



CENTRE FOR INDIGENOUS
HEALTH

**NEEDS ANALYSIS OF
INDIGENOUS IMMUNISATION
IN QUEENSLAND FINAL
REPORT**

FINAL DRAFT June, 2004

1 Project governance

This project was funded by Queensland Health Communicable Diseases Unit, Public Health Services, and was directed by an Indigenous community / interagency steering committee representing the following organisations:

- State Office Aboriginal and Torres Strait Islander Commission
- Office of Aboriginal and Torres Strait Islander Health (OATSIH)
- Queensland Aboriginal and Islander Health Forum (QAIHF)
- Queensland Division of General Practice (QDGP)
- Queensland Health Aboriginal and Torres Strait Islander Health Unit (QHATISHU)
- Queensland Health Communicable Diseases Unit (QHCDU)

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2 Contents

1 PROJECT GOVERNANCE	2
2 CONTENTS	3
3 LISTS OF FIGURES AND TABLES	4
4 EXECUTIVE SUMMARY	5
5 FINDINGS SUMMARY	7
6 INTRODUCTION	12
6.1 BACKGROUND TO THE PROJECT	12
6.2 POLICY CONTEXT	14
7 LITERATURE REVIEW	16
7.1 THE DEMOGRAPHIC, SOCIAL AND HEALTH CONTEXT	16
7.2 CURRENT KNOWLEDGE OF INFECTION OCCURRENCE, VACCINE COVERAGE AND BARRIERS TO VACCINATION	17
8 METHODOLOGY	26
8.1 SERVICE PROVIDER SURVEY	28
8.2 GENERAL PRACTITIONER SURVEY	29
8.3 PARENT / CARER SURVEY	30
9 RESULTS	37
9.1 CLIENT VIEWPOINTS	37
9.2 OVERVIEW OF SERVICES AND THE VIEWPOINTS OF PUBLIC AND COMMUNITY PROVIDERS	48
9.3 GENERAL PRACTITIONER VIEWPOINTS	55
9.4 IMMUNISATION COVERAGE OF QUEENSLAND INDIGENOUS TWO YEAR OLD CHILDREN	61
9.5 EXAMPLES OF SUCCESS	71
10 DISCUSSION	75
10.1 POTENTIAL MODELS OF SERVICE	75
11 RECOMMENDATIONS	80
APPENDIX 1: BIBLIOGRAPHY	81
APPENDIX 2: ACRONYMS USED	85
APPENDIX 3: DETAILED PROFILE OF VACCINATION UPTAKE	86
APPENDIX 4: TIMELINE FOR INDIGENOUS IMMUNISATION SERVICES, QUEENSLAND	92
APPENDIX 5: CURRENT QUEENSLAND SCHEDULE FOR INDIGENOUS PEOPLE	93
APPENDIX 6: RESEARCH TOOLS	95

3 Lists of figures and tables

Tables

Table 1: Summary of methodology _____	26
Table 2: Spread of survey respondents according to Queensland Health Zone _____	28
Table 3: Geographical spread of survey respondents _____	28
Table 4: Spread of survey respondents according to organisational sector _____	28
Table 5: Indigenous children's vaccination survey: sample of clusters _____	33
Table 6: Summary of client viewpoints _____	37
Table 7: Reported proportion of Indigenous clientele _____	49
Table 8: Indigenous identifiers _____	49
Table 9: Characteristics of services _____	51
Table 10: Staffing characteristics of services _____	54
Table 11: Service provider use of VIVAS reminder forms _____	54
Table 12: Number of parents / carers nominated _____	62
Table 13: Comparison of dataset to population distribution by area _____	65
Table 14: Number (%) of parents / carers with phone by area _____	66
Table 15: Number (%) of addresses for children in past 2 years by area _____	67
Table 16: Number (%) of children with alias by area _____	67
Table 17: Number (%) of children with personal health record _____	68
Table 18: Comparison of coverage survey results with reported Queensland and national data _____	69
Table 19: Coverage rate by ARIA classification _____	69
Table 20: Number of extra vaccinations provided _____	70
Table 21: Indigenous Child Immunisation Schedule _____	93
Table 22: Indigenous adult immunisation schedule _____	94

Figures

Figure 1: Ethnicity of parents / carers _____	63
Figure 2: Age of parents / carers _____	63
Figure 3: Education levels of all parents / carers _____	64
Figure 4: Ethnicity of children _____	64
Figure 5: Age of children _____	65
Figure 6: Number of parents / carers with contact phone number _____	66
Figure 7: Number of addresses for children in past 2 years _____	67

4 Executive Summary

This project was undertaken during late 2002 and 2003 to fulfil requirements developed by a committee representative of Indigenous organisations and other stakeholders which has worked with Queensland Health Communicable Diseases Unit to bring forward relevant issues specific to Indigenous people in relation to immunisation.

The immunisation schedule for Indigenous people is increasingly complex, and sub optimal immunisation, i.e. being immunised late or being incompletely covered, is the main program issue. A statewide survey of Indigenous two year old children found that coverage for universal vaccines was up to the national target level of 90%, but often delayed, and that coverage for Indigenous specific vaccines was lower, ranging from 50% to 80%.

Indigenous people across the state expressed their views about services and specific aspect of service including access and the use of Indigenous identifiers. Clearly identification of children as Indigenous in immunisation programs was desired and supported. Identification of Indigenous adults in the context was more complex and concerns were expressed which need addressing by services. Advice was given about the best way to handle identification of adults. Common issues were limited hours of service in some remote areas, limited or absent availability of bulk billing in general practice in some suburban areas, lack of transport to get to services for large families and older people, unease with services where there was no appropriate acknowledgement of Indigenous culture. Perceptions of racism and lesser service to those identified as Indigenous were expressed. Lack of knowledge about immunisation schedules and the impact of diseases and vaccines was also expressed, particularly in relation to adult vaccination. Reliance on reminders, especially because of lack of knowledge of appropriate schedules, was a feature. Indigenous people valued friendly, competent and efficient immunisation services. They related well to Indigenous service providers and generally wanted increased access to services.

“Hard to reach” groups included the homeless, the elderly, substance abusers, those with a mental health problem, those in the criminal justice system and those children in the care of Family Services. The above attitudes and feelings were expressed to an even greater degree by people in “hard to reach” groups, who seemed to respond better to service brought to them in their own comfort zone. A profile of parents and carers of young children across the state gives some insight into the difficulties of locating and communicating with this group when their children have fallen behind in the schedule: a high degree of mobility within local areas and low phone ownership across all geographical areas.

Public service providers, community controlled health organisations and local councils all responded to surveys tailored to their situation. Good features and areas for potential improvement were identified by providers in all these settings. It is clear that better identification of Indigenous people will improve services. This a particularly important issue in General Practice at the moment. Increased

involvement of Indigenous people as service providers and collaborations across local services hold promise for bringing about improvements in service.

With work on improving identifier recording, data collections will be able to provide the information necessary to monitor and evaluate Indigenous programs. Research indicates that Queensland is performing well in immunisation in comparison with other states. Further improvement is possible by building on the established strengths of the public and community health support system.

Further detail is provided in the following summary.

5 Findings Summary

Project requirement 8.1.1 and 8.1.2

Indigenous people utilise all types of vaccine service provider in Queensland. As expected, state run community health and public health services, and Indigenous community controlled health organisations are utilised, particularly where Indigenous staff are present. Indigenous clients expect and trust that these provider groups will remind and recall them for vaccination. These services provide the full range of free vaccines recommended for Indigenous people, and most vaccinate opportunistically as a matter of both policy and practice.

General Practitioners are utilised by many, often without the practitioner being aware that their client is Indigenous. A long term relationship with the provider is valued by clients, as is the ease of access in some situations, particularly in extended hours practices. Some General Practitioners have decided not to provide infant pneumococcal vaccines, rather they give universally available vaccines and direct parents/carers to community controlled services for the “extra” injection at another time. Lack of availability of bulk billing in General Practice in some areas severely limits client accessibility to immunisation. Any type of co-payment for immunisation service was seen as a problem by both clients and providers. State run services have compensated where possible, for example in the Redcliffe area of Brisbane where a home visiting program “Jabba Jabba” was established to vaccinate all ages.

The limited number of local council clinics still running are also utilised where offered and are valued by those that use them because of fast service. Councils particularly contribute service in small rural towns. Some councils do not include Indigenous identification on their records.

Some Indigenous adults of “hard to reach” groups do not utilise any of these services for immunisation. They expect that their hospital based emergency or specialist health carers will provide all the health care necessary for them, and have poor understanding of the benefit to them of immunisation.

A detailed review of service options and availability of various provider types is provided in section 9.2.

Project requirement 8.1.3

Background information on various vaccine preventable diseases and coverage achieved in Queensland is detailed in section 7, literature review. Of note is that reliable assessment of coverage has been achieved in North Queensland for both adult and infant pneumococcal programs.

This project contributes an estimate of coverage of Indigenous two year old children of 90% for universally recommended vaccines and 70 – 80% for vaccines specific to Indigenous children. Recent changes to recommendations and anticipated increase in availability of vaccines through extension of federal funding means that only BCG remains as a vaccine specific to Indigenous children and other risk group children of this age group.

Project requirement 8.1.4

Barriers to optimum uptake of immunisation by Aboriginal people and Torres Strait Islanders include

- limited availability of service in some remote areas, eg Torres Strait Islands outside Thursday Island, and in some urban areas because of limited use of bulk billing by General Practitioners.
- Low income families in urban areas often could not access services at the optimal time because of poor availability of transport to services.
- Some people were ill at ease in primary care services which did not acknowledge their culture and sensitivities, or did not cater to the comfort of their children, thus were less likely to make optimal use of services
- Some people had limited awareness of the benefits of adult immunisation, and some had misconceptions about the immunisation process or vaccines, thus did not seek service.
- Good understanding of the general benefits to children was evident amongst parents and carers, however many were confused by the current and previous schedules, thus limiting their ability to anticipate due dates for immunisation.
- Children placed with foster families experienced special barriers: no health history and no parent-held record available, foster families were in some cases unaware of availability of register data to providers, may have been unsure of an alias of the child to assist in ascertaining the correct record, may have experienced communication difficulty with non-indigenous health professionals, or may have been dealing with multiple health, social and emotional problems of the child, deprioritising “routine” health care.
- Some providers refused to immunise for incorrect contraindications, for example minor illness.
- Some providers missed opportunities to offer all vaccines due or overdue at an encounter because of failure to ascertain Indigenous status, failure to ascertain the client’s immunisation status, a decision not to hold or supply free infant pneumococcal vaccine
- Limited availability of BCG vaccination in birth hospitals
- Loss to follow up of Indigenous people because of frequent moves (most often within a local area) and lack of a telephone.

Project requirement 8.1.5

Hard to reach Aboriginal and Torres Strait Islander groups include the homeless (those who live on the street and in some cases those who move among various friends and family without the resources to establish an independent home for their own family), those visiting family away from home, people with mental health problems and/or substance abuse problems; children in care of Families Department.

The factors that contribute to this include poor communication, lack of understanding between these groups and providers and mistrust of non-indigenous health professionals; lack of transport; lack of knowledge and awareness of immunisation issues in clients; deprioritisation of preventive health care in crisis situations.

Project requirement 8.1.6

Priority areas needing to be addressed include

- ascertainment of Indigenous status of patients in General Practice
- understanding and cooperation between services at district level
- adequacy of access to service, including transport availability, at district level
- provision of services for hard-to-reach groups
- presentation of the schedule for Indigenous children in the Queensland personal health record
- Indigenous direction of Indigenous –specific immunisation programs
- training and employment of Indigenous immunisers
- targets for coverage of all vaccines relevant to Indigenous people
- adequate funding and support for immunisation in the Torres Strait area
- reporting of Indigenous identifiers on immunisation episodes by all providers, and on notifications of vaccine preventable diseases
- active tracking of addresses of Indigenous people on immunisation registers
- access of clients and parents/carers to register-based immunisation history
- provision of BCG in birth hospitals

Project requirement 8.1.7

Strategies in place within Queensland Health which are currently successful in improving immunisation access and uptake include

- state level monitoring of activity, including adult vaccination, and maintenance of quality via the Vaccine Information and Vaccine Administration System (VIVAS). For example, recall of ineffective vaccine is supervised and advice about revaccination where necessary is given;
- the work of immunisation coordinators and associated teams in public health units, which has tended to increase the focus on Indigenous issues in many areas;
- collaborations across primary care services at district level;
- funding available for local immunisation promotion activities through public health services;
- use of local information systems (paper and computer based) to facilitate efficient patient recall in areas where primary care is provided by state health;
- Indigenous Health Worker and nurse immuniser home visiting for immunisation provision (eg the Jabba Jabba program and Family CARE program).

Project requirement 8.1.8 and 8.1.9

Health care provider perceptions regarding Indigenous identifiers vary greatly. Recording Indigenous status is routine in Community Controlled Health Organisations. State health services, both hospital and community, all have a routine mechanism for ascertainment in all clients, however adherence to the procedure varies. Where it is seen as important and useful, the procedure is more likely to be followed. Some local government immunisation services routinely do not record Indigenous status.

General Practitioners as a group are in need of education about culture, reconciliation, and the importance of identifiers. Reception staff in General Practice, and General Practitioners themselves, could be trained to ascertain status in an appropriate manner, based on expressed views of Indigenous people. General practitioners see the need to incorporate Indigenous status into Medical Director and other practice support software.

8.1.9 Indigenous community members generally regard recording of Indigenous status for children in the context of immunisation as desirable and acceptable. The acceptance is less complete in the context of adult immunisation for a number of reasons. These include lack of understanding of the benefits of specific Indigenous adult immunisation programs, discomfort with an inappropriate lack of privacy used in discussing personal details in a group or waiting room setting; anxiety about inappropriate use of identifying information (for example referral to Indigenous Liaison Officer in hospital where this has not been discussed with the patient); anxiety about misuse of statistics to reinforce negative stereotypes about their community; and a perception that a lesser standard of service will be given to Indigenous people by providers. Further, the “at risk” tag applied to young Indigenous adults is unpopular and causes discomfort as it is viewed as a negative or derogatory classification. (See section 9.1 for more detail.)

We uncovered barriers to the routine ascertainment of identification in the attitude some General Practitioners who regarded Indigenous people as a minimal part of their practice and therefore not requiring special consideration in a busy practice setting. These General Practitioners expected Indigenous people to self-identify without prompting, and generally also thought that questioning non-Indigenous patients might offend them. Although aware of the special schedule for Indigenous people, they recognised no special duty of care in regard to actively identifying and advising clients who might benefit. (See section 9.4 for more detail.)

Project requirement 8.1.10

Queensland Health service districts and local services are able to address barriers to optimum uptake of immunisation in Aboriginal people and Torres Strait Islanders in a variety of ways. Collaborations between services gives awareness of gaps and an ability to develop activities which cover gaps, eg home visiting of hard to reach groups, provision of transport for special purposes. Local knowledge gained by all providers working together helps to make services more responsive to cultural and social needs of the target group. In remote areas Queensland Health often provides the only immunisation service.

Project requirement 8.1.11

A range of models and strategies for service delivery will improve access and uptake:

- Indigenous Health Workers, Indigenous managers and other Indigenous Health Professionals have the prime role to play in creating responsive and appropriate approaches to Indigenous immunisation within services, therefore should be utilised in both planning and delivery of immunisation services for Indigenous people.
- A standard for mandatory determination of Indigenous status on the basis of a patient’s response to appropriate information giving and questioning in written or oral form should be established for all providers. This might be promoted via national immunisation guidelines, through data handling design in various settings, and through the policies and practices of health organisations in Queensland.
- Queensland Health should work with divisions of General Practice to improve knowledge of and approaches to Indigenous immunisation in General Practice

through continuing education activity, developing practice audit in relation to this issue, and other quality improvement strategies that might be recommended by divisions. Interest in this area might be facilitated eg by promoting use of the new Medicare item providing remuneration for an annual Indigenous adult health check and preventive care.

- Targets for coverage in relation to vaccines specifically recommended for Indigenous people should be established for the state, and on the basis of improved identification of Indigenous status, monitoring of coverage rates could be undertaken.

- Access issues for immunisation vary across localities, and rational decision making about the appropriate mix of support services, eg transport and home visiting for immunisation, should be informed by local cross sectoral forums which include community controlled agencies. This will both avoid duplication of service and promote appropriate recognition of need. Flexibility of roles and activity in relation to cross service work may be required, particularly for Indigenous staff, eg to assist General Practitioners in improving accessibility of service to indigenous people.

- Provision of transport and/or home visiting for immunisation, and engagement with Indigenous Health Workers who can provide a range of supports for various problems are valued and used by “Hard to Reach” groups families with young mothers, many children, low income, chronic health problems and/or few supports; Elders, who may have child rearing responsibilities still, or be surviving on low income may require these helps to be able to prioritisation of their own health and protective care;

- Other “Hard to Reach” groups may need to be approached for immunisation education and service provision in their own arenas of function or comfort:

- working men and other workers may respond to workplace based immunisation initiatives, planning for which can be informed by local Indigenous Health Workers who know the behaviours and local venues which may be the appropriate setting
- young disaffiliated youth via the many youth oriented substance abuse prevention programs now being established
- incarcerated people in prison or remand centres, long or short term, benefit from immunisation education and delivery as part of health service provision in these settings.
- mental health patients and others who bypass the primary health care system may benefit from opportunistic specialist service, or primary care structured interactions with specialist cases via a conferencing system, or hospital based immunisation programs.

- Reminders are valued by parents, and are associated with effective parent incentives to promote full immunisation coverage. Their effectiveness may be improved by active tracking of new addresses of Indigenous people who may be more mobile than other groups in the community. A mechanism should be established to allow parents and carers free access to the child’s register-based immunisation history, or facilitation of copying of Personal Health Record immunisation documentation in situations where there are multiple carers within families. A similar mechanism might support information sharing with carers assigned by Family Services Department.

6 Introduction

6.1 Background to the project

(The terms “immunisation” and “vaccination” are used interchangeably in this document.)

Immunisation services provide one of the most effective, practical, protective health interventions available. It is vital that Aboriginal and Torres Strait islander people are facilitated to gain full benefit from vaccination. Indigenous people are especially vulnerable to spread of vaccine preventable disease as the result of low income and poor housing leading to overcrowding. An extended family lifestyle also results in relatively high incidences of close contact, which can facilitate spread of infection. In remote communities where some children are malnourished, those children are particularly vulnerable because of impaired immune functioning. Adults with chronic disease, for example diabetes are also especially vulnerable. In the current situation it is therefore very important to provide optimal immunisation coverage as a means of preventing spread of a group of infections with potentially serious health consequences.

Immunisation rates in the general Australian community have been steadily improving over recent years. Immunisation has been a priority for Australian health services, leading to implementation of a wide range of strategies and an increased flow of resources to immunisation programs, including some programs specifically for Indigenous people. Immunisation registers are used to monitor immunisation coverage as the main measure of effectiveness of immunisation programs. Registers have become a truer reflection of the picture for the community as a whole, as demonstrated in the review conducted by the National Centre for Immunisation Research and Surveillance (NCIRS) in 2001. Rates for Indigenous people cannot, however, be accurately ascertained at present. While Queensland’s Vaccine Information and Vaccine Administration System (VIVAS) records Indigenous status, reporting is thought to be incomplete. The Australian Childhood Immunisation Register (ACIR), which is linked to Medicare registration, also has very incomplete reporting of Indigenous status. There has been research evidence in the past, through local surveys, that coverage is lower amongst Indigenous children.

Project Objectives

The objectives of this project arise from the need to gather evidence in relation to factors influencing sub optimal vaccination coverage in Aboriginal and Torres Strait Islander children of Queensland, to document service responses and health professional training programs, and to recommend priorities and options for future directions for service development. This will inform strategic planning to achieve the aim of improving Indigenous childrens’ access to and uptake of vaccination. Recognition is given in the tender documents to the importance of the use of indigenous identifiers in practice and in data recording.

The project specifications were developed by a steering group, which has monitored and advised on the running of the project. The steering group members are drawn from a wide range of organisations representing service providers to Indigenous people, and in some cases representing the Indigenous community. Planning for this

project began two years ago when the group first met. The committee developed a set of specifications for the project, and has continued to oversee its running. The project has been conducted by a consultancy team from the University of Queensland, in continuing communication with the steering group.

The specific requirements of the project are stated as follows:

8.1.1 Identify vaccination service providers across the state who provide services to Aboriginal people and Torres Strait Islanders by

- a. provider type (eg GP, local government, Aboriginal Medical Service etc)
- b. services offered
- c. frequency and availability of service, and
- d. service cost if any.

8.1.2 Examine to what degree these services are accessed by the Aboriginal and Torres Strait Islander population.

8.1.3 Consider current immunisation coverage in all age groups, for each of the diseases for which immunisation is available.

8.1.4 Identify barriers to optimum uptake of immunisation by Aboriginal people and Torres Strait Islanders.

8.1.5 Identify hard to reach Aboriginal and Torres Strait Islander groups within the state and the factors that contribute to this.

8.1.6 Identify and discuss priority areas needing to be addressed.

8.1.7 Identify strategies in place within Queensland health services which are currently successful in improving immunisation access and uptake.

8.1.8 Identify perceptions of relevant health care providers regarding Indigenous identifiers, whether providers routinely register Indigenous status and what, if any, barriers exist for this to occur.

8.1.9 Identify perceptions of the Indigenous community regarding Indigenous identifiers and the recording of Indigenous status including what barriers, if any, exist.

8.1.10 Identify the capacity for health service districts and local services to be able to address barriers to optimum uptake of immunisation in Aboriginal people and Torres Strait Islanders and what models may assist with this.

8.1.11 Identify a range of recommended models of service delivery which will improve access and uptake.

This study addressed the requirements as follows:

8.1.1 and 8.1.2 – an email based survey of immunisation service providers, spanning community health, community controlled services, public health service immunisers and local councils was undertaken. (See Section 9.2)

8.1.3 – coverage was narrowed to encompass immunisation status of two year old Indigenous children across the state via a sampling process and analysis comparable with national register statistics. This has not been done before with Indigenous people of Australia. (See Section 9.4).

8.1.4 – was addressed in questioning Indigenous people and providers about their various perspectives on barriers within three separate surveys, including parents/carers of two year old children, General Practitioners and other service providers) and views were elaborated in focus groups with Indigenous people. (See Section 9.3)

8.1.5 – was addressed by seeking out hard-to-reach groups and individuals in an urban context, using family links and other social links available to the researchers to contact and talk with people. Some strategies to engage these groups were notably unsuccessful, for example attempts to engage “street kids” through youth services were acceptable to providers but not to their clients, who were otherwise preoccupied. Other views about these groups were gained from service providers with experience in these areas. (See Section 9.4)

8.1.6 – The priorities of Indigenous people were considered and explored in the coverage survey, in focus groups and in individual interviews, as were attitudes to use of identifiers. (See Section 9.1).

8.1.7 – was reported on by providers in a survey, in interviews and from the literature, some good examples being presented in Section 9.5.)

8.1.8 and 8.1.9 – Indigenous status and barriers were also explored in the three surveys.

8.1.10 – Was reported on by key informants and in the survey of providers.

8.1.11 The evidence is considered and models suggested in Section 10.

6.2 Policy context

The disparities in health, including differential rates of infection in Indigenous people compared with other Australians, underlie the urgency and importance of implementing broad scale programs that effectively protect the health of Indigenous people. Control of infections in Indigenous communities can only be achieved by action on a number of fronts. Improvements in housing and support hardware, to limit overcrowding and improve environmental hygiene, is essential. Improved access to health services, and general improvements in education, income and other social determinants of health will also decrease the impact of infections on Indigenous people. Immunisation offers essential and effective protection from a group of serious infections which contribute to adverse health outcomes, if coverage is adequate at the population level.

The Australian government has recognised the need for coordinated action across sectors and has addressed it through the establishment of whole of government reporting on Indigenous Indicators of Disadvantage. One of the indicators of strategic

change recommended for reporting is hospitalisation rates for infection, which can be decreased by providing high vaccination coverage. For instance, this was seen in the recent past with *Haemophilus influenzae* B immunisation and is beginning to be demonstrated with pneumococcal vaccination. Thus improved immunisation coverage has the potential to improve headline indicators in relation to life expectancy and incidence of disability.

Within Queensland, a number of policy initiatives point towards improvements that will assist immunisation coverage improvement. Primarily, the Indigenous workforce strategy, if implemented successfully, should provide services which are acceptable to Indigenous people and prioritise their needs. The adoption of an enhanced primary care model via use of health service databases to facilitate patient tracking and recall for program activity can be used for immunisation. Improving the effectiveness of General Practitioners in providing appropriate service to Indigenous clients can be largely a commonwealth driven process through provider incentives and requirements, however in Queensland there is the potential for greater improvement through state involvement with General Practitioners in collaborative efforts and direct involvement in immunisation data recording and the supply of vaccines.

Queensland has performed well in comparison with other states, as will be evident from the upcoming evaluation report of the National Indigenous Pneumococcal and Influenza Immunisation Program.

7 Literature review

7.1 The demographic, social and health context

Population

The estimated residential population for June 2001 based on the 2001 census is 125,910 Indigenous people in Queensland, including 18,525 who identified as Torres Strait Islander and 10,105 who identified as both Aboriginal and Torres Strait Islander, more than one quarter of the total Indigenous Australian population. The median age of the Indigenous population is 20 years, compared with 36 years for the non-Indigenous population. Life expectancy remains 20 years less than for all Australians on most recent published figures. The largest differences in death rate in nationally representative figures occurred at ages 35-54 years where the Indigenous death rates in the selected jurisdictions were five times those of the total Australian population. Infectious deaths contribute to these figures.

Adults

Indigenous Australians have lower income, higher unemployment, poorer educational outcomes and lower rates of home ownership as evidenced by the 2001 census. In 2001, the average gross household income for Indigenous persons was \$364 per week. At census, households with Indigenous people on average contained 3.5 persons. Indigenous multifamily households on average contained 7.7 persons.

Death from respiratory disease comprised 8% of total Indigenous deaths for the period 1999 – 2001. This included mainly influenza, pneumonia, asthma, bronchitis and emphysema. Deaths occurred at younger ages than for the total population. Respiratory deaths accounted for more than 9% of excess deaths amongst Indigenous people. Hospitalisations also reflected many of the common causes of death.

Risk factors for respiratory infection (and eligibility for pneumococcal and influenzal vaccination) were in high prevalence in the Indigenous adult population at the 2001 National Health Survey: smoking rate in those over 18 years of 51%; 29% of drinkers consuming at hazardous levels.

Children

In Indigenous Queenslanders, the incidence of low birthweight (less than 2500gms) is 13%. The rate for Torres Strait Islanders is slightly lower at 11.7%. Premature and low birthweight babies have increased morbidity and mortality, and one of their vulnerabilities is to severe effects of infections. For example, low iron stores in infancy, often associated with prematurity or low birthweight, impair immunity. Pneumonia and meningitis are more common, and more likely to be associated with complications in these infants.

Indigenous children, particularly those aged between 0 and 4 years, have increased rates of hospitalisation for infectious and parasitic disease, for example more than 100 per 1000 for Indigenous infants in Australia. Respiratory infection is the most common type. Research from Western Australia has documented an increase in hospitalisation across all geographical areas for Indigenous people across all age groups, urban areas included, with greatest increases in remote areas. In Queensland,

Torres Strait Islanders have the highest rates of hospitalisation for respiratory infection.

The increased prevalence of Middle Ear infection is not well documented. One recent Northern Territory based study 95% of Aboriginal infants aged 6 to 8 weeks had otitis media with effusion, in comparison with 30% of non Aboriginal infants. Pneumococcal vaccines may have some impact on these early infections

Location and health services

About one quarter of the Indigenous population of Australia live in remote areas (2001 Census). For Australia as a whole in 2001, remote centres and rural areas outside of large and small centres had fewer than 80 primary care practitioners per 100,000 persons, compared with over 120 in capital cities.

“Health hardware” in houses is generally poor in remote areas. There are particular environmental hazards in some areas. The “Atlas of Health-related Infrastructure in discrete Indigenous Communities” (ATSIC 2002) indicated that Queensland communities in the Torres Strait, in comparison with other Queensland communities, are particularly disadvantaged in respect of reliance on rainwater tanks, incidence of flooding and pooling, and lack of sewerage which leads to higher risk of both faecal oral spread infections like Hepatitis A and vector borne infection outbreaks like Japanese Encephalitis. These same communities, as documented, have relatively limited accessibility by road and air, and less access to immunisers, i.e. registered nurses (only weekly or monthly) and doctors.

Border issues, specifically proximity to Papua New Guinea, also need to be considered in the Torres Strait. Local residents are potentially exposed to a higher rate of infections uncommon in the rest of the state, for example tuberculosis, through interaction with people from Papua New Guinea, where health services are in serious crisis and immunisation programs effectively cover little of the population.

7.2 Current knowledge of infection occurrence, vaccine coverage and barriers to vaccination

Incidence of vaccine-preventable infections

Infection notification rates for the whole community quantify to a large extent the exposures, and therefore the risk of infection, for Indigenous people. Some infections, however, are more prevalent and a higher risk to Indigenous people

The Australian Bureau of Statistics (ABS) details that for communicable diseases reported to the surveillance systems of the Northern Territory, Western Australia and South Australia, where indigenous identification is relatively complete, the incidence rates for Indigenous persons are generally in the range 5 to 10 times higher than for non-Indigenous persons. In regard to vaccine preventable infections in 2001, total notifications and the rate ratios (Indigenous: non-indigenous) were as follows:

Notifications Rate ratios

6817 6.0 for pertussis

1446	4.5	for invasive pneumococcal disease*
997	9.8	for tuberculosis (notifications include 77% cases non-Australian born);
358	6.5	for meningococcal infection (only type C is vaccine preventable);
290	7.8	for hepatitis A;
153	9.2	for hepatitis B;
70	7.7	for mumps;
66	4.5	for rubella;
45	2.8	for measles;
16	11	for Haemophilus influenzae type B infection;

*this data is more incomplete – newly established enhanced surveillance from all states except Qld

Note: The first national report on Vaccine Preventable Diseases and Vaccination Coverage in Aboriginal and Torres Strait Islander People by the National Centre for Immunisation Research and Surveillance (NCIRS) is due to be published in “Communicable Diseases Intelligence” in June 2004. Background information about infections and the vaccines to check spread in Indigenous people has been revised in the Australian Immunisation Handbook, 8th Edition 2003.

It must be borne in mind that some of the above infections go unnotified, for example pertussis, pneumococcal disease, mumps and rubella managed in the community where diagnostic tests are not undertaken. Notifications therefore may give an incomplete picture of incidence in the community. Immunisation recommendations in relation to each vaccine take into account natural history of infection, community incidence, vaccine effectiveness according to age, and potential for control of the infection in the community. Where there is a continuing, substantial incidence of an infection reported, immunisation programs for that infection are not meeting their aims.

Notifiable infections are reported by doctors and other clinicians in health teams, and are also reported by pathology laboratories, using the identification data provided by clinicians. Where “enhanced surveillance” is used for some infections, there may be direct communication between public health unit staff and the person involved, but otherwise not. The information from Queensland regarding notifiable infections is hampered by incomplete reporting of Indigenous status. A recent report, Notifiable Diseases Report 1997 – 2001, from the Queensland Health Communicable Diseases Unit, compares the Northern zone, with its higher Indigenous population to other zones of Queensland (eg 15.2% of under 5s, vs approx 4% of under 5s), to gain some ideas. Comparison of results with the above suggests that the zonal breakdown is insufficient to give an adequate picture. A more recent Queensland summary of enhanced surveillance of invasive pneumococcal disease has shown evidence of increased success in ascertainment of Indigenous status for this particular notifiable infection.

Pertussis

Pertussis or whooping cough is a respiratory infection lasting up to 3 months, and is potentially life threatening in infants. It is more common in spring and summer in

Queensland. Immunisation is recommended universally in Australia at 2,4, and 6 months (as part of the DTP or “triple antigen”). A booster is recommended at 4 years, and until August 03 a booster was also recommended at 18 months. International experience has shown that adequate protection in the early years is achieved with three doses in infancy, so that the first booster may be delayed to age four years. The current schedule does not deal with the problem of waning immunity in late childhood and adulthood, and at present pertussis circulates in these population groups, creating a “reservoir of infection” to which young children are exposed. Continuation of pertussis immunisation into later life will be made possible with the development of vaccines suitable for this use. Serious adverse events resulting from pertussis immunisation are extremely rare. About 1 in 10 have local inflammation or fever. The incidence of local effects and fever associated with this vaccine has greatly lessened in the past five years with a change to acellular vaccine.

In Queensland during the recently reported five year period, the largest proportion of cases (25%) was notified in 10 to 14 year old children, and there has been a decline in notifications from younger school aged children. These affected children tend to expose their younger siblings at home to the infection, a particular risk for unimmunised or incompletely immunised infants. Cases do occur in the vaccinated (given the vaccine’s efficacy of about 80%). Five deaths were recorded, a lower number than for the previous period. These included an Indigenous infant and an Indigenous adult over age 55. Hospitalisations also declined. The zonal pattern of notifications varied from year to year. Enhanced surveillance has been introduced for cases under age 5, resulting in improved ascertainment of Indigenous status for these cases. In 2001 there was 65% ascertainment for this age group. A higher rate of notification in Indigenous children was shown, 12% of all cases in under 5s and 17% of infant cases.

Invasive Pneumococcal Disease

This is a serious infection resulting most commonly in pneumonia, meningitis or bacteraemia. About 1 in 10 meningitis patients die. Surveillance has been established in recent years. It is most common in Queensland in late winter and early spring. Indigenous adults over 50, and young Indigenous adults with health risk have been offered Pneumovax (one off, single booster after five years) along with yearly Influenza vaccine since 1995 in North Queensland, and from 1997 in the rest of the state. Indigenous Child immunisation commenced in 2001 and is recommended for Indigenous children at 2,4, and 6 months with Prevenar, a 7 valent vaccine. This is followed by a single booster dose of Pneumovax, a 23 valent vaccine as used in adults, at 2 years. Limited catch up was offered to Indigenous children up to age 27 months at the time vaccination was introduced. Universal infant pneumococcal vaccination is to be instituted in 2004. Experience in the USA suggests adequate vaccination of infants will protect adults from spread of pneumococcal disease, and that similar benefits might be gained from influenza vaccination of young children.

In Queensland over the five year period to 2001, 40% of cases were notified in children under age 5, 32% were aged 50 or more, and the highest rates were in the Northern zone. Indigenous status ascertainment was poor. Enhanced surveillance in cases under five years of age commenced in 2001, and was reported on for 2002. There were no deaths in children reported, however four Queensland adults died from invasive pneumococcal disease. Notification rates were similar to those reported for

the previous five year period. Indigenous status was ascertained in 83% of cases in children under 5 years. Of these, 9% of cases occurred in Indigenous children, where the population proportion is 6.2%. Pneumonia was the most common finding in Indigenous children, which is generally more severe than bacteraemia alone, which was the predominant finding in non-indigenous children. Almost all isolates were serotyped. Of those from Indigenous children, 45% of isolates serotyped were included in the 7 valent vaccine, Prevenar. Two Indigenous children notified with Invasive Pneumococcal Disease in 2002 had been fully vaccinated for their age but were infected with serotypes not present in the vaccine. Notifications from the Northern zone had declined, thought to be related to implementation of the vaccination program in North Queensland which began in July 2001, three months ahead of the rest of the state.

Pneumococcal vaccine and middle ear infection

Torzillo and Grattan reviewed serotype reporting in Australian Indigenous children, similarly reporting high coverage of invasive serotypes by recommended vaccines, and low coverage of nasopharyngeal isolates associated with middle ear infection, so vaccination is likely to have a limited effect on this common problem.

Tuberculosis

Review of international studies suggests BCG vaccination protects against serious forms of tuberculosis in 80% of the vaccinated, and is highly protective against leprosy. Incidence in the Australian population has been extremely low in recent years, most cases being found in immigrants. The national recommendation is for vaccination of Indigenous neonates in areas of high incidence.

Meningococcal Disease

Rates of infection in Indigenous people of north Queensland have been shown to be higher than the general population, as with Indigenous people of some other states. Outbreaks have been documented, some associated with type C, the only type covered by the currently available vaccine.

Hepatitis A

Fulminant Hepatitis A has been recognised as a leading infectious cause of death in young Indigenous North Queensland children, and a local schedule of Hepatitis A vaccine instituted. It is well known that outbreaks can potentially circulate in communities via young children who may have the infection without showing any sign of it, leading to unexpected illness in the unvaccinated adults who care for the children.

Hepatitis B

A problem of low Hepatitis B vaccine coverage is apparent for the current cohort of Indigenous teenagers, a cluster of cases having been reported in North Queensland in 1999.

Haemophilus influenzae Type B infection

Indigenous children have been shown to be particularly vulnerable to this infection in infancy, and this was one of the most common causes of infectious deaths for this age group prior to effective vaccination programs. Use of "Pedvax" type vaccine is more

effective in producing immunity at young ages, so continuing use of this vaccine rather than others currently available, is important for Indigenous children. This vaccine is currently recommended for all Queensland children.

Japanese Encephalitis

An outbreak of Japanese Encephalitis occurred in the Outer Islands of the Torres Strait in 1995, when there were deaths of some of those infected. Cases have also occurred since that time. JE vaccine is now offered to children commencing at age 12 months, and older people living in these areas. Environmental management measures have also been implemented by local people to help control sources of infection.

The current immunisation schedule for Indigenous people in Queensland

This consists of National Health and Medical Research Council (NHMRC) universally recommended vaccines, plus some extra recommended nationally for Indigenous people (infant and adult pneumococcal vaccination) and within Queensland (Tuberculosis vaccination throughout the state, Hepatitis A vaccination in North Queensland and other discrete Indigenous communities, Japanese Encephalitis vaccination in the outer islands of the Torres Strait). "Immunisation Guidelines, 8th Edition" was released in September 2003. For Queensland, the schedule of vaccines recommended is listed in Appendix 4.

The timing of introduction of these schedules is recorded in appendix 3. There have been frequent changes to the schedule in recent years. For example, changes relevant to the age cohort sampled in the coverage survey described in Section 9.4 (and now aged three years) include an extra dose of Hepatitis B vaccine in infancy with the introduction of combination vaccines as part of the 7th national schedule introduced May 2000; introduction of infant pneumococcal vaccination in North Queensland in July 2001 and to the rest of the state in September 2001; national introduction of meningococcal c vaccination in January 2003.

Immunisation Coverage

The most up to date figures will be gained from a national analysis of Indigenous immunisation coverage to accompany Indigenous notification data analysis in the NCIRS report to be published June 2004. Several recent local studies in north Queensland have presented useful data on both child and adult pneumococcal programs.

Comprehensive, national, self reported coverage data for Indigenous people became available for the first time in National Health Survey: Aboriginal and Torres Strait Islander Results, Australia, 2001 (ABS). This was based on a household survey that also entailed review of vaccination records held by the people surveyed, and review of their ACIR records.

For Indigenous adults over 50 years, Influenza vaccine coverage was 45% in preceding year, and pneumococcal coverage was 19% in the preceding five years. Rates in remote areas were double those in non-remote areas. North Queensland data shows substantial improvement.

For Indigenous children under age 7, data was available for non-remote areas where the following proportions were fully immunised:

Diphtheria / Tetanus	66%
Pertussis	60%
Polio	71%
Hepatitis B	76%
Measles / Mumps / Rubella	78%

Between 2 and 7% were unimmunised with various vaccines.

ACIR postcode based data released in September 2000,

Coverage for universal vaccines excluding Hep B at age two years:

4871 (Yarrabah and Cape York communities excluding Weipa)	70%
4605 (Cherbourg)	77%
4830 (Doomadgee)	66%
4875 (Thursday Island)	60%
4876 (Bamaga)	53%

We know that rates vary across different areas. In evaluating the accuracy of ACIR data for Australia in 2001, NCIRS showed, by interviewing parents of overdue children, that in inner urban areas the slightly lower rate documented was due mainly to non-reporting by providers, for the most part General Practitioners. Rural differentials on that register more truly reflected immunisation coverage.

Research in various parts of Australia in regard to Indigenous children has suggested high rates in remote areas, with a decrease in rural areas and a further decrease in urban areas. An example is the 1994 study by Hanna et al of 773 Indigenous children in Far North Queensland, where 42% were fully vaccinated, coverage varying from 64% in remote areas, to 32 % in rural areas and 21% in urban areas. The general pattern has been borne out in other states, for example very high rates for Indigenous children in remote NT and WA in 1993, and lower than the general community rate in Western NSW in 1996.

Coverage of the adult population is much less well understood, there being minimal register data available for monitoring outside Queensland. VIVAS now records these episodes, but there is a continuing problem with non-return of data, given the vaccine quantities distributed (personal communication, CDU staff). Adult vaccination target groups include individuals with certain chronic illness at any age, in addition to defined age groups. In 2003 smoking was added to the list of risk factors conferring eligibility for immunisation as a young adult, changing the population denominator from about a third to more than half. A national evaluation of the Indigenous Pneumococcal and Influenza Immunisation Program is currently being undertaken by NCIRS.

Measures to promote immunisation have included:

- facilitation of vaccine supply via state based services
- provider education
- provider incentives (from 1998, payment for register data, General Practitioner payment for target coverage rates in their practice)
- facilitation of vaccination history accessibility to providers via registers since 1994 in Queensland

- reminders from registers to providers (VIVAS) and to parents (ACIR)
- parent incentives (from 1998, family payment, child care benefit)
- promotional campaigns sometimes involving mass media and targeting those to vaccinated
- mass vaccination programs as we have seen for MMR and meningococcal C vaccine.

Current knowledge of Barriers to Vaccination

Research has identified several potential barriers that were shown not to be significant barriers when examined closely. Although poor parental attitudes towards vaccination are frequently cited as influencing their children's vaccination status, this is not necessarily so. For example, a study in FNQ showed that 97.5 percent of 613 children had commenced their vaccine schedule, indicating strong parental support for vaccination. Similarly, in a poverty-stricken inner city in the United States, 86% of parents of young children expressed confidence in vaccination, even though only 54% of their children were fully vaccinated by 2 years of age.

It can no longer be assumed that under immunised children do not have access to a primary health carer (ie. a vaccine provider). In FNQ all indigenous children have access to primary health care services (eg. a community controlled health service, a community health centre, a general practitioner) but only 42% were fully vaccinated by their second birthday. Paradoxically perhaps indigenous children living in urban settings in FNQ with ready access to numerous services were particularly under vaccinated. Obviously although children have access to primary health care services, this is not the same as utilising those services, including the vaccination services.

There is good evidence that **adverse socio-economic circumstances** are associated with poor or delayed vaccination coverage. Families living in poverty experience unemployment, overcrowding, poor living conditions, unreliable transport and limited education. Language and cultural barriers may further enhance hardships associated with poverty and, despite free access to health services, families may not use them. Although parents believe that vaccine-preventable diseases are serious, other demands related to living in poverty may be more urgent, and therefore vaccination not given priority .

Although the 'standard' vaccines are provided free to young children in Australia, there remain problems in ensuring that the vaccines actually reach young children, The Australian Standard Vaccination Schedule is increasingly complex, with many new vaccines likely to become available in the near future. There is a possibility that recommendations for unfunded vaccines (i.e. not all recommended vaccines supplied free of charge to the provider) will be added to the schedule. On the basis of international experience, this **complexity of immunisation schedule** will exacerbate these problems unless the reasons for under-vaccination are properly understood and dealt with.

Starting the childhood vaccination schedule 'late' is a strong predictor of not completing the schedule by the second birthday. For example, in FNQ those children who had started by 3 months of age were 10 times more likely to complete the schedule than those who had not started by this time.

A lack of awareness of a child's immunisation status, by either parents or vaccine providers, is also a barrier to effective vaccination. This emphasises the fundamental importance of effective record keeping, and of the ready availability of vaccination records. In FNQ, children without a parent-held vaccination record were nearly 3 times more likely to be incompletely vaccinated by the second birthday than the children whose parents kept a record. The reason for this is obvious: without ready access to a vaccination record a vaccine provider does not have a current understanding of the due vaccines and therefore cannot effectively use the opportunity to vaccinate (17).

Suboptimal vaccine provider practices are also very important barriers to vaccination. **Opportunities for vaccination are frequently 'missed'** by vaccine providers when they see young children. Some of these children are eligible for vaccination but because of the missed opportunity at the visit they remain unvaccinated. There is good evidence from the United States that 'the impact of missed opportunities was greatest for practices serving impoverished children' and it is likely that this is also the case in Australia. Missed opportunities can be divided into two categories:

- all due vaccines are not given simultaneously when they should be and
- vaccines are not given because of invalid contraindications.

In FNQ, only 26% of indigenous children received simultaneous vaccination with the 3 vaccines scheduled at 6 months of age. Although it should be relatively easy to reduce missed opportunities from failure to offer vaccines simultaneously, research suggests that this problem may be more a result of provider attitudes than parental attitudes. For example, in a survey in Sydney, General Practitioners strongly preferred fewer injections, even if that was likely to be associated with more adverse reactions, whereas parents preferred extra injections for their children, even if that was likely to result in fewer adverse reactions.

Inappropriate contraindications to vaccination were particularly important when the reactogenic whole-cell pertussis vaccine (Pw) was in routine use in Australia. Postponement of vaccination because of low grade febrile illness, usually upper respiratory infection, may continue to be a concern. A survey of General Practitioners in Perth reported in 1999, when Pw was still in routine use, found that when a child presented with minor illness and there were no contraindications to immunisation, only 62% of GPs said they would frequently or always offer immunisation, indicating the occurrence of missed opportunities to immunise. Immunisation would be withheld incorrectly because of upper respiratory tract infection by 43% of GPs, and because of antibiotics by 50%. Decisions based on perceptions about the need to avoid immunisation also apply to parents and carers. A Melbourne based study, reported in 1998, which purposively sampled mothers of children in the general community with varying levels of coverage, found that the major barrier to timely, age-appropriate vaccination was the occurrence of minor illness in the child or family. This public perception may not be reversed with the use of Pa and provider education alone. The "respiratory illness" false contraindication can be particularly pertinent to indigenous children, where there is a higher rate of respiratory infection generally.

Another suboptimal vaccine provider practice is the **inability of many providers to track the vaccinations of individuals**, and in particular the inability to recall clients

who are overdue for vaccination. The proportion of vaccine providers in Australia who have their own vaccination tracking systems, and who use these systems proactively, is uncertain. State and national Immunisation registers have in part addressed this problem. Currently immunisation history is available to practitioners on a phone call to the Communicable Diseases Unit in Brisbane, if the enquirer is the last provider of a vaccine or working within Queensland Health. At the moment, lack of availability of records may still hamper opportunistic immunisation efforts in Queensland, and the use of the personal health record or immunisation card may in particular warrant promotion within Indigenous communities. Provider willingness to seek information on behalf of the child may also require reinforcement. The results of outreach home-based vaccination services for at-risk children, have been mixed. A recent trial in FNQ was more successful in vaccinating children than a similar project in Brisbane. Family CARE projects operating in Brisbane and elsewhere provide home visiting to high risk families and track progress through the first year of life. Preliminary results reported include high vaccination rates among the Indigenous children participating in these programs (personal communication, Ken Armstrong).

Barriers to adult immunisation issues, particularly those for Indigenous people, have been less extensively explored. The message about adults over 50 years being eligible is clear. The complexity of identifying the eligible target group of young adults chronically ill or with risk factors for respiratory illness, however, has added to the difficulties in implementation and assessment, albeit with the aim of reaching those most likely to benefit. Many advocate a move to offering immunisation to all young indigenous adults, to gain better coverage at a time of life when healthy individuals best respond immunologically to the vaccine, and to facilitate higher coverage by virtue of an easily identifiable target group.

8 Methodology

A multi-pronged approach was taken to achieve the project aims. Three independent surveys were conducted, and these were directed and supplemented with information gathered using interviews and focus groups. The three surveys were:

1. Service provider survey
2. General Practitioner survey
3. Parent / carer survey

Table 1 below describes how information from the surveys contributes to the overall research questions. Methods for each of the surveys and the associated interviews and focus groups follow.

Table 1: Summary of methodology

Research Question	Method	Sample
To identify Indigenous client viewpoints on: <ul style="list-style-type: none"> • barriers to optimum uptake of immunisation (8.1.4) • factors contributing to hard-to-reach groups (8.1.5) • priority areas (8.1.6) • the recording of Indigenous status (8.1.9) 	Qualitative study drawing data from: <ul style="list-style-type: none"> • semi-structured individual interviews • focus groups • state-wide cluster survey of parents / carers of 2 year old Indigenous children 	Interviews and focus groups conducted with Indigenous people: <ul style="list-style-type: none"> • from 3 diverse locations in North Queensland • from Brisbane, including younger and older people separately • hard-to-reach urban group • adults from a small rural town Cluster survey conducted with 146 parents/ carers of 2 year old Indigenous children.
See “Client viewpoints” Ch 10.1		
To describe vaccination services (8.1.1), their perceptions and use of Indigenous identifiers (8.1.8) and the degree to which these services are being accessed by the Indigenous population (8.1.2).	Mixed-paradigm study drawing information from: <ul style="list-style-type: none"> • state-wide email survey of public and community-controlled health services • state-wide fax-back survey of GPs • semi-structured individual and group 	Email survey conducted with 39 service providers across the state. Fax-back survey conducted with 22 General Practitioners Interviews and group interviews conducted with:

<p>See “Overview of services” Ch 10.2 and “General practitioner viewpoints” Ch 10.3</p>	<p>interviews</p>	<ul style="list-style-type: none"> • Indigenous health workers from (1) Brisbane, (2) a rural Indigenous community • public health immunisation coordinators • regional public health team • GP active in immunisation issues • RFDS nurse immuniser • Immunisation program manager and Indigenous clinical staff of a community-controlled health service
<p>To identify capacity within Qhealth to address barriers to immunisation access and uptake (8.1.10), successful strategies currently in place (8.1.7) and recommend models for improved service delivery (8.1.11).</p> <p>See “Examples of success” Ch 10.4 and “Potential models of service” Ch 11.1</p>	<p>Qualitative study drawing information from all methods used during the project.</p>	<p>As above, plus:</p> <ul style="list-style-type: none"> • Cluster survey conducted with 146 parents/ carers of 2 year old Indigenous children. • Follow-up interviews with key informants reporting successful strategies.
<p>To consider current immunisation coverage in two year old children for each of the diseases for which immunisation data is available (8.1.3 revised).</p> <p>See “Immunisation coverage of Queensland Indigenous two year old children” Ch 10.5</p>	<p>Quantitative study drawing information from:</p> <ul style="list-style-type: none"> • state-wide cluster survey of parents / carers of 2 year old Indigenous children • national immunisation register (ACIR / VIVAS) data 	<p>Cluster survey conducted with 146 parents/ carers of 2 year old Indigenous children. Paired immunisation records from VIVAS database.</p>

8.1 Service provider survey

Initially the request for identification of the relevant people to provide local service provision information was made of district Indigenous coordinators, usually then passed on by them to local Indigenous Health Workers or Indigenous Health Promotion Officers. Emails were followed up by phone calls, which confirmed that those contacted were generally accepting of the format used to communicate. A second channel for identifying service providers presented itself via our key informants – Public Health Unit Immunisation Coordinators offered to assist.

Community controlled services were individually contacted to participate in the survey, as were local councils across Queensland. A list of 78 providers across the state were identified and those contacts were sent the survey. The survey was also passed across to other services by these contacts. A round of follow up phone calls was conducted in an attempt to increase the response rate.

A total of 39 service providers within Queensland completed the service provider survey form and the demographics of these respondents are presented in the tables following. A breakdown of services per zone shown in Table 2 below, where there is representation from all zones, although a stronger representation from the Central Zone.

Table 2: Spread of survey respondents according to Queensland Health Zone

Northern Zone	Central Zone	Southern Zone
7 (18%)	20 (51%)	12 (31%)

The majority of providers who responded delivered immunisation services in Highly Accessible or Accessible areas (69%) with (31%) in Moderately Accessible / Remote and no responses from providers in Very Remote areas as shown in Table 3.

Table 3: Geographical spread of survey respondents

Highly Accessible	Accessible	Moderately Accessible/ Remote	Very remote
19 (49%)	8 (20%)	12 (31%)	0

From Table 4, the majority (%) of respondents were from Queensland Health services with 31% local government sector, 7.5 % GP's and one respondent from the Indigenous community controlled sector.

Table 4: Spread of survey respondents according to organisational sector

Queensland Health	General Practitioners	Local Government	Indigenous community control
23 (59%)	3 (7.5%)	12 (31%)	1 (2.5%)

Key Informant Interviews

Thirteen people were interviewed as key informants. These people all have wide practical experience in relation to immunisation. All the interviews were conducted in the context of accessible areas.

Interviews were conducted with:

- two senior female Indigenous Health Workers
- five public health immunisation coordinators
- a public health physician and associated team of Indigenous health promotion officer and nurse immuniser
- Immunisation program manager and Indigenous clinical staff of a community controlled health service
- a general practitioner who is an active advocate for immunisation service development

The process of interview was to conduct face-to-face discussions, which were taped and then typed up, the transcript returning to the interviewees for correction of any inaccuracies and for editing as required by them. Interviewees have given consent to identified inclusion of approved transcripts in the final report. A copy of the information sheet and consent form used is included in the appendices. Different information sheets and consent forms were used in the case of student projects contributing to the information reported here, although they conformed to the same standards.

8.2 General Practitioner survey

Within the needs analysis project, an extensive effort of liaison was made with each Division of General Practice in the state. All Queensland Divisions were phoned to identify the appropriate divisional officer, and the survey was explained verbally. Written information, and a copy of the survey form and consent form (18 questions requesting a handwritten response over two pages, requiring approximately ten to fifteen minutes to complete) were then faxed within 24 hours. A follow-up phone call was made to ascertain the response to our request for assistance in gaining involvement of a target of between two and five GPs within the division.

This exercise yielded cooperation of some divisions in promoting General Practitioner participation in our survey. 16/18 divisions approached decided to promote the survey in the following ways:

- Distribute the survey to GPs known to be interested, encouraging the GPs to respond directly to the survey team
- Promote the survey in the Divisional newsletter, inviting GPs to contact us
- Discuss the project at a meeting, for the meeting's decision on further action. Most meetings were within a month. In one case the meeting was to be held three months after the request date.
- Give information about services in their local area via their immunisation project officer

The remaining divisions decided not to become involved at all, reasons given being lack of interest within their division, competing priorities, university based research, or the subject of the survey, considered to be not core business for the division. Some of these divisions were in areas with higher Indigenous populations (eg Mount Isa area).

The divisional officer from the divisions who agree to promote our survey was phoned after between 3 and 6 weeks, to find out what had happened within the division. Those divisions who had agreed to help generally were most efficient in carrying out the activity they had decided upon.

In addition, Community Controlled Health Services were approached via their senior medical officer and Administrator or other person nominated by the medical officer, and asked to provide a survey response.

This participant recruitment exercise yielded a total of fifteen responses.

Further to the above, 26 general practitioners who were identified by Indigenous parents / carers as the immuniser of their child were individually contacted, informed they had been nominated as such by an Indigenous parent or carer, and invited to participate, the phone call followed up within two hours with a fax providing information about the project, the survey form and consent form (as described above). This second recruitment round yielded seven further responses, resulting in a total participation of 22 general practitioners.

8.3 Parent / carer survey

This survey is a new application of reliable methodology established by the World Health Organisation for the monitoring of immunisation programs. It requires overall information about the distribution of population so that a random sample can be taken which will represent the whole well. In the Australian context according to research literature, coverage rates are likely to vary with remoteness, and 60% of Queensland Indigenous children live outside areas where health services are “highly accessible”. We therefore further considered it important to make sure that sample included children drawn from rural and remote areas in the same proportion as is present in the whole group. A process that included this added feature was more likely to produce a reliable and reproducible result for Queensland.

Sampling notes

Aim: To select a random sample of 210 two-year old Indigenous children in Queensland, such that each child has the same chance of being selected.

Sampling method and rationale: The method to be used is stratified cluster sampling. Firstly, the entire population of Indigenous two-year olds in Queensland is formed into ‘clusters’, based on geographical location. These clusters will then be stratified by an indicator of access to services. Within each of these strata, a proportional number of clusters is chosen randomly, with replacement, to achieve a total of 30 clusters. Finally a sample of 7 children is chosen randomly from each selected cluster. In order to achieve an equal probability of selection for each child, it is important to select clusters with a probability proportional to the number of children they contain. If this is not done, children in small clusters will have more chance of selection than children from large clusters. Thus the probability of selection of any child in the population is:

$$\begin{aligned}
P &= \text{probability of selecting the child, given the child's cluster is selected} \\
&\quad \times \text{probability of selecting the child's cluster} \\
&= 30 \text{ clusters} \times \frac{7 \text{ children per cluster}}{\text{number of children in the cluster}} \times \frac{\text{total number of children in the cluster}}{\text{total number of children in the population}}
\end{aligned}$$

The primary basis for spatial clustering were Indigenous Areas (IAREs), defined by the Australian Bureau of Statistics for the 2001 Census. These are aggregates of Census Collection Districts (CDs) which represent a population of at least around 300 Indigenous persons grouped on the basis of language or culture. IAREs aggregate to ATSI Regions and cover the whole of Australia. There were 122 Indigenous Areas in Qld at the 2001 Census.

One-fifth the number of Indigenous children 5-9 was taken as the indicator of the expected number of 2-year olds in each IARE. Inspection of the year of age distributions revealed apparent under-enumeration of 0-4 year-old children, and children 10 years old or more.

Based on this, it was estimated that there were 3212 Indigenous two-year olds in Queensland. Thus we require a sample of 210/3212 or 6.5%.

Eight IAREs had fewer than 7 children and 41 had fewer than 14. Given 30 communities were to be selected, there was a chance some could be selected more than once necessitating 14 children. In addition, given these were predicted on the basis of 5-9 year olds counted in 2001, some variability around the predicted number will occur. A process of agglomeration was followed, in which areas were classified into spatial clusters, by combining contiguous areas, so that no cluster had fewer than 14 predicted children. Where a choice existed, areas with similar 'urbanisation' were combined, as a preference. This resulted in 93 spatial clusters, formed as shown in the attached list.

Wujal-Wujal reported zero Indigenous children under 15. Based on the ratio of 5-9 year-old Indigenous children (68) and number of Indigenous 15-44 year-old women (167) in the nearest similar community (Hope Vale), and the number of Indigenous 15-44 year-old women in WujalWujal (91) it was estimated that there were 37 5-9 year-olds there.

The stratification indicator for access to health services was the 1999 Accessibility/Remoteness Indicator for Australia (ARIA), applied to Statistical Local Authority Areas (SLAs). [<http://www.health.gov.au/pubs/hfsocc/ocpanew14a.htm>] These are defined as:

1. **Highly Accessible (HA)** (ARIA score 0 - 1.84) - relatively unrestricted accessibility to a wide range of goods and services and opportunities for social interaction. [33 areas]
2. **Accessible (A)** (ARIA score >1.84 - 3.51) - some restrictions to accessibility of some goods, services and opportunities for social interaction. [21 areas]
3. **Moderately Accessible (MA)** (ARIA score >3.51 - 5.80) - significantly restricted accessibility of goods, services and opportunities for social interaction. [27 areas]
4. **Remote (R)** (ARIA score >5.80 - 9.08) - very restricted accessibility of goods, services and opportunities for social interaction. [8 areas]
5. **Very Remote (VR)** (ARIA score >9.08 - 12) - very little accessibility of goods, services

and opportunities for social interaction. [33 areas]

Where there was not exact correspondence of IARE and SLA, the nearest choice possible was made for ARIA classification.

Spatial clusters were then classified by ARIA. Where a cluster had different ARIA codes within it, the code corresponding to the one with the largest number of children was used. This resulted in strata for clusters as HA (29 clusters), A (17), MA (20), R (6), VR (21).

Finally, ARIA categories 3 and 4 were combined.

	Number of clusters	Number of children	Target number of children	Number of samples of 7 / remainder	% of children
1 (HA)	29	1233	81	11 / 4	6.6%
2 (A)	17	596	39	5 / 4	6.5%
3 (MA/R)	26	857	56	8 / 0	6.5%
4 (VR)	21	526	34	4 / 6	6.5%
	93	3212	210	30	6.5%

The 210 children needed for the sample were divided among the strata to achieve a proportionate number of children in each (6.5%). The number of ‘whole’ clusters within each was worked out by dividing by 7, the remainder after this division represents a ‘partial’ cluster.

The procedure within each stratum will be to firstly sample 7 children in each of the whole clusters, then to select the required reduced number of children in the selected ‘partial’ cluster. If, in addition, one of the whole clusters yields less than 7 children, the number will be made up from the ‘partial’ cluster. But no more than 7 children should be taken from the ‘partial’ cluster. If 7 children are taken from the ‘partial’ cluster, it then effectively becomes a ‘whole’ cluster. If even more children are needed to meet the stratum quota (due to being unable to find enough children in one of the earlier clusters), a ‘backup’ cluster is selected.

Example 1: In HA; the 11 ‘whole’ clusters are selected and completed, with 7 children recruited in each. The first ‘partial’ cluster is selected and 4 children are selected randomly from there.

Example 2: In A: the 5 ‘whole’ clusters are selected. Four of the 5 are completed with 7 children recruited in each. After an exhaustive search, only 6 children are recruited in the survey in the fifth cluster. The ‘partial’ cluster is selected and 5 (the remainder of 4 – see above table-, plus the 1 child short from the incomplete ‘whole’ cluster) children are selected randomly from it.

Example 3: In VR: the 4 ‘whole’ clusters are selected. Three of the 4 are completed with 7 children recruited in each, but in one of them, after an exhaustive search, only 5 children are recruited. Thus 2 more children + the 6 ‘partial’ children are needed, ie 8 children. The ‘partial’ cluster is selected and 7 children recruited, effectively becoming a ‘whole’ cluster. The first ‘backup’ cluster is selected and 1 child is recruited.

PPS sampling, with replacement, was used within each stratum to select the required number of clusters, with replacement. Where a cluster was selected a second time, a second sample of 7 was taken.

Within each selected cluster (the boundaries of which are obtainable from Census maps), a sampling frame for 2-year old children is to be constructed. This may be done differently in different clusters, but field workers must obtain as close as is possible to a complete enumeration of two-year old Indigenous children. They should make an estimate of the number of these children in the cluster. This may differ from the estimate based on the Census. Field workers then choose a random starting point within the cluster, and select the sample.

Selected sample of clusters

The list of selected clusters is attached, and organised by stratum. The ‘whole’ and ‘partial’ clusters are to be done first. The ‘backup’ clusters’ are to be used as above and MUST be used in the order (randomised) on the list, ie the cluster with Study No = 110 must be used before the one with Study No = 111.

Definitions in the sample list

Stratum: The ARIA code as explained above

Cluster reference: The Census code for the IARE(s) in the cluster; it provides a link to the Census maps of the IAREs; cluster references ending in 9 are agglomerated IAREs which can be identified via the attached sampling frame list. Those ending in 0 or 5 are individual IAREs

Study No: A sequential identification number within each stratum

Cluster Name: The Census Name for the IARE, or, for agglomerated IAREs, a combined name

Type: W = ‘whole’ cluster, P = ‘partial’ cluster, ‘B = ‘backup’ cluster

Target No: the number of children to be selected from each cluster; this is usually multiples of 7, depending on how many times the cluster was selected in the sampling process; samples of less than 7 are required to obtain as close as possible to a sample of 6.5% from each stratum

Predicted No: The estimated number of two-year old Indigenous children in the cluster, based on the 2001 Census, as above

Number Achieved: The actual number of children recruited in each cluster.

Table 5: Indigenous children's vaccination survey: sample of clusters

Stratum	Cluster reference	Study No	ClusterName	Type	Target No	Predicted No	Number achieved
HA	9025	101	Brisbane northern outer	W	7	73	
HA	9029	102	RedlandStradbroke	W	14	50	

HA	9065	103	Logan	W	14	57	
HA	9090	104	Gold Coast City Part B SSD	W	14	98	
HA	9100	105	Redcliffe (C)	W	7	29	
HA	9105	106	Ipswich central & west	W	7	88	
HA	13001	107	Rockhampton (C)	W	7	88	
HA	14001	108	Toowoomba (C)	W	7	76	
HA	9080	109	Beaudesert (S)/Boonah (S)	P	4	31	
HA	13001	110	Rockhampton (C)	B	.	88	
HA	13001	111	Rockhampton (C)	B	.	88	
HA	9120	112	Caloundra (C)	B	.	28	
HA	9045	113	Inala	B	.	26	
HA	9039	114	NoosaMaroochy	B	.	54	
A	13045	201	Isis	W	14	14	
A	16015	202	Townsville (C)	W	21	114	
A	16015	203	Townsville (C)	P	4	114	
A	10005	204	Cairns (C) - Central Suburbs	B	.	94	
A	16015	205	Townsville (C)	B	.	114	
A	10005	206	Cairns (C) - Central Suburbs	B	.	94	
A	14040	207	Wondai	B	.	24	
A	13030	208	Bundaberg (C)	B	.	48	
MA/R	10085	301	Herberton (S)	W	7	17	
MA/R	11020	302	Mount Isa	W	14	95	
MA/R	11030	303	Cloncurry	W	7	17	
MA/R	13009	304	FitzroyDuaranga	W	7	21	
MA/R	13035	305	Hervey Bay (C)	W	7	33	
MA/R	13055	306	Woorabinda	W	7	29	
MA/R	16019	307	HinchenbrookCardwell	W	7	35	
MA/R	13029	308	EmeraldCQPeakdowns	B	.	35	
MA/R	16009	309	FlindersChartersTowers	B	.	28	
MA/R	13029	310	EmeraldCQPeakdowns	B	.	35	
MA/R	16040	311	Mackay (C) - Pt A	B	.	80	
MA/R	13040	312	Maryborough (C)	B	.	19	
VR	11029	401	CarpentariaNormanton	W	7	27	
VR	15039	402	BaduStPauls	W	7	21	
VR	15065	403	Torres Strait	W	7	30	
VR	16010	404	Palm Island	W	7	51	
VR	14060	405	Quilpie	P	6	19	
VR	11029	406	CarpentariaNormanton	B	.	27	
VR	11005	407	Doomadgee & Doomadgee os.	B	.	26	
VR	16010	408	Palm Island	B	.	51	
VR	15049	409	HorneTI	B	.	28	
VR	15060	410	Bamaga	B	.	22	

Statistical significance of achieved sample: Confidence intervals were derived for the estimated coverage of each dose of vaccine in the cohort of children.

Interviewing process: Indigenous interviewers approached parents/carers of children using a variety of means. Initially in each sample area, a starting point was chosen by blindly applying a pin to the road map or Council map of the area, and the three closest non-health related Indigenous community organisations were identified from a listing held by Aboriginal and Torres Strait Islander Commission (ATSIC) offices. Organisations approached included, for example, Indigenous Housing cooperatives, elders groups. Indigenous Child care organisations were not included. NCIRS 2001 study showed an association between better coverage and childcare, thought related to eligibility for child care benefit (fee relief) conferred through full vaccination.

In urban areas a wider range of organisations was utilised, as few participants were recruited despite substantial effort at networking. These included Indigenous preschools, Indigenous committees of Primary and high schools, TAFE colleges, Centrelink, multicultural centres. Direct contact with potential participants via local NAIDOC Day celebrations and other public events were an effective means of establishing contacts in urban areas. Some sample areas were more difficult to recruit than others. Where there was no clearly identifiable Indigenous community (by total numbers or by organisational existence), it was very difficult, in a non-health setting, to make contacts to a level where eligible children could be identified.

Organisational representatives were asked to invite families with children (either in or outside the age cohort, as was possible) to contact the researchers, or seek permission to provide contact details to the researchers. The interviewer would then seek parents/carers of children in the age cohort via personal referral. In many cases interviewers were referred back to health organisations by other community organisational representatives, or by individuals. In some communities, workers for general community agencies also functioned as Health Workers.

On average in this manner in rural areas, a chain of five contacts produced one potential survey participant. In very remote areas, interviewers were almost invariably directed to health agencies. In urban areas, finding survey participants was frustratingly slow as organisations were reluctant to provide contacts and although the survey was promoted through these agencies, very few came forward. The most successful approach in urban areas was via personal contacts within families known to the researchers, and via ASSPA groups in schools. Interviewers simply had to use their own judgement about the appropriateness of approaches. Participants were interviewed at home, on the street, in a shopping mall or at other venues. The mode of contact of survey participants whose details were included in the dataset was recorded, and finally fell into two approximately equal groups of health related organisational contact and other contact (non-health organisation or personal contact). The immunisation coverage in the two groups was compared to give an indication of the extent of bias associated with health related organisations. There was some difference: **NOTE RESULTS HERE**

In depth interviewing was later carried out in another arm of our project in one inner urban area to try to understand the reluctance of people to provide information about children's identity. A potential way to recruit in difficult areas not tried by us would be

training and employing prominent or well-connected organisational representatives or Health Workers to identify and interview participants in their own area.

9 Results

9.1 Client viewpoints

“Every child should be done!”

“I can’t drag my husband there!”

The views of parents and carers of two year old Indigenous children were sought in the process of sampling children across Queensland for an immunisation coverage survey. People were approached in the main by Indigenous interviewers through a variety of avenues – at Indigenous public events, eg National Aboriginal and Islander Day celebrations (NAIDOC), on the street in Indigenous communities and towns, via primary school Aboriginal Student Support and Parent Assistance (ASSPA) committees, via community organisations, and via Indigenous Health Workers. The views of 146 people were recorded. There were recurrent themes throughout, indicating that we had achieved a fair idea of overall opinions and the diversity of viewpoints in relation to reasons for delaying immunisation, feedback about services provided and suggestions for improvement in relation to child immunisation. A description of this group of respondents and the sampling procedure is provided in Chapter 8 Methodology. Further to this a series of in depth interviews and focus groups was conducted with a range of different groups. Focus groups on immunisation were conducted in North Queensland in three diverse locations, and in Brisbane with young adults and separately with older people. In-depth interviews were conducted with a hard-to-reach urban group and with adults in a small rural town.

Table 6 presents a summary of client viewpoints, with full details following.

Table 6: Summary of client viewpoints

Age group	Theme identified	Summary of responses
Child Immunisation	Reasons for delayed or missed immunisation	Sickness Missed reminders or forgot Not aware of schedule Restricted access Shared care issues Moving around
	Good / helpful features of services used	Reminders Home visits Friendly staff Transport Other notable features of services
	Poor features of services used / suggestions for improvements	Need for transport Need for home visits Need for more clinic time Need for amenities for children and adults Staffing and waiting time
Adult immunisation	Identification	Benefits of identification acknowledged Use of identification information Stigmatisation
	“At risk”	Labelling - associating diseases with being Indigenous

	Access and uptake	Adverse reaction Perceptions of being healthy Lack of information Older client transport
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9.1.1 Childhood Immunisation

Objection to immunisation

The parents/carers we approached had agreed to participate in an immunisation survey and were happy to have their child identified as Indigenous. The majority of parents / carers wanted their child immunised and actively engaged in getting this done. Of 146 respondents, there were two who reported decisions not to immunise because of general fear of the risk of vaccination, or specific fears about a child becoming paralysed. This then represents a 1% rate of disagreement with immunisation for the study group. A rate of 2 to 5 % conscientious objectors was reported by NCIRS via national telephone survey of parents of overdue children in 2001.

It may be that some other parents/carers who disagreed with immunisation chose not to be questioned about it, so failed to agree to participation in the survey. We have no recorded details describing those who were eligible but did not wish to participate. The approach as planned meant that most non-respondents did not volunteer the age of their child or have this recorded. The fact that a conscientious objector did participate suggests that our interviewing procedure was appropriately non-judgemental. Objection to immunisation was specifically explored in young adult focus groups in Brisbane, where tertiary educated Indigenous people with a good level of knowledge about immunisation strongly supported immunisation for children, understood immunisation for adults but in many cases avoided it where possible. Workplace and study requirements were a strong motivator for adults to be vaccinated according to these groups.

Coverage

Many children of respondents were not completely immunised according to current recommendations for Qld Indigenous children. This for the most part reflected delay due to illness or practical difficulties: lack of time, no immuniser available at a time appropriate to the parent/carer. On questioning about their child's vaccination history, it was sometimes evident there was lack of knowledge about the newer recommendations. Most people were aware of the meningococcal vaccine, but unsure which of their children were eligible and how to arrange free vaccination for their children.

Use of Personal Health Record

Most (70%) of parents/carers said they held a personal health record or immunisation card for the child, and of these almost all (96%) said the record had all immunisation episodes recorded on it, indicating active use of the records held. Half were able to produce the record at interview, these interviews often carried out away from a health care context. In one rural/remote community the book was routinely held at the community health service. The respondents expressed no difficulties in using the record apart from the lack of information about recent changes in the schedule for Indigenous children, pneumococcal and meningococcal immunisations, not being specifically listed in these record books.

Three areas were explored with direct questioning:

1. Reasons for delay in immunisation
2. Good and helpful features of services used
3. Poor features of services used / suggestions for improvement

Common reasons for delaying or missing immunisation were sickness of the child, forgetting or missing reminders, not being aware of the schedule, being too busy to access services or restricted in access to appropriate vaccines. There was a lack of information about immunisation status in shared care situations, a lack of knowledge about services when moving around and conscientious objection to immunisation.

Common views and suggestions in relation to services were that reminders from all sources were valuable to parents/carers, that home visits for immunisation service provision helped them, particularly where parents/carers lacked their own means of transport and had a large family. Lack of transport was seen as a major factor, and improving access to services by the provision of transport and use of home visits for immunisation and health promotion were the main suggested improvements.

People valued friendliness of providers, open communication, health information giving and a willingness to talk or “yarn”. They valued competent and helpful staff who handle children well. They wanted information about infections and vaccines (all, not solely the schedules vaccines) and about their own child’s health in the context of immunisation service provision. Continuity of provider, particularly in relation to general Practitioners, was valued. Waiting time being too long or not well managed in terms of communicating with the service recipient, were commonly identified as poor features of service, and in some areas times of service availability were thought to be too short. The amenities, particularly those for children, in centres providing immunisation were an area for improvement.

Our respondents explained their views in some of the following ways:

9.1.1.1 Reasons for delayed or missed immunisation

Fifty-three parents / carers offered reasons for delayed or missed immunisation.

Sickness

Most commonly (16 respondents), the child was sick at the time immunisation was due. Hospitalisation particularly was associated with delay. In some of these situations, the parent / carer delayed attending for immunisation because of illness, or was refused immunisation for this reason. Sometimes the reason was “a cold” or other minor illness that alone would be considered an invalid contraindication:

She was delayed for one month due to ear infections, also delayed because of anaemia. (HA)

The last needle Pneumovax has been late because when K. was due to have it, she was sick with a cold. (MA)

Missed reminders or forgot

Eight parents / carers were dependent on reminders which were late or didn’t come, and six parents / carers said they forgot. All of these said they had a personal health record for the child, but obviously were not able to use the information in the current format to keep the child on track. One parent had a plan to remind her provider about the vaccine s/he knew was due.

I must ask Dr X about Pneumovax! (MA/R)

This parent/carer explained further that s/he knew other children had been given the vaccine, however was waiting to be reminded about this by doctor or by the Health Worker from hospital before attending for vaccination.

Not aware of schedule

Five parents / carers were not aware of pneumococcal immunisation, and on hearing about it from the interviewer, wanted a full explanation about the recommendations for pneumococcal disease prevention. One of these knew about Prevenar (the primary schedule) but not the Pneumovax booster. Comparing this with vaccines given in the coverage survey, it is evident that some providers also were confused about the pneumococcal schedule, as a number of children had an extra dose of Prevenar at the point where they should have been given Pneumovax.

“Too busy” or restricted access to immunisers or vaccine

Four had “no time” to take their child along for immunisation. Two had no immuniser available at an appropriate time (in a remote community) and one chose to use a distant service, difficult to access at times (a specialist paediatric service which had cared for the infant in a long period of hospitalisation from birth). One was unable to get the vaccine required at the appropriate time when the provider was attended.

Because it was too expensive at Dr X's. He said that if there were 5 or more other parents needing it, he would get the vaccine flown in. [Mother not aware of community health service.]

Shared care issues

Five parents or carers referred to issues related to this situation. One carer was unsure of the child's status – did not have access to the record as the mother, the usual carer, had been suddenly hospitalised for a pregnancy related problem. Another child had been going between parent and carers since s/he was born. It was thought that a catch up program had been carried out with cooperation of a health service, but neither mother nor the current carer knew the details (according to the carer). One relative had just begun caring for a child whose mother had died. She felt she should respect and continue the mother's practice of not immunising the child (based on an anti-immunisation view) despite the fact that she herself immunised her own children. In one situation where there was a change in carer, the provider who maintained contact and continued to provide reminders was able to keep the child's new carer on track.

(S)he missed one because of the mother didn't take him to clinic. Mother is a park lady. Then I took him after G. (child health nurse) sent a letter to update the child.

Moving around

Four parents / carers explained that moving around caused delays in having the child immunised. Sometimes this was because the services in the new location were not known to the parent/carer.

9.1.1.2 Good and helpful features of services used

From the 143 responses received, a total of 96 parents / carers commented on the good or helpful features of services used for immunizing their children. Predominantly, these comments reflected service features such as immunisation reminders, home visits and friendly staff.

Reminders

More than half (52) of the parents / carers comments acknowledged the value of receiving a reminder about their child's immunisation.

I like reminders. When you have four kids it helps to keep track. They are reliable.

Some parents / carers reported receiving reminder notices in various forms, including mailed letters, post box drop, telephone call and opportunistically on home visits.

Dr X reminds me when the immunisations are due. The head nurse at the hospital also does that and sometimes sends the Indigenous Health Worker out.

Being reminded through the national register is good.

Home visits

19 of the 96 parents / carers that commented on good features of services providing immunisation mentioned home visits, particularly those with larger families. This was related to two main factors: lots of children in the household and/or lack of transport (no car or no suitable form of public transport).

B(child health nurse) done home visit to do flu shot and update child. Taking all the kids to clinic makes it hard. Home visits are so much easier. It works heaps better for larger Indigenous families.

The home visits are good, because I got no car.

In depth interviewing in Brisbane in an area where the Family CARE program is offered allowed further insight into the home visiting process. Parents/carers valued more time being available to question the provider about the child's or all the family's health needs, including immunisation, in a relaxed environment. One explained it as an opportunity to offer immunisation to adults who would not otherwise seek it out. For many of the reasons that prompted parents / carers to value home visiting, a similar percentage of parents / carers reported that lack of transport and availability of home visits were effecting their access to services. These results are provided in the following section on "poor features of services used".

Friendly staff

Having friendly staff at the service was noted as a good feature by 18 parents / carers. Friendly staff were reported at a range of services providing immunisation, including council, community controlled health services, and community health services.

Transport

Transport, together with home visits, were seen by parents / carers as increasing their access to services for children's immunisation. Eleven parents / carers described the transport service available as a good / helpful feature. In most instances, Health Workers provided transport by car, although one parent reported that their local service maintained a bus for patient transport.

In depth interviews in Brisbane covered the transport issue. In this suburban area, most respondents did not have cars and walked to their General Practitioner or the council venue for immunisation, or relied on home visits. Mothers explained the difficulties, indeed that it was unsafe, to attempt to take two children aged under five on a bus while carrying a baby in their arms or trying to manipulate a pram onto a bus.

Other notable features of services

Other features mentioned by parents / carers included:

- Giving information about vaccines, diseases and child health
- Use of a regular family doctor (factors of trust and being comfortable)

- Fast service
- Handle children well
- Willingness to talk or “yarn”
- Service is readily available
- Baby checks
- Generally helpful
- Give medicine
- Regular service
- Reliable
- Permanent staff

9.1.1.3 Poor features of services used / suggestions for improvements

Parents / carers were asked to comment on poor features of services or make suggestions for improving the services. 79 of 133 respondents offered comments that related to many aspects of services, however the outstanding issue for improvement was that of access. 15 suggestions for increased availability of transport to a service or home visits were recorded. These comments were often the converse of good features, and the focus again on the two themes related to access emphasise their importance.

Transport

In some cases parents / carers reported that no transport was provided by the immunizing service, and there was no suitable public transport:

No transport. It is difficult to get in and out. It costs a lot of money in a taxi. We need transport to get to and from clinic. The same when we must go to the hospital. I don't have no transport.

Although public transport may be available between a residence and the immunizing service, this does not equate to access, as issues of cost, time, and ability to cope with many children for the journey are raised. However, in other cases where transport was available, there were difficulties due to overloading the much-needed service. Health workers were often the providers of transport and were juggling this role with their other duties.

The service has only one bus and this is sometimes hard because we have to wait, eg if people are getting picked up or dropped off on the south side, we have to wait for maybe an hour.

People in the Torres Strait had particular issues, stating that services were too limited. Sometimes they needed to travel between islands to obtain immunisation.

At least they have had some immunisations. To get our children immunised we have to take our children to Thursday Island (from X island). It is hard for a full time working mother.

All RNs employed by Queensland Health should be endorsed to immunise so that no children would miss out on all islands of the Torres Strait.

Home visits

5 parents / carers noted the need for increasing the availability of home visits in their area. Most scenarios cited by the parents / carers reflected a sense of community responsibility for health issues, rather than an individualized need.

They need a mobile unit to work in and around R (town). This unit should conduct education workshops on all things for adults and children, as there is no screening for breast cancer or prostate cancer, and there is no ear, nose and eye screening, which is badly needed.

Staffing and waiting time

Another prominent theme was that of time, with some parents / carers (6) acknowledging that low staff numbers can contribute to a long waiting time and consequently a need for longer clinic hours. This was a concern across all areas. One parent / carer from a remote community commented on the waiting time when immunisations were given by a visiting provider on certain 'clinic days'.

I wait a long time at the hospital for the RFDS nurse to give the needle. Maybe if they bring two sisters over, one to do the measures / weights and the other to do the vaccines.

More clinic time

This theme was more prominent in the Torres region where transport affects the times of access, although it was also noted on mainland Australia.

Longer hours for immunisation day. It's too short and the RN has to catch the boat back to TI.

Amenities for children and adults

Nine parents / carers provided responses about the need for improved amenities including the space in which immunisation took place. The remarks related to lack of privacy and space for immunising, and lack of appropriate amenities for occupying and caring for children and babies whilst waiting.

The play area for children at D (health service) is not suitable for younger children, but for older children. I'm afraid that my children may break their arms.

The links between waiting time, occupying children and waiting room amenities were clearly explained in one of the Brisbane interviews:

While sitting round and waiting at the centre it would be good to be able to have a cup of coffee or tea, to help pass the time in waiting line. They don't have enough playthings for kids. They get bored easily and give the parents a hard time. When kids are tired it gets hard for parents to hold on to kids – they get heavy. It would be nice to have somewhere to lay them down. On immunisation days there is normally a lot of parents there with their children who have to get immunised along with the rest of their children, so there is a lot of kids there. It would be good to have something extra for them.

Other poor features of services / suggestions for improvements noted

Hospital location

Doctor's attitude

Injection technique

Education

Refrigerator. Several children in our survey required revaccination because unrecognised problems with vaccine storage led to inactive vaccine being administered. Parents/ carers involved were aware of the storage issue.

9.1.2 Adult Immunisation

At present the national schedule recommends annual influenza vaccination prior to the influenza season, and pneumococcal vaccine with a boosters, for certain indigenous adults. There are two target groups for the program - Indigenous adults over age 50 (by contrast with the general community recommendation for influenza vaccination in those over age 65), and Indigenous adults 15 to 50 years with specific health conditions. (See schedule summary in appendix 4).

Views on Adult immunisation were gained by interviewing thirteen people in a small rural town and others in an urban suburb that was a public housing area. Two focus groups involving 17 participants were conducted with young, urban adults who were tertiary students, and a focus group including six participants was conducted in a very remote location with adults of various ages. Some of the Indigenous /health Workers who were key informants also expressed views about their own or family experiences of immunisation.

Identification

Identification was much more of an issue in the adult context. The process of being identified as Indigenous in the health setting was brought up and explored with enthusiasm by several groups. Benefits of identification were acknowledged. Respondents thought the unidentified person should always be asked, never an assumption made:

I used to go along to see Indigenous people in Maternity down here (in my previous job). And sometimes they were down as Indigenous when they were not. Either they had marked themselves down, or the nurse had marked them down (as Indigenous). I could see that for some people it could be an issue.

They should just ASK!

Use of identification information

The reason for use of the information should be made known, partly because identification sometimes implied a further and inappropriate decision being made on their behalf, or the information might be transferred to unexpected quarters:

I don't like having to specify. At Centrelink you have to wait until an Aboriginal worker is available – why?

My mum was in hospital – ticked the ATSI box. (She) was visited by an Aboriginal Health Worker, an Aboriginal nutritionist and an Aboriginal Mental Health worker. My mum hated being in hospital. She did not want all that. She knew some of those people. Couldn't they ask a person “Would you like an Aboriginal worker to visit?”

Stigmatisation

Negativity was thought to come from identifying in some situations, both in the past and in the present:

Probably out in places where it is considered “redneck country” or whatever, probably everyone knows the Murriss in the community out there. For some people, they may not want people to know they are Indigenous for their own reasons. They might think that they are being treated differently because it is known, and that might be a bit of an issue.

Covert and blatant racism, and the person's reaction to it were described:

They look funny at you when you say you're Aboriginal – think fuzzy hair and live out in the sticks. Most Aboriginal people are in urban areas!

It furthers stigma. It helps support the health professionals' ideas of who is a real blackfella – supports the class system in health care, racist undertones.

I am mostly not asked. Fair or dark didn't matter. One woman said "I've got to ask. Don't get offended". She only asked my husband because he is dark. She seemed uncomfortable – had been a midwife for a long time, but the question seemed new to her.

Some might get offended (with the way the words are used) "I'm not black, I'm not 'dirty'!"

I've seen them reading the file: "Hmm, one of them claimin' ones". Stigma and all that goes with it. Professionals but not professional enough to cope with the answer.

Some expressed the view that they did not mind being asked personal details like Aboriginality in a health setting, but they wanted it to be private. They also were specific in the way they identified themselves, and took exception to being lumped into the wrong group. The responses give a clear picture:

I think it is about the way you are asked. If you are given a form and tick a box, its different from someone standing at the counter and yelling out "ARE YOU ABORIGINAL AND TORRES STRAIT ISLANDER?" which I experienced the other day. It doesn't worry me, I just said "yeah, I'm Murri. I'm Aboriginal and I'm proud of it." For someone who is very shy, or in other areas of Queensland, for example up north, they may not want people broadcasting it. Not standing in a crowded area and asking loudly. Filling out a form is good. If the person has a literacy problem, that would be difficult, but you could do it a better way than queuing up and shouting it in a crowd.

I feel uncomfortable when people are really loud. Everyone will know your personal details. No one likes that!....it happens at GP surgeries, the video shop, the bank.

Particularly when people are older, and people think they are hard of hearing, they shout. They also shout when a person's English is not so good, as if saying it louder will help.

If they ask "are you a Murri?" NO! My relatives from NSW. Not appropriate. Kooris won't know. "Are you Aboriginal?" YES. Very uncomfortable. I checked with people at Uni: do I say yes to satisfy them?

At risk

Indigenous Health Workers understood and supported the idea of seeking out those most likely to benefit from vaccination, i.e. targeting chronically ill adults as is recommended in the national pneumococcal and influenza vaccination program.

Well, I'm still pushing that immunisation (influenza and pneumococcal disease) to my older kids, because there's diabetes on both sides, there's asthmatics and all that...As a health Worker I recommend it to a lot of our people because of the illnesses that we have really early in life. Especially the diabetes...if it means that we can give them or recommend some protection against flu and pneumonia, you know, curable, preventable illness... And I think that's what people forget, you know, with immunisation, even though there is a small amount of risk (of adverse reaction). It's a good way of preventing illnesses. I think people forget that. There's not enough focus on prevention.

Many Indigenous people, however, independently referred to the “at risk” tag, and felt strongly negative connotations about being referred to as “at risk”.

My daughter went to the community nurse about her child and asked about the Prevenar. She (the nurse) turned around and said “is your daughter at risk?” Now, you know, if they're Indigenous, why? That just turns people away, you know, and here we are trying to do the health education and give the children the best start, and you've got people that say “Are you at risk?” The Pneumovax, I'm really glad they have included 15 year olds and up now, because a lot of our kids are street kids, and they are a risk all the time, you know.

Young adults in Brisbane explained further:

It is a big issue for me. I don't like being known as a person who is “at risk” or “disadvantaged”. I think if we are given the option of extra immunisation and we go with it, then we are showing we are responsible, not “at risk”. We might be at risk, but I just do not like that tag. I don't know if there is any other title you can give it, but I do not like being called “at risk” or “disadvantaged”. But then I'm talking from an urban Murri's point of view, too. So there may be different perspectives on that.

I don't see myself as being “at risk”

I hate the idea that Aboriginality is a risk factor. It puts everyone in one basket.

Like Aboriginal people are diseased.

People regarded their own immunisation differently to that of their children for many reasons. Those who strongly supported child immunisation did not necessarily actively pursue immunisation for themselves or other adults. Reasons given were adults being healthy and not in need of protection, fears about reactions to the vaccine they had heard about (This was most commonly getting influenza from the vaccination), cost of vaccination, or simply lack of awareness or insufficient knowledge about the vaccines. Access difficulties, particularly transport, were also raised by participants. Attitudes of Indigenous Health Workers themselves often reflected the community view.

Of the thirteen interview participants in the rural town, which had well developed immunisation services, dedicated Indigenous Health Workers and transport available via the community health service, six were eligible for the influenza and the pneumococcal vaccinations according to the current recommendation. Of the eligible six only two annually received the vaccinations. The Adults obtained vaccinations through various health services

and included the influenza, pneumococcal, adult diphtheria/tetanus vaccine and hepatitis B vaccines. Benefits were acknowledged, eg:

I get the flu shot every year. I am a regular. It helps me. ...It helps me tremendously. I get asthma and usually am sick only once at the beginning of the season. I used to be a lot worse.

Some participants discussed how certain family members were hard to get vaccinated. Two women had problems getting their husbands to go to the clinics,

I can't drag my husband there for a flu shot!

The women went on to talk about how men hate going to doctors, won't go unless they are very ill, and fear needles. Some adults simply admitted they feared pain of receiving injections themselves, or described morbid fear of needles in adolescents they knew, relating stories of the lengths to which their adolescent children would go to avoid school vaccination programs (losing notifications and consent forms, not returning signed consent forms to school, feigning illness on the day, etc.). A young male in Brisbane with strong views explained:

I hardly ever go to doctors. I go to Mental Health (Service), but other than that I would only go to a doctor if I was half dead...I would not go to anybody (if I was sick). When I have been to the doctor in the past it has been because I was not conscious. It's something that runs in the family – my dad's like that as well. He has some health problems now, but there is no way he will go to the doctor.

Several people talked about having limited knowledge of vaccines:

I knew about the Hepatitis one – I had it in gaol. I had two doses. I didn't know you needed a third shot. I didn't know about any other ones. I thought they were all only for kids. The last shot for those I had when I was eight (years old).

Workers referred to the workplace as an influence on their decision to be immunised. Hepatitis B vaccination for Health Workers was described in this context, as was Q Fever vaccine for meatworkers. Several workers commented on the convenience of receiving vaccines, for example influenza vaccine, at work. A CDEP – based immunisation program which was run in a country town by an AMS was highly thought of by one of the recipients we talked to.

Several people referred to the need to pay for vaccine at a General Practitioner's surgery, when that could obtain vaccine free of charge at an AMS or a Community Health Service. Lack of bulk billing from consultations was also seen as a barrier.

Another participant referred to the difficulties of older people in arranging transport to visit the doctor for a preventive service. Home visits for older people were seen as another way around this problem, and had the added advantage of being opportunistic and catering for several family members at once. The Sunshine Coast Jabba Jabba Program was specifically mentioned by a young adult who lived on the Sunshine Coast.

9.2 Overview of services and the viewpoints of public and community providers

Public Health Units are key organisers of immunisation initiatives and are arranged in three zones in Queensland. Public Health Units have working relationships with local councils, community health services and hospitals through immunisation committees and immunisation coordinators. Health Districts are directly responsible for immunisation in Queensland Health hospital and community facilities.

The training of immunisers within Queensland Health is a district responsibility. There exist Queensland based immuniser training manuals and nurse immuniser courses of several days duration. Nurse immunisers are able to work independently once trained, and must follow specific protocols. The Queensland Health / RFDS Primary Clinical Care Manual, currently in its third edition, sets out the health management protocols approved under state Health, Drugs and Poisons legislation for use by Immunisation Program Endorsed Registered Nurses in remote areas. In a remote situation, Indigenous Health Workers authorised by their district for isolated practice may follow the same protocols, in consultation with a doctor. Divisions of General Practice provide continuing education for General Practitioners and their practice staff.

Most immunisation services are delivered in a primary health care context, either during the course of individual consultations for care (for example, in General Practice), as an activity conducted in parallel with a clinical service (for example where nurse immunisers work in a general practice or health centre setting) or as a separate service in the community (for example school-based and other public clinics). In a comprehensive program, opportunistic vaccination may also be appropriate in the Emergency Department, hospital outpatient and hospital inpatient setting, in consideration of groups of people within Indigenous and other communities who make little use of primary health care services.

Queensland provider types recorded on ACIR at March 2002 were

General Practitioners	83.27%
Councils	7.6%
Community Health	4.47%
public hospitals	3.09%
other	1%

It seems that fewer Indigenous parents use General Practitioners for child immunisation, but in most areas General Practitioners remain the top provider. A recent Indigenous Immunisation Outreach Project in Brisbane determined that 65% of indigenous children were vaccinated by General Practitioners not associated with a community controlled service (K. Petersen, personal communication). In a North Queensland review of the Indigenous infant pneumococcal vaccination program, covering accessible to very remote areas, the mix of providers was reported upon. In that particular group, 25% were vaccinated by General Practices.

This highlights the need to carefully examine ways of facilitating General Practitioner engagement in improving access to vaccination services by Indigenous children. Most Queensland Divisions of General Practice are shown to have high rates of vaccination according to ACIR, for example 80 – 90% in most areas for 15 to 20 month children. In the past Public Health unit efforts to target Indigenous children have centred mainly on activating community health and community controlled services, a notable exception being the Tropical Public Health Unit project which established a home visiting nurse immuniser who followed up long overdue children and liaised extensively with General Practitioners.

Community Controlled Health Services in Queensland, relate to the Queensland Aboriginal and Islander Health Forum (QAIHF) and the Northern Alliance as their peak bodies. Immunisation is one of their key functions in the primary care context, and health centres employ a higher proportion of Indigenous staff, including Indigenous Health Workers, than do other service groups.

General practitioners are organised around Divisions of General Practice for the purpose of continuing education and collaborative projects. A few divisions have Indigenous Liaison Officers, and almost all have an Immunisation Project officer.

Primary care engagement should lead to exposure to services based on appropriate standards of practice with regard to immunisation. “Standards for Pediatric Immunisation Practice” have been promulgated by the USA’s Centre for Disease Control, and endorsed by the NHMRC in the late 90s. These should be the basis for evaluation of services, and inform practitioner education. They emphasise free or minimal cost service, readily available, providing all vaccines required at one encounter where practicable, vaccinating opportunistically, maintaining data about vaccination and adverse events, and maintaining quality of service.

Chapters 10.2 and 10.3 aim to present an overall picture of immunisation services offered in Queensland, particularly those services accessed by the Aboriginal and Torres Strait Islander population. See chapter 9.1 for respondents contributing information to these results supporting project objectives 8.1.1 (identification and description of services), 8.1.2 (Indigenous access to services) and 8.1.8 (perceptions of Indigenous identifier documentation) as set out in the project requirements.

Many different types of services offer immunisation in Queensland, and each with varying styles of service, environment and priority. Services include Queensland Health Community Health Centres, Aboriginal Medical Services, General Practitioners, and local governments (Councils), with organisational coordination, planning and support from public health units. In documenting the role of these services in immunising Indigenous people, the services must firstly be aware that their clients are Indigenous and the results presented here rely on services’ ability to accurately identify their client base.

9.2.1 Indigenous Clients

Approximately a third of respondents (30%) did not know the proportion of Indigenous clients attending their service, see Table 7 below. Another third (34%) reported less than 25% of Indigenous clients, and the last third (32%) reported more than 75% of their clientele were identified as Indigenous.

Table 7: Reported proportion of Indigenous clientele

Unknown	0-25%	25% - 50%	50%-75%	75%-100%
11 (30%)	13 (34%)	1 (3%)	1 (3%)	12 (32%)

From Table 8, most services identified Indigenous status on their medical records (71%), while only 42% identified their Indigenous clients on VIVAS forms. Services identifying Indigenous clients on both records were limited (13%).

Table 8: Indigenous identifiers

Indigenous Identifiers used

	Medical records	VIVAS form	Both
Yes	27 (71%)	16 (42%)	5 (13%)
No	11	22	33
Total	38	38	38

Issues raised by key informants relating to identifying Indigenous status on records included:

- the perception of service providers is widespread that Indigenous people do not wish to be asked to acknowledge their Indigenous status
- one nurse pointed out that the practice in hospitals of assigning an Indigenous Hospital Liaison Officer to visit every patient who identifies as Indigenous sometimes leads to anger on the part of the patient who has not been asked whether they wish to have a liaison officer visit
- use of pamphlets promoting declaration of indigenous status were advocated by service providers. Indigenous Health Workers acknowledged the Queensland Health campaign, however took a more personalised approach with clients
- reasons for not wishing to identify were articulated by both Indigenous and non-Indigenous people as anticipating a lesser level of service consequent to identification, and anticipating the display of racist attitudes
- aspects of Indigenous Identification as a potential stumbling block on both sides, that of the provider and that of the person to be immunised

9.2.2 Availability of services

The following points were raised during key informant interviews:

- immunisation coordinators commented on the great degree of variation of resource allocation for immunisation within health districts
- Indigenous Health Workers were seen as key components to promoting immunisation in the community, however these workers are overloaded with responsibility for a large number of programs and immunisation is only one of a long list of priorities for activity
- Limited availability to bulk billing General Practitioners was identified as a problem in some areas
- lack of availability of a community controlled health service was identified as a problem in some areas
- lack of knowledge of community members about the availability of immunisation service from General Practitioners without the need for direct payment
- opportunities lost by General Practitioners who are unaware of special immunisation indications for Indigenous people
- opportunities lost by General Practitioners who assume that when they order in and store a course of vaccines for a particular patient, they should not utilise that supply to vaccinate others as they present, in the knowledge that their supply will be replaced on application for the new patient in retrospect
- a need for transport to current services was universally recognised provision of home visiting based immunisation administration was seen as a need by service providers and Health Workers
- the perceived need for opportunistic immunisation (by GPs and by hospitals according to IHWs)

9.2.3 Accessibility of services

The following table (Table 9) notes particular characteristics of services that may affect Indigenous access to the service and to immunisation. Most service providers worked on a 'walk in' (58% of respondents) or 'walk in / appointment' basis (50% of respondents). Only 24% of respondents reported that their service provided transport to assist access, whilst 42% of respondents reported the availability of home visiting as part of their service. 95% of respondents' services were free to clients, and 74% maintained a policy of opportunistic immunisation.

Table 9: Characteristics of services

	Walk in	Walk in/ Appt	Appt only	Transport	Home visits	Free	Opportunistic policy
Yes	22 (58%)	19 (50%)	15 (40%)	9 (24%)	16 (42%)	36 (95%)	28 (74%)
No	15	18	3	29	22	0	8
No response	1	1	1			2	2
Totals	38	38	38	38	38	38	38

9.2.4 Improving services for Indigenous people

In addition to providing the above data, service providers were asked to comment on what could make the delivery of immunisation services to Aboriginal and Torres Strait Island people better within their organisation.

Six participants did not respond to this question and two stated that there were no changes that could improve the delivery of their program.

Transport and or mobile clinics were identified six times as improving immunisation services. Additionally, six respondents stated that there was a need to provide more endorsed nurses including indigenous nurses and indigenous health workers.

Increased awareness for both clients and service providers was identified as a way to improve services. Cultural awareness education, regular updated information regarding current indigenous issues and increased client awareness was recorded. The use of media resources and accessing indigenous community events was suggested as ways to both promote and inform parents/carers about immunisation.

Five participants stated the need to address the issue of funding including bulk billing, and the security of recurrent funding. Additional comments included regular clinics, collaboration with school nurses, and adoption of the "Jabba Jabba" program and a review of current immunisation services within the district.

9.2.5 Culturally appropriate service provision

Survey respondents were also asked what steps their organisation had taken to deliver immunisation services in a culturally appropriate manner.

Six participants did not respond to this question, four stated that no further steps were taken to deliver in a culturally appropriate manner and one stated that their service was appropriate to all indigenous groups.

Fifteen respondents commented on the use of staff cultural awareness courses and using posters that were relevant to Aboriginal and Torres Strait Island people. Thirteen participants stated that the role of the indigenous health worker was important and used to both deliver information, identify local children, enhance the links between parent and nurse, first point of contact and provide advice regarding the delivery of immunisation services.

Addressing accessibility by providing home visits, undertaking clinics in non-traditional settings, transport, flexible hours, and attending local indigenous community events were suggested by eleven respondents as ways to deliver in an appropriate manner.

Additional comments included limiting medical jargon when explaining immunisation to parents, providing financial incentives to parents, opportunistic policies, better integration of services, holistic approach, deliver information in non-threatening way and easy to understand and one on one education with parents.

9.2.6 Home visiting services

Key informants described existing home visiting services as central to the accessibility of immunisation for Indigenous clients. Home visiting carried out by several Indigenous Health teams is simply to remind clients about due or overdue vaccines or set up appointments and in some cases, to transport to providers. Home based immunisation was seen as advantageous for a number of reasons:

1. busy parents/carers with a number of young children are able to access service in a timely manner when otherwise there is risk of delay associated with the needs of other children and the logistics (and sometimes shame) of taking a group of siblings in together to a health service
2. parents/carers are able to avoid the shame associated with presenting a child who is behind on schedule to a provider in a public setting
3. Indigenous Health Workers, in the context of visiting for immunisation, are able to identify needs and discretely provide contacts to other support services (womens groups, other social networks, Centrelink, Drug and Alcohol counselling, Domestic Violence counselling etc)

9.2.7 Local barriers to immunisation

Service providers were asked to comment on barriers they thought were impacting on immunisation at the local level for Aboriginal and Torres Strait Island people.

Seven participants did not respond to this question, five stated there were no barriers and four did not know.

Nine respondents recorded transport as a possible barrier and five stated that lack of immunisation education and awareness as barriers.

Seven participants identified access to mainstream services as a barrier. No bulk billing or indigenous staff, and lack of appropriate information are barriers that impact on indigenous people using mainstream services. Additionally, four respondents stated that in some circumstances clients have felt "looked down upon" for overdue children and or having large families.

The remaining comments included fear of illness or death from vaccine, no immunisation no centrelink payments creating parent frustrations, lure of bingo and an unwillingness for children to receive three or more vaccines at one time.

9.2.8 Organisational barriers to immunisation

Service providers were asked to identify any organisational barriers that impact on the delivery of immunisation services to Aboriginal and Torres Strait Island people in their organisation.

Eleven participants did not respond to this question and thirteen stated that there were no organisational barriers within their service.

Eight participants commented on the inadequate endorsed nurses and health worker staff levels. In addition, three participants mentioned the need for additional funding to increase staff resources.

Four participants stated that a delivery barrier was having no indigenous staff employed and three participants identified transport as a barrier to delivering immunisation in their area.

Additional perceived barriers identified were: access to Prevenar, small office space not suited to deliver immunisation clinics, no registered indigenous immunisation clinic and no recognition that indigenous groups are a specific need group, no opportunistic policy, and inability to identify indigenous clients.

Four of the thirteen participants who stated "no barriers" included additional information supporting this statement. Home visits, Outreach clinics, opportunistic program in kid wards and upper management supports were recorded as having a positive impact on the delivery of immunisation.

Additionally, key informants raised the issue of providers' lack of knowledge of schedule recommendations for Indigenous people, with the consequence of missed opportunistic immunisations.

9.2.9 Other barriers to immunisation

Key informants noted the following barriers:

- lack of transport was cited by almost all those interviewed as a major problem in the community in relation to immunisation delivery
- the Community Controlled Service saw their service's transport system as an effective means of overcoming this barrier, and other service providers also acknowledged this benefit and referred clients for this reason
- lack of Indigenous staff involved in immunisation service provision
- anecdotes of "bad reactions" to adult immunisation episodes
- anecdotes of getting sick after the flu shot, both in the short term following the vaccination and also getting 'the flu' later.
- reluctance of men to engage with health services when not ill

9.2.10 Service operations

Staffing

Almost half the services (47%) surveyed employed Indigenous staff in some capacity, and almost all services (97%) employed immunisation endorsed nurses.

Table 10: Staffing characteristics of services

	Indigenous staff	Endorsed nurses
Yes	18 (47%)	37 (97%)
No	20	1
Total	38	38

Immunisation coordinators and Indigenous Health Workers interviewed noted that a shortage of nurse immunisers, or lack of opportunity for nurse immunisers to practice, was an issue in immunisation service delivery. Also there was a general acceptance amongst key informants that services where Indigenous staff were involved were more likely to be accessed by Indigenous clients.

One issue to note is the self-identified need to focus on the immunisation status of Indigenous workers.

9.2.11 Records and reminders

As shown in Table 11, the majority of service providers (82%) reported that VIVAS reminder forms were used for reminding the service and recalling the client, whilst 26% used the forms to update their patient records.

Table 11: Service provider use of VIVAS reminder forms

	Other uses	Remind Services Provider	Recall client
Yes	10 (26%) Update patient record	31 (82%)	31 (82%)
No	28	7	7
Total	38	38	38

Reporting and recording issues raised by key informants:

- Indigenous Health Workers saw benefit in access to VIVAS information about families, so that they could include all relevant immunisation advice in their approaches to families
- Indigenous Health Workers suggested they might be alert to errors of identification on the system through their local knowledge of families, and be able to advise rectification
- The accuracy of existing immunisation related information about so called “park people”, many whom are transient, was called in to question by an Indigenous Health Worker
- incompleteness of information on VIVAS about vaccines, particularly pneumococcal vaccine, given in the first two years of the Queensland campaign (1997 and 1998) prior to additional funding for a National database being established
- consequent over vaccinating with pneumococcal vaccine leading to an incidence of local side effects (sore arm) particularly as revaccination after five years has now commenced
- continuing lack of information provision on Indigenous adult immunisation by General Practitioners which may be associated with the requirement to use a separate form for this reporting

9.2.12 Promotion of Immunisation

Although information about immunisation promotion was not collected by the service provider survey, key informants such as Indigenous health workers and immunisation coordinators saw it as a major aspect of their immunisation practice and contributed the following comments:

- immunisation coordinators saw their role of engaging other providers in activity
- a need for more effective community awareness raising and knowledge of health benefits from immunisation was identified
- the radio jingle on radio station Triple A was mentioned by several providers as an effective promoter of the Influenzal/Pneumococcal program for adults
- local area specific printed resources were seen as the most useful
- Indigenous Health Workers considered the concentrated use of local Indigenous artwork to be an effective means of attracting the attention of the target group
- Indigenous Health Workers recognised many opportunities to promote immunisation in the course of their other activities with families – eg as part of hearing health follow up with preschool aged children
- 18 to 30 year olds were seen as a group which was hard to reach
- awareness raising effect of event-associated offer of immunisation (eg immunisation van at NAIDOC week fair)

9.2.13 Service collaborations

Survey respondents were asked if they collaborated with other agencies when delivering immunisation services to Aboriginal and Torres Strait Islander people.

Two participants did not respond to this question, four answered no.

Seventeen of the respondents collaborated with at least three other organisations with most working alongside the private, government and community control sectors.

Three participants recorded that they collaborated with non-traditional organisations such as education departments, hospital liaisons and the local HACC service.

A key informant noted the effectiveness of local interagency committees in focusing outreach programs for those at high risk.

9.3 General Practitioner viewpoints

General Practitioners carry out the majority of immunisation in Queensland (HIC, November 2003). Immunisation is a reasonably important activity in General Practice, and over several years the Commonwealth Government has introduced specific remuneration for provision of information about immunisation episodes, and remuneration for reaching practice coverage targets. Indigenous immunisation is a very small part of this activity in almost all General Practices with the exception of Community Controlled Health Services and certain remote practices.

Certain General Practitioners are known within local areas to be approachable and welcoming of Indigenous clients. We hoped to capture the views of these practitioners firstly by approaching all Community Controlled health services and secondly by distributing survey forms via interested Divisions of General Practice. It is a problem in this regard that the proportion of indigenous clients in many urban areas is seen to be small and therefore not

warranting concentrated effort in the context of a rapidly changing operating environment for General Practice. We hoped our project helped to increase the visibility of Indigenous clients here.

Many divisions of General Practice employ immunisation project workers or coordinators, but again Indigenous immunisation is not recognised as a priority. One exception in Queensland is within the Townsville Division of General Practice, where an Indigenous Health Interest Group exists.

The following summary outlines the responses from 22 practitioners, most the principal doctor of the practice (two of the practices being Community Controlled). In three the respondent was the practice nurse (immuniser).

9.3.1 Practice type

Practitioners worked between none and 80 hours per week in the practice, with an average of 43 hours per week. Most practices (19/21) were multidocor practices. Most practices (19/22) employed a practice nurse, and in all of these practices the doctor performed most immunisations. One rural general practitioner in North Queensland employed Health Workers, as did the two Community Controlled Health Services who responded to the survey. Half the practices (12/21) accessed Provider Incentive Payments. Payment details given by these practices included Practice Incentive Program (PIP) payments (7/12) and ACIR payments (2/12).

9.3.2 Staff training

More than half the practice nurses (14/19) had attended “nurse immuniser” training, and over a half of the doctors (10/19) had attended continuing medical education on immunisation within the past two years.

9.3.3 Immunisation activity

The approximate number of children and adults immunised per month was reported to be 0 to 10 (2 respondents), 11 to 30 (9 respondents), 31 to 60 (6 respondents) and up to 120 (2 respondents) with a median number of people immunised of 39 per month. Respondents reported that the proportion of the immunised who were Indigenous was usually 10% or less (7/13) and most frequently 1% (3/13). Two practices reported 75% and 80% Indigenous immunisation activity.

9.3.4 Numbers of Indigenous patients

Of the 19 respondents, two practitioners reported that there were no Indigenous patients in their practice, and five reported 10 or less Indigenous patients. Six reported between 10 and 200 Indigenous patients, and 5 reported over 500 Indigenous patients. Six were unable to answer this question.

9.3.5 Indigenous status ascertainment

Seven practitioners (7/21) asked all patients whether they were Indigenous, in four cases forms were filled in and in 3 the patient was asked directly. One asked patients who appeared “not Caucasian”. Four practitioners assumed that some patients were Indigenous, three on the basis of local knowledge of their own or of Indigenous staff of the practice, one on appearance. Another five practitioners stated that if a patient identified themselves, then this was recorded on their records.

Some comments were:

Many people are offended when being asked if they are Indigenous when attending a mainstream GP. Few people in M attend mainstream GPs.

Staff identify them (Indigenous people), not always correctly, if they knew family. Others are asked, but the replies are not always correct.

Most staff think South Sea (people) are Indigenous.

It is only notified for vaccination record forms if the information is volunteered by the patient.

I am the only staff member who records this. I ask patients who look Indigenous, and record this in the computer record, Medical Director.

We either know the family, the family tree, or we ask them.

(They are) identified by Indigenous staff. If asked, most say yes even if they are not because they think this is the correct answer to give (when attending community controlled service).

Visual

Respondents were asked to identify benefits and problems in establishing Indigenous status. Benefits recognised were (extra) immunisations (3/19), appropriate screening and patient support, and data for funding purposes. 6/19 thought there were no benefits. Problems discussed were aspects of data (4/19), including problems getting doctors to tick status in Medical Director software; a computer program not designed to accommodate that information in the demographics; the lack of systematically identified and collected data at state level. Comments recorded were:

Appropriate screening.....Health promotion for “at risk” diseases. Apply appropriate cultural practices. Access Indigenous support systems. Link up with Indigenous Health Workers – we are currently training in the practice as part of the “Open Door” pilot project.

Non-indigenous people attending an Indigenous clinic unites Indigenous and non-indigenous as a community.

Patients do not like being asked if they are indigenous.

The service is run predominantly by Torres Strait Islander staff. Patients feel more at home if they say they are Torres Strait Islander, and may feel less welcome if they are Aboriginal or especially South Sea, even if they also identify as Indigenous. The focus of the service is on Indigenous health issues. South Sea Islanders share many of these.

Able to commence with correct immunisation protocol

Gets the right one for kids, and free ones for some of the adults

9.3.6 Agreement with Indigenous immunisation schedule

The majority of respondents (17/19) responded “yes” when asked if they believed that all people who identify as Indigenous should receive the additional vaccines recommended for

children or adults in Queensland or in their local area, one respondent doubted that pneumococcal vaccinations were appropriate for some adults and another suggested that the patient should make an informed choice as to whether they wanted the immunisations. There were several comments:

Kids – yes I think they do. Adults: we have a pretty urbanised group, and a large group whom nobody would ever know had any Aboriginal in them. I have no surveys to tell you (and won't do them) but certainly the rates of things like pneumococcal pneumonia are spectacularly low.

'Herd' immunity is important. Indigenous people keep close contact with their community.

Health problems in the Indigenous community can be improved by immunisation. Healthy children make healthy adults.

Yes, but it all depends on the individual's choice.

Practice access to additional vaccines recommended for Indigenous people. Most respondents (11/14) thought their practice had sufficient access to the additional vaccines for Indigenous people. 3 commented on their large practice with multiple refrigerators and plenty of stock. Further comments were:

Sometimes (we have sufficient access).

XX (vaccine) provider gives preference to the local AMS.

Can order directly or borrow from the Y. Hospital

Obtained through VIVAS. We are a practice that is difficult to deliver to. Sometimes vaccines are frozen and have to be discarded.

We do not stock them as they go out of date before they are used. Indigenous clients are referred to the X AMS (Aboriginal Medical Service) for additional immunisations.

No problem and plenty of stock. Welcome any Indigenous people for immunisations.

9.3.7 Indigenous immunisation – effective feature in the practice

5/20 respondents said there were none or were unaware of any, and two said there was “no special effort in this area”. 3/20 respondents referred to Indigenous Health Workers on staff, including one mainstream general practice. Further respondents remarked:

The Health Worker training in our practice is both Aboriginal and South Sea Islander. She can relate to Indigenous clients and encourage immunisations.

Play group/young mothers group - education. Active tracing and recall. Friendly service, trust with the health workers and the people.

It makes our surgery community oriented and in touch with the Indigenous people in our area.

2/20 respondents referred to daily availability of a non-appointment time where the service is provided with no up front cost to the user.

9.3.8 Barriers to service

3/20 respondents said cost (eg gap fee of \$5 for health care card holders and \$15 for others); 2/20 respondents said Transport; 2 said crowded waiting room (with non-indigenous people); 3/20 said poor cultural awareness (of staff); difficulty keeping appointments; Torres Strait Islander staff only; (lack of) supply of vaccines. Further comments included:

The practicality of remembering to enquire about their Indigenous status.

It is not always possible for new patients to be seen

This is a private practice not a government institution

9.3.9 Improvements suggested

Fourteen respondents made comments on ways they could make improvements. Four referred to Health Workers and an Indigenous support worker:

Advertise for immunisation, Indigenous artwork in the rooms – recognition of Indigenous skills and feeling proud of it, train Indigenous people to work in the surgery, staff cultural awareness training, promote the practice as a place to visit and stay well – not a place to visit when you are sick.

Health Workers trained from all Indigenous groups to represent the diversity of the Indigenous population

Allowing adequately trained Health Workers to immunise under supervision (of doctors or nurses) in urban areas would be excellent. Additional sessions from Qld Health Child Health Nurse would be great.

Our “trouble shooter, B., with our local support centre for Indigenous people

9.3.10 Final comments

Could identify ATSI patients

More freely available vaccines

Sunshine Coast Division of General Practice with North coast Aboriginal (Health Service?) are addressing the cost issue with a new program.

We are not going to change. It has taken a long time to establish this practice as the primary vaccinating clinic in V.

Increase the patient rebate

We try to see other family members if requested and usually accept referred or recommended (e.g. from other doctors) patients.

Practice next to community health complex. Able to access all records at hospital. Action - recall system - computerised practice

Indigenous people by and large are very cooperative and keen to access all the vaccinations. It's hard to keep up!

The X (Community Controlled Health Service) is doing a fantastic job in immunisation. This is lead by a committed Aboriginal Health Worker who has earned the peoples' trust. The practice nurse supports her and the doctor is rarely involved.

The Indigenous story is one of being 'excluded'. The practice needs to be 'Indigenous friendly' – word will still get around. A survey of women doctors in X (town) in 2002 showed 9 saw less than 5 Indigenous clients a month, 5 saw 5 – 10 and I saw 20 – 50. Many of these would be SSI (South Sea Islander descent) not Indigenous.

It is not until a practice computerises and captures information in a systematic way that it will be able to 'data mine' or search your database to target populations with health strategies

At our practice all vaccinations are freely available when the patient presents, 5 days a week.

An interview with Dr Neil Hearnden provided further insight on some of these issues. Dr Hearnden is a private practitioner in the Brisbane North area who has been very active in promoting and contributing to the development of support mechanisms for immunisation by Divisions of General Practice.

In discussing the fact that Indigenous people miss out on appropriate extra vaccines because they are not identified as Indigenous when attending General Practitioners, he explained

In our division of General Practice, the numbers of Indigenous people are high – we are in the top five for the state...but where we look at this as a proportion of population, it's tiny...one percent...For example in my practice where less than 1% of my patients would be of ATSI origin, I'd have to put in place a process whereby every patient coming to my practice is asked "Are you an Aboriginal or do you identify as an Indigenous person?" and it is difficult for me to justify. The question is how else can we deliver an effective population health program for Indigenous people. I don't think GPs in general are convinced of the importance of that message. We have this difficult role of being seen by the State as a vital part of population health programs, but we have no particular training or education in that role, nor do we have any incentive to participate except for altruism.

In discussing data issues and computer software:

[Capturing of ethnicity] capability is available in most medical software...the data is not recorded...It does come back down to making a practice policy decision again to ask every patient. To make your data accurate, you have to ask people who have been coming to you for twenty years "Are you Aboriginal" without assuming it...Not only does the patient need to consider "Am I Aboriginal?" but also "Do I want to be considered an Aboriginal in this practice?"

He went on to say that automatic computer printouts for reporting purposes in particular often do not include ethnicity, and gave an example of where this had been a problem for recording and being reimbursed for infant pneumococcal vaccine for Indigenous infants.

Practical aspects of opportunistic vaccination, vaccine supply and reporting were discussed:

There has been an issue where GPs have performed vaccinations and the data hasn't been collected...

- I've got my patient here right now, what can I do to get him vaccinated here and now?...Where's that form? When can I get that vaccine (eg pneumococcal vaccine) from the government? When will it arrive? (Rather than complete paperwork to get free vaccine from the State program) A lot of practices just wear the cost of three dollars, others write a script and get the vaccine from the chemist...Many Indigenous people are on concession cards.

- For (Infant pneumococcal vaccine) practitioners clearly have to identify their patient as Indigenous to save (them) megadollars. Suddenly you've got an Aboriginal child in your surgery that is either two months or four months old and you say "What about your pneumonia vaccine?" You need to be able to go to your fridge and say "I've got it here, it's free, can I give it now?"...You've got to just grab the opportunity when you can. The State has agreed by negotiation that if you use your own private stock it will be replaced... I think that's something that should be put in print to the providers.

The problem of GPs lack of knowledge about local indigenous support agencies was discussed:

As a medical practitioner, you may not be aware that there are Aboriginal groups in your community, you certainly may not be aware whether there are Aboriginal Health Workers allocated to various regions...

He went on to suggest the development of a manual of local resources for the General Practice desk, in hard copy and in electronic form, which could be updated to maintain currency of phone numbers and other contact details.

9.4 Immunisation Coverage of Queensland Indigenous two Year Old children

Children by the age of two years should be maximally protected against infection, following recommended schedules. Vaccination status at this age is an internationally used indicator of the effectiveness of immunisation programs and of parent opportunity and willingness to accept health care offered. Australia's year 2000 coverage target was greater than 90% coverage for all children for recommended vaccines. In Indigenous Australian children, previous surveys have indicated that there has been good coverage in remote areas, and poorer coverage in non-remote areas. More recently, with the advent of wide population-based registers, reliable estimates have continued to be difficult to obtain in areas without a predominantly Indigenous population, because of incomplete identification of indigenous status on register data.

For the purpose of this review, a statewide survey was undertaken over a nine month period in 2003, to arrive at a coverage estimate for Indigenous children in Queensland. The method

used was cluster sampling to identify eligible participants, and with their consent, verification of immunisation records. Details of the methodology are discussed in Chapter 8.

In our 2003 study, Queensland Indigenous children had coverage rates of 90% at 12 months, 70% at 2 years and 90% at the time of survey when aged between two and three years.

9.4.1 Demographics of the sample group

Parents/carers from sample areas were interviewed face-to-face, very few by telephone, where they gave informed consent to participation on behalf of themselves and their Indigenous child born between March 1, 2000 and February 28, 2001. Specific permission for access and use of information from two registers, VIVAS and ACIR, was given. Parents were also asked three questions about reasons for late vaccination, difficulties experienced with immunisation services and suggestions for improvement.

9.4.1.1 Demographics of Parents/ Carers

Parents / Carers nominated

55% nominated a single parent/carer for the child, with a total of 202 parents/carers nominated. Some survey participants did not name a second parent where there was one, as that person was not consulted at the time of survey. In some cases grandmothers and foster parents were nominated. Some foster parents expressed concern about their own lack of information about the child's vaccination status.

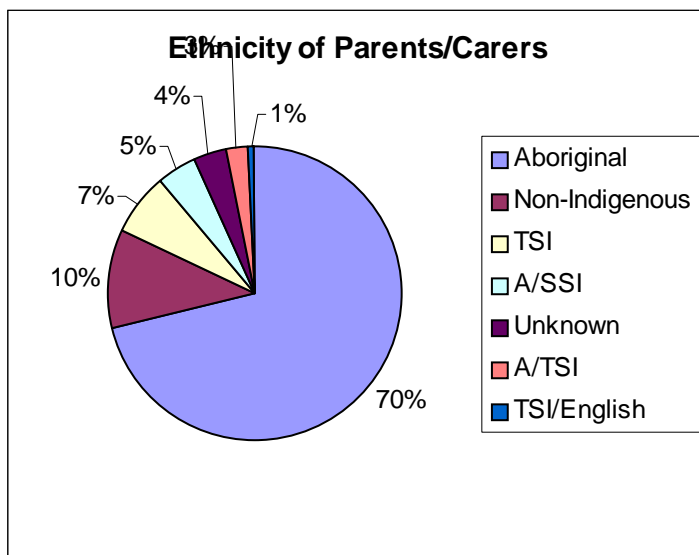
Table 12: Number of parents / carers nominated

	N	%
Single parent/carer	76	55
2 parents named	61	45
Total	137 children	100

Ethnicity

Most parents were Indigenous, only 9% of the nominated parents/carers being non-Indigenous, most of these described as "Australian". Distinct from other areas of Australia, there is a concentration of Torres Strait Islander people and an established South Sea Island population intermingled with Indigenous families in Queensland. In comparison with ABS reported Indigenous ethnicity for all Queensland, our parent group was equivalent to ABS's 77% Aboriginal, under represented Torres Strait Islanders (15% according to ABS), and participants themselves reported a diversity of combinations, for example Aboriginal/South Sea Islander, Aboriginal/ Papua New Guinean in small numbers, categories not specifically documented by ABS.

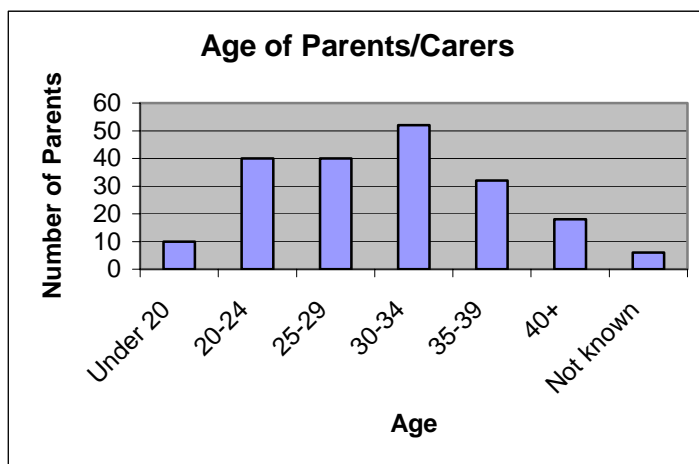
Figure 1: Ethnicity of parents / carers



Age

Parents/carers ranged in age from 18 to 53, average 29 years.

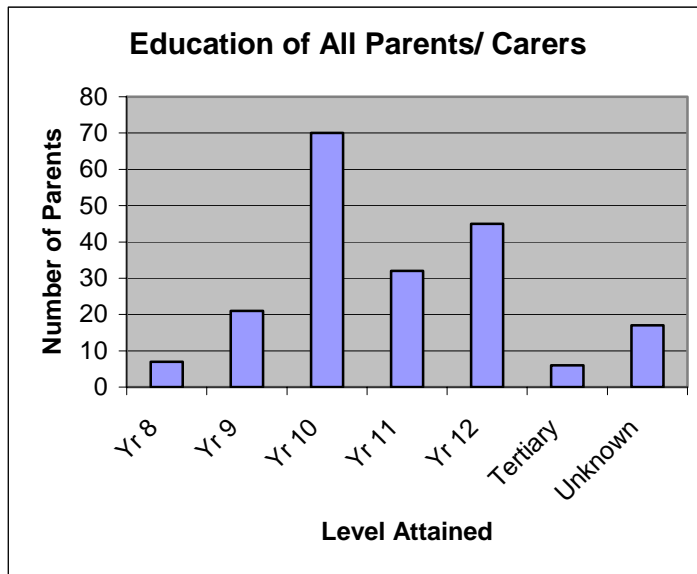
Figure 2: Age of parents / carers



Education levels

Education levels of the parents/carers was comparable with statewide rates for Indigenous people, 58% completing year 10 or less, 32% completing year 11 or 12, and 2% having completed some tertiary study. When the subset of Indigenous parents (Aboriginal, Torres Strait Islander, and any combination which included Aboriginal and /or Torres Strait Islander) was examined, the results were little different.

Figure 3: Education levels of all parents / carers



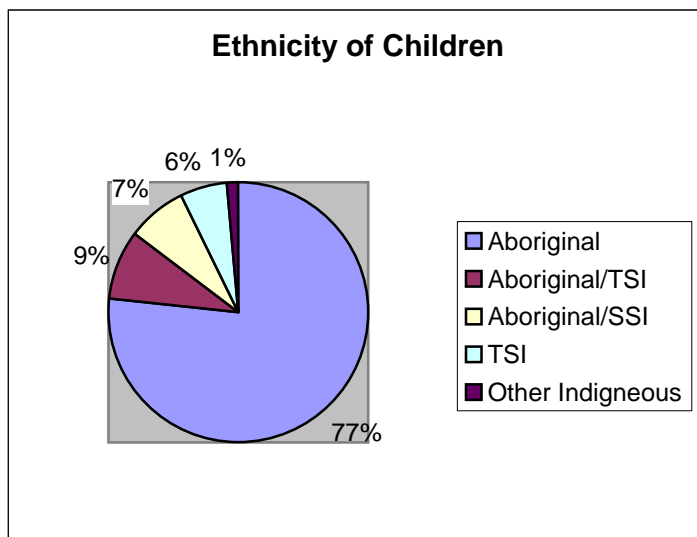
35% of parents/carers were employed, working on average 31.5 hours per week. Information about family income was not included in the survey questionnaire as Indigenous interviewers considered this to be too intrusive in our context.

9.4.1.2 Demographics of Children

Ethnicity

Children were included only if their parent/carer identified the child as Indigenous, and all children were found to have at least one parent/carer who identified themselves as Indigenous.

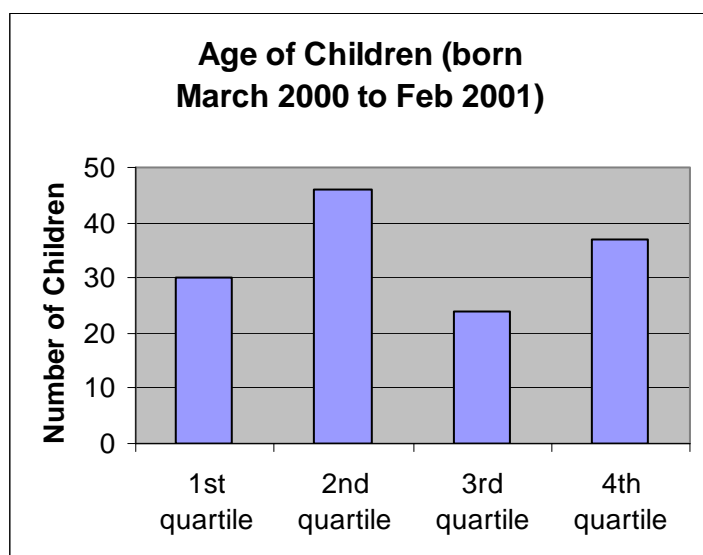
Figure 4: Ethnicity of children



Age

There were slightly more males (56%) than females. The children ranged in age from 2 to 3 years at the time of survey, their birthdates being distributed as follows.

Figure 5: Age of children



Distribution of children by area

The children were selected from four strata, aiming to be commensurate with the Qld Indigenous population distribution of 2 year old children. The final study group underrepresented the “highly accessible” stratum, and over represented the “accessible” stratum and this has been taken into account in the final analysis of coverage rates??? (ask Gail)

Table 13: Comparison of dataset to population distribution by area

	ABS Qld	ABS (%)	Dataset	dataset %
HA	1233	38	32	23
A	596	18	35	26
MA/R	857	28	48	35
VR	526	16	22	16
Total	3212	100	137	100

Previous surveys have relied on telephone sampling to supplement register-based information (NCIRS) and household surveys of personal health records (ABS). Our process was different in that we sampled by community links within the identified cluster areas, and used multiple sources of data (parental report, parental record, VIVAS database and ACIR database) together to build a complete picture of the individual’s vaccination history.

Phone contact

Of interest is the fact that 35% of our study group had no phone (excluding those who gave a phone number not within their own household), and 15% gave only a mobile phone number. Only a small proportion of participants were recontacted. Several of these had their phone cut off at the time of recontact. This suggests that telephone surveys may exclude a sizeable group of Indigenous parents/carers.

Figure 6: Number of parents / carers with contact phone number

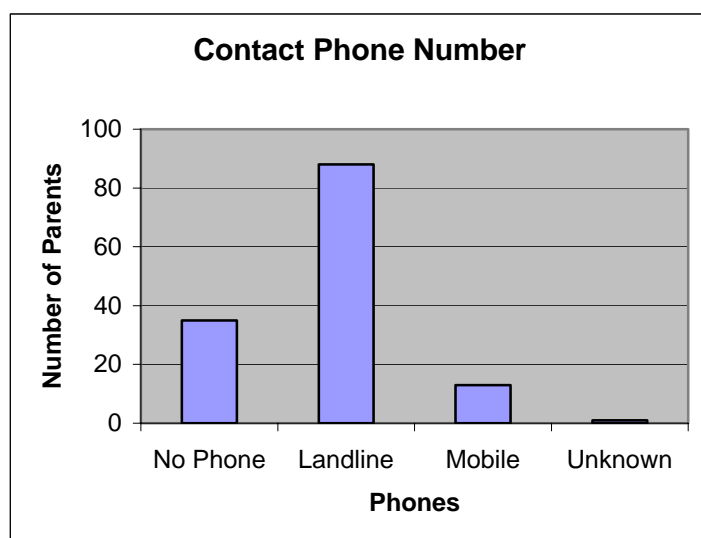


Table 14: Number (%) of parents / carers with phone by area

	ALL	%	HA	A	MA/R	VR
No phone	35	25.6	3 (9%)	8 (23%)	19 (39%)	5 (24%)
Landline	88	64.2	26 (81%)	23 (66%)	23 (47%)	16 (76%)
Mobile	13	9.5	3 (9%)	4 (11%)	6 (12%)	0
Not known	1	0.7			1 (2%)	
Total	137	100	32	35	49	21

Mobility

Further, 42% of parents had used more than one address in the preceding two years. Number of addresses was obtained by direct questioning and recording of details, and supplemented by noting additional addresses which were current on registers. Having more than one address since the birth of the child was most common in Moderately Accessible/Remote areas. Most moved within a town or regional area, a small number moved interstate or across the state. This information was gained from previous addresses given by participants when asked, and recorded addresses. Address changes not tracked by registers are likely to impact on the effectiveness of register-based parental reminders. It also explains some of the difficulty in making contact for home-based follow up of long overdue Indigenous children.

Figure 7: Number of addresses for children in past 2 years

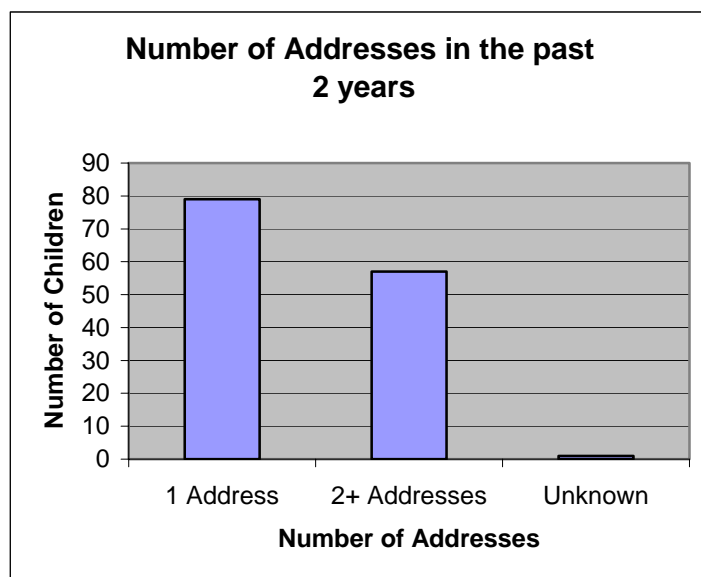


Table 15: Number (%) of addresses for children in past 2 years by area

Addresses	All	%	HA	A	MA/R	VR
1	79	57.7	17 (53%)	23 (66%)	25 (51%)	13 (62%)
2	54	39.4	13 (41%)	10 (29%)	23 (47%)	8 (38%)
3	3	2.2	1 (3%)	2 (6%)	0	0
Not known	1	0.7	1 (3%)	0	1 (2%)	0
	137	100	32	35	49	21

Alias

17 of the 137 children were reported by the parent /carer to have an alias, however several additional children were registered under an alternate surname (of a parent/carer) not reported as the child's on questioning.

Table 16: Number (%) of children with alias by area

	N	%
Highly Accessible	0	0
Accessible	4	23.5
Moderately Accessible	9	53
Very Remote	4	23.5
Total	17	100

We had no difficulty identifying children on registers using a combination of name, date of birth, gender, alias, name of two parents/carers where possible, and addresses in the last two years. Each of these pieces of information was useful in confirming identity at some point.

Personal Health Record

69% of participants said they had a personal health record or vaccination card for the child, and almost all said that they used the record for all immunisation encounters. 49% of these records were reviewed by the interviewer.

Table 17: Number (%) of children with personal health record

	Yes	%
Has one	96	70
All imms recorded	94	69
shown	45	
Not known	1	
TOTAL	137	

Every participant asked (N = 136) was happy to have their child identified as Indigenous on immunisation registers. The range of immunisation providers used was not reported in the survey, however 53/137 nominated a specific General Practitioner or showed a General Practitioner's identification on their personal health record. (These practitioners were among the group directly contacted to request participation in the general practitioner survey – see chapter 9.3 General Practitioner viewpoints).

9.4.2 Immunisation Coverage

In our 2003 study, Queensland Indigenous children had coverage rates of 90% at 12 months, 70% at 2 years and 90% at the time of survey when aged between two and three years.

These rates use the definitions described by NCIRS in their review of ACIR data, and may be compared with the NCIRS derived rates for all Australian children (2001) of 94% at 12 months, 90% at 24 months and 91.5% at 30 months. They include DTP, OPV, Hib and MMR vaccines. When DTP 4 was excluded, Queensland Indigenous coverage at 2 years was 92%. This vaccine dose was dropped from the nationally recommended schedule in Nov? 2003. A description of progressive coverage with each of the individual vaccines by age is included as an appendix.

A re-evaluation of coverage estimates from ACIR by Hull and McIntyre in 1999 for a 1997 birth cohort estimated the mean notification lag for Queensland was 99 days, the median being 36 days. Queensland General Practitioners had a very similar lag time. Nationally, those providers who serve a larger proportion of Indigenous children than of non-Indigenous children had longer lag times: Aboriginal Health Services (148, 51) Community Health Services (120, 33) and RFDS (187, 136). The lag should since have been improved via more efficient and more common use of electronic transfer, and more timely paper communication from providers, however there may still be an effect that differentially impacts on Indigenous children in some regions, particularly operating where coverage rates are measured soon after a milestone.

The NCIRS review of coverage according to ACIR in 2001, by comparing register overdue with parental reports of those children, determined that register figures may underestimate true coverage by up to 5%, due to both lag times and failure of providers to report, the latter particularly associated with inner urban general practitioners. Our study attempted to avoid these effects as far as possible.

The following estimates utilise register data 3 months or more after the milestone, so should minimise the effect of reporting delay. Figures from the present study are compared with reports published as Communicable Diseases Surveillance Highlights in Communicable Diseases Intelligence.

Table 18: Comparison of coverage survey results with reported Queensland and national data

	Qld Indigenous children born 1 Mar 2000 to 28 Feb 2001 (at May – Dec 2003)	Qld children, born 1 Oct to 31 Dec 2000 (at 31 March 2002)	Aust. children, born 1 Oct to 31 Dec 2000 (at 31 March 2003)
Children included	137	11,913	61,193
UTD at 1 yr	90	90.8	90.5
DTP 3	90	92.0	92.0
OPV 3	90	91.9	91.9
Hib 2 or 3	94	94.3	94.5
Hep B 3	90	94.8	94.4
UTD at 2 yrs	70	89.7	89.0
DTP 4	70	91.8	89.6
OPV 3	92	94.6	94.9
Hib 3 or 4	92	94.0	94.0
MMR 1	95	94.0	94.2
Hep B 3	90	95.2	95.7

An indication of the mix of providers utilised by Indigenous parents in a region encompassing accessible to very remote areas of Queensland can be gained from data provided by Hanna et al in their evaluation of infant pneumococcal vaccination. A cohort of infants identified as Indigenous at the birth hospital was tracked. The proportions were roughly 10: 3: 2 for Community Health/RFDS: Indigenous Health Service: General Practice. This information can be more accurately ascertained directly from VIVAS. This information is not available from our study.

By way of further comparison, NCIRS 2002 regional estimates for Queensland children “fully immunised” at 24 months include selected inner urban areas of Brisbane eg Bardon, 95%, other inner urban areas of Brisbane 71 – 84%, Far North Qld 83%, North West 84%, Central West 93%.

The work from NCIRS gave evidence of lower coverage than average in some rural and regional metropolitan areas. A telephone survey of sample children behind on immunisation at 12 and 24 months showed evidence that inner urban area ACIR – based rates are lower than actual because of underreporting by providers, while rates in some regional urban and rural areas (roughly equivalent to “Accessible” and “moderately accessible” areas) actually have lower than average coverage. Although not statistically reliable, we also report the coverage rate at survey for 4 geographical areas of Queensland defined using the Accessibility /Remoteness Index of Australia as a suggestion of trends in local rates.

Table 19: Coverage rate by ARIA classification

ARIA classification	Coverage rate
Highly accessible (eg Brisbane, Sunshine Coast)	%
Accessible (eg Townsville, Rockhampton)	%
Moderately accessible/remote (eg Isis Shire, Quilpie)	%
Very remote (eg Torres Strait Islands, Normanton)	%

Excluded from the above was hepatitis B vaccine, which was introduced universally in May 2000, and meningococcal C immunisation, introduced at the beginning of 2003. Queensland

Indigenous children have been scheduled to receive free Tuberculosis vaccination (BCG) and hepatitis B vaccination from birth for more than ten years. More recently, hepatitis A vaccine was introduced to the free program for children in North Queensland and some other discrete Indigenous communities. Pneumococcal vaccine was introduced for Queensland Indigenous children from May 2002 when the survey cohort was aged 16 months or more, making these children eligible for a catch up program. The youngest 13% of the sample were eligible for 2 doses of Prevenar at the launch of the program, remaining so for 1 or 2 months. Most were eligible for one dose, followed by one dose of Pneumovax at age two years.

Rates for vaccines specifically recommended for Queensland Indigenous children were not as high as for the generally recommended vaccines in the children at the time of the survey.

These include:

- Hepatitis B, 80% coverage at survey and 90% covered by 12 months, with only 70% of children having received the initial dose within the first week of life;
- BCG, 70% coverage
- Hepatitis A in North Queensland and Woorabinda, 50% coverage, with a further 20% having received one dose only.
- Pneumococcal immunisation: 50% had received a dose each of Prevenar and Pneumovax, 20% more having received Prevenar alone.
- Coverage in the survey cohort of children was 50% for meningococcus C vaccine.

9.4.3 Overvaccination

13 children (9%) were overvaccinated, and a further 7 children received extra doses to replace recalled vaccine. Most received one extra vaccine, 3 received 2 extra vaccines and 4 received 3 extra vaccines. Where multiple extra vaccines were given this was usually at one encounter.

Hib was the most frequently given extra vaccine, most commonly in association with a catch up schedule (5) or using an incorrect schedule where extra Pedvax was given at either 6 or 18 months (5). These intervals would have been appropriate to Hib Titer vaccine. Note that almost all the study group received Pedvax Hib vaccine alone (three dose schedule), 6 receiving both types of Hib vaccine (a four dose schedule) and one receiving HibTiter alone (a four dose schedule). Those receiving Hib Titer were all born in the first quartile of the study group, prior to the change in the national schedule of May 2000 to Pedvax alone.

Prevenar was given in a catch up schedule of three doses when two were indicated (5), or was given in place of Pneumovax as the booster dose to incorrectly complete the schedule (5). Most other overvaccinations, DTP, OPV, MMR and Hep B, were associated with catch up, providers either deciding on an inappropriate schedule or not accessing information about a previous dose given elsewhere.

Extra vaccinations

Table 20: Number of extra vaccinations provided

	replace recalled vaccine	unnecessary extra doses
Hib	1	11
Prevenar	0	9
OPV	0	4
DTP	1	3
Hep A	6	2
Hep B	2	1
MMR	0	1

These rates illustrate a problem of access and timeliness of accessing services, by a group of parents and carers who by and large believe in the benefits of immunisation, and wish their children to be immunised. This was also reflected in qualitative data obtained from various sources and detailed in other chapters. In relation to vaccines specifically recommended for Indigenous children, the problem seems to lie with practitioners, and will be discussed further in following chapters of this document.

Timeliness of cover for various specific infections should be considered against the background of incidence of these infections in the community. Published Queensland Health reports of notifications of vaccine preventable infections include little reporting of rates specifically in Indigenous people, however Indigenous children are invariably exposed to risk of infection as is the general community, in addition on national reporting having notably much higher risk of pneumococcal infection, and a continuing risk of Hib infection in infants, where that risk has more greatly diminished in the general community.

9.5 Examples of success

Undertaking this project, immunisation providers have offered their opinions of what should and shouldn't occur to improve delivery of immunisation to Indigenous people. In recognition of initiatives that have already been implemented, the following focuses on stories of demonstrated success, in the hope that these shape future considerations for immunisation delivery models. One large-scale program was implemented across three health service districts, whilst other success included General Practice based and local initiatives undertaken by individual workers or teams.

9.5.1 Case study – Jabba Jabba Immunisation Program

Details of this program were offered by Indigenous Health Workers, Immunisation Coordinators, and additional information for this case study was sought from the Mid-Program Evaluation report of October 2002.

The Jabba Jabba Immunisation Program was piloted from 2002 by the Central Public Health Unit Network (Sunshine Coast), covering the Redcliffe/Caboolture, Sunshine Coast and Gympie health service districts. The aim was to implement an outreach program consisting of home visiting for immunisation that would improve access of 'hard to reach' groups of the Indigenous community, and importantly, strengthen links with the Indigenous community with the intent of increasing access to mainstream services as a sustainable model of service delivery. For their work in this area, Jabba Jabba received the Queensland prize in the National Immunisation Awards.

Service delivery relied heavily on the Indigenous Health Workers role, both as professionals in providing a service, and as Indigenous people in extending community networks, gaining people's acceptance and therefore entrance to their homes. As a result, there were demonstrated increases in immunisation coverage for all age groups in each of the health service districts, such that their immunisation operational targets were reached. Amongst other successes, the program boasted an increase of Indigenous Health Worker skills and professionalism, and a service delivery model for Indigenous health services that has been adopted by another Indigenous health program area (nutrition). Another notable aspect of the Jabba Jabba program was the improvement of Indigenous identification on clients' health service and VIVAS records.

This pilot of the Jabba Jabba program was funded until February 2003. In the lead up to this date, some frustration was expressed by workers that due to the nature of the funding the successful service delivery model was not likely to be continued, and indeed it was the intent

of the pilot to increase Indigenous access to mainstream services given that a model of home visiting was considered unsustainable.

9.5.2 Improving access of Indigenous People to General Practice in Inala

Dr Noel Hayman, is an Aboriginal General Practitioner and Public Health Physician who works in Brisbane at the Inala Community Health Service. Noel was highly successful over a period of a few years in attracting Indigenous clients to a service where previously there were few, in a community with about 8% Indigenous people in an urban area. Engaging people in a General Practice allows them access to a whole range of preventive care activities, including immunisation. Approached as a key informant, he chose rather to provide a copy of his report “Improving Aboriginal and Torres Strait Islander access to Inala Health Centre General Practice”. This report analysed strategies and results for an eight year period commencing 1995 and was included in the unit’s Annual Report 2002 - 2003. The report is summarised here.

The University of Queensland General Practice is situated within the Inala Community Health Service, and functions as an integral part of that service, facilitating access to an array of additional services including child health, mental health, aged care, oral health, allied health services, visiting paediatrician, breast screening unit and a large complement of community oriented initiatives and projects. Inala community has a large complement of public housing and has a concentration of people on low incomes. There is a multicultural environment, with especially Vietnamese and Aboriginal cultures evident in the community.

Inala area had an Indigenous population of 1000 at the 1995 census conducted by ABS. Indigenous new patient consultations at the general practice numbered 170 in 1995 – 6, with 5.7% of new and recurrent consultations being with Indigenous people. Associated with the implementation of a list of strategies, the proportion of Indigenous consultations had almost tripled within two years, and by 2003 had risen to 20.6% . Over the eight year period, 1762 new Indigenous patients attended the General Practice, people being from both within and outside the local area.

Through a process of community consultation which used focus groups and telephone interviews, the following views were gained from Indigenous people:

Reasons for avoiding the practice were:

- Aboriginal people perceived staff as unfriendly and uncaring
- Staff talk down to you “make you feel shamed”
- Staff body language was interpreted by Aboriginal people as unwelcoming
- Treated poorly at Reception eg “Why are you coming in at 4.30, we close at 5pm. Go home and come back tomorrow!”
- Staff showed low tolerance to Indigenous child behaviour “keep them quiet!”
- Long wait to see doctor
- There is ‘nothing’ at the centre that Aboriginal people can identify with
- There was no Aboriginal person working at the centre

Strong reasons for attending the practice were:

- convenience, live nearby
- satisfied with doctors and staff
- no racism reported
- Five key strategies were then planned and implemented with the aim of increasing Indigenous access to the service.

Strategies for improving Indigenous access to the practice included:

1. Employ an Aboriginal or Torres Strait Islander person in the practice: an Indigenous doctor worked within the practice, an Indigenous nurse was employed, and then a number of Indigenous Health Workers. Funding support was provided by the Aboriginal and Torres Strait Islander Health unit, Queensland Health.
2. Purchase culturally appropriate posters and artefacts for the Centre, and play Aboriginal radio “AAA Murri Country” on occasions (in addition to use of Television in waiting rooms): artefacts and paintings were purchased from local and distant artists. These were displayed throughout the centre.
3. Provide cultural awareness talks to all staff within the Centre: Three workshops were provided within the centre, then a package was developed for district – wide use. Reconciliation learning Circles were then established.
4. Disseminate information about the Centre and its services to the Aboriginal and Torres Strait Islander community: a pamphlet about the centre was designed and distributed. Later a calendar featuring health promotion themes and pictures of local people and centre staff was produced annually.
5. Promote intersectoral collaboration: Brisbane’s Aboriginal and Islander Community (Controlled) Health Service had established a weekly session in the suburb of Inala. The service was invited to use the Centre, but declined. Strong links, and the referral of patients between the Centre and the Service occur, for example utilising an Indigenous Counselling Service established in association with the Community Controlled Service.

The above illustrates some short and longer term strategies for providing General Practice services which appeal to Indigenous people. The process of consultation here, as in many other services developments, has proven to be vital to success. Immunisation rates have not been tracked and reported over time for this group, but the information may be available through computerised patient records.

Monitoring and reporting on immunisation success in General Practice is a mainstream strategy which can be usefully applied in Indigenous services.

9.5.3 Local initiatives

Stalls at public events

Service providers from several areas reported success in manning stalls at NAIDOC and other significant celebrations. A stall at such events where the atmosphere is about having a good time and catching up is unassuming, and often stalls get visitors who wouldn’t usually attend that organisation: the ‘hard to reach’ groups. Public celebrations provide an ideal opportunity to identify potential clients, make first contact in a relaxed environment and consequently pave the way to improving service access.

AICHS has provided a vaccination service using a bus (with the help of Brisbane City council) at NAIDOC celebrations and at sporting events in Brisbane. Having Indigenous staff involved with service provision made the atmosphere more welcoming in this context. AICHS have targeted adults, and managed also to catch up long overdue children through public events stalls.

Workplace Immunisation

In Mackay and in Charleville, indigenous health services (Community Health Nurse in cooperation with AMS Health Worker, AMS staff alone) provided workplace vaccination, for example visiting CDEP programs, TAFE colleges, Women's Shelter, Centrlink offices, Legal Aid, Foster Care group. Anywhere where there was a complement of Indigenous workers. This proved to be effective in accessing people who the health staff knew would not otherwise be vaccinated. It also involved a lot of negotiation with Indigenous and other employers, raising the profile of the adult vaccination program in the community. Security of funding has been a problem for maintaining these initiatives, usually undertaken as a special project from year to year.

Yarrabah immunisation pamphlet

Yarrabah Health developed a pamphlet for local distribution containing important immunisation messages and advertising their services. The pamphlet displayed photos of local children and due to this was deemed a great success, as proud families passed them around to show off their children.

9.5.4 Discussion

Two issues raised by the above success stories are the importance of local input and security in funding arrangements. In acknowledgement that target groups for immunisation vary widely, successful initiatives identified have not been "one-size-fits-all". Various age groups, social and environmental contexts, community identities and local norms across the state imply an emphasis on locally identified and developed initiatives. However it is more economically rational that significant funds are allocated to centrally located immunisation initiatives, not local ones. This falls in a lean health service climate where Indigenous Health Workers' workloads are already extensive, and where without additional funding local initiatives are restricted.

10 Discussion

10.1 Potential models of service

Our coverage survey and qualitative data suggests most Indigenous people want their children to be immunised with all the recommended vaccines, including those specifically recommended for Indigenous children. Most families (70%) actively use personal health records for their children. Immunisation coverage of Indigenous children for the state for universally recommended vaccines is better than previously estimated, and almost comparable with the general community. Uptake of vaccines recommended specifically for Indigenous people, however, have relatively low rates of coverage. Timeliness also continues to be a problem. This means that Indigenous people are less well protected than is optimal. Specific initiatives for Indigenous families, such as home visiting for vaccination, have contributed to the success of child programs. Lack of provider knowledge of appropriate catch up schedules and lack of availability of immunisation status information, particularly in regard to children with multiple carers or a change in carer, has led to overvaccination of some Indigenous children in our survey.

Qualitative data illustrates that Indigenous people are less knowledgeable and less convinced about the necessity of adult immunisation programs, particularly in relation to young adults. There is unease with the use of the terms “at risk” or “high risk” when referring to young adults recommended for vaccination, as it was thought to imply assumptions about lifestyle. Indigenous people talked of adult males avoiding health care services as they were “healthy” and thus not vulnerable to illness and infections, had little knowledge of the vaccination protection issues in adults. Workplace vaccination was strongly supported by both Indigenous people and health care professionals.

Ongoing monitoring using registers will continue to be inaccurate without a major change in provider attitudes and recording practice in relation to Indigenous identifiers. For instance, most immunisation services surveyed, community health, community controlled Health Service and local councils included, recorded Indigenous status, however only half of these recorded this information when transferring immunisation data to the VIVAS database. General Practitioners see large impediments to establishing the Indigenous status of patients within their practice. The perceived impediments on the part of General Practitioners centre around lack of the importance of use of identifiers, a low priority given to special requirements of a small patient group, a risk of offending the large patient group of non-Indigenous, inability to change practice routine for information gathering, and lack of computer software support for capturing the data. Bearing in mind that the service providers included in our surveys gave their participation voluntarily, and that recruitment was difficult, the above views represent the “best case scenario” for Indigenous people’s interactions with health service providers.

One third of General Practitioners surveyed, not exclusively those working in community controlled services, did report that they asked all patients whether they were Indigenous, half administering a form and half asking and recording. Some other providers made assumptions based on appearance or local knowledge, while one quarter relied solely on volunteered self-identification by the patient.

Indigenous people have given us definite views about the capture and use of Indigenous identifiers: that people themselves should be asked their status in a discreet and respectful way, that the use to be made of the information should be stated at the time, that other

assumptions (eg automatic referral to an Indigenous Health Worker) should not be made in association with provision of this information, rather the person again asked. Indigenous people and providers alike recognised the potential perception of racism and a lesser standard of service being risked where identification is made, however we found little evidence of lesser service in the comments of Indigenous people. Incidents reflecting racist attitudes and practice of a very few health professionals were recorded in our qualitative data. These were mostly in relation to hard-to-reach groups – Indigenous substance abusers, mental health patients, families of children taken into protective care by Family Services, and the incarcerated. Indigenous people commented that providers' discomfort in asking about identification implied a lack of cultural understanding.

An issue particular to Queensland is the interaction with South Sea Island heritage people. Indigenous people recognise South Sea Islanders as distinct from their own groups, but sharing some health problems and in many cases having family links. This is illustrated in the ethnicities reported by Indigenous people in our coverage survey, where a proportion identified as Indigenous and South Sea Islander, which would normally imply a parent from each background. One approach taken by Indigenous people is to refer to “Aboriginal and Islander” as a collective title encompassing Aboriginal, Torres Strait Islander and South Sea Islander, as was explained by a respondents from Mackay and Brisbane. It is logical to include South Sea Island people in immunisation programs for Indigenous people for the same reasons of similar health profiles and family connections, and this has been the practice in Northern Australian coastal areas where these groups are most visible. Further, South Sea Island community groups have advocated for access to Indigenous immunisation programs. Definitions of eligibility for various primary care services where tied to funding source definitions may discourage this inclusiveness.

Practical difficulties leading to lack of timeliness of vaccination in children that we have documented include lack of transport. In fact families without a car could be considered a “hard to reach” group in this context, as they are hampered in a major way from seeking out preventive service where service based transport or home visiting is not available to them. In depth interviewing in a Brisbane suburban area illustrated the fact that people without cars, including both parents with children and elders, must access their provider in a non-emergency situation by walking. In almost all cases the nearest provider is used, and where this is physically difficult, delays result. In areas where distances preclude walking, people without cars will be very reliant on service-based transport, given the inadequacy of public transport in many places and the impracticability of travelling with a number of small children single-handed.

The group of families sampled was fairly mobile, with 40% having two or more addresses in two years of their infant's life, most within the same region. This trend was evident across all geographical areas. For young women with a first child on a low income this may reflect moving from one relative's house to another, with no personal space in which to organise possessions, while sitting out the long wait for public housing. Compounded by the fact that 25% of families sampled had no phone, provider recall using those measures employed in the general community alone must produce very little return for effort. This was reflected in early Queensland projects of follow up of children long overdue for vaccination in Brisbane. Productivity in this regard in urban areas was shown to be further hampered by delay or failure in reporting, so that the “long overdue” in many cases were in fact not overdue. A national evaluation of ACIR has shown long delays in reporting for Queensland and several other states. Part of the delay rests with providers initiating data transfer. It is thus understandable that an Indigenous community based approach directed by Indigenous Health workers using local knowledge of areas and families in addition to register data would be far more effective in servicing hard to reach groups.

Further, Indigenous people valued transport and home visits highly in our survey. They also valued friendliness, time given to explain and personal interest shown by the provider, and continuity of provider.

Lack of access to a free service for immunisation was a practical difficulty highlighted by both Indigenous people and service providers, including General Practitioners. This was a problem in particular in areas where there are no bulk billing General Practitioners, eg some country towns and some physically isolated urban areas (in terms of transport) such as Redcliffe in Brisbane. Other General Practitioner identified barriers which were real to Indigenous people included waiting room capacity, poor cultural awareness and a lack of available vaccine.

Improvements suggested by General Practitioners included employment of Indigenous Health Workers, identifying all Indigenous patients, alternative means of meeting costs to the patient for immunisation (eg direct payment to the provider by the north Coast Health Corporation on the Sunshine Coast was referred to), increasing the Medicare rebate to doctors, linking with community health and indigenous community services. More vaccine access for providers was suggested in some cases, and it was pointed out that were General Practitioners to be confident of stock replacement, they would be willing to use stock in hand (eg of Prevenar) to vaccinate Indigenous children opportunistically, rather than wait for an individually allocated dose to arrive as has been the widespread practice. Divisionally based local manuals of Indigenous services for GPs were also suggested.

Service providers other than General Practitioners reflected many of the above concerns. The need for all providers to be comfortable with giving multiple injections at one visit was recognised by community and public health providers and managers. It must be acknowledged that routinely administering three injections where the schedule called for it, will continue to be necessary in the current schedule. Administering all vaccines due in one encounter is a basic standard of immunisation practice, and greatly assists coverage being maintained on time. Indigenous people seem concerned not so much with the number of vaccines administered, although one or two mentioned this, but with the competence of the provider in carrying out the procedure, and the gentle and effective handling of children.

Queensland Health can identify workable strategies for improvement on the basis of readiness for change of their own workers. Strongly emphasised by these providers were provision of transport and mobile clinics, or home visiting for immunisation of hard to reach groups, increase in numbers of endorsed nurse immunisers and establishment of groups of endorsed Health Worker immunisers, long term and secure funding for special projects for hard – to – reach groups, collaboration with school health nurses so that they can acquire the nurse immuniser role. These providers emphasised in addition the variance in resource commitment between various health districts, the variation of approach to transport and home visiting, and the lack of Indigenous Health Worker availability in some areas, particularly urban areas. Intersectoral networking at local level was found to be effective in preventing duplication and pooling resources to good effect.

There is a good basis in policy and planned strategy within state and commonwealth health services for continuing development of immunisation services along these lines.

Improving the capacity of health service providers to respond to the cultural security needs of Aboriginal and Torres Strait Islander clients is acknowledged as but one part, but an important step towards achieving better health outcomes. This can be supported by increasing cross-cultural understanding and awareness and through employing a greater number of Indigenous staff in service provision, policy development and health management. These strategies are

incorporated into Queensland Health's "Framework for Action in Aboriginal and Torres Strait Islander Health (1999). Progress in achieving Indigenous workforce targets within the services will influence the feasibility of making Queensland Health services more adapted and appropriate to Indigenous community needs.

A holistic approach to health which recognises the interconnectedness of physical, emotional, mental and spiritual health across individuals, families, and communities is an essential part of improving outcomes, stated and stated again in National Aboriginal and Torres Strait Islander Health strategies. A holistic approach to Indigenous health complements the strategic focus on greater integration, seamless health services and continuum of care. For practitioners, this is evidenced where a range of health needs is acknowledged and acted upon in one encounter. In many primary health care encounters this type of approach is appropriate and fosters service utilisation for health. It requires practitioner communication skills, willingness to take time to consider the whole person and awareness of local channels by which social supports, including Indigenous-specific support services, may be accessed.

General Practitioner approaches to Indigenous people in relation to identification and immunisation need to be facilitated to reach a large segment of the Indigenous population, and Divisions of General Practice are best placed to understand GP's requirements. Increased Medicare remuneration or further provider incentives, to be determined by Commonwealth Health, might be an effective strategy in addition to provider education and logistical support from Divisions. Whether the measures currently under consideration will be enough to further tip the balance of priorities towards accommodation of Indigenous people's needs remains to be seen.

The Commonwealth Health Department endorses Community controlled Health services as key providers of appropriate and accessible primary health care. There is no doubt that Indigenous community controlled health services are the most responsive to the needs of Indigenous people, and it is in adopting their practices and working cooperatively with community controlled services that mainstream services can have most success in the current situation.

Many access issues and service networking issues are local issues. Where local interagency committees with an immunisation brief exist, they could be a forum for rational local consideration and decision making in cooperation with health service administrators, as will be necessary for determining a locally suitable mix of home visiting immunisation service, supported transport and workplace and other initiatives, which on the basis of our study seem to provide the best options for effectively engaging indigenous people including hard-to-reach groups.

Some groups are isolated from most services, for example the young man with a mental health problem who avoided primary care services, and could cope only with Mental Health Service interactions. He appreciated the chance to be immunised when incarcerated in a prison for a period of time, and would have liked to be able to follow up with the people he saw as his health carers, mental health staff. Other evidence comes from a review of the health of female prisoners in Queensland published in 2003, which documented high uptake of protective health care, including Hepatitis B immunisation, amongst inmates.

Some success has been reported with use of standing orders for adult vaccination in USA hospitals. Another approach has been to check immunisation register histories on hospitalised children and initiate catch up where required and possible while hospitalised. This has been carried out with success, for example, at the Cairns Base Hospital Childrens' Ward. It makes the most of contacts with Indigenous people or their children who seldom use primary care.

11 Recommendations

MOST OF THIS PRESENTED IN TERMS OF REPORTING ON THE PROJECT REQUIREMENTS. DISCUSS ANY OTHER SPECIFIC RECOMMENDATIONS WHICH COULD BE MADE WITH STEERING COMMITTEE

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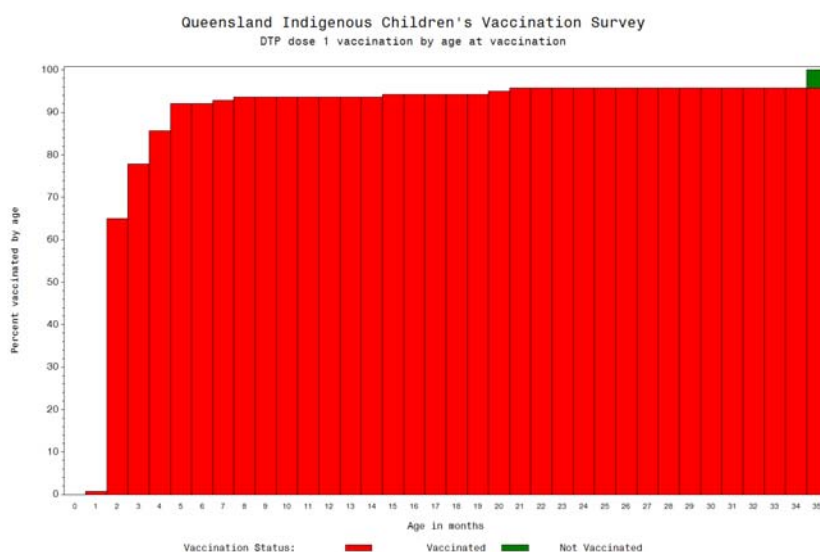
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Appendix 2: Acronyms used

ABS	Australian Bureau of Statistics
AMS	Aboriginal Medical Service (or Community controlled Health Service)
ACIR	Australian Childhood Immunisation Register
ATSIC	Aboriginal and Torres Strait Islander Commission
CDEP	Community Development Education Program
CRCATH	Collaborative Research Centre for Aboriginal and Tropical Health
DOGIT	Deed of Grant in Trust
DTP	Diphtheria, Tetanus and Pertussis (combination vaccine)
Hep B	Hepatitis B
Hep A	Hepatitis A
Hib	Haemophilus Influenzae Type B
JEV	Japanese Encephalitis Vaccine
MMR	Measles, Mumps and Rubella (combination vaccine)
NACCHO	National Aboriginal Community Controlled Health Organisation
NAIDOC	National Aboriginal and Islander Day of Celebration
NCIRS	National Centre for Immunisation Research and Surveillance of Vaccine Preventable Diseases
NHMRC	National Health and Medical Research Council
OATSIH	Office of Aboriginal and Torres Strait Islander Health (Commonwealth Of Australia)
OPV	Oral Poliomyelitis Vaccine
RFDS	Royal Flying Doctor Service
VIVAS	Vaccine Information and Vaccine Administration System

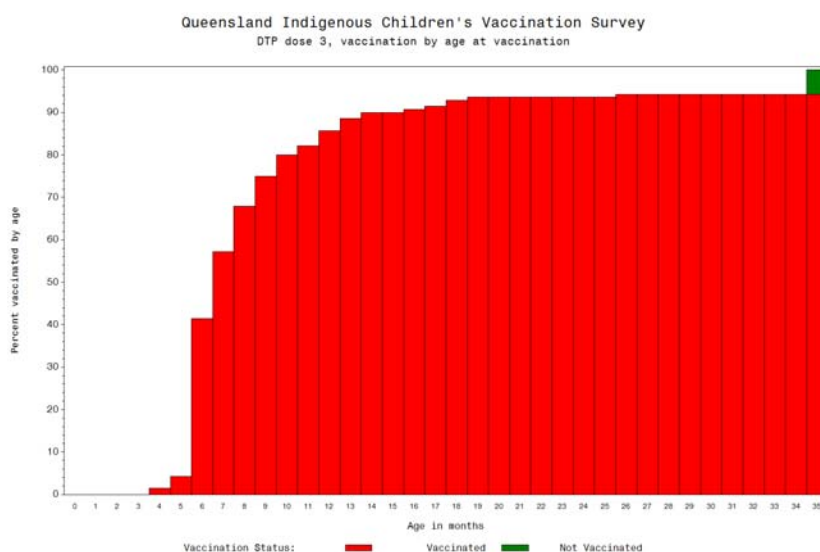
Appendix 3: Detailed profile of vaccination uptake

DTP



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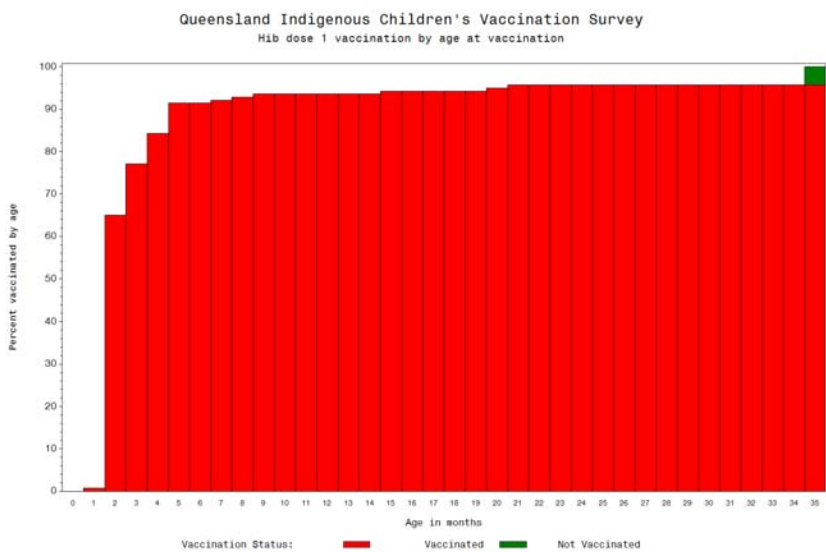
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Most of the study group was protected against pertussis (received DTP 3, recommended at 6 mths of age) by the age of 13 months, however only 78% had received the initial dose by the age of 3 months, and only 58% had received the third dose by 7 months. Pertussis continues to circulate in Australian communities, particularly amongst adults and older children (whose immunity wanes after childhood vaccination), however infants are exposed via coughing of an infected person, and infants are the most vulnerable to serious effects of exposure to the infection, including death. X Australian infants died in 2003 from Pertussis. According to

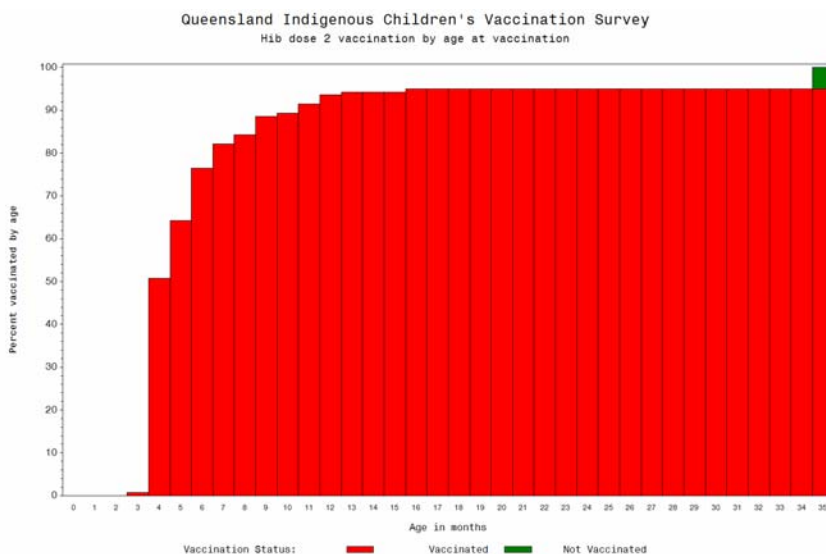
Queensland Health, more than 60% of pertussis cases notified in infants and also in other children aged 5 and under, were unvaccinated.

Hib



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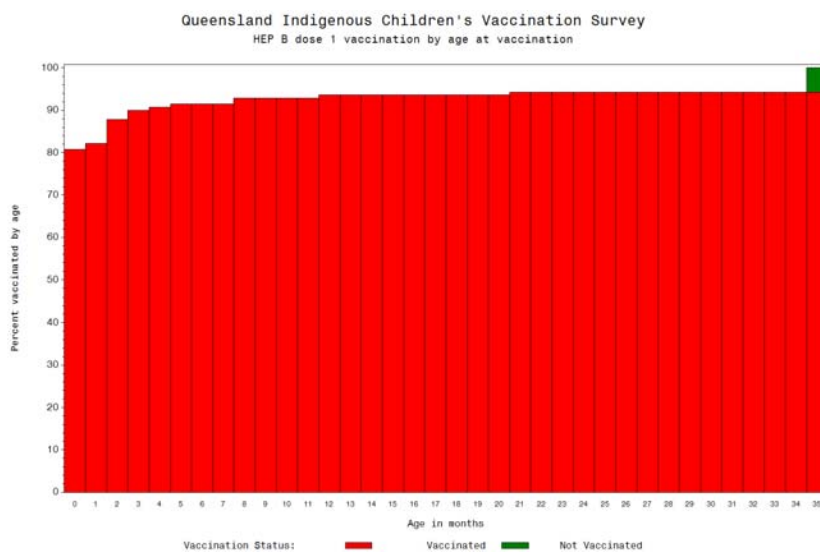
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The study group was vaccinated against Haemophilus Influenzae B (Hib infection) almost exclusively with Pedvax, where a two dose primary schedule at 2 and 4 months and a booster at 12 months are recommended. 64% of the study group received Hib 2 by the age of 5 months, coverage increasing gradually to 9 mths and more slowly to 12 months. 77% had the initial dose given by 3 mths, almost all along with the first DTP. In Queensland the highest notification rates for Hib infection have been among 0 to 2 year olds. This is a potentially fatal disease, the incidence and young child deaths from which have dropped dramatically since the introduction of Hib vaccination to Australia in 1993. Nationally there is a

persistently higher rate of serious infection amongst Indigenous infants and young children. Queensland Health reports that over the five year period 1997 to 2001, 8 of the 10 infants notified were unvaccinated when they contracted Hib infection, and 41% of notified cases aged 1 to 4 years were unvaccinated.

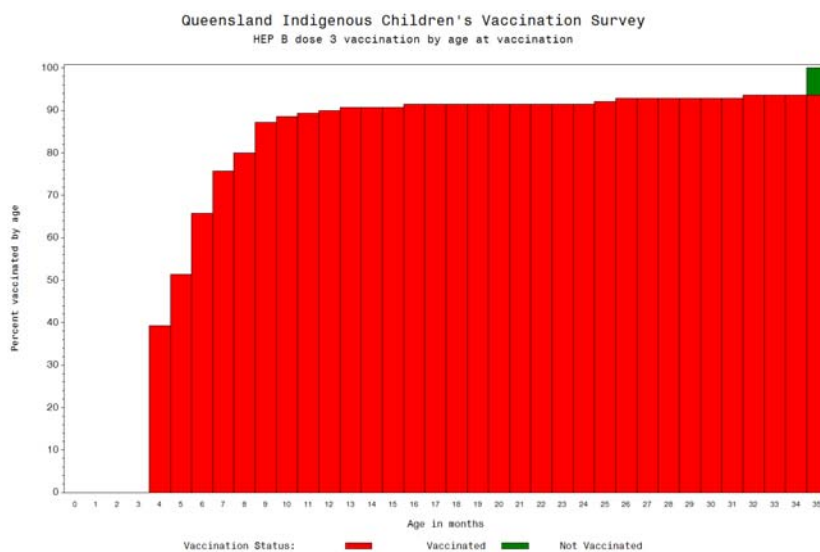
Hep B

Hepatitis B vaccine has been recommended in infancy with a first dose at birth and a three dose schedule for Indigenous children in Queensland since 1987, and records of vaccination were kept centrally by the Aboriginal Health Program which was active in vaccinating. In May 2000, NHMRC introduced universal infant Hepatitis B immunisation with a birth dose and a four dose schedule, the last dose being at 12 months using combination vaccines supplied in Queensland (applicable to 87% of the study group).



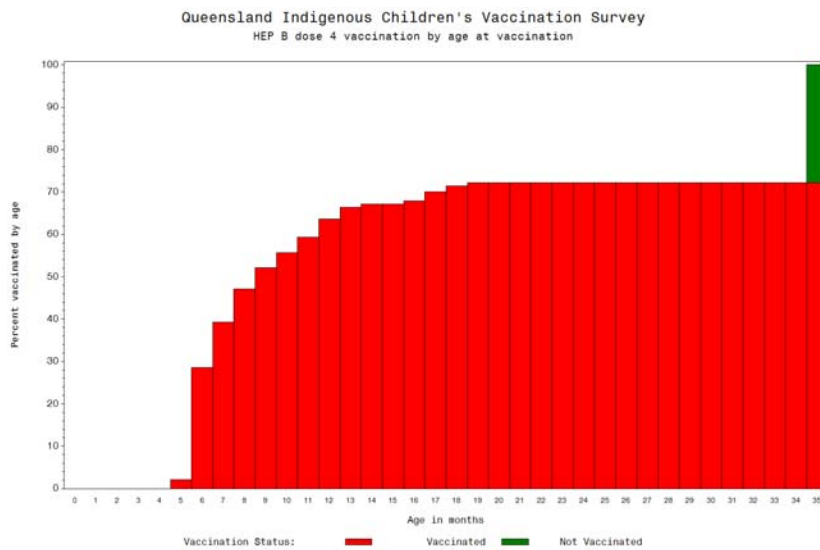
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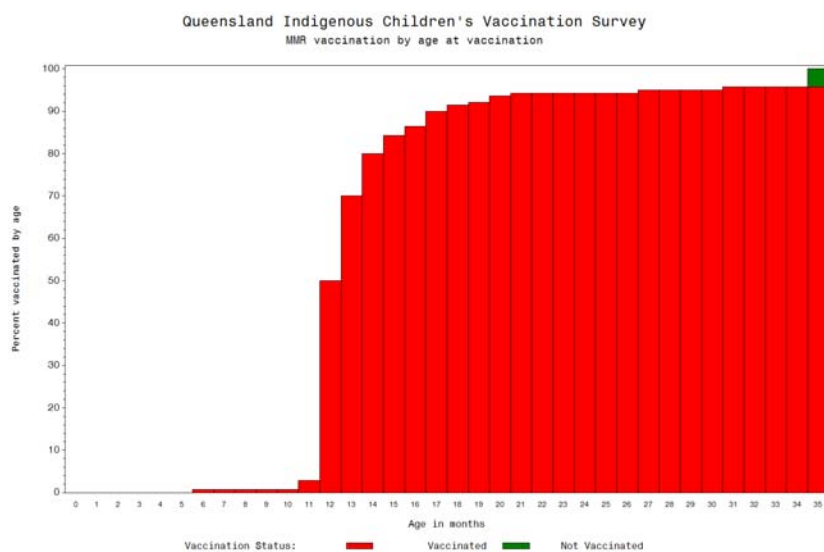
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***Hep B 4 Above applies to 137 children, need to recalculate only for those born in May or later (excluding the 13 children born March or April).

The incidence of Hepatitis B in Queensland Indigenous children is not well established. Acute Hepatitis B was notified most frequently in young adults (15 to 39 years) and more common in males (1.3:1) in Queensland for the period 1997 to 2001. Notifications were most common in the Far North and in Brisbane. There were 15 cases of Hepatitis B notified in children under age 5 years. Indigenous status of the cases is not known. The young child figure may underestimate true incidence of childhood infection in this population with a relatively high carrier rate. Unvaccinated children risk transfer from carrier mothers at or soon after birth, and transmission is known to occur between young children in remote communities. Clinically, only 10% of infected children experience symptoms. The risk of chronic persistence of infection is greatest in those infected as infants. The good news is that Queensland has a lower notification rate than Australia as a whole, perhaps reflecting active vaccination of Indigenous people throughout the 90s, and with the introduction of a universal infant vaccination program in May 2000 for all Australia, covering Indigenous infants will be facilitated. The birth dose of hepatitis B vaccine continues to be very important as a protection for newborns of carrier mothers, in combination with birth administration of hep B immunoglobulin (HBIG).

MMR

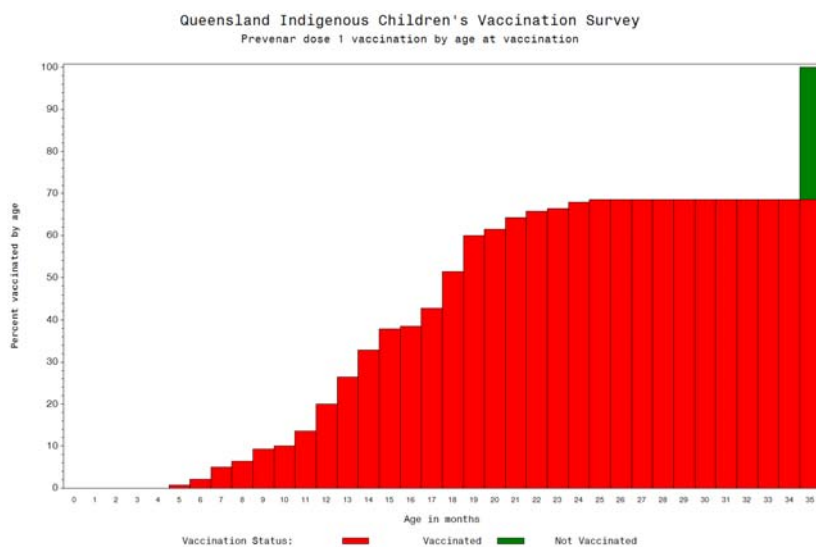


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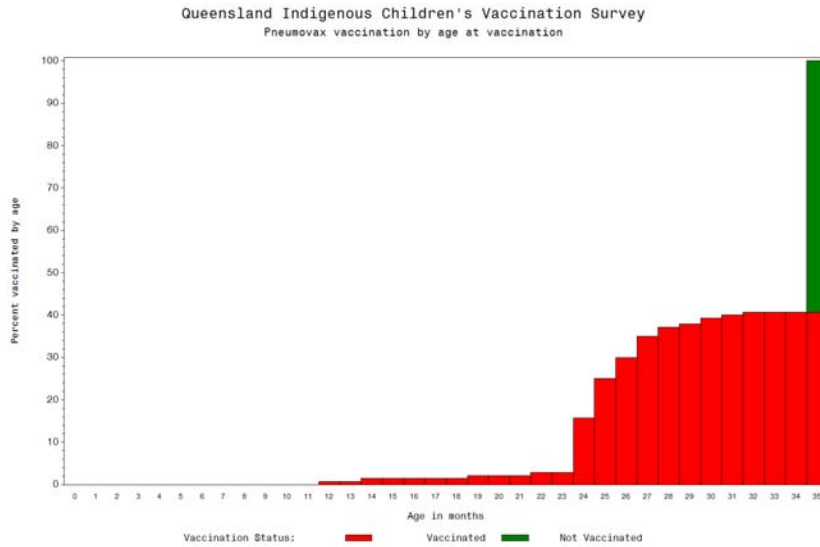
Most of the study group was protected against measles (MMR recommended at 12 months) by the age of 18 months (92% coverage) however only 70% had been vaccinated by the age of 13 months. Hopefully large measles outbreaks in Indigenous communities (the most recent in Northern Qld and across the top in 19...) will not recur following great improvements in Australian vaccination coverage associated with the national vaccination campaign and the introduction and a two dose schedule. Sporadic cases do still occur in our community, and maintenance of universal coverage is vital for eradication.

Prevenar and Pneumovax



30/01/2004

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21

Prevenar and Pneumovax for children were the vaccines parents/carers were most commonly unaware of or asked for more information about. More parents had an awareness of meningococcal vaccine, but rates for vaccination were lower (50%). This may be explained by the more recent introduction of meningococcal vaccine nationally and using mass communication strategies, since September 2003. The promotion of pneumococcal vaccination through Indigenous specific health services was notable from the comments of participants. Comments about fever as a side effect in those who had received the vaccine were also fairly common (known incidence up to 25%). Some general practitioners were reported by parents to direct parents to Indigenous services for the vaccine rather than offer it themselves along with other vaccines.

Initiation of pneumococcal vaccination with Prevenar occurred steadily in our study group from the age of 5 months through to 30 months, peaking with 70% coverage at 2 years. This level of cover is understandable, perhaps surprisingly high, given the commencement of the program during this time period. In Queensland in 2002, a Communicable Disease Unit report states, that 12 Indigenous children under five years were notified as infected, most commonly presenting with pneumonia, unlike non-indigenous children who more commonly presented with bacteraemia. It is likely that indigenous status was underidentified amongst the cases, so the incidence amongst Indigenous children may be proportionally higher than recorded. Overall, the rates of notification of infection in children under age five dropped in Northern Australia between 2001 and 2002 after initiation of the vaccination program. Notable also was the fact that only 45% of the Indigenous children's infective strains were those included in the 7 valent vaccine, Prevenar, highlighting the great importance of completing Indigenous child vaccination with the broader complement of 23 serotypes included in Pneumovax (recommended at age 2 years for Indigenous children.) Only 40% of our study group were vaccinated with Pneumovax, usually between 24 and 32 months. Beyond the age of 2 years, in theory Queensland Indigenous children who have not commenced the schedule with Prevenar are ineligible for a course of free vaccine, unless they have one of a range of medical conditions specified by NHMRC which separately opts them in to the free program. Several sources in Queensland currently advocate for a universal free program of vaccination.

Appendix 4: Timeline for Indigenous immunisation services, Queensland

1987	HepB vaccination for Indigenous children
1994	Introduction of VIVAS in Queensland
1995	Japanese Encephalitis vaccination commenced in the Torres Strait
1996	Introduction of ACIR
1997	(January) Increase in Maternity Allowance consequent on completed immunisation at one year of age
1998	(July) introduction of provider incentives for GP immunisation (May) National Immunisation Guidelines, 7 th Edition introduces universal Hepatitis B vaccination
1999	HepA vaccination for North Queensland Indigenous children
2000	National due and overdue rules for Childhood Immunisation introduced by HIC
2001	(September) Queensland Indigenous Infant pneumococcal vaccination program
2003	(January) Introduction of National Meningococcal C vaccination Program (September) National Immunisation Guidelines, 8 th edition, eliminated the 18 month dose of DTP vaccine added smoking as an indication for pneumococcal and influenza vaccination of young Indigenous adults “at risk”
2004	(June) announcement of government funding for universal infant pneumococcal vaccination program from January 2005

Appendix 5: Current Queensland schedule for Indigenous People

Table 21: Indigenous Child Immunisation Schedule

Age	Disease	Vaccine
Birth	Hepatitis B Tuberculosis****	hep B BCG
2 months	Hepatitis B Diphtheria, tetanus, pertussis and hepatitis B Hib Poliomyelitis Pneumococcus*	hep B DTPa – hep B Hib (PRP-OMP) IPV 7vPCV
4 months	Hepatitis B Diphtheria, tetanus, pertussis and hepatitis B Hib Poliomyelitis Pneumococcus*	hep B DTPa – hep B Hib (PRP-OMP) IPV 7vPCV
6 months	Diphtheria, tetanus, pertussis and hepatitis B Poliomyelitis Pneumococcus*	DTPa – hep B IPV 7vPCV
12 months	Hepatitis B Hib Measles, mumps and rubella Meningococcus C** Japanese Encephalitis (only in Torres Str. Outer Islands)	hep B Hib (PRP-OMP) MMR Men CV JEV (3 doses, days 0,7 and 28)
18 months	Pneumococcus* Hepatitis A (only in NQ) Chickenpox*****	23vPPV hep A VZV
2 years	Hepatitis A (only in NQ)	hep A
4 years	Diphtheria, tetanus, pertussis Measles, mumps and rubella Poliomyelitis Japanese Encephalitis (only in Torres Str. Outer Islands)	DTPa MMR IPV JEV

2003 Advice for Queensland Aboriginal and Torres Strait Islander Children aged between 2 and 4 years:

***Pneumococcus:**

1. If course started but incomplete, should have follow up immunisation with Prevenar (7vPCV), and a Pneumovax 23 (23vPCV) booster dose.
2. Where no pneumococcal vaccine previously given, children over 27 months of age are not eligible to start unless have certain major medical conditions which cause impaired immunity. This is because healthy children of this age have a much lower risk of serious pneumococcal infection.

****Meningococcus C:**

All children aged between 1 and 5 years (up to their 6th birthday) should have a single dose of this vaccine. Infants under one year of age are not immunised as meningococcal C infection is rare in this age group in Australia.

This year (2003) secondary school students are being immunised at school, and next year (2004) primary school and year 8 students will be immunised at school.

*****Tuberculosis:**

This vaccine is usually given at the birth hospital or in the first few weeks of life by “Chest Clinic” trained immunisers. Children who have missed out can be immunised. Contact your local doctor, immuniser or Public Health Unit for advice about your local service.

******Chickenpox**

This vaccine has been nationally recommended for all children in guidelines for 2003, however the vaccine is not able to be provided free of charge.

Table 22: Indigenous adult immunisation schedule

Age	Disease	Vaccine
10 to 13 years (only where previously unvaccinated and have not had the infection)	Hepatitis B Chickenpox****	Hep B VZV
15 to 17 years	Diphtheria, tetanus, pertussis	DTpa (adolescent/adult formulation)
15 years and above with chronic illness+	Pneumococcal Influenza	23vPPV++ Inf (each year)
50 years	Diphtheria, tetanus Influenza Pneumococcal	dT Inf (each year) 23vPPV (where not given earlier)

******Chickenpox**

This vaccine has been nationally recommended for all children in guidelines for 2003, however the vaccine is not able to be provided free of charge.

+ Young adults eligible for vaccination with influenza and pneumococcal vaccines: tobacco smokers; diabetics; alcoholics; people with chronic heart disease or lung disease, people with kidney disease; people with metabolic disorders; people with impaired immunity from various causes.

++ Pneumovax

First booster after 5 years, second booster 10 years after first or at 50 years, whichever is later.

Appendix 6: Research tools

Project information sheet

Information sheet – interviews / focus groups

Consent form – interviews / focus groups

Consent form – identifiable data

Service provider information sheet

Service provider consent form

General Practitioners information sheet

General Practitioner consent form

Child survey information sheet

Child survey consent form



Needs Analysis of Indigenous Immunisation in Queensland

Project Team: Professor Ian Riley, Associate Professor Cindy Shannon, Professor Gail Williams, Ms Ruth Fagan, Dr Susan Vlack and Ms Rosemary Foster

Queensland Health's Immunisation Unit has been advised by a steering committee on indigenous issues for approximately two years. A task that has arisen from the activity of this committee has been the development of the above project. The need became apparent to gather evidence in relation to factors influencing sub optimal vaccination coverage in Aboriginal and Torres Strait Islander children and adults, to document service responses and health professional training programs, and to recommend priorities and options for future directions for service development. This will inform strategic planning to achieve the aim of improving Indigenous peoples' access to and uptake of vaccination. The importance of the use of indigenous identifiers in practice and in data recording was highlighted.

The Steering Committee comprises representatives of the following organisations:

- State Office Aboriginal and Torres Strait Islander Commission (ATSIC)
- Office of Aboriginal and Torres Strait Islander Health (OATSIH)
- Queensland Aboriginal and Islander Health Forum (QAIHF)
- Queensland Division of General Practice (QDGP)
- Queensland Health Aboriginal and Torres Strait Islander Health Unit (QHATISHU)
- Queensland Health Communicable Diseases Unit (QHCDU)

UQ's Indigenous Health Division has outlined an approach that was acceptable to the committee, and will be carrying out the project over the next 10 months. A review of available literature has pointed to a number of practical and social barriers to service delivery. There are some special issues in relation to specific (extra) vaccines and high risk groups of people. The important contributions of the range of services including community controlled health services, general practices and district and local public health services, their strengths and relationships one to another need to be understood and adequately supported.

Our approach focuses on gathering information to facilitate

- High quality district and regional programs which meet client and service provider needs and result in high immunisation coverage: culturally secure, empowering, responsive, comprehensive and maintaining a focus on hard-to-reach groups;
- High quality care at the point of service delivery: to delineate appropriate features of client provider interaction and follow up care.

In achieving this we will be documenting models of service delivery utilised by a range of groups. The aim will be to highlight the success factors operating in general practice,

community controlled health services and Queensland Health provided services, so that methods may be shared and the infrastructure can support further success.

We will be interviewing key informants from a range of services. The project also includes a coverage survey of 2 to 3 year old children, and qualitative data about issues from the point of view of Indigenous community groups in a range of settings, and from General Practitioners.

In interviewing you as a key informant, a draft written record of interview will be returned to you for review and approval. You will be free to change or withdraw any of the included information at any time prior to completion of the project (expected end June 2003). If you wish to be identified in the text you will be, if not the material will be used in summary form to retain your anonymity. The raw data will be accessible only to the project team members, and it will be securely stored.

You may withdraw from the study at any time, and you may remove from the record any part of the information offered. The final report is intended for use by local agencies involved in immunisation, and to be accessible to individual practitioners.

This study has been cleared by one of the human ethics committees of the University of Queensland in accordance with the National Health and Medical Research Council's guidelines. You are of course free to discuss your participation in this study with project staff (contactable on ph 3365 5434). If you would like to speak to an officer of the University not involved in the study, you may contact the Ethics Officer on 3365 3924.

Contact the project manager:

**Dr Susan Vlack
Senior Lecturer, Indigenous Health Program
Level 3, Edith Cavell Building
Royal Brisbane Hospital
HERSTON QLD 4029**

**Email: s.vlack@sph.uq.edu.au
Tel: (07) 3365 5434
Fax: (07) 3365 5550**



**THE UNIVERSITY
OF QUEENSLAND**

Indigenous Health Division

Date:

Immunisation: Needs of Indigenous People

Aboriginal and Torres Strait Islander children and adults have problems with infections that are preventable by immunisation. Studies suggest that immunisation rates are lower amongst Aboriginal and Torres Strait Islander people than for those in the general community. If more people were fully immunised, fewer would suffer problems from these infections. A group representing Indigenous organisations and health services offering immunisation has been working towards improving this situation, particularly in regard to the services provided.

The Indigenous Health Division at University of Queensland is collecting information to assist this group, and health service professionals. We think there are many issues involved, and that Aboriginal and Torres Strait Islander people will have the most to say about this. We are looking for the good features of services, the barriers to service experienced by Aboriginal and Torres Strait Islander people, and other issues communities tell us are important. If successful methods can be shared by all services, and public health services support the needs of people and of health professionals in their role as immunisers, change will be possible. We will be gathering information from Aboriginal and Torres Strait Islander community groups and individuals, from Community Controlled Health Services, public health services and General Practitioners.

[For group discussions:

Today's discussion with the group will be recorded for this report. We will produce a record of the main issues covered, and bring this back to group members to check that the information is correct and the details are written down in a way that is acceptable to the participants. You will not be personally identified in the recording of information, and the report will not specifically identify your community group unless your group decides this should be done. Until then the information will be given only to the project team, who will treat it as confidential, and will keep the information securely. By mid 2003, an overall project report will be available, and you may be interested to have your community group receive the report.]

[For individuals interviewed:

My interview with you today will be recorded for the report, and kept confidentially, accessible only to the project team members. I or another team member will go over the written record with you later to check that the information is correct and the details are written down in a way that is acceptable to you. You will not be personally identified in any published reports.

If you wish, we will notify you of the completion of the final report so that you can receive the information.]

You may withdraw from the study at any time, and you may remove from the record any part of the information offered.

This study has been cleared by one of the human ethics committees of the University of Queensland in accordance with the National Health and Medical Research Council's guidelines. You are of course, free to discuss your participation in this study with project staff (contactable on ph 3365 5434). If you would like to speak to an officer of the University not involved in the study, you may contact the Ethics Officer on 3365 3924.

Yours faithfully,

Dr Susan Vlack

For the project team:

Professor Ian Riley, Associate Professor Cindy Shannon, Professor Gail Williams, Ms Ruth Fagan, Dr Susan Vlack and Ms Rosemary Foster

Office use	
CODE NO:	DATE RETURNED:

CONSENT FORM

Needs Analysis of Indigenous Immunisation in Queensland

I,,
(name)

of
(address)

consent to participation in a discussion which will be recorded for the above project.

I have read the information sheet about the study and am aware of the nature of the study. I understand that the information given is confidential and will be available only to the project team and for use in reporting in non-identifiable form. Identifiable information may be released only where I give specific approval, having reviewed the written text of the interview. I also know that I am free to withdraw myself from the study, and free to withdraw any of the information given.

Signed.....

Date.....

Contact Telephone Number.....

Witness.....

Date.....

For more information, contact Dr Susan Vlack or Ms Rosemary Foster on ph. 3365 5434 (Indigenous Health Division, University of Queensland)

CODE NO:	DATE RETURNED:
----------	----------------

CONSENT FOR RELEASE OF IDENTIFIABLE INFORMATION

Needs Analysis of Indigenous Immunisation in Queensland

I,,
(name)

of
.....
... (address)

consent to inclusion of the text of my interview of for the above project,
(date)

which I have reviewed and which may identify me personally, in the report of the project.

I have read the information sheet about the study and am aware of the nature of the study.

I also know that I am free to withdraw myself from the study, and free to withdraw any of the information given.

Signed.....

Date.....

Contact Telephone Number.....

Witness.....

Date.....

For more information, contact Dr Susan Vlack or Ms Rosemary Foster on ph. 3365 5434 (Indigenous Health Division, University of Queensland).



Needs Analysis of Indigenous Immunisation in Queensland

Project Team: Professor Ian Riley, Associate Professor Cindy Shannon, Professor Gail Williams, Ms Ruth Fagan, Dr Susan Vlack and Ms Rosemary Foster

An introduction to the project commencing December 02

Queensland Health's Immunisation Unit has been advised by a steering committee on indigenous issues for approximately two years. A task that has arisen from the activity of this committee has been the development of the above project. The need became apparent to gather evidence in relation to factors influencing sub optimal vaccination coverage in Aboriginal and Torres Strait Islander children and adults, to document service responses and health professional training programs, and to recommend priorities and options for future directions for service development. This will inform strategic planning to achieve the aim of improving Indigenous peoples' access to and uptake of vaccination. The importance of the use of indigenous identifiers in practice and in data recording was highlighted.

The Steering Committee comprises representatives of the following organisations:
 State Office Aboriginal and Torres Strait Islander Commission (ATSIC)
 Office of Aboriginal and Torres Strait Islander Health (OATSIH)
 Queensland Aboriginal and Islander Health Forum (QAIHF)
 Queensland Division of General Practice (QDGP)
 Queensland Health Aboriginal and Torres Strait Islander Health Unit (QHATISHU)
 Queensland Health Communicable Diseases Unit (QHCDU)

UQ's Indigenous Health Division has outlined an approach that was acceptable to the committee, and will be carrying out the project over the next 10 months. A review of available literature has pointed to a number of practical and social barriers to service delivery. There are some special issues in relation to specific (extra) vaccines and high risk groups of people. The key role of District and local public health and community health services is clear, as these services have established the role of nurse immunisers, and have fostered involvement of Indigenous staff in service delivery. They maintain a focus on covering all segments of the community, and work collaboratively with primary care providers.

Our approach focuses on gathering information to facilitate

High quality district and regional programs which meet client and service provider needs and result in high immunisation coverage: culturally secure, empowering, responsive, comprehensive and maintaining a focus on hard-to-reach groups; High quality care at the point of service delivery: to delineate appropriate features of client provider interaction and follow up care.

In achieving this we will be documenting models of service delivery utilised by a range of groups. The aim will be to highlight the success factors operating in general practice, community controlled health services and Queensland Health provided services, so that methods may be shared and the infrastructure can support further success.

Our group will be gathering qualitative data from Indigenous community groups in a range of settings, from Community Controlled Health Services and from General Practitioners. We will also interview key informants in various sectors.

In relation to Queensland Health staff, we will be relying on district and community officers to provide information on services and issues, and to assist us in using local networks to locate the parents/ carers of 2 to 3 year old children in the sample areas. Service mapping data will be collected mainly by interview using a standardised, one page guide. This will be sent out then followed up by phone in most cases. The coverage survey relies on locating parents in selected (randomly sampled) geographical areas, obtaining individual consent to participate, then accessing all immunisation records pertaining to the child. A summary record and advice on catch up, where appropriate, will be provided to the parent/ carer. A collaboration with zonal and other immunisation provider networks will allow us to feed back draft findings for validation and interpretation in developing a final report which integrates the various parts of the whole.

Advice and support offered by Zonal and District Indigenous Health Coordinators of Queensland Health in focusing our early efforts has been much appreciated, and we look forward to learning from and sharing with the Queensland Health staff who agree to contribute to this project.

Contact:

Dr Susan Vlack
Senior Lecturer, Indigenous Health Program
Level 3, Edith Cavell Building
Royal Brisbane Hospital
HERSTON QLD 4029

Email: s.vlack@sph.uq.edu.au
Tel: (07) 3365 5434
Fax: (07) 3365 5550

Office use

CODE NO:

DATE RETURNED:

CONSENT FORM

Service Provider Survey of Indigenous Immunisation Issues

I,

.....
....

(name)

of

.....
... (health service address)

consent to participation in the above survey, as detailed in the attached information sheet.

I understand that the information given is confidential and will be available only to the project team. I understand that my service or I will not be identifiable in any reports of the project, and that I will also not be identifiable on stored data sheets. I also know that I am free to withdraw from the survey at any time, and to withdraw any of the information given.

Signed.....

Date.....

Contact Telephone Number

.....

Witness.....

Date.....

For more information, contact Dr Susan Vlack or Ms Rosemary Foster on ph. 3365 5434



Dear Doctor,

General Practitioner Survey of Indigenous Immunisation Issues

Preventable infections and their complications are still a problem for Aboriginal and Torres Strait Islander people, and both immunisation data bases and research studies suggest immunisation rates are lower than those in the general community. General Practitioners will play a vital role in turning this situation around. Studies suggest that in Queensland more than half the current immunisations received by Aboriginal and Torres Strait Islander people are given by GPs. To assist the statewide Indigenous Immunisation Steering Committee based at Queensland Health, the Indigenous Health Unit at University of Queensland is undertaking a series of data gathering activities, which will be combined in a report for the major players in mid 2003. Queensland Divisions of General Practice are represented on the steering committee, and local Divisions of General Practice have also given support. One of our aims is to highlight the success factors operating in general practice, community controlled health services and Queensland Health provided services, so that methods may be shared and the infrastructure can support further success. We need to understand your practice and your views on providing an effective and sustainable service in this regard.

This survey aims to collect information from 100 GPs. I ask that you participate by signing the consent form and answering the following questions with regard to your practice. The information you provide will be treated confidentially. The raw data will be accessible only to the project team members, and it will be securely stored in de-identified (coded) form . You and your practice will not be individually identifiable in any reports of the project.

You may withdraw from the study at any time, and you may remove from the record any part of the information offered. Provisional results of the survey will be presented to local Divisions of General Practice for feedback and validation prior to release, The final report is intended for use by Divisions, and to be accessible to individual practitioners.

This study has been cleared by one of the human ethics committees of the University of Queensland in accordance with the National Health and Medical Research Council's guidelines. You are of course, free to discuss your participation in this study with project staff (contactable on ph 3365 5434). If you would like to speak to an officer of the University not involved in the study, you may contact the Ethics Officer on 3365 3924.

Yours faithfully,

Dr Susan Vlack

For the project team:

Professor Ian Riley, Associate Professor Cindy Shannon, Professor Gail Williams, Ms Ruth Fagan, Dr Susan Vlack and Ms Rosemary Foster.

Office use

CODE NO:

DATE RETURNED:

CONSENT FORM

General Practitioner Survey of Indigenous Immunisation Issues

I,

.....

....

(name)

of

.....

...

(practice address)

consent to participation in the above survey, as detailed in the attached information sheet.

I understand that the information given is confidential and will be available only to the project team. I understand that I or my practice will not be identifiable in any reports of the project, and that I will also not be identifiable on stored data sheets. I also know that I am free to withdraw from the survey , and to withdraw any of the information given.

Signed.....

Date.....

Witness.....

Date.....

For more information, contact Dr Susan Vlack or Ms Rosemary Foster on ph. 3365 5434



**THE UNIVERSITY
OF QUEENSLAND**

Indigenous Health Division

Date:

Dear Parent / Carer,

Immunisation Survey of 2 year old Aboriginal and Torres Strait Islander Children in Queensland, 2002

I am approaching you to ask you to take part in a survey of immunisation coverage. Your local area is a sample site for the survey, which will include more than 200 Indigenous children across Queensland. The survey is being carried out on behalf of a working group of health personnel and representatives of Indigenous community groups based at Queensland Health, who aim to use this information and related surveys to improve immunisation services for all Indigenous people.

If your child is aged between 2 and 3 years and is Aboriginal, Torres Strait Islander or Aboriginal and Torres Strait Islander, we would like to include your information. We intend to document the immunisations given to your child, reasons why immunisations were delayed or missed, your views on immunisation services, and a small amount of information about you.

We will check your child's immunisation record against information sent by service providers as the central record of immunisations. If your record is missing some information, we will provide you with the missing information in a summary of all immunisations given. We will advise you about any immunisations recommended for your child that have not been given, and where you might get them.

The information we collect is confidential. Names and other identifiers will be removed altogether once your survey input is complete. Up until that time, information will only be available to the project team, and it will be stored in locked cabinets and on electronically protected data files not accessible to others. Reports of the project will give an estimate of the completeness of immunisation cover for Indigenous children in Queensland as a whole, and parent/carer views as a whole group. These reports will in no way identify people or local areas.

You are free to withdraw from the study at any time, or to withdraw any of the information you have given. Community groups in your area will be provided with feedback about the report. If you wish we will notify you of local meeting dates, or that a report has been issued so that you may receive a copy.

This study has been cleared by one of the human ethics committees of the University of Queensland in accordance with the National Health and Medical

Research Council's guidelines. You are of course, free to discuss your participation in this study with project staff (Dr Sue Vlack or Ms Rosemary Foster contactable on ph 3365 5434). If you would like to speak to an officer of the University not involved in the study, you may contact the Ethics Officer on 3365 3924.

Yours faithfully,

**Dr Susan Vlack
On behalf of the project team,
(Professor Ian Riley, Associate Professor Cindy Shannon, Professor Gail Williams, Ms Ruth Fagan, Dr Susan Vlack and Ms Rosemary Foster)**

Contact:

**Dr Susan Vlack
Senior Lecturer, Indigenous Health Program
Level 3, Edith Cavell Building
s.vlack@sph.uq.edu.au
Royal Brisbane Hospital
HERSTON QLD 4029**

Email:

**Tel: (07) 3365 5434
Fax: (07) 3365 5550**

CONSENT FORM

Immunisation Survey of 2 year old Aboriginal and Torres Strait Islander Children in Queensland, 2002

I,,
(name)

of

.....
(address)

consent to information I give about

.....
born.....

(child's name)

(date of birth of child)

and information about me that I give being included in this survey.

I am the of the child above.
(relationship to child)

I consent to the accessing of the child's immunisation records (only) held by my doctor or other health care workers, and I consent to the accessing of the child's Queensland Health immunisation records.

The survey has been explained to me. I understand that the information given is confidential and will be available only to the project team. I understand that I or my child will not be identifiable in any reports of the project, and that our names will be removed from the data when the survey is complete. I also know that I am free to withdraw from the survey myself, my child or any of the information given.

Signed.....
Date.....

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

For more information, contact Dr Susan Vlack or Ms Rosemary Foster on ph. 3365 5434