The Roadmap to Close the Gap for Vision

Full Report

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Indigenous Eye Health Unit
Melbourne School of Population Health

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Taylor HR, Keeffe JE, Arnold AL, Dunn RA, Fox SS, Goujon N, Xie J, Still R, Burnett A, Marolia M, Shemesh T, Carrigan J and Stanford E. National Indigenous Eye Health Survey, Minum Barreng (Tracking Eyes). Melbourne: Indigenous Eye Health Unit, Melbourne School of Population Health, The University of Melbourne in collaboration with the Centre for Eye Research Australia and the Vision CRC. (ISBN 978-0-7340-4109-8); 2009.

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Full Report

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Abbreviations

ACCHO	Aboriginal Community Controlled Health Organisation
ACCHS	Aboriginal Community Controlled Health Service
ACO	Australian College of Optometry
AIHW	Australian Institute of Health and Welfare
AHMAC	Australian Health Ministers' Advisory Council
AHMC	Australian Health Ministers' Conference
AHS	Aboriginal Health Service
AHW	Aboriginal Health Worker
AMS	Aboriginal Medical Service
ASO	Australian Society of Ophthalmologists
ATSI	Aboriginal and Torres Strait Islander
CDNA	Communicable Diseases Network Australia
CEO	Chief Executive Officer
COAG	Council of Australian Governments
DoHA	Department of Health and Ageing, Commonwealth Government
EFT	Equivalent full-time
FHF	Fred Hollows Foundation
GET 2020	Global Elimination of Trachoma by the year 2020
GP	General practitioner
IAPB	International Agency for the Prevention of Blindness
ICEE	International Centre for Eyecare Education
IEHU	Indigenous Eye Health Unit
IRIS	Indigenous and Remote Eye Health Service
LHN	Local Hospital Network
MBS	Medicare Benefits Schedule
ML	Medicare Local
MSOAP	Medical Specialist Outreach Assistance Program
NACCHO	National Aboriginal Community Controlled Health Organisation
NGO	Non-government organisation
NHMRC	National Health and Medical Research Council
NHR	National Health Reform
NIEHS	National Indigenous Eye Health Survey
NTSRU	National Trachoma Surveillance and Reporting Unit
OAA	Optometrists Association Australia
PATS	Patient Assistance Transport Scheme
PCEHR	Personally Controlled eHealth Record
QALY	Quality Adjusted Life Year
RANZCO	Royal Australian and New Zealand College of Ophthalmologists
REHC	Regional Eye Health Co-ordinator
RN	Registered nurse
SAFE	Surgery for trichiasis, Antibiotic, Facial cleanliness, Environmental improvements (WHO trachoma strategy)
USOAP	Urban Specialist Outreach Assistance Program
VACCHO	Victorian Aboriginal Community Controlled Health Organisation
VOS	Visiting Optometrists Scheme
WHO	World Health Organization

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Executive Summary

'The Roadmap to Close the Gap for Vision' project has been conducted by the Indigenous Eye Health Unit at The University of Melbourne. The aim is to 'Close the Gap for Vision' by eliminating the known differences in the standard of eye health in Indigenous Australians compared to mainstream Australians.

This detailed report, *The Roadmap to Close the Gap for Vision - Full Report,* describes the research project with an explanation of the findings and consultation process that led to the recommendations. A shorter document, *The Roadmap to Close the Gap for Vision,* summarises our research findings and policy recommendations.

The overall aim of this review of health service provision was to develop a model of eye care for Indigenous Australians for presentation to the Australian Government. The project objectives included the identification of the specific limitations and restrictions of the current funding mechanisms that support visiting eye care services to remote areas; the identification of barriers to access for Aboriginal and Torres Strait Islander people to existing eye care services in urban and rural areas and ways to overcome them; the identification of key components in enhancing the pathway of care for the provision of eye services through Aboriginal Health Services; and the identification of the economic implications of the proposed policy changes. The project goal was to develop feasible, costed and supported policy recommendations through extensive consultation with stakeholders and all interested parties.

The study employed a range of methods to gather information, including semi-structured interviews, community member focus groups, and stakeholder workshops and consultations. All states and territories of Australia were included in consultations during the project.

The project team gathered and devised ideas about how to minimise funding mechanism limitations, how to overcome barriers to access and utilisation, and how to enhance the pathway of care. Draft policy recommendations were discussed in stakeholder meetings and circulated extensively to all interested parties. The recommendations present a synthesis of contributions from Indigenous community members, the Aboriginal community-controlled sector, eye health professions and industry, the health sector, non-government organisations, research groups and Commonwealth and jurisdictional governments.

Forty-two recommendations across nine domains of activity are presented as a comprehensive package of policy reforms with the goal to 'Close the Gap for Vision'. The nine domains present a broad outline of the recommendations:

1. **Primary Eye Care as Part of Comprehensive Primary Health Care:** To improve identification and referral for eye care needs from primary health care
2. **Indigenous Access to Eye Health Services:** To enhance access to Aboriginal and mainstream eye services
3. **Co-ordination:** To improve co-ordination of eye care services and the successful navigation of referral pathways
4. **Eye Health Workforce:** To increase availability and improve distribution of eye health workforce
5. **Elimination of Trachoma:** To eliminate blinding trachoma from Australia
6. **Monitoring and Evaluation:** To capture and report information about progress and improvement of services and outcomes in Indigenous eye health
7. **Governance:** To ensure that there is oversight for the national delivery of 'Close the Gap for Vision'
8. **Health Promotion and Awareness:** To improve awareness and knowledge of eye health in communities to support self-empowerment
9. **Health Financing:** To ensure adequate funding is allocated to 'Close the Gap for Vision'.

The recommendations are interlocked requirements that need to be adopted as a whole.

The cost of these reforms has been estimated to require an additional $19.50 million per year when fully operational. A staggered implementation of the program is suggested and the three-year estimation is $29.26 million. The five-year estimation is $68.25 million and includes full operation from year four.

Section 1: Introduction

1.1 The Indigenous Eye Health Unit

The Indigenous Eye Health Unit (IEHU) in the Melbourne School of Population Health at The University of Melbourne was established in 2008 under the leadership of Professor Hugh R Taylor AC, Melbourne Laureate Professor and the Harold Mitchell Chair of Indigenous Eye Health.

The IEHU is undertaking pre-eminent research and policy development in Indigenous eye health to provide an evidence base to assess the needs in Indigenous eye health and to develop and prioritise specific strategies.

The goal of the IEHU is to 'Close the Gap for Vision' by working to eliminate the known differences in the standard of eye health in Indigenous Australians compared to mainstream Australia.

The IEHU supports trachoma elimination programs in Australia through the development of culturally appropriate resources and social marketing[1-3]. Australia is the only developed country in the world to still have trachoma. This blinding, infectious disease disappeared from mainstream Australia a hundred years ago, but in many outback areas Aboriginal communities have had rates of trachoma as high as anywhere else in the world.

The IEHU has been pursuing a three-step process to develop the evidence to inform policy regarding Indigenous eye health:

1 National survey of Indigenous eye health to define the size of the problem (completed as the National Indigenous Eye Health Survey (NIEHS) 2007–2009[4], conducted in collaboration with the Centre for Eye Research Australia and the Vision Cooperative Research Centre)

2 Health services research to establish currently available eye services (completed as *Outreach Eye Services in Australia,* 2009[5]; *Diabetic Retinopathy: Accuracy of Screening Methods for Diabetic Retinopathy,* 2010[6]*; Access to Eye Health Services Among Indigenous Australians,* 2010[7]*; Projected Needs for Eye Care Services for Indigenous Australians,* 2011[8])

3 Define the barriers to eye care and best practice and then develop costed, evidence-based policy (this current report; *The Roadmap to Close the Gap for Vision* summary report, 2011[9]; *The Cost to Close the Gap for Vision*, 2011[10]).

Advocacy, communication, and technical and specialist support are ongoing activities for the IEHU (*A Critical History of Indigenous Eye Health Policy-Making*, 2011[11]).

1.2 Project summary

The original summary of the project is available in The University of Melbourne, Human Research Ethics Committee application submitted in August 2010 (see Section 3.2 and Supplement A). It states that:

'Although Aboriginal and Torres Strait Islander children start life with much better vision than the average Australian, Indigenous people over the age of 40 have six times more blindness than other Australians. Almost all this vision loss is unnecessary and could be stopped if adequate eye care services were available and used. We are going to find out what needs to be fixed in the Government support programs for visiting eye specialists by talking to people who work in that area. We will talk to Indigenous people and find out why they have trouble using eye services that already exist. And we will find out what needs to happen so Indigenous people with eye problems get proper care and referrals for further treatment. With this information we will develop a model of care, work out what it would cost and present it to Government to change the way eye care is provided to Indigenous people to close the gap for vision.'

The project title in this ethics application was 'Barriers to the provision and utilisation of eye health services for Indigenous Australians'.

The title of the project has evolved in the course of the work to better reflect the project outcomes as costed recommendations. The project is now titled 'The Roadmap to Close the Gap for Vision'.

In this report we use the terms 'Indigenous' and 'Indigenous Australians' to refer to all Aboriginal and Torres Strait Islander peoples.

1.3 Project background and rationale

The overall aim of our work is to 'Close the Gap for Vision' by developing evidence-based recommendations for policy change.

The NIEHS showed that although Indigenous children have better vision than mainstream children, Indigenous Australians aged 40 and above have six times the rate of blindness compared to mainstream Australians[4, 12]. Ninety-four per cent of the vision loss is preventable or treatable, but a third of adults have never had an eye exam[4, 12]. There is a very high unmet need for eye care services among Indigenous Australians, and a significant shortfall in the provision of eye care services in outback Australia[7]. In areas where eye care services are available, they are under utilised. Well co-ordinated and organised services provide a measurably better service and save money[5]. Our experience shows that urban ophthalmologists and optometrists are prepared to provide these outreach services if the services are well organised.

In addition, Indigenous people in urban and rural areas have similar rates of vision loss to those in more remote areas, even though eye care services are readily available in the more populated areas[4]. An understanding of the real and perceived barriers to accessing these services and solutions to them is important to improve utilisation.

To improve the regional co-ordination of eye care, Regional Eye Health Co-ordinator (REHC) positions have been based in Aboriginal Health Services (AHSs) since the late 1990s[13, 14]. However, less than half the original 34 regions currently have a REHC and many of these staff work only part-time and have insufficient time allocated to eye care. Many deficiencies and inconsistencies in the role and function of REHC have been recently documented[15, 16]. The responsibilities of the REHC have expanded enormously. This makes it impossible for one person to cover all these expectations, and has left many gaps in the pathway of care[17, 18]. We have mapped the key steps in the patient journey and defined the functions required in the pathway of eye care.

Information from these three areas has been combined to develop recommendations for broad consultation with stakeholders, including the Aboriginal community-controlled health sector, the eye health sector, government departments, non-government organisations (NGOs), academia and other interested parties.

A health economic assessment has been undertaken for the proposed new model of care. Recommendations for policy change have been made to support the delivery of appropriate and acceptable eye care to all Indigenous Australians.

Specific hypotheses that were tested in the project were:

1 Gaps and shortcomings could be identified in the current funding mechanisms for outreach eye services

2 Barriers to the utilisation of existing eye services could be identified and solutions designed

3 The critical steps and functions in the pathway of care for eye services could be identified

4 This information could be developed into a model of care

5 Additional costs and savings could be identified and quantified.

1.4 Project objectives

The overall aim of this review of health service provision was to develop a model of eye care for Indigenous Australians for presentation to the Australian Governments.
The project objectives are:

1 Identify the specific limitations and restrictions of the current funding mechanisms that support visiting eye care services to remote areas – Medical Specialist Outreach Assistance Program (MSOAP) and Visiting Optometrists Scheme (VOS)

2 Identify barriers to access for Aboriginal and Torres Strait Islander people to existing eye care services in urban and rural areas and ways to overcome them

3 Identify key components in enhancing the pathway of care for the provision of eye services through Aboriginal Health Services

4 Identify the economic implications of the proposed policy changes

5 Develop feasible and supported policy recommendations through extensive consultation with stakeholders and all interested parties.

Section 2: Background

2.1 Health system and policy context

2.1.1 Australian health system

The Australian Government sets national health policies and subsidises health services provided by state and territory governments and the private sector. The Australian Government funds universal medical services (through Medicare) and pharmaceuticals (through the Pharmaceutical Benefits Scheme) and gives financial assistance to public hospitals and for aged care. It is also the major source of funds for health research and provides support for training of health professionals.

The state and territory governments provide a variety of direct health services, including most hospital services. State and territory governments also provide community and public health services, including school health, dental health and disease control activities.

All eligible Australian residents can access through Medicare free or subsidised medical, optometric and public hospital care or they can choose to use private health services.

The public hospital system is jointly funded by the Australian Government and state and territory governments and is administered by state and territory health departments. Public hospitals provide about two thirds of all hospital beds. People admitted to public hospitals as public patients receive treatment by salaried or sessional doctors and specialists nominated by the hospital. They are not charged for care and treatment or after care by the doctor.

Private patients in public or private hospitals can choose which doctor treats them and Medicare will pay 75% of the schedule fee for these services. Private patients are charged for hospital accommodation and other items. Some of the additional costs may be covered by private health insurance. About half of all Australians have private health insurance, and the Australian Government provides a reduction in the contribution to Medicare for those who are privately insured.

Private medical practitioners provide most of the out-of hospital medical services and, along with salaried doctors, perform a large proportion of hospital services.

AHSs, comprising Aboriginal Medical Services (AMSs) and including Aboriginal Community Controlled Health Organisations (ACCHOs), principally provide health care to Aboriginal and Torres Strait Islander people. Commonwealth and state and territory governments fund AHSs through a complex web of mainly short-term and fragmented contracts[19].

2.1.2 Australian health policy

Recognising the demands on Australia's health system – by an ageing population, increased rates of chronic and preventable disease, new treatments that become available and rising health care costs – the provision of health care is being totally restructured at the present time. The Australian Government, in partnership with states and territories, has established the National Health Reform Agreement (and the related National Partnership Agreement on Improving Public Hospital Services and the National Healthcare Agreement 2011)[20-22].

The reforms of the National Health Reform (NHR)[23] include:

- a new framework for funding public hospitals
- a focus on reducing emergency department and elective surgery waiting times
- increased transparency and accountability across the health and aged care system
- a stronger primary care system supported by joint planning with states and territories and the establishment of Medicare Locals (MLs)

- the Australian Government taking full policy and funding responsibility for aged care services, including the transfer to the Australian Government of current resourcing for aged care services from the Home and Community Care program, in most states and territories except Victoria and Western Australia.

There are eight streams of health reform: hospitals, primary care, aged care, mental health, standards and performance, workforce, prevention and eHealth[24].

A number of shifts are occurring in Australia in the delivery of health services. These include an increasing emphasis on health care provision in the primary care sector, a reduced stay in acute care facilities, an increasing emphasis on managed care for chronic conditions, an increasing focus on prevention and health promotion, and the adoption of new health technologies and information systems.

As the recommendations for Indigenous eye health have been developed, close attention has been paid to the new and revised health care systems and policies that are being developed and instituted. The many changes bring uncertainty and challenges but also bring great opportunity for the proper incorporation and integration of eye care services.

2.1.3 Australian eye health policy

The VOS became available in 1975 with the aim to improve the access of people living and working in rural and remote communities, including Indigenous Australians, to optometry services[11]. It operates under the Commonwealth Health Insurance Act 1973, Section 129A[25]. VOS addresses some of the financial disincentives incurred by participating optometrists providing outreach services. There has been a recent specific increase in VOS funding for Indigenous services (see Section 4.5).

The MSOAP had its origins as the Commonwealth funded multidisciplinary Specialist Outreach Service (SOS) to remote Indigenous communities in the Northern Territory that commenced in 1997[11]. The Commonwealth has expanded MSOAP eye care activities from 2009 (see Section 4.5).

In 2005 the Australian Health Ministers' Conference (AHMC) endorsed the National Framework for Action to Promote Eye Health and Prevent Avoidable Blindness and Vision Loss (the National Framework)[26]. The National Framework was developed as a blueprint for nationally co-ordinated action on eye health and vision care.

Aboriginal and Torres Strait Islander communities are not specifically identified in the National Framework, but the following action areas are relevant for the co-ordination of Aboriginal and Torres Strait Islander eye health and vision care:

- Key Action Area Three - *Improving access to eye health and vision care services* which seeks to ensure that all Australians have equitable access to eye health and vision care services when required
- Key Action Area Four - *Improving the systems and quality of care*, which seeks to ensure that eye health and vision care is safe, affordable, well co-ordinated, consumer focused and consistent with internationally recognised good practice.

A progress report for the National Framework was presented to the AHMC for the period 2005-2008 and a review of the National Framework is being conducted in 2011 (see Section 4.7.6).

The National Framework supports the development of a co-ordinated approach to eye care where health and other system-wide national plans and strategies are already in existence or are in preparation. These include public health strategies to address the common risk factors for chronic disease, as well as workforce initiatives and strategies aimed at system-wide change in the delivery of health services. Many of these national strategies and initiatives are of particular relevance to eye health and the implementation of measures under these initiatives will have an impact on the prevention and treatment of eye conditions, just as strategies outlined in the National Framework will potentially impact on other health initiatives.

2.1.4 Indigenous health policy

Australia has one of the most inclusive and affordable health systems in the world. However, the health status of Australia's Indigenous population remains worse than that of any other sector of Australian society[27].

The National Aboriginal Health Strategy of 1989[28] was built on extensive community consultation to produce a landmark document that set the agenda for Aboriginal and Torres Strait Islander health. The National Strategic Framework for Aboriginal and Torres Strait Islander Health 2003-2013[29] is a complementary document that builds on the 1989 strategy and addresses approaches to primary health care and population health within changed policy environments and planning structures. The strategy also aims to maximise the responsiveness of mainstream health services to the needs of Indigenous Australians. The overarching goal of the National Strategic Framework is to 'ensure that Aboriginal and Torres Strait Islander people enjoy a healthy life equal to that of the general population and one that is enriched by a strong living culture, dignity and justice'.

The 'Close the Gap' campaign was initiated in 2005 when the Aboriginal and Torres Strait Islander Social Justice Commissioner, Tom Calma, in his *Social Justice Report 2005*[30] called for Australian governments to commit to achieving equality of Aboriginal and Torres Strait Islander health and life expectancy within 25 years. The 'Close the Gap' campaign calls on federal, state and territory governments to commit to closing the life expectancy gap between Aboriginal and Torres Strait Islander and non-Aboriginal Australians within a generation. The campaign is supported by both Aboriginal and Torres Strait Islander and non-Aboriginal organisations. More than 155,000 Australians have already pledged their support to 'Close the Gap'. In 2008 the Council of Australian Governments (COAG) endorsed the National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes[31].

2.1.5 Indigenous eye health policy

The National Trachoma and Eye Health Program, funded by the Commonwealth Government, was implemented in the 1970s through the Royal Australian and New Zealand College of Ophthalmologists (RANZCO) and led by Fred Hollows[32]. The program performed screening and delivered eye care to Indigenous communities across Australia and others living in rural areas, with a focus on trachoma, and made recommendations that included continuation of the program.

A major review of Indigenous eye health in 1997 drew attention to the continuing issues of unattended refractive error, cataract, diabetic retinopathy and trachoma[13]. The review reported that blindness occurred up to 10 times more frequently among Aboriginal and Torres Strait Islander people than in the non-Indigenous population; with most blindness among Indigenous people due to trachoma and cataract.

The National Aboriginal and Torres Strait Islander Eye Health Program was developed in 1998 to pick up a number of the 1997 recommendations. The broad objectives of the program were to increase workforce capacity and the infrastructure available to facilitate improved quality and increased access of eye health care for Aboriginal and Torres Strait Islander people. REHC positions were established within Indigenous primary health care settings across the country and other initiatives included training and funding for REHCs and other workers in Aboriginal Community Controlled Health Services (ACCHSs) and the provision of ophthalmic equipment.

A review of the National Aboriginal and Torres Strait Islander Eye Health Program was undertaken in 2003[14]. Recommendations included the need for integration of the eye program model of delivery into primary health care and increased linkage with mainstream providers. The resulting changes included the introduction of global funding so that the funding for eye care was no longer separated from other primary health care funds provided to ACCHSs, with a view to encouraging a more integrated service delivery framework and more local determination of priorities.

2.1.6 International commitments

The International Agency for the Prevention of Blindness (IAPB) was established in 1975 as a co-ordinating organisation to lead an international effort in mobilising resources for blindness prevention activities[33]. Its members include NGOs, professional bodies and institutions.

In 1978 the World Health Organization (WHO) Programme for the Prevention of Blindness was established, mainly for the prevention and control of cataract, onchocerciasis, trachoma and xerophthalmia[34].

The Vision 2020 – The Right to Sight initiative, launched in early 1999, is a collaborative effort between WHO and IAPB and its members. The aim of Vision 2020 is the elimination of avoidable blindness worldwide by the year 2020 to give all 'the Right to Sight'[35]. Vision 2020 promotes the basic strategy of providing comprehensive eye care as an integral part of the primary health care system, while targeting three major priorities: specific disease control, human resource development, and infrastructure and technology development. Disease control targets cataract, trachoma, onchocerciasis, childhood blindness, refractive error and low vision. Although Vision 2020 is a global initiative, the implementation of the initiative needs to be actioned at the individual country level.

In May 2003 the World Health Assembly passed resolution WHA56.26 on the elimination of avoidable blindness[36]. Australia sponsored the resolution, and Australian NGOs (under the Vision 2020 Australia umbrella) were instrumental in gaining international support for it. The development of the National Framework is Australia's response to the resolution. The resolution led to the World Health Assembly Action Plan for the Prevention of Avoidable Blindness and Visual Impairment which the Australian Government endorsed in 2009[37].

2.2 The guiding principles

The Roadmap to Close the Gap for Vision is underpinned by eight guiding principles.

- **Evidence based:** Data are utilised to support better planning and delivery of services to improve eye health outcomes
- **Engage community:** Service providers work in consultation with communities to facilitate planning, design and delivery of acceptable services that respond to population requirements and individual needs
- **Integrated with primary health care:** Specialist eye health services work together with primary health services to respond to community needs for services
- **Access to mainstream:** Within the health system both ACCHOs and mainstream services work in partnership to ensure that Aboriginal and Torres Strait Islander people are able to access mainstream services for comprehensive eye health care
- **Population based:** Service providers are adequately funded to organise services based on the projected eye health care needs of each community
- **Appropriate and quality services:** Aboriginal and Torres Strait Islander people are able to access locally available and affordable, comprehensive and co-ordinated, high quality eye health care that is provided by culturally competent eye health workforce
- **Accountability:** All services are provided through effective use of eye health funds by ACCHOs and mainstream health services. The collection, analysis and review of eye health data and service information are regularly conducted to ensure ongoing relevance to improving service delivery and eye health outcomes
- **Efficient use of resources:** Reduce unnecessary waste and duplication of services and effort so as to optimise the outcome of each occasion of care.

2.2.1 Background documents

The guiding principles are distilled from the following documents:

- Aboriginal and Torres Strait Islander Health Workforce National Strategic Framework 2002[38]
- National Strategic Framework for Aboriginal and Torres Strait Islander Health 2003-2013[39]
- Cultural Respect Framework for Aboriginal and Torres Strait Islander Health 2004-2009[40]
- National Framework for Action to Promote Eye Health and Prevent Avoidable Blindness and Vision Loss 2005[26]
- Aboriginal and Torres Strait Islander Health Performance Framework 2005[41]

- National Data Principles for management of Aboriginal and Torres Strait Islander Data 2006[42]
- National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes 2009-2013[31]
- National Health Reform Delivering Outcomes for Australians 2011[43]
- National Aboriginal Community Controlled Health Organisation, Our Guiding Principles[44].

2.2.2 Requirements of the desired service system

The project team identified desired characteristics of the eye care service system. These requirements were used to inform the program logic development for the project.

Penchansky and Thomas[45] list the five As of access to care:

- **Availability:** The extent to which the provider of services has requisite resources, such as personnel and technology, to meet the needs of a client
- **Accessibility:** Refers to geographic accessibility, which is determined by how easily the client can physically reach the provider's location
- **Affordability:** Determined by how the provider's charges relate to the client's ability and willingness to pay for services
- **Accommodation:** Reflects the extent to which the provider's operation is organised in ways that meet the constraints and preferences of the client and is flexible to adapt to future requirements
- **Acceptability:** Captures the extent to which the client is comfortable with characteristics of the provider and vice versa, including age, sex, social class, ethnicity of provider and client.

Additional issues identified by the IEHU project team include:

- **Co-ordination and collaboration:** Refers to the steps of the pathway of care being co-ordinated so a patient can move through and around the service system, and where there is collaboration, communication and functional linkages between operators and organisations in the system
- **Awareness/promotion:** Clients and services need to be aware of eye health and eye health services
- **Sustainability:** The concept of the system and services being provided in a way that will be retained and improved over time
- **Integration:** Captures the idea that the eye health service system should not be provided in isolation to other health and social services
- **Quality:** To ensure that services provided are the highest quality
- **Monitoring and evaluation:** To ensure ongoing monitoring and evaluation of the service system for continuous assessment against objectives, continuous quality improvement and regular reporting
- **Capacity:** The extent to which individuals and services are able to achieve an outcome.

These issues guided the development of the principles used to set out the Roadmap.

Section 3: Methodology

3.1 Research plan and methodology

3.1.1 Research Plan

The overall aims of this work are set out in Section 1.4. These were abbreviated as follows.

- Project aim 1 became **service provision**: The plan for this work was to visit a number of AHSs across Australia, including as many jurisdictions as was reasonable. Sites were selected where eye care services were operational and where there was evidence of the successful operation of eye care services. Consultations were conducted using semi-structured interviews with AHS staff, local and visiting eye care practitioners, and local hospital staff. Broader consultations were conducted with state and territory and Commonwealth government staff and agencies responsible for funding and monitoring eye care services to Aboriginal communities.
- Project aim 2 was abbreviated to **service utilisation**: The plan for this work was to visit a number of AHSs in Victoria that represented both urban and regional areas and to conduct a series of focus groups with community members. Victoria was chosen for community member focus groups because the research team was based in Melbourne and there were good existing relationships between the research team and the ACCHO sector. It was postulated that findings regarding service provision and the barriers to the use of existing services and ways to overcome these barriers could be adequately explored for urban and regional areas through this Victorian consultation. The Victorian site consultations also included semi-structured interviews with AHS staff, local and visiting eye care practitioners, and local community health and hospital staff.
- Project aim 3 was abbreviated to **service delivery**: Both the service provision and service utilisation teams would collect information pertinent to understanding the pathway of eye care for Indigenous Australians. The plan was to combine the findings to inform enhancement of the pathways.
- Project aim 4 was abbreviated to **service cost**: The plan for this work was to establish a model to estimate the costs for eye care services to Indigenous Australians, such that the cost of change in the eye care system could be estimated. The service provision and utilisation teams would provide information from the field to support the cost model.
- Project aim 5 was abbreviated to **consultation**: Key to the development of successful policy recommendations was broad sector input and involvement in the generation of the policy proposals. The plan was to engage widely and frequently with all interested parties.

3.1.2 Development of research questions

Semi-structured interview questions and focus group discussion topics were developed for use in field consultations and interviews. The questions for semi-structured interviews and focus group discussion topics were based on a number of issues and barriers identified through the previous IEHU work[4, 5, 7, 17]. The questions and topics were workshopped within the research team and presented as part of the ethics application for the project (Supplement A). The semi-structured interview questions were designed to collect information about eye health services, pathways of care and the co-ordination of visiting services. Focus group questions related to barriers that impact on participants' access to eye health services and explored suggestions to improve the access to current eye health services.

The questions and topic areas are listed below for both semi-structured interviews and focus groups.

Semi-structured interview questions

Outreach and visiting eye care services staff	
1	What are the critical elements of a visiting outreach service?
2	In your experience what are the challenges or barriers encountered when using the VOS and MSOAP schemes to deliver outreach services?
	What could be done to addresses these barriers?
3	Which elements of the planning, organising and co-ordination for logistics need to be changed and how should these be revised?
	Equipment for clinics and surgery
	Scheduling for eye health specialists, support staff including co-ordination and administration staff, surgical teams and other support staff
	Planning and booking transport and travel
	Booking accommodation
	Co-ordination with primary health care clinics (AMSs) and regional hospitals
	Co-ordination between visiting optometry and ophthalmology services
	Booking theatres, equipment and staff for surgery
4	What are the critical blocks or gaps in the service delivery system (logistics or systematic blocks) and what could be done to address these?
5	What are the limitations for patient logistics and support required for patients to attend services? e.g. organising transport and accommodation, allowances for meals, follow-up appointments including return visits to collect glasses and other support requirements.
6	What are the key factors for successful delivery of services and factors impacting on the sustainability of outreach services?
7	What is the cost of the projected recommendations for systems improvements as suggested by participants?
8	What are the cost savings related to the proposed recommendations and addressing the systematic blocks or critical elements creating gaps in visiting outreach services?
Aboriginal Health Service staff	
	Community Liaison
1	Who does community liaison and provides the link between the clinic and individual community members and their families? When and how is this done?
2	Who identifies patients for referrals to eye health care services within your service?
3	Do you offer a transport service for clients accessing your health care service or other specialists' services?
4	Do you have an interpreter service? If so, who provides interpreter/translation services within your clinic?
5	Who offers moral support to clients when attending appointments or undergoing treatment?
	Clinic (Primary Health Care – Clinic Staff)
1	Who in your clinic has the skills in primary health care to diagnose and treat simple eye cases and have referral options for more complex cases?
2	Who makes referrals for more complex cases to the visiting eye team?
3	Who maintains patient records and the referral lists for visiting team?
4	Who schedules visits for the visiting eye team?

5	Who is responsible for co-ordinating multiple visiting specialists who may visit your clinic?
6	Who co-ordinates booking of exam rooms, accommodation, equipment and local staff?
7	Who makes arrangements for referrals and surgery appointments at regional hospitals?
8	Who does follow-up visits with patients, if/when required?
	Visiting Eye Team (Secondary Eye Care – Visiting Eye Team)
1	How are visits co-ordinated with clinic and community?
2	Who co-ordinates these visits?
3	Who updates patient records after visit/s?
4	Who is responsible for all communication and co-ordination between visiting optometrists and ophthalmologists?
5	Who is responsible for providing specific equipment items for clinics?
6	Who is responsible for providing a list or information about patients waiting to be seen?
7	When the visiting team arrives, who is responsible for assistance with patient identification, transport, translation, explanation and support?
8	Who provides clerical support for forms and paper work?
9	Who manages and maintains referral system for further management or surgery?
Regional and state/territory staff	
	Regional/Hospital (Tertiary Eye Care – Hospital)
1	Who organises clinic space, theatre time, staff, accommodation, travel and surgical supplies for the visiting eye teams?
2	Who co-ordinates between other visiting specialists?
3	Who is responsible for the supply of surgical equipment?
4	Who is responsible for co-ordinating with community and the clinic when patients require surgery?
5	Who is responsible for organising travel and other arrangements for patients when attending the regional hospital?
	State/territory
1	Who co-ordinates other specialists and allied health visits with the visiting eye team.
2	Who oversights co-ordination performed at different levels, recruitment, training and support?
3	Who oversights distribution of visiting eye team (other specialists) including ratio of optometric and ophthalmic visits and frequency of visits?

Focus group questions

1	Have you thought about how important vision is?
	Have you ever had your eyes checked?
	When was the last time you had your eyes checked?
	How often do you think you need to get your eyes checked?
2	Can we discuss some of the problems you may have with your eyes?
3	What do you do if you have a problem with your eyes and need help?
	Who would you see/where would you go?
	Do you use eye services in your local community? If not, why not?

Why do you use the service(s)? Why do you go to that person/s?

What do you like about this service(s)?

What don't you like about this service(s)?

How could this service(s) be better?

4 What are some of the issues that affect you and your family getting good eye health care?

5 How could it be easier for you to get what you need for your eyes in general?

6 Has anyone you know needed to have some surgery for their eyes (cataracts, diabetic retinopathy)?

Can you discuss what and how it happened?

What was their experience like?

7 Do you have any other ideas about what could be done to improve access to eye health care services for Aboriginal people?

3.1.3 Liaison with Aboriginal Health Services

Initial contact with most AHSs was directed to the Chief Executive Officer (CEO) by telephone, letter and electronic mail. On some occasions, professional networks of the project team allowed for introduction to the AHS.

The project team was aware of the need to follow appropriate protocols for interaction with the AHSs and sought CEO and management approval for all staff interactions. Efforts were also made by the project team to keep all levels of the AHS up to date with progress of the consultations and research.

The research team arranged introductory visits for many sites prior to commencing semi-structured interviews with AHS staff. Visits to the facilities to introduce the team and project were an appropriate and effective strategy to develop relationships between the IEHU and the health service. In Victoria all sites were visited prior to commencement of the project.

3.1.4 Conduct of semi-structured interviews

Semi-structured interviews were arranged directly with staff members and were conducted by preference in person but occasionally by telephone. Some interviews were conducted with pairs and groups of staff members where this was easier for the staff group.

Participants involved in semi-structured interviews were asked a series of questions related to their experiences in the delivery of eye health services in different regions. Follow-up interviews were occasionally required to obtain additional feedback on findings and suggested recommendations.

3.1.5 Organisation and conduct of the focus groups

Focus groups for community members were arranged after management and ethics approval was obtained from the AHS. Discussion was held with designated AHS staff on the most appropriate way to arrange and conduct the focus group discussions.

Criteria for involvement in the focus groups included being a community member more than 18 years old and normally attending the AHS, but not necessarily for eye care. The project team preferred not to place additional requirements on AHS staff in order to make the arrangement of the groups as easy as possible.

AHS staff found it easier to arrange focus groups for the project using naturally occurring groups within the AHS (for example, Elders groups or diabetes clubs).

3.1.6 Issues arising in the conduct of focus groups

Interaction effects were noticed among younger community members in focus groups when dominant Elders were present or when senior AHS staff chose to participate in the focus groups.

The research questions for the focus groups explored the personal experiences of participants and on some occasions community members may have been reluctant to share their stories in front of the group.

3.2 Ethics and approval processes

3.2.1 Ethics

A research ethics application for the project, entitled 'Barriers to the provision and utilisation of eye health services for Indigenous Australians', was submitted to The University of Melbourne, Melbourne School of Population Health, Human Ethics Advisory Group on 20 July 2010. All research protocols were developed in accordance with the National Health and Medical Research Council (NHMRC) Guidelines for Ethical Conduct in Aboriginal and Torres Strait Islander Health Research[119]. The University of Melbourne Human Research Ethics Committee granted approval for the project on 27 August 2010. The application and supporting documents are available as background papers to this report at Supplement A.

Following approval from The University of Melbourne Human Research Ethics Committee, approval and agreement to conduct the research was sought from the National Aboriginal Community Controlled Health Organisation (NACCHO) and each state affiliate ACCHO. The Tasmanian Aboriginal Corporation was not consulted for this particular project because it did not include field work in any sites in Tasmania.

Discussions with specific AHSs were then conducted to secure local approval and agreements.

Additional formal ethics applications were submitted on request to the following organisations:

- Aboriginal Health and Medical Research Council Ethics Committee (New South Wales)
- Aboriginal Health Council South Australia Human Research Ethics Committee
- Human Research Ethics Committee of the Northern Territory Department of Health and Families and Menzies School of Health Research
- Kimberley Aboriginal Health Planning Forum Kimberley Research Subcommittee
- Western Australian Aboriginal Health Information and Ethics Committee
- Central Australian Human Research Ethics Committee
- Greater Western Area Health Service (New South Wales)
- Victorian Aboriginal Health Service.

3.2.2 Approval processes

Each ethics committee had its own guidelines, forms or preferences regarding requirements for application and level of consent required. Where questions or issues with the initial application were raised, further discussions and amendments were made according to the recommendations of the particular committee.

In addition to the formal applications for ethics approval, contact was made with each individual AHS that was to be included in the project, to seek approval and agreement for participation in the project. Initial contact was generally made at the CEO level.

Further consultation and discussion with senior staff from each organisation was undertaken as needed to assist in the understanding of the project. At some AHSs, the project proposal was presented to the Board.

Local AHS management approval was obtained for all sites where health care staff members were invited to participate in semi-structured interviews. Also, in Victoria, where community member focus groups were conducted, additional discussions, approval and advice were obtained from AHS staff to assist in recruiting

community members. Significant project time was dedicated to consultations with participating AHS organisations to introduce the project and research team, and to work with each organisation to arrange participation in field research visits. This occurred throughout the research consultation period from July 2010 to May 2011.

The AHSs and state affiliates that agreed to participate in the project through semi-structured interviews of staff include:

- National Aboriginal Community Controlled Health Organisation, Australian Capital Territory
- Aboriginal Health Council of Western Australia
- Derbal Yerrigan Health Service, Perth, Western Australia
- Broome Aboriginal Medical Service, Western Australia
- Derby Aboriginal Health Service, Western Australia
- Aboriginal Medical Services Alliance of the Northern Territory
- Congress Central Australian Aboriginal Corporation Health Service, Alice Springs, Northern Territory
- Anyinginyi Congress Aboriginal Corporation, Tennant Creek, Northern Territory
- Danila Dilba Health Service, Darwin, Northern Territory
- Sunrise Health Service, Katherine, Northern Territory
- Bulman Health Service, Northern Territory
- Wurli Wurlinjang, Katherine, Northern Territory
- Queensland Aboriginal and Islander Health Council
- Aboriginal and Torres Strait Islander Community Health Service, Brisbane, Queensland
- Barambah Regional Medical Service, Cherbourg, Queensland
- Wuchopperen Health Service, Cairns, Queensland
- Aboriginal Health Council South Australia and associated community clinics, South Australia
- Aboriginal Health and Medical Research Council Ethics Committee, New South Wales
- Bourke Aboriginal Health Service, Bourke, New South Wales
- Walgett Aboriginal Medical Service, New South Wales
- Durri Aboriginal Corporation Medical Service, Kempsey, New South Wales
- Victorian Aboriginal Community Controlled Health Organisation
- Victorian Aboriginal Health Service, Fitzroy, Victoria
- Rumbalara Aboriginal Co-operative, Mooroopna, Victoria
- Mullum Mullum Indigenous Gathering Place, Croydon, Victoria
- Gippsland and East Gippsland Aboriginal Co-operative, Bairnsdale, Victoria
- Western Suburbs Indigenous Gathering Place, Maribyrnong, Victoria
- Mildura Aboriginal Corporation, Victoria
- Gunditjmara Aboriginal Co-operative, Warrnambool, Victoria

Focus group discussions with community members were conducted only in Victoria.

Table 3.1 summarises the issues raised during the ethics application process by committees or community organisations that were included in the research consultations.

Table 3.1: Issues raised by ethics committees or community organisations

Summary of issues raised by ethics committees or community organisations	Number of committees or organisations that raised issues					
	NSW n=4	NT n=7	Qld n=4	SA n=1	Vic. n=8	WA n=4
Additional consent	4	3	3	-	2	4
Arrangements with local staff	2	6	3	-	7	3
Communication and contacting participants	1	1	-	-	7	1
Cultural safety (interpreters/language)	-	1	-	-	2	-
Data collection		1	-	-	5	1
Information for participants	2	2	1	-	7	1
Interview/focus group questions	1	1	2	1	-	2
Investigator details	-	1	-	-	-	-
Logistics	2	-	2	1	7	1
Other issues not directly related to the current project	-	-	-	-	1	4
Privacy	1	-	-	-	-	-
Project design	-	-	-	-	-	2
Site selection	1	-	-	-	-	-

Discussions with state and territory government health departments were undertaken to obtain permission to contact public hospital and community health staff in each state. In two states regional approval was also required from the government regional or rural health branch.

National and state professional associations, the Optometrists Association Australia (OAA) and the RANZCO were advised of the project. Contact was made directly with individual optometrists and ophthalmologists working in relevant areas and with relevant association staff.

3.3 Program logic development and discussion

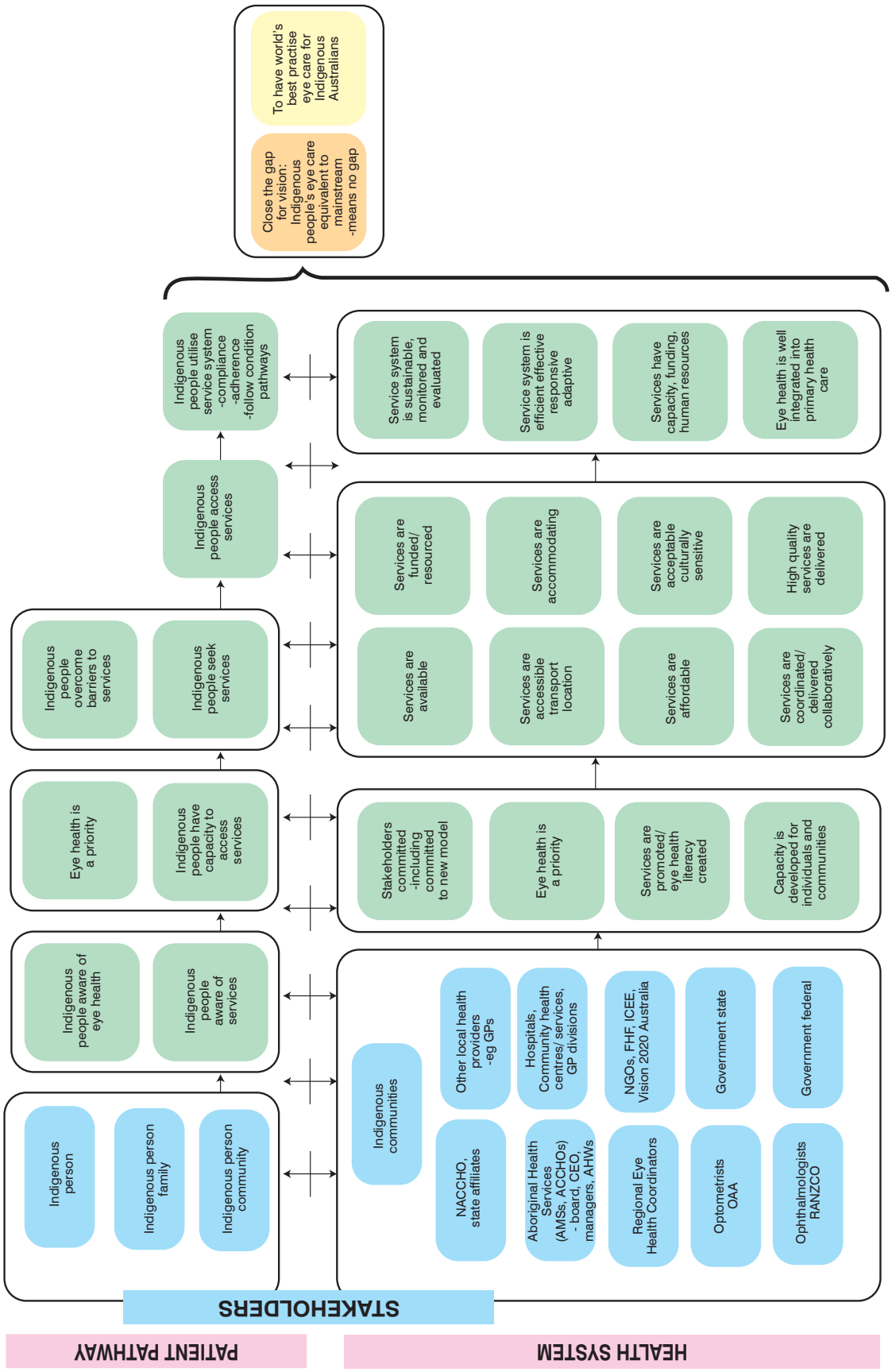
3.3.1 Development of program logic diagram

A program logic diagram was developed by the research team to support the shared understanding of the project for team members and stakeholders and with a view to assisting the operation and management of the project. The program logic diagram was achieved over a series of meetings with team members and was facilitated by an experienced and expert academic.

A clear outcome of the program logic meetings was to confirm the overall goal of the project and the work of the IEHU. The goal was to 'Close the Gap for Vision' for Aboriginal and Torres Strait Islander people such that eye care was at least equivalent to that afforded to mainstream Australians. More aspirational targets considered included the elimination of all unnecessary vision loss for Indigenous Australians and the achievement of best practice eye care for Indigenous Australians.

The logic diagram proved difficult to consolidate and this led to the identification of two separate paths for the program goals. The two paths illustrated in the logic diagram are the patient pathway and the health system, and although these are shown separately, there is clear interaction between these elements (Figure 3.1).

Figure 3.1: Program logic diagram after input from January 2011 stakeholders' workshop



At the same time as developing the program logic diagram, an illustration of the patient care pathway was developed (see Figure 4.3). This process also informed the program logic diagram, including the predominant project focus on issues around the health system and a patient's interactions with the health system, rather than an investigation matters around how Aboriginal and Torres Strait Islander people were activated to enter the eye health system.

The program logic diagram was presented to the second stakeholder workshop in January 2011 for review and input from stakeholders. Minor revisions were made as a result of this input.

3.3.2 Use of program logic in the project

The program logic diagram identified the breadth and complexity of the issues underlying the goal to 'Close the Gap for Vision'. It indicated issues that were outside the remit and capacity of the project. It also assisted in the explanation of the work to stakeholders and other interested parties, but the complexity of the elements represented in the logic diagram meant that it had somewhat limited value.

The project team returned to the logic diagram during contemplation and the development of the Roadmap recommendations. We were able to cross reference recommendations with the program logic diagram steps. This identified logic elements that otherwise may have been missed in the recommendations.

The team also spent some time expanding the program logic steps to identify missing elements of the recommendations. The recommendations mainly populated the health system elements of the program logic and did not occupy many elements in the patient pathway. This was as expected, given the primary focus of the project on the health system and a lesser emphasis on the patient journey from the patient perspective. An element not identified directly in the program logic analysis was the role of case management for patients, yet this element of co-ordination is vital in the Roadmap recommendations.

3.4 Field consultations

3.4.1 National consultation

Selection of sites

From previous research, networks and partnerships, the IEHU had established relationships with a number of key personnel and organisations involved in Indigenous eye health across Australia[4, 5, 46]. This network was used to inform the project team regarding potential sites for the project.

Regions and AHSs with functioning and successful eye services were selected. Consultation with sites with existing eye services allowed the project team to explore service delivery approaches that were working and to interview experienced personnel who could also identify further issues and problems that require improvement.

NACCHO and state affiliate members were consulted to assist in determination of appropriate sites or regions for consultation.

Sites were selected within capital cities as well as regional and remote areas across all states and territories except the Australian Capital Territory and Tasmania (Figure 3.2).

Figure 3.2: Selected sites across Australia (excluding Victoria) for field consultations

Field visits

Field visits were arranged directly with AHS management and other identified key informants. Eight separate field trips were undertaken to cover the 14 consultation sites (outside of Victoria) (Table 3.2).

Table 3.2: Sites visited for consultation

State	Month of visit/s	Sites
New South Wales	March 2011	Kempsey, Walgett, Bourke
Northern Territory	November 2011	Darwin, Katherine, Tennant Creek, Alice Springs
Queensland	August 2010 October 2010	Weipa Brisbane, Cherbourg
South Australia	October 2010	Adelaide
Victoria	November 2010 December 2010 January 2011 March 2011	Maribyrnong Mildura Croydon Fitzroy, Bairnsdale, Shepparton, Warrnambool
Western Australia	September 2010 May 2011	Perth Broome, Derby

In one location, three different AHSs were visited. A number of additional facilities and service locations where outreach type services were provided were also visited during field trips.

Regional services were sometimes not based at the consultation site and where possible visits to these facilities were included in the field trips.

Semi-structured interviews

Initial contact from the IEHU was directed to the CEO of each selected AHS. This often resulted in agreement for the AHS to participate subject to receipt of local, regional or jurisdictional ethics approval. Advice from the CEO or senior AHS management helped the research team to begin to identify key informants for the site. The research team was based in Melbourne, so most of this initial communication was conducted by telephone and email.

Key informants included REHCs, AHS staff, visiting eye health teams, regional hospital staff and local and visiting optometrists and ophthalmologists involved in Indigenous eye care. Eye care service providers in the region who were not involved in Indigenous eye care were also contacted for interview.

Additional informants were identified using a snowball method. Initial informants recommended additional contacts throughout the consultation process and those people were also invited to participate in interviews.

Other organisations and personnel within the region with a less direct role in the provision of eye care were also contacted. These included local NGOs supporting Aboriginal health, local NGOs supporting eye care, community health services, regional health authorities and Divisions of General Practice. Semi-structured interviews with individuals were conducted when appropriate.

An interview schedule and plan was established with key informants at each site, and this included a site visit so that most interviews could be conducted face-to-face.

Consent was obtained for all participants in the semi-structured interviews.

Semi-structured interview participants in national consultation

Aboriginal Health Service staff:

Semi-structured interviews were arranged as face-to-face meetings when the project team visited the site.

Staff interviewed included CEOs, clinic managers, program managers, Aboriginal Health Workers (AHWs), registered nurses (RNs), general practitioners (GPs), reception staff and transport staff.

Optometry and Ophthalmology:

The national professional associations, OAA and RANZCO, were advised of the project. There was also contact with some state/territory divisions of OAA and RANZCO.

Optometrists within the surrounding areas of selected AHS sites were contacted by the project team, initially by telephone and email, to introduce and explain the project. Semi-structured interviews with local and visiting optometrists were arranged and conducted by telephone and face-to-face.

Ophthalmologists providing services in each location were identified as local and visiting, and were contacted by telephone and email. Semi-structured interviews with local and visiting ophthalmologists were arranged and conducted by telephone and face-to-face.

Hospital staff:

Local hospital CEO or medical directors were contacted initially by telephone or email. Appropriate hospital staff members were identified by hospital management for discussion with the project team and semi-structured interviews were conducted in person and by telephone.

GP Divisions and NGOs:

Other organisations involved in eye care within communities were identified in discussion with AHS staff and local practitioners. These included local Divisions of General Practice and agencies supporting eye care and Indigenous eye health. Semi-structured interviews were conducted in person, and occasionally with groups of staff.

State and territory and regional health agencies:

In some locations authorities had regional health organisational responsibilities. The research team consulted personnel within these organisations when possible to conduct semi-structured interviews.

Non-site-specific consultation:

Additionally, in each state capital, state/territory and Commonwealth government officers involved in health and eye care and Indigenous health were contacted and consulted regarding the project. Relevant NGOs, professional associations, and university and research organisations were also consulted.

3.4.2 Focus groups

Selection of focus group sites

Focus groups for individual community members were undertaken in urban and regional areas in Victoria. The IEHU was known and had credibility through good personal and professional relationships in the Victorian Aboriginal community. Community member responses to barrier issues in Victoria were expected to be reasonably consistent with those that would be gathered from individual community members in other parts of urban and regional Australia.

The Victorian Aboriginal Community Controlled Health Organisation (VACCHO) – the state affiliate to NACCHO and the peak body representing 24 Aboriginal community-controlled health organisations in Victoria – was supportive of the project and assisted in making contact with selected sites. The CEO of VACCHO wrote to all member organisations to introduce and endorse the project.

A list of target sites was developed in consultation with VACCHO and was informed by the project team's knowledge and awareness of current and previous eye services. A balance between urban sites based in the Melbourne metropolitan area and sites in regional Victoria was maintained and sites were distributed across the eight state health regions. Other factors considered in site selection included whether sites had existing optometry services provided within the AHS and whether there were local private optometry services, VOS services, local or visiting ophthalmology services, local public hospital eye surgery services and MSOAP-funded ophthalmology services.

Initial contact from the IEHU was directed to the CEO of each selected AHS. This often resulted in an initial meeting with the CEO and senior staff to explain the project in greater detail and to provide face-to-face interaction between the team and AHS. Additional requirements for participation included Board approval, and application for local ethics and research approvals. Ten sites were contacted and seven sites moved to agreed participation in the project within the timeframe available for consultation (Figure 3.3). A further two sites indicated willingness to participate but the arrangements for consultation could not be completed in time and sufficient coverage was achieved from the first seven sites.

Figure 3.3: Selected sites in Victoria for field consultations and focus groups

Organisation of focus groups

Focus groups were arranged directly with staff recommended by AHS management.

IEHU requirements for focus groups were generally flexible in terms of day and time for meeting. The preferred location was within the AHS and/or its surrounds where participants were familiar and comfortable. The duration of each focus group was advised as two hours but generally was shorter than this. The requested number of people for each group was 10 participants, which anticipated non-attendance for various reasons. Participants were required to be aged 18 years or older, a balance of gender was preferred, and participants were users of the local AHS (but not necessarily its eye services).

The IEHU was able to provide support for venue hire and costs of food and drink for the focus groups. Each participant's time and effort was also acknowledged with a $30 Coles/Myer voucher. Discussions with site representatives about the running of the focus groups included the issue of the supply of gift vouchers that could be used to purchase alcohol and tobacco and whether staff involved in focus groups would receive gift vouchers as well. The norm with both issues was unrestricted gift vouchers for participants and no gift vouchers for staff.

Sites had different approaches to assembling groups for participation. Some sites directly contacted the potential participants and invited their involvement. Other sites made announcements to groups and placed or distributed notices about the focus groups. The project team provided flyers to advertise the event when requested.

Focus groups were easier to arrange for naturally occurring groups within AHSs and so were somewhat biased to older clients given there were more organised group activities for older clients. Diabetes groups, Elders groups and exercise groups were some of the naturally occurring groups that participated in the project.

Focus group participants

Ten focus groups, involving 81 individual participants, were conducted across seven AHS sites in Victoria. Four sites were located within urban AHSs and these participants represented 38% of the group.

Consent for participation in the focus groups and research project was individually obtained from each participant.

Table 3.3 indicates the de-identified sites by date of focus group and the number of participants, which varied from four to 13 participants. Three sites hosted two focus groups.

Table 3.3: Focus groups conducted in Victoria

Focus group	Site number	Date	Number of participants	Female participants	% female participants	Urban site participants
1	1	29.11.2010	9	4	44	9
2	2	14.12.2010	4	2	50	
3	3	27.01.2011	11	7	64	11
4	4	8.03.2011	8	7	88	
5	4	9.03.2011	13	12	92	
6	5	11.03.2011	6	4	67	6
7	6	22.03.2011	7	7	100	
8	6	22.03.2011	9	8	89	
9	7	25.03.2011	8	3	38	
10	5	29.03.2011	6	3	50	5
		total	**81**	**57**	**70**	**31** (38%)

The proportion of females participating in the focus groups was 70% and varied from 38% to 100%. The generally higher proportion of females was expected because the focus groups were arranged with naturally occurring groups within AHSs where older female clients are more regular participants.

Semi-structured interview participants in Victoria

Aboriginal Health Service staff:

Selected sites that agreed to participate in the project identified key personnel within the AHS for the project team to interview. Semi-structured interviews were arranged in face-to-face meetings. These often occurred when the project team visited the site to conduct a focus group.

Small group meetings with staff from AHS were often considered the preferred arrangement. Staff interviewed included CEOs, clinic managers, program managers, AHWs, RNs, GPs, reception staff, transport staff, and Home and Community Care and Aboriginal Health Promotion and Chronic Care staff.

Optometry and Ophthalmology:

The state professional associations, OAA (Victorian Division) and RANZCO (Victorian Branch), were advised of the project.

Optometrists within the surrounding areas of selected AHS sites were initially contacted by telephone and email by the project team to introduce and explain the project. Semi-structured interviews were arranged and conducted by telephone or in face-to-face meetings with local and visiting optometrists. A small group meeting was held with optometrists from the Australian College of Optometry (ACO) who were involved in Aboriginal eye care in Melbourne and across Victoria.

Ophthalmologists providing services in each location were identified as being either local or visiting. They were contacted by telephone and email and, again, semi-structured interviews were arranged.

Hospital staff:

Local hospital CEOs or medical directors were contacted initially by telephone or email. Appropriate hospital staff members were identified by management for discussion with the project team and semi-structured interviews were conducted in person and by telephone.

GP Divisions and NGOs:

Other organisations involved in eye care within communities were identified in discussion with AHS staff and local practitioners. These included a blindness agency and a local Division of General Practice that employed an Aboriginal project officer. Semi-structured interviews were conducted in person in these two cases.

3.4.3 Overview of field work and data collection

A total of 370 individual consultations were recorded in the data collection period of the project from June 2010 to July 2011 (Table 3.4). This includes focus group discussions with 81 community members in Victoria. Twenty-one consultation sites are included in the field work reports. Additional sites and facilities were visited in the course of field trips.

Table 3.4: Field work consultations and data collection June 2010 to June 2011 (includes semi-structured interviews and focus groups)

	Commonwealth	ACT	NSW	NT	Qld	SA	Tas.	Vic.	WA	total
Aboriginal Health Service sites			3	4	3	1		7	3	**21**
Aboriginal Health Service staff			14	9	5	1		60	9	**98**
Community health staff			4	3	4	2			1	**14**
Optometrists			5	4		1		15	6	**31**
Ophthalmologists			3	3	2	3	1	10	3	**25**
Hospital staff			7	3	8	1		10	6	**35**
GP division staff			2		2	2		1	3	**10**
NGO staff			5	6	2			3		**16**
State affiliate staff			1	2	1	2		3	3	**12**
Government - federal	3			2				4		**9**
Government - state			5	3	4	6		6	5	**29**
Other				3	2				5	**10**
Focus group participants								81		**81**
total	**3**	**0**	**46**	**38**	**30**	**18**	**1**	**193**	**41**	**370**

Semi-structured interviews were conducted at all consultation sites and the field work also included discussions, input and exchanges with a range of personnel in each region. Significant input has been provided by the staff of AHSs (98 staff).

3.5 Policy consultations

3.5.1 Stakeholder workshops

Three workshops were conducted in the course of the project to provide input and advice from a broad range of stakeholders. The workshop dates were 17 June 2010, 28 January 2011 and 27 June 2011.

The first workshop established a broad outline for the key issues to be pursued by the project and a project plan.

The second workshop provided an update on the progress of the work and early advice regarding policy recommendations.

The third workshop gave specific opportunity for stakeholder input into a number of draft recommendations.

Supplement B provides the agenda for each workshop, together with background papers, handouts and information provided to stakeholders and workshop participants, powerpoint presentations of information presented at the workshop and summaries of the workshops.

3.5.2 Formulation of policies

Road testing early policy ideas

A number of policy ideas arose during discussions of field research consultations and the research team's deliberations of issues as they were being identified and raised in consultations. As these issues and potential solutions began to crystallise, the team started to road-test some ideas and solutions when consulting in the field. This provided additional feedback on how these ideas would play out in practice from the perspective of various stakeholders and interested parties.

Testing of early ideas included the regional hub structure for service delivery, state co-ordination of Indigenous eye care, prioritisation of hospital services, bulk-billing of all Aboriginal and Torres Strait Islander eye care services, a national subsidised spectacle scheme and ideas around training of AHWs. A number of these ideas were already in discussion with various organisations in the sector - for example the OAA was developing ideas around a national Indigenous spectacle scheme, and Vision 2020 Australia and member organisations were doing work around REHCs and state-level co-ordination[16]. Participants from the International Centre for Eyecare Education and the Vision Cooperative Research Centre were working on eye care training issues.

The federal government's NHR agenda was developing arrangements for the regional population-based consideration of needs (MLs) and the interplay between hospitals (Local Hospital Networks (LHNs)), health practitioners and service administration (Lead Clinician Groups).

Creating a policy framework

A clear goal of the project was to develop a policy framework for change that could be costed and presented to government. The team brainstormed recommendation ideas through March and April 2011 and initially identified seven broad themes around which to begin to build specific policy recommendations. The seven areas were workforce, co-ordination, utilisation, primary health care/primary eye care, monitoring and evaluation, governance and social marketing/awareness.

Consideration of draft recommendations at stakeholder workshop

The research team framed a number of draft policy recommendations for discussion at the third project workshop in June 2011 (Supplement B). Twenty two draft recommendations were circulated for discussion from some 35 policy ideas that were being considered. The recommendations were grouped into eight theme areas. Some background information was provided to participants for each proposal prior to the meeting and a facilitated discussion was conducted during the workshop. Feedback to the project team was available through table notes and discussion on the day of the workshop. The papers were also distributed to a number of stakeholders who were unable to be present at the workshop and some commentary was received by the project team separate to the workshop.

Developing the draft Roadmap recommendations

The project team continued to clarify confused or overlapping draft recommendations discussed at the stakeholder workshop and used the various inputs from stakeholders to refine policy recommendations that were to be presented in a draft document, *The Roadmap to Close the Gap for Vision*[9]. Clarity and precision of each recommendation was achieved in part by defining the intent and the expected outcome of each recommendation. Key advisers external to the research were invited to comment on the revised recommendations.

3.5.3 Consultation with the Roadmap

The Roadmap to Close the Gap for Vision draft

A draft Roadmap document was printed and widely circulated for comment and input. The draft primarily carried the 42 policy recommendations across nine domains, but also provided background and updated excerpts of the evidence-base formed by the IEHU's previous work. Additional information included data on the importance of eye care, the relevance of the recommendations to guiding principles, a broad implementation plan and summary of costing information.

The organisations and offices consulted with the draft Roadmap are presented in Table 3.5. All organisations and individuals who had been invited to stakeholder workshops and the community-controlled organisations that had been involved in the field work were sent copies of the draft Roadmap with a request for additional comment and input. A number of additional organisations, representing broader health and social interests, were also consulted and their input invited.

Table 3.5: Stakeholder consultations during the development of the Roadmap

1. Stakeholder Workshops

Organisations that were invited to one or more workshops and received papers and progress reports.

** Aboriginal Health Branch, Department of Health Victoria
** Aboriginal Health Council South Australia
** Aboriginal Health Council Western Australia
** Aboriginal Medical Services Alliance of the Northern Territory
** Aged Care Branch, Department of Health Victoria
Australian College of Optometry
* Australian Health and Welfare Institute
Central Australian Aboriginal Congress
** Centre for Health and Society, University of Melbourne
** Centre for Health Policy, Programs and Economics, University of Melbourne
** Fred Hollows Foundation
Health Policy Analysis
** International Centre for Eyecare Education
** IRIS, Australian Society of Ophthalmologists
* Lowitja Institute
** Murrup Barak, University of Melbourne
** National Aboriginal Community Controlled Organisation
** Office of Aboriginal and Torres Strait Islander Health, Department of Health and Ageing
** Office of Rural Health, Department of Health and Ageing
** Onemda, University of Melbourne
** Optometrists Association Australia
Outback Eye Service
** Royal Australian and New Zealand College of Ophthalmology
Royal Victorian Eye and Ear Hospital
** Victorian Aboriginal Community Controlled Health Organisation
** Vision 2020 Australia

Apologies

* Aboriginal Health and Medical Research Council of New South Wales
* Australian Indigenous Doctors Association
Menzies School of Population Health Research
Outback Division of General Practice New South Wales
** Queensland Aboriginal and Islander Health Council
** Royal Australian College of General Practitioners

2. Additional Consultations

Organisations consulted about the draft of the Roadmap.

Government

** Minister for Indigenous Health, Hon Warren Snowdon MP
** Federal Opposition
** Commonwealth; Department of Health and Ageing
** New South Wales; Minister of Health, Department of Health
** Northern Territory; Minister of Health, Department of Health
** Queensland; Ministerial Adviser, Queensland Health
** South Australia; Ministerial letter, South Australia Health
** Tasmania; Minister of Health
** Victoria; Minister of Health, Department of Health
** Western Australia; Minister of Health, Department of Health

Community Controlled Organisations

** NACCHO; National Aboriginal Community Controlled Health Organisation

** AHCSA; Aboriginal Health Council of South Australia

** AHCWA; Aboriginal Health Council of Western Australia

* AHMRC; Aboriginal Health and Medical Research Council of New South Wales

** AMSANT; Aboriginal Medical Services Alliance Northern Territory

** QAIHC; Queenslander Aboriginal and Islander Health Council

** TAC; Tasmanian Aboriginal Council

** VACCHO; Victorian Aboriginal Community Controlled Health Organisation

Other People/Organisations/Groups

* Australian Institute of Health and Welfare

** Australian General Practice Network

** Oxfam Australia

* Remote Area Health Corps

* Aboriginal and Torres Strait Islander Social Justice Commissioner

** National Co-ordinator to Tackle Indigenous Smoking

Plus many representatives of government (Commonwealth and state/territory), non-government organisations, professional associations, universities and research organisations.

** Face-to-face consultation about draft Roadmap completed

* Face-to-face consultation about draft Roadmap attempted

A total of 38 separate face-to-face meetings with more than 75 people across all jurisdictions representing all relevant stakeholders and interested parties were arranged between August and October 2011 to get final feedback on the proposals.

The Roadmap to Close the Gap for Vision summary report

The finalised Roadmap summary report was printed at the beginning of October 2011 and presented to the Australian Government[9]. Meetings with various parties continued after presentation of the final document.

All communities and organisations consulted during the project and policy development phase were sent final copies of the summary report (182 people were sent electronic copies and 135 hard copies were mailed).

Section 4: Research Findings

4.1 Introduction

This section provides an overview and discussion of the research findings of the project.

Material is grouped into the nine domains that provide recommendations for the Roadmap. Within each domain, the findings are further divided into those findings linked to more specific individual recommendations in the Roadmap. Additional findings are presented as barriers and enablers for each domain.

The intention is to present our findings in each of the recommendation domains and link these findings to specific recommendations and to explain how and why we arrived at these recommendations. For completeness, additional findings that are not directly linked to the specific recommendations are also presented.

4.2 Primary eye care as part of comprehensive primary health care

Roadmap Recommendations

Enhancing eye health capacity in primary health services
That further education programs be developed and implemented to improve understanding of basic eye health among primary health care professions and Aboriginal Health Services.

Health assessment items include eye health
That primary health care staff know and perform the vision and eye care components that are included in the health assessment forms with appropriate referral as needed.

Diabetic retinopathy detection
That a Medicare item be added to MBS to cover the service costs of taking and reading retinal photographs including the use of telemedicine.

Eye health inclusion in clinical software
That all clinical software packages used in Aboriginal Health Services include health checking components and modules consistent with national guidelines.

4.2.1 Enhancing eye health capacity in primary health services

Knowledge and awareness of staff of eye health and eye health systems

Although a number of primary health staff had a reasonable working knowledge of eye health and eye health systems, there were also many staff without knowledge and understanding of eye conditions, local care providers, support networks, responsibilities, expected patient journeys and so forth. It is apparent that the eye health pathways are complex and often are not well understood at the primary care level. This lack of awareness and knowledge leads to primary care staff who are not well placed to advise and support patients who have identified eye problems or even to satisfactorily answer their questions.

'I didn't know that the visiting optometrist could check eyes for diabetes' (Western Australia)

Staff members were generally interested in eye health and eye care, but often had difficulty in accessing appropriate information about local systems, pathways and arrangements. Who could they talk to? Who knew what happened next? There was often poor knowledge of local providers, the services they provided and the differences between providers (for example, about who was involved in the state spectacle scheme). There was also poor understanding of how referred patients interact with ophthalmology and hospital services for treatment.

Primary care staff expressed interest in information that would allow them to have a better understanding of eye health and eye care at the primary level and also about the structure of local eye health systems.

Local eye health service maps and information directories were suggested as being a valuable resource for primary care staff. Similarly, more general education sessions on eye health and vision care were requested to assist with understanding the system complexities and how to better support patients with eye care problems and needs.

Knowledge of referral pathways and linkages

There was generally poor understanding by primary care staff about the appropriate referral pathways and poor linkage with the external providers.

There was poor knowledge of the reason for patients being referred and the number of visits required to investigate and treat diabetic retinopathy or for cataract surgery.

Visiting services add another significant variable for local staff to understand and help patients navigate the referral pathways.

Where secondary services are remote or distant to primary care, it is understandable that the personal and professional relationships may not be strong and this often led to a poorer appreciation of the referral pathway and weaker linkages.

Support for Aboriginal Health Workers with eye care interest

A number of AHWs expressed interest in eye care but were frustrated at not knowing how to get more information or how to become more involved in eye care. A number of AHWs who had previous involvement or experience in eye health programs expressed disappointment at having to move away from eye health because of limited opportunities or changed health service priorities.

There is opportunity to engage with AHWs and provide additional primary care eye knowledge and skills. Short courses seemed to be the preferred modality of education (two to three hours maximum).

Courses focused on eye care for AHW have been developed by the International Centre for Eyecare Education (ICEE) and by VACCHO with Vision 2020 Australia. However, the roll-out of these courses appears sporadic and limited to individual applicants and not widely advertised in the sector. ICEE has also provided on-going educational support to AHWs in ACCHOs in New South Wales and the Northern Territory and offers a 200 hour eye care course through the Aboriginal Health College in Sydney[47].

Some AHS staff members were aware of longer course offerings in eye health, although this varied across the country. It is not clear how well publicised or promoted these courses are, nor the availability and flexibility of the courses.

There was poor knowledge of AHW certified training modules at Certificate 3 or 4 level in eye health. In Victoria, the eye health module is an optional module, was not reported as a popularly selected module and to date has only been run once (in 2009)[48].

Employed AHWs reported difficulties in getting support for longer courses that involve travel, accommodation and course costs, in addition to the need to cover time away from work. In-service or on-site training could overcome these barriers and increase support and participation in eye care courses for AHWs.

Efficiency of primary care service delivery

Primary care staff reported inefficient use of visiting eye team services and difficulties in filling available appointments. Visiting practitioners also commented on high non-attendance rates for available appointments. Various strategies had been tried across the service system to ensure improved appointment attendance and efficiency of services, but outcomes were variable. Successful outcomes required close attention to supporting patient attendance. Services that support patient attendance included regular contact by AHWs or clinic staff before the scheduled visit and the provision of transport.

In one regional hospital, with infrequent visits by MSOAP ophthalmologists, attendance for visiting ophthalmology appointments was approximately 50%.

'When I started visiting the clinic, patient attendance was at less than 50% for both clinic and surgery appointments. Over time, with regular visits being arranged and improved support provided for patients from Health Workers and clinic staff, we achieved near to 90% attendance at the Hospital and 80% for clinic appointments.' (Northern Territory)

Unfortunately, due to lack of support for the visiting service, subsequent visits by the same ophthalmologist stopped.

Aboriginal Health Worker eye care knowledge

AHWs without specific training in eye care lacked confidence about eye health care and eye care systems. This may reflect the strength and content of AHW training in eye care. Subsequent work experiences with eye care or the eye health care system may have further eroded AHW confidence.

It appeared that AHWs were unlikely to show initiative or be confident in their decision making around eye care unless they had a specific role or function in eye care.

There is work to do in providing AHWs with the requisite knowledge and skills in primary eye care. Certificate 3 and 4 training content and curriculum goals may require review. It appears very few AHWs have completed the elective eye care module. The reason for poor enrolment and uptake of the eye care module is not clear – is it the content of the course, the course itself or the expected outcomes and possible roles that is the difficulty?

The bulk of the work required from AHWs does not necessarily require a higher level of training in eye care, but it does require some eye health education training to improve understanding within primary care organisations. There is further work to do to establish what AHWs need to know and how they will use this knowledge.

GP/RN eye care knowledge and skills

The broad impression is that GP and RN eye care knowledge was satisfactory for acute presentations. However, vision/visual acuity tests were not regularly performed and near vision was not checked as a routine. The effectiveness of getting patients with diabetes to have an eye examination was not as high as required and the co-ordination of care for patients with diabetes was variable.

Although GPs/RNs are able to, and do, regularly check a variety of parameters as a routine, such as blood pressure and weight, the simple checking of near or distance vision is rarely performed. Reasons given included not enough time and a lack of specific prompts in health assessments or from patients.

Identification of near vision problems as an indicator for eye care

A review of primary care prompts in Indigenous health – such as the CARPA Standard Treatment Manual[49], the CRANA Clinical Procedures Manual[50] and the Medicare Aboriginal and Torres Strait Islander health assessment items[51] and supporting literature – showed a lack of attention to the assessment of near vision for Aboriginal people.

The NIEHS in 2008[4, 12, 46] showed that 62% of Indigenous adults normally wore reading glasses for near work compared to 86% in mainstream and that, overall, 39% of Indigenous adults could not see normal sized print at near.

Measurement of distance visual acuity gives an indication of potential reading acuity, but for older patients in the presbyopic age range (>40 years) distance vision does not necessarily predict near or 'reading' vision. Separate screening for near and distance vision is required at a primary care level through patient history and simple tests of near vision ('can you see ordinary, newspaper sized print at a comfortable reading distance?' or 'can you see which way the small E's are pointing?').

There was some comment from health workers dismissing the importance of reading correction for Aboriginal people given a perceived lack of need to read. However, good near vision is critically important for anyone undertaking activity within arms-length, including painting, sewing, servicing a car engine, cutting vegetables, preparing foods, identifying medicines and other daily activities. The importance and utility of near correction should not be underestimated.

Poor near vision should trigger a referral for a full eye exam, as well as the provision of reading glasses.

Primary care guidelines

An IEHU review of Australian eye health guidelines[52] revealed that the majority of guidelines are disease specific and treatment focused with only limited coverage of the typical patient pathway of care and the transition between the various care providers this involves.

Overall, 43 discrete eye health conditions were described in the reviewed guidelines, and these were divided into 33 conditions described for primary health management and 10 conditions for specialist management. There exists great variation in the level of descriptive detail – the guidelines aimed at the primary care level treatment of common problems generally contains no background on the epidemiology, incidence, prevalence or pathogenesis of presentations. In contrast, the specialist guidelines do cover these items and refer to the levels of supporting evidence. There appears to be little translation of specialist-level data to the primary health management of information. In particular, the population-level statistics on disease incidence and prevalence, and on the patient progression from the identification of an eye health problem by the specialist, to the definitive treatment (be it medical, surgical or simply surveillance of the disease), were not translated or communicated at a level that was accessible or understood at the primary care level.

Of the primary health-related documents examined only limited mention was made of chronic eye diseases – cataract, diabetic retinopathy, glaucoma. This was surprising given the disability attributable to these problems.

It is suggested that the guidelines need to be more explicit about the requirements to get a patient successfully through the pathway. The guidelines need to be written in such a way that they are easily understood and can be applied to practice.

Better articulation in the guidelines of the patient journey from the initial recognition of a visual symptom through to the diagnosis, treatment and ongoing management would likely assist in the provision of improved eye care.

The role of primary care staff in eye care

Primary care staff at times need to be supported in their management of common eye problems. In addition, they need to detect and refer other eye problems as they do for other diseases and disorders. Most Aboriginal and Torres Strait Islander patients appear not to initiate their own appointments to private optometrists and all patients need a written referral to see an ophthalmologist. With the high unmet demand for eye care, and the unmet need is even larger, primary care staff should be proactive in identifying eye care problems and starting the referral process and the patient journey.

Building local service systems

In addition to the management of common eye problems, community-based services should appropriately screen and identify eye care problems. It is essential to have clear pathways of care and referral for more complex cases and that these pathways are well understood at the primary care level. To support local primary care staff in all areas, it will be necessary to have an identified referral system with access to treatment and care services that makes sense locally and works for that community.

There is also a role for staff operating at secondary and tertiary care levels to contribute to effective primary care by providing support and effective networks for local services.

System elements to ensure eye care is included in primary health care for GPs/RNs/AHWs

It is important that eye care is firmly seen as:

- part of primary care routines
    - included in manuals, instructions, guides
    - included in orientation of staff
- part of training
    - introduction and skill establishment

- part of on-going education
    - continuing education to remind and reinforce
    - development of higher level understanding and skills
- part of expectations at service level
    - inclusion in Medicare health assessments
    - inclusion in health records, including computer-based records
    - inclusion in health promotion activities
- part of information systems at local level
    - data collected, analysed and reported
- part of the health service audit of performance
    - at service level
    - at staff level.

4.2.2 Health assessment items include eye health

The real issue is GPs and RNs including primary eye care

The impression gained from consultation across the country and talking to staff within AHSs is that there is an issue of GPs and RNs not undertaking the routine vision testing and referral to optometry and ophthalmology for those with diabetes or poor vision. Reasons suggested for this include time, priority, systems, knowledge and responsibility. There is general agreement that this initial eye and vision screening should happen at a primary care level and therefore should be performed by GPs and RNs. This is considered necessary because specialist eye care usually will be available only by referral to either visiting or local off-site services.

The project team reviewed the Medicare health assessment items for Aboriginal and Torres Strait Islander people (Medicare Benefit Schedule (MBS) Item 715) and Department of Health and Ageing (DoHA) proformas and explanatory notes to support these assessments. A number of suggestions were made to DoHA for revision of this information to include, for example, assessment of near, as well as distance, visual acuity and create options for referral for optometry services[53].

4.2.3 Diabetic retinopathy detection

Retinal cameras and diabetic eye examinations

The third leading cause of vision loss and blindness for Indigenous Australians is diabetic eye disease. The NIEHS identified that blindness from diabetic retinopathy in Indigenous adults was 14 times more common in comparison to non-Indigenous Australian adults[54]. Diabetes caused 13% of low vision and 9% of blindness of Aboriginal people and most of this blindness could be prevented by regular retinal examinations to detect early stages of retinopathy followed by timely retinal laser treatment. Aboriginal people with diabetes should have their eyes examined every year[55] but NIEHS estimated that of the 37.4% of Indigenous adults with diabetes, only 20% had an eye examination in the past year[4, 12, 46].

The 1997 review recommended provision of regional ocular fundus cameras and portable lasers, patient management systems to include recall software and the introduction of a Medicare item for retinal photography.

Field consultations established the use of cameras for diabetic retinopathy photography by AHWs at a number of locations. There was also evidence of cameras previously purchased within AHSs that were not currently being used either because of out-dated technology or because local staff did not have the skills or the incentive to use the equipment.

There is currently no funding to support image 'store and forward' applications in eye care telehealth. A recent Australian Government initiative (from 1 July 2011) in telehealth has established Medicare items to support video consultations between specialists and general practitioners and this is available to patients in AHSs and aged care facilities. The Medicare item is only billable when the patient is in attendance with the specialist and so has limited application for supporting diabetic retinopathy care where the retinal image is captured and subsequently forwarded for specialist review.

'There was a camera here before but I don't know where it is now. We used to take photos for people with diabetes but then we couldn't get any film for the camera, so we stopped' (Victoria)

'There was someone who used to check the photos for us but then they wanted us to pay for this service, so we stopped' (Victoria)

'I can remember learning how to take the photos but I would not know how to teach someone to use the new camera' (Western Australia)

'Who can we send the images to?' (Victoria)

Where there is no funding for image 'store and forward' applications, it is unlikely there will be priority given to this in AHSs. It will be preferable for those who are responsible for taking the photographs also to be responsible for image interpretation so that the process is kept 'in-house'.

The research team is aware of a current (2011) application to the Medical Services Advisory Committee for inclusion of a Medicare item for retinal photography of patients with diabetes.

The research team was not able to establish in community visits any specific reporting or accountability around retinal eye examinations for patients with diabetes. Although there were Diabetes Care Co-ordinators appointed within AHSs under the Indigenous Chronic Disease Package, Care Co-ordination and Supplementary Services Program[56], the reporting appears directed to numbers of patients with chronic disease supported rather than to clinical surveillance of these patients.

Where there is no accountability for diabetes retinopathy examinations or for image 'store and forward' applications, it is unlikely there will be priority given to this in AHSs.

The research team supports the use of retinal photography to improve eye examination rates for Aboriginal patients with diabetes by making this service readily available within AHSs at a primary care level. Additional resources need to be invested to strengthen networks between primary and specialist services in order for this to be successful.

4.2.4 Eye health inclusion in clinical software

Use of technology in primary care services

There was little evidence of technology being used to support primary care staff providing primary eye care. Examples of technology include clinical software packages with eye examination fields, database management and recall for eye examinations for patients with diabetes, electronic referral, use of digital image capture and electronic communication.

While it is understood that technology may not alter the behaviours of primary care staff with respect to primary eye care, technological support for primary eye care at the primary care level should be provided to encourage the appropriate inclusion of eye care.

At the very least primary eye care reminders and prompts should be included along with other primary health care issues in technology development including electronic records and recall systems.

There is a need for eye care reminders in AHS recall systems including any software to support patient management.

4.2.5 Barriers and enablers

Where does primary eye care fit in primary health care?

As part of comprehensive primary health care, basic or primary eye care is an essential component. Primary health care staff need to treat conjunctivitis, foreign bodies etc (acute minor presentations) and they need to be able to detect other conditions and start the referral process for vision loss, the need for glasses, cataract or anything else. In particular those managing diabetes need to ensure annual eye examinations.

There was poor understanding of how primary eye care could be integrated within primary health care. Eye charts may exist in all health services and within many primary care consulting rooms but these are not regularly used. Vision and eye health may be listed in Medicare Aboriginal and Torres Strait Islander health assessments but it is questionable whether these tests are carried out or used as appropriate prompts for referral to secondary eye care.

'Our statewide audit showed that vision is not being assessed when Aboriginal Health checks are being provided' (Victoria)

Definitions of primary health care

The World Health Organization, Declaration of Alma-Ata in 1978[57] stated:

> …Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally available to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination….It is the first level of contact of individuals, the family and community with the national health system…

The NACCHO, Memorandum and Articles of Association 2006[58] states:

> 'Primary Health Care' has always been a continuing integral aspect of our Aboriginal life, and is the collective effort of the local Aboriginal community to achieve and maintain its cultural well being. Primary health care is a holistic approach which incorporates body, mind, spirit, land, environment, custom and socio-economic status. Primary health care is an Aboriginal cultural construct that includes essential, integrated care based upon practical, scientifically sound and socially acceptable procedures and technology made accessible to Communities as close as possible to where they live through their full participation in the spirit of self-reliance and self-determination. The provision of this calibre of health care requires an intimate knowledge of the community and its health problems, with the community itself providing the most effective and appropriate way to address its main health problems, including promotive, preventative, curative and rehabilitative services. (Adapted from the W.H.O. Alma-Ata Declaration 1978)
>
> Primary health care is the first level of contact of individuals, families and the community with the health care system and in Aboriginal communities this is usually through an ACCHS or satellite Aboriginal community health clinic that it services.
>
> Primary health care, within the holistic health provision of an ACCHS, provides the sound structure to address all aspects of health care arising from social, emotional and physical factors. It incorporates numerous health related disciplines and services, subject to its level of operation, available resources and funding. In addition to the provision of medical care, with its clinical services treating diseases and its management of chronic illness, it includes such services as environmental health, pharmaceuticals, counselling, preventive medicine, health education and promotion, rehabilitative services, antenatal and postnatal care, maternal and child care, programs and necessary support services to address the effects of socio-somatic illness and other services provided in a holistic context mentioned in Schedule 5 of these Articles and included in the NACCHO definition for 'Aboriginal Health Related Services'.
>
> Primary Health Care is all inclusive, integrated health care and refers to the quality of health services. It is a comprehensive approach to health in accordance with the Aboriginal holistic definition of health and arises out of the practical experience within the Aboriginal community itself having to provide effective and culturally appropriate health services to its communities.

In the delivery of eye care services, there is considerable overlap in the provision of primary health care and primary, secondary and tertiary eye care. The roles of providers and the location of services further confuse the stages of eye care, as providers and locations may serve primary, secondary and tertiary care.

Primary health care is essential health care made universally accessible to individuals and families in the community[61].

Primary care is the term for the health services by providers who act as the principal point of consultation for patients within a health care system. Such a professional can be a primary care physician, such as a GP or family physician, or depending on the locality, a health system organisation, and at the patient's discretion, they may see a pharmacist, a physician's assistant, a nurse practitioner or a nurse. Depending on the nature of the health condition, patients may then be referred for secondary or tertiary care.

Secondary care is the health care services provided by medical specialists and other health professionals who generally do not have first contact with patients. It includes acute care (necessary treatment for a short period of time for a brief but serious illness, injury or other health condition, such as in a hospital emergency department). Secondary care providers do not necessarily work in hospitals, and some primary care services are delivered within hospitals. Allied health professionals also generally work in secondary care, accessed through either patient self-referral or through physician referral.

Tertiary care is specialised consultative health care, usually for inpatients and on referral from a primary or secondary health professional, in a facility that has personnel and facilities for advanced medical investigation and treatment, such as a tertiary referral hospital[59-61].

Confused definition of primary care in optometry

Optometry has professionally defined/positioned itself as providing 'primary eye care' which indicates that patients can present to optometrists directly off the street and without the need for referral. Full Medicare fees can be claimed for patients attending optometrists without referral from another health practitioner. Ophthalmology services are different as full Medicare fees can only be claimed by patients when there is referral from another medical practitioner or an optometrist.

Optometrists provide services from their own practices and effectively operate as primary care services because no referral is required. Optometrists operating from AHSs, essentially operate as secondary care providers because they see patients after the patient has been assessed or referred by staff at the AHS.

This situation creates some definitional confusion about what is meant by primary eye care when talking to optometrists and optometry organisations about the role of optometry.

In this report, primary eye care does not refer to services provided by optometrists who, in the Indigenous health context, are usually considered to be 'eye specialists', generally operating at secondary care level. Rather, primary eye care refers to eye care services and support provided by the staff of a primary care clinic or AHS.

Whose job is it? Whose responsibility?

There was an observed effect in some health services particularly in sites with either a REHC or an active visiting optometry or ophthalmology service, of deferring essentially everything to do with the eye until the expert visited. The effect was to diminish direct responsibility for identifying and managing eye health problems at primary care level because another person/practitioner was assumed to be looking after eye care.

'As the REHCs come, we will leave the eyes to them' (New South Wales)

This approach is especially a problem with diabetes eye care and reduces the chances of opportunistically including these patients in screening programs.

In the cases where there are no REHCs or visiting eye services, staff tend not to look for eye problems or screen eyes because there is no effective referral follow up (– that is, there is nothing that will be done to attend to any identified issue, so there is no point in identifying the issue).

Eyes and vision are considered by some staff to be complex and difficult to understand – as a result staff who do not know or want to understand 'eyes' leave eye and vision issues unattended.

There is clearly a role for AHSs in primary eye care and there is potential for greater understanding and involvement.

Generally, the more people talking about and accepting some level of responsibility for basic eye health, the greater the potential impact on the community for improving eye health.

Breaks in the pathway of care

The knowledge and awareness of primary care staff of specialist eye health services was often less than would be expected or required to assist and ensure successful patient referral and interaction with specialist eye health services. There was generally a poor understanding of what was involved in specialist eye health care, what the patient experience would be and what should be expected of the specialist eye health service. Primary care staff were not well prepared to be able to advise or assist patients after referral to specialist eye health services. Primary care staff were generally not well informed regarding reasonable expectations of specialist eye health services and so service performance, such as waiting times and likely costs were neither monitored nor advocated for at the primary care level. Primary care staff operated in their 'silo' and hoped that initiating a referral would be all that was required to lead to a successful patient outcome.

'I have done my job by arranging referral for the patient, it is now not my problem' (Victoria)

For example, an optometrist working with the AHS would inform the REHC that a patient needed cataract surgery but that message was not passed on to the clinic staff. The doctors in the AHS therefore could not follow through with an ophthalmic referral and so the referral chain was broken.

There was evidence of inappropriate referral from primary care including the use of ophthalmology for services that could be provided by optometry, the use of optometry services that could not access a subsidised spectacles scheme, and the use of private ophthalmology services with significant gap fees and without access to local public hospital surgical services.

Where eye health specialist services were operated from within an AHS, there appeared to be greater confidence in ensuring referral outcomes. Equally, other work has shown a significant correlation between the time an optometrist spends in an AHS and the level of vision care[62]. No such correlation was seen with community-level availability of optometry services.

Priority of eye care

There was a strong impression from both AHS staff and management that there were many other and higher priorities in local community health than eye care. It was often reported that there was program x and program y and program z (for example; ear health, heart health and diabetes) and no program for eye health. This commentary seemed to be linked to the specific and targeted funding support for the work of the AHS – that is, that the AHS concentrated on services where there was current and active funding or specific reporting requirements on performance or outcomes.

When prompted about eye health, the general response of primary care staff was that 'eye care was fine'. There was acceptance that eye health was satisfactory within the community, although this opinion could not be supported by local evidence. The regular eye care of patients with diabetes is an indicator of effective eye care in a community and in many AHSs this indicator could not be readily accessed or shown to demonstrate primary care appropriately linked with specialist services. The NIEHS showed that only 20% of those with diabetes had had an annual eye exam in the preceding year[4, 12, 46].

It was often recognised by AHS staff that activity was 'not quite good enough' and that 'if we had one more person it would fix the problem'. These considerations were not informed by a needs-based analysis and the solution of just one more person (or visit) is often only a bandaid response.

Where there was a staff member responsible for eye care, for example a REHC, this position was often described as being under threat of reconsideration because there was no specific funding to support the position and the community had other priorities for the use of its global funding. Many REHCs did not know if their funding and position would last beyond the end of the current financial year.

Legacy issues of 'old' programs

Previous eye health programs have established and influenced current operations of primary eye care in many locations. Where eye health programs had dedicated staff and local expertise had developed, primary care staff tended to defer to these 'more knowledgeable or experienced' staff. This legacy meant that primary health care attention was relatively poor because the expectation was that all eye care would be provided by others. Where previously an internal specialist eye care capacity had existed, there also appeared to be poor integration of eye care into the primary care systems, presumably because the previous dedicated eye care staff had stepped in and so the primary eye care systems were not required and had not been developed.

The significant variation of REHC roles[18], and in those regions where there have not been REHCs employed, leads to much uncertainty of roles and responsibilities so that primary care staff are unsure of their involvement in primary eye care. The variation of REHC roles also means that primary care staff moving from one area to another would not be clear of their responsibility, which varies from region to region. Role and responsibility diversity and variety for REHCs is also covered in Section 4.4 and Section 4.5.

Complex funding arrangements

The lack of awareness of the existence of external and additional funding sources and complexity of funding within AHSs was often used as a reason for staff and management of health services not to access additional funding pools to support training, health promotion or service delivery options for eye care.

Each additional funding stream within an AHS has specific requirements and consequently additional work is required to operate and report on the funding[19]. There was clear 'funding bid fatigue' and frustration regarding the difficulty of staying on top of the various and changing opportunities for funding. Program funding approaches with funds operating for limited periods and then either requiring reapplication or not continuing also evoked frustration and disappointment from service staff and management. All too often, successful programs are established, run for a finite time and then stop as the specific funding ceases.

Coverage and reach into the community

Primary care staff were generally not able to demonstrate what proportion of their local community was able to access eye care. AHS staff were able to be responsive to patients presenting with problems, but there was no evidence of a population-based approach to determine need and whether appropriate community coverage was being provided. In particular, the use of databases and effective recall systems for patients who have diabetes and the annual delivery of diabetes eye exams was not well demonstrated in many AHSs.

School screening

It is reported that school screening for vision problems is a significant, time-consuming and ongoing activity undertaken by some REHCs. The evidence does not strongly support school screening for vision[63] and it is not recommended by NHMRC with the exception of trachoma screening in endemic areas[64].

The NIEHS showed that there was less poor visual acuity in Indigenous children than mainstream children and especially much less myopia (short sightedness)[4, 12, 46]. This does not mean that there are not Indigenous children in need of eye care, but there will be a relatively low return from screening Indigenous children for poor vision.

It is understood that school screening is a relatively easy and effective method for an eye health team or practitioner to engage with younger Aboriginal people regarding eye care and may have educational benefits in terms of community eye care awareness and reducing fear barriers.

The co-ordination resources available in eye care are limited and these are better directed to supporting care for targeted patient groups and particularly for assisting high-risk patients along the pathway of care.

It may be necessary to support the transition of those REHCs who are providing school screening to direct their resources to other activities, which could include teacher education regarding eye care (so that teachers are better able to identify students who may have eye care needs) and grouped student education about eye care.

Misconception and prejudice

An alarming field observation was an attitude among some primary care staff that was dismissive of the needs of eye care for the community. Underlying views included that older Aboriginal people did not read and so were not in need of glasses for near vision, that glasses were not used and that glasses would be repeatedly lost and misplaced and so were not a good solution or investment.

A blind Aboriginal woman underwent cataract surgery and subsequently won the prestigious National Aboriginal and Torres Strait Islander Art Award. It is reported that this 'sparked a burst of creativity – these canvases seemed to literally be flooded with light in the same way her experience of the world was' (The Australian)

A later section of this report proposes a number of false reasons for not addressing Indigenous blindness (see Section 5.7).

Aboriginal Health Service model of care

AHSs generally provide care through a model that involves the patient making contact with the service and with the initial screening conducted within the AHS. This may involve an AHW, AHS nurse or GP. The observed norm is that the initial assessment and screening occurs within the AHS before referral to or involvement of visiting or external services. The advantage of this service model includes surety to the community that services are readily available for attention on any day (and not just when visiting services are in attendance). It also potentially allows for the more appropriate use of secondary services. But the model requires good knowledge, capacity and systems at AHSs to appropriately screen, identify, refer and follow up.

This model is consistent broadly with some community health centre approaches evident in Victoria. In 'mainstream' the expectation would be that someone with a vision or eye problem may attend an optometrist without advice, referral or screening by another health practitioner or may attend a GP and be referred to an optometrist or ophthalmologist.

The additional step of attending the AHS prior to visiting the eye practitioner, especially an optometrist, was not well appreciated and understood by health practitioners working outside the ACCHO sector. This creates an interaction barrier with mainstream service providers.

'If they have an eye problem why don't they just come to my practice' (Victoria)

Government support and emphasis on primary care

The federal government health reforms and many state government initiatives in health focus on strengthening primary care services in order to appropriately respond to the increasing demand for health services. Eye and vision care service models need to work with this development with a view to improving integration of specialist eye care with primary care. Optometry, in particular, needs to consider how its services are offered when the service is not available locally.

Outcome expectations

How does one know how much primary eye care should be part of primary health care? What are the measures for local AHSs or regional management to know that at primary health level appropriate primary eye care is being provided? Population-based needs and patient coverage and examination rates were generally not available and were not used as tools to assess whether the community needs for eye care were being met. Primary eye care provided at the community level is variable and often dependent on individual practitioner knowledge and interest. There was little sense at the AHS management level of what eye care should be provided and what should be expected of primary care staff with regard to eye care.

Community expectations of primary care outcomes

There was generally a low expectation from community members that eye conditions and assistance with eye care could be satisfactorily managed and provided at primary care clinic level. Community members were aware of specialist eye services (optometry and ophthalmology) and there was a clear tension between waiting for a visiting service, or in urban areas going to a local mainstream practitioner, and using eye care services based in an AHS. Low expectations of primary eye care from community members does not encourage or support the development of better basic primary eye care at the primary care level.

4.3 Indigenous access to eye health services

Roadmap Recommendations

Aboriginal Health Services and eye health
That where possible visiting eye health services, including VOS and MSOAP, are provided within Aboriginal Health Services.

Cultural safety in mainstream services
That service providers involved in the co-ordination of eye care including Local Hospital Networks and Medicare Locals consult with local Aboriginal and Torres Strait Islander communities and improve the cultural awareness of their staff and services.

Low-cost spectacles
That a nationally consistent Indigenous subsidised spectacle scheme be established to provide low-cost, quality-assured, cost-certain, product-certain spectacles to Aboriginal and Torres Strait Islander people.

Hospital surgery prioritisation
That all jurisdictions aim to reduce the waiting time for cataract surgery recognising Indigeneity and the high levels of co-morbidities and improve consistency in clinical assessment categories across jurisdictions.

4.3.1 Aboriginal Health Services and eye health

Urban/rural/remote eye health service use

The 2006 Census indicates that the majority of Indigenous Australians live in Major Cities (32%). The remaining Indigenous population was evenly distributed across Inner Regional (21%) Outer Regional (22%) and Remote/Very Remote Australia combined (24%)[120].

Approximately half (47%) of AHSs are located in Outer Regional areas (25%) and Inner Regional areas (22%) of Australia. Forty-one percent are located in Very Remote or Remote areas combined. The remaining 13% of AHSs are located in cities and urban areas[65]. On a population basis, there are far fewer AHSs available in cities and urban areas per population than in the other regions.

The distribution of AHSs can provide an indication of the availability of primary health care services for Aboriginal people living in different areas throughout Australia (urban, regional, rural and remote areas).

Data on health service use in Australia shows that Indigenous Australians access health services quite differently to non-Indigenous Australians, with Indigenous Australians accessing more public hospital and community health services than non-Indigenous Australians. Compared with other Australians, Aboriginal and Torres Strait Islander people were 2.5 times as likely to be hospitalised for acute care, and slightly less likely to receive subacute and non-acute care in hospital[120]. Additionally Indigenous Australians use fewer medical, pharmaceutical, dental and private health services[66].

Utilisation of optometry services increases when the service is provided through an AHS

Eye-sight and vision problems are frequently self-reported by Indigenous adults, and are the most commonly reported long-term health issue at 30% of adults[67, 121]. As mentioned previously, the availability or presence of optometry and ophthalmology services in a major city, town or community does not directly influence the use of the service by Indigenous clients[62, 68]. In major cities where the concentration of optometry and ophthalmology services is highest and where there are large Indigenous populations, service providers reported that they see few Aboriginal clients.

It is essential for AHSs to play a bridging role between the primary care services and the hospital and visiting services in cases where further treatment is required.

'Many Aboriginal people face a lack of transport to treatment centres, limited child-care facilities and feelings of isolation while undergoing treatments'[66]

There is also a very important role for Aboriginal liaison officers and health workers who can assist Indigenous patients to navigate the hospital system to get the treatment they require and to assist patients to feel conformable staying in an unfamiliar, culturally unsafe, hospital environment. Perceptions and expectations of services and the staff involved can influence service utilisation and can be both positive and negative.

4.3.2 Cultural safety in mainstream services

Use of eye care services in urban areas

Despite more public and private health services being available in urban centres, many Indigenous Australians face challenges accessing health care services. The factors influencing service utilisation are complex, but the challenges influencing urban Indigenous Australians' access to eye care are seldom considered separately to the challenges faced in Regional and Remote areas. The barriers to access in urban areas are often quite different from the barriers faced in rural and remote places. In more remote areas the distance from the health service and the availability of services are frequently reported as the major barriers. In urban areas there are proportionately fewer AHSs per population, although there are more mainstream eye care services available in cities and urban areas. In urban areas it is unclear how many Indigenous clients access these mainstream eye services.

The NIEHS found that almost a third of Indigenous adults reported never having an eye exam and there was no significant difference between the levels of vision loss and blindness in Indigenous adults living in major cities in comparison to other regions, despite the variability in number of services available[4, 12, 46].

The prevalence of cataract, diabetic retinopathy and refractive error was essentially similar in urban and rural areas. The major significant difference in prevalence was seen for rates of trachoma which remains endemic in rural and remote parts of the Northern Territory, South Australia and Western Australia and in pockets of New South Wales and Queensland.

There is evidence to show that Indigenous Australians are more likely to access ACCHOs, public hospitals or community health services. These services are more likely to be regarded as being culturally safe. This is an issue in major cities and urban areas where there is proportionately less access to community-controlled health services.

'In town xx the optometrist is located in the main mall. The mall has restrictions on entry requirement for shoes to be worn. Many local Aboriginal people and those visiting from nearby town camps are not comfortable walking into the shops – it is referred to as a 'shame job'' (major centre in Northern Territory)

'I don't send people there and I wouldn't go there myself without having someone with me' (Victoria)

Specialist consultations

Many Indigenous patients rely on public hospital services for treatment but if private services have to be used it is essential to have access to bulk-billed consultations to encourage use of the services. For ophthalmology services, cost was highlighted by both patients and staff as one of the main barriers limiting Indigenous access to eye care services. Service providers offering bulk-billing for consultations ensure cost-certainty for patients and this reduces the barrier that is associated with the cost of the consultation.

Consultation gap fees for ophthalmology services are one of the main barriers limiting Indigenous access to treatment for eye conditions. Most public hospital ophthalmology outpatient services are based in a few large hospitals that are located in capital cities. In regions where there are no public ophthalmology outpatient services, Indigenous patients usually can only be seen by visiting ophthalmologists. In many regional areas, these ophthalmologists, even those supported by MSOAP, may charge gap fees for consultations. The alternative for the patient would be to travel to the capital city to receive treatment at a public hospital.

All optometry consultations are bulk-billed but with additional costs associated with some treatments and prescription spectacles. Cost-uncertainty is linked to not knowing if you will be asked to pay for spectacles and how much this might be, or if you are likely to be referred to an ophthalmologist. This prevents many clients from regularly accessing optometry services, particularly in areas where there are no low-cost spectacle schemes.

'They are very good at talking 'specialist talk' but never sit in or get feedback from the community' (Victoria)

'Most nurses come from down south and don't understand community issues. Some are very bossy' (Northern Territory)

'X is engaging well with communities as shown through the turn up rate for surgery and this shows the importance of the liaison role. Patients are better prepared for the surgery and travel' (Northern Territory)

'Recently had a mix up where X went to do eye screening of kids in schools and the previous week Y had been there to discuss blitzes. Parents freaked out because they thought X would be taking their kids away for eye surgery' (Northern Territory)

Language support

For remote communities in Western Australia, the Northern Territory and South Australia, language and communication between patients and service providers was identified as a barrier. In only a few locations were translators or local AHWs with community links effective in bridging this communication gap. However, the selection of an AHW or a person to translate is often not given enough priority (that is, a young person would feel uncomfortable talking about health issues with an Elder or asking them to 'do something').

4.3.3 Low-cost spectacles

Supply of spectacles including ready-mades

Uncorrected refractive error is a major cause of vision loss that is cheaply and easily corrected with spectacles. Access to a good supply of low-cost spectacles would address 54% of the vision loss and low vision of Indigenous Australian[4, 12].

Many service providers commented that there was a high need for replacement spectacles particularly in rural and remote areas where damage to spectacles is common. The reported reasons for spectacles being damaged, in addition to general wear and tear, included the lack of appropriate place to store spectacles and grandchildren playing with spectacles.

'We just go the $2 shop and get our glasses' (Victoria)

Ready-made glasses provide a potentially cost-effective way to address some of the refractive error needs of many older people. However, some warn that the appropriate use of ready-made spectacles is difficult to monitor and their use may prevent people from seeking eye examinations that may detect unrecognised and underlying eye conditions. The use of ready-made reading glasses should not replace the need for regular eye examinations. The need for a new pair of spectacles was reported as a common motivator for visiting an optometrist. Ready-made reading glasses should be made widely available and a nationally consistent Indigenous subsidised spectacle scheme is required to provide low-cost, quality-assured, cost-certain, product-certain spectacles to Aboriginal and Torres Strait Islander people.

Low-cost spectacles

Various schemes have been introduced by different state and territory governments to provide spectacles at low-cost. Most schemes are available to pension card holders and some are available to low-income earners. The schemes have different approaches to eligibility, entitlement, patient payment, product choice and accessibility.

Table 4.1 provides an abbreviated overview of the scheme for comparison. The table does not include all specific details for each scheme.

Table 4.1: Low-cost spectacle schemes available in each state and territory (adapted from OAA working document 2011)

	Australian Capital Territory	New South Wales	Northern Territory	Queensland	South Australia	Tasmania	Victoria	Western Australia
Name of scheme	ACT Spectacle Subsidy Scheme	VisionCare NSW (NSW Subsidised Spectacle Scheme)	NT Pensioner and Carer Concession Scheme	Spectacle Supply Scheme	South Australian Spectacle Scheme	Spectacles Assistance Scheme	Victorian Eyecare Service	Spectacles Subsidy Scheme
Eligibility	Residents of ACT Commonwealth pension	Permanent residents of NSW Commonwealth pension means test	Residents of NT Commonwealth pension senior person	Permanent residents of Queensland Commonwealth pension seniors card means test at public hospitals	Residents of SA Commonwealth pension	Permanent residents of Tasmania Commonwealth pension means test	Permanent residents of Victoria Commonwealth pension	Permanent residents of WA Commonwealth pension aged person, seniors card
Entitlement	One pair of near vision and one pair of distance vision spectacles or one pair of bifocals or one pair of trifocals	One pair of near vision and one pair of distance vision spectacles or one pair of bifocals Frames from an approved range	One pair of near vision and one pair of distance vision spectacles or one pair of multifocals	One pair of near vision and one pair of distance vision spectacles or one pair of bifocals Frames from an approved range	One pair of near vision and one pair of distance vision spectacles or one pair of bifocals	One pair of near vision and one pair of distance vision spectacles or one pair of bifocals or one pair of multifocals Frames from an approved range	One pair of near vision and one pair of distance vision spectacles or one pair of bifocals or one pair of multifocals Frames from an approved range	One pair of near vision and one pair of distance vision spectacles or one pair of bifocals
Frequency of benefit	Two yearly unless clinically necessary	Two yearly unless approved by VisionCare	Two yearly unless clinically necessary	Two yearly unless clinically necessary	Two yearly unless clinically necessary	Two yearly unless clinically necessary	Two yearly unless clinically necessary	Two yearly unless clinically necessary

	Australian Capital Territory	New South Wales	Northern Territory	Queensland	South Australia	Tasmania	Victoria	Western Australia
Availability	Prescription from optometrist or ophthalmologist Dispensing from participating outlets	Prescription from optometrist or ophthalmologist Dispensing from participating outlets	Prescription from optometrist or ophthalmologist Dispensing from participating outlets	Prescription from optometrist or ophthalmologist Dispensing from participating outlets	Prescription from optometrist or ophthalmologist Dispensing from participating outlets	Prescription from optometrist or ophthalmologist Dispensing from participating outlets	Prescription from participating optometrist or ophthalmologist Dispensing from participating outlets	Prescription from optometrist or ophthalmologist Any optometrist or optical dispenser
Patient co-payment	Patient pays $22 per pair of glasses	None if scheduled items supplied Patient pays cost difference for non-standard frames	None if scheduled items supplied Patient pays cost difference for non-standard frames	None	Schedule of agreed prices - patient pays 75%, government pays 25%	Patient pays 30% of lens cost and 30% of frame costs and government pays 70%	Patient pays $35 for reading and distance glasses, $48 for bifocals, $88 for progressive glasses Patient pays cost difference for non-standard frames	Patient pays 50% and government pays 50% up to $100, then patient pays total cost beyond $100
Indigenous specific details		VisionCare NSW provides facilitated approval for ICEE optometry services from AHSs all Indigenous people	Alternative Low Cost Spectacle Scheme, where patient pays $48 for reading and distance glasses, $90 for bifocals				Service sub-scheme, patient pays $10 for glasses all Indigenous people	

VisionCare NSW is a not-for-profit organisation, funded by the New South Wales Government which provides spectacles free of charge for New South Wales pensioners subject to a means test. Indigenous patients attending AHSs in New South Wales are able to access optometry services provided by ICEE. Patients of these clinics are able to receive glasses without cost under a special arrangement with VisionCare NSW.

'I prescribe glasses for my patient and the order goes to x, then this gets passed to y, and then gets sent to z for approval. All going well the message gets through and the glasses arrive – eventually' (New South Wales)

The Spectacle Supply Scheme of Queensland also is able to provide glasses without charge for Indigenous patients. Means testing for this spectacle supply is approved centrally and conducted through public hospitals.

'It can take 10 weeks to get the glasses, often it takes longer' (Queensland)

The Victorian Eyecare Service, funded by the Victorian Government, has operated in Victoria since 1985. In 2010 an additional scheme commenced specifically for Indigenous patients. The Victorian Department of Health has funded the ACO to run a subsidised spectacle scheme for Aboriginal Victorians. The scheme allows patients access to a specifically designed pair of frames along with the prescribed lens, for a contribution of $10, and is funded to provide an estimated 1,800 pairs of glasses over three years. The scheme is offered through ACCHOs where ACO optometrists provide eye care services and through a network of private optometrists in rural Victoria. There is no requirement for a health care card or pensioner status to be eligible for access to the scheme. The introduction of this scheme in 2010 has been followed with a huge (twofold or more) increase in demand.

A positive initiative in the Northern Territory through the FHF has allowed payment options for those clients not eligible for the Northern Territory Government scheme. The payment options include Centrelink deduction and salary deductions for ordered spectacles. This scheme has faced many logistic problems with unfortunate delays and is costly to run.

'Many glasses have gone missing or never reached their destination' (Northern Territory)

'The price of the glasses has gone up a lot in the past year, a pair of tinted distance glasses were $60 last year now the same costs $220' (Northern Territory)

In some states the low-cost spectacle schemes are more difficult to access and little is known about their availability.

'Really, are there schemes that provide cheaper glasses?' (Western Australia)

'I think they, the visiting service, provide glasses or if not they go to the local optometrist if they can afford them' (Western Australia)

'We can't wait for the visiting service, so we go to the local optometrist but we know they are too expensive' (Western Australia)

The success of the Victorian and New South Wales programs is clear. Also, they are the only schemes that are specifically for Indigenous Australians. The uptake of these services demonstrates that when cost-certainty is assured and high-quality spectacles and services are provided, Indigenous clients will seek access to the service, they are willing to pay for these services and they recommend them to their friends and family members and so address the unmet need.

4.3.4 Hospital surgery prioritisation

Surgery waiting times

Theatre time and the resources allocated to ophthalmology surgery in public hospitals are limited and the need for surgery is growing. More surgery is being performed in the private sector; however, this additional supply is not sufficient to meet needs for surgery, particularly for low socio-economic Indigenous Australians. Indigenous patients who require cataract surgery are much less likely to access private surgery and recently analysed national hospital data show that Indigenous patients are four times more likely to wait more than a year for cataract surgery in comparison to non-Indigenous Australians[69-71].

There are few publicly employed consultant ophthalmologists in Australia. Most ophthalmologists in public hospitals are part-time, visiting medical officers. In hospitals with long waiting lists a poor allocation of ophthalmology theatre time and resources limits access to the final step in comprehensive eye health care. Comparison of a variety of specialty surgical waiting times in 2009-2010 shows that the longest median waiting time is for ophthalmology surgery[70].

Cataract surgery also is the highest volume of elective surgery by volume and the volume has increased 10 times over the past 15 years, which makes it very hard to keep up with community demand.

In one jurisdiction, an eye specialist pointed out that the wait for cataract surgery at the main public hospital in that city was seven years.

Lack of public cataract surgery theatre time and the low number of publicly employed ophthalmologists affect Indigenous patients' access to surgery. Part of the problem is that public hospitals do not give sufficient resources to handle the public demand for surgery and seem to be happy for many patients to flow over and have surgery in the private sector. Ophthalmologists often bulk-bill pensioners who have private surgery. However, there still remains the large disparity between Indigenous and non-Indigenous people waiting for cataract surgery in public hospitals. This disparity is due to many small gaps in the system that require good co-ordination and case management to overcome.

4.3.5 Barriers and enablers

Barriers to utilisation of eye health services

Across Australia the low uptake of eye care services by Indigenous people contributes to the gap in eye health for Indigenous Australians in remote, rural and urban areas. Low levels of utilisation can be linked to health system and social barriers that impact on a person's capacity and desire to seek services. Additionally, due to socio-economic reasons many Indigenous Australians cite lack of transport to health facilities and family responsibilities, which have overriding priority when considering healthcare. The low use of eye care services by Indigenous adults is influenced by a number of barriers that fall into three domains: self, social and health system barriers (Table 4.2).

Table 4.2: Barriers to utilisation of eye health services

Domain	Description of barrier
Self	priority affordability awareness of issue understanding of service capacity perceived need to seek care
Social	acceptability of service priority for self and family shame expectations around services expectations around service providers
Health system	service availability fragmented service delivery lack of communication between eye care levels cost transport referral processes

Clear referral pathways and the complexity of the system

The eye health system involves multiple layers of service provision coupled with multiple entry points for patients. For example, a patient with an eye problem could present to a primary care provider, an optometrist, a public hospital or an ophthalmologist to enter the eye health system.

Additionally, there are a number of unrecognised or 'hidden' steps between the identification of an eye condition and treatment or surgery. This limits the capacity of health staff to make appropriate referrals and this is especially problematic in locations with infrequent or limited access to specialist eye services. Lack of understanding by health service staff and other health professionals of all of the steps involved in the pathway of care limits the access of their patients to comprehensive eye care services.

Staff at primary health services often were not confident or lacked capacity to make appropriate referrals. It was observed that many of the staff interviewed in the consultations did not have knowledge of all of the additional steps involved in treatment for eye conditions or of the relevant practitioners involved in delivery of eye care services. Further, staff were not aware of any existing models or guidelines that outlined the referral process and patient follow-up pathway even for common eye conditions.

Potential eye care patients need to know how and where to access primary eye care. They also need to be supported to navigate referrals to optometrists or ophthalmologists and how to access hospitals for further treatment of eye conditions. Patients, referring practitioners and support workers need to know where to access services, when the services are available and what will be expected at the next steps in the pathway of care. The lack of consistency and clarity around treatment pathways for eye health care complicates patient entry into the system and the management of the patients' care once they are referred for further treatment. Models of supported care have been used in other areas of health care to overcome referal pathway and system complexity barriers (see Sector 4.4.5).

Cost and cost-certainty

As mentioned above, cost-uncertainty is an important limiting factor in the utilisation of services. Supply does not have to be free to ensure cost-certainty. When expected costs are reasonable and the cost of the service advertised, uptake of services improves. Specialist consultations are often conducted in private rooms which adds time and cost to the patient journey. Specialist gap fees and the use of private rooms are often barriers limiting access to effective treatment for Indigenous patients.

Some ophthalmology services funded by MSOAP or other non-government funding streams bulk-bill all services, especially in the more remote areas. However, many ophthalmologists still charge gap fees for services, even when their travel is funded by MSOAP. Charging gap fees for specialist services that are funded by MSOAP is not limited to eye health specialists (see also Section 4.3.2).

Patient transport

Funding for patient transport was referred to by AHS staff and clients as an important enabler that increased access to eye health services. Many eye health patients required transport assistance for optometry consultations because they did not have personal means of transport, adequate public transport was unavailable or they did not have family members who could drive them to their appointments. Clients undergoing diabetic eye examinations that require dilating drops are not able to drive themselves for a period of time after the examination; these clients generally relied on the AHS transport or family members to drive them to and from appointments.

AHSs generally have staff, drivers and vehicles to provide patient transport services to and from the health service. Many eye health co-ordinators mentioned that it was difficult to get drivers and vehicles allocated to eye health appointments because the eye health program did not have adequate funding to contribute to the AHS for these services.

Difficulties associated with patient transport also emerged when AHS clients were referred for further treatment at optometry or ophthalmology services that were external to the AHS. Referred patients often had to arrange their own transport for these consultations and appointments. If surgery was required that could not be performed at the regional hospital, the hospital administration could assist and arrange support for the patient through the Patient Assistance Transport Scheme (PATS).

The Patient Assistance Transport Scheme

PATS provides partial transport and accommodation assistance to rural and remote patients and a family or AHW escort to travel from their home to a hospital if patients need surgery or a clinic appointment and the hospital is more than one hundred kilometers from their home. Both AHS and hospital staff are usually involved in assisting patients to arrange PATS support. Health workers noted that greater flexibility around the guidelines for PATS regarding eligibility for escorts and family members to accompany the patients was needed as this remained a significant barrier for some patients.

Challenges associated with cross-border travel for surgery were also raised by health service and hospital staff. Another challenge associated with PATS involved breaks in the chain of patient transport; for example the community health service would arrange PATS transport with the hospital in the capital city, the patient would receive the airfare and would be dropped off at the airport, but often there would be no-one to meet the arriving patient in the city and this would result in non-attendance for surgery. Hospitals did not actively follow-up PATS patients who did not attend appointments.

'One elderly man from a desert community travelled by bus to the capital city for surgery. He did not know how to go from the bus stop to the hospital. After sitting at the bus stop for three days, he returned home' (South Australia)

Fear and embarrassment

Fear and embarrassment associated with eye health services were frequently mentioned as negative influences on a patient's choice not to access services. Fear of eye health services was sometimes expressed as 'shame' to go into the clinic and feeling uncomfortable with the service provider from past negative experiences, either personal or those involving a family or community member. Negative experiences could include not understanding the practitioner and becoming confused, experiencing discomfort during examinations, not receiving any treatment and so gaining no benefit, or being charged gap fees for services or for expensive spectacles.

Health workers, nurses and co-ordinators commented that it was difficult to get clients with diabetes to come in for annual eye examinations. Some reasons given for this were that there was little knowledge of the actual prevalence of diagnosed diabetes clients in the community and which clients with diabetes had already received their annual eye examination. Additionally, it was challenging to convince clients of the benefits of the examinations that required clients to have dilating drops put in their eyes. The drops cause discomfort and inconvenience the clients because they cannot drive and experience sensitivity to light for some hours. Following the examinations clients do not have any noticeable changes or improvements in vision and may or may not be referred for further treatment. Many clients felt this was an uncomfortable procedure and would prefer not to return for regular examinations. In this instance, there is a major advantage offered by the digital, non-mydriatic retinal cameras that do not require dilating drops in most cases and which obtain excellent retinal images in a fraction of the time required for a dilated eye exam (see Section 4.2.3).

Tensions between ACCHOs and mainstream sectors impacting on eye care?

In May 2010 the Australian Government introduced additional incentives to support general practice and AHSs to provide better care for Aboriginal and Torres Strait Islander Australians through the Practice Incentive Program. The program encourages improvement to general practice through financial incentives to support quality care and improve access and health outcomes for patients. A sub-section of the Practice Incentive Program is a specific Indigenous health incentive to support best practice management of Indigenous patients, including best practice management of chronic disease. For a practice to be eligible, Indigenous patients must self-identify to the GP or practice staff. Practices are encouraged to ask all patients whether they identify as Indigenous. At least two staff members from the GP practice must undergo cultural awareness training. A patient's registration payment is offered to the practice for each Aboriginal patient who is a 'usual patient' of the practice, is older than 15 years, has a chronic disease and has had or been offered an Aboriginal health check, funded through Medicare.

'They just try to sign up as many patients as they can' (New South Wales)

This funding stream is linked to patient access of services, but does not encourage continuity of care. Patients may access services from a number of different primary health services. Funding streams need to

be responsive and have the flexibility to support primary health organisations to provide services where they are needed and support patients identified at the primary health level to obtain necessary treatment through referrals to specialists and hospitals. Practices (primary care organisations) need to be accountable not only for offering the health check but for completing the health check, including the testing of vision. MBS health assessment forms are currently being updated to include eye-specific assessment items on all Aboriginal health check forms (see Section 4.2.2).

Agreements and partnerships

There was little evidence in our consultations of arrangements between AHSs and local mainstream eye care providers, except for when providers delivered services from the AHS. We may have anticipated local practices and AHSs working together to ensure best care to the community, but this was rarely the case. There was usually effective communication and co-operation for individual patients, particularly patients with special needs.

'We have been visiting the local AHS for more than 10 years to provide clinics and now many patients seem comfortable coming straight to our practice' (Victoria)

Indigenous choice

Field observations confirmed in a number of locations, that communities were not singular in their approach to selection and use of health services. While the local AHS was used by some community members, others chose to attend elsewhere for primary health care. Some community members would use the local AHS for some services and chose to attend elsewhere for other services.

'None of my mob go to that [health service]' (Victoria)

The health system goal should be to ensure that all health services are safe and appropriate for Indigenous care, to allow choice to be exercised.

Access to retinal examinations

As discussed in Section 4.2.3, diabetic retinopathy is a major cause of vision loss that is almost entirely preventable with regular eye examinations and timely laser surgery. National treatment standards for diabetes management in Indigenous Australians require an eye examination every 12 months[55].

Better access to retinal examinations was observed in health services that had invested in eye care equipment, maintenance of the equipment and training of staff to use the equipment. Health service staff, including AHWs, were able to opportunistically identify and screen patients in the clinic and had the capacity to explain common eye conditions and the importance of screening to clients.

More frequent use of eye care equipment was also observed in the health services that had a dedicated room or area where equipment for eye examinations (such as an eye chart, slit lamp and digital retinal imaging camera) was permanently set up. The staff were trained to use the equipment and the equipment was properly maintained.

A major barrier for implementation of digital screening programs is weak links between the primary health services and the specialist eye services or others with the capacity to examine the digital images, determine the need for and provide further treatment. Where partnerships have been established and appropriate infrastructure was available, a fast turn-around of results can be achieved. Digital images can be sent electronically to a specialist in another location and recommendations for referral can be assessed quickly (see also Section 4.2.3).

However, the major limiting factor in this use of telemedicine is the lack of funding for 'image capture' or the 'store and forward' component. Unlike a general medical or psychiatric consultation, where only a television camera and screen need to be set up, a retinal examination needs a trained operator and a retinal camera to capture the image. Once recorded, the image can be examined or graded by any number of means and an assessment made. This process does not need to be 'instantaneous'.

4.4 Co-ordination

Roadmap Recommendations

Local eye care co-ordination
That mechanisms for local co-ordination of eye care will be established within Local Hospital Networks and Medicare Locals.

Clear pathways of care
That local co-ordination of eye care is developed along with local referral pathways for all eye care services and these pathways are made known to all service providers involved.

Workforce identification and roles
That each local area identifies the appropriate (existing or additional) personnel and positions required for the proper co-ordination, organisation and delivery of the patient's journey along the pathway of eye care.

Eye care support workforce
That sufficient people in each local area be appropriately designated, trained and funded to organise and co-ordinate patients along the pathway of care.

Case co-ordination
That a case co-ordination strategy be established within Aboriginal Health Services for all patients at high need for eye care and/or those referred for eye surgery. For patients who have diabetes, case co-ordination should be provided by chronic disease co-ordinators.

Partnerships and agreements
That local co-ordination of eye care builds on partnerships and agreements with local service providers and visiting eye services.

4.4.1 Local eye care co-ordination

Operational silos

Not unique to eye care in the health system, nor to operational or management systems elsewhere, was the observation of elements of the service system working within their immediate domains of interest and concern and having scant knowledge or regard for components outside their immediate domain.

Optometrists and ophthalmologists were very aware of their immediate responsibilities and had well defined strategies of action for patient presentations, but claimed little knowledge of the other elements of the eye care system or pathway. For example, an optometrist would arrange for the referral of a patient for ophthalmological assessment with regard to, say, cataract surgery and be unaware of the specific fee basis, waiting times or location of surgical services, which was seen as the domain of the ophthalmologist. In the case of ophthalmology, local providers, having assessed a patient who required glasses, were unaware of the services that provided subsidised glasses or alternative optometry services.

The silos were not just defined by professional groups, but also within each practitioner or practice domain. To an extent this is understandable given that optometrists and ophthalmologists generally operate as independent businesses in private enterprise, but in the area of Indigenous health care this can be quite detrimental.

Lack of support for co-ordination of care

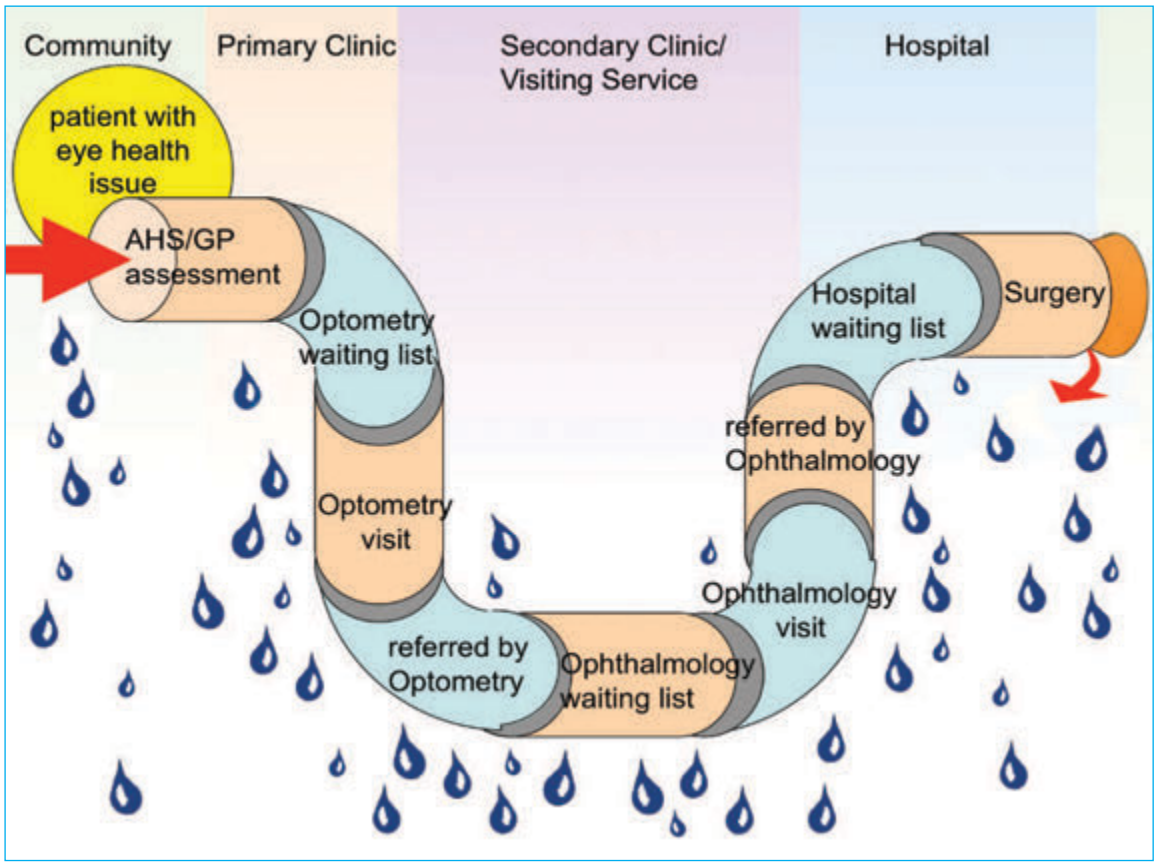
REHCs talk about the lack of local, regional, jurisdictional and federal support for their work and positions. Lack of local support is characterised by isolation within AHSs, where there is usually only one REHC or 'eye person'. Financial and service priority pressures within AHS also create operational difficulties. There is little regional and jurisdictional support for REHCs, with the exception of New South Wales and to some

extent the Northern Territory through ICEE. More federal support and leadership is needed and the recent REHC workshops – sponsored by DoHA and organised by Vision 2020 Australia, and held in 2010 and 2011 – offer an important new step[16]. In addition, more support has been offered to REHCs through Vision 2020 Australia, ICEE, OAA and the Indigenous and Remote Eye Health Service (IRIS). Further support has been provided through established visiting service teams particularly the VOS and MSOAP-funded specialist services.

The Leaky Pipe

A diagram of a 'leaky pipe' was developed to pictorially represent the large number of elements of the eye care system and the difficulty for a patient to successfully enter the system, traverse the elements and exit with delivery of a treatment outcome at the other end (Figure 4.1). The diagram was developed during the project as the system elements and difficulties along the patient pathway became more apparent. The care system elements are shown as sections of the pipe which in an ideal system would have no gaps between elements. The many steps, the time taken and the complex logistics of proceeding down the path lead to a significant drop out from the system or 'leakage from the pipe' – which is represented by the liquid dripping from the pipe.

Figure 4.1: The 'leaky pipe' in the patient pathway for eye care (from *The Roadmap to Close the Gap for Vision* summary report 2011[9])



One consequential effect of the leaky pipe is that the system acquires the reputation of being dysfunctional, hard to navigate, just too slow or not effective in delivering the required outcomes. Therefore, people choose not to enter the system at all. Why would you bother entering a care system where one option would have the successful outcome, say, a year or more down the track? The other option would be to drop out of the system without receiving the care or treatment required to fix the problem.

A further observation in the patient eye care pathway is illustrated by the stopper or bung at the end of the pipe. This represents the severe restriction in the eye care service system imposed by the lack of hospital-based cataract care. Not only are the pathway elements difficult to traverse and there is leakage along the path, but there is a more severe restriction at the end of the path, which creates 'back pressure' in the system with further leakage and additional patient drop out. When 'nobody' or very few people ever get effective treatment, why would others bother about 'all the hassle' of even starting the process?

The diagram illustrates the great waste of funds and inefficiencies within the eye care system as patients who progress along the system get so far, but no further. The cost for the optometry service may be incurred, but the patient doesn't receive glasses. There are costs to get to a referral for cataract surgery, but no surgery is performed as patients drop out of the system – this is very inefficient and wasteful of resources.

The diagram also serves to illustrate the solutions for eye care delivery – the elements of the system need to work closely together and fit into each subsequent element to stop the leakage and the stopper must be removed from the end of the pipe so that there is no impediment to patient flow along the pipe. Indeed, free flow along the pathway and good flow created by the delivery of successful surgical outcomes will create a positive effect (or negative pressure) at the entry point for care and draw more people into the system to receive the eye care they really need.

Allocation of time and funds for co-ordination

REHCs explain the complexity of arranging services for clients and the time required to support their patients along the pathway of care. Considerable time is spent contacting and counselling patients, arranging appointments and transport pick-ups, and follow up. This time allocation was not always supported by the employing AHS.

An argument used by AHSs to REHCs is that there is no longer any specific funding for the REHC position or time allocated for co-ordination, since this has been consolidated into global funding. There was a difficulty of preserving the eye care programs and positions of REHCs in local environments where they are other health priorities to attend to. This lack of interest in eye care is further compounded by the lack of specific accountability for eye care provision or performance for outcomes in the funding and service agreements with DoHA.

A pervading negative effect of the move to non-specific, consolidated or global funding reported by many REHCs was that they personally felt insecure in their positions and in their organisations' commitment to the eye health program. This was often expressed in terms of REHCs being unsure if their jobs would be there next financial year or if they would be supported with time for the eye health work. Many REHC positions were vacant and others were only working part-time.

Difficulty of co-ordinating many players

REHCs describe the difficulty of co-ordinating many disparate elements of the eye care system – patient, driver, clinic staff, optometrist, ophthalmologist and hospital – becuase the level of co-operation and communication between elements is low (Table 4.3).

There was also confusion between the co-ordination tasks and service delivery responsibilities (screening schools, treating acute eye problems etc.). In some situations, the REHC did not have the authority to solve co-ordination difficulties.

Table 4.3: The levels of co-ordination for both eye care services and the patient journey (from *The Roadmap to Close the Gap for Vision* summary report 2011[9])

Levels of Co-ordination
Community
> Community liaison provides a vital link between individual community members, their families and the clinic and its services
> This may include identification, transport, interpretation, translation and moral support
Clinic, Primary Eye Care
> Referral of more complex cases to visiting eye team
> Maintenance of patient records and referral lists for visiting eye team
> Scheduling of visits by visiting eye teams
> Co-ordination with other visiting specialists
> Co-ordination of exam rooms, accommodation, equipment and local staff
> Make arrangements for referrals to Regional Hospital
> Schedule follow up visits as required
Eye Team, Secondary Eye Care
> Co-ordination of visits with clinic and community
> Update patient records as necessary
> Communication and co-ordination between visiting optometrists and ophthalmologists
> Mechanism for communication and co-ordination with other visiting specialists
> Specific equipment items brought with team (e.g. lasers, slit lamp)
> Organise a list/ information about patients waiting to be seen
> Assistance with patient identification, transport, translation, explanation and support
> Clerical support for forms and paper work
> Referral systems for further management or surgery
Regional Hospital, Tertiary Eye Care
> Organisation of the clinic space, theatre time, staff, accommodation, travel and surgical supplies for the visiting eye teams
> Co-ordination with other visiting specialists
> Organisation and supply of surgical equipment
> Co-ordination of patients who require surgery with community and clinic
> Organisation of travel and other arrangements for patients
National/State/Territory
> Co-ordination of other specialist and allied health visits with the visiting eye team
> Oversight of co-ordination performed at different levels, recruitment, training and support
> Oversight of distribution of visiting eye teams (and other specialists) including ratio of optometric and ophthalmic visits and frequency of visits

Service activity and co-ordination requirements for 10,000 people

The NIEHS established the prevalence of diabetes, refractive error, cataract and trachoma in Indigenous Australia and these data allow the calculation of the number of people in a population who will require eye care each year[4, 12, 46]. A cohort of 10,000 Aboriginal people was used to identify the amount of specialist eye care practitioner time required to serve this model community and an estimation of the amount of support time and co-ordination required to deliver the services to this community can be calculated (Table 4.4; see also Section 5.3).

Table 4.4: Delivery and co-ordination of eye care services for 10,000 people (from *The Roadmap to Close the Gap for Vision* summary report 2011[9])

Optometry		Equivalent Full Time
Number requiring glasses exam	640	
Number requiring diabetic exam	962	
Number for other eye exams	98	
Total Optometry exams	**1,700**	**1.0**
Ophthalmology		
Number requiring diabetic laser	112	
Number of Cataract surgeries	95	
Number of trichiasis surgeries (not necessarily required in all regions)	36	
Total Ophthalmology referrals	**243**	**0.3**
Co-ordination		
Patient liaison (appointments etc.)	3.7	
Patient transport	1.8	
Organising eye clinics	1.3	
Organising hospital	0.1	
Eye clinic support (excludes surgery)	1.5	**8.3**

This calculation identifies the need for 1.0 equivalent full time (EFT) optometrist and 0.3 EFT ophthalmologist. These calculations are for the clinical service time only. Travel time for practitioners is not included and will be highly variable. Also a factor has not been included to allow for variations in clinical complexity.

The support staff required across optometry and ophthalmology clinics and hospital attendance is calculated to 8.3 EFT staff. This will include many different people who are clearly not dedicated to eye care but assist in one way or another in facilitating the patient journey. They will include community liaison staff, drivers, clinic and hospital booking clerks, nurses and clinic managers, all of whom have multifunctional roles but also need to perform certain tasks to expedite the eye patient's journey. This calculation does not include state/territory and national co-ordination nor the hospital staff physically involved in surgery or inpatient care.

Many of these support staff are already available and would have other roles most of the time but would be needed from time to time; for example, receptionists and drivers when the eye team is visiting an AHS.

4.4.2 Clear pathways of care

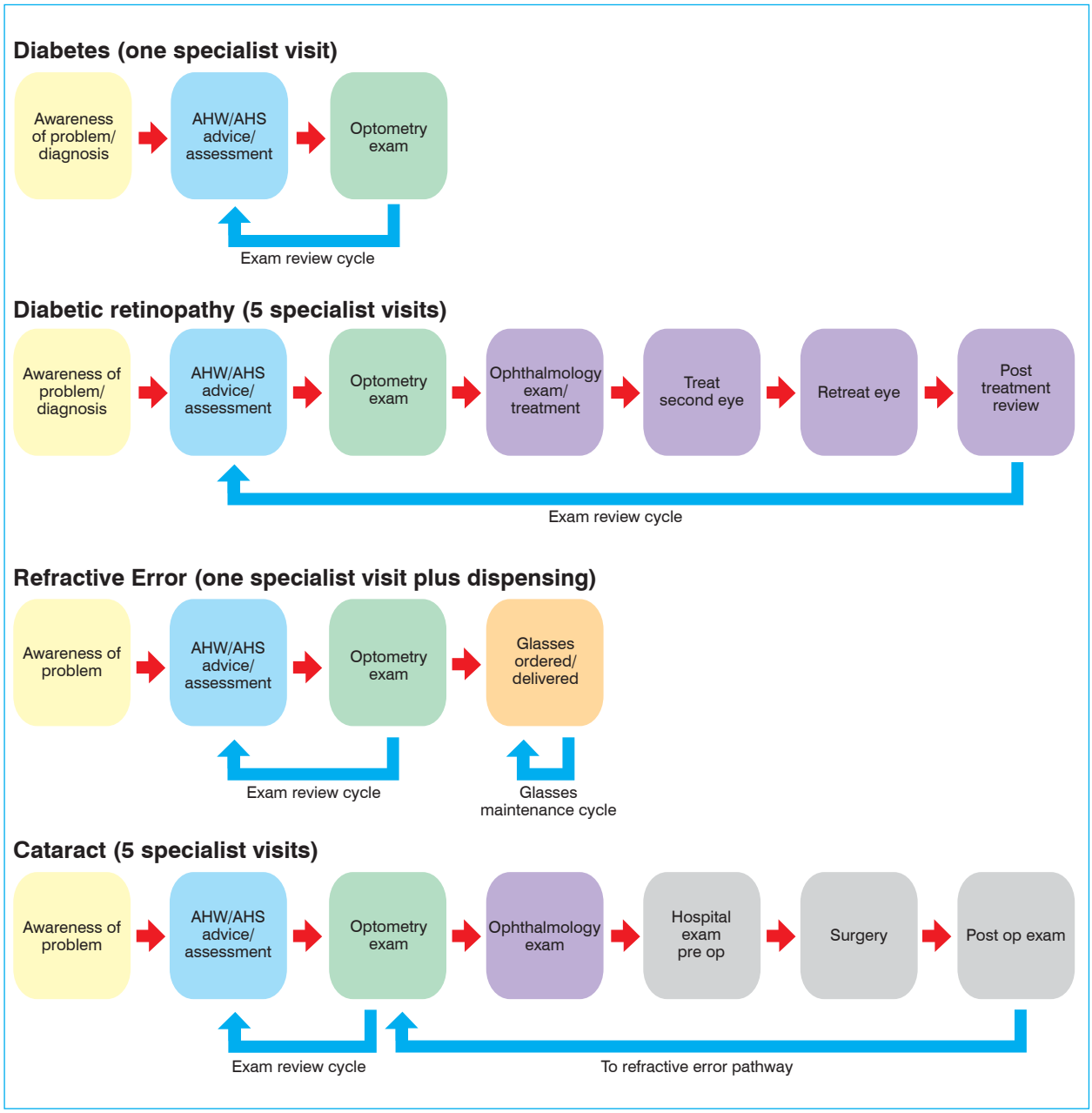
Complexity of eye care pathway

The research team was struck with the complexity of the patient care pathway for eye care and in particular noted the multiple players and locations in the pathway (patient, AHW, optometrist, ophthalmologist, hospital staff, clinic staff; AHS, clinic, hospital) and the number of visits required to ensure treatment, particularly with diabetic retinopathy and cataract surgery. The number of pathway steps makes traversing the pathway more difficult and the number of players and locations makes the pathway more complex.

Pathway complexity was illustrated by the research team tracking the normal patient pathway for the three main eye care conditions – refractive error, diabetic eye care and cataract – from identification of problem to treatment outcome. The number of visits estimated in the 'normal' passage of care involved six eye or more specialist visits (Figure 4.2) for patients being treated for cataract or diabetic retinopathy. On a particular patient basis in diabetic retinopathy care, it was very difficult to normalise the patient pathway to estimate the number of visits required because of the variability of treatment for diabetic retinopathy (one or both eyes treated, pan retinal treatment versus focal macular treatment, limited extent of laser treatment able to be provided at one visit and the need for retreatment). One practitioner working with a largely Indigenous population reported that 46% of patients with diabetic retinopathy required one laser treatment,

29% required two treatments and 24% required three or more treatments. There did not appear to be clear professional guidelines describing the number and type of visits required in care and best practice guidelines did not describe a normal or average patient journey.

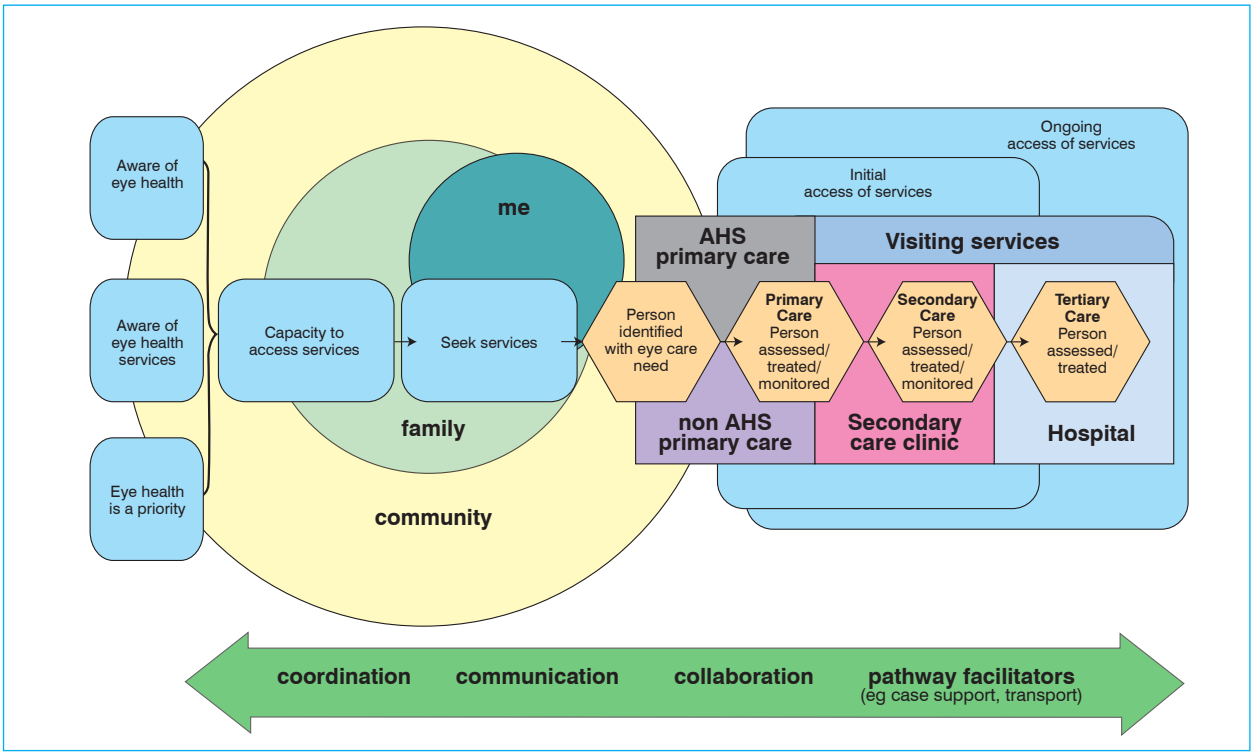
Figure 4.2: Complexity of the clinical pathway



Patient care pathway diagram

A diagram was developed during consultation to represent the patient care pathway (Figure 4.3). This was presented to stakeholder workshops to assist communication of the elements and interrelationships of the services system. There are a number of sections to the diagram.

Figure 4.3: Barriers to the provision and utilisation of eye health services for Indigenous Australians - patient care pathway



The circular sections to the left represent the interaction between the individual, me, the family and the community and demonstrate the overlay dynamic of a person before they enter the service system. The boxes overlying the circles are elements from the program logic diagram that contribute to an individual entering the eye care service system. It was considered that these essential elements of the patient care pathway were largely beyond the immediate scope of the current work.

The service system itself is represented by the overlying boxes to the right, showing location, level of care, service provider and cycle of care. The relationships between these elements were regarded as complex and not linear.

The arrow at the bottom of the diagram illustrates the mechanisms and behaviours that support the patient journey through the service system – linkages are an essential element of the eye care service system. Co-ordination, communication and collaboration were identified as key contributors to patient care across the system. This area of the patient pathway was a main focus of the project.

Service providers' knowledge of eye care pathway

A surprising and overwhelming learning from project consultation was the very poor and incomplete knowledge of the patient pathway from participants in the pathway, which in part was explained by the complexity of the eye care pathway. Participants knew what they needed to know about their own section of the pathway and their role in identifying, assisting and, if necessary, referring a patient – but they were not well informed about how other elements of the system worked (see also Section 4.2.1).

Moreover, they were not motivated to explore or understand further. The impression gained was that this was not considered a worthwhile goal, possibly because of the ever-changing nature of services but also because of reluctance to step over the mark into what was considered another practitioner's area.

The problem this created was to keep workers in different system elements separate from each other. Poorer patient outcomes are experienced when the pathway is not well understood and cannot be explained to patients.

By and large there was no clear leadership of the eye care system at a local level. There was little evidence of resources developed locally to support the eye care system for workers within any element. The practical operation of a team working together to provide eye care was rarely evident in the sites visited, although practitioners would claim that they did work co-operatively on patient care.

4.4.3 Workforce identification and roles

People can't do what needs to be done

Table 4.3 sets out the range of co-ordination and organisation tasks required within regions to ensure effective eye care delivery[17]. The task list and range is clearly far beyond the capacity and skill set of any one person. The number of people required for this co-ordination will depend on local factors such as population size, geographic distribution and the requirement for travel. A simplistic dependence on a single person designated as the REHC will not solve the problem of expanding and improving eye care to Aboriginal people, even though the roles played and the work undertaken by the current REHCs is invaluable.

REHCs to act as co-ordinators – facilitators of others

It is clear to the research team that for the REHCs to make a more significant contribution across Australia for Indigenous eye care they need to operate as facilitators and co-ordinators of care and avoid becoming drawn into the direct service provision at a primary care or individual clinic level. Their time, experience and expertise would be better used to ensure that a geographic region is appropriately served by eye care providers, that the linkages between providers are effective, and that patients are supported along the pathway of patient care and so receive the required treatment outcomes. In addition, they need to reinforce the need for the basic steps of eye care to be included in the primary care setting.

What is a region? Defining areas of responsibility

The employment of REHCs through DoHA funding in the late 1990s to early 2000s established 29 geographic regions across Australia each theoretically with a full-time REHC[11]. A number of these positions have never been filled. At present some positions have full-time co-ordinators, others part-time co-ordinators; some are vacant and intend to recruit someone, and others have just been abolished. The research team was able to identify the location of each existing REHC but not the geographic area the REHC was nominally responsible for. The passage of time since establishment of REHC areas has diluted the original identity of the 29 regions of geographic responsibility across Australia (if this ever really existed). Most REHCs seemed to be based at a location and provided services around that location. Many REHC positions and responsibilities were drawn to the employer AHS and its geographic area of responsibility rather than having a full regional focus as originally intended. This has led to some areas of Australia in which the REHC position has been maintained and where eye care services are better co-ordinated. However, in other areas there is either no REHC or they are not covered by the local REHC, and eye care is poorly co-ordinated.

It is important to note that a single REHC cannot possibly cover the population sizes or the geographic areas originally envisaged. The current system does not seem to work except for a small number of instances that are highly successful and where considerable additional resources and co-ordination have been provided.

4.4.4 Eye care support workforce

REHC job description and job clarity

It has been identified previously[14, 16, 18] that there is not a clear and accepted job description for REHCs and that REHCs across the country operate very differently and serve different parts of the eye care service system.

Field interviews confirm the great variation in actual work performed by REHCs in 2010/2011 and the lack of job clarity for all positions.

Reports prepared by Vision 2020 Australia[16] and commissioned by the Office of Aboriginal and Torres Strait Islander Health[15] have drawn attention to these issues and proposed better support for the current REHCs and highlighted the need for jurisdictional and national co-ordination and support.

We undertook a broader review of the service required to provide the needed eye care for a given population (10,000 Indigenous people). This shows the wide range of tasks required (see Section 5.3). However, it focuses specifically on the tasks rather than the individuals who would undertake or be responsible for that job. The specific allocation of responsibility clearly will vary from region to region depending on many local factors. The actual number of people required will also vary with population size. However, within this construct the role of the current REHC is clearly important and would be expected to be supported and enhanced further.

REHC and global funding

The introduction in 2004 of global funding to ACCHOs and the cessation of designated funding for REHC positions has resulted in a loss of focus on Indigenous eye health. Alternative and additional priorities within local AHSs have meant that staff who were previously involved in eye care now spend greater time on other issues and neglect eye health. It is necessary to create systems within AHSs such that eye care is maintained as an issue that requires attention and this is likely to be around AHS accountability.

4.4.5 Case co-ordination

Case co-ordination

Case co-ordination and management emerged as a key issue in field consultations[5]. Eye care system complexity, operational norms and personal capacity of community members seem to be the limiting factors for patients with eye problems entering and traversing the patient pathway. Case co-ordination provides a solution to these difficulties as the responsibility for outcome resides with a specific third party (not patient or practitioner) who has the skills and resources to do this.

There exist current systems of case co-ordination in AHSs for patients with complex needs, especially including those with diabetes, and it was evident that where co-ordination was provided, even with more complex and difficult patients, successful eye care outcomes were being achieved.

As part of the Indigenous Chronic Disease package, there are several pilot projects currently being funded to support case co-ordination in chronic disease, to explore the effects of better co-ordination and the effect on patient care outcomes.

People with diabetes need annual eye exams and 20-30% of these will need referral to ophthalmology for assessment for laser and cataract surgery. To organise and co-ordinate eye exams is an essential role for chronic disease case managers dealing with people with diabetes. Therefore they need good links with both optometry and ophthalmology. Some reports, such as from Goldfields in Western Australia, suggest 74% of those with vision loss have diabetes so the proper case management of diabetes can make a huge contribution to the management of vision loss[72].

Success stories of satisfactory navigation with appropriate support

Consultations at a number of sites and regions demonstrated successful navigation of the eye care service system, with appropriate treatment outcomes, where there was strong personal/individual capacity to navigate the system and this was supported by available and capable assistance for community members. Where there was no capacity or interest in assisting community members along the patient care pathway in a region, the attention to eye care was generally weaker.

Co-ordination not direct service provision

A difficulty described by REHCs is managing the community and health service expectations that they, as the local AHS 'eye person', should be responsible for direct service provision such as screening of school children and dealing with all eye enquiries/referrals. This direct service provider role is at conflict with the broader role of providing local co-ordination of eye care services.

REHCs who saw themselves as AHWs with an eye care expertise and those who were involved in direct service provision were sometimes trapped by the expectations and the need to provide care for individuals. REHCs who operated as facilitators of eye care services were better able to achieve a broader reach of care in their communities.

4.4.6 Partnership and agreements

Agreements, understandings and expectations

As previously mentioned, there was very little evidence of agreements between or understanding of the elements of the eye care system, AHSs, optometrists, ophthalmologists and hospitals. This in part is a consequence of the limited understanding about the other elements and results in inconsistent expectations of each element.

The eye care system seems to function without any formal link between the elements and operate through informal or personal arrangements. Although, this type of professional referral process is the norm in private practice referrals, including referral to hospital-based public services, it clearly does not serve disadvantaged groups well.

The poor understanding of the elements in the system led to poor standards, variable quality of work and an inability for those in the system to advocate for improvement or change. If no-one knows how long it is reasonable to wait for cataract surgery in the local public hospital, then the community just accepts whatever time is offered and the health service and optometrists are not empowered to remonstrate for change.

An outcome of informal arrangements was that there was significant variation across the country and between locations and geographic areas about what could be reasonably expected from the eye care system. Long waiting times and lists, high fees, and significant travel time and costs were tolerated in some locations in order to receive services, but they would not have been tolerated in other areas. The expectations of a service were sometimes framed by an unacceptable and unreasonable system performance. Users in that system were sometimes unaware that they were tolerating an unacceptable service because they were grateful for whatever care they received and knew no different.

A further weakness of a system without documented arrangements between organisations and individuals is the high dependence on individuals and the risk that the service will fall apart when a key individual is absent or leaves.

There was general support for formal arrangements between the service elements that would include agreements with clearly articulated understandings between providers about expectations of service response and outcomes.

4.4.7 Barriers and enablers

Private versus public

The eye care system operates as a mix of public providers and support systems, and private enterprise practitioners. This creates complexity, confusion and conflict. Patients are required to navigate between private options for care and public offerings with information provided by practitioners who are potentially conflicted. The tension between public and private offerings leads to community distrust of the service system. Patients may go to a publicly funded optometry service delivered by a local private practitioner and be referred to a local private ophthalmologist who is required to see the patient before the patient can be placed on a public hospital waiting list for surgery. Post-operative follow up again may be provided in private.

Federal versus state funding

The responsibility for funding eye care services is split between federal and state/territory governments. There are federal funds to support visiting practitioners (VOS and MSOAP), operation of AHSs and for consultation costs (Medicare) and state support for spectacles schemes and surgery through public hospitals[10]. The responsibility for travel is borne by states on the whole, although this is sometimes arranged through the AHS using federal funds. AHWs are supported by federal funds, although there are state programs where AHWs are also employed (for example, Aboriginal Liaison Officers in hospitals). Staff operating as co-ordinators and case managers are supported through a variety of programs and funded by both state and federal governments.

Communication

Communication, not surprisingly, emerged as a key issue in patient care discussions with patients and care providers. Communication between practitioners and service providers was universally regarded as a necessary element of high-quality patient care and yet this was generally restricted to letters of referral and report on exchange of patients. Previous work has shown that visiting services that have good communication and co-ordination are much more efficient and much more productive[5]. There was room in all locations visited to improve communication and understanding between service system elements at the level of practitioners and service providers. How does one get practitioners to talk about matters beyond individual patient care?

4.5 Eye health workforce

Roadmap Recommendations

Provide eye health workforce to meet population needs
That population-based needs analysis is used to determine eye health workforce requirements in all areas of Australia.

Improve contracting and management of visiting services
That the contracting of VOS and MSOAP be restructured to provide simple, flexible, co-ordinated and transparent operation and management of these services.

Appropriate resources for eye care in rural and remote areas
That the eye health workforce and funding are allocated according to population needs with consideration of existing local services.

Increase utilisation of services in urban areas
That Indigenous VOS funding is available for major cities and inner regional areas to support delivery of visiting optometry services in Aboriginal Health Services.

Bulk-billing for visiting MSOAP supported services
That visiting ophthalmologists supported by MSOAP agree to bulk-bill Indigenous patients for clinic services and that MSOAP consider loading arrangements to meet the true cost of service.

Rural education and training of eye health workforce
That during training, eye health providers complete a core component of rural and Indigenous eye health work. Funding should be specifically provided to cover supervision and trainee costs.

4.5.1 Provide eye health workforce to meet population needs

Optometry

Optometry services provide eye care examinations to check ocular health, visual acuity and refractive error, and may provide treatment for minor eye conditions. Optometrists are able to prescribe and supply spectacles, contact lenses and some visual aids. Optometry services in urban and rural areas are predominantly private optometry services or sessional services delivered in public hospitals or community clinics and health centres. Some mobile or visiting services are provided in community settings that are appropriate for disadvantaged or specific groups of people who are unable to access mainstream services. Some fund-holders or professional bodies such as the ACO and ICEE have negotiated partnerships with the ACCHO sector and community to provide optometry services to Indigenous clients. Most of these partnerships involve a visiting optometrist who conducts clinics in an AHS.

Optometrists visiting rural and remote areas may be supported by the VOS. This Commonwealth-funded scheme offers payments to optometrists to cover the costs of delivering services to these areas (see also Section 2.1).

Ophthalmology

Ophthalmology services cover comprehensive eye care, including medical treatment for eye conditions and ocular surgery. Ophthalmology services are available in public hospitals, specialist consulting rooms and private clinics. Visiting ophthalmology services can be supported through the Commonwealth DoHA in the MSOAP or through state/territory funded services (see also Section 2.1). Very few ophthalmology services are delivered through AHSs.

In 2010, the Australian Government committed $5 million for the Eye Health Teams for Rural Australia Expansion of MSOAP (MSOAP Expansion). This funding is managed by the Australian Society of Ophthalmologists (ASO) - IRIS program[73].

Access to ophthalmology services can be influenced by whether services are available through a public hospital or community health setting compared to a private clinic setting. Nationally, ophthalmologists work more than three times as many weekly hours in the private sector than in public hospital settings[74] and some 60% of cataract surgery is performed in private[70]. Indigenous adults are more than five times more likely to seek services from a public hospital than from a private hospital[75]. Further evidence shows that the provision of optometry services within an AHS increases the utilisation of eye health services by Indigenous people and improves outcomes[76].

The appropriate provision of ophthalmology and optometry services within or co-ordinated with AHSs will make a significant difference to Indigenous access to eye care. The NIEHS found no significant difference between remote and rural or urban areas in the prevalence of eye conditions affecting Indigenous people except for trachoma[4, 12, 46]. Similar problems (except trachoma) affected Indigenous people at similar levels in the cities as in rural and remote areas. This is somewhat unexpected as there are many more service providers in the cities and they are clearly lacking in most rural regions[7]. Much of the reason for this lack of regional difference can be explained by a lack of utilisation of eye health services by Indigenous populations. More than a third of Indigenous adults surveyed had never had an eye exam. The accessibility barrier can be in part attributed to the lack of available, culturally-appropriate optometry and ophthalmology services and the distribution of ophthalmologists and optometrists working in urban compared to rural and remote areas. According to the 2006 Australian Bureau of Statistics Census data, the proportion of ophthalmologists was four per 100,000 in Major Cities compared with two per 100,000 in regional areas, and very few were working in Outer Regional, Remote and Very Remote areas[74]. Similarly 79% of optometrists practise in Major Cities and supply decreases with remoteness. In 2006 the number of EFT optometrists ranged from 18 per 100,000 in Major Cities to three per 100,000 in Remote/Very Remote areas[74].

Local optometrists and ophthalmologists

It is important that attempts be made to engage with local practitioners as they form an important part of the eye health care workforce, particularly in remote and rural areas. Strategies to increase the utilisation of eye health and other local services include improving cultural safety and working with the community to strengthen the relationship between the local practitioners and local community to make the services available and more acceptable to the community. Additionally, a 'needs assessment' of service provision should be undertaken that includes an audit of the services that are available locally. Currently prioritisation of VOS and MSOAP service locations are not based on a proper needs assessment and contracts are assigned to visiting service providers without consultation with local practitioners. This creates duplication of services, competition between services and adds complexity that in turn detrimentally affects patient access to eye health care. Local practitioners often have the advantage of better knowledge of the local area and community. The development of models to increase utilisation of local or regional practitioners would improve sustainability of service provision that cannot be matched by visiting services alone.

Number of optometrists – two new schools

The number of optometrists graduating each year in Australia will significantly increase over the next decade with the establishment of two new optometry schools. Currently there are schools of optometry at The University of Melbourne, University of New South Wales and Queensland University of Technology and the graduate output is approximately 150 registered optometrists per year. The new schools are based at Deakin University and Flinders University and both schools claim a rural focus in their student recruitment

and training programs and will each produce another 50 graduates per year. This increase of greater than 50% will likely affect the market availability of optometrists and may support additional coverage to rural areas and care to disadvantaged groups.

The research team is not aware of any plans to dramatically increase the number of ophthalmologists in training or registered to practice.

4.5.2 Improve contracting and management of visiting services

Distribution of service providers and workforce availability

Distribution of the workforce between rural urban and remote areas as well as the split between public and private services has a strong effect on the access to eye health care. The availability of trained eye care workforce and its distribution shows that unlike other areas of health affected by workforce shortages, the supply of optometrists and ophthalmologists is currently at levels that would be able to provide adequate services for the Australian population. However, the uneven distribution of the workforce as a result of poor service planning means that many rural and remote areas do not receive adequate eye care services[7]. Many locations that have visiting services supported by VOS and MSOAP only get a few visits per year from an optometrist or ophthalmologist. In more remote areas the service provision needs to be increased some three to four fold over 2008 levels[5].

There are also insufficient co-ordination, logistics and primary health workers to support the visiting specialist services in these regions. In many remote areas an average clinic day includes travel time to and from the community, which limits the amount of time that the visiting specialists are able to spend seeing patients. Better planning and resourcing of support and co-ordination will improve the integration of specialist visiting services with local primary health services and greatly increase their efficiency.

Where collaborations and partnerships between primary health services, the regional hospital and visiting eye health services have been established the programs operate more efficiently and deliver better patient outcomes and in larger numbers[5]. Barriers to the effective referral to either ophthalmology or optometry services from primary health services occur across the country. This is a greater problem in rural and regional areas where there are no local services and there is only limited access to visiting services. Established relationships between the primary health service and individual ophthalmologists or optometrists were a consistent factor that contributed to a better patient referral process and successful treatment outcomes. This highlights the finding that a particular service provider's continuity of service positively influences improved integration of visiting health care services with local primary care services and can assist improved community engagement with eye health services. Better planning of visiting services based on population-based targets for Indigenous people in all regions is needed to ensure the provision of appropriate and ongoing supply of optometry and ophthalmology services.

Co-ordination of workforce

Good co-ordination between visiting optometry and visiting ophthalmology services on the one hand and between them and the local primary health services and hospital, on the other, are both critical for successful patient referrals and the overall provision of high-quality eye care. Poorly co-ordinated services discourage patients from using and seeking services. Currently, ophthalmologists and optometrists contracted through the MSOAP and VOS in the same region or location are not required to contact the others working in that area. This often leads to unnecessary duplication of services. At times this means that an optometrist is unable to charge Medicare for services they have delivered because of a previous unknown optometric consultation. Not only is time and money wasted, but the second optometrist is further out of pocket.

Currently within VOS and MSOAP there are no standard guidelines or requirements for disclosure of contact details between the various optometrists and ophthalmologists and DoHA. Lack of communication with other service providers and the protection of contact details is a major barrier for service providers who are setting up new services or running existing visiting services. Lack of accessible provider information and poor communication leads to service providers 'working in silos', and creates barriers for local and visiting service providers who are willing and have the capacity to provide additional Indigenous eye care services.

Workforce planning

Visiting health services form part of a support workforce that can provide additional services to fill gaps in service delivery in regional and remote areas and some urban areas for specific groups of people who are unable to easily access mainstream services. Planning of visiting services should be based on community consultation, needs assessments and population-based data, taking into account the availability of existing eye health services. Currently there is no accountability for national eye healthcare workforce planning.

The allocation of VOS and MSOAP services is overseen by separate national MSOAP and VOS committees. There are also jurisdictional VOS committees (reference groups) with state representation. MSOAP funds are distributed through one or two fund-holders in each jurisdiction and of course MSOAP supports all types of visiting specialist services not just for eye care. There is no formal communication or sharing of information with regard to the VOS and MSOAP ophthalmology programs at either jurisdictional or national levels. The IRIS program (see Section 4.5.1) has begun to provide planning support for MSOAP ophthalmology expansion activities in selected sites in Australia.

One fund-holder said that it had been provided with $1 million for the next year – this was the same amount requested by those currently supported – and so no new services could be considered.

Good co-ordination between MSOAP ophthalmology services and VOS services increases efficiency and should be included as a key service planning step[5]. Even though both programs are funded by DoHA, currently there are no linkages between the two programs. In some cases ophthalmologists and optometrists visiting the same communities have agreed privately to co-ordinate the scheduling of their visits. These visiting services have better outcomes for patient referrals between the two services and maximise patient attendance at both the optometry and ophthalmology clinics. Currently, the selection of priority locations for VOS and MSOAP is not conducted by a process of needs analysis; there are no consistent processes in place for annual reviews of visiting services or evaluation of existing services. We recognise that DoHA is reviewing these two programs and changes are likely to be made in the future (see below).

Visiting Optometrists Scheme

There are two elements to the VOS – the Core VOS and the VOS Expansion for Indigenous Australians. The Improving Eye and Ear Health Services for Indigenous Australians for Better Education and Employment Outcomes measure will provide funds from 1 July 2011 to 30 June 2014 for the VOS Expansion for Indigenous Australians[77]. The funds are to be allocated to provide new and increased numbers of optometrist visits to Indigenous Australians in remote and very remote Indigenous communities. Communities in inner and outer regional areas can also be considered. Monitoring of VOS does not provide sufficient information to determine how many additional services are being provided to Indigenous Australians. In addition, the Indigenous VOS could be used to increase utilisation of services in urban areas under models similar to the Urban Specialist Outreach Assistance Program (USOAP).

Medical Specialists Outreach Assistance Program

MSOAP supports a range of visiting specialists, including visiting ophthalmology services, in rural and remote areas. The purpose of this funding is to complement existing specialist services provided by state and the Northern Territory governments and to provide services in areas that do not have local specialist services.

The Commonwealth expanded MSOAP in 2009-2010 introducing multidisciplinary teams to better manage complex and chronic health conditions in rural and remote communities[11]. As part of the MSOAP Indigenous Chronic Disease Package, the Increasing Specialist Follow-up Care measure seeks to improve access to medical specialist care for Indigenous Australians with a chronic disease. The measure provides for the introduction of a program of assistance for medical specialist outreach services in urban areas. The USOAP complements the expansion of the existing MSOAP which is restricted to regional and remote areas.

As mentioned elsewhere, a rural and remote expansion of visiting ophthalmic services is funded from 2010-2013 through the IRIS program (see Section 4.5.1).

Rural Health Outreach Fund

In the 2011-2012 Budget, the Australian Government committed to establishing a Rural Health Outreach Fund. The fund consolidates the activities of five existing outreach programs and will provide a larger, flexible funding pool for initiatives aimed at supporting people living in regional, rural and remote locations to access a wide range of health services including ophthalmology[78]. A review of MSOAP and VOS contracting was commissioned by DoHA in 2011, although the review has not yet been released. The findings of this review will inform the Rural Health Outreach Fund. It is expected that new contracts for the fund will be negotiated in early 2012 for commencement and implementation starting from 1 July 2013.

4.5.3 Appropriate resources for eye care for rural and remote areas

Primary eye care support workforce

The primary eye care support workforce includes personnel in administration roles, logistics, monitoring and evaluation, management, clinical activities and co-ordination of visiting eye health services and eye health patients. The co-ordination, logistics and administration workforce assists with the implementation of program activities including service planning, scheduling eye health specialist visits and liaison with clinics, hospitals and the communities that host the visiting services. For Indigenous eye health programs a majority of the co-ordination, logistics and program management roles are conducted by primary health or NGO staff in roles such as AHWs, REHCs, program managers, program co-ordinators, program assistants, chronic disease educators, case managers, chronic care co-ordinators and drivers. Additional hospital-related activities such as booking theatre time and patient appointments and transport are performed by hospital personnel including nurses, hospital administration staff, liaison officers, case managers (social workers) and drivers.

In some eye health programs the AHW and REHC along with nurses and other primary health staff have been trained to do some clinical eye care work in addition to their responsibilities around patient management for eye health care. Where appropriate, sufficient ongoing funding is required to ensure that their focus on primary eye health care can continue. There are many advantages associated with training primary health staff to perform primary eye care roles. They are locally available and they have a greater chance to opportunistically identify and refer patients requiring further treatment or eye care compared to visiting services.

Ensuring an adequate workforce and resources to support Indigenous eye health programs and visiting eye health services must include the investment of adequate resources in the retention of the eye health support workforce working with Aboriginal communities and within AHSs.

Regional Eye Health Co-ordinators

The REHC positions were established following the 1997 review of Indigenous eye health[13]. Currently there are notionally 30 REHC positions across New South Wales, the Northern Territory, Queensland, South Australia, Western Australia and Victoria. All the positions are based in AHSs except the position in South Australia which is based at the Aboriginal Health Council of South Australia. Of the occupied positions there is a mixture of full-time and part-time positions.

Many REHCs are employed part-time to work on eye health programs and part-time to work as AHWs or chronic disease co-co-ordinators within AHSs. The work done by REHCs is different in each program; some REHCs are heavily involved in clinical work and conducting eye health screening activities and some do not perform any clinical activities, focusing on logistics and support functions for visiting teams and arranging transport and booking patient appointments. Some REHCs perform a mix of clinical and logistics activities. The ongoing funding of existing REHCs or support for the roles undertaken by REHCs will in future require sufficient description of their roles and performance measures. The work of REHCs needs to be considered a priority by AHSs; there must be accountability at AHS level, but having a system of eye care provision that actually works goes a long way to ensuring that the work is recognised and valued.

Aboriginal Health Workers

AHWs and support care roles are essential to support the provision of eye health care. The activities performed by AHWs range from clinical to logistics and transport support roles. An AHW can be instrumental in primary eye health care screening activities which involve testing near and far visual acuity and identification of common eye conditions requiring referral (including trachoma and vision loss). In addition to the capacity to conduct eye health care screening and identification activities, skills in managing appropriate referral for further treatment and care and assisting patients through treatment are all important roles for AHWs.

High staff turnover within the Indigenous health workforce sector often affects quality of services and ultimately patient access to services. AHWs frequently cited low pay, low recognition, lack of career development opportunities and lack of support for their role as the main factors influencing high staff turnover. Some eye health programs provided specific eye health training in the 1990s for a cohort of AHWs who were then able to run primary eye health screening programs, including training other health workers in clinical and technical skills for detection of common eye conditions. Only a few of the health workers who were trained in the program are currently working on eye health. Some still work in AHW roles, although their new roles focus on other health issues, such as tobacco or chronic disease care, and they have little opportunity to practice their eye health skills. Additionally many health services that previously had active eye health programs have retained eye health equipment that is not currently used due to shortages of trained staff with the capacity to conduct eye screening.

A contributing factor to the success of the 1990s eye health program was the ACCHO interest and eye health sector support for AHWs to implement the regional eye health programs[11]. However, most programs stopped due to lack of specific funding for eye health and so AHWs moved on to work in other roles. Lack of funding was the most frequently cited barrier for AHS involvement in eye health programs. We frequently heard comments such as ‘eyes are my passion’ and ‘the AHWs are my angels’ juxtaposed by ‘this program [eye health] doesn’t get any funding, it’s just not a priority for the Board’. Further work to build up and support AHWs working in eye health and to encourage AHS boards to consider the importance of eye health programs would allow more eye health care to be done at community and local levels.

Team approaches

The best examples of Indigenous eye health services from across Australia demonstrate that comprehensive eye care requires the close involvement of primary health, optometry services, ophthalmology services, hospitals and patient support services. Provision of co-ordination, administration, and logistical and management support are critical for delivery of high-quality care[5]. Currently there are different models of team approaches for visiting eye care services, which include optometry, ophthalmology and some co-ordination roles. Patient support and case management personnel are often not included in the eye health team. Many of the staff in hospitals and community health services that host visiting eye health services were not well linked into referral pathways or care plans for patient follow-up with visiting eye health team clinics. Stronger definition of roles and responsibilities within a visiting eye health team and host organisations is required to achieve consistent, successful eye health outcomes.

4.5.4 Increase utilisation of services in urban areas

As discussed in Section 4.3.1 and Section 4.5.1, there is a need for an increased utilisation of eye care services in urban areas. The availability of optometry services within an AHS removes a critical barrier to care[62] and so it is suggested that support is provided for VOS supported optometry services within AHSs in urban areas. Where appropriate, ophthalmology services could also be provided within AHSs, supported as in USOAP (see Section 4.5.2).

4.5.5 Billing for visiting MSOAP supported services

It is suggested that to ensure cost-certainty, to remove barriers to local service uptake created by inconsistent and uncertain billing arrangements and the charging of additional fees that MSOAP supported services are bulk-billed for Indigenous patients (see Section 4.3.2).

4.5.6 Rural education and training of eye health workforce

Training for AHWs

AHW training modules include eye health as an elective subject. Due to priority placed on other areas of health, the eye health course is rarely selected and AHWs receive very little training on primary eye health care.

ICEE and VACCHO have developed training courses that are tailored for AHWs and these courses have received positive feedback from REHCs and AHS staff who have participated in the training.

As part of the 'Improving Eye and Ear Health Services for Indigenous Australians' initiative a nationally accredited Ear and Hearing Training Program for AHWs has been developed. The program involves the development of an equipment training kit and accredited training roll-out for AHWs. A nationally accredited eye health program would encourage more health workers to undergo eye health training. This will lead to better education and employment outcomes and assist to 'Close the Gap' in Indigenous health.

In 2011 the Aboriginal and Torres Strait Islander Health Practice Board of Australia was established, supported by the Australian Health Practitioner Regulation Agency. From July 2011 the functions of the Aboriginal and Torres Strait Islander Health Practice Board of Australia include developing standards, codes and guidelines for Aboriginal and Torres Strait Islander health practice and approving accreditation standards and accredited courses of study.

From 1 July 2012, the Aboriginal and Torres Strait Islander Health Practice Board of Australia will register Aboriginal and Torres Strait Islander Health practitioners and students; manage notifications, complaints, investigations and disciplinary hearings and assess overseas-trained practitioners who wish to practise in Australia.

Training for GPs and RNs

As discussed in a previous section (see Section 4.2), the primary care team has an indispensable role in the provision of eye care. Given the turnover of clinic staff, ongoing efforts are required to emphasise continuing education in eye care and the development of update modules for GPs and RNs. In addition, the incorporation of prompts and recalls in eHealth records provides further support. The Royal Australian College of General Practitioners, GP Divisions and now MLs need to be actively involved in this education process.

Training for specialists

The current training curriculum for specialists does not include specific training in either Indigenous community or rural hospital settings. A commitment to increasing rural and Indigenous training will require proper support and funding for trainees and the appropriate supervision for these placements.

For example, although ophthalmic registrars are keen to spend a week with a visiting ophthalmologist, some hospitals are reluctant to release them at all, and then only if they agree to take leave without pay.

The RANZCO Vocational Training Program does not offer rural or Indigenous eye care training as one of the core components of training. However, rural placements are offered through the Rural Health Continuing Education Program.

Similarly, optometry courses offered through universities in Australia do not include training in rural settings as a core component of practical training. The inclusion of specific clinical training criteria around working in Indigenous health services and rural regions would encourage trainee eye health specialists to participate in and develop an interest in this type of work.

4.5.7 Barriers and enablers

Administration time and cost to organise and implement visiting services

Often support is not given for the administration and organising visiting services. Whether this should be organised by the regional service and co-ordinator or by the visiting practitioner will depend on local needs. However, it is important that it be addressed and agreed to and appropriately funded.

Issues with VOS and MSOAP

We recognise that these programs are under review and we present here our findings as these programs currently operate.

Transparency around contracts is a major barrier for VOS and MSOAP service providers. Guidelines on the current programs are available through DoHA[79]. Contract variations are assessed on a case by case-by-case basis involving negotiations between the individual service providers and DoHA or the state based fund-holders. Variations on contract items are common. Contracts are often short term, for periods of one to three years. In cases where individual contract negotiations have been made, the service provider must re-negotiate new contract terms for the same services on each funding round, which creates complicated and multiple contractual arrangements. Staff turnover within DoHA creates barriers for service providers entering complicated contract arrangements and DoHA staff trying to manage multiple complicated and varied contracts. Additionally many existing contracts have been 'grandfathered' from previous funding rounds and these have not been reviewed.

The items reimbursed by MSOAP and VOS are summarised in Table 4.5 and Table 4.6.

Table 4.5: Summary of costs covered by MSOAP

Expense type	Subtype	Details
Transport	Commercial Transport	Covers cost of most efficient and cost-effective means of travel including commercial airfares, train, bus tickets, taxi fares. In some instances charter flights can be negotiated.
	Vehicle Hire	Cost of vehicle hire and fuel and parking fees
	Private car	Reimbursed at the following per km rate: $0.68 for vehicles 1,600cc and under; $0.82 for vehicles 1,601-2,600cc; and $0.84 cents vehicles above 2,600cc. Also covers parking fees.
Accommodation	Hotel, motel, any suitable accommodation	Rates between $77 - $150 per night (Australian Public Services rates). In cases where seasonal variations and limited supply affects rates, higher rates can be negotiated on a case-by-case basis.
Meals and incidentals	Breakfast	$21.95
	Lunch	$25.08
	Dinner	$43.23
	Incidentals	$18.15
Equipment	Lease of equipment	Assistance for lease of equipment for outreach visits - arrangements must be approved. DOHA will consider quotes for replacement parts and maintenance. DoHA will not cover cost to purchase equipment.
	Transporting equipment	MSOAP will assist with cost of commercial transport for equipment used by specialists on outreach visits.
Facility Fees	Venues for outreach visits or up skilling activities	Paid as appropriate. Suggested rate $200 per day, must provide evidence of cost.
Administrative support	Clerical support	RA4-RA5 only provides support during consultation/treatment working hours. Support staff are engaged by the visiting specialist. Salary equivalent to medical receptionist with three years experience $20 per hour/8 hour day.
Absence from practice allowance	Travelling time for private specialists	Payable to non-salaried private specialists to compensate for 'loss of business opportunity'. Hourly rate consistent with the state or territory fee-for-service rates.
	Salaried specialists	Not eligible.
Workforce support	Sessional rates to private specialists	Paid under exceptional circumstances. Access to MBS payments is not assured. Patient compliance with appointments is uncertain.

Expense type	Subtype	Details
Other health professionals	Other health professionals	Not usually covered.
Backfilling for salaried specialists	To replace salaried specialists only	Any claims for MBS made by the salaried staff on outreach will render void any backfilling costs. Registrars and/or other accompanying health professionals not covered.
Up-skilling	Local health and medical professionals	Not a requirement of MSOAP formal activities must be arranged with the local and medical health professionals. Developing or enhancing specific skills, sharing knowledge, enhancing on-going patient care.
Professional Support	Non-salaried specialists	Informal support to local health and medical professional Lunchtime meetings Telephone Email support Can claim hourly rate consistent with the state or territory fee-for-service rates.
	Services for public hospital patients	Responsibility of the state/territory governments not covered by MSOAP.
	Telemedicine	MSOAP does not support capital costs, but can cover cost of hire of equipment and venue.
Cultural training and familiarisation	Formal cultural awareness training course	Flexible delivery methods negotiated with DoHA.
	Self-learning cultural awareness education program	Flexible delivery methods negotiated with DoHA.

Table 4.6: Summary of costs covered by VOS

Expense type	Subtype	Details
Transport	Commercial transport	Covers cost of most effective means of travel including commercial airfares, train, bus tickets, taxi fares. In some instances charter flights can be negotiated.
	Vehicle hire	Cost of vehicle hire and fuel and parking fees.
	Private car	Reimbursed at the following per km rate: $0.68 for vehicles 1,600cc and under; $0.82 for vehicles 1,601-2,600cc; and $0.84 cents vehicles above 2,600cc. Also covers parking fees.
Accommodation	Hotel, motel, any suitable accommodation	Rates between $92 - $107 per night. In cases where seasonal variations and limited supply affects rates higher rates can be negotiated on a case-by-case basis.
Food	Meals and incidentals	Daily rate $98.55
Equipment	Lease of equipment	Assistance for lease of equipment for outreach visits - arrangements must be approved. DoHA will consider quotes for replacement parts and maintenance. DoHA will not cover cost to purchase equipment .
	Transporting equipment	Will assist with cost of transporting on commercial transport.
Facility Fees	Venues for clinics/ outreach visits	Maximum $200 per day, must provide evidence of cost. RA2-RA3 > 6 circuits per year to up to $6,000 RA4-RA5 > 12 circuits per year up to $12,000

Expense type	Subtype	Details
Administrative support	Clerical support	RA4-RA5 only provides support during consultation/treatment working hours same as the optometrist. Support staff are engaged by the optometrist, salary equivalent to medical receptionist with three years experience $20 per hour/8 hour day. >12 circuits per year max $9,600 per year.
Absence from practice allowance	Travelling time	Rate $125.00 per hour max 10 hours ($1,250) per circuit RA2-RA3 and >6 circuits a year max $7,500 per year RA4-RA5 and >12 circuits per year max $18,750 Mixed RA2-RA5 > 12 circuits per year $15,000.
Locum and other health professionals	External Locum optometrist support at practice	To cover optometrists travelling to RA4 –RA5 only rate of $70 per hour/ 8 hour day x 5 days. >12 circuits per year max $33,600 per year.
	Other health professionals	Not usually covered - can be negotiated with DOHA.
Cultural training and familiarisation	Formal cultural awareness training course	Flexible delivery methods negotiated with DoHA.
	Self-learning cultural awareness education program	Flexible delivery methods negotiated with DoHA.
Marketing	Advertising and health promotion	Not supported under VOS.

Many visiting ophthalmology services do not access funding through MSOAP due to existing funding arrangements with the state government for ophthalmology services. Where existing services operated, many ophthalmologists commented that they were not aware that MSOAP could provide additional services.

The process for new contract applications occurs at different times during the year and it is difficult for service providers to know when new application rounds are open. Administration of individual contracts is not transparent and is time consuming. Many optometrists report that the process for application and funding of VOS is time consuming, requiring multiple revisions and final contracts often do not match amounts budgeted for, even though their contract agreement is based on the delivery of a set number of services in specified locations for a period of one to two years. Greater flexibility is required within VOS contracts to allow for barriers associated with delivery of services in remote areas.

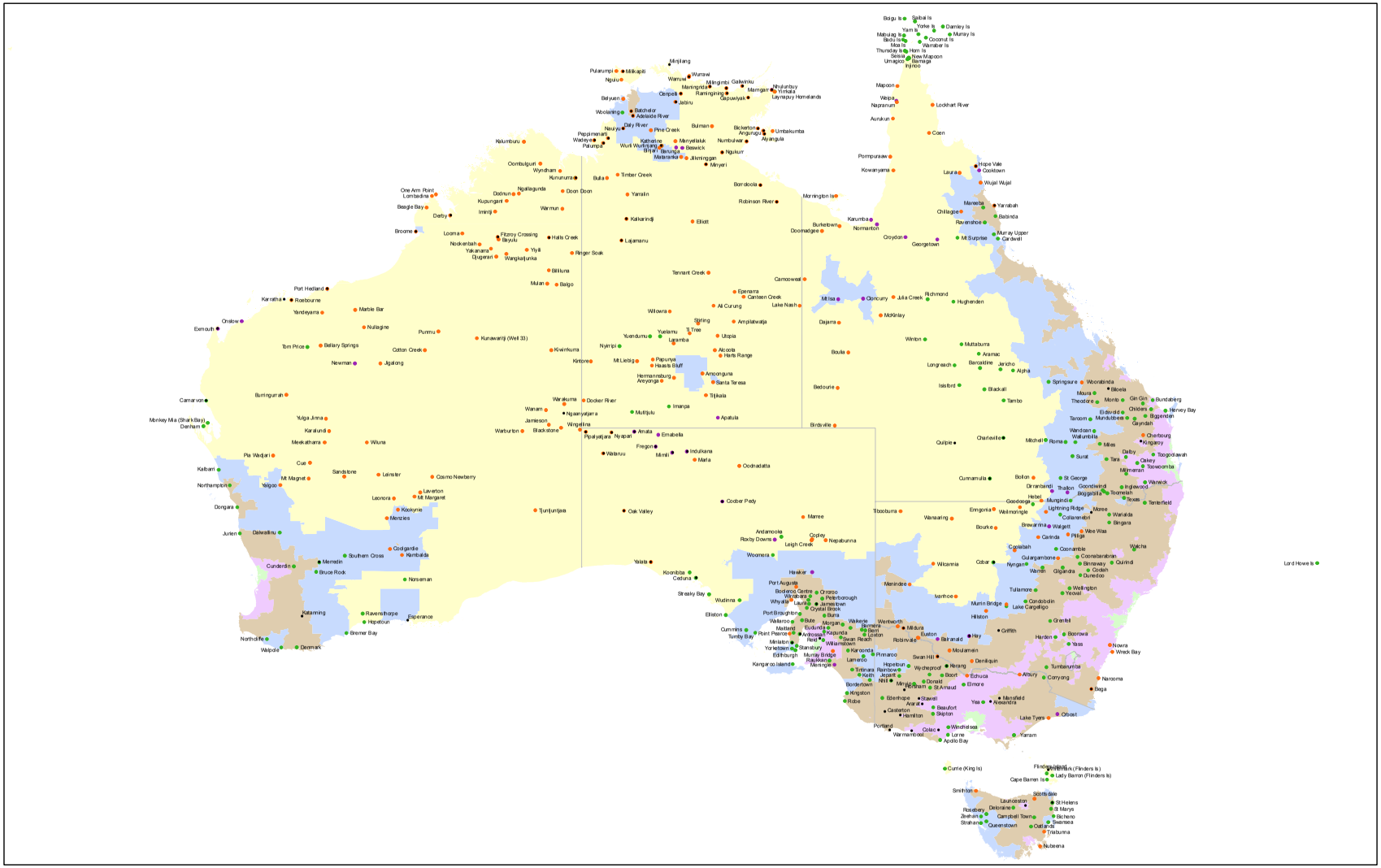
Accurate service data is essential for effective workforce planning. The Rural Health Policy Branch of DoHA currently does not routinely collect or sufficiently analyse data to inform ongoing workforce planning for the VOS and MSOAP. There is no standardised framework for monitoring or systematic review and evaluation of the services provided under either VOS and MSOAP.

Service providers are required to report on visits undertaken. However, consistent data on the number of patients seen during these visits, Aboriginal-identified data, number of clinics held and length of visits are currently not routinely reported or analysed. Feedback to service providers on the data reported or the analysis of the data reported is not common practice. Service providers frequently commented that they did not receive feedback and had no idea if the reports they submitted to DoHA were ever read.

Travel donut

The current distribution of MSOAP and VOS services is show in Figure 4.4.

Figure 4.4: Map of MSOAP and VOS service locations in 2010 (from DoHA 2010)



VOS - Core and Indigenous Expansion Programs 2010-11, MSOAP - Opthalmology 2010-11
National

Australian Government
Department of Health and Ageing

- MSOAP - Planned Opthalmology Service
- VOS - Core Program
- VOS - Core Program and Indigenous Expansion
- VOS - Indigenous Expansion
- State border

ASGC - RA
- Major Cities of Australia (RA1)
- Inner Regional Australia (RA2)
- Outer Regional Australia (RA3)
- Remote Australia (RA4)
- Very Remote Australia (RA5)

0 210 420 630
Kilometres

Prepared by Primary & Ambulatory Care Division, DoHA
Mapping and On-line Services Section
November 2010
Sources:
Medicare Australia
Australian Bureau of Statistics
Department of Health and Ageing
VOS and MSOAP data current to November 2010

The geographical distribution of eye specialist service availability determined by travel time was examined for Victoria and New South Wales. This showed a donut-shaped shadow around the major centre where the visiting services are less available.

There is a motor vehicle travel time (and distance) for a visiting specialist that appears acceptable for a one-day visit. If the visited site requires one hour of travel time, a working day would have two hours of travel time added to the direct work time. Within an hour or so of travel time, areas around a major centre have reasonable access to visiting services. Beyond these distances, there are centres regularly served by air transport where there is an acceptable daily travel and return time and so these locations are well served. The geographic space between the acceptable car travel time and acceptable air transport travel time defines an area that is less well served by visiting services because the travel time is not acceptable for daily clinic or outpatient visits.

Business model

The business models for the involvement of visiting optometry and ophthalmology in care of Indigenous Australians require reconsideration. A common comment from the field was that the business model did not work well. This is consistent with the observation that there are those who are involved in Indigenous eye care for a limited period who then choose not to continue providing services. This may be because there are other pressures on practitioner time or their energy, interest and priority may change over time. However, the drop out is partly attributed to the fact that the business models do not work well.

An effective business model would attract increased interest from optometrists and ophthalmologists for greater involvement that was sustained over a number of years. This would allow practitioners to enter and leave the service system throughout their career. It would result in the highest quality of care for Indigenous patients and be financially supportive of practitioners. The number of practitioners needed is 15 or 16 EFT ophthalmologists and between 43 and 85 EFT optometrists across Australia (see Section 5.3)[8]. As most of these practitioners will not be full time, the workforce will involve a large number of people and a number of effective business models options should be supported.

Indigenous eye specialists

A longer-term goal for the provision of Indigenous eye care proffered by many people during the project consultation was the development of an Indigenous eye specialist workforce. This was seen as a solution to issues of cultural safety and prejudice associated with non-Indigenous service providers. It would potentially improve or increase access and recognise and demonstrate Indigenous capacity in the education system and workforce.

Developing an Indigenous eye specialist workforce and encouraging Indigenous people to take up health work, including eye care, should be a long-term objective for a national eye care program.

The Projected Needs report estimates a dedicated eye specialist workforce of 85 FTE optometrists and 16 FTE ophthalmologists to serve the Aboriginal and Torres Strait Islander population[8].

The path to achieve registration as an ophthalmologist requires five years of specialist training after medical school and at least two years of post-graduation experience. For optometry, the courses are from 3.5 to 7 years post-secondary school and for ophthalmology a minimum of 13 years.

At present the research team can identify three Indigenous optometrists but so far no Indigenous ophthalmologists. A recent Australian Institute of Health and Welfare (AIHW) publication reports eight Indigenous optometrists through the 2006 Census[75].

Development of an Indigenous eye specialist workforce is not achievable immediately nor in the medium term and so workforce issues need to be directed to ensuring cultural safety and appropriateness and providing incentives for non-Indigenous involvement.

Supporting Indigenous eye specialists and workforce

Feedback from REHCs and some Indigenous leaders suggested the establishment of an identified Indigenous group of eye health practitioners. Currently there are organisations that support Indigenous doctors, psychologists, nurses, allied health workers and dentists. Indigenous Allied Health Australia was established in 2009 and may be an appropriate organisation for AHWs and Indigenous optometrists to belong to[80]. The OAA could be encouraged to additionally support Indigenous optometrists.

Potential activities for an Indigenous eye specialist and workforce group would include championing and advocating for Indigenous eye care within professional associations, the eye care sector and government, supporting interest in eye care work among Indigenous people and providing support and a peer group for other Indigenous eye carers.

Aboriginal Health Worker alternative work choices

AHWs involved in eye health programs and REHCs described the movement of people away from eye health to alternative Aboriginal health-related jobs where the remuneration was significantly higher. Tobacco programs were given as an example of new jobs with higher pay. The lack of surety regarding eye health jobs also influenced work decisions. Those who had been involved in eye health expressed disappointment in having to move away from eye health work to other areas as they had enjoyed their eye health work.

'A long term Aboriginal eye health worker toyed with the idea of working again as a fitter and turner – with the mining boom he would be able to double his salary' (Queensland)

It has been noted in some remote communities that there are no AHWs as the community members perceive that the educational standards and the need to study for three years has placed AHW training out of reach for many people.

'In some communities nurses were doing jobs and community interaction that were much better done by local AHWs, as they had been done previously' (Northern Territory)

4.6 Elimination of trachoma

Roadmap Recommendations

Definition of areas of risk
That the mapping of the extent of trachoma is completed expeditiously.

Effective interventions
That the SAFE strategy is fully and comprehensively implemented.

Surveillance and evaluation
That the ongoing monitoring and evaluation of the National Trachoma Reporting and Surveillance Unit should be continued.

Certification of elimination
That Australia works closely with World Health Organisation and participates in the GET 2020 process until trachoma is eliminated.

4.6.1 Definition of areas of risk

Background

Trachoma is a major blinding infectious eye disease and is still the leading infectious cause of blindness worldwide. It is caused by infection of the lining of the eye by the bacteria *Chlamydia trachomatis* which is closely related to the organisms that cause chlamydial genital tract infection. Trachoma occurs in areas with poor personal and community hygiene and poor living conditions. It used to be called Sandy Blight but disappeared from mainstream Australia a century ago as living conditions improved[81]. Australia remains the only developed country in the world to still have trachoma, although trachoma affects people in some 56 developing countries.

Trachoma can be readily controlled with the four-component strategy developed by the WHO. The so-called SAFE Strategy includes **S**urgery for trichiasis (the in-turned eyelashes that are the end stage of the disease), **A**ntibiotic (azithromycin treatment to reduce infection), **F**acial cleanliness (to reduce the exchange of infection between children), and **E**nvironmental improvements (aimed at addressing the barriers to children washing and keeping their faces clean).

By following the WHO SAFE Strategy, a number of developing countries have eliminated trachoma over the past five to 10 years[82]. Antibiotic distribution, with the treatment of everybody living in the endemic communities, has been the mainstay of the interventions linked with health promotion and environmental change. In some larger countries such as Ethiopia, some 28 million people are treated with azithromycin each year in a community-wide or mass drug administration regime.

Trachoma in Australia

Blinding endemic trachoma has been well documented in Australian outback communities from the 1940s[81]. Although trachoma has disappeared from some larger communities and also some coastal communities, the NIEHS found that children in 60% of outback communities still had blinding endemic trachoma and that trachoma remained the fourth leading cause of blindness in Aboriginal and Torres Strait Islander adults[83]. Older individuals who had trachoma as children have scarring under the eyelid that causes distortion and in-turned eyelashes and this still affects more than 1% of older Indigenous people across the country.

In 2006, the National Trachoma Surveillance and Reporting Unit (NTSRU) was established to collect data about trachoma and trachoma control activities across the country. Their latest report shows that still 11% of children aged one to 14 years have trachoma[84]. The report also shows that data collection is still far from complete, with many communities not being examined, and in those communities where screening does take place, many children are still not examined. There remains a clear need for all at risk communities to be examined and all the endemic areas to be fully mapped.

In addition, once children are found with trachoma, antibiotic treatment for them and their family or household members is often overlooked or incomplete. Little has been done to promote clean faces or environmental change and trichiasis screening rates are very low.

However, things are improving. The establishment of the NTSRU stimulated the process of data collection and this alone has led to a great improvement in grading methodology, screening coverage and treatment coverage. An annual report has presented these data for public scrutiny[84].

4.6.2 Effective interventions

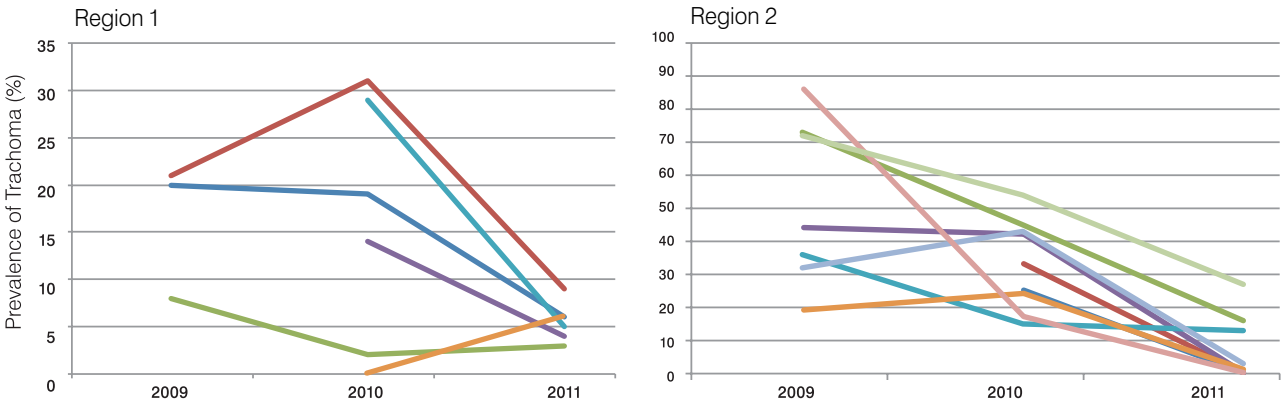
The Indigenous Eye and Ear Health Initiative

In February 2009 Prime Minister Rudd committed $16 million over four years to commence the elimination of trachoma in Australian Indigenous communities. In doing this, he recognised not only the ongoing issue of trachoma in Australian outback communities, but also the government's obligation under the WHO-sponsored program for the Global Elimination of Trachoma by the year 2020 (GET 2020).

Although the implementation of the enhanced program has been somewhat slow, significant progress has been made, especially in the Northern Territory and in Western Australia. More communities have been screened, more children have been examined, treatment coverage has improved and particularly in the Northern Territory, a wide range of health education materials and social marketing methods have been used to promote clean faces. A regional education health promotion trachoma kit has been developed by the IEHU in collaboration with the Katherine West Health Board and Centre for Disease Control of the Northern Territory[85]. In addition, members of the Melbourne Football Club have participated in health promotion activities and have been highly effective ambassadors.

The effectiveness of this program can be demonstrated by recent trachoma data collected in two regions in the Northern Territory (Figure 4.5). The data are de-identified and each coloured line represents a different community in each of the two regions.

Figure 4.5: Community prevalence of active trachoma in two regions in the Northern Territory



With this renewed effort and more comprehensive implementation of the control strategies, the rates of trachoma have dramatically decreased in almost every community in the Northern Territory over the past one to two years. This is very reassuring because it shows that when trachoma control activities are implemented properly, they really work.

4.6.3 Surveillance and evaluation

What needs to be done

Active trachoma programs are working both in the Northern Territory and Western Australia. They need to make sure they clearly define and map the endemic areas by determining which communities are at risk and which communities are not at risk. In those at risk communities, they must make sure that they examine at least all the children aged five to nine years old and not just the portion of children who happen to attend school at that time. They need to make sure that treatment and coverage exceeds 80% of those needing treatment, being mindful either to use mass drug distribution (community-based distribution) or to treat all members of each of the households that children may live or sleep in. Additionally, they need to make sure trichiasis screening occurs in all those at risk and that proper referral pathways are in place for those requiring surgery.

South Australia needs to implement its trachoma intervention plans, which have been long in development and are about to commence. It also needs to ensure adequate provision of attention and resources to properly define the areas at risk and to have full coverage in those communities at risk.

There are still some isolated pockets of trachoma in New South Wales and Queensland and, again, the long-discussed mapping to identify whether there are still pockets of endemic trachoma needs to be undertaken. If trachoma is confirmed to have disappeared, no further action may be needed, although if pockets of trachoma are identified, proper intervention will be required.

The Communicable Diseases Network Australia (CDNA) guidelines about antibiotic distribution are loosely written and open to many interpretations[86]. There is a real need for them to be reviewed and revised in the light of experience in Australia and overseas to streamline and simplify trachoma activities.

There has been an excellent start in the use of social marketing and media to promote clean faces and change the social norm. These efforts need to be supported and extended.

4.6.4 Certification of elimination

WHO has defined the elimination of blinding trachoma as having the community prevalence of TF of <5% in one to nine year-old children, and the community prevalence of trichiasis of <0.1% in the whole population[87, 88]. These parameters need to be maintained for at least three years after the cessation of mass antibiotic distribution and there needs to be an ongoing program to detect and treat trichiasis.

Current CDNA guidelines[86] mandate that ongoing surveillance activities are required for five years before trachoma can be eliminated. Approximately $1.3 million per year would be needed for these surveillance activities and the associated monitoring and reporting.

4.6.5 Barriers and enablers

False reasons for not addressing trachoma

A major barrier to the elimination of trachoma in Australia has been the notion that trachoma is no longer a problem; it has already disappeared, it does not kill people, or if it does exist, either it is of lesser importance than almost every other health priority, or that nothing can be done about it anyway. Most of these mental or attitudinal barriers have been overcome by data collected by the NTSRU[84]. The NTRSU's reports have confirmed the presence and level of endemicity of trachoma. They have also shown that with appropriate and concerted action, the prevalence of trachoma can decrease and trachoma can be controlled.

Awareness

Another significant barrier to trachoma control is that health clinic staff and others working in remote communities, such as school teachers, are often unaware that trachoma occurs in their communities. This requires a better distribution of information of the presence of trachoma so that these important community figures can assist in trachoma control activities. Further work in mapping 'at risk' communities and the development of health promotional material and social marketing material, such as the 'trachoma story kit'[1, 2], will all help address this issue.

The lack of the clear definition of endemic areas and 'communities at risk of trachoma' means that potential pockets of disease have not been identified and therefore treatment and control activities have not been initiated. This needs to be addressed. Equally, the relatively poor coverage of screening activities in some areas needs to be addressed so that more precise prevalence estimates can be obtained.

Distribution of antibiotics

A significant barrier to the control of trachoma has been the patchy way in which antibiotic treatment has been distributed and clearly more effort is required to ensure that all those who require treatment actually receive treatment in a timely fashion. It should be pointed out that the current guidelines for treatment can be interpreted in multiple ways and, at least at times, are internally contradictory[86]. In the rest of the world mass drug administration has been the key to the successful elimination of trachoma and the core concept of this is that all those who are in the 'infectious pool' must be treated. Further review and revision of the CDNA guidelines to more clearly and explicitly translate this concept into the Australian context is required.

Resources

Previously, insufficient resources and staff were available to perform the trachoma control programs. However, the Improving Eye and Ear Health Services for Indigenous Australians initiative specifically earmarked funds for trachoma[89]. Since then, particularly in the past 12 months or so, well organised and co-ordinated trachoma control activities are underway especially in the Northern Territory and Western Australia. Although funded for a four-year period, the trachoma control activities in the Improving Eye and Ear Health Services measure need to be ongoing until the goal of the elimination of trachoma is achieved.

4.7 Monitoring and evaluation

Roadmap Recommendations

Managing local eye service performance
That local co-ordination of eye care includes Local Hospital Networks and Medicare Locals and collects and reports nationally consistent data on eye health programs, service delivery targets and patient outcomes.

State and national Performance
That local service delivery data be aggregated to provide state/territory performance information and that this information is aggregated to provide national information.

Collating existing eye data sources
That sources of currently available eye health information are identified and drawn into a national eye health reporting framework.

National benchmarks
That an appropriate expert committee be established to develop clear, evidence-based eye health sector agreed minimum standards and targets to support eye care service delivery for Aboriginal and Torres Strait Islander people.

Quality assurance
That measures of service quality and outcomes are developed and applied to Indigenous eye health.

Primary health self-audit in eye health
That an audit tool for Aboriginal Health Services is developed to support delivery of appropriate eye health services and that this is linked to Aboriginal Health Service funding.

Program Evaluation
That the 'Close the Gap for Vision' initiative is evaluated against program objectives, timelines and measures.

Monitoring and evaluation are essential components for a successful program. The lack of them has been a feature of previous ineffective attempts to improve eye services[11]. Data are power and empowering. They illuminate good work and the achievement of goals and targets including meeting population-based needs. They also indicate areas of difficulty where more attention or resources are needed. However, data that are just collected and not analysed are both useless and a waste of time and effort. Properly collected and analysed key indicator data are essential for the management and oversight of effective activities.

4.7.1 Managing local service performance

Local service performance should be monitored and evaluated locally by people working on the ground and in the system. There should be local ownership of the information gathered and measures of performance derived and staff should be supported to use this information to improve services and address needs. Adequate resources are needed to support and ensure meaningful measurement of local performance.

Generally our field consultations did not find evidence of good or consistent data collection to enable the measurement of local performance. This was apparent for both visiting practitioners and the facilities where services were being provided. There was not readily available information to describe the number of patients who had an eye examination, had been provided with glasses, referred for cataract surgery, had a diabetes eye exam and so forth.

There was evident frustration and resentment in some people in the system to the 'endless' and 'meaningless' collection and reporting of information. They perceived these data to be of no value to them or to their service. The use of service providers and personnel to successfully collect data can be improved by ensuring that there is an understanding of why the data are collected and what they are used for and with feedback about how the data may contribute to change and improvement of systems. This process needs to be empowering and not controlling.

There was little evidence that service providers or AHSs had an idea of the population needs of their local community with regard to eye care. Therefore, given the population in their community, there was little concept or understanding of the number of eye care services that would be expected or needed.

Visiting practitioners seemed to arrange for their visits and undertake the work required during that visit, or series of visits, but did not demonstrate a sense of whether this was an adequate quantum to serve what would be the population-based needs in that region. Rather, they were responding to the needs demonstrated by patient attendance at their clinics or the clinic organiser's requests.

Local data were held by a number of people and organisations and often these were not shared or were constructed in a different framework. The AHS would have its information and data about eye care services, and the visiting optometrist would have separate data, which were again separate from the visiting ophthalmologist and the hospital.

There appeared to be no data locally available on outcomes, for example, if a patient was prescribed glasses as to whether that outcome had been achieved. This situation was similar for patients referred for cataract surgery and diabetic retinopathy management.

However, in one region, in WA, efforts were made to collect information from various providers and to use this information to manage service delivery against expected local needs, although the feedback of this information to effect changes in the service provision was problematic.

4.7.2 State and national performance

Consistent eye health information on service delivery and patient outcomes is not collected or analysed at a national, jurisdictional or regional level. In each region, service providers usually collected their own data on service delivery. However, these data are usually not reported upwards or shared within the region.

Aboriginal and community health services collect patient data and some include eye health data in their routine reporting. Different primary health organisations use different patient data management systems and formats for collecting and analysing patient and service information. Visiting service providers also keep their own patient records and service data. Very rarely do specialists and primary health services use the same format for recording patient information. Policies have been introduced by some primary care organisations requiring visiting services to input information onto the host organisation system. Although there are clear benefits in the visiting service provider sharing information, use of different systems means that data must be entered multiple times and so is consumptive of resources. As the data entered are not analysed, there is little motivation to continue collecting and entering them.

Lack of information and analysis

Lack of targets around eye health mean that services are not required to collect or analyse their data. The VOS and MSOAP programs also do not require even a minimum data set to be collected on eye care activities. DoHA has published a map of the VOS and MSOAP service locations (Figure 4.4). However, further information about the timing of visits and how many patients were treated are not available. Collecting data on the number of people seen in each location should be a minimum requirement for visiting service providers. Further analysis of the data collected is required for effective service delivery planning and to evaluate the coverage and efficiency of services delivered.

No primary health staff, specialists or visiting service providers were able to readily produce data comparing their service figures against population-based needs. In some cases service providers did not have epidemiological or demographic information about the region; for example, they were not sure of the number of Indigenous people in the region or how many people with diabetes should be attending. Lack of knowledge on population demographics and disease prevalence can lead to provider bias and the poor planning of services. Health service or provider bias can influence decisions around the priority for service delivery and population requirements; ultimately these decisions will affect provision and access to services. Clear population-based targets for service delivery and patient outcomes will ensure better informed decision making for eye health care needs and population requirements for eye health care.

Little evidence of performance analysis

There is little evidence of performance analysis based on patient outcomes. There was little knowledge of visiting service processes by the local hospital and community health workers. When asked in the semi-structured interviews about patient follow-up and treatment outcomes staff frequently commented that they did not know what happened to the patient once the patient was referred to the visiting eye team (see also Section 4.2). Additionally, visiting eye teams are not required to report on patient outcomes once treatment is completed nor to follow-up patients who had been referred but who had not attended for treatment. As there was no reporting requirement, visiting teams rarely provided reports to local and host organisations.

No link between states/jurisdictions

Funding for Indigenous eye health services and programs comes from federal and state government and non-government sources. There are no clear linkages between programs that are funded by different sources or even for programs funded from the same prime source. For example, VOS and MSOAP are both funded by the Commonwealth Government, although there are no links between the two programs. (Note that this situation appears to be changing with the DoHA review of these programs (see Section 4.5)).

The complexity of funding arrangements affects eye health service delivery. Different aspects of the eye health care pathway (patient journey) are usually funded separately to the other parts of the pathway. Between each of the stakeholders there are no obvious processes for regular reporting of service information up or down.

The new ML and LHN structures that are being established under the current Australian NHR agenda will require better co-ordination and linkage between the Commonwealth-funded MLs and state-funded LHNs in order to co-ordinate and plan better access to primary eye care services.

Under the Australian NHR agenda MLs and LHNs are required to work together to co-ordinate health care services. Communication mechanisms need to be established between these state and Commonwealth-funded entities. Further, these groups need to work with the local AHS and state affiliates to make sure Indigenous issues and needs are properly considered and appropriately supported.

Linking between jurisdictions

A mixture of state and Commonwealth funding supports the comprehensive eye care system for the Australian population. There appears no reporting between jurisdictions for state/territory funded eye services. Each jurisdiction has evolved its own system and there is little knowledge in the system of how other states approach eye care or whether there may be alternative approaches to state-wide service monitoring.

Some Commonwealth funds are disbursed to the states through fund-holders and there appears to be little communication or co-ordination between fund-holders – or reporting up or down about service delivery.

4.7.3 Collating existing eye data sources

Access to data

Sharing of eye health data between service providers and other stakeholders is poor. There are multiple and different data management systems being used by hospital clinics and private providers and the systems are generally not able to share information. Without good access to eye health service data, it is difficult to monitor progress and plan the expansion of services. Multiple sources of data on service delivery and patient outcomes are collected by practitioners and health workers, although the processes to share or collate this information have not been formally established. Even within health services the capacity to collate service delivery information, such as how many eye health consultations have been conducted or referred, was lacking and these data were not routinely reported. For example, most services were able to access data on how many active patients were listed in the service database. However, many services were not able to provide information about how many people with diabetes were listed in their records, let alone if they had had an eye exam in the past 12 months.

Analysis of service delivery information is essential for assessing progress made to improve health outcomes. These data can also inform better service planning and encourage greater efficiency on service delivery.

MSOAP and VOS data

Data from the MSOAP ophthalmology and VOS programs have proved difficult for the project team to access and there is no public reporting of this information that would support or assist regional or local management of Indigenous eye care services. State and national information is also not available.

Within the reporting systems for MSOAP ophthalmology and VOS, there is an indication of the number of services delivered and the number of days of service by location of service. Although there is a specific requirement to report the number of Indigenous services provided with VOS support and also the requirement for some outcome information, this information is not currently available for planning purposes.

Data published in AIHW reports

The AIHW published a useful summary of available sources of eye health data in 2007 describing key Australian data collections which indicate the prevalence and outcomes of eye diseases and injuries and eye health care utilisation[90]. In 2009, *Eye health labour force*[74] was published and in 2011 a summary report from the 2008 NIEHS[91].

National health data statistics published by AIHW often do not include specific indicators for eye health, although cataract surgery is reported with elective surgery data[69].

Similarly the National Aboriginal and Torres Strait Islander Health Performance Framework does not include any specific indicators around eye health[39]. For example, although eye health is included in MBS health assessments, no statistics for participation in eye health examinations are reported.

Lack of reportable indicators on eye health often leads to eye health being overlooked because there is no requirement to report against these issues. Without a specific requirement to collect eye health information, progress on eye health is not accounted for.

Eye health data not included in national data collection reports

There are no specific eye health indicators in the National Health Performance Framework established by the Australian health Ministers' Advisory Council (AHMAC) in 2001 and revised in 2009[92]. Nor are there specific eye indicators in the Aboriginal and Torres Strait Islander Health Performance Framework established in 2003[39]. It includes 71 indicators of Indigenous health that cover 3 tiers – health status and outcomes, determinants of health and health systems performance.

A *Guide to Australian Eye Health Data*[93] was published in response to the National Framework for Action to Promote Eye Health and Prevent Avoidable Blindness and Vision Loss[26]. This outlines the process for proposing indicators that may be specific to eyes. The 1997 Indigenous eye health review provided two specific recommendations pertinent to the importance and value of national data collection[13]. These have not been adopted but are presented below.

Eye Health in Aboriginal and Torres Strait Islander Communities[13] extract

Recommendation 16 was that the Commonwealth Government should fund the establishment of a 'National Information Network' to collect and collate data of service delivery achievements and assist in the planning of services.

Recommendation 17 suggested that the National Information Network report on a regular basis to the Health Ministers using the following performance indicators:

- the number of pairs of glasses provided;
- the number of cataract operations performed;
- the number of people on the waiting list for cataract surgery, and the time they have been on the waiting list;
- the percentage of people with diabetes who have an annual eye examination;

- the number of people with diabetes for whom treatment was recommended and the number who were actually treated;
- the status of trachoma on a community basis including prevalence of trachoma in children aged five to nine years;
- the number of people treated for trachoma with azithromycin; and
- the prevalence of trichiasis in women over 40 years.

Aggregating data from existing sources

While eye health data may not be reported nationally through regular health performance framework reports, there is a lot of information available through agencies like Medicare, state hospital reporting, state spectacle schemes, and federal funding schemes in eye health like VOS and MSOAP. Aggregation of this information and establishment of regular reporting would serve to better underpin the delivery of Indigenous eye care.

Service-level data can also be aggregated from regional management and through jurisdictions.

4.7.4 National benchmarks

No population needs analysis

The recent IEHU report *Projected Needs*[8] has demonstrated the use of national prevalence rates for eye conditions and their treatment and population statistics to determine population-based needs for eye care. This information can be geographically scaled to populations within regions to estimate eye care requirements for these regions. Field consultations and stakeholder meetings did not reveal any areas where population needs analysis had been undertaken.

The national population needs analysis for Indigenous eye care in 2009 estimated that a three- to four-fold increase in eye care services in remote areas was needed at that time[5]. Since then some increase in services has occurred with additional VOS and MSOAP (IRIS) funding (see Section 4.5).

The lack of the calculation of the population-based needs mean that targets cannot be determined and the adequacy of the current service cannot be meaningfully assessed.

Sector involvement in indicators

Current committees and organisations that have a role in collecting, analysing, reporting and making decisions about national eye health programs should be included in the development of a small set of key indicators for a national eye health system. Stakeholders in each of the sectors including the community-controlled sector, private service providers, government and NGOs need to be included in this process. The opportunity to engage in the development of indicators will offer these stakeholders some buy-in or ownership and accountability for responding to the indicators.

4.7.5 Quality assurance and primary health service self-audit in eye health

Great advances have been made in improving the quality of care with self-audit and continuous quality improvement programs. An outstanding example of this is the ABCD program of the Cooperative Research Centre for Aboriginal Health that has become the One21Seventy program of the Lowitja Institute[94-97]. A module to enable AHSs to ascertain their performance in managing eye health issues and initiate changes where needed should be developed.

4.7.6 Program evaluation

Program identity

Many Indigenous eye health programs are run through AHSs or focus on small outreach projects from hospitals or health services. Despite many reviews of eye health and regional projects, a nationally consistent eye health program with national coverage and clearly defined population-based targets has not yet been established[11]. Without common objectives and targets for eye health, it is difficult to organise, manage and co-ordinate services and the various stakeholders across Australia.

It has been observed during the project that it is difficult for health workers to gain the required support for eye health when eye health is not recognised as a priority health area. Attempts to improve patient outcomes or to expand eye services are challenging because of the lack of baseline data to use to monitor service provision.

A unified national approach to Indigenous eye health with clearly defined, population-based targets needs to be established. It could incorporate information from existing sources and would provide a guide of current service coverage. It would be able to assess the needs for the expansion of services in underserviced remote, rural and urban areas. It should access and use local data whenever they are available.

National Framework for Avoidable Blindness

The National Framework for Action to Promote Eye Health and Prevent Avoidable Blindness and Vision Loss was endorsed at the AHMC in November 2005[26]. The first progress report to the AHMC was presented in November 2008[98]. The progress report was compiled by the Eye Health Working Group of the Australian Population Health Development Principal Committee of AHMAC. Information from all jurisdictions on eye health and vision care activities undertaken between 2005 and 2008 were analysed in the report. Since 2008 no further reports have been published, although a further review was undertaken in 2011.

During the three-year period 2005-2008 many small projects were undertaken by the non-government sector towards the objectives of the Framework. The 2008 report focuses on the contribution of governments; similar reporting of non-government sector activities needs to be collated to form a more comprehensive picture of eye health care access in Australia. NGOs, health professional associations, private industry, communities, families and individuals all work in areas that focus on achieving the National Eye Health Framework's objectives.

Key Action Areas for the National Framework to Prevent Avoidable Blindness are:

- Key Action Area One: Reducing the risk
- Key Action Area Two: Increasing early detection
- Key Action Area Three: Improving access to eye care
- Key Action Area Four: Improving the systems and quality of care
- Key Action Area Five: Improving the evidence base.

The National Eye Health Framework Key Action Area Five: Improving the evidence base focuses on establishing an evidence base for eye health care policy, planning and programs. Under this key action area a number of initiatives were identified to build the evidence base for eye health, although most were driven and implemented through the non-government sector. Excluding the work of the NTSRU, since 2008 there remains an absence of government-led initiatives to establish and develop an evidence base for eye health in Australia, whether for Indigenous or non-Indigenous Australians.

The NIEHS has also identified the prevalence of eye disease in Australia and provides a basis for clear targets around eye health care in Australia[8].

Good progress has been made through the reporting of the NTSRU, although further improvements are needed (see Section 4.6.2). When clear targets are set and program implementation is funded and co-ordinated, a real difference can be made on the ground and sustained with continued efforts. High-quality data have been collected and analysed and show a marked improvement in the results. Similar work to collect and analyse eye health data needs to be established to capture progress made on all eye health conditions in Australia including diabetic retinopathy, cataract and refractive error.

4.7.7 Barriers and enablers

No continuous quality improvement program for eye health

Where regional health service data are collected and reviewed as part of continuous quality improvement, more patients receive better treatment. Such a program needs to be introduced for eye care. Further improvements could be made through the introduction of similar activities at regional and state levels.

Sharing lessons from other programs

The Australian Indigenous Health InfoNet[99] and related forums provide a good platform for discussing issues in eye health and sharing information across programs. Many of these networks are informal and linked to only a small group of stakeholders. More effective use of such networks would encourage greater collaboration between various stakeholders and improve communication around eye health issues and delivery of eye health services.

National eHealth Strategy 2008

The Australian Government has released guidelines for the Personally Controlled eHealth Record (PCEHR). As a key work stream of the NHR one of the aims of the PECHR is to provide better co-ordination of healthcare across multiple service providers and organisations. Eye health indicators need to be included on the PCEHR and act as reminders of the need for eye examinations in high-risk individuals, especially those who have diabetes.

4.8 Governance

Roadmap Recommendations

Community engagement
That eye services are developed and delivered with the engagement of the local community.

Local Hospital Networks and Medicare Locals
That local co-ordination of eye care is part of the responsibility of Local Hospital Networks and Medicare Locals and informed by Lead Clinician Groups.

State/territory management
That state/territory Indigenous eye health managers are appointed and state/territory Indigenous eye health committees are established to provide oversight and support for the Indigenous eye health system.

National oversight
That existing committees be brought together to act as a National Indigenous Eye Health Committee, established by government to include the non-government sector (including NACCHO and Vision 2020 Australia) and that it reports to the Australian Population Health Development Principal Committee of the Australian Health Ministers Advisory Council.

Program interdependence
That the recommendations be regarded as a comprehensive package to be known collectively as the 'Close the Gap for Vision' initiative. Clearly articulated objectives, timelines and measures will need to be developed.

Oversight and accountability are the two key ingredients required to ensure continuity of service delivery. The failure to institute these basic governance procedures was a key factor for the failure of previous reviews and recommendations about Indigenous eye health[11]. This oversight needs to occur at each administrative level.

4.8.1 Community engagement

Local community engagement

Field consultations reinforced the necessity of local community control and the determination of eye care services. Where communities recognised and decided that eye care was important, there was the staff and organisational commitment for eye care. Where eye care was imposed by external providers on communities, program successes were frustrated and limited.

External agencies were able to influence local community interest in eye care through processes that included discussion and information sharing, but this generally required the development of a relationship and establishment of credibility between providers and communities. Communities report many agencies are offering services and involvement but they only have a limited capacity to respond to all these overtures. Community resources were finite and a list of health priorities had been determined already.

Successful services showed community commitment to eye care, local control and management of arrangements with regard to scheduling and the involvement of staff and other resources. Communities that were also able to contribute to determining approaches for specialist services and care were more involved with supporting and achieving good patient outcomes.

Champions and leadership

There have been a number of champions and leaders in the history of Indigenous eye care and the positive influence and effect of these leaders plays out in the services and systems that are currently provided to communities[5, 11]. Unfortunately, this approach is yet to solve the issues around Indigenous eye health and the rate of blindness is still six times more in Aboriginal communities than in the mainstream. Many of the champions and leaders limit themselves to specific areas of work or geographic locations. Through their leadership, systems are developed and tailored to meet local community needs and wishes and in this limited domain they are very successful. However, there may be limited application of these models of care and service delivery more widely because of the rarity of individuals with equal vision and drive, and so those areas without leaders and champions have comparatively poorer outcomes.

While champions and leaders are important to develop innovations and exercise specific area or location changes[5], the nationwide solutions for Indigenous eye health cannot rely on the spontaneous appearance of champions in all areas of Australia. For that reason the learnings of the champions and leaders must be turned into manageable policy so that effective and efficient services can be reproducibly developed across the country to ensure all Indigenous Australians receive appropriate care.

4.8.2 Local Hospital Networks and Medicare Locals

Local oversight and management

Field consultations provided little evidence of local or regional management of eye care provision. Some elements of the delivery of eye care were managed well by practitioners and providers, but there was not a consistent approach to combine this management or oversight to ensure that the whole system functioned to achieve effectively targeted outcomes.

There was little appreciation at local level of the population-based determination of needs. The approach was more clinic-based – ‘do I have a full clinic list or not?’.

More successful local management usually was led by a single key person. A weakness of such a local system is the dependence on that individual as there was rarely a satisfactory backup, or contingency or succession planning. A further limitation of the reliance on a single person is that it may limit the capacity of the local system to grow or adapt over time. Having an eye care professional in such a role has worked in the past, however for a national system to be responsive to local requirements there will need to be additional people to accept this type of responsibility.

Local oversight and management needs to include the local AHS, other primary care providers, and optometry, ophthalmology and hospital services. Within a region this may include a number of different locations and providers. There are some good examples of effective regional systems, but these are still the exception rather than the rule.

Local oversight and management will need to ensure that basic primary eye care is properly included in the provision of comprehensive primary care and that these services are linked with the local hospital services. It is imperative that these arrangements ensure that there are the appropriate links to and provisions for ACCHOs. The MLs, LHNs and the ACCHOs need to get together to determine their local, population-based needs and the services that are required to meet these needs and to evaluate their progress to meet these needs.

4.8.3 State/territory management

State management fragmented or non-existent

There were no identified state or jurisdictional committees with specific responsibility for Indigenous eye health or state/territory eye health with the exception of Victoria. In 2010, through the Victorian Department of Health, Aboriginal Health Branch and Victorian Aboriginal Council for Koori Health, an Indigenous eye health sub-committee was established to oversee 'Close the Gap' funding in eye health.

In New South Wales, ICEE has taken responsibility for optometry services provided in AHSs in partnership with the Aboriginal Health and Medical Research Council, although the links with ophthalmology and hospital services are still not good. The Outback Eye Service (OES) provides eye care services to some areas of regional New South Wales with primary links to the New South Wales hospital service, but does not cover the whole state. New South Wales also has an 'eye' committee, the Statewide Ophthalmology Service (SOS) but their remit is not Indigenous specific. However, every jurisdiction has a joint planning forum that brings together the community-controlled sector, the Commonwealth and the state or territory government. This group, or a subcommittee of it, would be a very appropriate body to be charged with the specific responsibility for oversight of the position of Indigenous eye care in its domain.

4.8.4 National oversight

No national oversight

There was no national oversight or accountability for Aboriginal and Torres Strait Islander eye care. Although a number of groups may be considered to be involved in national oversight, there was no government- or sector-agreed group with this remit or that is accountable for reporting on achievements.

Equally, there is no group that collects information or data that would suggest or support national oversight responsibilities.

DoHA has established national committees to support its funding programs of MSOAP and VOS and to determine fund allocation, although the remit of these groups is limited to approving the applications in these funding programs. As mentioned, DoHA is currently reviewing the arrangements around MSOAP and VOS. In 2010, DoHA funded ASO which has set up IRIS (see Section 4.5).

Potential NGO stakeholders that might participate in a national oversight body include Vision 2020 Australia, NACCHO, RANZCO and the OAA.

Existing committees

In establishing an effective review or governance system, it is highly desirable to utilise existing committee structures, experience and expertise wherever possible. There is no desire to set up a separate, stand-alone, vertical eye program.

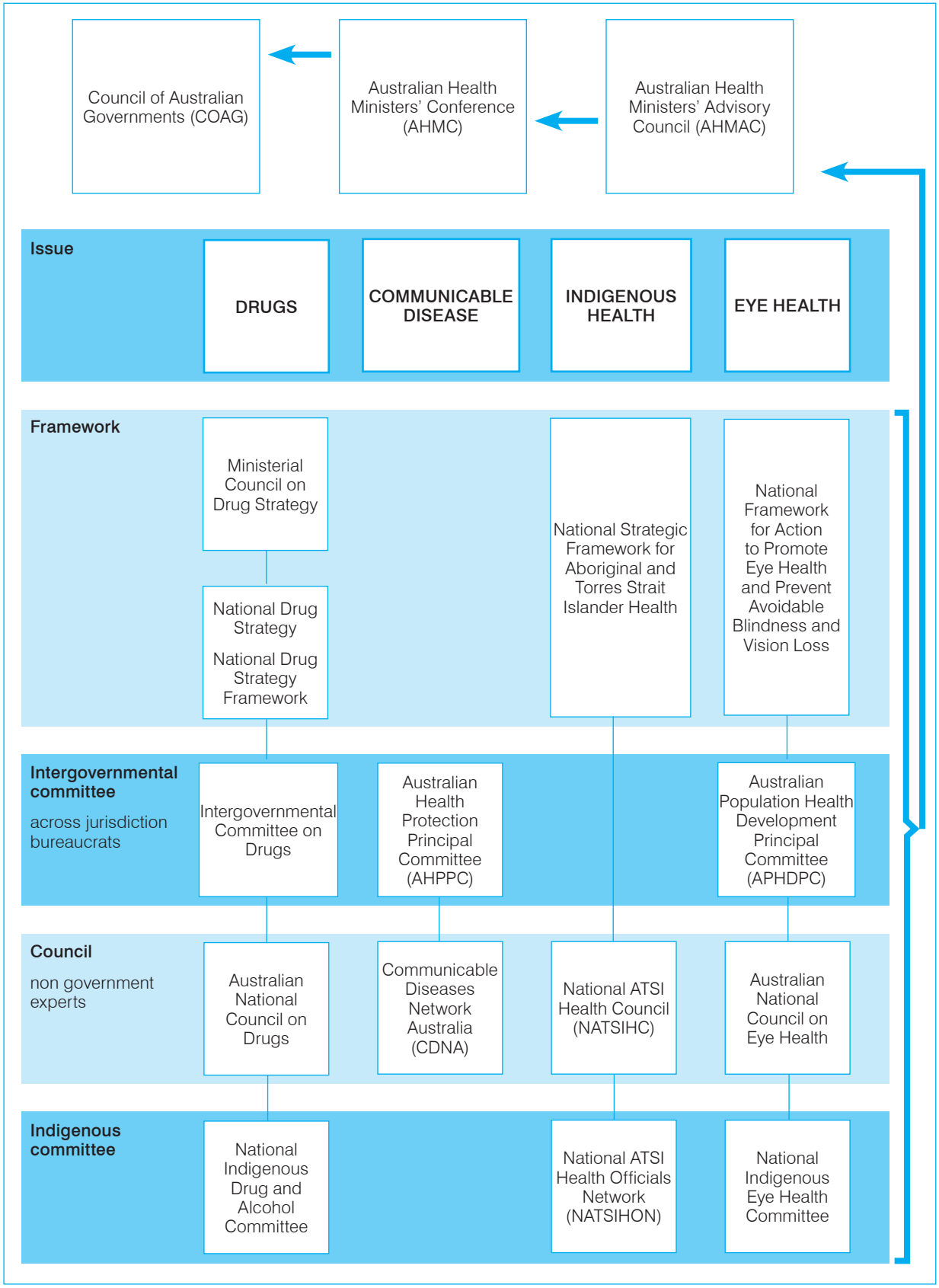
NHR structures entertain the establishment of MLs, local Lead Clinician Groups and LHNs at the local level. It is suggested that the responsibility for regional eye care is aligned within these structures providing that eye care can be maintained as a priority issue and that there is appropiate ACCHO involvement.

At the state/territory level, committee structures exist to deal with particular health issues and in relationship with the Aboriginal community-controlled sector. As mentioned, joint planning forums could provide an ideal vehicle to include eye care responsibilities and to oversee an eye care committee.

A possible structure

It is suggested that a governance body with accountability to COAG, AHMC or AHMAC would appropriately focus efforts in Indigenous eye care and is necessary if the goal of closing the gap is to be achieved (Figure 4.6).

Figure 4.6: One suggested model for national oversight and accountability



The past failures of policy implementation and proper funding for eye health programs have resulted from a lack of consistent focus on Indigenous eye health[11].

The health field is dynamic, not just at a clinical level but also in management and government policy. The scene in which Indigenous eye care is delivered is constantly changing and the capacity and opportunities for Indigenous eye care focus are a moving target – a governance structure for national oversight and accountability is required.

4.8.5 Program interdependence

Sector complexity

As discussed earlier, although people in the field are aware of the various elements of the existing eye care structures, there is no sense or understanding of an overall program of eye care delivery. As such, there are no commonly held goals. The systems and processes for delivering and managing care are highly varied across the country. The priorities of different stakeholders are sometimes in conflict. In part this can be explained by sector complexity where there are federal government and state/territory interests, professional group and association interests, and a number of non-government agencies involved in the care system.

If stakeholders could share common goals, determine priorities and distribute tasks to work towards and achieve these goals, it is likely that outcomes will be improved.

Complexity of government departments

The federal government departments where there is interest in Indigenous eye care included DoHA sections Rural and Regional Health Australia (Primary and Ambulatory Care Division), Office for an Ageing Australia (Ageing and Aged Care Division) and Office of Aboriginal and Torres Strait Islander Health. Each of these branches also has offices within their state/territory offices.

Management and governance of the National Blindness framework

The National Framework for Action to Promote Eye Health and Prevent Avoidable Blindness and Vision Loss was endorsed by the AHMC in 2005[26].

We noted that there appeared to be no structure to support governance or monitoring of this Framework and that this approach seemed to be in contrast with the other national frameworks. Examples of national programs and frameworks that are supported by national committees include the National Drug Strategy and communicable disease control (see Figure 4.6).

Seeding multiple sites

One concept we encountered while discussing the peaks and troughs of Indigenous eye care activity over the years was the idea of the need to 'seed multiple sites'. This would provide a higher potential to have an organisation or individual available and prepared to take the lead at any particular time because there would be a greater number of bases where such people or organisations existed. This idea runs counter to the approach to rationalise people and groups in order to avoid duplication and maximise use of resources. However, there are several examples where this approach has helped sustain activities as individual organisational leadership waxes and wanes.

4.8.6 Barriers and enablers

Learnings from past eye health programs

A *Critical History of Indigenous Health Policy Making: Towards Effective System Reform* was published by IEHU in 2011 and covers the period 1976 to 2010[11]. Seven formal reviews of Indigenous eye health have been conducted in that time and a number of consistent findings are identified. There is need for close community input and involvement, national oversight and monitoring, integration of basic eye care into primary care, mechanisms to overcome jurisdictional issues and a commitment of appropriate priority

and resources. The history demonstrates that solutions cannot be imposed, that there have been many peaks and troughs in Indigenous eye health activity (often lead by a champion), stand-alone services are not appropriate and eye health must be part of broader health care, and that implementation of recommendations has often been delayed or just not carried out.

No aggregated data to inform continuous improvement

The availability of data to inform policy and service planning at a national level is poor. There is a lack of aggregated data at jurisdictional and national levels and there is no oversight, monitoring or accountability. Even data about government schemes for visiting services or for low-cost spectacle support are not readily available or shared. National systems management cannot be undertaken without performance data to inform planning.

4.9 Health promotion and awareness

Roadmap Recommendations

Eye health promotion
That an eye health promotion strategy aligned with the 'Close the Gap for Vision' be developed within each state/territory to improve community awareness of eye health.

Social marketing eye care services
That strategies for marketing of local eye services including visiting services are established at the level of Local Hospital Networks, Medicare Locals and Aboriginal Community Controlled Health Organisations.

4.9.1 Eye health promotion

Eye health promotion in the family, clinic and community

Eye health care promotion activities are required at the family, clinic, community and regional levels. Some examples for eye health promotion activities include workshops, presentations at community festive days and AHS staff organising group meetings. The use of Indigenous media could include radio, television and newspapers, and is likely to be arranged at regional and jurisdictional levels. Promotional material for distribution in clinics and other community settings and events should also be considered. The successful current trachoma awareness programs and the Indigenous Quit programs could be used as models.

There is currently no strategy for co-ordinated Indigenous eye health promotion activities at a regional, jurisdictional or national level, although a number of activities are conducted by AHS staff and NGOs on an ad hoc basis.

Diabetes and eye health promotion

Diabetes is responsible for 12% of the health gap between Indigenous and non-Indigenous Australians[100]. Diabetes is becoming so common that almost 32% of Indigenous adults (more than 55 years of age) have been diagnosed with diabetes or high sugar levels[75]. The NIEHS showed 37% of Indigenous adults have diabetes and 13% had already lost vision from diabetes[4, 12, 46]. Indigenous adults between 24 and 35 years are 6.8 times more likely to report diabetes than non-Indigenous Australians[75]. Many Indigenous people would know at least one person in their families who has diabetes. Therefore it is important to include the family, as well as the community in health promotion around diabetes and eye health.

Diabetes prevalence within Indigenous Australian populations varies due to differing factors influencing health across diverse communities in Australia. Additionally, it is difficult to accurately measure the overall prevalence of diabetes in Australian Indigenous populations due to the high level of undiagnosed diabetes. However, based on self-reported diabetes and GP consultations it is estimated that the overall rates of diabetes in different Indigenous populations in Australia is three times higher than non-Indigenous populations[75]. Even with such high prevalence rates and identification in younger age groups becoming more common, diabetes is becoming widely accepted as a disease or 'sickness' that is associated with

ageing for many Indigenous people. Similarly, blindness from diabetes is considered as an integral part of that sickness and there is a community misunderstanding that nothing that can be done about it. Although it is true that retinal changes (diabetic retinopathy) are inevitable, much can be done to slow their onset, and with early identification and timely treatment, 98% of the blindness from diabetes is preventable.

Health promotion and awareness to address the eye health implications of diabetes is warranted.

Social norms, attitudes and misconceptions

Provider bias can influence the provision and availability of eye care services. A common misconception was that Indigenous people do not need to wear spectacles or reading glasses.

'I have not seen many Aboriginal people wearing glasses and I just thought that they didn't need them' (Western Australia)

On many accounts the research team was struck by the acceptance that Indigenous people living in remote areas or town camps did not need to wear spectacles because they had good distance vision or were illiterate. This misconception appeared to influence practice so that primary care providers would rarely test distance or near vision. Further, literacy levels should not influence the priority for eye care or the need for spectacles. The use of spectacles is important for every-day reasons beyond the need to read print material (see Section 4.2.1).

Provider bias also influences the delivery of eye care services particularly in remote areas.

'A lot of effort goes into providing spectacles to people who live in the bush, but they so quickly – even a few hours later – will lose or break them' (Northern Territory)

Patients in rural and remote places also reported high breakage and loss of spectacles and the use of old and borrowed spectacles because of the lack of appropriate spectacles available at low-cost in their area. One remote eye health program offered an onsite spectacle repair service for clients. Another health worker repaired old and damaged spectacles while patients undertook eye examinations with a visiting optometrist. Although only basic repairs could be performed, the service was well used and provided an additional incentive for patients to come in for an eye examination.

There is debate around charging fees for spectacles provided through a subsidised scheme. Many argue that providing spectacles at no-cost diminishes the value placed on the spectacles and services. In contrast, others argue that any charge (even nominal) is a barrier that would limit access for many Indigenous people. Cost is identified as the most common reason Indigenous people do not go to a health professional when needed[101]. However cost-uncertainty for spectacles was commonly reported to the research team as the reason for not visiting the optometrist (see also Section 4.3). The recently introduced Victorian Indigenous spectacle scheme demonstrates that when spectacles are provided for low and certain cost, the service is accepted and accessed by Indigenous clients.

Social norms affect not only the delivery of services, but also the utilisation of services. As a result of the inadequate service delivery and limited availability of follow-up services for most Indigenous communities, many people do not understand the importance of having regular eye examinations or how to prevent avoidable blindness. Nor are they aware of the treatments that are potentially available for poor or diminishing eye sight. Acceptance of poor vision because there are no available services is common and unnecessary.

Younger people, including teenagers, are being diagnosed with type 2 diabetes, and blindness in Indigenous adults is occurring at higher levels and younger ages than compared with non-Indigenous Australians. Blindness rates for diabetes are 14 times higher in Indigenous adults than in the mainstream[4, 12, 46]. Health promotion messages need to be broader than just education about common conditions. They also need to emphasise the importance of preventing common eye conditions and to influence community expectations and norms about common eye health conditions and poor vision. They should emphasise what should be expected as part of normal ageing in contrast to noticing abnormal changes that require further attention. It should not be acceptable, or the norm, for community and family members to go blind at the age of 40 from preventable eye health conditions.

Changing social norms, community and eye health service provider attitudes, knowledge and awareness can influence individuals in the community to seek eye health care. This is only one part of a series of changes required to improve eye care services and increase utilisation. However services need to be

available and accepted by the community before individuals and families can be encouraged to access them.

Community expectations

Health promotion materials and awareness raising activities are required to increase awareness and expectations around eye health issues within Indigenous communities. Education around the prevalence and significance of eye health conditions and how to seek eye health care when needed are essential to change community expectations around eye health.

The very low expectations around eye health services can be demonstrated through statements made by community and health service staff interviewed in consultations.

'Blindness is something that happens as you get older, it happens, it cannot be prevented and it is not uncommon for someone to go blind at 40' (Western Australia)

'There is no point coming in to see the eye doctor because they can't afford to pay and don't feel comfortable travelling down to the city' (Victoria)

'Even if they get on the waiting list it will take years for them to get in [for surgery]' (Queensland)

Peer education is an effective way to deliver positive messages. People within the community provide information to family, friends and other community members. Some examples of this type of peer education include the use of eye health ambassadors or volunteers who are people who have experienced a condition and used the eye care system with successful treatment outcomes and who have had a positive patient experience. For example, Elders who have had cataract surgery can share this story with others. Somebody who has undergone laser surgery for diabetic retinopathy can explain to other potential patients their experiences and the processes. This type of storytelling is an effective way to share information about eye health care and services available for Indigenous communities.

Currently VACCHO, Vision 2020 Australia and Oxfam are planning the production of digital stories highlighting community members' positive experiences of eye care services. Examples like this need to be evaluated and then replicated and widely distributed.

Engaging the community and family

In Australian Indigenous communities, self-priority for health care comes second to family and community. An individual seeking health services for themselves will not consider this a priority when there are other family responsibilities.

'I know I was supposed to get my eyes checked because I have diabetes, but I didn't 'cause I need to look after my grandchildren' (Victoria)

Increasing an individual's health-seeking behaviour for eye care requires an approach that involves the support of the whole community and the family. Changing community and family awareness around health issues can have an impact on individual health-seeking behaviour by providing community and family support and encouragement to seek care. Many health services and AHWs contact family members of an individual who has an appointment to engage them in the health-seeking process. This approach creates a support network for patients to actively use available eye care services. Supported care and patient or case management programs for Indigenous patients are also effective in supporting patients through treatments.

Knowledge and awareness of eye care and eye conditions

Health promotion messages and activities increase understanding of eye health care issues and conditions. However, there is a large step between possessing knowledge about eye health and making the decision to seek and access services. The eye health care pathway is not clear for practitioners, health workers, patients or other stakeholders involved in the patient journey. Much of the ability to navigate the system is often dependent on a facilitator who has previously engaged with, or has personal knowledge of, the existing eye care service providers within or outside the AHS sector.

Understanding who to seek care from in areas where the local eye care services are infrequent, distant or non-existent can be challenging. To add to the complexity, the visiting eye health team is often referred to as the 'eye doctor', a term that is easily understood by community members. However, when referring to the 'eye doctor' the distinction between the eye health professions, optometry and ophthalmology, is not clear.

This can be confusing and lead to patients not completing treatment or to not attending follow-up services.

The problem is perpetuated by a lack of standard treatment protocols for eye conditions. When there are multiple episodes of service delivery involved in the management of a particular problem, there is a higher need to understand the treatment process and to educate the health service staff to ensure continuity of care between services, so that patients are supported to complete full treatment.

Funding for health promotion

Most Indigenous eye health programs did not have a strategy or funding for health promotion or social marketing of services. Health promotion activities require resources for staffing, materials and the implementation of the activities. Similarly, health services often do not have adequate budgets to cover health promotion activities. In regional and remote areas it can be difficult to get up-to-date health promotion materials at a low cost. Although there are eye health promotion materials available, communication and dissemination plans are needed and they need to be resourced. For established eye care services, promotion of programs through word of mouth can be an effective way to increase use of services and this does not require significant resources. However, word of mouth alone is not sufficient to attain population-wide changes in service utilisation.

In Australia there are a number of research institutes, universities and NGOs that have produced materials for Indigenous eye health education and to support service delivery. In 2006 DoHA committed $13.8 million in funding to promote eye health care and strengthen eye health service delivery through the National Eye Health Initiative. This was a response to the National Framework for Action to Promote Eye Health and Prevent Avoidable Blindness and Vision Loss (Key action area 1: Reducing the risk)[26]. However, this initiative did not include a strategy to support sharing of information or to promote successful eye health projects beyond pilot stages.

The development of mechanisms to disseminate eye care education and training materials is needed.

Once resources are developed, health services, health staff and patients need to know where and how to obtain these resources when they are required.

The Australian Indigenous Health InfoNet is an internet-based resource that aims to inform practice and policy in Indigenous health by making research and other knowledge accessible to anyone interested in Indigenous health issues. Recently, through the Australian Indigenous Health InfoNet, a discussion forum called the Indigenous Eye Health Yarning Place has been established and interested stakeholders have been encouraged to join up to the network to participate in communication with other members[102]. This informal network provides a potential platform for communication of health promotion materials and discussions on eye health issues.

4.9.2 Social marketing eye care services

Within the current field of eye health care and considering the low community expectations around eye health and eye care services, there is a need to advertise services that are available and spread the message when high-quality and low-cost eye care services are available in the community. Eye health care does not fall under the major health conditions that are reported under the Aboriginal and Torres Strait Islander Health Performance Framework[39]. As a consequence eye health as an issue is often given less priority and resources in primary health services than other health conditions. Social marketing is an effective way to raise awareness, increase prioritisation of eye health issues and gain support for better eye health outcomes within the community.

Social marketing opportunities are available through national and local Indigenous media networks and organisations. The roll-out of the 'trachoma story kits'[1] in 2010 and 2011 in parts of the Northern Territory, Western Australia and South Australia has been successfully promoted through local media channels. The message around 'Clean faces, strong eyes' and the use of the mascot Milpa the goanna has been developed using television appearances, radio segments, public service announcements, community events, printed media materials and internet resources. It has very successfully used publicly recognised football players as 'ambassadors'. The social marketing approach has been effective in communicating public health messages to a wide range of audiences in communities and throughout regions where trachoma still exists in Australia (see also Section 4.6.2).

With strong partnerships between local and visiting services, there are opportunities within the newly established MLs and LHNs to develop social marketing strategies to increase awareness about eye care services. MLs and LHNs could also use social marketing campaigns to promote messages on the importance of regular eye examinations for prevention of eye conditions. These can be targeted at individuals and families and focused on the patient journey to link primary health care with specialist and hospital eye care.

4.9.3 Barriers and enablers

Local appropriateness

The project team became aware when discussing health promotion activities with clinic staff that local messages and local images were important for health promotion impact and effectiveness. Generically produced health promotion material that was not designed and tailored for particular communities was not considered as useful or effective. Templates that can be adapted for local use should be considered in the production of eye health promotion materials.

4.10 Health Financing

Roadmap recommendations

Current spending on Indigenous eye health (excluding trachoma)
That the current annual total expenditure on Indigenous eye health (excluding trachoma) is estimated to be $17.40 million and this is not adequate.

Current spending on trachoma
That the current annual total expenditure on trachoma elimination is estimated to be $4.5 million and this should be continued.

Full additional annual capped funding required
That an estimated additional annual capped funding of $19.5 million is provided per year for Indigenous eye health.

Cost to 'Close the Gap for Vision' funded for five years
That an estimated additional capped funding of $68.25 million is provided over five years for Indigenous eye health.

4.10.1 Introduction

A complementary study to this project, *The Cost to Close the Gap for Vision*[10] (see Section 4.10.2), has developed a comprehensive costing model to try to capture all direct medical and non-medical costs for Indigenous eye health. This work was undertaken by the Centre for Health Policy, Programs and Economics in the Melbourne School of Population Health with the IEHU.

The costing model focuses on three major eye conditions – cataract, refractive error and diabetic retinopathy – which account for 93% of the preventable vision loss in Indigenous adults[4, 12, 46]. The non-medical costs included in the model are support for travel and accommodation for patients, supply of glasses, and the workforce for patient and system co-ordination. The model does not include costs for governance or infrastructure.

The costing model also identifies where possible the funding source for each activity (Commonwealth or state/territory) and whether the funding stream is considered capped (funding allocation is limited) or uncapped (can respond to additional funding demand, such as Medicare and the Pharmaceutical Benefits

Scheme) so as to assist in planning for implementation of program change. Co-ordination costs were not able to be separated for Commonwealth and jurisdictional contributions because of the varied and changing ways in which those involved in co-ordination are currently funded.

The model proportionally allocates the various pathways and the supports required to achieve each treatment outcome. It also allows for the difference in costs between rural and urban services.

Additional work by the project team has broadly estimated the costs for the proposed governance and evaluation functions and provided an implementation strategy with ramp up costs over a four-year period (see Section 5.5).

4.10.2 *The Cost to Close the Gap for Vision* report

The Cost to Close the Gap for Vision was prepared by Dr Ya-Seng (Arthur) Hsueh, Mr Alex Brando, Professor David Dunt, Mr Mitchell Anjou and Professor Hugh Taylor of the Centre for Health Policy, Programs and Economics and the Indigenous Eye Health Unit, Melbourne School of Population Health, The University of Melbourne, and was published in August 2011.

The report employed a comprehensive costing model that captures all direct medical and non-medical costs (such as support for travel and accommodation to the patients and support for co-ordination of the workforce within the eye health care system) to provide needed eye care services to all Indigenous Australians, focusing on three major eye health problems, namely cataract, refractive error and diabetic retinopathy. However, it did not include costs for governance or infrastructure. Estimations of providing eye care that deal with Indigenous Australians' cataract surgery, refractive error and diabetic retinopathy are summarised as follows (all in 2011 Australian dollars):

Total cost	$45 million a year
Current spending	$18 million a year
Additional funding required	$28 million a year

In all, 46% of the additional cost is to implement the necessary co-ordination workforce within the eye health care system. These estimates include both capped and uncapped costs.

This study also provides indicative information regarding the costs required to 'Close the Gap for Vision' for Indigenous Australians for each state and territory in Australia (Table 4.7 and Table 4.8).

Table 4.7: Annual costs by Commonwealth and state/territory, uncapped and capped and for co-ordination (from *The Cost to Close the Gap for Vision* report 2011[10])

	Commonwealth		Co-ordination Cost	State/ Territory		Total
	Uncapped Cost	Capped Cost		Uncapped Cost	Capped Cost	
CURRENT	$4,759,837	$991,102	$8,012,408	$1,682,982	$1,958,089	**$17,404,418**
ADDITIONAL	$5,109,859	$2,910,654	$13,324,604	$4,710,672	$2,007,014	**$28,062,803**
TOTAL	**$9,869,696**	**$3,901,756**	**$21,337,012**	**$6,393,654**	**$3,965,103**	**$45,467,221**

Table 4.8: Annual costs by condition, Commonwealth and state/territory, uncapped and capped and for co-ordination (from *The Cost to Close the Gap for Vision* report 2011[10])

	Commonwealth		Co-ordination Cost	State/ Territory		Total
	Uncapped Cost	Capped Cost		Uncapped Cost	Capped Cost	
CURRENT						Current Cost
Cataract	$747,199	$457,912	$1,087,734	$1,650,463	$182,410	**$4,125,718**
Refractive Error	$2,363,844	$284,920	$4,691,117	$0	$1,712,483	**$9,052,364**
Diabetes	$1,648,794	$248,270	$2,233,557	$32,519	$63,196	**$4,226,335**
Total	**$4,759,837**	**$991,102**	**$8,012,408**	**$1,682,982**	**$1,958,089**	$17,404,418
ADDITIONAL						Total Additional Cost
Cataract	$1,833,799	$1,188,405	$2,904,268	$4,400,173	$487,200	**$10,813,845**
Refractive Error	$167,374	$44,768	$2,430,114	$0	$878,972	**$3,521,228**
Diabetes	$3,108,686	$1,677,481	$7,990,222	$310,499	$640,842	**$13,727,730**
Total	**$5,109,859**	**$2,910,654**	**$13,324,604**	**$4,710,672**	**$2,007,014**	$28,062,803
TOTAL						1 Year Total Cost
Cataract	$2,580,998	$1,646,317	$3,992,002	$6,050,636	$669,610	**$14,939,563**
Refractive Error	$2,531,218	$329,688	$7,121,231	$0	$2,591,455	**$12,573,592**
Diabetes	$4,757,480	$1,925,751	$10,223,778	$343,018	$704,038	**$17,954,065**
Total	**$9,869,696**	**$3,901,756**	**$21,337,012**	**$6,393,654**	**$3,965,103**	$45,467,221

4.10.3 Current spending on Indigenous eye health (excluding trachoma)

The current spending on Indigenous eye care for the three conditions – cataract, refractive error, diabetic retinopathy – is estimated to be $17.40 million. There is an error in *The Roadmap to Close the Gap for Vision* summary report, where the current spending is inadvertently shown as $16.09 million rather $17.40 million.

The figure was derived from the best estimates of the services currently provided based on 1,194 cataract surgeries, 16,171 refractive error corrections and 8,584 cases of diabetic retinopathy[4, 7, 12, 46]. Co-ordination costs were estimated using a model based on the co-ordination required for a defined Indigenous population on 10,000 people[10].

4.10.4 Current spending on trachoma

Prime Minister Kevin Rudd committed $16 million over 2009-2013 to start the elimination of trachoma (see Section 4.6). This money is distributed to the states and Northern Territory for trachoma control activities and also continues to fund the NTSRU.

The project team understands that this DoHA commitment will be continued at the current level of funding from after 2013 until trachoma is successfully eliminated. Additional funds are provided by the jurisdictions for field activities and private funding has supported much of the health promotion and social marketing development.

Estimates are that funding of approximately $5.4 million a year will be need through until 2015. Current CDNA Guidelines mandate that ongoing surveillance activities are required for five years before trachoma can be considered to have been eliminated and approximately $1.3 million a year will be needed for these surveillance activities (see also Section 4.6.4).

4.10.5 Full additional annual capped funding required

The additional capped funding required to 'Close the Gap for Vision' and provide for appropriate Indigenous eye health is estimated as $19.50 million per year.

This estimate is for additional capped funding for the provision of eye care services and it does not include the existing or future funds required for trachoma. Nor does it include the uncapped funding provided by Commonwealth and state/territory governments. The use of uncapped funds will increase in response to the additional services demanded and provided as the provision of eye care improves; for example, Medicare consultations and cataract surgery costs.

New and additional infrastructure costs are not included in these estimates. In most instances facilities and resources already exist, although they may need to be updated or replaced. However, what is really required is for these facilities to be fully and efficiently used. The facilities and resources should not be sitting unused for long periods of time. This is true for both eye clinic equipment and cataract surgery capacity.

The additional capped funding required was determined to achieve the equivalent delivery of services to Aboriginal and Torres Strait Islander people and mainstream less those services currently being provided[8]. The estimates are an additional 3,188 cataract surgeries, 9,895 refractive error corrections and 23,708 diabetic retinopathy examinations[10]. The co-ordination costs are estimated by services per head of Indigenous population[10].

Governance and evaluation costs include state/territory and national committees and managers and are estimated as $1.25 million per year (these are not included in Table 4.9).

Table 4.9: Additional annual funds required to 'Close the Gap for Vision' (from *The Cost to Close the Gap for Vision* report 2011[10])

	Commonwealth		Co-ordination Cost	State/ Territory		Total
	Uncapped Cost	Capped Cost		Uncapped Cost	Capped Cost	
Cataract surgery	$1,833,799	$1,188,405	$2,904,268	$4,400,173	$487,200	**$10,813,845**
Refractive error	$167,374	$44,768	$2,430,114	$0	$878,972	**$3,521,228**
Diabetic retinopathy	$3,108,686	$1,677,481	$7,990,222	$310,499	$640,842	**$13,727,730**
Total	**$5,109,859**	**$2,910,654**	**$13,324,604**	**$4,710,672**	**$2,007,014**	**$28,062,803**

The additional funding will allow the increase of services to 'Close the Gap for Vision', and, supported by appropriate co-ordination, governance and evaluation, will lead to improvements in efficiency and effectiveness of eye care services to Indigenous Australians. Indigenous cataract surgery will be increased seven times, diabetic eye care increased five times and care of refractive error increased 2.5 times. Together this will reduce Indigenous blindness by six times.

Work for the population as a whole has shown that for each one dollar spent for eye care in Australia, there is a five dollar return to the community[37].

4.10.6 Cost to 'Close the Gap for Vision' funded for five years

The additional capped funding required for Indigenous eye health over five years is estimated as $68.25 million (Table 4.10). This estimate allows for the progressive introduction of services over four years, with the full additional funding required in years four and five.

This estimate does not include the funds required for trachoma nor the uncapped funding provided by Commonwealth and state/territory governments. Neither does it include new and additional infrastructure costs.

Table 4.10: Additional capped funding required to 'Close the Gap for Vision' (from *The Roadmap to Close the Gap for Vision* summary report 2011[9])

Additional capped funding required to 'Close the Gap for Vision' (2011 dollars in millions)*						
	2012/2013 year 1 25% implementation	2013/2014 year 2 50% implementation	2014/2015 year 3 75% implementation	2015/2016 year 4 100% implementation	2016/2017 year 5 ongoing	Estimate Five Year Total five years
Commonwealth includes VOS, MSOAP	0.73	1.46	2.19	2.92	2.92	**10.22**
States/Territories includes State/ Territory subsidised spectacle schemes, transport	0.50	1.01	1.51	2.01	2.01	**7.04**
Co-ordination includes Commonwealth and State/Territory Aboriginal Health Workers and other co-ordinator salaries	3.33	6.66	9.99	13.32	13.32	**46.62**
Governance and evaluation includes State/ Territory and National committees and managers	0.31	0.63	0.94	1.25	1.25	**4.38**
Total	**4.88**	**9.75**	**14.63**	**19.50**	**19.50**	**68.25**

*estimates do not include new or additional infrastructure costs

4.10.7 Barriers and enablers

Realising efficiencies

The significant increase of service provision required to provide eye care services for Aboriginal and Torres Strait Islander people at a level equivalent to mainstream, when supported by necessary levels of co-ordination and case-management, governance and evaluation, will provide a tremendous increase in efficiency. At present much money is spent in providing services that do not result in any patient benefits; for example, a consultation with a visiting optometrist, after which the patient does not receive or cannot afford the prescribed glasses; a patient examined and referred for cataract surgery that they will never receive and so remain blind. Properly co-ordinated care and support along the patient journey as proposed here will stop this inefficient wastage as patients will no longer fall out of the 'leaky pipe'. A good and successfully functioning system will also attract and encourage more people to enter for care.

Continuity of funding

An important feature of successful government-supported programs within Indigenous communities is to build systems and programs that can be sustained over many years. Pilot project type funding is not considered appropriate for Indigenous eye care because communities and leaders are understandably suspicious of approaches that may not be continued in the long term. Staff employed on short-term funding streams do not appear to commit to strategic long-term goals because they need to continually look for other possible work opportunities. What is required is the staged implementation and then the continuity of services and funding.

Accountability

It is imperative that proper and appropriate accountabilities are built around additional funding. Reporting accountability should be realistic and achievable. This may require support within communities where there is limited capacity and resources to collect and process the appropriate information. It is expected that local personnel will be supported by state/territory committees and managers and that accountability will be uniformly applied across the country through management of the national committee structure (see Section 4.7 and Section 4.8).

Section 5: Recommendations

5.1 Development of recommendations

The recommendations of the Roadmap were developed through the collection of consultation learnings and observations and from suggestions and the successful examples that come from the field. The research team met frequently to discuss, flesh-out and test ideas that may have offered solutions to identified barriers and system deficiencies. A number of tentative recommendations were tested through the later stages of the consultations in order to get further responses from the field. An iterative process was undertaken using stakeholder comment and feedback from the stakeholder meetings and by the circulation of draft ideas to stakeholders.

The format adopted to present the recommendations evolved as the kernel of particular issues was sought. Layers of overlap were identified and separated which assisted the research team to think of individual recommendations in terms of the intent of the recommendation and its expected outcome. In its final form each recommendation is presented in this way.

The research team were also cognisant of the guiding principles (see Section 2.2) selected to underpin the Roadmap recommendations and these were used to further craft the recommendations.

The recommendations are presented in nine groups of themes or domains that represent the key areas of action under the Roadmap.

An estimate of the additional capped funding required to 'Close the Gap for Vision', with staged implementation, was also developed to support the recommendations (see Table 4.10).

A draft of the *The Roadmap to Close the Gap for Vision* was printed after the June 2011 stakeholder meeting. This draft document was widely circulated through Aboriginal health and eye health sectors and to government departments for comment and feedback. Key changes to the recommendations were made through this process before the document was finalised in September 2011.

5.2 Recommendations

The final recommendations of *The Roadmap to Close the Gap for Vision* are presented in Table 5.1.

Table 5.1: Roadmap recommendations (adapted from *The Roadmap to Close the Gap for Vision* summary report 2011[9])

1 PRIMARY EYE CARE AS PART OF COMPREHENSIVE PRIMARY HEALTH CARE to improve identification and referral for eye care needs from primary health care

1.1 Enhancing eye health capacity in primary health services

INTENTION	RECOMMENDATION	OUTCOME
To ensure primary care staff (first point of contact) understand and include the appropriate basic eye checks and referral in routine screening/evaluation.	**That further education programs be developed and implemented to improve understanding of basic eye health among primary health care professionals and Aboriginal Health Services.**	Basic eye health is routinely incorporated as part of comprehensive primary care and patients with eye conditions are appropriately referred.

1.2 Health assessment items include eye health

INTENTION	RECOMMENDATION	OUTCOME
To ensure that vision and eye health is regularly assessed as part of primary screening and general health assessments.	**That primary health care staff know and perform the vision and eye care components that are included in the health assessment forms with appropriate referral as needed.**	Poor vision and eye problems are detected early and referred for further assessment.

1.3 Diabetic retinopathy detection

INTENTION	RECOMMENDATION	OUTCOME
To improve the examination, early detection and referral of diabetic retinopathy by providing sustainable funding for retinal photography.	**That a Medicare item be added to MBS to cover the service costs of taking and reading retinal photographs including the use of telemedicine.**	Retinal examinations are carried out routinely at primary health care level and Aboriginal Health Services have the capacity and are resourced to offer this service.

1.4 Eye health inclusion in clinical software

INTENTION	RECOMMENDATION	OUTCOME
To ensure that primary health care staff are prompted to perform the appropriate eye health assessments as part of routine comprehensive health care.	**That all clinical software packages use in Aboriginal Health Services include eye health checking components and modules consistent with national guidelines.**	Eye health components are integrated into primary health routine patient management systems.

2 INDIGENOUS ACCESS TO EYE HEALTH SERVICES to enhance access to Aboriginal and mainstream eye services

2.1 Aboriginal Health Services and eye health

INTENTION	RECOMMENDATION	OUTCOME
To strengthen the provision of eye health services within Aboriginal Health Services and increase their capacity to identify and refer people needing eye care.	**That where possible visiting eye health services, including VOS and MSOAP, are provided within Aboriginal Health Services.**	Increased utilisation of eye health services because they are provided in the culturally safe setting of Aboriginal Health Services.

2.2 Cultural safety in mainstream services

INTENTION	RECOMMENDATION	OUTCOME
To ensure that all components of the clinical pathway are culturally-safe including in public hospitals and private eye care, and that all staff appreciate Indigenous health needs and are able to facilitate the Indigenous patient's journey.	**That service providers involved in the co-ordination of eye care including Local Hospital Networks and Medicare Locals, consult with local Aboriginal and Torres Strait Islander communities and improve the cultural awareness of their staff and services.**	All components of clinical pathway including public hospitals and private services maintain environments that give confidence for Indigenous people to safely access services.

2.3 Low-cost spectacles

INTENTION	RECOMMENDATION	OUTCOME
To ensure cost-certainty and to provide acceptable and affordable spectacles in a timely way.	**That a nationally consistent Indigenous subsidised spectacle scheme be establish to provide low-cost, quality-assured, cost-certain spectacles to Aboriginal and Torres Strait Islander people.**	People acquire and use the glasses they need because of cost-certainty and acceptability leading to increased utilisation of eye services because Indigenous people are confident in obtaining useful glasses.

2.4 Hospital surgery prioritisation

INTENTION	RECOMMENDATION	OUTCOME
To address the inequitable Cataract backlog due to inadequate surgical output and to ensure that hospital surgery waiting times are no longer a barrier to Indigenous eye care, and thus facilitate the uptake and flow through the referral pathway.	**That all jurisdictions aim to reduce the waiting time for Cataract surgery recognising Indigeneity and the high level of co-morbidities and improve consistency in clinical assessment categories across jurisdictions.**	The gap for un-operated Indigenous Cataract surgery is eliminated and the surgical pathway is opened because of increased community confidence in services.

3 CO-ORDINATION
to improve co-ordination of eye care services and the successful navigation of referral pathways

3.1 Local eye care co-ordination

INTENTION	RECOMMENDATION	OUTCOME
To establish local eye care co-ordination that includes a regional hospital with eye surgical facilities. At a local level there is capacity to provide comprehensive eye care for primary identification and referral for optometry and ophthalmology.	**That mechanisms for local co-ordination of eye care will be established within Local Hospital Networks and Medicare Locals.**	All components of the eye care pathway are co-ordinated in each local region to ensure adequate access and use of comprehensive eye care including surgery.

3.2 Clear pathways of care

INTENTION	RECOMMENDATION	OUTCOME
To ensure that patients receive appropriate clinical care with minimal delays and without unnecessary visits by having well documented, understandable and well linked referral pathways.	**That local co-ordination of eye care is developed along with local referral pathways for all eye care services and these pathways are made known to all service providers involved.**	Patients experience a smooth passage throughout and fulfill the referrals required for eye health.

3.3 Workforce identification and roles

INTENTION	RECOMMENDATION	OUTCOME
To ensure that within each local area, all the necessary co-ordinating functions in the pathway of care are performed.	**That each local area identifies the (existing or additional) personnel and positions required for the proper co-ordination, organisation and delivery of the patient's journey along the pathway of eye care.**	The patient journey proceeds uninterrupted because the appropriate and culturally sensitive personnel are in place.

3.4 Eye care support workforce

INTENTION	RECOMMENDATION	OUTCOME
To ensure that within each local area, the workforce is appropriately skilled and resourced to meet the eye care needs of their community.	**That sufficient people in each local area are appropriately designated, trained and funded to organise and co-ordinate patients along the pathway of care.**	People understand and perform the co-ordination required to facilitate the patient's journey.

3.5 Case co-ordination

INTENTION	RECOMMENDATION	OUTCOME
To ensure that those with high need for eye care (such as diabetes) receive the necessary eye examinations and that those who are referred for surgery receive that surgery.	**That a case co-ordination strategy be established within Aboriginal Health Services for all patients at high need for eye care and/or those referred for eye surgery. For patients who have diabetes, case co-ordination should be provided by chronic disease co-ordinators.**	All patients with diabetes receive an annual eye examination and follow up and all patients referred for surgery receive it.

3.6 Partnership and agreements

INTENTION	RECOMMENDATION	OUTCOME
To ensure that the pathway of care is readily navigated and 'leakage' is reduced because all components of the local eye health system work together, communicate, share information and have common understandings and expectations.	**That local co-ordination of eye care builds on partnerships and agreements with local service providers and visiting eye services.**	Based on clear expectations and understandings, local eye care works efficiently and effectively.

4 EYE HEALTH WORKFORCE
to increase availability and improve distribution of eye health workforce

4.1 Provide eye health workforce to meet population needs

INTENTION	RECOMMENDATION	OUTCOME
To ensure that the eye health workforce is sufficient to meet the population based needs of Indigenous Australians.	**That population-based needs analysis is used to determine eye health workforce requirements in all areas of Australia.**	Appropriate numbers of eye health providers are available in all areas of Australia.

4.2 Improve contracting and management of visiting services

INTENTION	RECOMMENDATION	OUTCOME
To increase the ease of use of funding for visiting services (MSOAP and VOS), so as to attract more visiting eye team services where needed and to improve co-ordination amongst all service providers.	**That the contracting of VOS and MSOAP be restructured to provide simple, flexible, co-ordinated and transparent operation and management of these services.**	MSOAP and VOS work smoothly and efficiently and that visiting optometry and ophthalmology services are properly co-ordinated.

4.3 Appropriate resources for eye care in rural and remote areas

INTENTION	RECOMMENDATION	OUTCOME
To ensure that the appropriate eye health workforce is available in rural and remote areas.	**That the eye health workforce and funding are allocated according to population needs with consideration of existing local services.**	Services in rural and remote areas are adequate to meet the needs for eye care.

4.4 Increase utilisation of services in urban areas

INTENTION	RECOMMENDATION	OUTCOME
To increase the accessibility and use of existing optometry services in urban and regional areas by making them available within the culturally appropriate environment of Aboriginal Health Services.	**That Indigenous VOS funding is available for major cities and inner regional areas to support delivery of visiting optometry services in Aboriginal Health Services.**	Increased use of optometry services provided within Aboriginal Health Services.

4.5 Billing for visiting MSOAP supported services

INTENTION	RECOMMENDATION	OUTCOME
To ensure cost-certainty and remove barriers to local service uptake created by inconsistent and uncertain billing arrangements and the charging of additional fees.	**That visiting ophthalmologists supported by MSOAP agree to bulk bill Indigenous patients for clinic services and that MSOAP consider loading arrangements to meet the true cost of service.**	Increased use of eye health services because of reduced or removed uncertainty of patient out-of-pocket expenses.

4.6 Rural education and training of eye health workforce

INTENTION	RECOMMENDATION	OUTCOME
To encourage newly trained optometrists and ophthalmologists to participate in Indigenous eye care delivery and regard it as a standard part of their ongoing practice and social responsibility.	**That during training, eye health providers complete a core component of rural and Indigenous eye health work. Funding should be specifically provided to cover supervision and trainee costs.**	More optometrists and ophthalmologists have exposure to and actively seek work in rural and remote areas and Indigenous communities.

5 ELIMINATION OF TRACHOMA
to eliminate blinding trachoma from Australia

5.1 Definition of areas of risk

INTENTION	RECOMMENDATION	OUTCOME
To ensure that trachoma activities are conducted in all endemic areas.	**That the mapping of the extent of trachoma is completed expeditiously.**	Areas with trachoma are clearly defined.

5.2 Effective interventions

INTENTION	RECOMMENDATION	OUTCOME
To ensure that appropriate trachoma interventions are properly delivered in endemic areas.	**That the SAFE strategy is fully and comprehensively implemented.**	Active trachoma is rapidly eliminated from the endemic areas.

5.3 Surveillance and evaluation

INTENTION	RECOMMENDATION	OUTCOME
To ensure programs are effective and have the anticipated impact.	**That the ongoing monitoring and evaluation activities of the National Trachoma Reporting and Surveillance Unit should be continued.**	Success and progress are measured and reported.

5.4 Certification of elimination

INTENTION	RECOMMENDATION	OUTCOME
To ensure the World Health Organisation certifies the elimination of trachoma in Australia.	**That Australia works closely with World Health Organisation and participates in the GET 2020 process until trachoma is eliminated.**	Australia is free of blinding trachoma.

6 MONITORING AND EVALUATION
to capture and report information about progress and improvement of services an outcomes in Indigenous eye health

6.1 Managing local eye service performance

INTENTION	RECOMMENDATION	OUTCOME
To provide the appropriate service delivery data to inform local management, and allow aggregation of these data at regional, state/territory and national levels.	**That local co-ordination of eye care includes Local Hospital Networks and Medicare Locals and collects and reports nationally consistent data eye health programs, service delivery targets and patient outcomes.**	Local services are improved by monitoring performance and progress is reported nationally and locally.

6.2 State and national performance

INTENTION	RECOMMENDATION	OUTCOME
To provide state/territory and national assessment of performance to assist local programs and provide accountability.	**That local service delivery data be aggregated to provide state/territory performance information and that this information is aggregated to provide national information.**	Service delivery performance data are appropriately used and provide timely analysis and reporting at higher levels and locally.

6.3 Collating existing eye data sources

INTENTION	RECOMMENDATION	OUTCOME
To avoid unnecessary duplication, existing eye care data sources are identified and utilized.	**That sources of currently available eye health information are identified and drawn into a national eye health reporting framework.**	Data and eye health information from national sources are well managed, accessible and applied for eye health service improvements.

6.4 National benchmarks

INTENTION	RECOMMENDATION	OUTCOME
To ensure that national benchmarks are developed for the program to guide and support service delivery and create nationally consistent goals and approaches for eye care.	**That an appropriate expert committee be established to develop clear, evidence based, eye health sector agreed minimum standards and targets to support eye care service delivery for Aboriginal and Torres Strait Islander people.**	Implementation of eye health programs is nationally consistent and supported by a robust evidence base that supports identification of good practice and continuous improvement.

6.5 Quality assurance

INTENTION	RECOMMENDATION	OUTCOME
To ensure that services provide high quality eye care and that program management follows best practice.	**That measures of service quality and outcomes are developed and applied to Indigenous eye health.**	Service quality and satisfaction for eye health outcomes are consistent nationally and all services attain high quality ratings.

6.6 Primary health service self audit in eye health

INTENTION	RECOMMENDATION	OUTCOME
To ensure Aboriginal Health Services can easily assess their ability to provide quality eye care and conform to national benchmarks in eye care.	**That an audit tool for Aboriginal Health Services be developed to support delivery of appropriate eye health services and that this be linked to Aboriginal Health Service funding.**	All Aboriginal Health Services provide well integrated eye care.

6.7 Program evaluation

INTENTION	RECOMMENDATION	OUTCOME
To identify progress and outcome successes and share with the broader health system.	**That the 'Close the Gap for Vision' initiative is evaluated against program objectives, timelines and measures.**	The Gap for Vision is closed by 2020.

7 GOVERNANCE
to ensure that there is oversight for the national delivery of 'Close the Gap for Vision'

7.1 Community engagement

INTENTION	RECOMMENDATION	OUTCOME
To ensure eye care services are acceptable and have the full support of the local Aboriginal community.	**That eye services are developed and delivered with the engagement of the local community.**	Indigenous communities use and champion their eye care services.

7.2 Local Hospital Networks and Medicare Locals

INTENTION	RECOMMENDATION	OUTCOME
To ensure regional Indigenous eye care co-ordination is provided for within Local Hospital Networks and Medicare Locals.	**That local co-ordination of eye care is part of the responsibility of Local Hospital Networks and Medicare Locals and informed by Lead Clinician Groups.**	Eye health is well co-ordinated with other health services at a regional level.

7.3 State/territory management

INTENTION	RECOMMENDATION	OUTCOME
To provide high level advisory and management committees to review the workings and achievements of local eye networks and to ensure that there is state/territory government liaison. In particular to be able to identify areas where services are insufficient or not operating appropriately to meet community needs.	**That state/territory Indigenous eye health managers are appointed and state/territory Indigenous eye health committees are established to provide oversight and support for the Indigenous eye health system.**	Eye services within a state/territory are performing at a high standard and achieving their objectives.

7.4 National oversight

INTENTION	RECOMMENDATION	OUTCOME
To provide continuity, oversight and accountability through monitoring national progress and assessing national priorities	**That existing committees be brought together to act as a National Indigenous Eye Health Committee, established by government to include the non-government sector (including NACCHO and Vision 2020 Australia) and that it reports to the Australian Population Health Development Principal Committee of the Australian Health Ministers Advisory Council (AHMAC).**	National coverage, oversight and accountability is maintained with timely reports to government and to all service providers and stakeholders.

7.5 Program interdependence

INTENTION	RECOMMENDATION	OUTCOME
To ensure effective improvement in eye care, all the elements of this roadmap need to be implemented in a clear, branded and unified approach by government, the sector and the community.	**That the recommendations be regarded as a comprehensive package to be known collectively as the 'Close the Gap for Vision' initiative. Clearly articulated objectives, timelines and measures will need to be developed.**	'Close the Gap for Vision' recommendations be adopted and implemented across Australia and unnecessary vision loss is eliminated.

8 HEALTH PROMOTION AND AWARENESS
to improve awareness and knowledge of eye health in communities to support self empowerment

8.1 Eye health promotion

INTENTION	RECOMMENDATION	OUTCOME
To ensure that all community members and health service staff are aware of the importance of eye health.	**That an eye health promotion strategy aligned with 'Close the Gap for Vision' be developed within each state/territory to improve community awareness of eye health.**	Community members recognise their own need for eye care.

8.2 Social marketing eye care services

INTENTION	RECOMMENDATION	OUTCOME
To ensure that all community members and health service staff are aware of the availability of eye health services (including dates of visiting services) and know how to access them.	**That strategies for marketing of local eye services including visiting services is established at the level of Local Hospital Networks, Medicare Locals and Aboriginal Community Controlled Health Organisations.**	Community members know about and are able to use eye services when they need them.

9 HEALTH FINANCING
to ensure adequate funding is allocated to 'Close the Gap for Vision'

9.1 Current spending on Indigenous eye health (excluding trachoma)

INTENTION	RECOMMENDATION	OUTCOME
To estimate the current annual amount spent on Indigenous eye health (excluding trachoma).	**That the current annual total expenditure on Indigenous eye health (excluding trachoma) is estimated to be $17.40 million and this is not adequate.**	Currently there is six times more blindness in Indigenous adults than in mainstream and the current resources are not sufficient to provide adequate eye care.

9.2 Current spending on trachoma

INTENTION	RECOMMENDATION	OUTCOME
To estimate the current annual amount spent on trachoma.	**That the current annual total expenditure on trachoma elimination is estimated to be $4.5 million and this should be continued.**	Funding is continued until trachoma is eliminated.

9.3 Full additional annual capped funding required

INTENTION	RECOMMENDATION	OUTCOME
Estimate the additional capped funding required each year in service delivery for Indigenous eye health to 'Close the Gap for Vision'.	**That an estimated additional annual capped funding of $19.5 million is provided per year for Indigenous eye health.**	For every one dollar spent for eye care in Australia, there is a five dollar return to the community. Indigenous Cataract surgery will be increased 7 times, diabetic eye care increased 5 times and care of refractive error increased 2.5 times to reduce Indigenous blindness by 6 times.

9.4 Cost to 'Close the Gap for Vision' funded for five years

INTENTION	RECOMMENDATION	OUTCOME
To estimate the additional five year forward amounts required for Indigenous eye health to 'Close the Gap for Vision'.	**That an estimated additional capped funding of $68.25 million is provided over five years for Indigenous eye health.**	This funding will 'Close the Gap for Vision'.

5.3 Information supporting recommendations

5.3.1 Eye care needs for a population of 10,000 people

National prevalence data from NIEHS allows the estimation of the current eye care needs for an Indigenous population of a given size[4, 12, 46]. This information has been presented previously for geographic areas of Australia using Indigenous population census data[8].

Table 5.2 presents an estimation of the eye care services for a population of 10,000 Indigenous Australians for one year. The estimation for the number of people who require glasses, annual diabetes eye examination, retinal laser surgery and surgery for trichiasis is limited to the population over 40 years of age as this was a criterion in NIEHS. Australian Bureau of Statistics 2006 Census data estimates that 26% of an Indigenous community is aged over 40 years[103]. The cataract surgery rate is estimated using the Australian national Cataract Surgery Rate[7]. The number of referrals for ophthalmology services can then be estimated. The optometry eye examination estimate uses Medicare data estimates for services provided to the Australian population[104]. It should be noted that trichiasis is not distributed uniformly across the country, although occasional cases can present anywhere.

Table 5.2: Eye care services required for a population of 10,000 Indigenous people

Total Indigenous population for area	**10,000**
Number of people requiring glasses each year (assumes replacement every second year)	640
% Aboriginal and Torres Strait Islander people over 40 years requiring glasses each year	24.6%
Number of people with diabetes requiring annual eye examination	**962**
% Indigenous people over 40 years with diabetes	37.0%
Number of people requiring diabetic retinopathy surgery	**112**
% Indigenous people with diabetes requiring laser surgery	11.6%
Number of cataract operations	**95**
% population to reach national Cataract Surgery Rate	0.95%
Number of trichiasis lid operations (regional specific)	**36**
% Indigenous people over 40 years with trichiasis	1.40%
Number of ophthalmology referrals	**243**
diabetes laser surgery + cataract surgery + trichiasis surgery	
Number of optometry eye examinations required each year	**1700**
% Australian population receiving eye examinations each year	17%
includes diabetes exams and glasses exams (Medicare data)	

5.3.2 Eye care workforce needs for a population of 10,000 people

The determination of the number of eye care services required each year for a population then allows the estimation of the clinical time and the eye specialist workforce required to deliver these services. Table 5.3 shows estimates of the consultations and services provided each day and the number of optometry and ophthalmology days required each year for this sized population. Ophthalmology workforce requirements are further complicated by different attendance parameters depending on whether clinic consultations are being delivered for patients requiring laser surgery or non-laser consultations and for hospital-based surgical services. Modeling assumptions are also made in the case of patients being treated for diabetic retinopathy where 50% of patients will require treatment to the fellow eye and 50% of patients will require retreatment of the same eye in the same year.

These eye care workforce estimates can be extrapolated to the Australian Indigenous population and approximate a requirement of 43 EFT optometrists and 15 EFT ophthalmologists (using 2006 Census data)[103].

The estimates provide only a very coarse model of specialist time requirements to deliver services and only includes the time required actually doing the clinical work. The estimate does not account for travel time to provide services and does not allow for clinical complexity.

Table 5.3: Eye care workforce requirements for a population of 10,000 Indigenous people

	Number of services per day	Number of days required	**Total number of days required**
Optometry			
Consultations (eye examinations and refractive services)	8	213	**213**
Ophthalmology			
Consultations (non-diabetes)	10	13	
Consultations (diabetes)	8		
Laser treatment (diabetes)	8		
Follow-up consultations (diabetes)	20	33	
Surgery (cataract)	10		
Follow-up consultations (peri-operative examinations)	20	26	**73**

5.3.3 Co-ordination requirements for a population of 10,000 people

The project team then developed a generic model for the support workforce time required to provide the eye care services need for this population for one year. This model is presented in the tables below in two ways – by activity and by condition (Table 5.4 and Table 5.5). This model has been used to support the cost estimates for co-ordination in *The Cost to Close the Gap for Vision*[10].

The support workforce times do not include the higher-level state/territory and national co-ordination.

The co-ordination services provided do include those levels of co-ordination presented in the *Provision of Indigenous Eye Health Services* report[17] and cover the co-ordination, case-management and support of the patient and co-ordination and support of the service delivery systems.

The estimates show that 8.3 EFT staff members are required to support eye care services to a population of 10,000 Indigenous people. It is not anticipated that the 8.3 EFT are dedicated to eye care services full time, and assuredly most will be involved in other activities. A significant proportion of this support workforce is already operational and involved in the co-ordination of current services. However, it is also evident from field studies that additional co-ordination support and case-management are required in some areas. For the service system to increase to appropriate levels to 'Close the Gap for Vision', the co-ordination and support workforce will need to proportionally increase. The model that we have developed allows for the population-based assessment of the number of support people who would be needed. In addition, this report does not specify which particular people should perform which tasks. Rather, we have tried to outline the tasks and roles that need to be undertaken. The designation of who should be responsible for the different activities and the allocation of these roles and responsibilities must be done at the local or regional level taking into account the resources available and the present work and referral patterns.

Table 5.4: Eye care support workforce requirements for a population of 10,000 Indigenous people, by activity (from *The Cost to Close the Gap for Vision* report 2011[10])

	People	Organising patient	Organising optometry clinic	Organising ophthalmology clinic	Organising hospital	Total hours
	10,000					
Comprehensive examinations	**1700**					
2 hours to organise each patient (2x1700)		3400				
1 hour transport support		1700				
213 (170/8) days optometry (54x4 day visits=216 days)						
2 days to organise clinic of 4 days (2x7.6x54)			821			
2 days to organise visiting team (2x7.6x54)			821			
eye clinic support (216x7.6)			1642			
sub total		**5100**	**3283**			**8383**
Glasses prescribed	**640**					
1 hour per patient attendance (1x640)		640				
1 hour transport support		640				
delivery 12 glasses/day (640/12=54)						
organise 54 days glasses delivery at 0.5 hours per day			27			
eye clinic support (54x7.6)			410			
sub total		**1280**	**437**			**1717**
Ophthalmology consultations (non-laser)	**131**					
2 hours to organise each patient (2x131)		262				
1 hour transport support		131				
14 (131/10) days ophthalmology						
0.5 days to organise clinic of 1 day (0.5x7.6x14)				53		
0.5 days to organise visiting team (0.5x7.6x14)				53		
eye clinic support (14x7.6)				106		
sub total		**393**		**213**		**606**
Ophthalmology consultations (laser)	**113**					
initial treatment 2 hours per patient attendance (2x113)		226				
additional/other eye treatment 2 hours per attendance (2x113)		226				
post-op consultation 2 hours per attendance (2x113)		226				
1 hour transport support per visit (3x1x113)		339				
34 (226/8+113/20) days ophthalmology						
0.5 days to organise clinic of 1 day (0.5x7.6x34)				129		
0.5 days to organise visiting team (0.5x7.6x34)				129		
eye clinic support (34x7.6)				258		
sub total		**1017**		**517**		**1534**
Hospital surgery	**131**					
pre-op consultation 3 hours per patient attendance (3x131)		393				
surgery 2 hours per attendance (2x131)		262				
post-op consultation 2 hours per attendance (2x131)		262				
14 (131/10) days surgery required						
14 (131/20x2) days pre- and post-op required						
0.5 days to organise hospital services of 1 day (0.5x7.6x(14+14))					106	
0.5 days to organise visiting team (0.5x7.6x(14+14))					106	
sub total		**917**			**213**	**1130**
Total hours per year		**8707**	**3721**	**730**	**213**	**13370**
equivalent full time staff		5.4	2.3	0.5	0.1	8.3

Table 5.5: Eye care support workforce requirements for a population of 10,000 Indigenous people, by condition (from *The Cost to Close the Gap for Vision* report 2011[10])

	People	Refractive error	Diabetic retinopathy	Cataract	Trichiasis	Total hours
	10,000					
Comprehensive examinations	**1700**	600	960	100	40	
2 hours to organise each patient (2x1700) 1 hour transport support 213 (170/8) days optometry (54x4 day visits=216 days) 2 days to organise clinic of 4 days (2x7.6x54) 2 days to organise visiting team (2x7.6x54) eye clinic support (216x7.6)						
sub total		**2959**	**4734**	**493**	**197**	**8383**
Glasses prescribed	**640**	**640**				
1 hour per patient attendance (1x640) 1 hour transport support delivery 12 glasses/day (640/12=54) organise 54 days glasses delivery at 0.5 hours per day eye clinic support (54x7.6)						
sub total		**1717**				**1717**
Ophthalmology consultations (non-laser)	**131**			**95**	**36**	
2 hours to organise each patient (2x131) 1 hour transport support 14 (131/10) days ophthalmology 0.5 days to organise clinic of 1 day (0.5x7.6x14) 0.5 days to organise visiting team (0.5x7.6x14) eye clinic support (14x7.6)						
sub total				**439**	**166**	**606**
Ophthalmology consultations (laser)	**113**		**113**			
initial treatment 2 hours per patient attendance (2x113) additional/other eye treatment 2 hours per attendance (2x113) post-op consultation 2 hours per attendance (2x113) 1 hour transport support per visit (3x1x113) 34 (226/8+113/20) days ophthalmology 0.5 days to organise clinic of 1 day (0.5x7.6x34) 0.5 days to organise visiting team (0.5x7.6x34) eye clinic support (34x7.6)						
sub total			**1534**			**1534**
Hospital surgery	**131**			**95**	**36**	
pre-op consultation 3 hours per patient attendance (3x131) surgery 2 hours per attendance (2x131) post-op consultation 2 hours per attendance (2x131) 14 (131/10) days surgery required 14 (131/20x2) days pre- and post- op required 0.5 days to organise hospital services of 1 day (0.5x7.6x(14+14)) 0.5 days to organise visiting team (0.5x7.6x(14+14))						
sub total				**819**	**310**	**1130**
Total hours per year		**4676**	**6268**	**1752**	**674**	**13370**
equivalent full time staff		2.9	3.9	1.1	0.4	8.3

List of national guidelines to be developed

In preparing the Roadmap recommendations, we have identified a number of national guidelines or benchmark documents that would be useful and should be developed. This list is indicative rather than exhaustive. These guidelines, which will support the roll-out of the Roadmap and improved Indigenous eye care, are listed below:

- expected service requirements for a given population
- expected components of functional local eye care service
- clinical pathway standards for timeliness and availability of visiting services
- data standards for reporting at local, regional and jurisdiction levels
- template partnership agreements for local and regional eye care services
- national eye health reporting framework
- eye health training material for AHS primary care staff
- self-audit tool for primary health services for self-monitoring and quality improvement
- eye care items to be included in clinic practice software.

5.4 Recommendation heat map

A heat map (Table 5.6) was developed to illustrate the relative contribution of the Roadmap recommendations to meet the guiding principles established for the project.

Each of the 42 recommendations was scored on a 3, 2, 1 ranking for the relative contribution to the guiding principles, where 3 is the highest relative contribution and 1 is the lower relative contribution. The project team scored the recommendations in a group session and reviewed the scores independently to ensure consensus ranking.

This analysis identified the contribution that each recommendation made to the overall plan and the emphasis that the recommendations made to each guiding principle. The interdependence between the components, the recommendations, of the Roadmap was reinforced by this assessment.

In short, the project team would argue that to achieve the goals of the project, to ‘Close the Gap for Vision’, all recommendations require implementation.

Table 5.6: Recommendation heat map (from *The Roadmap to Close the Gap for Vision* summary report 2011[9])

Recommendation Heat Map

to illustrate the relative contribution of recommendations to guiding principles and reinforce the interdependence between components of the Roadmap

		Evidence based	Engage community	Integrated with primary health care	Access to mainstream	Population based	Appropriate and quality services	Accountability	Efficient use of resources
1	**PRIMARY EYE CARE AS PART OF COMPREHENSIVE PRIMARY HEALTH CARE**								
1.1	Enhancing eye health capacity in primary health services	1	1	3	2	1	3	1	2
1.2	Health assessment items include eye health	2	1	3	2	1	3	1	3
1.3	Diabetic Retinopathy detection	3	1	3	2	1	3	2	3
1.4	Eye health inclusion in clinical software	3	1	3	2	1	1	2	2
2	**INDIGENOUS ACCESS TO EYE HEALTH SERVICES**								
2.1	Aboriginal Health Services and eye health	3	3	3	2	2	3	2	3
2.2	Cultural safety in mainstream services	1	3	1	3	1	3	1	2
2.3	Low cost spectacles	2	1	2	2	1	3	1	3
2.4	Hospital surgery prioritization	1	1	1	3	1	3	1	3
3	**CO-ORDINATION**								
3.1	Local Eye Care Co-ordination	3	3	3	3	3	3	3	3
3.2	Clear pathways of care	2	2	2	3	1	3	1	3
3.3	Workforce identification and roles	1	1	3	3	2	3	2	3
3.4	Eye care support workforce	2	2	3	1	2	3	1	3
3.5	Case co-ordination	2	2	3	2	2	3	1	3
3.6	Partnerships and agreements	1	2	2	2	1	3	3	3
4	**EYE HEALTH WORKFORCE**								
4.1	Provide eye health workforce to meet population needs	3	2	2	3	3	3	2	2
4.2	Improve contracting and management of visiting services	1	2	1	3	2	3	3	3
4.3	Appropriate resources for eye care in rural and remote areas	2	1	2	3	3	3	2	3
4.4	Increase utilisation of services in urban areas	3	3	2	3	3	2	1	2
4.5	Billing for visiting MSOAP supported services	1	2	1	3	1	3	3	3
4.6	Rural education and training of eye health workforce	1	2	1	2	1	2	1	1
5	**ELIMINATION OF TRACHOMA**								
5.1	Definition of areas of risk	2	3	2	1	3	3	1	1
5.2	Effective interventions	3	3	3	3	3	3	1	3
5.3	Surveillance and evaluation	3	2	1	1	3	2	3	2
5.4	Certification of elimination	2	1	1	1	3	1	3	1
6	**MONITORING AND EVALUATION**								
6.1	Managing local eye service performance	3	1	2	2	3	1	3	3
6.2	State and National performance	3	1	2	3	3	2	3	3
6.3	Collating existing eye data sources	3	1	1	1	3	1	3	2
6.4	National benchmarks	2	2	3	3	1	2	2	3
6.5	Quality assurance	3	2	2	2	1	2	3	3
6.6	Primary health service self audit in eye health	2	2	3	3	2	3	2	2
6.7	Program evaluation	3	1	2	2	3	2	3	3
7	**GOVERNANCE**								
7.1	Community engagement	3	3	2	1	2	3	3	3
7.2	Local Hospital Networks and Medicare Locals	2	3	3	2	1	3	3	3
7.3	State/Territory management	3	1	2	1	2	1	3	3
7.4	National oversight	3	1	2	1	2	1	3	3
7.5	Program interdependence	2	1	1	2	3	2	3	1
8	**HEALTH PROMOTION AND AWARENESS**								
8.1	Eye health promotion	1	3	3	2	1	2	1	3
8.2	Social marketing eye care services	1	3	3	2	1	2	1	3
9	**HEALTH FINANCING**								
9.1	Current spending on Indigenous eye health (non Trachoma)	3	1	1	1	1	3	2	1
9.2	Current spending on Trachoma	3	2	2	1	3	3	3	1
9.3	Full additional annual capped funding required	3	1	1	1	3	3	2	3
9.4	Cost to 'Close the Gap for Vision' funded for 5 years	3	1	1	1	3	3	2	3

Highest relative contribution to guiding principles	3
Significant relative contribution to guiding principles	2
Contribution to guiding principles	1

5.5 Implementation time frame

Clearly, a plan as comprehensive as this Roadmap cannot be implemented from day one and a number of recommendations will require further work and development before introduction. Some recommendations are dependent on other recommendations and a number of recommendations are sequential to others.

Further issues that would affect implementation include funding support from the Commonwealth Government and then support from each state and territory.

The Recommendation Implementation Map (Table 5.7) illustrates a possible time course for implementation of the Roadmap recommendations. It uses a graded scale with 25% increments from zero to 100%. Commonwealth and state/territory involvement are illustrated separately for each recommendation.

The Recommendation Implementation Map is broadly consistent with the staged costing developed for additional capped annual funding across the five-year period 2012/2013 to 2016/2017 (see Table 4.10). It envisages the gradual implementation over a four-year period with the Roadmap recommendations being fully implemented by the end of year four.

One way forward

It is our anticipation that local regions would be defined as the first step. This would take into account the geographic area covered by the ML and the LHN, which was serviced by the relevant AHS. This area would need to include a hospital where cataract surgery could be performed to act as a hub. A jurisdiction would be mapped out in this way to indicate the logical and locally appropriate configuration and organisation of such regional Indigenous eye care services and areas.

Once the local areas had been determined within a jurisdiction, it is anticipated that an assessment would be made as to which local areas would have expanded services initiated in the first, second, third or fourth year of the implementation process. Factors to consider might include; existing eye services and networks, the state of development of the ML, local community-controlled sentiment and so forth.

Once an area has been identified, a gap analysis would be performed. The high-level population-based projections of need (see Section 5.3) can be scaled approximately to give local targets for need and the required levels of service provision. If and when better quality local data are available, this should be used. The comparison of current service provision and the population-based targets gives the additional services and staff required to ‘Close the Gap for Vision’.

Appropriate arrangements can then be made to link existing services, seek additional support for co-ordination and case management activities, visiting optometrists and ophthalmologists, make the appropriate arrangements at the local (hub) hospital and so forth. The planning process also will need to identify the appropriate local mechanisms for monitoring and evaluation. Informed by the roll-out experience from year one, eye services in the remaining areas would be initiated in subsequent years.

Table 5.7: Recommendation implementation map (from *The Roadmap to Close the Gap for Vision* summary report 2011[9])

Recommendation Implementation Map

to illustrate the time course for implementation of recommendations

			2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
1	**PRIMARY EYE CARE AS PART OF COMPREHENSIVE PRIMARY HEALTH CARE**						
1.1	Enhancing eye health capacity in primary health services	Commonwealth	25%	50%	75%	100%	
		State/Territory					
1.2	Health assessment items include eye health	Commonwealth	50%	100%			
		State/Territory					
1.3	Diabetic Retinopathy detection	Commonwealth	100%				
		State/Territory					
1.4	Eye health inclusion in clinical software	Commonwealth	50%	100%			
		State/Territory	50%	100%			
2	**INDIGENOUS ACCESS TO EYE HEALTH SERVICES**						
2.1	Aboriginal Health Services and eye health	Commonwealth	25%	50%	75%	100%	
		State/Territory					
2.2	Cultural safety in mainstream services	Commonwealth	25%	50%	100%		
		State/Territory	25%	50%	100%		
2.3	Low cost spectacles	Commonwealth	50%	100%			
		State/Territory	50%	100%			
2.4	Hospital surgery prioritization	Commonwealth	50%	100%			
		State/Territory	50%	100%			
3	**CO-ORDINATION**						
3.1	Local Eye Care Co-ordination	Commonwealth	25%	50%	75%	100%	
		State/Territory	25%	50%	75%	100%	
3.2	Clear pathways of care	Commonwealth		25%	50%	100%	
		State/Territory		25%	50%	100%	
3.3	Workforce identification and roles	Commonwealth	100%				
		State/Territory	100%				
3.4	Eye care support workforce	Commonwealth	25%	50%	75%	100%	
		State/Territory	25%	50%	75%	100%	
3.5	Case co-ordination	Commonwealth		25%	50%	100%	
		State/Territory		25%	50%	100%	
3.6	Partnerships and agreements	Commonwealth	25%	50%	75%	100%	
		State/Territory	25%	50%	75%	100%	
4	**EYE HEALTH WORKFORCE**						
4.1	Provide eye health workforce to meet population needs	Commonwealth	25%	50%	75%	100%	
		State/Territory					
4.2	Improve contracting and management of visiting services	Commonwealth	50%	100%			
		State/Territory					
4.3	Appropriate resources for eye care in rural and remote areas	Commonwealth	25%	50%	75%	100%	
		State/Territory					
4.4	Increase utilisation of services in urban areas	Commonwealth	25%	50%	75%	100%	
		State/Territory	25%	50%	75%	100%	
4.5	Billing for visiting MSOAP supported services	Commonwealth	100%				
		State/Territory					
4.6	Rural education and training of eye health workforce	Commonwealth		50%	100%		
		State/Territory		50%	100%		
5	**ELIMINATION OF TRACHOMA**						
5.1	Definition of areas of risk	Commonwealth	100%				
		State/Territory	100%				
5.2	Effective interventions	Commonwealth	100%				
		State/Territory	100%				
5.3	Surveillance and evaluation	Commonwealth	100%				
		State/Territory	100%				
5.4	Certification of elimination	Commonwealth					100%
		State/Territory					100%
6	**MONITORING AND EVALUATION**						
6.1	Managing local eye service performance	Commonwealth	25%	50%	75%	100%	
		State/Territory	25%	50%	75%	100%	
6.2	State and National performance	Commonwealth	25%	50%	75%	100%	
		State/Territory	25%	50%	75%	100%	
6.3	Collating existing eye data sources	Commonwealth		50%	100%		
		State/Territory		50%	100%		
6.4	National benchmarks	Commonwealth	50%	100%			
		State/Territory	50%	100%			
6.5	Quality assurance	Commonwealth	25%	50%	75%	100%	
		State/Territory	25%	50%	75%	100%	
6.6	Primary health service self audit in eye health	Commonwealth		25%	50%	100%	
		State/Territory		25%	50%	100%	
6.7	Program evaluation	Commonwealth		100%			
		State/Territory					
7	**GOVERNANCE**						
7.1	Community engagement	Commonwealth	25%	50%	75%	100%	
		State/Territory	25%	50%	75%	100%	
7.2	Local Hospital Networks and Medicare Locals	Commonwealth	25%	50%	75%	100%	
		State/Territory	25%	50%	75%	100%	
7.3	State/Territory management	Commonwealth	50%	100%			
		State/Territory	50%	100%			
7.4	National oversight	Commonwealth	100%				
		State/Territory	100%				
7.5	Program interdependence	Commonwealth	100%				
		State/Territory	100%				
8	**HEALTH PROMOTION AND AWARENESS**						
8.1	Eye health promotion	Commonwealth	25%	50%	75%	100%	
		State/Territory	25%	50%	75%	100%	
8.2	Marketing eye care services	Commonwealth	25%	50%	75%	100%	
		State/Territory	25%	50%	75%	100%	
9	**HEALTH FINANCING**						
9.1	Current spending on Indigenous eye health (non Trachoma)	Commonwealth					
		State/Territory					
9.2	Current spending on Trachoma	Commonwealth					
		State/Territory					
9.3	Full additional annual capped funding required	Commonwealth	25%	50%	75%	100%	
		State/Territory	25%	50%	75%	100%	
9.4	Cost of 'Close the Gap for Vision' funded for 5 years	Commonwealth	25%	50%	75%	100%	
		State/Territory	25%	50%	75%	100%	
Percentage implemented			25%	50%	75%	100%	

5.6 Why eye care is important

The project team operated within the eye health sector and has had a singular focus on eye health for Indigenous Australians. Our community consultations and discussions with the Aboriginal health sector and government were often greeted with comments questioning the importance and priority of eye health, given the broad range of other health and social issues that could be considered a higher priority.

The following list represents collected thoughts and data on why doing something specific about vision loss and eye health is important for Indigenous Australia.

Vision loss is common:

- most common self-reported health complaint[67]
- blindness rates are six times higher[4, 12, 46]
- blindness from cataract is 12 times higher, surgery seven times less[4, 7, 12, 46]

Vision loss has a big impact:

- 11% of years of life lost to disability for Indigenous people[105]
- equal third leading cause of the gap for health[105]
- increases mortality rates by at least two fold[106]
- significantly affects the individual, family and community

Vision loss is discrete and fixable:

- cataract surgery restores vision overnight and costs ~$3,000 per quality-adjusted life year (QALY)[107]
- new glasses improve vision right away
- diabetic blindness: 98% is preventable and screening costs $15,000 per QALY[107]
- trachoma can be eliminated with the SAFE Strategy[82, 108]

Eye care provides a template for other specialist health care:

- requires active community engagement
- requires good integration into primary health care
- needs proper co-ordination within a regional basis
- the lessons learned will help link other specialist services with comprehensive primary care.

5.7 Rebuttal of common objections

The project team was made aware of a number of reasons why community members, health sector workers and government agents suggested that Indigenous vision loss and blindness should not be addressed. These are summarised below with an explanation of why these reasons are considered false.

Vision loss is not important in Indigenous communities:

Vision loss is the equal-third leading cause of the gap in health after heart disease and diabetes but ahead of trauma, stroke and alcoholism[105]. Indigenous adults have six times more blindness than mainstream adults[4, 12, 46].

Blindness does not kill people – we need to address the life threatening things:

Even mild vision loss (<6/12) increases the risk of dying 2.6 times in mainstream Australia[109]. Vision loss from trachoma in African communities increases the risk of dying by 6.8 times[110]. Mild vision loss prevents independent healthy living[111].

Eye care is body part medicine, it is not holistic:

The patient's journey for eye care starts in properly developed, comprehensive primary health care and requires seamless linkage with specialist services. Lessons learned from integrating specialist eye care visits will inform ways to improve the linkage of primary care and specialist care.

There are many other more pressing priorities than eye care:

It is true that there are many health priority areas, but 94% of vision loss is unnecessary and much of it can be rapidly reversed[4, 12, 46]. A pair of glasses or cataract surgery can eliminate vision loss overnight, whereas other chronic diseases (diabetes, heart disease, alcoholism) cannot be reversed overnight.

It is not worth spending the money on eye care, it is too expensive:

In fact, eye care is extraordinarily cost effective; for example, cataract surgery costs $3,000 per QALY and diabetic retinopathy examinations $15,000 per QALY. In Australia, each $1 spent on eye care yields a $5 return[112].

We are already spending too much on Aboriginal health and the money is wasted:

It is true we now spend $1.39 on Indigenous health for each $1 spent on mainstream health[113]. (A decade ago it was $0.80 for Indigenous health). As there is three times the morbidity (and vision loss), one would expect to spend at least three times as much, even if delivery costs to remote areas were not higher than urban areas. In terms of cataract surgery, seven times less surgery is done for Indigenous people[7].

There are not enough specialists to provide the care required:

The actual increase in the number of optometric and ophthalmic services required is quite small[10] and with the appropriate co-ordination and resources, many specialists are willing to take on this work.

This plan or roadmap is too complex, it is not all necessary:

Over the past 30 or so years multiple proposals have been made to address Indigenous eye health. None have worked properly because they overlooked different criteria[11]. This Roadmap has been based on a careful review, new evidence and wide consultations. Each element is interlocked, forming an integral chain. It may also provide a template for the delivery of other specialist services to primary care services.

There is no more money to spend on Indigenous health:

With a relatively small increase in expenditure, there will be a huge increase in efficiency and reduction in waste for Indigenous eye health services. A doubling in funding will increase glasses use by 2.5 times, diabetes eye exams by five times and cataract surgery by seven times. This is extraordinarily good value for money.

Section 6: Discussion

6.1 Building a story one step at a time

This report builds on the body of evidence that has been developed to 'Close the Gap for Vision' for Indigenous Australians.

The NIEHS established the current state of Indigenous eye health in Australia[4, 12, 46]. This was followed by assessments of current eye health service delivery[5, 7] and population-based, regional needs[8]. We have been also informed by a review of the history of Indigenous eye health policy in Australia since 1975[11].

The current project, 'The Roadmap to Close the Gap for Vision', has explored the barriers to service provision, delivery and utilisation and developed a series of recommendations to address these barriers. We have also developed a model to estimate the costs to implement this program[10].

6.2 Building on current and past successes

In a number of areas and regions of Australia, successful eye care programs have been developed that provide high-quality eye care for Indigenous Australians[5]. The Roadmap project has sought to be informed by these successes and aims to build on and enhance these existing services. It has used their successful solutions to develop recommendations that can be used to guide other services in other areas. The policy recommendations are designed to support local and regional control of services within a jurisdictional and national framework. The Roadmap recommendations, when implemented, should provide additional support to existing programs and enable the establishment or strengthening of other services to achieve the successful delivery of eye care to all Indigenous Australians.

6.3 Consent difficult for a national project

One challenge identified in conducting a research project that has a national scope is the process of obtaining ethics approval and participant agreement across multiple sites, regions and jurisdictions and the need to involve multiple informants and organisations. The IEHU has previously published on this issue using the NIEHS as a case study[114].

This project also encountered difficulties in securing participation because of the many layers of approval that were required before local agreement could be secured. Often, the approval process appeared to be somewhat circular, where an approval process was subject to another approval process, which seemed in turn to depend on the first approval. Also at times there was uncertainty in determining whether ethics approval was required or not, given that some of this project work was limited to interviews with staff of organisations.

6.4 Primary eye care

There remains confusion in the eye care sector around the terminology of primary health care and primary eye care. This confusion requires resolution so as to support clear communication in the sector about roles and responsibilities and we hope we have clearly defined what we mean when we use these terms in this report (see Section 4.2.5).

In Australia optometry has described the services it provides as part of primary health care as patients are able to attend an optometrist without referral and the cost of this service can be covered by Medicare. They therefore refer to optometric services as 'primary eye care'. Medicine and the broader health and ACCHO sectors consider attendance by an AHW, a nurse or a GP as primary health care and the referral for service to the eye specialist as secondary care. Moreover, the treatments of common eye problems, such as conjunctivitis, are an integral part of primary health care and are properly regarded as primary eye care.

6.5 Strengthening primary health care

Visiting specialist eye care services by optometrists and ophthalmologists need to provide support to primary health services for those patients who have been identified with clinical needs requiring specialist input. As part of their comprehensive, community-controlled care, primary health services provide co-ordination and continuity of care for patients. Visiting specialist care needs to be well articulated with and support the primary care services so that specialist services can be effectively delivered in a timely way. Good community engagement and effective geographical co-ordination of the specialist services will enhance patient outcomes.

Improved Indigenous eye health in Australia will require eye care to be in a continuum with primary health care services that are supported and appropriately integrated with the specialist support. The best outcomes will be achieved when primary health care is able to support the management and identification of community eye care presentations and allow timely and appropriate referral.

6.6 Unblock cataract surgery

Access to cataract surgery is identified as a major pathway blocker for successful Indigenous eye care. Cataract is the major cause of blindness in Indigenous adults and the second-leading cause of low vision in Indigenous adults[4, 12, 46]. Cataract blindness is 12 times more common in Indigenous adults[4, 12, 46] but rates of cataract surgery are seven times lower[7]. The Indigenous waiting time for cataract surgery is 88% longer than in the mainstream and Indigenous Australians are four times more likely to wait more than one year for cataract surgery than other Australians[71]. This lack of cataract surgery has multiple adverse effects. It wastes a huge amount of effort, time and money. People with vision loss from cataract have multiple examinations co-ordinated with visiting specialists with all the costs involved in this and still have not had their vision restored. That money has achieved nothing. Missed visits and non-attendance at appointments leads to further waste and inefficiencies. Moreover, the community loses faith in the inefficient system. The commonly held belief that no useful outcome or improvement in vision will result is confirmed and so more people do not even bother to seek eye care.

Unblocking cataract surgery will provide multiple benefits including the demonstration of a health intervention with a timely response that can result in a positive impact outcome. This will provide confidence in the service system and allow more people to flow along the pathway of care, with fewer people falling out, and will therefore encourage and allow more people to enter the system.

6.7 Co-ordination

Co-ordination and case-management are the keys to the provision of successful eye care. It is a significant element of the Roadmap recommendations and our proposals seek to improve co-ordination of the eye care system and the co-ordination of the patient's journey along the pathway of care.

The federal and jurisdictional governments are investing in case-management through initiatives such as the Indigenous Chronic Disease Package[56]. This will allow the training and appointment of additional workforce participants such as Aboriginal and Torres Strait Islander Outreach Workers. The Care Coordination and Supplementary Services (CCSS) Program will provide additional support for Indigenous patients with more complex needs and the Practice Incentive Program (PIP) encourages general practices to improve their co-ordination of Indigenous patients with chronic disease. A pilot project, Coordinated Care for Diabetes, is being funded from mid-2011 under the NHR agenda.

The research team is aware of a number of state-based initiatives also designed to improve co-ordination of care. Co-ordination is the glue that holds the system together.

6.8 Solutions offered for main identified problems – cataract, refractive error, diabetes, trachoma

The NIEHS identifies four conditions contributing to 94% of vision loss for Indigenous adults – cataract, refractive error, diabetic retinopathy and trachoma[4, 12, 46]. The Roadmap specifically addresses these conditions through a number of recommendations as indicated in Table 6.1.

Table 6.1: Roadmap recommendations that address specific vision loss conditions

Eye Conditions Map

to illustrate the contribution of recommendations to the main eye conditions and reinforce the interdependence between components of the Roadmap

		Cataract	Refractive error	Diabetic retinopathy	Trachoma
1	**PRIMARY EYE CARE AS PART OF COMPREHENSIVE PRIMARY HEALTH CARE**				
1.1	Enhancing eye health capacity in primary health services	✓	✓	✓	✓
1.2	Health assessment items include eye health	✓	✓	✓	✓
1.3	Retinal photography			✓	
1.4	Eye health inclusion in clinical software	✓	✓	✓	✓
2	**INDIGENOUS ACCESS TO EYE HEALTH SERVICES**				
2.1	Aboriginal Health Services and eye health	✓	✓	✓	✓
2.2	Cultural safety in mainstream services	✓	✓	✓	✓
2.3	Low-cost spectacles		✓		
2.4	Hospital surgery prioritisation	✓			✓
3	**CO-ORDINATION**				
3.1	Local eye care co-ordination	✓	✓	✓	✓
3.2	Clear pathways of care	✓	✓	✓	✓
3.3	Workforce identification and roles	✓	✓	✓	✓
3.4	Eye care support workforce	✓	✓	✓	✓
3.5	Case co-ordination	✓	✓	✓	✓
3.6	Partnerships and agreements	✓	✓	✓	✓
4	**EYE HEALTH WORKFORCE**				
4.1	Provide eye health workforce to meet population needs	✓	✓	✓	✓
4.2	Improve contracting and management of visiting services	✓	✓	✓	✓
4.3	Appropriate resources for eye care in rural and remote areas	✓	✓	✓	✓
4.4	Increase utilisation of services in urban areas	✓	✓	✓	✓
4.5	Billing for visiting MSOAP supported services	✓		✓	✓
4.6	Rural education and training of eye health workforce	✓	✓	✓	✓
5	**ELIMINATION OF TRACHOMA**				
5.1	Definition of areas of risk				✓
5.2	Effective interventions				✓
5.3	Surveillance and evaluation				✓
5.4	Certification of elimination				✓
6	**MONITORING AND EVALUATION**				
6.1	Managing local eye service performance	✓	✓	✓	✓
6.2	State and national performance	✓	✓	✓	✓
6.3	Collating existing eye data sources	✓	✓	✓	✓
6.4	National benchmarks	✓	✓	✓	✓
6.5	Quality assurance	✓	✓	✓	✓
6.6	Primary health service self-audit in eye health	✓	✓	✓	✓
6.7	Program evaluation	✓	✓	✓	✓
7	**GOVERNANCE**				
7.1	Community engagement	✓	✓	✓	✓
7.2	Local Hospital Networks and Medicare Locals	✓	✓	✓	✓
7.3	State/territory management	✓	✓	✓	✓
7.4	National oversight	✓	✓	✓	✓
7.5	Program interdependence	✓	✓	✓	✓
8	**HEALTH PROMOTION AND AWARENESS**				
8.1	Eye health promotion	✓	✓	✓	✓
8.2	Social marketing eye care services	✓	✓	✓	✓
9	**HEALTH FINANCING**				
9.1	Current spending on Indigenous eye health (excluding trachoma)	✓	✓	✓	
9.2	Current spending on trachoma				✓
9.3	Full additional annual capped funding required	✓	✓	✓	
9.4	Cost to 'Close the Gap for Vision' funded for five years	✓	✓	✓	

Recommendation contributes to care of eye condition ✓

The management of all four conditions will benefit from the Roadmap recommendations that provide

enhanced monitoring and evaluation, governance, health promotion and awareness and financing for Indigenous eye care.

6.9 Recognise the limitations of data – health care is a moving feast

The findings presented in this report have used the most current information available to the research team. However, as shown below, the field is constantly changing and we were unable to include the effects and costs of a number of new initiatives and approaches that have been implemented as this work progressed.

The NIEHS established the state of Indigenous eye health in Australia in 2008, when these prevalence data were collected[4, 12, 46]. These findings are unlikely to have changed significantly since then, although of course it used a national sample and local or regional prevalence will vary. The use of better local data, when available, will be helpful to better determine the population-based needs.

The population data is from the 2006 census[115] and the projected needs estimates[8] are based on a combination of information from the above listed reports (2006-2009). The commentary on outback eye service provision[5] was based on field data collected in 2009. Access to services information[7] used 2008 practitioner data and 2007/2008 Medicare data. The provision of individual services can change on a short-term basis and, as discussed further below, significantly more visiting services have been provided through the recent expansions of the Indigenous VOS program and the Ophthalmology MSOAP funding. This, again, emphasises the importance of developing local or regional population-based needs, based on the current local situation, and then monitoring service provision against those needs.

The need to improve eye health services for Indigenous Australians was recognised in part through the introduction of the National Eye Health Initiative in the 2006 federal government Budget, providing $13.8 million over four years, and the allocation of $58.3 million over four years in the 2009 Budget for the Indigenous Eye and Ear Initiative. The 2009 allocation included additional funding for VOS, increased services to address trachoma and additional eye surgeries in central Australia.

The Eye Health Teams for Rural Australia Expansion of MSOAP was announced in the 2010-11 Commonwealth Budget[116]. Over four years $5 million is to be provided for additional cataract eye operations for patients in rural and remote areas of Australia. These services will be provided through an expansion of MSOAP. Funding will also be provided to the ASO to develop a database of eye specialists willing to be part of MSOAP, and to promote the availability of the service. ASO has established IRIS to undertake this work (see Section 4.5).

In 2011, DoHA commissioned an evaluation of MSOAP and VOS[117]. At the time of writing this report, the evaluation report was yet to be released by DoHA (see Section 4.5).

As a further part of the NHR, DoHA announced in 2011 a rationalisation of its program funding approach, which effectively reduced 159 existing health and ageing funds down to 18 larger, flexible funds[118]. The goal is to provide a more flexible, responsive and connected health system. The consolidated funds aim to streamline administration, increase flexibility, and provide more efficient and targeted services. DoHA has consulted stakeholders to determine the best approach to managing the new funds and has just begun to open funds for expression of interest. There will be a transition period from existing funds and services to the new funds and changed services. The effect of this change in Commonwealth funding on the provision of Indigenous eye care as yet cannot be determined.

6.10 Importance of oversight and accountability

A Critical History of Indigenous Eye Health Policy-Making[11] provides insight to the reasons for the limited successes of previous reviews and recommendations for eye care programs. Problems have included poor implementation and sustainability. It is clear there has not been sufficient oversight built into previous approaches and the reporting accountabilities have not been strong or effective enough to monitor performance and progress.

The Roadmap provides a strong underpinning of monitoring, evaluation and governance. This will allow the necessary surveillance to showcase the successes, respond to the failures, and find the gaps and holes. The layered governance structure (local/regional, jurisdictional and national) and recommended integration with the health systems at each level of operation should provide for and encourage improved accountability.

The success of the Roadmap can only be assured and demonstrated with proper oversight and clear and reasonable accountability.

6.11 The 42 steps are all part of a chain

The Roadmap presents 42 recommendations across nine domains. These recommendations are considered to be interlocked and are a continuous chain of changes necessary to 'Close the Gap for Vision'.

The project team considers that piece-meal implementation or ad hoc, selective and partial adoption of the recommendations will not give a successful outcome. In terms of achieving the project goals, there are no recommendations that are more important than others and we believe that all recommendations require implementation.

6.12 Stakeholder consultation

The project shows the effectiveness of extensive consultation in the development of policy in Indigenous health, and perhaps more broadly (see Section 3.5). It is not possible to plot or chart all the twists and turns of devising solutions to the problems identified in the course of the project. What is clear to the team is that collecting different perspectives and interpretations of problems and solutions, along with an approach of trying to remain open and flexible has allowed the development of more robust and acceptable policy recommendations.

The many steps of consultation – through community consultation and field interviews, stakeholder workshops, ongoing discussion with interested partners and parties, and meetings with stakeholders, organisations and government officers – have been informative and invaluable to the conduct of the research. It has been most interesting to see the widespread agreement that the recommendations in their final form have received from stakeholders.

6.13 Identification of potential funding sources

The project team is aware of the current Commonwealth and jurisdictional governments' strategy of fiscal restraint at the time of writing the report and the difficulty of identifying new money to support the Roadmap. To this end the project team has considered options of current funding opportunities that may provide support for recommendations in the Roadmap. This includes both the NHR and Closing the Gap budgets.

The NHR Progress and Delivery report of September 2011[23] provides opportunity for the identification of overlap between the Roadmap recommendations with the NHR. Table 6.2 presents this overlap and a brief commentary and Table 6.3 shows where the funding streams overlap the Roadmap recommendations.

Table 6.2: Overlap of Roadmap recommendations with NHR initiatives and budget measures

STREAM 1 - HOSPITALS

Activity-based Funding ($163.3 million)
Consideration could be given to weighting for Indigeneity and disease complexity for cataract surgery and diabetic laser treatment as well as the additional funding required for the extra co-ordination required for Indigenous patients.

Elective Surgery ($747.5 million)
These funds could support co-ordination for cataract surgery and also the prioritisation of cataract surgery.

STREAM 2 – GP AND PRIMARY HEALTH CARE

Coordinated Care of Diabetes Pilot ($31.5 million)
Co-ordination and case management of patients with diabetes is obviously critical and it is essential that the annual ocular exam be built into this as an essential component. In addition, this program should provide a substantial amount of support for the co-ordination required for eye care.

Establish Medicare Locals ($738.5 million)
The MLs will provide the key area for co-ordination and organisation of eye care services as well as population-based needs planning and reporting.

STREAM 5 – NATIONAL STANDARD AND PERFORMANCE

Health Performance Authority ($125.5 million)
This Authority will provide national oversight for needs-based and population-based planning and reporting.

National Lead Clinicians Group ($73.6 million)
Part of the mandate is the development of national guidelines for service provision and co-ordination and this should include Indigenous eye care.

Australian Commission on Safety and Quality in Health Care ($48.9 million)
The development of guidelines for the hospital management of cataract surgery and diabetic retinopathy.

STREAM 6 - WORKFORCE

Specialist Training ($210.7 million)
Funding can be provided to cover the cost of trainee ophthalmologists and optometrists to join visiting specialists to rural and remote areas.

Workforce Support for Practice Nurses ($575.6 million)
Practice nurses have a clinical role and responsibility in the co-ordination of visits and case management of patient care that should include some components of eye care.

STREAM 7 – PREVENTION

National Survey
As part of the National Survey basic eye indicators need to be collected, for both non-Indigenous and Indigenous Australians, to provide baseline information and then monitor change on subsequent surveys.

STREAM 8 - EHEALTH

Telehealth ($620.9 million)
This initiative should provide funding for the retinal photography for the early detection of diabetic retinopathy and provide funds both for remote service review of images and particularly the patient end image collection.**Telehealth** ($620.9 million)

Table 6.3: NHR funding streams consistent with Roadmap recommendations

Funding Stream Map to illustrate the potential funding streams for each recommendation and reinforce the interdependence between components of the Roadmap		Stream 1	Stream 2	Stream 3	Stream 4	Stream 5	Stream 6	Stream 7	Stream 8
1	**PRIMARY EYE CARE AS PART OF COMPREHENSIVE PRIMARY HEALTH CARE**								
1.1	Enhancing eye health capacity in primary health services		✓				✓		
1.2	Health assessment items include eye health		✓				✓		
1.3	Retinal photography		✓				✓		✓
1.4	Eye health inclusion in clinical software		✓						✓
2	**INDIGENOUS ACCESS TO EYE HEALTH SERVICES**								
2.1	Aboriginal Health Services and eye health								
2.2	Cultural safety in mainstream services						✓		
2.3	Low-cost spectacles								
2.4	Hospital surgery prioritisation	✓							
3	**CO-ORDINATION**								
3.1	Local eye care co-ordination	✓	✓				✓		
3.2	Clear pathways of care		✓				✓		
3.3	Workforce identification and roles	✓	✓				✓		
3.4	Eye care support workforce		✓				✓		
3.5	Case co-ordination	✓	✓				✓		
3.6	Partnerships and agreements		✓				✓		
4	**EYE HEALTH WORKFORCE**								
4.1	Provide eye health workforce to meet population needs		✓						
4.2	Improve contracting and management of visiting services		✓						
4.3	Appropriate resources for eye care in rural and remote areas		✓						
4.4	Increase utilisation of services in urban areas								
4.5	Billing for visiting MSOAP supported services								
4.6	Rural education and training of eye health workforce						✓		
5	**ELIMINATION OF TRACHOMA**								
5.1	Definition of areas of risk								
5.2	Effective interventions								
5.3	Surveillance and evaluation								
5.4	Certification of elimination								
6	**MONITORING AND EVALUATION**								
6.1	Managing local eye service performance		✓						
6.2	State and national performance							✓	
6.3	Collating existing eye data sources								
6.4	National benchmarks					✓		✓	
6.5	Quality assurance					✓			
6.6	Primary health service self-audit in eye health		✓						
6.7	Program evaluation					✓			
7	**GOVERNANCE**								
7.1	Community engagement		✓						
7.2	Local Hospital Networks and Medicare Locals		✓						
7.3	State/territory management								
7.4	National oversight					✓			
7.5	Program interdependence								
8	**HEALTH PROMOTION AND AWARENESS**								
8.1	Eye health promotion		✓						
8.2	Social marketing eye care services		✓						
9	**HEALTH FINANCING**								
9.1	Current spending on Indigenous eye health (excluding trachoma)								
9.2	Current spending on trachoma								
9.3	Full additional annual capped funding required								
9.4	Cost to 'Close the Gap for Vision' funded for five years								

Funding stream contributes to recommendation ✓

6.14 If we wanted to we could do it – we have the solutions

Overall, 94% of Indigenous vision loss is caused by four conditions – cataract, refractive error, diabetic retinopathy and trachoma – and each of these conditions is preventable or treatable. All four conditions have available and accessible interventions. Cataract can be treated with cataract surgery usually with vision restored 'overnight'; refractive error can be treated with glasses, which restore vision as soon as they are put on; diabetic retinopathy can have 98% of the blindness prevented with timely retinal laser surgery; and trachoma can be eliminated with the SAFE Strategy.

The workforce and the capacity exist to provide the additional eye exams to prescribe glasses and screen for diabetic retinopathy, to perform more cataract surgery and diabetic retinal laser treatment, and to increase the surveillance and treatment of trachoma and trichiasis.

If 'Australia' decided to attend to this issue, it could be done, and it could be achieved within a modest time-frame and financial outlay. Eye care differs from many other health conditions for which the solution may not be available or deliverable. For example, cardiac disease and alcoholism could not be solved 'overnight' with the application of any amount of resources and efforts.

6.15 Concordance with National Health Reforms

The project team note that the Roadmap recommendations around organisational and governance structures are highly concordant with the approaches being designed under the Australian Government NHR agenda.

The potential synergies of the Roadmap recommendations with the NHR add power to the recommendations and speak to the merit of the approach adopted in the Roadmap. The concordance also adds real capacity for the adoption and implementation of the Roadmap recommendations given that the NHR agenda will support the Roadmap approach.

As the NHR agenda is in its early stages of rollout, the timing of the Roadmap proposals will allow the ready inclusion of Roadmap recommendations at local/regional, jurisdictional and national levels. The Roadmap could well act as a demonstration of the NHR approach.

6.16 The Roadmap will 'Close the Gap for Vision'

This Roadmap to eliminate unnecessary vision loss consists of 42 interlocking recommendations and requires additional annual capped funding of $19.5 million. The provision of adequate co-ordination and an effective governance structure will yield tremendous increases in efficiency and dramatically improve patient outcomes. The project team estimates that with only a doubling of funding, cataract surgery will increase seven times, diabetic examinations five times and glasses use 2.5 times.

6.17 Sector input and support

The project team acknowledges and is grateful to the many community members, colleagues and stakeholders who have been consulted and participated in the development of the Roadmap recommendations. The input to this project has been generously provided from across Australia and in a spirit of genuine interest and engagement to the challenges.

The team has also been delighted with the expressions of support and interest shown in the Roadmap from many stakeholders. This demonstrates that there is real potential to achieve change and to 'Close the Gap for Vision'.

6.18 Next steps

The Roadmap to Close the Gap for Vision and *The Cost to Close the Gap for Vision* reports have been presented to the Commonwealth and all state and territory governments. We understand that the report and recommendations are being considered by Commonwealth and jurisdictional officers. We would hope that it would be included in the 2012/2013 federal Budget.

If supported by the federal government through an appropriate budget allocation, further advocacy will be required to secure jurisdictional support for Roadmap implementation.

The IEHU and project team will be available to provide the technical support required for implementation and will continue and to develop strategies to support the program in health promotion.

Supplements

The supplements are background papers to this document and are not included in the printed volume. They are available on the Indigenous Eye Health Unit website at **www.iehu.unimelb.edu.au**

Supplement A Ethics documents

The University of Melbourne Human Research Ethics Committee application

- Plain language statement
- Consent form
- Verbal consent script
- Sample questions for semi structured interviews
- Focus group discussion process
- Focus group information sheet
- Focus group questions

Supplement B Project workshops

Workshop 1, 17 June 2010

- Agenda, background and discussion papers, presentations, summary report

Workshop 2, 28 January 2011

- Agenda, background and discussion papers, presentations, summary report

Workshop 3, 27 June 2011

- Agenda, background and discussion papers, presentations, summary report

Attendance at workshops

Supplement C *The Roadmap to Close the Gap for Vision* summary report

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