors within the study area. This practice nurse also has previous experience as a Public Health Nurse and is an asthma educator.

Social Worker - works for the Child and Family Service who provide community health services to children in Central Auckland. The social worker expressed a strong interest in community development models of practice.

Practice Nurse #2 - Charge Nurse at a local accident and medical centre.

Pharmacist – works in the pharmacy closest to the school being studied. Expressed an interest in becoming more involved with health education in the community.

Medical Practitioner - Clinical Director at a local accident and medical centre.

Maori Community Health Worker - works for the Child and Family Service and made a specific request that her views were her personal views and not those of the Maori people.

Government Representatives

Member of Parliament for the area being studied.

Chairperson of the local Community Board - subsequent electoral changes have disestablished this board and the person interviewed is no longer in this position, however, this does not negate the views of this person in any way.

APPENDIX 5**Checklist Matrices**

The checklist matrices displayed in this appendix show each question followed by the answers given by each participant as indicated. The checklist matrices have been developed from notes made during the course of each interview and from the contact summary sheets as found in appendix seven.

1. What do you consider to be the health needs of your community – in particular the children and families if your school? Try to think as broadly as possible about health, so not just physical health but also mental health and spiritual health. (Prompt where necessary e.g. suicide.)

Chairperson Of Community Board	General health – need funding, health care and facilities, psychiatric – women’s refuge important, children – not the significance attached to this as should be, ‘can never have too much health care’, nutrition, clothing, poverty – neglect – poor parenting
Parent Focus Group	Headlice – need campaign for prevention, poor English, cultural issues, school sores – exposed sores, healthy eating – need balanced diets – no lunches, lunches brought to school e.g. McDonalds, KFC, chips, cake, fizzy drinks – cultural issues – Indian parents feed children up to age of seven, sleep times – children staying up late, safe environment at school – somewhere that children can go to – counselling area, health info service, behavioural problems, positive parenting skills, when should I go to the doctor?
Health Promotion Focus Group	Migrant population – what health facilities available e.g. refugee, immunisation, counselling – multi cultural/language appropriate, food insufficient, clothing, scabies, nits, boils, runny noses, glue ear – improving - different ethnic clientele – increase in Asian and Indian, decreasing Pacific Island, parent caregiver education – medical, positive parenting, special needs, behaviourally challenged children, adult anger management, alcoholism, addiction
Pacific Island Community Representative	Food – educating parents re healthy lunches e.g. making rather than buying, exercise – children lacking daily exercise e.g. walking for health and weight control – parents involved in activities with children outside the home, ensuring basic needs being met – e.g. going to bed on time, going home to someone, parenting skills e.g. handling demanding children – setting boundaries and routines that are reasonable for children
Indian Community Representative	Increasing immigrant population needs education – more familiar with health conditions e.g. runny noses, dental, ears that may not be present in own country, having someone accessible for health education, knowing when an illness requires further intervention, good healthy lunches are lacking – need fruit not junk food
Dental Therapist	Stress, anxiety of children – particularly due to coming to dental clinic but not all of it is due to this, doing more cavities and extraction’s here when should be doing less – new immigrants
School Psychologist	No lunches, poor nutrition, poor hygiene, overcrowding – scabies, nits, all present here, lack of knowledge/inappropriate treatment of health problems, asthmatics, 1 diabetic at school, 1 epileptic, history of burns (more severe physical health needs in some children), inappropriate parenting – hitting, poor emotional health in family
Public Health Nurse	Many different cultures at school – refugees – isolation, no families, teasing of children due to e.g. food habits, huge socio-economic range – stress associated with decreased income, transport poor, high cost of housing – housing NZ is selling out

School Principal	Only relevant to some families, physical – healthy eating – broad range of food available at school – Cool School Lunches, pre packaged food most popular, families purchase junk food e.g. cheesels, different levels of education in community, carbonated drinks also increased sugar in fruit drinks, enough to eat – no breakfast, although less and less of these children, clothing, few concerns mostly appropriate, personal hygiene – not a big issues – big improvement over past 6 years, teeth – big concern, emotional health reflected in disturbances within their lives which reflects on behaviour in class, playing area – decreased hard play area leads to some behaviour concerns with children with overcrowding, shade is being addressed, education on skin care is available and sunscreen is available in class, parents – education re infectious diseases lacking in some areas – e.g. headlice, a few children coming to school unwell but not significant numbers, a parent run company is available to provide nannies for a fee.
Maori Community Health Worker	Food, clothing, access to medication, low socio-economic – not able to afford healthcare
Medical Practitioner	Accessibility (including location, cost) to medical care e.g. advice on when to seek treatment, care when parents unavailable, minor injury in child – minor cuts to fractures, head injuries KO'ed – assessment for NAI is possible, acutely unwell, URTI's, asthma – lots and of all ages
Pharmacist	Headlice, scabies, immunisation – need to increase understanding and increase availability especially with the multi-ethnic mix in the community, nutrition is poor in some families, parenting is needed, budget advice, closure of maternity and mental health hospitals, diabetics, asthmatics
Practice Nurse #2	Transient population, multicultural – lots of immigrants – immunisations, how the health system works private versus public, 'what's a GP', maternity healthcare, info, asthma, general healthcare, hygiene - ?cultural or country or environment, first aid treatment e.g. toothpaste on burns, use of pamol, when to seek treatment – real extremes
Social Worker	Social health of area is my focus, financial needs – poverty issues – dysfunction, illness, overcrowding, new immigrants – emotionally unwell prior to arrival and then face NZ issues, young couples – working families – mothers at home for the first time – isolation, keeping safe in isolation, first home buyers – financial issues, relationship changes with neighbours, partners, mixed racial groups? ' a lot of secrets' – not wanting the next door neighbour to know what's going on e.g. home visits.
Practice Nurse #1	Knowledge of area, increased immigrant population – immigrant centre near by, language barrier, need for social orientation to NZ culture for immigrants, good immunisation knowledge but still lack in lower socio-economic areas, nutrition – junk food, inappropriate foods, asthma, absenteeism, schooling not always valued, higher socio-economic groups – hard to break into real issues, break neck pace, sometimes hard to fit in needs of children and parents

General Practitioner	Parenting problems – schools should have programs, anger management, mental health unit – needs to see people more quickly, otitis media, physical aids – pharmacists loan out, impetigo, scabies, always crops up, viral illnesses, diarrhoea and vomiting, asthma, eczema, wheezy bronchitis
Plunket Nurse	Holistic – high immigrant, high refugee numbers – basic needs, Maslow’s hierarchy – housing, food parcels, poor support particularly for refugees (families missing), primary needs, lots of referrals to maternal mental health – not only PND but also due to past traumas, children’s health is a spin off of social circumstances, case of rickets recently – dark housing, born in New Zealand, bronchiolitis, overcrowding, decreased income leads to decreased feeding leads to poor growth and development
Refugee Worker	Mental health, resettlement process – pre existing conditions, ESOL, torture – traumatised, witnesses including children, infectious diseases – TB, tropical diseases e.g. malaria, PTSD, grief and loss, uncertainty, refugee camps – not a safe place, physical reactions to stress e.g. ulcers, loss of cultural, community ties, ‘refugee’ – how long does this title remain? – Has negative connotations.
Member of Parliament	Mixed community, wide range of ethnic backgrounds, wide socio-economic range, more difficult for poorer families, basic things – vision hearing testing done, nutrition – food, quality of , social problems e.g. behavioural

2. What Clinics are available in your community for your school children and families with regards to preventing ill health (Prompt where necessary e.g. Plunket, dental clinics)?

Chairperson Of Community Board	none that aware of
Parent Focus Group	Plunket, medical centres, dental nurse, PHN
Health Promotion Focus Group	Plunket, ear van, dental therapist, accident and medical centre, kindergarten run parenting programs and classes
Pacific Island Community Representative	nil, only doctors, PHN
Indian Community Representative	none – need full-time dental nurse at school of this size
Dental Therapist	dental clinic – does lots of preventative work
School Psychologist	Central Auckland not as well resourced as South and West, SES deteriorating, Starship, PHNs, refugee support – church groups
Public Health Nurse	none – GP's are expensive
School Principal	PHN system – really supportive network, stable service, MO, Plunket, ear caravan, VHTesters, SLT & OT through SES, Starship for diabetic children, dental clinic
Maori Community Health Worker	accident and medical – can pay bills off but after 2 visits of not paying off, offer removed, local GP's – don't do accounts, Plunket, PHN used more often than Plunket
Medical Practitioner	none
Pharmacist	Plunket – stretched resources, lack of consistency, no known clinics
Practice Nurse #2	Plunket – limited by timing & funding, PAFT, dental clinics, churches have groups, play centre and kindergartens do things, schools themselves, Nurse Practitioner, WANZ clinics, Public Health e.g. BCG's
Social Worker	none, in [neighbouring suburb] centre for new immigrants
Practice Nurse #1	PHN role, GLH immigrant unit, GP nurse consultations, dental clinics, DARE program, community dieticians, CAB, sport & education trusts prevention programmes
General Practitioner	
Plunket Nurse	dental therapist, Plunket, Child & Family Service – home visit – Kohanga Reo at Kura Kaupapa Maori
Refugee Worker	Auckland Refugees as Survivors Centres,
Member of Parliament	Henderson High School – MOH and PHN run a clinic.

3. Has there ever been any health clinic or service run in this community that hasn't worked

Chairperson Of Community Board	none that aware of – voluntary organisations are struggling to get funding and volunteers e.g. graffiti group
Parent Focus group	no
Health Promotion Focus Group	no
Pacific Island Community Representative	no
Indian Community Representative	no
Dental Therapist	no
School Psychologist	no
Public Health Nurse	none
School Principal	Not that know of
Maori Community Health Worker	no
Medical Practitioner	no
Pharmacist	no
Practice Nurse #2	child care facility [in neighbouring suburb] failed.
Social Worker	no
Practice Nurse #1	Not aware of any
General Practitioner	
Plunket Nurse	Local maternity unit is ? closing/moving
Refugee Worker	no
Member of Parliament	none

4. Can you think of any ways in which the health needs you outlined above could be addressed? (Prompt where necessary e.g. health clinic, ear clinic etc.)

Chairperson Of Community Board	through the Community Board – funding available through ‘discretionary funding’, mayoress committee, Red Rose Society, SLIPS
Parent Focus group	multi-lingual health info service, offer food to get people to come, ethnic groups set up e.g. Plunket run Chinese parent group
Health Promotion Focus Group	by providing transport – easier access to health needs, health info service e.g. social worker specialising in health needs financial entitlements, distribution of info to schools in different languages
Pacific Island Community Representative	Pamphlets, through workshops provided by PHN, getting people to acknowledge problems and attend sessions.
Indian Community Representative	through the children – need translation for parents to understand – can educate through children, encourage fruit growers e.g. Apple and Pear Board to become involved in encouraging nutrition e.g. pamphlets, stickers etc. free fruit for schools
Dental Therapist	parents unaware of dental service and that treatment starts at 2 ½ years – 5 years is too late, parents responsibility to bring prior to 5 years, enrolment means less stress and anxiety , increased confidence when coming with parents
School Psychologist	Previous principal had a vision of school based services following a scholarship visit to USA - better co-ordination of services and a more comprehensive system is needed – difficult to co-ordinate when multiple agencies not on site.
Public Health Nurse	clinic in school is one alternative, school is a safe place to see clients e.g. about nutrition, teachers can come in on meetings
School Principal	strong network within school – supported by external agencies when appropriate, full time or part time nurse at school permanently
Maori Community Health Worker	support system to combine both health knowledge and social needs and allow good access to the service, not taking ownership of the client – letting client stand on own two feet
Medical Practitioner	Accident and medical clinic address those areas, avenue for preventative education in cases of asthma
Pharmacist	headlice – school could give out a shampoo to all and inspect, nutrition – education, multi lingual brochures, home visit, only get keen people to groups, diabetes – increase awareness – need motivation and increased accessibility, asthma – eradicate privit, general hygiene – education needs to be culturally appropriate – difficult to get people
Practice Nurse #2	immunisation – a central register is desperately needed, clarity between health professional versus client responsibility particularly with immunisation is needed, PHN 11 year old immunisation programme needs follow up data base so phone calls can be made to gather info, 1 st aid, hygiene – need education, clinic has own pamphlet series – public health pamphlets lacking – need co-ordination of pamphlets – who puts out what, where etc., need to increase understanding of Public versus private money – understanding of ACC is poor, there is inappropriate use of the free under 6 system, needs to be targeted, is difficult to work with, if there was a clinic at school it could address many of health problems not covered by free under 6 system
Social Worker	Community groups that need to be set up from within and run by the community. So the community would provide the clinic and support and health professionals would provide the service

Practice Nurse #1	immigrant population – PHN could do more education, sponsor system, asthma – need for re-education of long term asthmatics (sometimes develop bad habits), nutrition – smaller input here as it is not community focused
General Practitioner	
Plunket Nurse	in an ideal world there would be a clinic in each school, clinic with nurse on board, current resources could be used better e.g. community centre – this is under resourced and under promoted
Refugee Worker	more up to date orientation programs for both refugee and immigrant populations, language appropriate, need better co-ordination of services – better networking – current forums are not working, need more consultation with clients
Member of Parliament	mobile clinics and nursing service, ? something similar to dental nurses, needs to be targetted, follow up on immunisations

5. Your school has a Public Health Nurse who visits regularly. What services does she/he provide to your school?

Chairperson Of Community Board	don't know (PHN service was then described by interviewer)
Parent Focus group	education e.g. headlice, KOS programme, impetigo, headlice info in newsletter, parents can arrange to see, teachers can refer
Health Promotion Focus Group	education in class, available to check children for health issues, including abuse –done through referral, home visits, attends Health Promoting Schools and special needs meetings
Pacific Island Community Representative	on call as needed, advises on medical issues, sees children through the health book system, special needs meetings, updates on families, home visits, networks – info, resources e.g. nits
Indian Community Representative	educates children, advises children
Dental Therapist	ears, head checks, follows up on medications, follows up with family visits explaining dental health form (consent form)
School Psychologist	varied, education, all/any physical health needs e.g. food, hygiene, health concerns e.g. skin problems, also does some social work issues, follows up health records, follows up children where health needs may not be met
Public Health Nurse	attends special needs meetings fortnightly, picks up most referrals through this meeting, issues include nutrition, behaviour, nits, poor food, absences due to health issues, normal PHN stuff, behavioural issues go to psychologist, parent meetings during day,
School Principal	visits once a week, home visits, talking with parents in school - formal and informal, seminars 2x per year, responding to teacher requests for physical issues including abuse, talking to classes, participates in Health Promoting Schools, provides info for newsletters
Maori Community Health Worker	medical care, asthma education, advocacy between child, teacher and parent, sounding board/listening skills, door is always open, treats child as individual, refers to appropriate service providers
Medical Practitioner	information and advice re: infectious diseases e.g. nits, through to illness and disease, deals with behavioural problems e.g. encopresis, enuresis – liaises with GP, child protection referrals
Pharmacist	don't really know, not in detail
Practice Nurse #2	sees children referred by school, hearing and vision, 5 year old checks, immunisations, education in class
Social Worker	? self referral clinic, home visit, makes 'friends' with clients – bright and breezy but efficient
Practice Nurse #1	checks on children referred, follow ups on referrals from e.g. GP to health camp, whole family intervention, immunisation, asthma educators, health promotion
General Practitioner	
Plunket Nurse	primary health, education programmes, home visits, immunisation, liaison, advocacy
Refugee Worker	liaison, responsible for VHT, developmental issues, problem families, child protection
Member of Parliament	personal health care, public health role, education

6. Have you ever used the services of the Public Health Nurse? (This question will be adjusted depending on who is being interviewed)

Chairperson Of Community Board	no
Parent Focus group	no
Health Promotion Focus Group	no
Pacific Island Community Representative	yes, has referred, also used herself e.g. when had a cold, also other staff use her
Indian Community Representative	phone conversations only at enrolment of child at school (5 year check)
Dental Therapist	referred to her, e.g. rheumatic fever children
School Psychologist	yes, has referred to her, also asked for self
Public Health Nurse	not applicable
School Principal	yes – has referred
Maori Community Health Worker	yes – we work closely together – I focus on the parent, PHN focuses on child
Medical Practitioner	it has been done e.g. impetigo
Pharmacist	no – has been contacted by PHN for son – issue had already been addressed (5 year check)
Practice Nurse #2	yes but can never get the right person – it takes many phone calls, we often contact the school who may then contact the PHN
Social Worker	mutual referral process – checking out ‘have you seen’ ‘are you involved’, also referrals from GP’s, Starship, CYPFS
Practice Nurse #1	yes, the GP’s do refer to PHNs – ongoing concerns e.g. social/cultural issues, particularly for health camp, follow up on suspected child abuse – can have long term involvement with family where GP can’t
General Practitioner	
Plunket Nurse	don’t refer to PHN directly
Refugee Worker	referred many times – problem families, liaison e.g. new families, child protection
Member of Parliament	no

7. Can you think of any other services that the Public Health Nurse could provide to the children and families in your community?

Chairperson Of Community Board	more PHNs
Parent Focus group	targeting of individual children, work in the home with the family, more involvement with individual issues e.g. healthy eating, e.g. go shopping with family, fun clinic for pre-schoolers and parents also for older children e.g. puberty – small groups of children
Health Promotion Focus Group	free nit shampoo, free scabies cream, family counselling
Pacific Island Community Representative	Full time service – would help educate parents, on-site health nurse, triage system in sick bay, knowledge of illness etc.
Indian Community Representative	more advertising to promote her service
Dental Therapist	no
School Psychologist	overwhelmed with numbers, needs more time for e.g. education
Public Health Nurse	more support to parents if the PHN is at school more frequently, currently at school one full day per week, doing what we do now better, families drop in on Wednesdays – note in newsletter
School Principal	more of what they already do
Maori Community Health Worker	transportation, 'world is their oyster', many talents others don't see, knowledge is huge
Medical Practitioner	mobile service is ideal as opposed to a fixed location
Pharmacist	no
Practice Nurse #2	prescribing rights, sick kids – absent from school, accidents – what happens at home, at school, accident prevention focus – both at school and at home, first aid for teachers, asthma education in schools, case co-ordination
Social Worker	no, but need for greater social work input into schools
Practice Nurse #1	↑ health promotion scope – limited by funding, setting up programs for school children and parents e.g. self esteem, parenting, competitions for e.g. hygiene care, need higher profile, referrals can be missed if only got through school
General Practitioner	
Plunket Nurse	a clinic service
Refugee Worker	combine PHN/district nurse/school nurse role, for new immigrants this current split is confusing, health education, clarity of role boundaries is needed
Member of Parliament	increase their numbers, just skimming the surface at present

8. Do you think that a clinic run by the Public Health Nurse in your school available to children and their families would be a service that you would use:

a) If it were free?

b) If you had to pay – how much would you be willing to pay?

Chairperson Of Community Board	most people would pay – there would be those who couldn't pay '...[people are] holding out their hands for help'
Parent Focus group	a) – used if first time mothers, if support groups, 'subscription' would put people off, donation would be better
Health Promotion Focus Group	koha – people would use clinic for e.g. follow up checks e.g. sore ears, checking of rashes, conjunctivitis, immunisations – info around this
Pacific Island Community Representative	b) – not free – nominal charge \$10 - \$20 per visit, if on site [at school] community and staff would use it, would be quick service, parents could use on site creche on Tuesdays
Indian Community Representative	no – I wouldn't use it
Dental Therapist	a) – so long as knowledge of service was there (advertising and targeting of pre-schoolers)
School Psychologist	a) – good GP utilisation, don't know if people would use it, school may be more culturally appropriate for people to come to
Public Health Nurse	don't know
School Principal	b) – may charge less than a doctor – up to \$35 to see Dr
Maori Community Health Worker	a) – expectations could be huge – people asking too much e.g. through free provision – koha would alleviate some problems
Medical Practitioner	perhaps similar to dental clinic
Pharmacist	a) – cost barrier at present, a donation/koha may not be appropriate in low income/some cultures
Practice Nurse #2	Depend on the charges e.g. \$5 fee may be appropriate? whether this worth the hassle, ↑ money ⇒ ↑ paperwork
Social Worker	a) – nurse practitioner is the way of the future, can be better than GP because they have wider knowledge – koha payment
Practice Nurse #1	b) - mutual referral service, value in having PHN in school, value in having GP available
General Practitioner	
Plunket Nurse	(question reworded – would you refer to a clinic as described) 'absolutely', 'categorically absolutely' – blended families – older siblings often present with a family with a baby, if get service and a good service then people would be willing to pay – whole social strata throughout area – low to high socio economic groups
Refugee Worker	a) but free may lead to overuse? – nominal charge for service e.g. \$1 attaches value to service, clear boundaries between GP and nurse clinic needed – mutual referral process GP's to clinic and back
Member of Parliament	a)

9. What services would you expect a clinic like this to provide? (Prompt where necessary e.g. immunisations, health checks, counselling)

Chairperson Of Community Board	education, information, confidence, kindness, sticking plasters, medication, conveying needs of child to parent e.g. hearing, vision, nutrition, the 'more services the merrier', blood testing, the field is endless
Parent Focus group	parenting program, culturally appropriate ante natal classes, immunisation awareness, counselling – families and children, post natal depression – linking, prevention, early checks for ears, education choices, midwifery, elderly, lab services
Health Promotion Focus Group	immunisations, info on other health services, family planning services, family counselling, inclusion of dental therapists, dressings, VHT, 'catch them on the spot', more direct communication, referral service, reassurance value, 'drop in centre for info', pharmacy delivery service, SLT's OT's, Physio attached e.g. Child Development Team, running first aid sessions e.g. CPR, first aid updates, asthma education, communication with SES psychologist
Pacific Island Community Representative	health issues one on one basis, ongoing advice, listen to children/parents and refer appropriately, e.g. GP, bring Dr's in, health checks, networking in community, facilitation of general health care and general well being
Indian Community Representative	recognition, local GP could come 1x week, somewhere for parents to go prior to Dr e.g. viral infections, ears, dental, for assessment and referral, being freely accessible for parents – for poorer families, school is accessible – a 'safe' place
Dental Therapist	happy atmosphere, - targeting parents and children, preventative health role – education, support for families
School Psychologist	monitoring of children's health would be better (picked up earlier) e.g. ears, education in classrooms/parents, conjoint parenting programs, (some counselling is already provided)
Public Health Nurse	keeping people well, information on health issues e.g. nutrition, adapting to NZ way of life, facilitation of clinics e.g. GP's, CCAFS, nutritionist, + advanced nurse practitioner stuff e.g. immunisations, wound care etc.
School Principal	general health issues, minor illnesses, medication, regular treatment, for e.g. sores, e.g. dressings, advice, someone to talk to
Maori Community Health Worker	basic health needs – hygiene, scabies, nits, physical health needs, immunisations, self esteem, family building, parenting skills - whanaungatanga
Medical Practitioner	preventative role only wouldn't work, GP practice and Practice nurse could provide these services – infrastructure is already present, set up from scratch could be difficult
Pharmacist	education, monitoring of children at home and school, co-ordination of medical and other services
Practice Nurse #2	
Social Worker	1 st aid stuff, ears, asthma management, contraception, recognising signs and symptoms of unwell child – education, impetigo, scabies, seminars on health education, self esteem, caring for self, referral capabilities to counselling, refuge, social services
Practice Nurse #1	unlimited, asthma education – child appropriate, (socialisation of families – culturally appropriate), facilitation of parenting, socialisation and culturalisation issues, educative role in hygiene, skin care, hair care, ear checks, follow up to VHT, skin care, epidemics
General Practitioner	

Plunket Nurse	counselling – holistic issues not just physical issues, sex education – family planning, relationship building – communication skills, immunisation – BCG clinics, 'one stop shop', hearing and vision – equipment availability, prescribing e.g. antibiotics, topicals
Refugee Worker	parenting, pulling people together e.g. immigrant families, women's cultural and/or support groups – empowerment of women, cultural days – recognition and values, should capitalise on school being a 'safe place', 'holistic model required', health education vital, what does the clinic hope to achieve in the long run?, need to determine outcomes prior to establishment, 'recognition of the individual' – the personal touch
Member of Parliament	teacher referrals – unwell children, poor diet, falling asleep, home visits, basic health care

10. Would the children and families in this community use a clinic like this?

Chairperson Of Community Board	yes
Parent Focus group	yes – definitely, getting people in – info in own language
Health Promotion Focus Group	once familiar with clinic – yes, particularly siblings, well situated, more approachable than doctor
Pacific Island Community Representative	yes
Indian Community Representative	yes, koha may be appropriate, needs to be free
Dental Therapist	yes
School Psychologist	don't know
Public Health Nurse	don't know
School Principal	yes
Maori Community Health Worker	yes if it were free
Medical Practitioner	
Pharmacist	yes
Practice Nurse #2	if attached to the school would be available to e.g. immigrants especially
Social Worker	yes – but would take time, hard work at beginning, need to sell to school, GP's (need support), community, pre- enrolment scheme might work
Practice Nurse #1	absolutely – available (location great), parents may not want to take children out of school so ideal location
General Practitioner	
Plunket Nurse	yes – if consumer friendly and non judgemental
Refugee Worker	yes – need to talk to all different community groups, getting communities behind the service – need to get the support of community leaders, do groundwork first – interpreters/cultural educators
Member of Parliament	yes

11. For the community to have access to a health care clinic, what would be the best opening hours?

a) 9-12 b) 9-5 c) 11-2 d) 4-8pm e) other e.g. _____

Chairperson Of Community Board	d) – 1 nurse in day, 1 nurse in evening for efficiency
Parent Focus group	a) 7.30 – 12 & d)
Health Promotion Focus Group	a) 8.30 – 12 & d) 2.30 - 8
Pacific Island Community Representative	8.30 – 4pm
Indian Community Representative	8 – 4pm – incorporates straight after school, before school and during school
Dental Therapist	8 – 3.40pm – dental clinic hours
School Psychologist	evening clinic 2x per week
Public Health Nurse	9 – 3pm
School Principal	8.30-12, 2-4 & 6-8pm range of times on different days e.g. 1 evening
Maori Community Health Worker	10 – 2pm – if needs met during day, may not see problems in evening at Starship
Medical Practitioner	mobile clinic that went to school within school hours
Pharmacist	overlap after hours/school hours
Practice Nurse #2	before school and after school – large increase in numbers at A & M after 3pm and in school holidays, people often seek a second opinion after having been to GP – particularly with under 6yrs, returning clients still have a change of address up to 50% of the time
Social Worker	b)
Practice Nurse #1	8.30-10.30 & 2-4pm, parent appointments, start off small – build up hours
General Practitioner	
Plunket Nurse	Saturday, evening clinic – mothers can be dependent on having partner present eg. Cultural as well as transport issue
Refugee Worker	late afternoon to early evening, also where do people go after hours, weekend opening times may be appropriate
Member of Parliament	5.00-7.30pm

Question 1

What do you consider to be the health needs of your community?

When answering this question, participants have tended to abbreviate their responses to a single description or statement - for example, asthma. Asthma as such is not a health need, it is a health condition. When participants talk of asthma as a health need, when prompted, they mean the need for management of, and education regarding, asthma in the community. This applies to most of the responses to this question. To the participants, although their stated responses are abbreviated, in their view what they are indicating is a health need although the abbreviated term reads, for example, as a health condition. The results below display the abbreviated forms of the identified health needs. The researcher has expanded on these in the body of the research.

The results below have been laid out in chart format to display the coding that took place using the checklist matrices (See Appendix 5). From the checklist matrix, the researcher coded the examples that participants gave. Participants cited those items listed first most frequently. Every example that participants gave of a health need has been included below. The results have been categorised by the researcher into physical health needs, social health needs, health information, accessibility, mental health needs, refugee and migrant population health needs, and parent education in order to clarify the coding for the reader. Some examples may appear under more than one category.

Physical Health	Asthma; headlice; impetigo and skin infections; scabies; otitis media; immunisation – lack of; general healthcare – poor hygiene; upper respiratory tract infections (URTI'S); viral illnesses; diarrhoea and vomiting; wheezy bronchitis; eczema; lack of daily exercise; inappropriate first aid treatment; diabetes; acutely unwell children at school; teeth.
Social Health	Healthy eating – lack of; poor nutrition e.g. lack of healthy lunches; poor/inappropriate parenting skills; lack of appropriate clothing; children staying up late; poor housing – high cost; budget advice needed; children home alone; poor access to transport; overcrowding.
Health Information	Health information service; people need to know when to seek treatment; lack of knowledge/ inappropriate treatment of health problems; knowing when an illness requires further intervention; need access to advice on when to seek treatment.
Accessibility	Need better access to medication and health care; accessibility to medical care including location and cost and access to advice on when to seek treatment; having someone accessible for health education.
Mental Health	Stress; anxiety of children (at dental clinic); anger management; behavioural problems; absenteeism is a problem; higher socio-economic groups – break neck pace, hard to break into real issues, this group sometimes seems to find it hard to fit in needs of parents and children; young couples – working families - mothers at home for the first time – isolation, keeping safe in isolation; first home buyers – financial issues, relationship changes with neighbours, partners; lots of referrals to maternal mental health – not just post natal depression (PND) but also due to past traumas; psychiatric problems – need facilities; need multicultural/ language appropriate counselling; adult anger management; alcoholism; addiction.
Refugee and Migrant Population Health Needs	More difficult for poorer families e.g. migrant families; there are a lot of immigrants – immunisation and how the health system works are issues; high immigrant and high refugee numbers – they have basic health needs; poor support particularly for refugees (families missing); many different cultures at school – refugees – isolation; no families; teasing of children due to food habits; high immigrant population needs education re: health conditions

	e.g. runny noses, dental needs, ears; refugee needs (from refugee worker): English as a second language (ESOL); mental health; resettlement process; torture traumatised witnesses including children; infectious diseases –tuberculosis (TB); tropical diseases; post traumatic stress disorder (PTSD); grief; loss; refugee camps are not safe places; physical reaction to stress, e.g. ulcers; loss of cultural and community ties; how long does the title ‘refugee’ remain with a person – has negative connotations.
Parent Education	Lack of knowledge/inappropriate treatment of health problems; need to educate parents about healthy lunches; need to educate parents to be involved in activities with children outside of home; care when parents unavailable; need education re: infectious diseases e.g. headlice; parent/caregiver education is needed – medical, positive parenting, special needs, behaviourally challenged children.

Question 4

Can you think of any ways the health needs you outlined above could be addressed?

Results

Once again the results have been listed following coding that took place from the checklist matrices. From the checklist matrix, the examples that participants gave have been coded under categories chosen by the researcher in order to clarify the coding for the reader. Under each category heading below are the examples that participants indicated as possible ways to address the health needs of the community. All examples given by participants have been included. Some examples may appear under more than one category.

Physical Health Needs	By providing transport – easier access to health needs; need motivation and increased accessibility (e.g. diabetes); better co-ordination of services and a more comprehensive system is needed – difficult to co-ordinate when multiple agencies not on site need better co-ordination of services – better networking; clinic in school is one alternative; full-time or part-time nurse at school permanently; if there was a clinic at school it could address many of the health problems not covered by the under 6 system; in an ideal world there would be a clinic in each school; clinic with nurse on board; Mobile clinics and nursing service - like dental clinics?; need for re-education of long-term asthmatics.
Health Information Service	Support system to combine both health knowledge and social needs and allow good access to the service; multi-lingual health info service; health info service; pamphlets; stickers etc; multi-lingual brochures; public health pamphlets lacking - need co-ordination of pamphlets - who puts out what, where etc.
Social Health	Support system to combine both health knowledge and social needs and allow good access to the service; community groups that need to be set up from within and run by the community; current resources could be used better e.g. community centre - this is under resourced and under promoted; better co-ordination of services and a more comprehensive system is needed – difficult to co-ordinate when multiple agencies not on site need better co-ordination of services – better networking; The community would provide the clinic and support and health professionals would provide the service.
Refugee and Migrant Population Health Needs	Multi-lingual health info service; distribution of info to schools in different languages; through the children – need translation for parents to understand; multi lingual brochures need to be language appropriate; education needs to be culturally appropriate - difficult to get people to attend; need more up-to-date orientation programmes for both refugee and migrant populations; ethnic groups could be set up e.g. Plunket run Chinese parent group.

Mental Health Needs	Better co-ordination of services and a more comprehensive system is needed – difficult to co-ordinate when multiple agencies not on site need better co-ordination of services – better networking.
Parent Education	Through workshops provided by PHN; can educate through children; parents unaware of dental service and that treatment starts at 2 ½ years – need education; 1 st aid, hygiene - need education; PHN could do more education.

Question 5

Your school has a public health nurse who visits regularly. What services does she/he provide to your school?

Results

Once again the results have been listed following coding that took place from the checklist matrices. From the checklist matrix, the examples that participants gave about the services PHNs provided were coded under categories chosen by the researcher in order to clarify the results for the reader. Under each category heading below are some examples that participants gave. Some examples may appear under more than one category.

Physical Health	Available to check children for health issues; sees children through the health book system; ears; head checks; follows up on medications; All/any physical needs e.g. food, hygiene, health concerns e.g. skin problems; follows up children where health needs may not be met; issues include nutrition, behaviour, nits, poor food, absences due to health issues; medical care; treats child as individual; deals with behaviour problems e.g. encopresis, enuresis; sees children referred by school; 5yr old checks; self referral clinics; follows up on referrals from e.g. GP to health camp; developmental issues; personal health care; immunisations.
Social Health	Also does some social work issues; follows up on children where health needs may not be met; responds to teacher requests for physical issues including abuse; child protection referrals
Education (Individual, Family, Community)	Education; info in newsletter; education in class; advises on medical issues; advises children; provides seminars; asthma education; information and advice re: infectious diseases e.g. nits through to illness and disease; primary health; attends Health Promoting Schools meetings; participates in Health Promoting Schools
Sees Parents	Parents can arrange to see; home visits; follows up with family visits explaining dental health form (consent form); parent meetings during day; talking with parents in school – formal and informal; problem families; public health role; whole family intervention
Referral	Child protection referrals; refers to appropriate service providers
Advocacy	Advocacy between child, teacher and parent; advocacy
Health Promotion	Health promotion; primary health; attends Health Promoting Schools meetings; participates in Health Promoting Schools
Networking	Networks – info, resources e.g. nits; liaison; attends Special Needs meetings

Question 8

Do you think that a clinic run by the Public Health Nurse or a nurse practitioner in your school available to children and their families would be a service that you would use?

a) if it were free

b) if you had to pay – how much would you be willing to pay?

	Comment
If it were free	<ul style="list-style-type: none"> • There would be those who couldn't pay '...people are holding out their hands for help' • Perhaps similar to dental clinic • Cost barrier at present – koha may not be appropriate in low income/some cultures
	Comment
If you had to pay	<ul style="list-style-type: none"> • Free may lead to overuse? Nominal charge for service e.g. \$1 attaches value to service • 'Subscription' would put people off – donation would be better • Koha system of payment. • Expectations could be huge – people asking too much i.e. through free provision – koha would alleviate some problems • Most people would pay • Not free – nominal charge \$10 - \$20 per visit • May charge less than a doctor • Depend on the charge e.g. \$5 may be appropriate - ? whether this worth the hassle – increased money leads to increased paperwork • If get service and a good service then people would be willing to pay

Question 9

What service would you expect a clinic like this to provide?

Services that participants indicated that a nurse practitioner-led primary health care clinic could provide have been coded under categories chosen by the researcher from the checklist matrix. (See Appendix 4: Checklist Matrices.) These categories match the categories of health needs and ways of addressing the health needs. This allows the reader to match the services to the needs and to the ways participants thought the health needs could be addressed and serves to clarify the coding for the reader.

Physical Health Needs	Sticking plasters; medication; blood testing; checks on ears; immunisations; family planning services; inclusion of dental therapists; dressings; vision/hearing testing – depending on equipment availability; services for the elderly; health checks; facilitation of general health care and general well-being; monitoring of children’s health would be better (problems would be picked up earlier); keeping people well; minor illnesses; medication; regular treatment for e.g. sores, dressings; basic health needs e.g. hygiene, scabies nits, physical health needs; 1st aid; asthma management; contraception; recognising signs and symptoms of unwell child; impetigo; scabies; prescribing – antibiotics, topicals; teacher referrals-unwell child, poor diet, falling asleep, basic health care; lab services; pharmacy delivery service; local GP could come 1x week; co-ordination of medical and other services; SLT’s (Speech Language Therapists), OT’s (Occupational Therapists), Physio attached e.g. Child Development Team
Health Information Service	information; immunisation awareness; prevention; info on other health services ⁴ ; drop in centre for info ⁵ ; health issues on a one on one basis; ongoing advice; somewhere for parents to go prior to doctor e.g. viral infections; information on health issues e.g. nutrition, adapting to NZ way of life; someone to talk to.

Social Health	Conveying needs of child to parent; counselling – families and children; targeting parents and children; support for families; self esteem; family building; monitoring of children at home and at school; counselling – holistic issues not just physical issues; facilitation of clinics e.g. GP’s, CCAFS (Community Child, Adolescent and Family Service – Mental health service for children and families), nutritionist; networking in community; parenting skills – whanaungatanga;
Refugee and Migrant Population Needs	Culturally appropriate ante-natal classes; women’s cultural and/or support groups – empowerment of women; getting people together e.g. immigrant families;
Mental Health Needs	Assessment; should be a ‘one stop shop’; ‘The more services the merrier’; communication with SES psychologist; referral capabilities to counselling, refuge, social services; post-natal depression – linking.
Parent Education	Facilitation of parenting, socialisation and culturalisation programmes; parenting programs; Education; education choices; running first aid sessions e.g. CPR, first aid updates; asthma education; preventative health role – education; education in classroom/parent; seminars on health education, caring for self; educative role in hygiene, skin care, hair care; sex education – family planning, relationship building - communication skills

APPENDIX 7

Contact Summary Sheet

Refugee Worker

- mental health needs of refugee population
- need for better service co-ordination
- increase health education role of PHN
- charge for clinic – nominal
- school is a safe place
- need to determine outcomes prior to establishment of clinic

Dental Therapist

- stress of children
- need to increase knowledge of parents of dental service
- need to have good knowledge of clinic in community if service is to be used well
- health education role of PHN

Indian Community Representative

- nutrition
- health needs of refugees
- need better advertising of PHN services
- school is a safe place
- clinic needs to be free
- dental needs of Indian Community high

School Psychologist

- poor nutrition
- poor hygiene
- lack of knowledge/inappropriate treatment of health problems
- poor parenting
- health needs of refugees
- need better co-ordination of services
- health education role of PHN
- school culturally appropriate for people to come to

General Practitioner

- parenting problems – need programs in schools
- anger management
- has facilities to provide further health services in building but this has not happened

Public Health Nurse

- refugee health needs
- nutrition issues

- school is a safe place
- need more frequency of PHN service
- health info. service
- facilitation of outside health professionals coming to school
- ran clinic at intermediate school in past– increasing attendance of parents over time

Pacific Island Community Representative

- nutrition
- lack of exercise
- parenting skills
- PI community – natural/traditional treatment versus when to seek care
- Charge for clinic
- Health advice and info.
- Facilitation of health care

Practice Nurse #1

- refugee health needs
- nutrition
- immunisation issues
- asthma
- increase health education/health promotion scope of practice
- need higher profile of PHNs
- mutual referral system
- facilitation of parenting programs
- high income groups have issues

Social Worker

- immigrant population needs – mental health, overcrowding
- high income groups – isolation of first time mums
- community development model vital
- need increased social work presence in schools
- health education
- referral

Plunket Nurse

- refugee health needs
- overcrowding
- poor housing
- current resources could be used better
- counselling, relationship building, communication skills

Practice Nurse #2

- immigrant health needs
- asthma
- general healthcare

- first aid knowledge
- immunisation – need central register
- accident prevention focus
- asthma education
- case co-ordination

Pharmacist

- nutrition
- immunisation
- parenting
- health education focus
- co-ordination of services

Medical Practitioner

- accessibility issues
- knowledge of appropriate first aid
- mobile service would be good
- not enthusiastic about idea

School Principal

- nutrition
- behavioural problems
- more PHN services needed
- advice, education

Maori Community Health Worker

- nutrition
- accessibility issues
- basic health needs
- whanaungatanga

Chairperson Local Community Board

- mental health needs
- nutrition
- poor parenting
- education, information

Member of Parliament

- migrant families health needs
- immunisation follow up

Parent Focus Group

- health needs of refugee families
- poor nutrition
- general hygiene needs
- poor parenting
- health information service
- referral service
- counselling
- education

Health Promotion Focus Group

- nutrition
- parenting problems
- behavioural problems
- parenting programs
- immunisation
- health info. Service
- health education