

National Framework for Action to Promote  
Eye Health and  
Prevent Avoidable Blindness and  
Vision Loss

Third Progress Report to  
Australian Health Ministers  
covering the period 2011-2014  
December 2015

## Copyright page

Third Progress Report to Australian Health Ministers (2011-2014) - *National Framework for Action to Promote Eye Health and Prevent Avoidable Blindness and Vision Loss*

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## **Acknowledgements**

The Third Progress Report under the *National Framework for Action to Promote Eye Health and Prevent Avoidable Blindness and Vision Loss* was prepared by an Eye Health Working Group of the Community Care and Population Health Principal Committee. The Working Group was chaired by the Commonwealth and the membership comprised state and territory health representatives, as outlined in Appendix 1. Secretariat support was provided by staff of the Chronic Disease Management Section, Health Services Division, Commonwealth Department of Health.

The Working Group acknowledges the significant contribution provided by their colleagues in service delivery and programme areas, and thanks them for their cooperation and collaboration.

## Acronyms

Acronym	Description
ACBRD	Australian Centre for Behaviour Research in Diabetes
ACI	Agency for Clinical Innovation (NSW)
ACO	Australian College of Optometry
ACT	Australian Capital Territory
AFC	Aboriginal Family Clinic
AHW	Aboriginal Health Worker
AIHW	Australian Institute of Health and Welfare
ARC	Australian Research Council
CALD	Culturally and Linguistically Diverse
CCPHPC	Community Care and Population Health Principal Committee - a principal subcommittee of the Australian Health Ministers' Advisory Council
CDNA	Communicable Disease Network Australia
CDPD	Chronic Disease Prevention Directorate (WA)
CFHN	Child Family Health Nurse
CPD	Continuing Professional Development
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DHHS	Department of Health and Human Services (Tasmania)
FHF	(The) Fred Hollows Foundation
HPSF	Health Promotion Strategic Framework (WA 2012-2016)
HU5K	Healthy Under 5 Kids Program (NT)
IEHU	Indigenous Eye Health Unit (University of Melbourne)
IPTAAS	Isolated Patient Travel and Accommodation Assistance Scheme
IRIS	Indigenous and Remote Eye Health Service
ISLHD	Illawarra Shoalhaven Local Health District (NSW)
LHD	Local Health District
LVC	Low Vision Clinics
MBS	Medicare Benefits Schedule
MD	Macular Disease / Degeneration
MDF	Macular Disease Foundation
MOICDP	Medical Outreach Indigenous Chronic Disease Program
MSOAP	Medical Specialist Outreach Assistance Program (now RHOF)
NDSS	National Diabetes Services Scheme
NHMRC	National Health and Medical Research Council
NPA	National Partnership Agreement
NSW	New South Wales
NT	Northern Territory
NT DoH	Northern Territory Department of Health
NTRSU	National Trachoma Surveillance and Reporting Unit
OES	Outback Eye Service
PBS	Pharmaceutical Benefits Scheme
PEDS	Parent Evaluated Developmental Score
PHR	Personal Health Record
POWH	Prince of Wales Hospital

Acronym	Description
PPE	Personal Protective Equipment
QLD	Queensland
RAHC	Remote Area Health Corps
RANZCO	Royal Australian and New Zealand College of Ophthalmologists
RHOF	Rural Health Outreach Fund
RPA	Royal Prince Alfred (Hospital)
RVEEH	Royal Victorian Eye and Ear Hospital
SA	South Australia
SAFE	Surgery, Antibiotics, Facial cleanliness and Environmental improvement (WHO strategy for trachoma)
SAIO	South Australian Institute of Ophthalmology
SCTT	Service Coordination Tool Templates (Victorian)
SEHA	School Entry Health Assessment
StEPS	Statewide Eyesight Preschooler Screening (NSW)
TAS	Tasmania
UNSW	University of New South Wales
VASSS	Victorian Aboriginal Spectacles Subsidy Scheme
VES	Victorian Eyecare Service
VIC	Victoria
VOS	Visiting Optometrists Scheme
WA	Western Australia
WACHS	Western Australia Country Health Services
WH&S	Workplace Health and Safety
WHO	World Health Organization

## Executive Summary

In the period 2011-2014, Commonwealth and state and territory jurisdictions continued to successfully implement activities in line with the Key Areas for Action (KAA) under the *National Framework for Action to Promote Eye Health and Prevent Avoidable Blindness and Vision Loss*:

- KAA 1: Reducing the risk
- KAA 2: Increasing early detection
- KAA 3: Improving access to eye care
- KAA 4: Improving the systems and quality of care
- KAA 5: Improving the evidence base

The key areas of focus over the period 2011-2014, were similar to previous reporting periods, with an emphasis on: *Improving access to eye health care services* (KAA 3); *Increasing early detection* (KAA 2); and *Reducing the risk* (KAA 1). There were also sound levels of activity in the remaining areas, *Improving the systems and quality of care* (KAA 4) and *Improving the evidence base* (KAA 5).

It should be noted that as in both the First and Second Progress Reports, it was not expected that individual jurisdictions would provide input for all of the KAAs, or report every relevant activity. Jurisdictions have collectively highlighted a range of activities undertaken during the reporting period.

The format of the Third Progress Report includes:

- a high level overview of activity for each KAA;
- a tabulated summary of jurisdictional activity against the 'action areas' of each KAA; and
- jurisdictional updates, that include detailed information on activities for each KAA by jurisdiction, along with advice on a number of successful initiatives.

### ***Common eye health activities identified in jurisdictions***

There were a range of eye health activities that were common in state and territory jurisdictions over the report period, and these included:

- Maternal and child health (KAA 1);
- Eye injury prevention (namely Work Health and Safety practices) (KAA 1);
- Childhood screening (KAA 2);
- People with diabetes (KAA 1 and 2);
- Access to cataract surgery (KAA 3);
- Affordability (namely Spectacle Subsidy Schemes) (KAA 3);
- Service integration (KAA 4);
- Workforce development (KAA 4); and
- Eye health data (KAA 5).

## ***Collaboration between the Commonwealth and jurisdictions***

The Commonwealth provided four jurisdictions – New South Wales, South Australia, Northern Territory and Western Australia – with funding for trachoma screening and treatment. Commonwealth funding was also provided to jurisdictional fund-holders for the Rural Health Outreach Fund (where eye health is one of the four priority areas) and the Medical Outreach Indigenous Chronic Disease Program (eye health services such as those for diabetic retinopathy can be supported through this programme).

## ***Eye conditions***

Certain eye conditions received particular attention over the reporting period across a number of jurisdictions, and these included:

- trachoma;
- eye conditions related to diabetes;
- cataracts; and
- trichiasis.

## ***Challenges***

Common challenges experienced by jurisdictions during the reporting period included:

- recruitment and retention of staff;
- sporadic visits by endocrinologists, eye health teams and optometrists in rural/remote areas; and
- access to transport for clients to attend specialist appointments.

It is not possible to directly compare this report against the previous two progress reports, due to differences in the way information on activities was compiled for Progress Report One (covering the period 2005 to 2008) and Progress Report Two (2008 to 2011).

## Background

In May 2003 the 56<sup>th</sup> World Health Assembly passed resolution WHA56.26 on the elimination of avoidable blindness in recognition of the fact that 45 million people in the world are blind and that a further 135 million people are visually impaired. The resolution urged all member states to develop national plans<sup>1</sup> in collaboration with non-government organisations and the private sector to prevent avoidable blindness.

In 2005, Australian Health Ministers agreed to the *National Framework for Action to Promote Eye Health and Prevent Avoidable Blindness and Vision Loss* (the Framework). The Framework provides a blueprint for nationally co-ordinated action by governments, health professionals, non-government organisations, industry and individuals to work in partnership.

In accordance with the World Health Assembly resolution, the focus of the Framework is on the elimination of avoidable blindness and vision loss in Australia, rather than on the provision of low vision and rehabilitation services.

The Framework outlines five key action areas that have the potential to lead to the prevention of avoidable blindness and low vision. All jurisdictions are required to report three yearly to Australian Health Ministers on progress against these key action areas.

The First Progress Report to Health Ministers in 2008 was compiled by the Eye Health Working Group of the former Australian Population Health Development Principal Committee, now consolidated into the Community Care and Population Health Principal Committee (CCPHPC).

In 2011, the Commonwealth Department of Health engaged Vision 2020 Australia to conduct a stocktake of jurisdictional eye health activities that contributed to the implementation of the Framework. This stocktake formed the basis of the Second Progress Report, which covered the period July 2008 to June 2011. The Second Progress Report was endorsed by Health Ministers in December 2012.

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<sup>1</sup> National plans in line with VISION 2020 global initiative (1999) for the elimination of avoidable blindness by 2020 - a joint programme of the [World Health Organization and the International Agency for the Prevention of Blindness](#)

## Overview of jurisdictional activity from July 2011-June 2014 - Key Action Areas

### Key Area for Action 1: Reducing the risk

Objective: Eye disease and vision loss are prevented, where possible, through addressing known modifiable factors.

Specific action areas: Raising Public Awareness /Maternal and Child Health/People with Diabetes /Eye Injury Prevention/Research.

Outcome: Jurisdictions achieved considerable progress in the period 2011-2014, particularly in the action areas of Raising Public Awareness, Maternal and Child Health, People with Diabetes and Eye Injury Prevention. Eye conditions of particular focus were trachoma and those related to diabetes. Common activities implemented were in the areas of Maternal and Child Health, People with Diabetes and Eye Injury Prevention. For this KAA, challenges reported by jurisdictions related to recruitment and retention of staff, patient transport to specialist appointments and availability of resources to address chronic disease and injury specific to eye health disease prevention.

### Key Area for Action 2: Increasing early detection

Objective: Treatable eye conditions are detected early, so that interventions can be applied to preserve vision and prevent any further vision loss.

Specific action areas: Raising Public Awareness /Maternal and Child Health/People with Diabetes /Eye Injury Prevention/Research.

Outcome: Jurisdictions achieved considerable progress in the period 2011-2014, particularly in the action areas of Primary Health Care, People with Diabetes and Childhood Screening. Common activities implemented were in the areas of People with Diabetes and Childhood Screening. For this KAA, challenges reported by jurisdictions related to recruitment, retention of staff and resources available to address early detection of eye disease in the context of a range of competing health priorities.

### Key Area for Action 3: Improving access to eye health care services

Objective: All Australians have equitable access to appropriate eye health care when required.

Specific action areas: Workforce Supply/Rural and Remote Communities/Access to Cataract Surgery/Affordability/Cultural Accessibility/ Public Awareness.

Outcome: Jurisdictions achieved considerable progress in the period 2011-2014, particularly in the action areas of Rural and Remote Communities, Access to Cataract Surgery, Affordability and Cultural Accessibility. Common activities were in the areas of Access to Cataract Surgery and Affordability, with Spectacle Subsidy Schemes available in all states and territories. For this KAA, challenges reported by jurisdictions related to an identified gap in the paediatric ophthalmology workforce and retention of skilled trachoma staff.

### Key Area for Action 4: Improving the systems and quality of care

Objective: Eye health care is safe, affordable, well-coordinated, consumer-focussed and consistent with internationally recognised good practice.

Specific action areas: Service Integration/Workforce Development – Specialist Workforce /Workforce Development – Primary Health Care Workforce/Consumer Focus.

Outcome: Jurisdictions achieved considerable progress in the period 2011-2014, particularly in the action areas of Service Integration, Workforce Development – Specialist Workforce and Workforce Development – Primary Health Care Workforce. Common activities implemented were in the areas of Service Integration and Workforce Development – Specialist and Primary Health Care Workforce. In this KAA, jurisdictions reported challenges relating to high staff turnover in remote clinics, competing priorities for health service delivery and orthoptic staffing capacity.

### Key Area for Action 5: Improving the evidence base

Objective: Eye health care policy, planning and programmes are supported by high quality research and data collection systems.

Specific action areas: Research Gaps and Priorities/Eye Research Workforce Development/Knowledge Transfer/Eye Health Data.

Outcome: Jurisdictions achieved sound progress in the period 2011-2014 across all Action Areas of the KAA. The Australian Research Council funded a number of research projects in the area of eye health and these are outlined in detail in the Jurisdiction update for the Commonwealth. Common activities implemented were in the areas of Eye health Data, Eye Research Workforce Development and Knowledge Transfer.

Tabulated summary of jurisdictional activity for the period 2011-2014 - Key Action Areas \*

KEY ACTION AREA (KAA)	ACTION AREA	ACT	CWLTH	NSW	NT	QLD	SA	TAS	VIC	WA
KAA1 - Reducing the Risk	Raising Public Awareness	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
	Maternal and Child Health	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No
	People with Diabetes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
	Eye Injury Prevention	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes
	Research	No	No	Yes	No	Yes	Yes	Yes	No	No
KAA2 - Increasing Early Detection	Public Awareness	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes
	Primary Health Care	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No
	People with Diabetes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes
	Childhood Screening	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
KAA3 - Improving Access to Eye Health Care Services	Workforce Supply	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No
	Rural and Remote Communities	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Access to Cataract Surgery	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
	Affordability	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
	Cultural Accessibility	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No
	Public Awareness	Yes	No	Yes	Yes	Yes	Yes	No	Yes	No
KAA4 - Improving the Systems and Quality of Care	Service Integration	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Workforce Development - Specialist Workforce	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
	Workforce Development - Primary Health Care Workforce	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No
	Consumer Focus	No	Yes	Yes	No	No	Yes	No	No	No
KAA5 - Improving the Evidence Base	Research Gaps and Priorities	No	Yes	Yes	No	No	Yes	Yes	No	No
	Eye Research Workforce Development	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes
	Knowledge Transfer	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No
	Eye Health Data	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes

(\*NOTE: JURISDICTIONS WERE NOT EXPECTED TO REPORT AGAINST EVERY ACTION AREA. THIS DATA REFLECTS A SNAPSHOT IN TIME WHICH MAY NOT ACCURATELY REFLECT EXHAUSTIVE EFFORTS ADDRESSING EACH ACTION AREA ACROSS EACH STATE.)

## Jurisdictional update – Australian Capital Territory

### *Key Area for Action 1: Reducing the risk*

#### **Action Area: People with Diabetes**

During the reporting period specialist Medical Officers worked with the ACT Diabetes Service to provide a multidisciplinary clinic, specifically designed to manage diabetic related eye conditions.

The DiabetesLink Program is an ACT Health initiative to improve communication and collaboration between primary and tertiary health care services. In 2013, the ACT Medicare Local, in conjunction with ACT Health, commenced the localisation of Diabetes HealthPathways for the ACT community. These Pathways aim to improve referral and management systems to promote best practice care of diabetes and to reduce the risk of diabetes complications.

During the reporting period the ACT Health Diabetes Service conducted education courses in diabetes care and management for health professionals to highlight and promote diabetes detection and management, all of which will assist in reducing diabetes eye disease.

#### **Action Area: Eye Injury Prevention**

During the reporting period, the ACT Health Ophthalmology Unit provided an Emergency Eye Clinic in order to assess and treat non-critical eye injuries and provide a 24 Hour on-call emergency service to Canberra Emergency Departments.

### *Key Area for Action 2: Increasing early detection*

#### **Action Area: Public Awareness**

During the reporting period, ACT Health provided information through its publicly accessible website on the ophthalmology services available to residents of the ACT and surrounding region. The website<sup>2</sup> also provides links to eye health initiatives and vision awareness programmes.

#### **Action Area: Primary Health Care**

During the reporting period, ACT Health worked in partnership with the ACT Medicare Local, to improve and support communication, education and referral pathways between clinicians to enhance best practice for people with diabetes. In 2013, ACT Health provided \$352,095 in funding a collaborative DiabetesLink Program between the ACT Health Diabetes Service and ACT Medicare Local (due to culminate in 2015). This programme supports the primary health care sector through improved education regarding prevention, screening and management of diabetic eye conditions. It also assists General Practice to maintain the annual cycle of diabetes care for all their patients through education activities and advice on diabetes management practices.

#### **Action Area: People with Diabetes**

During the reporting period nurses, allied health staff and a medical officer specialising in diabetes worked in the ACT Health Diabetes Service to conduct multidisciplinary reviews of high

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<sup>2</sup> [ACT Health - Ophthalmology Unit](#)

risk patients and ensured that access to services was based on the clinical needs of the patient. This collaborative approach ensures that patients who require surgical intervention from ophthalmologists have appropriate access to treatment.

In 2013, the ACT Health Diabetes Service received \$113,000 in funding to establish a diabetic retinopathy screening programme. The aim of the programme is to increase the number of diabetes eye screen appointments to enable the early detection of diabetic retinopathy. The programme also aims to increase consumer awareness of diabetic eye disease through consumer education. The programme has been established in collaboration with the Canberra Hospital Ophthalmology Department and supported by the primary health care sector. The funding incorporated the purchase of a fundal retinal camera costing \$37,339, which is now being actively used for screening. The programme is being delivered from the Belconnen Community Health Centre to ensure accessibility for consumers.

### ***Key Area for Action 3: Improving access to eye health care services***

#### **Action Area: Workforce Supply**

In 2011, a second retinal specialist was appointed in the ACT to help meet the increasing demand in retinal services (related to new technologies, particularly pharmaceutical treatments for diabetic retinopathy, macular degeneration and retinal vein occlusions). A new full-time ophthalmologist also arrived in the private sector, as has a private clinic staffed by visiting clinicians from Sydney. Unfortunately, this has been offset by several retirements from the private sector, and as such the ophthalmology staffing ratio (to population) in the ACT remains well below the national average, and people must endure lengthy delays for non-emergency care. Staffing levels in the public department of ophthalmology have been increased over the reporting period; however paediatric ophthalmology remains an identified gap in the ACT eye-care workforce.

#### **Action Area: Access to Cataract Surgery**

ACT Health has an established waiting list policy that ensures equity of access to patients across the ACT and surrounding catchment area based on clinical urgency. Services for cataract surgery were transferred to Calvary Hospital in order to optimise access to services and reduce pressure on Canberra Hospital and Health Services. Approximately 1,000 public cataract procedures are conducted each year by ACT Health.

#### **Action Area: Affordability**

The public eye clinic at the Canberra Hospital delivers over 13,000 episodes of care annually. In addition to cataract surgery, there is a public surgical retinal service which performs over 200 retinal surgeries annually (elective and emergency).

#### **Action Area: Cultural Accessibility**

A diabetic eye disease service (bulk billed) was established at Winnunga Nimmityjah Aboriginal Health Service in 2014.

The Department of Ophthalmology at Canberra Hospital supports patients referred from Companion House, the refugee health service. Visual acuity is a key aspect of clinical examinations undertaken as part of the screening process by the medical service at Companion house.

### ***Key Area for Action 4: Improving the systems and quality of care***

#### **Action Area: Workforce Development – Primary Health Care Workforce**

During the reporting period, ACT Health continued to review growth in services and budget allocations in order to ensure that resources are allocated in a way that focuses on clinical services and high quality outcomes. The ACT has a very strong culture of clinical collaboration between optometrists and ophthalmologists. A large proportion of primary eye care is delivered by optometrists, who support GPs as well as ophthalmologists. Continuing Professional Development points are available for this training.

### ***Key Area for Action 5: Improving the evidence base***

#### **Action Area: Knowledge Transfer**

The ACT Health Ophthalmology Unit has linkages to the Royal Australian and New Zealand College of Ophthalmologists (RANZCO) and has two accredited registrar positions, which have recently been re-accredited for a full 3 years (the maximum possible). The senior registrar post was filled by a number of overseas medical graduates, and we have been successful in supporting 2 of them in their progression to full specialist recognition. The Ophthalmology Unit also has strong ties to the Australian National University Medical School, which is located on the Canberra Hospital and Health Services campus. This linkage promotes research and teaching to students and develops leadership and teaching skills in Junior Medical Officers employed within the specialty.

#### **Action Area: Eye Health Data**

During the reporting period the Performance and Innovation Branch of ACT Health provided the Ophthalmology Unit with access to monthly activity data that enabled monitoring of service demands.

## Jurisdictional update – Commonwealth

### *Key Area for Action 1: Reducing the risk*

#### **Action Area: Raising Public Awareness**

The Commonwealth supported awareness-raising activities through funding to key organisations in the eye health and vision sector.

#### Vision 2020 Australia

The Department funded Vision 2020 Australia between 2011-2014 to support national advocacy for the Australian eye health and vision care sector, collaborate with the eye health and vision care sector and to raise public awareness. As the national body working in partnership to prevent avoidable blindness and improve vision care in Australia, awareness raising activities undertaken by Vision 2020 in the period 2011-2014 included:

- A range of media releases and participation at conferences and events.
- Managing 'World Sight Day', an annual event held at Parliament House in Canberra, with associated education sessions for parliamentarians, television, radio and print media campaigns and social media campaigns.
- Parliamentary Friends Group for Eye Health and Vision Care annual dinners.
- Monthly eBulletin –Sector News Alert – providing the eye health sector with a round-up of the latest news and upcoming events in eye health and vision care.
- Development of a Facebook page and Twitter account in 2013-14.

#### Macular Disease Foundation

Between 2012 and 2014, the Department funded the Macular Disease Foundation (MDF) to provide an Australia-wide education programme to raise awareness of macular disease (MD), including the risk factors, risk reduction, early detection, treatment, rehabilitation, and resources. The programme targeted high risk groups including those with MD, the family of those with MD, people aged 50 years or older (particularly 70+), smokers and those who had previously smoked.

The MDF delivered education sessions across states and territories, with information kits provided to attendees which included: a comprehensive MD information booklet, nutrition and supplements fact sheet, research update, an Amsler Grid and four comprehensive guides to support those with low vision. The programme was also extended to Culturally and Linguistically Diverse (CALD) communities with sessions run via translators in Arabic, Chinese, Greek, Italian and Vietnamese. A total of 4,902 people attended 118 education sessions as at June 2014. There were also 14 CALD sessions which had 351 attendees.

As part of the programme, MDF established a telephone support helpline, which provided follow up information from the national education and awareness programme, with approximately 27,200 calls received up to June 2014.

## **Action Area: Maternal and Child Health**

### Trachoma Project Agreement

The Commonwealth funded state and territory governments through the Trachoma Project Agreement to undertake trachoma screening and treatment activities, which are aimed at 5-9 year olds. Funding has been provided to jurisdictions for this purpose since 2009 as part of a National Partnership Agreement (NPA). Current NPA funding totals \$16.4 million over four years, 2013-14 to 2016-17.

National Trachoma Guidelines provided guidance to all jurisdictions on the surveillance and management of trachoma. The guidelines also provided the evidence base and policy framework for coordinated, community-based activities towards eliminating blinding trachoma in Australia, and adapted the WHO SAFE strategy for trachoma elimination to the Australian context. The Guidelines focus on community wide programmes to control and eliminate blinding trachoma in Australia by 2020.

Commonwealth funding since 2009 to jurisdictions to assist with trachoma control activities has resulted in a significant decrease in trachoma prevalence in 5-9 year olds in screened communities from 14% in 2009 to 4% in 2013.

## **Action Area: People with Diabetes**

### National Diabetes Services Scheme (NDSS)

From 2011 to 2014 the Commonwealth provided direct support to people with diabetes through access to subsidised products and services under the [National Diabetes Services Scheme](#) (NDSS). The NDSS also provide a range of educational and information services to assist with effective self-management of diabetes, including fact sheets on eye health. The impact of these fact sheets is not directly monitored. Snapshots of NDSS data in the reporting period can be found at the [NDSS Data Snapshots page](#).

### Medicare Benefits Schedule (MBS)

Under the MBS, patients with diabetes mellitus are entitled to receive a comprehensive reassessment of the eye, with the instillation of a mydriatic (a drug that dilates the pupil). This service can be claimed under MBS optometry item 10915. The Medicare benefits paid for item 10915 were \$9.17million for 2011-12, \$10.17million for 2012-13 and around \$11.52million for 2013-14.

## **Action Area: Eye Injury Prevention**

### Work Health and Safety Legislation

Comcare administers the Work Health and Safety Act 2011 (WHS Act)<sup>3</sup> and Work Health and Safety Regulations 2011 (WHS Regulations)<sup>4</sup> which cover a range of health and safety issues, including eye health in the workplace.

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<sup>3</sup>[Work Health and Safety Act 2011](#)

<sup>4</sup>[Work Health and Safety Regulations 2011](#)

Fact sheets and publications on eye health to help Persons Conducting a Business or Undertaking (PCBUs) and workers to assess risks to eye health, manage eye health in the workplace and deal with safety issues are available on Comcare's website.<sup>5</sup>

## **Key Area for Action 2: Increasing early detection**

### **Action Area: Public Awareness**

#### **National Development Programmes and Registrant Support Services (NDP + RSS)**

Between 2011 and 2014 the National Diabetes Services Scheme (NDSS) National Development Programmes and Registrant Support Services aimed to improve health outcomes for people with diabetes across Australia, such as increasing the awareness of the impact diabetes has on eye health. This is achieved through eye health information on the NDSS website, eye health factsheets and marketing provided to optometrists and ophthalmologists on the NDSS.

### **Action Area: Primary Health Care**

#### **Visiting Optometrists Scheme (VOS)**

VOS supports Optometrists to provide outreach optometric services in regional, remote and very remote locations that would not otherwise have ready access to primary eye care. The core VOS has been operating since 1975. Since 2009-10, funding was increased to provide additional VOS services for Indigenous patients, particularly in remote areas.

From July 2012 to June 2014, VOS funded 64 Optometrists to deliver services to approximately 514 locations nationally<sup>6</sup>. However, it should be noted that need may exceed availability of services in some regions, and some patients may not seek treatment or be available when outreach visits are undertaken.

For 2011-12, VOS funding totalled \$4.4 million (with \$1.9 million for Indigenous services). For 2012-13, \$5.5 million was provided (with \$2.5 million for Indigenous services) and in 2013-14 funding totalled \$5.8 million (with \$2.7 million for Indigenous services).

The Commonwealth provided \$0.6 million of funding in 2013-14 for the purchase and maintenance of ophthalmic equipment to assist with the examination, screening and detection of eye conditions to enable diagnoses and development of treatment plans.

### **Action Area: People with Diabetes**

#### **Rural Health Outreach Fund (RHOF) and Medical Outreach Indigenous Chronic Disease Program (MOICDP)**

A range of health outreach programmes funded by the Commonwealth facilitate health workforce to travel into communities to provide primary and specialist eye health care which includes eye care for people with diabetes.

RHOF aims to improve access to medical specialists, GPs, allied and other health professionals for people living in regional, rural and remote Australia. There are four health priorities under

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<sup>5</sup>[Eye health in the workplace – a guide for PCBUs and workers](#)

<sup>6</sup>[National Priority Locations for the Visiting Optometrists Scheme](#)

RHOF including eye health. MOICDP aims to improve access to medical specialists, GPs, allied and health professionals for Aboriginal and Torres Strait Islander people experiencing health conditions under MOICDP's five health priorities, one of which is diabetes. Eye health services such as those for diabetic retinopathy can be supported through this programme. Services provided under MOICDP are determined through a comprehensive needs assessment and priority setting process undertaken by fund holders in each state and the Northern Territory.

### **Action Area: Childhood Screening**

#### Trachoma control activities

The Commonwealth funds state and territory governments to undertake trachoma screening and treatment activities, in line with national guidelines, through the Trachoma Project Agreement. These trachoma control activities are aimed at 5-9 year olds and services can be accessed through RHOF, MOICDP and VOS.

In line with Australia's commitment to the World Health Organization's (WHO) Global Elimination of Trachoma by 2020, the Commonwealth provides funding to jurisdictions with endemic trachoma, to provide trachoma control activities. The Commonwealth provided \$2.95 million in funding in 2011-12, \$3.93 million in 2012-13 and \$4.4 million in 2013-14 to four jurisdictions (NSW, SA, NT and WA) through the multi-lateral Trachoma Project Agreement for trachoma control activities.

Commonwealth funding supported these jurisdictions in the delivery of additional trachoma control services and additional activities to improve the identification, screening, treatment, management and prevention of trachoma and trichiasis for Indigenous Australians. This is in line with the WHO SAFE strategy that includes:

- surgery for trichiasis;
- antibiotic administration for trachoma;
- promotion of facial cleanliness; and
- environmental improvements to address barriers to facial cleanliness.

The Commonwealth funded the Indigenous Eye Health Unit (IEHU), University of Melbourne, to improve eye health outcomes for Indigenous Australians. The IEHU received \$0.927 million in funding in 2013-14, which included the development of national resources to support national policy for improved Indigenous eye health outcomes. The IEHU developed Trachoma Story Kits in 2011 for use by organisations to undertake trachoma health promotion activities. In 2013, the Commonwealth funded the reprint of an additional 500 kits to be provided free of charge to requesting organisations for health promotion activities.

### **Key Area for Action 3: Improving access to eye health care services**

#### **Action Area: Rural and Remote Communities**

##### Medicare Benefits Schedule (MBS) – Analysis of optometry services in Australia

In 2013, the Department of Health commissioned ACIL Allen Consulting to undertake an analysis of optometry services in Australia. The analysis aimed to identify whether changes introduced through the 2014-15 Budget measures, such as the reduction in MBS fees for all optometry items and removal of the charging cap for Optometrists, would increase out of pocket costs and/or reduce

access. The report *Optometry Market Analysis* found that the market is extremely competitive nationwide. Therefore, the 2014-15 changes through the optometry budget measures are unlikely to increase patient contributions significantly and/or reduce access, including in regional areas.

### Rural Health Outreach Fund (RHOF)

In 2013-14 the Commonwealth provided \$32.74 million in funding for RHOF which aims to improve access to medical specialists, GPs, allied and other health professionals for all people living in regional, rural and remote Australia.

There are four health priorities under RHOF including eye health. Services are planned according to a needs assessment undertaken by jurisdictional fund holders. The needs assessment is based on local information such as population, demographics, local burden of disease, access to appropriate services, waiting lists and identification of gaps.

### Medical Outreach Indigenous Chronic Disease Program (MOICDP)

In 2013-14, the Commonwealth provided \$30.36 million in funding for MOICDP which aims to improve access to medical specialists, GPs, allied and health professionals for all Aboriginal and Torres Strait Islander people experiencing health conditions under the MOICDP five health priorities: diabetes, cardiovascular disease, chronic respiratory disease, chronic renal (kidney) disease and cancer. Eye health needs associated with these chronic conditions (e.g. diabetic retinopathy) are supported through this programme.

Health professionals undertake outreach services for Aboriginal and Torres Strait Islander people to help patients live with and manage their health condition. As with the RHOF programme, services provided under MOICDP are determined through a comprehensive needs assessment and priority setting process undertaken by fund holders in each state and the Northern Territory. As part of this needs assessment and priority setting process, services related to eye health were delivered to 14 locations nationally under MOICDP in 2013-14, and included 637 patient contacts.

### Visiting Optometrists Scheme (VOS)

The VOS supports Optometrists to provide outreach optometric services in regional, remote and very remote locations that would not otherwise have ready access to primary eye care (as also outlined at Key Action Area Two).

## **Action Area: Access to Cataract Surgery**

### Medicare Benefits Schedule - cataract surgery services and benefits

The Commonwealth is committed to all Australians having access to affordable high quality eye health and vision care. To assist in achieving this, the Government provides access to subsidies for a range of ophthalmology services under the MBS, including cataract surgery.

The most common MBS item claimed for cataract surgery is item 42702, which has a schedule fee of \$761. The table below outlines a number of services and benefits paid for 2011-14. It should be noted that the MBS also has items available for other services such as anaesthesia, provided at the same time as cataract surgery.

## Cataract Surgery (MBS items 42702, 42698, 42701 and 42716)

Year	Number of Services	Benefits Paid Amount
2011	143,372	\$79,035,820.00
2012	150,043	\$84,350,296.00
2013	158,514	\$90,600,943.00
2014	164,623	\$93,961,932.00
<b>Total</b>	<b>616,552</b>	<b>\$347,948,991.00</b>

Source: Medicare Australia Statistics 2015

### Australian Society of Ophthalmology (ASO) - delivery of eye health services

The Commonwealth provided one-off funding of approximately \$5 million over four years from 2010-11 to 2013-14 for additional cataract surgery services in rural and remote areas of Australia. The ASO received around \$1 million of this funding to undertake planning and develop a four year strategic plan for the delivery of eye health services. To facilitate this work, the ASO established the Indigenous and Remote Eye Health Service (IRIS) Taskforce. The remaining \$4 million over the four years was allocated to fund holders for the Medical Specialist Outreach Assistance Programme (MSOAP) and its successor, RHOF, to deliver the approved services planned by IRIS.

### The Fred Hollows Foundation (FHF)

The Commonwealth provided funding to the FHF to support the provision of cataract surgeries in Central Australia and Barkly regions of the Northern Territory. For 2011-12 funding was \$0.18 million, for 2012-13 \$0.21 million and for 2013-14 \$0.20 million. The cataract surgery intensive weeks have reduced cataract surgery waiting lists in Central Australia. From November 2012 to September 2013, the FHF conducted 174 cataract procedures in Central Australia.

### Aboriginal and Torres Strait Islander Remote Service Delivery Cataract Surgery Pilot Project

The Commonwealth funded the FHF \$880,000 for the period 2012-13 and 2013-14 to pilot a project that coordinated the provision of up to 200 cataract extractions for Aboriginal and Torres Strait Islander people living in remote communities, who had been placed on elective surgery waiting lists following clinical assessments, with priority to be for communities in NT and/or NSW listed as priority communities in the National Priority Agreement on Remote Service Delivery. The FHF coordinated the project and engaged with partners to deliver surgical services.

Patients seen were from the catchment area of the Top End Health Service in the Northern Territory and the Western New South Wales Local Health District. The results of the pilot project included 185 cataract surgeries delivered to Aboriginal and Torres Strait Islander patients, 99 at Royal Darwin Hospital, 21 at Katherine District Hospital, 42 at Dubbo Base Hospital and 23 at Bourke District Hospital.

### Challenges encountered in the Remote Service Delivery Cataract Surgery Pilot:

Conducting surgical intensives in remote Australia is complex and requires significant coordination and communication between multiple stakeholders. Remoteness and cultural

elements were significant barriers and patient transport systems and processes need to support both patients and the conduct of the intensives.

## Action Area: Affordability

### Pharmaceutical Benefits Scheme (PBS)

The PBS provides sustainable, reliable, timely and affordable access to cost-effective and high quality medicines to all Australian residents, including medicines for the treatment of various conditions associated with eye health such as macular degeneration.

In 2011-12, over 7.3 million prescriptions related to ophthalmology were subsidised by the Commonwealth through the PBS costing over \$445 million. In 2012-13, there were over 7.4 million prescriptions which cost the Commonwealth over \$480 million and in 2013-14 there were over 7.7 million prescriptions which cost the Government over \$440 million.

PBS co-payment arrangements and safety net provisions help to ensure medicines are affordable for all consumers.

### Medicare Benefits Schedule (MBS)

The Commonwealth provides access to MBS rebates for a wide range of ophthalmology services. The below table outlines the number of services and benefits paid for the period 2011-2014. In addition, the Government also provides subsidies for a number of other services associated with ophthalmology including consultations and diagnostic imaging. The number of services and benefits paid in 2011-2014 is listed in the following table.

#### Ophthalmology Services (MBS Group T8 – Surgical Operations, Subgroup 9 Ophthalmology)

Year	Number of Services	Benefits Paid Amount
2011	615,303	\$210,922,447.00
2012	677,439	\$235,750,413.00
2013	729,033	\$252,932,697.00
2014	774,574	\$267,929,329.00
<b>Total</b>	<b>2,796,349</b>	<b>\$967,534,886.00</b>

Source: Medicare Australia Statistics 2015

Although the Commonwealth is responsible for setting fees for MBS purposes and for the payment of Medicare benefits, it has no direct power or authority to determine the fees charged by doctors or their billing practices, nor can it compel them to observe the MBS fee for a particular service. Out of pocket costs can cause some concern for patients undergoing ophthalmology services. In 2014, the average MBS benefits paid per service for ophthalmology surgical operation items was \$338.00 and the average fee charged by providers was \$610.00. The Commonwealth provides access to MBS rebates for a wide range of optometry services, including comprehensive eye examinations, the prescription and fitting of contact lenses,

domiciliary items and low vision assessment items. The table below outlines the number of services and benefits paid for the period 2011-2014.

### **Optometry Services (MBS Group A10 – Optometrical Consultations)**

<b>Year</b>	<b>Number of Services</b>	<b>Benefits Paid Amount</b>
2011	6,870,005	\$328,021,361
2012	7,333,914	\$355,670,617
2013	7,662,870	\$376,147,371
2014	8,099,233	\$399,769,949
<b>Total</b>	<b>29,966,022</b>	<b>\$1,459,609,298</b>

Source: Medicare Australia Statistics 2015

### **Eye Care Services under RHOF, MOICDP, VOS**

Health professionals who provide eye care services to patients under RHOF, MOICDP and VOS outreach services are encouraged to ensure services are affordable by bulk-billing services under the MBS, and providing subsidised medications to patients under the PBS. Optometrists are required to be a participating Optometrist for the purposes of the Medicare provisions, ensuring they can bulk-bill eye services under the Medicare Benefits Scheme. Through VOS, Optometrists are encouraged to provide information to patients about individual jurisdictions subsidised spectacle schemes when prescribing spectacles.

To assist health professionals in providing affordable eye care services, these outreach programmes provide financial support to address the range of financial disincentives incurred by eye health professionals providing outreach services.

### **Department of Social Services**

The Better Start for Children with Disability initiative commenced on 1 July 2011, and created new items in the MBS for the early diagnosis and treatment of children under the age of six with an eligible disability. Through Better Start, eligible children were registered to access early intervention funding of up to \$12,000 (to a maximum of \$6,000 per financial year) and have until their seventh birthday to use the funding.

### ***Key Area for Action 4: Improving the systems and quality of care***

#### **Action Area: Service Integration**

#### **Vision 2020 Australia**

The Commonwealth worked closely with Vision 2020 Australia to ensure that the views of the eye health and vision care sector were considered in the development of policies.

The Department of Health funded Vision 2020 Australia between 2011-2014 to support national advocacy for the Australian eye health and vision care sector, to collaborate with the eye health and vision care sector and raising public awareness. In its role as national advocate, Vision 2020 Australia undertook a range of policy development activities in the area of service integration during the period, including the following:

- In 2012, a response to the proposed eligibility criteria for the National Disability Insurance Scheme (NDIS), and NDIS Bill 2012 to the Senate Standing Committee on Community Affairs.
- A response in 2012 to the World Health Organization on the new *Global Action Plan for the Prevention of Avoidable Blindness and Visual Impairment 2014-19*.
- Developed the following policy proposals in 2013: Progressing Eye Health and Vision Care in Australia, and Progressing Aboriginal and Torres Strait Islander Eye Health and Vision Care and Global Eye Health.
- The above proposals provided key recommendations relating to the WHO Global Action Plan and the *National Framework for Action to Promote Eye Health and Prevent Avoidable Blindness and Vision Loss*.
- Worked with the Department in 2013 to bring together representatives from the eye health sector and policy makers from the Department in a workshop to inform the development of an Implementation Plan under the National Framework (noting that the Implementation Plan was formally approved by the then Minister for Health in September 2014, outside the reporting period).
- Presented at the 11th International Conference on Low Vision in 2014 – a symposium discussing the challenges and solutions in service provision.
- Presented at two workshops in 2014 at CAREX and the National Regional Eye Health Forum.

### The Indigenous Eye Health Unit (IEHU)

The Commonwealth funds IEHU, University of Melbourne for a range of activities including support for coordination of Indigenous eye care programmes and services. Another key activity is to improve linkages within and between community, state and commonwealth activities to maximise use of available resources. In 2013-14, IEHU received \$927,000 of funding from the Commonwealth.

### Outreach programmes

The Commonwealth-funded outreach programmes, Medical Specialist Outreach Assistance Program (MSOAP) and Visiting Optometrists Scheme (VOS) were evaluated in 2012. A key recommendation of the 2012 Evaluation was that VOS services should be coordinated with Rural Health Outreach Fund (RHOF) and Medical Outreach Indigenous Chronic Disease Program (MOICDP) and delivered using the same jurisdictional fund holder arrangements as are in place for these programmes. This arrangement will streamline planning and coordination of outreach eye health services provided through the three programmes, providing a more consumer focussed, integrated service and referral pathway for patients. The new arrangements are planned to begin in mid-2015.

Using the same fund holders for RHOF and MOICDP provides improved coordination of eye health services across a number of programmes and maximises the funding available for frontline services.

### Care Coordination and Supplementary Services (CCSS) programme

From 2011-12 to 2013-14, the CCSS programme received \$112.80 million in funding from the Commonwealth to improve access to coordinated multidisciplinary care for Aboriginal and Torres

Strait Islander patients with chronic disease: cancer, diabetes, cardiovascular disease, chronic respiratory disease and chronic renal disease. Eye health conditions could be associated with these chronic conditions. With a GP care management plan in place, the patient is supported by a nurse or Aboriginal Health Worker (AHW) to access appropriate treatment and services to better manage their condition.

### **Action Area: Workforce Development – Specialist Workforce**

#### **Remote Area Health Corps (RAHC)**

RAHC was established in 2008 and is now part of the Stronger Futures in the Northern Territory through Health initiative funded by the Commonwealth. RAHC places GPs, registered nurses, oral and allied health professionals in remote Indigenous communities throughout the Northern Territory.

RAHC develops modules for urban based health professionals preparing to work in remote health clinics and services, in particular, in remote Indigenous communities in the Northern Territory. The modules provide timely, high quality orientation and learning materials for these health professionals and form a suite of online clinical training modules referred to as the RAHC Introduction to Remote Health Practice Program.

As part of this suite of training modules, RAHC has developed two eye health specific eLearning modules in collaboration with the Melbourne University Indigenous Eye Health Unit:

- Module 9 – Trachoma which provides an overview of key elements addressing the assessment, screening, diagnosis and management of Trachoma.
- Module 13 - Eye Health and Diabetes which provides an understanding of specific modifiable risk factors for diabetic retinopathy, the steps to assessment, clinical grading, diagnosis and referral for diabetic retinopathy.

### **Action Area: Consumer Focus**

#### **Outreach Services (RHOF, MOICDP, VOS)**

Outreach services such as RHOF, MOICDP and VOS provided continuity of care for consumers, particularly in rural and remote communities. In general, the same health professionals travelled into communities, which allowed for consistent treatment and referral pathways with links to other outreach services. For example, in Western Australia, Lions Outback Vision provided a comprehensive eye health programme which included both optometry and ophthalmology services funded through RHOF and VOS. This service includes a referral and recall system, and all patients identified with, for example, trichiasis will be offered a referral.

The system is linked into the visiting ophthalmology services in the Kimberley as well as to the Lions Eye Institute, and both Royal Perth and Fremantle Hospitals in the metropolitan area, so patients can be tracked through to the most appropriate referral centre. Access to services was supported through the Patient Assisted Travel Scheme where the application met the eligibility criteria.

## Key Area for Action 5: Improving the evidence base

### Action Area: Research Gaps and Priorities

#### Medicare Benefits Schedule (MBS) – Review of Ophthalmology Items

In 2010, a review of existing MBS ophthalmology items was commenced under the MBS Quality Framework. The primary focus of reviews of existing items is to ensure that the MBS supports and encourages evidence-based, cost-effective clinical practice and to identify and evaluate current MBS services that present potential safety and quality issues.

The ophthalmology review was completed in two stages. Stage I was undertaken in 2011 and implemented in 2012. The Stage II ophthalmology review was undertaken in 2012 and implemented in 2014. Both reviews resulted in minor changes to MBS item descriptors to reflect current clinical practice, and had the full support of the ophthalmology profession.

#### National Health and Medical Research Council (NHMRC)

NHMRC was included on the government's National Diabetes Strategy Advisory Group, established in 2013-14 to develop a new National Diabetes Strategy to prioritise the national response to diabetes and identify appropriate approaches to addressing the impact of diabetes in the community.

NHMRC's Research Translation Faculty (an advisory group comprised of senior researchers) noted that diabetes is the leading cause of preventable blindness in adults and developed a broad proposal for a national prevention programme for type 2 diabetes.

The tables below include financial year figures broken down into broad research and priority areas for projects funded by the NHMRC in Vision Sciences and Ophthalmology.

#### ***Vision Sciences and Ophthalmology Financial Year Funding by Broad Research Area***

<b>Broad Research Area</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Basic Science	\$7,322,554	\$6,684,358	\$6,192,674
Clinical Medicine and Science	\$7,234,803	\$7,699,608	\$7,714,462
Health Services Research	\$1,467,412	\$1,113,002	\$975,995
Public Health	\$1,688,830	\$1,942,666	\$2,017,712
<b>Total</b>	<b>\$17,713,599</b>	<b>\$17,439,634</b>	<b>\$16,900,843</b>

#### ***Vision Sciences and Ophthalmology Financial Year Funding by Priority Action Areas***

<b>Priority Action Areas</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Build Capacity	\$5,225,405	\$5,060,279	\$4,765,233
Create Knowledge	\$8,335,822	\$8,240,963	\$8,183,209
Translate Research	\$4,152,372	\$4,138,392	\$3,952,401
<b>Total</b>	<b>\$17,713,599</b>	<b>\$17,439,634</b>	<b>\$16,900,843</b>

#### National Trachoma Surveillance and Reporting Unit (NTSRU)

The Commonwealth provided funding for the NTSRU, based at the University of New South Wales, Kirby Institute, to provide regular surveillance and reporting of trachoma prevalence, using data provided by state and territory governments. This also included the analysis and reporting on annual

trachoma prevalence and control activities in Australia. Funding for the NTSRU included \$0.262 million in 2011-12, \$0.217 million in 2012-13 and \$0.266 million in 2013-14.

### Australian Research Council (ARC)

During the reporting period the ARC Centre of Excellence in Vision Science received \$4.5 million of funding from the Commonwealth through the Australian Research Council. The Centre brings together major research programmes in vision sciences at four universities: The Australian National University, The University of Queensland, The University of Sydney, and The University of Western Australia. The Australian National University is the administering organisation.

The Centre generated important new knowledge of the performance, logic and stability of vision and visual behaviour. This knowledge will help to reduce the burden of vision impairment in Australia, increasing productivity, promoting healthy ageing and reducing the community costs of visual impairment. The knowledge produced will also make possible world-class innovations in robotics, leading to novel automated vision systems with applications in industry and national security. Other knowledge will develop novel diagnostic technologies, for application in health delivery.

### Australian Research Council (ARC) Research Projects

During the reporting period, the ARC funded a number of research projects in the area of eye health which are outlined below.

- Special Research Initiative in Bionic Vision Science and Technology

In 2010 the ARC awarded \$50 million to two Australian research teams, the University of Melbourne (Bionic Vision Australia) and Monash University (Monash Vision Group) Project years: 2010-2014, to develop a bionic eye under the ARC's Research in Bionic Vision Science and Technology Initiative. Following an independent review in 2013 that found both research teams had made exceptional advances, the ARC awarded an additional \$10 million to the research teams to continue their ground-breaking work into 2014. The two teams are working on different methods to develop bionic vision, each focusing on a different type of blindness. The Monash Vision Group is developing a device to implant on the visual cortex of the brain, providing treatment for progressive blindness. Bionic Vision Australia, which has its headquarters at The University of Melbourne, is developing technology that implants a device in the rear of the eye to enable vision to blind patients suffering from degenerative retinal conditions. In 2014 Bionic Vision Australia announced the successful completion of the first clinical trial of its prototype 24-channel percutaneous implant in patients with profound vision loss from the eye disease retinitis pigmentosa (RP).

Funding for 2011-14: \$36 million to Bionic Vision Australia and \$7.8 million to Monash Vision Group.

- Discovery Early Career Researcher Award  
Queensland University of Technology Project years: 2012-2014

It has recently been found that spending more time outdoors may reduce the risk of developing short sightedness. This project will examine the underlying basis of these associations and improve understanding of environmental factors involved in the cause of short sightedness, an eye problem that is a major cause of vision impairment globally.

Funding for 2011-14: \$375,000.

- Discovery Early Career Researcher Award: The University of Melbourne Project years: 2012-2014

Adaptive optics allows the visualisation of individual cells and capillaries in the living human eye. This project used adaptive optics to explore the normal function of these microscopic objects, and how this function changes in eyes suffering from disease. This will aid in developing new ways to diagnose and treat debilitating eye diseases.

Funding for 2011-14: \$375,000.

- Discovery Early Career Researcher Award: The University of Melbourne Project years: 2014-2016

The formation of healthy blood vessels in the eye is critical for vision. An important peptide in blood vessel formation throughout the body, including the eye, is Angiotensin II. Specific retinal cells named astrocytes and microglia are suggested to be involved in vessel formation. However, the way these cells control this formation is unknown. Using innovative techniques, this project will investigate how retinal astrocytes and microglia control glial-vascular communication and blood vessel formation via Angiotensin II. The information gained from this proposal is critical to our understanding of both normal retinal development and blood vessel maintenance in both infants and those of older ages.

Funding for 2011-14: \$129,790.

- Discovery Early Career Researcher Award  
The University of Western Australia Project years: 2014-2016

Normal vision requires functional and correctly located cone photoreceptor cells. Many genetic mutations, however, impair the correct migration of these cells during development and ultimately cause cell death. This project will investigate, for the first time, the causal link between the migration of cone cells and activation of cell death mechanisms. A coordinated approach, using a range of molecular techniques, will be used to determine which factors are essential for normal development, correct spatial location and survival of cone photoreceptors within the mammalian retina. This will provide a major step forward in our knowledge of the processes involved in the spatial deployment of cones and the developmental organisation of the retina.

Funding for 2011-14: \$131,433.

- Discovery Projects: The University of Western Australia Project years: 2010-2012

Visual coding of shape is central to our ability to interact with objects effectively. The visual system contains processes that are specific to particular shapes and this work aims to determine how those processes are used by the system in visual analysis. The work will advance theoretical understanding, and will contribute to the training of the next generation of researchers but also has the potential to provide information that enables display designers to determine the most efficient way to detect and present pattern information. This may lead to simplified methods for creating objects that are equally effective in conveying information and more rapid scene analysis.

Funding for 2011-14: \$231,465.

- Discovery Projects: Queensland University of Technology Project years: 2011-2013

This project will study peripheral (side vision) optics of the human eye and its role in the limits of visual performance. This will improve ocular measurements and contribute towards improved diagnosis and treatment of ocular diseases and short sightedness.

Funding for 2011-14: \$333,000

- Discovery Projects: Swinburne University of Technology Project years: 2011-2013

Thirty per cent of the Australian young adult population (with much higher percentages in Asia) suffer from myopia, and while we know the retina senses defocus, we do not know how. The knowledge gained through this project will help the development of pharmaceuticals to control myopia and of developmental practices that minimise the chances of children becoming myopic.

Funding for 2011-14: \$255,000.

- Discovery Projects: The University of Melbourne Project years: 2012-2014

This project seeks to reveal the fundamental circuitry of the visual cortex that enables visual perception. Such understanding is essential not only for explaining many perceptual disturbances, but also for providing a neuronal basis for developing functionally useful prostheses for the blind.

Funding for 2011-14: \$290,000

- Discovery Projects: The University of Melbourne Project years: 2014-2016

Australia has a rapidly ageing population. This project will study how ageing affects the visual perception of objects presented on non-uniform backgrounds. Our ability to discriminate objects from their backgrounds is key to most natural visual tasks. The visual processes involved are known as centre-surround interactions, and are considered fundamental building blocks to human perception. This project will significantly advance our knowledge of which spatial visual mechanisms are altered due to age, supplying key information for understanding and improving visual environments for the elderly, as well as increasing knowledge of the brain mechanisms susceptible to the ageing process.

Funding for 2011-14: \$107,000.

- Discovery Projects: Queensland University of Technology Project years: 2014-2016

The ability to image the retina of the human eye at high resolution is fundamental to improving understanding of ocular physiology, ocular optics and disease diagnosis. This project applies the relatively new application of active optics to vision science. This project will investigate the advantages of using new beam shaping techniques for characterising the optics of the eye, improving retinal imagery and improving fixation stability. This project will achieve three-dimensional holography of human eyes and develop holography plates for correcting the aberrations of eyes. Expected outcomes are not-before experienced resolution images of the retina and better understanding of the optical characteristics of the refractive surfaces and media in the eye.

Funding for 2011-14: \$150,000.

- Future Fellowships: The University of Melbourne Project years: 2009-2013

Australia has an ageing population. Even the healthiest older individuals undergo some deterioration of vision and hearing; however, these senses are almost invariably studied in isolation. The real world

is multisensory. This project will enhance our knowledge of how ageing impacts on the interpretation of visual and auditory information regarding the timing and location of objects – essential precursors to many real world tasks, for example: driving, interpreting speech, and hazard avoidance. This knowledge is essential for the optimisation of audio-visual environments for the elderly, and for the development of tools to improve performance in the presence of sensory decline due to age-related eye disease.

Funding for 2011-14: \$429,000.

- Future Fellowships: The University of Melbourne Project years: 2009-2013

Losing sight has a profound effect on a person's quality of life. Advances in devices that monitor vision have not been matched by advances in computer software that analyse data from those devices. This project will combine computer science, visual neuroscience and clinical expertise to devise algorithms and build software that will vastly improve clinician's abilities to diagnose and monitor vision loss. In turn, this will dramatically improve the chances of those with diseases such as glaucoma to preserve their sight into old age. Furthermore, outcomes from this project will inform the development of bionic eye technologies, which will assist those with eye diseases such as retinitis pigmentosa and age-related macular degeneration to see.

Funding for 2011-14: \$493,000.

- Future Fellowships: University of Wollongong Project years: 2011-2015

Presbyopia and cataract are the major causes of visual impairment worldwide. Nevertheless, our understanding of lens ageing at both a cellular and molecular level is limited. This project will gain new insight into the effect of age on lens membrane lipids and their role in the development of presbyopia and cataract.

Funding for 2011-14: \$620,449.

- Future Fellowships: The University of Melbourne Project years: 2012-2016

Glaucoma is the second leading cause of irreversible vision loss in elderly Australians, although determining treatment failure is currently very difficult. This project will radically improve the measurement of glaucoma progression and treatment failure. We will also address fundamental questions regarding how glaucoma destroys vision.

Funding for 2011-14: \$446,580.

- Future Fellowships: The University of Melbourne Project years: 2013-2017

Neurovascular uncoupling occurs when blood supply and energy production is no longer responsive to the metabolic of nervous tissue. Neurovascular uncoupling is thought to be a key mechanism in the development of debilitating neurodegenerative diseases such as Alzheimer's disease and glaucoma. This project will be the first study to develop, validate and employ a comprehensive suite to simultaneously image blood flow, oxygen saturation, metabolic activity and retinal function to understand neurovascular uncoupling in ageing and age-related neurodegeneration.

Funding for 2011-14: \$283,221.

- Future Fellowships: The Flinders University of South Australia Project years: 2013-2017

Endothelial cells line the blood vessels of the vascular networks that circulate blood through the tissues. The molecular constitution of each endothelial cell is different and specific to function, but may predispose to tissue-specific disease. Retinal endothelial cells ensure the nutrition and protection of a tissue critical to vision, but are key participants in retinal ischemic, inflammatory and infectious diseases that threaten vision. This project will investigate molecular activities of retinal endothelial cells that are relevant to retinal disease processes and explore future biological therapies directed against the human retinal endothelial cell that address efficacy and safety deficiencies of current treatments.

Funding for 2011-14: \$355,929.

- Future Fellowships: Queensland Institute of Medical Research Project years: 2013-2017

The project will improve our understanding of the genetic component of common complex diseases such as cancer. Identification of genetic variants underlying disease risk is currently one of the primary means for increasing our understanding of the biochemical and developmental pathways involved. Genetic studies rely on sophisticated statistical and computational (bioinformatics) techniques. This project centres on the development, refinement and application of novel statistical analysis methods in genetics. Future advances in statistical and computational methods are essential if we are to exploit the large volumes of genome data now being generated to help develop diagnostics and interventions to improve public health.

Funding for 2011-14: \$325,690.

- Linkage Projects: University of Wollongong Project years: 2009-2011

Lipids provide a critical layer in the human tear film that retards evaporation and helps nourish and protect the eye. We will identify the molecules within this essential "oil slick" to better understand dry eye syndrome and the discomfort associated with wearing contact lenses. This may lead to new treatments for dry eye and novel technologies that provide greater comfort for the ~120,000 Australians who wear contact lenses. This collaborative research directly supported the mission of a respected non-profit organisation (Institute for Eye Research) and will train scientists in world-leading analytical technologies that are essential to Australia's emerging biotechnology industries.

Funding for 2011-14: \$101,000.

- Linkage Projects: Queensland University of Technology Project years: 2009-2012

Pedestrian and cyclist fatalities are a major road safety problem, accounting for a third of road fatalities at an estimated cost of \$2.5 billion/year. Late recognition of pedestrians and cyclists by drivers is the main reason for these collisions. We have shown that innovative visibility designs which involve strategic placement of reflective markers on the moveable joints can greatly enhance visibility and hence safety of these vulnerable road users. We will extend this research to incorporate evaluation of these visibility solutions in real-world environments and encourage the widespread use of these designs in the real-world through education and policy change.

Funding for 2011-14: \$171,551.

- Linkage Projects: RMIT University Project years: 2010-2012

Australian demographic studies show that visual impairment contributes significantly to elderly disability. Visual field loss due to glaucoma, the second leading cause of blindness in developed nations and may be slowed if detected early, but recent studies estimated 50% of Australians with glaucoma are undiagnosed. The fast and effective approaches to measuring visual fields discovered in this project will allow more accurate diagnosis and monitoring of vision loss; crucial for the ARC's priority goals of "ageing well, ageing productively" and "preventative health care". Developing smart algorithms in conjunction with Heidelberg Engineering created an opportunity for the international promotion of Australia's biomedical software capabilities.

Funding for 2011-14: \$98,603.

- Linkage Projects: The University of New South Wales Project years: 2010-2012

Development of innovative OK lens designs to correct presbyopia and astigmatism, optimised for visual performance through manipulation of optical aberrations, will place Australian rigid contact lens manufacturing at the international forefront of OK lens production. Lens designs to control myopia progression will strategically position Australian lens manufacturing to capitalise on the potential market in Asia, where myopia is prevalent. Significant intellectual property will be generated for Australia through greater understanding of OK lens design manipulation to optimise visual outcomes. This project promised to enhance the international reputation of UNSW researchers, keeping Australian science at the forefront of this research area.

Funding for 2011-14: \$339,000.

- Linkage Projects: Queensland University of Technology Project years: 2010-2012

Refractive errors such as short-sightedness, long-sightedness or presbyopia (age related decline in near vision) are the leading causes of visual impairment in the world. Of these, presbyopia affects almost 100% of the population above 45 years of age. This represents over 40% of all Australians. Although spectacles provide a safe and easy means of correcting refractive errors, they affect quality of life due to distorted vision, discomfort such as head and neck ache and cosmetic effects. The goals of the project are to better understand the visual performance of young and old people who wear glasses and to develop improved spectacle lens designs to provide clear and comfortable vision over a range of distances.

Funding for 2011-14: \$160,364.

- Linkage Projects: The University of Melbourne Project years: 2010-2014

Reducing the public health burden of diabetes and diabetic retinopathy for non-English speaking Australians is a major challenge for health care providers, researchers, and health policy makers. In addition to improving self-care, eye health, and quality of life, this intervention has considerable potential to deliver substantial savings to the Australian community. It will also provide a novel and valid diabetes management programme and contribute to future health policies related to personnel, resources and funding allocated to diabetes, eye care, and rehabilitation. This project will raise the skill of existing diabetes educators and serve to generate closer coordination of care between tertiary eye care services and primary care settings.

Funding for 2011-14: \$317,100.

- Linkage Projects: The University of New South Wales Project years: 2011-2014

Contamination of contact lens cases is now recognised as a major risk factor driving the incidence of corneal infections during contact lens wear. This project will develop novel antimicrobial materials for manufacture of lens cases for the prevention of infections associated with contact lens wear. Funding for 2011-14: \$290,000.

- Linkage Projects: The University of Melbourne Project years: 2013-2016

This project will make vision tests more accurate and faster by using a person's individual eye anatomy to customise the test. The basic understandings discovered in this project are expected to be applied in clinical and research settings thus saving sight, dollars and time. Funding for 2011-14: \$106,500.

- Linkage Projects: The University of New South Wales Project years: 2013-2016

Corneal refractive reshaping is a contact lens-based technique that moulds the front surface of the eye to correct refractive errors. The corneal reshaping process is slow, making research in this area inefficient. This project will reshape the front surface of large diameter rigid lenses, allowing immediate evaluation of optical outcomes. Funding for 2011-14: \$180,812.

- Linkage Projects: The University of New South Wales Project years: 2014-2017

The tear film lipid layer covers the eye, stabilises the tears and prevents their evaporation. Yet its structure, function and composition are yet to be fully elucidated. The aim of this project is to fully characterise the unique lipids in this layer, the long-chain omega-hydroxy fatty acids (not found elsewhere in the body), and to determine their role in its structure and function. The project is significant because the unique combination of skills of the CIs and PIs (synthetic chemistry, mass spectrometry, lipidomics, biochemistry, biophysics) will result in a major shift in our understanding of this layer and production of high impact publications in a variety of disciplines (chemistry, biochemistry, vision science). Funding for 2011-14: \$75,000.

### **Action Area: Eye Research Workforce Development**

National Health and Medical Research Council (NHMRC)

NHMRC offered a range of fellowships to support researchers early in their career to those late in their career. A researcher working in the field of eye research was able to apply for a fellowship for which they are eligible. Research funded to date has focused on improving outcomes for vision impaired people by integrating psychosocial care into low vision rehabilitation services and improving treatments for blinding retinal diseases. From 2011-2014, NHMRC awarded 25 fellowships with a focus on eye research totalling \$9.5million.

### **Action Area: Knowledge Transfer**

National Health and Medical Research Council (NHMRC)

The Translating Research into Practice Fellowship scheme supports researchers to translate established evidence into practice. This may be through policy development or implementing

changes to health care or health systems. In 2012, NHMRC awarded one fellowship for the funding amount of \$147,575.

### Communicable Disease Network Australia National Trachoma Guidelines

The Communicable Disease Network Australia National Trachoma Guidelines<sup>7</sup>, updated in 2013 and published in early 2014, provide the evidence base and policy framework for coordinated, community-based activities towards eliminating blinding trachoma in Australia and adapt the WHO SAFE strategy for trachoma elimination to the Australian context. The Guidelines focus on the community-wide programmes required to control and eliminate blinding trachoma in Australia by 2020.

#### ***Example of a successful initiative – NHMRC***

##### ***Translating Research into Practice Fellowship***

In 2012 the NHMRC Translating Research into Practice (TRIP) Fellowship was awarded to Dr Gwyneth Rees from the Centre for Eye Research Australia. Working with Vision Australia, Dr Rees implemented and evaluated a problem solving therapy for people with low vision experiencing symptoms of depression.

The outcome from her research demonstrated that when delivered to low vision clients, the problem solving therapy was well received and showed promising preliminary evidence for:

- a. decreasing depressive symptoms;
- b. improving quality of life; and
- c. improved the uptake of other low vision rehabilitation services.

Further studies on a larger sample size are required to confirm these client outcomes are reproducible, sustainable and the programme is cost-effective.

### **Action Area:                      Eye Health Data**

#### **National Eye Health Survey**

In June 2014, the Commonwealth approved funding of \$1.126 million towards the development of a National Eye Health Survey (NEHS). Data captured from the survey will be used to report against the indicators in the WHO Global Action Plan (Universal Eye Health Global Action Plan 2014-19). Funding was provided to Vision 2020 Australia, which engaged the Centre for Eye Health Research Australia to manage the survey, which will be undertaken in 2015-16.

#### **National Trachoma Surveillance and Reporting unit (NTRSU)**

As part of Australia's commitment to the World Health Organization's (WHO) Global Elimination of Trachoma by 2020<sup>8</sup>, the Commonwealth is required to collect data about trachoma prevalence. To meet this commitment the Commonwealth funded the NTRSU managed by the Kirby Institute, University of NSW, from December 2010 - 30 June 2014 to provide regular surveillance and reporting of trachoma prevalence, using data provided by state and territory governments. A total of \$745,000 was funded from 2011-12 to 2013-14.

<sup>7</sup> [Guidelines for the public health management of trachoma in Australia](#)

<sup>8</sup> [World Health Organization Prevention of Blindness and Visual Impairment](#)

The Kirby Institute prepares a report annually, the Australian Trachoma Surveillance Report<sup>9</sup>, which provides an analysis and report on how Australia is tracking with regard to the aim of achieving global elimination of trachoma by 2020. There has been a significant decrease in trachoma prevalence in 5-9 year olds in screened communities from 14% in 2009 to 4% in 2013 (repeated from KAA1 p.3). The Aboriginal and Torres Strait Islander Health Organisations Online Services Reports<sup>10</sup> provide an overview of 260 Commonwealth-funded organisations that aim to improve health outcomes for Aboriginal and Torres Strait Islander people. The reports present findings from the annual data collection on health services and activities provided, clients seen, staffing levels and challenges faced by these organisations. These reports include data on primary health-care organisations offering access to optometrists and ophthalmologists.

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<sup>9</sup> [Trachoma Surveillance Reports](#)

<sup>10</sup> [Aboriginal and Torres Strait Islander health organisations: Online Services Report – key results 2012-2013](#)

## Jurisdictional update – New South Wales

### *Key Area for Action 1: Reducing the risk*

#### **Action Area: Raising Public Awareness**

##### Health Protection NSW

Promoting facial cleanliness is a major component of the SAFE<sup>11</sup> strategy, recognising that the presence of nasal and ocular discharge is significantly associated with the risk for both acquiring and transmitting trachoma. All children in the NSW Trachoma Screening Project target group, including those who had not consented to screening, were educated on the importance of keeping their faces clean. “The Trachoma Story Kit” designed by the Indigenous Eye Health Unit at the University of Melbourne was used to promote the message of “clean faces, strong eyes”.

##### Central Coast Local Health District

The Central Coast Health Promotion Service had a number of projects that aimed to address lifestyle risk factors (such as smoking, poor nutrition, excessive alcohol consumption and lack of physical activity) that may contribute to eye disease. These include Go4Fun, Crunch and Sip and Munch and Move for children; and for adults the Get Healthy Information and Coaching Service, the Active and Healthy programme and the Healthy Eating and Active Living programme. The Service worked with partners on projects to encourage physical activity and healthy eating in many settings: schools, early childhood services, built environments, workplaces, home and community settings. These partnerships built knowledge and ability, and encouraged supportive environments, with projects tailored to meet specific populations where appropriate.

##### Far West Local Health District

Far West Local Health District (LHD) initiatives for promotion and prevention to reduce the risk of diabetes included World Diabetes Day health promotion each year.

#### **Action Area: Maternal and Child Health**

##### NSW Kids and Families

The resource ‘Having a Baby’ contains key health messages promoting good practice eye care for expectant parents and parents of newborns. This resource was managed by NSW Kids and Families and was reviewed in 2012. For expectant parents, there is information and guidance about infections that may affect baby’s eyesight or eye health including rubella, cytomegalovirus, toxoplasmosis, syphilis, chlamydia and gonorrhoea. For parents of newborns, there is information about ‘sticky eyes’ a common eye problem in newborns.

##### Western NSW Local Health District

In 2013-14, the Healthy Kids Bus Stop Project (HKBS) was a community-based integrated care partnership between Royal Far West, Western NSW Local Health District, Western NSW & Far West

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<sup>11</sup> SAFE stands for Surgery for trichiasis (inturned eyelashes), Antibiotics, Facial cleanliness and Environmental improvement. See glossary for further details.

Medicare Locals, and Ronald McDonald House Charities to address the gaps in child health needs in rural NSW. It provided a comprehensive 'whole of child' health assessment based on the blue book utilising multidisciplinary staff from partner agencies and a coordinated pathway to care for children and their family. This process also included the eye health assessment and opportunistic health promotion discussion with parent and carer on any identified issues. This programme was conducted in Warren, Cobar, Bourke, Brewarrina, Coonamble and Gulargambone in 2014 and continues in 2015.

### Murrumbidgee Local Health District

During each routine Child Health Check as per the NSW Health Child Personal Health Record (PHR), the Child and Family Health Nurse (CFHN) discussed age-appropriate eye health topics. The Parental Evaluation Developmental Screen (PEDS) list of questions in the PHR act as cues for parents regarding areas they would like further information on. This resulted in the nurse being able to provide health education and information which was individualised and meaningful. For example: an understanding of visual developmental milestones; sun exposure and sun glasses; eye safety and injury prevention; and promotion of the Statewide Eyesight Pre-schooler Screening (StEPS) programme to ensure that all four year old children were offered a free vision screen.

### Illawarra Shoalhaven Local Health District (ISLHD)

Regular screening for vision issues was undertaken for newborns across ISLHD.

### Hunter New England Local Health District

In the Neonatal Screening programme, all ex-preterm infants less than 32 weeks old were reviewed at 31 weeks or 28 days for retinopathy of prematurity, with infants screened every two weeks. This screening was done using either paediatric ophthalmology services or Retcam services, both available locally.

## Action Area: People with Diabetes

### Sydney Local Health District

A fundamental part of the clinical practice at the Royal Prince Alfred Hospital Diabetes Centre included assisting diabetic patients in managing modifiable risk factors:

- optimising glycaemic control;
- managing blood pressure to assist in the reduction of macular oedema;
- using the medication fenofibrate, as the FIELD<sup>12</sup> study showed that there was some evidence for the beneficial effect of this medication;
- educating the person with diabetes about the need for annual eye assessments; and
- reporting to GPs about the management and follow-up required if a person has evidence of retinopathy.

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<sup>12</sup> The Fenofibrate Intervention and Event Lowering in Diabetes (FIELD) study on the [effects of long-term fenofibrate therapy on cardiovascular events in 9795 people with type 2 diabetes mellitus](#) - a double-blind, placebo-controlled trial done in 63 centres in Australia, New Zealand, and Finland between February 1998 and November 2000, published 2005

All patients attending the diabetes clinics have a formal fundoscopic examination. This may encompass an ophthalmoscopic examination followed by a formal examination by an optometrist or ophthalmologist in private practice. The Concord Hospital Ophthalmology Department reviewed patients with established diabetic eye disease and treated accordingly with laser or other interventions. Diabetes nurse educators, endocrinologists and registrars questioned and reviewed patients. The Department of Endocrinology and Metabolism also maintained strong links with its Concord GP Seminars as well as holding collaborative Continuing Medical Education sessions with the Inner West Medicare Locals, where, if the topic was that of diabetes, the importance of screening for eye disease was emphasised. The Department also developed a screening and complication sheet for clinic patients which included a section where the patient's funduscopy checks were recorded. Diabetes clinics were medically led, with nursing, dietetic and exercise physiology input, and addressed a range of modifiable risk factors for eye disease apart from glycaemia, including hypertension, dyslipidaemia and smoking.

## Central Coast Local Health District (CCLHD)

### **Anaesthesia Surgery and Intensive Care Division**

CCLHD treated high risk groups with chronic disease in the acute setting. Medical specialists and their teams use episodes of care to make cross referrals for eye examinations if these had been missed. (eg. retinal examinations for diabetic retinopathy). They also used episodes of care to reinforce changes in lifestyle-related risk factors like smoking. Perinatal management was undertaken in keeping with best practice to reduce communicable eye diseases.

### **Diabetes Service**

In 2013, Diabetes Services staff at CCLHD developed and implemented a care plan for people on the Severe and Chronic Disease Management Program. Consultation was sought with the GP Collaboration Unit whilst developing the care plan. The care plan recommended that people with Diabetes have their eyes checked every two years in accordance with NHMRC guidelines for the Management of Diabetic Retinopathy 2008.<sup>13</sup>

Furthermore, the care plan advised people with diabetes on targets for modifiable risk factors such as blood pressure, cholesterol, smoking, alcohol intake, weight, nutrition, blood glucose and HbA1c. The care plan was provided to people with diabetes and their GP and kept in the client's medical record. The care plan was provided to over 1,500 people with diabetes in the Central Coast NSW. People on the Severe and Chronic Disease Management Program were reminded at each intervention - usually every 6-12 months - of the care plan and the need for eye screening.<sup>14</sup>

## Murrumbidgee Local Health District

Credentialed Diabetes Educator Nurses provided education on the management of blood glucose levels in relation to complications that may result from hyperglycaemia. It was routine to discuss the complications of diabetes, eye disease retinopathy, cataracts and glaucoma during an education session individually or in a group setting. The Murrumbidgee Local Health District Diabetes services

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<sup>13</sup> [National Health and Medical Research Council, \*Guidelines for the Management of Diabetic Retinopathy\* Canberra: NHMRC, 2008, available online](#)

<sup>14</sup> *Ibid.*

developed a Diabetes Education Checklist client form to record when sessions relating to Diabetes risks and complications were delivered.

Hunter New England Local Health District

### **Moree Health Service**

Diabetes educators targeted the importance of good control of diabetes to reduce the chances of eye sight decline with disease.

### **Werris Creek**

The introduction of multidisciplinary clinics for Aboriginal people with diabetes raised awareness about early detection of eye complications. Patients with diabetes were provided with written and verbal information regarding diabetes screening. Follow up of patients was undertaken to determine if the appointment had occurred and the outcome of the consultation.

### **Greater Newcastle Diabetes Service**

The adult diabetes education (individual and group education programmes) and diabetes medical clinics covered risk and progression of diabetic retinopathy and other ophthalmological effects with all patients. The importance of ensuring blood glucose levels, blood pressure, weight and serum lipids were monitored and controlled was reiterated by all members of the multidisciplinary team. The most recent screening results and biochemistry results were sought from GPs who referred patients to the diabetes services. Screening for diabetic retinopathy was conducted annually or biannually, depending on their risk category.

Illawarra Shoalhaven Local Health District (ISLHD)

Vision screening was included as a part of the assessment process for patients attending the Illawarra Diabetes Service. Patients were recommended to have regular eye check-ups. Referrals were made to specialist eye care services as required.

Far West Local Health District

Initiatives for promotion and prevention to reduce the risk included diabetic educators providing complimentary screening, and patients were reviewed by Optometrists annually.

## **Action Area: Eye Injury Prevention**

Hunter New England Local Health District

### **Armidale Community Health Centre - Aged and Chronic Care**

The service aimed to build community and consumer partnerships to create positive and sustainable changes through lifestyle and health care modification. Holistic assessment by the Transitional Nurse Practitioner included visual assessment. It was an opportunity for clients with vision loss to discuss problems such as higher falls risk, impaired ability to drive, reduction in ability to participate in meaningful activities, and higher risks of medication errors as well as reduced general independence with day to day living activities. Assessment of medication errors due to visual impairment was

essential in order to prevent over/under dosing or hospital admission and has led to the initiation of alternate strategies (e.g. Webster pack/ occupational therapy for home modifications/ Aged Care Assessment Team (ACAT) referral) in several cases.

### Illawarra Shoalhaven Local Health District (ISLHD)

Patients were screened for vision problems during the Stepping On falls prevention programme. Patients were recommended to have regular eye check-ups. Referrals were made to specialist eye care services as required.

ISLHD conducted regular ophthalmology clinics throughout ISLHD which assessed and managed risk factors relating to eye disease and injury. ISLHD emergency departments referred to the Emergency Eye Manual developed through the NSW Agency for Clinical Innovation.

### Far West Local Health District

Initiatives for promotion and prevention to reduce the risk of eye disease were provided through the Chronic Disease Management Program. Initiatives included assessment and education on eye health, eye protection from injury and/ or environmental hazards such as ultraviolet light and dust, and wearing of prescribed glasses.

## **Action Area: Research**

### Health Protection NSW

Prior to the commencement of the NSW Trachoma Screening Project in 2013 (as part of the Commonwealth funded initiative), there had been no widespread systematic surveys for trachoma in NSW. It was unclear whether trachoma was still a problem in some remote NSW communities. The aim of the NSW Trachoma Screening Project was to identify whether there was evidence of trachoma amongst Aboriginal children living in rural and remote parts of NSW, and map its prevalence. A one-off school-based screening programme was funded for ten sites across north western NSW in 2012-13. The sites were Brewarrina, Enngonia, Weilmoringle, Condobolin, Peak Hill, Cobar, Broken Hill, Menindee, Wilcannia and Dareton.

The project primarily targeted Aboriginal children, aged 5-9 years. The project was continued in 2013-14 to expand screening services and include ten additional rural and remote communities potentially at risk of trachoma.

2013 Screening results included the following:

- A total of 613 Aboriginal children, aged between 5 and 9 years were seen and assessed for facial cleanliness. 96% of these children had clean faces.
- A total of 575 Aboriginal children had their eyes screened. This equated to a population screening coverage in the 5-9 year old age group of 73%.
- No evidence of active trachoma was found in nine out of the ten communities screened. The prevalence of trachoma in children aged 5-9 years screened in the affected community was 6%.

2014 Screening results included the following:

- A total of 198 Aboriginal children, aged between 5 and 9 years were seen and assessed for facial cleanliness. 99% of these children had clean faces.
- A total of 188 Aboriginal children aged 5 to 9 years had their eyes screened. This equated to a population screening coverage in the 5-9 year old age group of 59%.
- No evidence of active trachoma was found in any of the 10 communities.

### **Key Area for Action 2: Increasing early detection**

#### **Action Area: Public Awareness**

Central Coast Local Health District

#### **Health Promotion and Population Health Improvement Division**

The Central Coast Health Promotion Service addressed the importance of early detection of eye health problems through its presentations on 'Falls Prevention/Healthy Active Ageing' to senior groups on the Central Coast.

During this period over 50 presentations were delivered involving over 2,000 participants aged 65+ years. Topics covered included the need for regular eye checks, importance of good nutrition and discussion of early sign of cataracts and macular degeneration and its effects on falls and the need for early treatment. The Amsler Grid was explained and was given to each person to take home. Additional presentations were given to health professionals who work in the area of falls, and vision and early detection was addressed.

#### **Diabetes Service**

People on the Severe and Chronic Disease Management Program were reminded of the care plan and about the need for eye screening at each intervention, usually every 6-12 months (refer details in Key Action Area 1).

Hunter New England Local Health District

*Manilla area:* Local media was used to inform the public of the availability of retinal photography, Optical coherence tomography (OCT)<sup>15</sup>, intraocular pressure and other services.

#### **Action Area: Primary Health Care**

Hunter New England Local Health District

#### **Manilla HealthOne**

Many cases of patients with glaucoma were detected and referred on for further treatment.

South East Sydney Local Health District - Prince of Wales Hospital (SES LHD/POWH)

Early detection of preventable blinding eye diseases (glaucoma, diabetic retinopathy, macular degeneration) occurred by utilising and upskilling community eye health practitioners

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<sup>15</sup> Optical coherence tomography (OCT) is a non-invasive imaging test that uses light waves to take cross-section pictures of your retina.

(optometrists), and providing diagnostic services at the Centre for Eye Health (POWH consulting ophthalmologists).

### Illawarra Shoalhaven Local Health District (ISLHD)

The ISLHD Primary Health Nursing service screened all patients for vision problems. Patients were recommended to have regular eye check-ups. Referrals were made to specialist eye care services as required.

### Central Coast Local Health District (CCLHD)

#### **Allied Health**

Speech Pathologists assisted in the preservation of vision and prevention of vision loss via referral to the CCLHD Orthoptist, for paediatric clients who were observed or suspected during therapy to have visual difficulties. Adult clients, particularly inpatients, who sustained a cerebrovascular accident and may have presented with visual neglect or visual difficulties were also seen by the Speech Pathologist.

Speech Pathologists contributed to Aboriginal and Torres Strait Islander screening programmes as part of the multi-disciplinary team for prevention of blindness in the diabetic population, via provision of safe oral intake for patients with dysphagia (which can in turn impact blood sugar levels and overall medical instability).

### Far West Local Health District

Initiatives for increasing early detection included:

- Chronic Disease Management Program involved comprehensive assessment including questions on vision and referral process for any vision problems identified through assessment;
- quickscreen Falls Risk assessment was included in the comprehensive assessment and referral process for identified eye issues; and
- referral to Optometrist annually for review.

#### **Action Area: People with Diabetes**

### Murrumbidgee Local Health District

Clients with type 1 diabetes were informed to have an eye health check with an Optometrist annually, while clients with type 2 diabetes were recommended to have one every two years. Wearing of appropriate eye protection, such as 'sunglasses', was also discussed to prevent eye damage. Parents of children with diabetes were encouraged to provide appropriate eye wear for their children with diabetes and/or siblings when outdoors.

### Hunter New England Local Health District

#### **Manilla HealthOne**

Screening by the HealthOne Optometrist led to early detection of eye disease in people with diabetes and at risk of 'wet' age related macular disease.

## **Greater Newcastle Diabetes Service**

From January 2014, an Orthoptist attended the weekly Young People's Clinic which targets patients with diabetes aged 18-30 years. Patients who had not had retinal screening within the recommended period were offered on the spot assessment using a non-mydratic camera, while attending a regular clinic appointment. The results of this screening were immediately available for the consultant to discuss with the patient, and treatment options could be explained. If further assessments were indicated, these could be discussed and referrals made, if appropriate.

## **Sydney Local Health District**

Interventions that were applied at the Royal Prince Alfred Diabetes Centre included:

- universal eye screening for patients;
- a new retinal camera to detect and record retinopathy status. In addition to its clinical utility, the camera proved to be a highly successful education tool as patients could see photographs of their fundus and any abnormalities that may be present; and
- a collaborative research programme with an RPA ophthalmologist.

## **Far West Local Health District**

Initiatives for increasing early detection included diabetes educators referring clients for one to two yearly checks to Optometrists for complication screening, early detection and treatment of retinopathy, and promoting optimal health outcomes.

## **Agency for Clinical Innovation (ACI) Ophthalmology Network**

### **The Stroke & Vision Defects Study:**

The goal of the study was to facilitate rehabilitation and recovery for patients with stroke by detecting both acquired and long standing vision defects using a screening tool developed by Orthoptists for use by any clinician caring for patients who had suffered a stroke. The Study reported in July 2008 and recommended that 'increased attention is paid to the detection of ocular conditions as part of the acute stroke management process.'

In 2009 an Australia wide working group comprising orthoptists and stroke nurses under the auspices of the Ophthalmology Network commenced the design work for a vision screening tool using examples from national and international literature and individual contacts. The Tool went through many iterations, was tested and results were presented at a professional conference in 2012. In 2013, the Ophthalmology Network in collaboration with the University of Sydney, agreed to fund a small project (totalling \$5,500) over twelve months to validate the Tool. Ethics approval, data collection and analysis were undertaken by a research Orthoptist as a Master's project.

The Tool was approved and printed as a state-wide form for insertion in the patient's medical record in March 2014. Though patient recruitment was due to commence in March 2014, the study was delayed until August 2014 when final site specific approval was granted.

## Illawarra Shoalhaven Local Health District (ISLHD)

Vision screening was included as part of the assessment process for patients attending the ISLHD Illawarra Diabetes Service. Patients were recommended to have regular eye check-ups. Referrals were made to specialist eye care services as required.

### Action Area: Childhood Screening

#### NSW Kids and Families

The StEPS programme<sup>16</sup> was an initiative of NSW Health offering all 4 year old children free vision screening. NSW Health advised that all children should have their vision screened before they started school and strongly recommended that all 4 year old children participate in the vision screening programme. As part of the StEPS programme, parents/carers were each given a letter offering their child a StEPS vision screen and StEPS flyer with programme information. (This was handed out to preschool and day care facilities).

StEPS coordinators, responsible for the coordination of StEPS within their respective Local Health Districts, undertook health promotion activities throughout the year, including pre-school orientation to further promote the StEPS programme. StEPS information is also available through the [NSW Kids and Families website](#). The Multicultural Health Communications Service also provides information in 26 different languages. The brochures can be found at the [Multicultural Health Communications Service](#) website.

The Child and Family Health service provided child health checks, which were recorded in the NSW Personal Health Record (blue book). The Personal Health Record was managed by NSW Kids and Families and was last reviewed in 2013, and recommends an eye examination at the newborn health check (general observation including red reflex) and vision surveillance at the 1-4 weeks, 6-8 weeks, six months, 12 months, 18 months, two years and three years child health checks.

Each health check was preceded by a checklist for parents and carers to complete prior to seeing the nurse or doctor. These questions were designed to prompt parents and carers to consider how their child is developing in relation to expected development and physical milestones. For example:

Q: Are you concerned with your baby's vision? (1-4 week check); and

Q: Have you noticed if one or both of your baby's pupils are white? (6-8 week check).

A monocular visual acuity screen with an assessment could be completed at the four year child health check or alternatively completed through the StEPS programme, with one account reported on in the media - *Manly Daily* on 4 March 2014.

In 2013, of the 74,994 children that were screened, 30.4% were screened in rural and regional local health districts (LHDs) and 69.6% in metropolitan LHDs. The number of four year olds screened in regional and rural LHDs has steadily increased since the implementation of the programme and now matches the proportion of estimated four year olds living in metropolitan and rural and regional LHDs<sup>17</sup> (70:30). This demonstrates an equitable delivery of the StEPS programme across NSW<sup>18</sup>.

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<sup>16</sup> [Vision screening in pre-schoolers: the New South Wales Statewide Eyesight Preschooler Screening program](#)

<sup>17</sup> Four year old population estimates sourced from Health Statistics NSW for 2014 with adjustments by the Centre for Epidemiology and Evidence, Ministry of Health, NSW.

<sup>18</sup> It must be noted that StEPS is delivered by individual LHDs and performance may vary from one LHD to another.

There has also been an increase in the proportion of Aboriginal children screened through the programme from 3.7% to 8.5%. (2011-2013)<sup>19</sup>.

### Statewide Eyesight Preschool Screening (StEPS) Programme: Screenings 2011-2013

Calendar Year	Screened	Percentage of four year old population <sup>20</sup>	Referred for further assessment <sup>21</sup>	Identified as Aboriginal, Torres Strait Islander or both Aboriginal and Torres Strait Islander
2011	66,342	71.3%	9.7%	3.7%
2012	69,380	74.7%	10.2%	4.5%
2013	74,994	79.9%	9.5%	8.5%

### Health Protection NSW

Screening children for evidence of trachoma was undertaken according to the *Guidelines for the public health management of trachoma in Australia*. This included use of magnification hand lens and good lighting, observation for facial cleanliness, examination for trichiasis, examination for corneal opacities, examination of right upper eyelid and left upper eyelid including eversion of the eyelid and inspection of the conjunctiva and trachoma grading according to the WHO simplified trachoma grading classification system.

Screening in one of the communities identified three children with clinical signs of active trachoma. All cases and household contacts were treated with antibiotics within a two week period. The three cases were screened six months after treatment. All were found to be clear of active trachoma infection. The cases were screened again at 12 months as part of a repeat screening. The three children remained clear of active trachoma infection and no new cases of trachoma were identified.

This was an excellent result for the community, who in March 2013 had a trachoma prevalence rate of 6%. Following effective treatment and management, the trachoma prevalence rate dropped to 0% in 2014.

### Western NSW Local Health District

Child health checks conducted by Child and Family Health Nurses (CFHNs) were in line with the NSW Health – Child Personal Health Record minimum surveillance for infants and children at ages 0-5 years. CFHNs provided early childhood health surveillance services from at least 50 sites across Western NSW LHD. Child Health Checks included vision checks conducted at before-school checks and StEPS screening at four year universal screening.

<sup>19</sup> Data chosen was from 2010-2013 because LHDs began collecting and reporting Aboriginality more accurately from 2010 onwards.

<sup>20</sup> Four year old population estimates sourced from Health Statistics NSW for 2014 with adjustments by Centre for Epidemiology and Evidence, Ministry of Health, NSW

<sup>21</sup> This figure includes those that are referred due to unable to screen or complete screen, did not meet pass criteria (either general referral or high priority) or met pass criteria but had another finding (general referral).

## Murrumbidgee Local Health District

Child and Family Health Nurses undertook age appropriate vision surveillance according to the NSW Health Child Personal Health Record at the 1-4 week, 6-8 weeks, 6 months, 12 months, 18 months, two years, and three years child health checks, which included the Parental Evaluation Developmental Screen questions and a vision assessment using tests relevant to the developmental stage of the child. At the four year child health check, a monocular visual acuity screen was completed as part of the vision assessment with the aim of promptly referring any obvious disorders and detecting signs of reduced vision from conditions that may not be outwardly observable.

The Child and Family Health Nurse provided opportunistic vision surveillance outside the routine PHR age-related child health checks wherever possible when indicated. For example: parental concerns, clinician concerns, clients who had limited or sporadic contact with a health professional.

## Hunter New England Local Health District

### **Manilla area**

Premature infants born less than a pre-specified gestation were screened for proliferation of blood vessels at the back of the eye, with therapies to prevent detachment of the retina which would result in visual loss. Although there was a low rate of Retinopathy of Prematurity (ROP), the service managed to detect pre-threshold disease and treat effectively.

### **Neonatal Intensive Care Unit (NICU)**

Screening for advanced stage retinopathy in premature infants was undertaken, and referred for surgery, preventing ongoing visual loss. Screening measures were in line with evidence-based practice.

## Central Coast Local Health District (LHD)

Child and family health nurses completed the vision screen when they attended a four year developmental check. Orthoptists provided secondary vision assessment and attended early intervention preschools for vision screening. Vision screening was also undertaken at Young Black and Ready for School programmes.

## Far West Local Health District

### **Initiatives for promotion and prevention to reduce the risk**

In the area of child and family health, approximately 1% of children screened were referred to Optometrists for a secondary diagnostic screen resulting in the need for corrective lens or follow up. Feedback to referrer was not always received.

## **Key Area for Action 3: Improving access to eye health care services**

### **Action Area: Workforce Supply**

NSW Ministry of Health Workforce Planning and Development Branch

The Workforce Planning and Development Branch of the NSW Ministry of Health undertook workforce modelling for the ophthalmology workforce. The NSW Health Ophthalmology Factsheet<sup>22</sup> presented findings from the planning and analysis for this Medical Specialist workforce to 2025. The ophthalmology workforce was a moderate priority for workforce planning in NSW.

The NSW Rural Doctors Network (RDN) recruited two new Orthoptists to Broken Hill in Far West NSW. Link to NSW Rural Doctors Network (RDN): [NSW Rural Doctors Network \(RDN\)](#)

An orthoptics course continued to be offered in NSW at the University of Technology, Sydney as a Master of Orthoptics.

Hunter New England Local Health District

#### **Manilla HealthOne**

The eye clinic at Manilla HealthOne received students in Medicine and Optometry, to provide hands-on experience in ophthalmic primary care. This was a valuable rural experience which promoted rural practice.

#### **Aboriginal Health**

A new paediatric ophthalmologist was employed for surgical services in 2013.

Central Coast Local Health District (CCLHD)

#### **Anaesthesia Surgery and Intensive Care Division**

The CCLHD recruited suitable practitioners to replace two Visiting Medical Officer Ophthalmologists who retired from the public sector, and there was no increase in the specialist workforce. The service provision has been coping by implementing efficiency strategies. The CCLHD Clinical Service Plan noted that the eye specialist workforce will need to increase to match service provision requirements in the near future. A workforce analysis will be undertaken with the proposed redevelopment of Gosford and Wyong Hospitals.

A federally funded registrar position was in place for 12 months with success. Models of care for cataract management were implemented with a pooling of waiting lists. Waiting list management strategies have been implemented with success to achieve National Elective Surgery Targets (NEST) benchmarks year after year.

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<sup>22</sup> [Medical Workforce in NSW – Ophthalmology](#)

## **Action Area: Rural and Remote Communities**

South Eastern Sydney Local Health District/ Prince of Wales Hospital (SES LHD/ POWH) Outreach Eye Health services to remote/rural NSW settings were provided by the “Outback Eye Service (OES)”. It was operated from the POWH Department of Ophthalmology and served some of the most isolated and socially disadvantaged people in NSW. The OES aimed to initiate prompt, timely consulting and surgical services nearby to where people reside, and arranged transfer for treatment where the condition required it. The OES reached many patients with diabetes, and provided screening for early diabetic retinopathy as part of ongoing service provision that had been in place for many years and was ongoing during the reporting period.

Hunter New England Local Health District

### **Walcha**

Vision Care Australia visited Amaroo Aboriginal Land Council every two years, holding clinics on a 'needs be' basis (10 or more clients). Eye Care Optometry also held regular eye care clinics at Amaroo.

### **Health Protection NSW**

Trachoma primarily occurs in remote and very remote Aboriginal communities. A one-off school based screening programme was funded for ten sites across north western NSW in 2012-13 and included Brewarrina, Enngonia, Weilmoringle, Condobolin, Peak Hill, Cobar, Broken Hill, Menindee, Wilcannia and Dareton. The project primarily targeted Aboriginal children, aged 5-9 years; however older children and non-Aboriginal children were included in the smaller schools to support project participation and promote unity within the school community. The project was re-funded in 2013-14 to expand screening services to include ten additional rural and remote communities that were potentially at risk of trachoma.

Western NSW Local Health District

### **Bourke NSW**

A service agreement exists between Western NSW Local Health District and the Outback Eye Service from Prince of Wales Hospital in Sydney. The fly-in team provided consultation and surgical services for the population located across the northern sector of the Local Health District, the catchment including remote towns and villages from upper western NSW. Ophthalmology services and ophthalmic surgery were conducted in Bourke nine times per annum.

### **Mudgee NSW**

An outreach service from Dubbo was provided to Mudgee on a monthly basis. Ophthalmology and ophthalmic surgery was provided by an ophthalmology surgeon performing on average 7 cases per operating list. Patients were placed on the operating list via referral systems initiated through GPs and local Optometrists. The patients were operated on in a day surgery basis. Follow up of patients was organised through the surgeon's practice. The surgical procedures carried out included cataract surgery.

## **Cowra NSW**

Cataract extraction surgery was introduced at Cowra Health services in March 2011, and has treated 10 patients per month (120 per year) since the commencing. The first cataract list was in March 2011 and is now well established. Local GP anaesthetists and nursing staff completed training and after working with a visiting surgeon were competent in the delivery of this procedure.

### **Far West Local Health District**

Cataract surgery, pterygium removal, oculoplastic procedures and squint surgery were performed during the reporting period. GPs, the Royal Flying Doctor Service, remote area health services such as Maari Ma Aboriginal Health Service and all the local Optometrists referred to the service. These referrals were triaged by the eye registrar for an appointment with the appropriate consultant within the required timeframe. Patients were referred to a tertiary centre usually the Royal Adelaide Hospital (due to geography) when required. The Isolated Patient Travel and Accommodation Assistance Scheme (IPTAAS) team assisted in the process.

Public access to intra-vitreous injection clinics was provided for people who required an injection into the eye to treat disorders such as diabetic retinopathy and 'wet' macular degeneration. The demand for this service has increased; as in 2012, 393 injections were administered, which then increased to 720 injections in 2014. Laser treatment for retinal eye disease, diagnostic services such as fluorescein angiograms, visual field testing and many more were offered as required.

The eye registrar and the eye health nurse provided regular primary health screening clinics to the remote townships of Menindee, Wilcannia and to Maari Ma local Aboriginal Health service. These visits addressed any eye health issues but were predominantly diabetic eye reviews. A referral pathway for people to be referred to clinics in Broken Hill if required was developed. Recall systems were in place in these centres to ensure annual or biannual eye review appointments were made. Direct patient education about the importance of returning for review even without being symptomatic was undertaken and the importance of early detection was stressed.

Care was consumer focused, with the registrar triaging all referrals so that where possible people saw the appropriate consultant at their first visit which enabled correct treatment to begin as soon as possible. Follow up visits were also put onto appropriate specialist waiting lists to ensure all people were seeing the correct specialist. This was best for both the patients and for the efficiency of the clinic by not having people booked for the wrong specialist. For example, someone with a retinal issue being booked in to see a glaucoma specialist.

The region provided affordable eye care for all people as the clinics were run under the public health system. The remote clinic visits made eye care accessible to persons living in these areas so they didn't need to travel to a secondary centre at the first visit. If they then needed to travel to Broken Hill or on to a tertiary centre, there was assistance through the IPTAAS, which assisted with expenses. The IPTAAS also helped to arrange bookings for transport and accommodation.

## **Action Area: Access to Cataract Surgery**

Agency for Clinical Innovation (ACI) Surgical Services Taskforce

### **Cataract Surgery:**

The Surgical Services Taskforce (a taskforce of the ACI and the Ministry of Health) endorsed the *Waiting Time and Elective Surgery Policy* and *Advice for Referring and Treating Doctors – Waiting*

*Time and Elective Surgery Policy* in 2012. The Policy was developed to promote clinically appropriate, consistent and equitable management of elective surgery and waiting lists in public hospitals across NSW.

There are three 'ready for care' clinical priority categories:

- Category 1 – admission within 30 days;
- Category 2 – admission within 60 days; and
- Category 3 – admission within 365 days.

#### Western NSW Local Health District

Cataract extraction surgery was introduced at Cowra Health Services in March 2011 and has continued over the reporting period.

### **Action Area:      Affordability**

#### Sydney Local Health District

People with mental illness were seen in our metabolic clinics. These multidisciplinary and cross disciplinary clinics are unique in NSW and address all physical health issues including eye disease in this disadvantaged population.

All patients attending the RPA Diabetes Centre who required an eye assessment received this service independent of their insurance status, and the Centre also provided diabetes assessment services in the far west of NSW and in Dubbo via public clinics.

#### South Eastern Sydney Local Health District/ Prince of Wales Hospital (SES LHD/POWH)

In order to reduce the financial burden of access to care in the area, services were provided in the POWH eye clinic. Support for services was also provided through University of NSW School of Optometry and Vision Sciences, and the Centre for Eye Health.

#### Hunter New England Local Health District

##### **Manilla HealthOne**

The eye clinic worked closely with Vision Australia's subsidised spectacle scheme, to enable local affordable access to spectacles for those who otherwise would not afford them. The patients were bulk-billed. An agreement between Manning Base Hospital and Gloucester Hospital saw the number of people having cataract surgery at Gloucester Hospital increase. Waiting times for patients having cataract surgery also improved.

There were ongoing discussions with the ophthalmology surgeons in Newcastle regarding equity of access between sites. This led to improved access to ophthalmology surgery for patients in Newcastle and the Lower Hunter region. Another ophthalmologist was recruited at Tamworth hospital which improved access to ophthalmic surgeons.

## **Greater Newcastle Diabetes Service**

All diabetes patients were advised that retinal screening can be provided by Optometrists as well as ophthalmologists, and encouraged to utilise the Medicare covered Optometrist services if they did not regularly see an ophthalmologist.

## **Aboriginal Health**

Aboriginal people with diabetes and those attending who have a health care card received free glasses.

## **Far West Local Health District**

The eye services coordinated through Broken Hill Hospital Specialist Clinic provided the public with appropriate and affordable eye health care throughout the entire Far West Local Health District. The service provided included:

- a team of visiting ophthalmologists with most specialties included (retinal, glaucoma, paediatrics, cornea, oculoplastics and general ophthalmology);
- a resident ophthalmology registrar who was in Broken Hill for three out of four weeks;
- an eye health nurse coordinator; and
- a paediatric orthoptist who accompanied the paediatric ophthalmologist.

The consultants visited for three days a week in the weeks the registrar was in Broken Hill. There was an operating list on a Monday, followed by two clinic days consulting. In addition, via the Diabetes Educator, all clients had equitable access to an Optometrist (bulk billed) in Mildura or via the local Aboriginal Medical Service, and transport could be arranged if required.

## **Action Area: Cultural Accessibility**

### **NSW Ministry of Health Workforce Planning and Development Branch**

In relation to cultural accessibility, the NSW Ministry of Health developed mandatory training for all NSW Health staff titled 'Respecting the Difference', to ensure that all NSW Health staff had the necessary knowledge and skills to interact positively with Aboriginal and Torres Strait Islander people and communities in order to improve health care.

'Respecting the Difference' provided an innovative and flexible approach for local health districts and other public health organisations to tailor training to suit local needs. The training framework outlines nominal training requirements for all staff working in NSW Health which includes over 115,000 people. Locally, organisations may choose the most appropriate method to provide additional training. For example, the Central Coast Local Health District accessed cultural awareness programmes online, with the number of staff attending monitored and reported regularly.

### **Hunter New England Local Health District - Aboriginal Health**

Narrabri had four clinics a year while Wee Waa and Pilliga had two clinics each. Wee Waa and Pilliga clinics alternate with each Narrabri clinic date. Toomelah had two clinics a year.

To overcome a shortage of paediatric ophthalmologists, services used Retcam screening, reporting and reviewing images via Picture Archiving Communication System (PACS).

#### Central Coast Local Health District - Aboriginal Health Service:

Monthly eye clinics with an Optometrist were held for local Aboriginal and Torres Strait Islander community members. Eye health care included diagnosis of eye disease, eye examinations (including retinal photography) and prescription glasses or contact lenses.

### **Key Area for Action 4: Improving the systems and quality of care**

#### **Action Area: Service Integration**

##### Agency for Clinical Innovation (ACI) Ophthalmology Network

The *Framework for Eye Healthcare Services in NSW* – developed in 2013/14 by the ACI Ophthalmology Network. It presents a basis for the planning and development of comprehensive public eye services for the population in NSW. It was developed through consultation with clinicians, NSW Health staff, private providers and consumers and includes the areas of focus identified at the Ophthalmology Workshop in April 2014.

Patients, their carers and families all identified the importance of easily understandable pathways and support services. Access and equity, improving service availability, meeting future demand and improving safety and quality are the four main areas identified for consideration by Local Health Districts (LHD), Primary Health Care Networks, primary health care practitioners and other service providers when planning the development of eye services for their populations.

The key features of an effective eye health care service identified through the consultation include:

- patient centric and focussed on outcomes;
- is evidence based;
- prioritised the prevention of avoidable vision loss;
- utilisation of innovative models of care that are reviewed and updated to reflect introduction of new treatments; and
- involves the collaboration between public health, community and private providers, voluntary sector and consumers.

#### EyeCU Project

Goal: To prevent avoidable vision impairment and blindness by improving access to appropriate management for Sydney/Sydney Eye Hospital patients with 'wet' (exudative) age-related macular degeneration.

#### **Phase 1 (Clinical Redesign): July 2010 - September 2011**

Recommendations included:

- the development of a model of care for 'wet' AMD implemented in three stages, ie existing situation, new medical retina clinics in the current location and in the new Bicentenary Institute;
- employment of medical retina specialists for new clinics;

- provision of two and a half injecting clinics per week to meet demand for intra-vitreous injections; and
- an implementation co-ordinator be employed part time for twelve months.

## **Phase 2 (Implementation): July 2011 - November 2012**

Outcomes included:

- establishment of three medical retina clinics and the employment of four part time medical retina specialists;
- establishment of injecting clinics four days per week;
- improved booking processes, administrative flow and diagnostic assessment resulting in reduced patient waiting time for first presentation to first injection; and
- education for patients, carers and ophthalmic service providers.

## **Community Eye Care (C-EYE-C)**

The catalysts for the C-EYE-C project were work undertaken in 2012-13 and 2013-14 by the Ophthalmology Network and stakeholders which included:

- development of a vision screening pathway for patients with diabetes in the Hunter New England Local Health District;
- presentation of the results of Cambridge Community Optometry Glaucoma Scheme (COGS) and the availability of the involved glaucoma specialist;
- development of a model of care for community eye care in Western Sydney Local Health District by the Ophthalmology Department in collaboration with the Western Sydney Diabetes Prevention and Management Initiative;
- development of a model of care for diabetes by the ACI Endocrine Network; and
- analysis of four years of cataract surgery data to assess the management of cataract surgery in NSW.

This led to the C-EYE-C project being formally accepted as a major piece of work for the ACI Operational Plan and the Ophthalmology Network in 2014-15. The project addresses the focus areas of the *Framework for Eye Healthcare Services in NSW* by aiming to prevent avoidable vision loss and blindness by developing integrated, coordinated shared care service delivery models for non-acute eye disease to improve access and appropriate management. Two service delivery models are being developed for:

- people at risk of developing glaucoma and those diagnosed with glaucoma, and those with diabetes mellitus at risk of developing diabetic retinopathy; and
- people with uncomplicated asymptomatic cataract.

## **Hunter New England Local Health District**

### **HealthPathways**

In partnership with ophthalmology specialists and local GPs, a Sudden Change in Vision pathway was developed and went live in November 2013. This provided GPs with assessment, management and referral advice for the patients who may present to them complaining of a sudden loss in vision.

In partnership with John Hunter Hospital Outpatient Department managers and Director of Ophthalmology, Ophthalmology Assessment and Referral pages were developed. These pages guided GPs in relation to how and when to refer certain conditions by breaking them down into urgency categories. They also highlighted the current conditions that are not referable to the Ophthalmology Department, and provided alternative referral points for these conditions.

The goal of the referral pages has been to streamline the referral process and types of patients being referred to match the current service offerings within the ophthalmology clinic. All pathways go through a 12 month review process and then every 24 months.

A positive system of management and co-management with ophthalmologists is working well in the Manilla area.

### Far West Local Health District

As in Key Action Area 3, client-centred care was provided through assessment and referral from the Chronic Disease Management Program and diabetes educators. Collaborative integrated care between services provided client centred care and offered a large range of specialty visiting consultants with a wide range of specialty rooms and equipment for diagnosing and treating many eye disorders.

### Illawarra Shoalhaven Local Health District (ISLHD)

Ophthalmology waiting lists for ISLHD were monitored and action taken as appropriate to manage access in a timely way. Reporting for ISLHD performance against NSW Health ophthalmology surgical waiting lists targets were undertaken through the ISLHD Standard Performance and Reporting Collaboration (SPaRC) tool.

ISLHD has care pathways for patients with eye problems to be referred to eye specialists. ISLHD ophthalmologic services are aligned with RANZCO clinical guidelines.

### South East Sydney Local Health District/ Prince of Wales Hospital (SES LHD/POWH)

Liaison took place with POWH Diabetes centre for diabetic eye disease screening, as part of comprehensive diabetic care. Liaison also took place with the UNSW School of Optometry Clinic, managing patients referred early with potentially preventable/treatable eye disease, particularly cataract, glaucoma and diabetic retinopathy.

Centre for Eye Health/POWH collaborated on diagnostic services and early referral of patients at high risk of developing blinding eye disease. Liaison also took place with the UNSW School of Optometry low vision clinic, co-ordinating services with Guide Dogs and Vision Australia. Service efficiency/review for POWH eye clinic was undertaken, in order to manage and improve liaison with community eye services and GPs on patient discharge from the eye clinic. Improving pathways of care and referral pathways for common eye conditions (such as diabetic eye disease, cataract, glaucoma) were provided to public hospital eye clinics through the ACI Ophthalmology Network C-EYE-C Project. Two C-EYE-C Project working groups (Cataract and Retinal diseases) were led by ophthalmologists from POWH Ophthalmology.

Hunter New England Local Health District

During the reporting period, the following activities took place.

### **Manilla HealthOne**

A local part-time optometrist contributed diabetic retinal exams to GP chronic disease management plans. The optometrist had a close liaison with local ophthalmologists.

### **John Hunter Hospital Neonatal Intensive Care Unit (NICU):**

Retcam service is well recognised to detect Retinopathy of Prematurity (ROP) in premature infants. There were three nursing staff trained and highly skilled in attaining images which are reviewed by paediatric ophthalmology staff.

### **Action Area: Workforce Development – Specialist Workforce**

Far West Local Health District

Broken Hill is part of the training programme for the ophthalmology registrars from the Prince of Wales Hospital in Sydney. They undertake a six month rotation to a remote area which is broken into two three month blocks. The senior registrars are under direct supervision while the consultants are in Broken Hill and when there is no consultant they liaise by phone or via telemedicine link to the POW Ophthalmology Department. The public can be assured of safe, supervised care.

Care was consumer focused by the registrar triaging all referrals so that where possible people saw the appropriate consultant at the first visit and the correct treatment could begin as soon as possible. Follow up visits were also put onto the appropriate specialist waiting list to ensure all people saw the correct specialist. This is best for both the patients and for the efficiency of the clinic by not having people booked for the wrong specialty. For example, someone with a retinal issue being booked into a glaucoma specialist.

Eye care in the region is affordable for all people, as clinics are run under the public health system. The remote clinic visits make eye care accessible to persons living in these areas as they don't have to travel to a secondary centre at the first visit. If they then need to travel to Broken Hill or on to a tertiary centre there is assistance through the Isolated Patients Transport and Accommodation assistance scheme which assists with these expenses. They also help arrange bookings for transport and accommodation.

Central Coast Local Health District (CCLHD)

The eye care services are managed and governed within the normal clinical governance systems in CCLHD. This includes credentialing, clinical reviews, incident monitoring and investigation responses, quality improvement systems and accreditation under the new National Standards.

### **Anaesthesia Surgery and Intensive Care Division:**

Acute care staff education has been increased. The Eye Emergency Manual was rolled out to emergency departments across the state as well as an online and an App version. Multiple formal education opportunities for medical officers and other health professionals to participate in and practical workshops in relation to the manual occurred in the CCLHD.

Visiting Medical Ophthalmologists were trained in 'Training on the Run'. Resident Medical Officers were taught about general eye diseases relevant to generalists. New technology such as Toric IOL implantation occurred in CCLHD over the last 5 years. CPD, peer review, clinical audit, certification and credentialing were all regularly undertaken by the Department of Ophthalmology and Division of surgery in keeping with the RANZCO and CCLHD guidelines.

**Action Area: Workforce Development – Primary Health Care Workforce**

Hunter New England Local Health District

**Community Child and Family Health**

Child and Family Health Nurses were provided with education on vision surveillance and screening on an annual basis or as required. This ensured the nurses were aware of the importance of vision surveillance at designated health checks in the My First Health Record. It was recognised that as a part of the StEPS (State-wide Eyesight Pre-schooler Screening) programme, the importance of understanding vision surveillance from 0 to 4 years was imperative. In conjunction with an Orthoptist, an education programme was developed.

**Action Area: Consumer Focus**

Hunter New England Local Health District

**Acute care system**

Consumer focus: Older people were recognised as an at-risk group with changes to vision being related to falls, depression etc. Staff who care for older people with delirium and other cognitive impairments ensure that their patients had access to their spectacles.

**Key Area for Action 5: Improving the evidence base**

**Action Area: Research Gaps and Priorities**

Agency for Clinical Innovation (ACI) Ophthalmology Network

Commencing in April 2013, the *Improving Cataract Surgery Outcomes* study aims to explore patient-centred outcomes of cataract surgery in Australia and the effectiveness of currently available tools to assist Australian Ophthalmologists to appropriately plan surgery for people with cataracts. It is funded by ACI, coordinated by the George Institute for Global Health Sydney and being conducted in NSW by the Save Sight Institute at Sydney/Sydney Eye Hospital, Westmead Hospital, Royal North Shore Hospital and Bankstown/Lidcombe Hospital.

The *Falls in Older people with Cataract: A longitudinal evaluation of impact and risk (FOCUS)* study aims to evaluate the risk and determinants of falls in older people with cataract during their surgical waiting period and in the months following cataract surgery.

The NSW *FOCUS* study is parallel research funded from 2013-2015 by an NHMRC project grant. The study cohort of 280 in NSW is a subset of the total group of 500 to be enrolled in the *Improving Cataract Surgery Outcomes* study.

## Sydney Local Health District

Recent research studies in diabetic retinopathy included:

- Why people with young onset type 2 diabetes (e.g. age < 30 years) have more diabetic retinopathy? Hitherto, research on diabetic retinopathy has focussed on type 1 diabetes. However, type 2 diabetes in young people has dramatically increased in prevalence, partly due to obesity, but also due to the Australian multi-cultural population. We conducted a systematic study and found that young people with type 2 diabetes actually have more complications, including retinopathy. This had a profound influence on our philosophy of treating type 2 diabetes, the emerging major health care problem of our community.
- How can the prevalence of diabetic retinopathy be used as a surrogate for the standard of diabetes care in Australia? As we have a large diabetes database collected over 2-3 decades, we were able to use the information to evaluate secular trend and severity of diabetic retinopathy in our community. We found that the prevalence of retinopathy differs in population groups of different characteristics (e.g. Indigenous vs other ethnicities, socioeconomic status, language barrier). Our analysis led to the conclusion that the prevalence of retinopathy in a population can be used as a surrogate measurement of adequacy of diabetes care. This technique promises to be a pivotal step in assessing the provision of health care and evaluation of health economics.
- The impact of new technology on the detection and treatment of diabetic retinopathy. Hitherto, screening of retinopathy is limited to examination of a small area of the retinae visible to direct observation or photography. In collaboration with an ophthalmologist in our area, we have used the new technique of ultra wide field photography to improve the sensitivity of retinopathy detection. This revealed many cases of vision threatening retinopathy which would otherwise be undetected. This procedure could influence greatly the screening process for this serious complication of diabetes in the wider community and also its optimal treatment.

### **Action Area: Eye Research Workforce Development**

#### Illawarra Shoalhaven Local Health District (ISLHD)

In 2014, the ISLHD Radiation Oncologist participated in a research project examining the calibration of a dosimetry system for eye brachytherapy. Brachytherapy is a procedure which involves placement of a sealed radiation source inside or next to the area requiring treatment. The objective of the project was to determine the most appropriate dose of radiation to achieve the best outcomes for patients.

#### Hunter New England Local Health District

#### **Manilla HealthOne**

The Optometrist at Manilla HealthOne contributed to the Diabetic Eye Health sub-committee of the ACI Ophthalmology Network. His rural experience provided rural context to the work of this group, developing clinical pathways for diabetic retinal screening and management.

## **Action Area:      Eye Health Data**

### Sydney Local Health District

The Diabetes Centre, Royal Prince Alfred (RPA) Hospital implemented a system of universal screening for the presence of diabetic retinopathy using one of the following methods:

- i) retinal photography;
- ii) direct fundoscopy; and
- iii) reviewing and recording eye data obtained from either an outside optometrist or ophthalmologist.

This information constitutes a rarely available computerised database which allows the secular trend on prevalence and severity of retinopathy in the community to be analysed.

### South East Sydney Local Health District/ Prince of Wales Hospital (SES LHD/POWH)

Support for service efficiency review of attendance data, visit frequency, monitoring systems performance, including activity based management systems.

## Jurisdictional update – Northern Territory

### *Key Area for Action 1: Reducing the risk*

#### **Action Area: Raising Public Awareness**

During the reporting period, increasing public awareness of eye disease, focusing on trachoma was undertaken in remote Aboriginal and Torres Strait communities through multiple strategies, including:

- TV and radio advertising;
- development and delivery of tailored, culturally appropriate health promotion resources;
- clinical screening and treatment for trachoma infection;
- collaboration with Melbourne Football Club in the NT to raise trachoma awareness; and
- engagement with relevant stakeholders regarding healthy environments to promote clean faces (trachoma prevention).

The Healthy Under 5 Kids Program (HU5K) and school age screening also provided opportunities for raising awareness.

Between 2011-2014, specialist optometry, eye health team, nutritionist, diabetic educator and preventable chronic condition educator visits to remote communities provided opportunistic and planned eye health education and information.

The Commonwealth of Australia provided dedicated trachoma funding to the Northern Territory. This funding was directed towards clinical activities.

Challenges encountered during the reporting period:

- recruitment and retention of Preventable Chronic Condition Educators and nursing staff as well as the limited access to an endocrinologist,
- eye health teams and Optometrists due to the often irregular visiting service model for many remote locations.

#### **Action Area: Maternal and Child Health**

Between 2011-2014, educating children in schools and mothers with babies on hygiene and the importance of keeping faces and eyes clean was ongoing through preventive health checks. The HU5K Program provided a standardised approach for the provision of routine child health care to children under five living in remote communities of NT. The schedule of contacts in HU5K covers key areas of anticipatory guidance (age appropriate education and support), social and emotional health, child growth and nutrition, child development and timely identification and management of common treatable health problems, including eye disease.

This approach also facilitates targeting of limited resources to children who would benefit most, with observation of eye health, by health professionals (Aboriginal Health Worker (AHW)/Remote Area Nurse/Child Family Health Nurse (CFHN), undertaken at scheduled key stages as identified in HU5K. These scheduled visits occur when the child is: 10 days old, 4 weeks, 8 weeks, 4 months, 6 months, 9 months, 12 months, 18 months, 2 years, 3 years and

4 years of age. Child health observations include eye screening, providing opportunity for anticipatory guidance to be provided to caregivers.

Vision screening is built into the development milestones tool used in the programme – Ages & Stages Questionnaires®, Third Edition (ASQ-3™). The ASQ-3 captures parents' in-depth knowledge; highlights a child's strengths as well as concerns; teaches parents about child development and their own child's skills and highlights results that fall in a "monitoring zone," to make it easier to keep track of children at risk.

Annual 'Healthy School Aged Kids' health checks were conducted in remote Indigenous communities which incorporated trachoma screening. 'Clean faces' message (trachoma prevention) was incorporated into Families as First Teachers Program and preschool programmes in the NT.

Challenges encountered during the reporting period:

- recruitment and retention of child health nurses;
- high staff turnover in remote NT Department of Health (DoH) clinics was a challenge for HU5K;
- competing claims on the time of busy remote NT DoH staff; and
- differing health programme age-related screening targets means concurrent screening is not always viable.
- Limited reach of preschool and Families as First Teachers Program.

### **Action Area: People with Diabetes**

Between 2011-2014, NT DoH provided a range of targeted eye care services that addressed the needs of diabetic clients. These services extended across a wide scope ranging from:

- primary (community delivered) eye health services delivered by optometrists, ophthalmologists and vision care coordinators;
- up-skilling and education activities with community based providers / carers; and
- managed pathways into tertiary and interventional services within regional hospital facilities.

Challenges encountered during the reporting period included:

- Client compliance with medications and participating in Patient Assistance Travel Scheme (PATS) for appointments; due to a high mobile population in remote communities

### **Action Area: Eye Injury Prevention**

Between 2011-2014, opportunistic health education messages were provided to workers in remote locations regarding the need to use eye protection and sun protection for eyes. General eye health advice was provided to all mothers within the HU5K Program.

## **Key Area for Action 2: Increasing early detection**

### **Action Area: Public Awareness**

In remote locations, care was delivered through the Trachoma program, school age screening, eye health and optometry team visits during the reporting period. In addition, diabetic educators and

preventable chronic condition educators also delivered care through a visiting schedule. Eye health reviews were provided in local health centre consultations including the Adult Health Checks and Care Planning.

Annual trichiasis checks have been built into adult health checks in affected communities from the age of 40 years and older. Opportunistic trachoma checks were encouraged for all people presenting with sore eyes in remote Indigenous communities.

Challenges encountered during the reporting period:

- There is only one NT DoH-funded diabetic educator in Central Australia. Other diabetic educators are funded via NT Healthy living, Baker IDI and the Central Australian Aboriginal Congress who also service the region.
- Recruitment and retention of child health nurses, preventable chronic condition educators and nursing staff.
- Sporadic visits by endocrinologist and eye health teams, podiatrist and Optometrists as well as addressing social determinants were additional challenges faced during the reporting period.
- High rotation of remote clinical staff resulted in ongoing need for education.
- As trachoma is only found in remote Indigenous communities, many health practitioners from other jurisdictions were not familiar with trachoma and its control.

### **Action Area: Primary Health Care**

During the reporting period, specialist optometry and eye health team visits were provided to remote community health care centres. Specialist diabetic educator, nutritionist and preventable chronic condition educators provided specialised care. Eye health reviews were provided with thorough clinical consultations through the primary health care system.

Referrals to visiting community ophthalmologists were supported by vision care coordinators, with links through to regional hospital and tertiary care as required. NT DoH with key partners and stakeholders developed new service delivery models and embraced new remote technologies (e.g: fundal cameras) to enhance the provision of eye care services to remote communities.

This was made possible by creating an overarching, coordinated and integrated service planning and scheduling process and clinical governance structures that enable Optometrists to become a key triaging entry point for ophthalmology services and providing additional up-skilling and education sessions to local community based primary health care staff.

### **Action Area: Childhood Screening**

During the reporting period, childhood screening, predominantly through 0-5 child health checks, the Trachoma Program and school age screening was undertaken in all remote communities.

#### **Assisting in screening for trachoma in Aboriginal communities**

The HU5K Program provided a standardised approach for the provision of routine child health care to children under five living in remote communities of NT. HU5K incorporates general eye examination of eyes at 10 days old, 4 weeks, 8 weeks, 4 months, 6 months, 9 months, 12 months, 18 months, 2 years, 3 years and 4 years of age and includes pathway for referral/recall.

Developmental screening was incorporated into the 8 week, 6 month, 12 month, 18 month, 2 year, 3 year and 4 year old schedule and includes pathway for referral/recall. Specifically:

- routine eye examination for infants and children from birth to 2 years of age includes routine examination of the following: eyelids and orbits; external structures of the eyes; motility; eye muscle balance; pupils; and red reflex. The red reflex test was used to screen for abnormalities of the back of the eye and opacities in the visual axis, such as a cataract or corneal opacity; and
- eye examination for all children from birth to 5 years of age includes observing for discharge, redness and unusual eye movement.

The schedule of contacts in HU5K covers key areas of anticipatory guidance (age appropriate education and support), social and emotional health, child growth and nutrition, child development and timely identification and management of common treatable health problems, such as eye disease.

Vision screening was built into the development milestones tool used in the programme - Ages & Stages Questionnaires®, Third Edition (ASQ-3™), as described in Key Area for Action 1.

Over the period 2011-2014, Aboriginal and Torres Strait Islander children living in remote communities in the NT were screened for active trachoma. In 2014, 90% of 5-9 year old Aboriginal and Torres Strait Islander children living in 30 'at risk' remote communities (as per revised guidelines) were screened for active trachoma. The new guidelines can be accessed at: Department of Health | Trachoma - National Guidelines for Public Health Units.

Challenges encountered during the reporting period:

- recruitment and retention of child health nurses;
- high staff turnover in remote NT DoH clinics; and
- competing claims on the time of busy remote NT DoH staff for HU5K.

#### ***Example of a successful initiative – Northern Territory***

##### ***Integrated services through multi-sectoral collaboration and coordination***

The significant efforts by NT Department of Health (DoH) staff bringing together and working with other Rural Health Outreach Fund outreach service stakeholders (internal and external to NT DoH) have resulted in the realisation of major enhancements to the delivery of eye health services through stronger integration and coordination of all ophthalmology providers (government, private, not for profit and the NGO sector).

These collaborations have been pivotal to negotiations that resulted in securing joint funding commencing in January 2014 for a Top End based Ophthalmology Fellow, Eye Care Coordinator and Indigenous Eye Care Liaison Officer.

### ***Key Area for Action 3: Improving access to eye health care services***

#### **Action Area: Workforce Supply**

There have been major enhancements to the delivery of eye health services through stronger integration and coordination of ophthalmology providers (government, private, not for profit and the

NGO sector). These collaborations have resulted in the securing of joint funding of a Top End based Ophthalmology Fellow, Eye Care Coordinator and Indigenous Eye Care Liaison Officer.

During the reporting period, seven full-time equivalent dedicated trachoma nurses have been employed in the NT, five with the NT Department of Health and two with Aboriginal Medical Services, to assist communities with clinical trachoma control measures, and to provide training and support for remote clinicians.

Challenges encountered during the reporting period:

- Retention of skilled trachoma staff.

### **Action Area: Rural and Remote Communities**

During the reporting period, NT Department of Health provided a range of targeted eye care services that addressed the needs of remote and very remote communities. These services extended across primary health care eye health services from community health care centre services, visiting optometrists, ophthalmologists and vision care coordinators through to specialist diabetes care providers, care planning and allied health. Referrals to town-based providers and hospital services were also provided.

Trachoma Program activities were conducted almost exclusively in the 79 'at risk' remote Aboriginal and Torres Strait Islander communities. Through a tailored, localised approach, community members did not have to travel for screening or treatment of active trachoma. Clients identified with trichiasis were referred to the regional hospital for corrective eye surgery.

In January-December 2014, 44 remote communities were identified as requiring trachoma screening as per the Communicable Disease Network Australia Guidelines. Of these, all 44 communities were screened, with an overall screening coverage rate of 92%.

### **Action Area: Access to Cataract Surgery**

Service delivery reforms and innovations commenced in early 2014 by the NT DoH to improve access to services has resulted in an increased capacity to address demand for cataract surgery.

Access to cataract surgery has also been significantly enhanced through aligning interstate providers, and implementing joint NT-interstate intensive eye-surgery initiatives. This joint initiative has improved access to cataract surgery and provided a stronger follow-up and referrals process, with improved outcomes for clients.

### **Action Area: Affordability**

The NT Trachoma Program is funded by the Commonwealth of Australia, with no cost to clients, and services provided in home communities wherever possible.

### Action Area: Cultural Accessibility

All educational and health promotion resources produced in the NT, including under the Trachoma Program, are developed according to culturally appropriate guidelines, with input from relevant, expert and Aboriginal and Torres Strait Islander health service stakeholders.

### Action Area: Public Awareness

Remote NT community members have participated in many promotional campaigns to raise public awareness of trachoma and eye health. The NT Trachoma Programme's health promotion programme was delivered in partnership with the following agencies:

- the Indigenous Eye Health Unit, based at University of Melbourne;
- the Fred Hollows Foundation, Northern Territory; and
- the Central Australian Aboriginal Congress, Alice Springs.

#### ***Example of a successful initiative – Northern Territory***

##### ***Trachoma campaign to raise awareness through media and sport***

A high profile 'Clean Faces, Strong Eyes' message campaign was delivered over 2011-2014 targeting high risk communities through TV advertising; radio segments and advertising with female Indigenous leaders and role models, AFL players and Melbourne Football Club at community football clinics; and community-based health promotion workers. Community-based trachoma health promotion activities, 'Clean Faces, Strong Eyes', were delivered at Indigenous All Stars AFL games in Alice Springs with messages of good health were shared through AFL clinics and activity sessions with hundreds of school children. Community members were encouraged to get health checks at the Congress Clinic with free tickets to the All Stars game as an incentive: Health Promotion at Indigenous All Stars AFL | Central Australian Aboriginal Congress Aboriginal Corporation<sup>23</sup>

A trachoma education television campaign commenced airing on Imparja TV, Alice Springs, on the 1 January 2012 and was screened in total 40 times per week until the 1st of August 2012. The advertisement ran for 30 seconds and reached most of remote Australia. This television community service announcement featured Milpa the Trachoma Goanna with Yamba the Honey Ant supporting the elimination of trachoma in remote Indigenous communities in the Northern Territory by promoting the message *Clean face, strong eyes: Milpa the trachoma goanna and Yamba the honey ant* [online video] « Health promotion resources « Key resources « Australian Indigenous HealthInfoNet<sup>24</sup>

Guidelines for Milpa the trachoma goanna education campaign link: [Guidelines for Milpa the trachoma goanna education campaign](#)

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<sup>24</sup> [Milpa the trachoma goanna and Yamba the honey ant \[online video\] \(2012\)](#)

## **Key Area for Action 4: Improving the systems and quality of care**

### **Action Area: Service Integration**

The schedule of contacts in HU5K covers key areas of anticipatory guidance (age appropriate education and support), social and emotional health, child growth and nutrition, child development and timely identification and management of common treatable health problems, such as eye disease.

HU5K has been integrated into remote health centre electronic clinical information systems; either through Primary Care Information System or Communicare. Inputs have included:

- development and implementation of a comprehensive child health programme for all children, birth to five years;
- optimised early detection of risk factors for poor health and develop care pathways to ameliorate these factors;
- anticipatory guidance (age appropriate health education messages) in order to improve health and wellbeing and build caregiving capacity;
- developed and implemented a standardised practice approach for the child health programme in remote DoH clinics, including work underway to incorporate urban DoH clinics in the NT;
- assisted in the development of data management processes; and
- provide monthly reports of programme coverage, compliance and timelines in respect to HU5K.

Extensive training of staff through a specific education package with additional support provided through the Child Youth Health Strategy Unit and Charles Darwin University. NT DoH's range of targeted eye care services to remote and very remote communities include general primary health care, eye health services delivered at community health care centre services, visiting optometrists, ophthalmologists, vision care coordinators and also specialist diabetes care providers, care planning and allied health providers. Health services are integrated through co-location in community, electronic records and co-ordinating roles supporting improved outcomes for clients.

Challenges encountered during the reporting period:

- High staff turnover in remote DoH clinics is a challenge for HU5K, along with competing claims on the time of busy remote NT DoH staff.

### **Action Area: Workforce Development – Specialist Workforce**

NT DoH with key partners and stakeholders agreed on collaboration, employing a new ophthalmology fellow, eye health care coordinator and Indigenous eye health care Liaison officer. This ophthalmology fellow position has proved to be a valuable resource, increasing access to eye treatment and surgery for remote and very remote communities.

The ongoing ophthalmology fellowship position within NT eye care services has also enabled a strong link to be formed between Territory Health Services and an interstate hospital based specialist training facility, commencing in 2014.

### ***Example of a successful initiative – Northern Territory***

#### ***Building cultural bridges with the appointment of an Indigenous Ophthalmologist***

NT Department of Health was fortunate to secure an Indigenous Ophthalmologist for the first placement into the newly created Ophthalmology position in 2014. There was significant value added to remote Indigenous eye care and Indigenous health more broadly by this appointment. Beyond the national media attention (see link below) shining a spotlight on both Indigenous health care professionals and the issues related to remote and very remote health service delivery. The cultural acceptance and bridge built by the initial appointment will become a valuable platform for the future.

[Link to Sydney Morning Herald article](#)

#### **Action Area: Workforce Development – Primary Health Care Workforce**

The new version of HU5K includes internationally recognised best practice in child health. A major emphasis of NT DoH in the delivery of remote and very remote clinical eye health care outreach continues to be the development of community-based primary health care providers. Up-skilling activities include: case conferencing with local providers, clients and families; eye care and examination training and training in the use of new technologies including fundal cameras where available.

#### ***Key Area for Action 5: Improving the evidence base***

#### **Action Area: Knowledge Transfer**

Revised 'Guidelines for the Public Health Management of Trachoma in Australia' published by the Communicable Diseases Network of Australia, were released in January 2014. These guidelines, accessible on the internet and in hard copy, provide advice regarding all aspects of trachoma control to ensure a consistent approach across Australia. Link is: Department of Health | Trachoma - National Guidelines for Public Health Units<sup>25</sup>

#### **Action Area: Eye Health Data**

All NT trachoma data is submitted annually to the National Trachoma Surveillance and Reporting Unit, with annual data published and available on the internet: National Trachoma Surveillance and Reporting Unit | Project | UNSW - The Kirby Institute for infection and immunity in society<sup>26</sup>.

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<sup>25</sup> [Trachoma – National Guidelines for Public Health Units](#)

<sup>26</sup> [The Kirby Institute – Australian Trachoma Surveillance Reports](#)

## Jurisdictional update – Queensland

### *Key Area for Action 1: Reducing the risk*

#### **Action Area: Raising Public Awareness**

The Queensland Government provided public awareness information regarding eye health and the importance of regular eye health screening. This included information about common eye conditions near and short sightedness and astigmatism, cataracts, glaucoma, macular degeneration and sty.

The Queensland Government also provided information about how to protect your eyes such as wearing safety goggles if your job involves airborne particles or hazardous substances, wearing wrap-around glasses to prevent UV exposure, choosing eyewear that blocks 95% of UV rays, and fitting sunglasses or goggles with prescription lenses, if necessary.

In the Torres and Cape Hospital and Health Service optometrists visited a number of isolated communities to talk to local people about eye health. They also spent time with local indigenous health workers to raise their awareness of eye health issues ensuring that the approach is culturally sensitive.

#### **Action Area: Maternal and child health**

Vision and eye function assessments are part of regular child health assessments in Queensland Hospital and Health Services for children aged 0-12. These assessments are conducted in a range of settings including community child health clinics. Referrals are made and treatment is provided to specialists where this is necessary.

In Children's Health Queensland Hospital and Health Service, a retinopathy of prematurity eye screening service is available at the Royal Brisbane and Women's Hospital. A Project Officer was employed to write a business plan for a remote telemedicine screening service to regional centres.

#### **Action Area: People with Diabetes**

Queensland developed the Diabetes Statewide Health Service Strategy 2013, that outlines service directions for the next 10 years to deliver safe and sustainable diabetes health services in the Hospital and Health Services. Each Hospital and Health Service is required to adopt the statewide strategy and ensure that its actions align with the objectives and directions of the strategy.

Queensland Hospital and Health Services developed partnerships that increase the capacity of GPs to manage diabetes by building multidisciplinary teams. These teams are promoting the principles of patient self-management that has freed up specialist services to be committed to more complex issues.

Queensland Hospital and Health Services also increased the capacity of GPs to manage diabetes through the introduction of multidisciplinary teams. For example, a diabetic medical specialist from the Princess Alexandra Hospital visited the Inala Primary Care clinic service to work with GPs to care for the community.

In West Moreton Hospital and Health Service (WMHHS), partnerships with local GPs and optometrists reduced waiting lists and improved referral pathways. The Ipswich Diabetes Service also partnered with the Queensland and Northern Territory Optometry Association to provide an education program to practice nurses and diabetes educators on the role of the Optometrist in the care of the patient with diabetes. WMHHS also provides patients with written information on diabetic eye disease.

In Central West Hospital and Health Services retinal screening occurred in the community health setting.

In the Torres and Cape Hospital and Health Service, chronic disease management plans were in place across the entire Hospital and Health Service. This included long-term management of diabetes and the eye complications of this disease. Optometrists and visiting ophthalmologists regularly reviewed persons with diabetes.

In Children's Health Queensland Hospital and Health Service there was a fast track pathway for diabetic eye screening in the Eye Clinic at the Lady Cilento Children's Hospital. Evidence-based eye clinic referral guidelines were also implemented.

### **Action Area: Eye injury prevention**

Public discussions were held in Wide Bay Hospital and Health Service regarding preventing eye injury.

Surgery Connect has provided statewide access to patients awaiting eye procedures. Patients who would otherwise have had to travel have been treated as close to home as clinically appropriate, which is beneficial for patients and their families, as most eye procedures require multiple outpatient consultations and a carer to remain with them overnight after the procedure. During the period 1 July 2011 to 30 June 2014 the Surgery Connect programme arranged for over 5,800 ophthalmology procedures to be undertaken through public private partnerships.

### **Action Area: Research**

Central West Hospital and Health Service linked with ophthalmology researchers at the University of Queensland and the Queensland University of Technology in relation to retinal screening. This research was presented at the GP15 Royal Australian College of General Practitioners conference for General Practice.

## ***Key Area for Action 2: Increasing early detection***

### **Action Area: Primary Health Care**

The Queensland Government operates 13 Health Services that provide confidential qualified health advice, including advice regarding eye and vision concerns to Queenslanders.

The Wide Bay Hospital and Health Service engaged in joint future planning with primary health providers in relation to a range of issues including eye health.

In Central West Hospital and Health Service a range of providers including GPs, community health and other primary health practitioners provided coordinated clinics for routine screenings.

Torres and Cape Hospital and Health Service conducted opportunistic eye checks when adults presented to Primary Health Care Clinics for other health matters.

**Action Area: People with diabetes**

Gold Coast Hospital and Health Service appointed a vitreo-retinal surgeon in 2011 and are able to offer vitreo-retinal surgery for complications of diabetic retinopathy such as vitreous haemorrhage and retinal detachment. Gold Coast Hospital and Health Service also offer laser and intravitreal injections for treatment of diabetic retinopathy.

Wide Bay Hospital and Health Service has increased its presence in the community events, resulting in over 200 people tested for diabetes with follow up by community GPs.

**Action Area: Childhood screening**

Health and development checks, including an assessment of vision and eye function, were available throughout Queensland for children aged 0–12 years. Childhood vision screening is important as it can raise parent awareness of the importance of eye health, detect eye conditions and enable early treatment. Poor vision impacts on children’s development and school achievement.

Gold Coast Hospital and Health Service appointed a paediatric ophthalmologist in 2012 and offered paediatric ophthalmology services and screening for retinopathy of prematurity.

***Key area for action 3: Improving access to eye health care services***

**Action Area: Workforce supply**

Gold Coast Hospital and Health Service extended the clinical ophthalmology services and provide specialist services for complications of diabetic retinopathy (including laser photocoagulation, intravitreal injections and vitrectomy for vitreous haemorrhage or retinal detachment).

Children’s Health Queensland Hospital and Health Service recruited an additional full-time staff specialist in 2013.

Queensland Health has examined the workforce supply and likely future demand over the next ten years. This examination will assist in guiding the investment as well as requirement for basic and advanced training places. A number of Hospital and Health Services recruited additional ophthalmology staff.

**Action Area: Rural and Remote Communities**

In 2013-14, the Queensland Government provided \$5 million to the Diamond Jubilee Partnerships Ltd to fund the Indigenous Diabetes Eyes and Screening (IDEAS) Van. The initiative aimed to give Aboriginal and Torres Strait Islander people living in regional and remote Queensland with access to specialist eye health services. Working in partnership with 19 Queensland Aboriginal Medical Services, the van moved between 15 locations around the state while an additional seven remote sites are visited 2-4 times per year through a partnership with the Royal Flying Doctor Service.

The Torres and Cape Hospital and Health Service concentrate eye care services on two centres – Weipa and Thursday Island. Visiting Optometrists visit the most isolated communities and islands to provide refractions and to identify cases that require surgery.

**Action Area: Access to Cataract Surgery**

Surgery Connect is a programme aimed at reducing surgery waiting lists through partnering with the private sector. Surgery Connect treated long wait elective surgery patients, including ophthalmology, through investing in internal activity and outsourcing to the private sector to deliver additional elective surgery and reduce waiting times. Over 5,800 ophthalmology procedures were outsourced to the private sector through the Surgery Connect programme in the three financial years 2011-12, 2012-13 and 2013-14.

West Moreton Hospital and Health Service outsourced to private providers in the Ipswich area as part of its waiting list management strategies. This increased the capacity for the Ipswich community to access surgery/treatment for certain eye conditions.

Central West Hospital and Health Service provided access to cataract surgery through a private visiting specialist.

Torres and Cape Hospital and Health Service conducted a one-week “surgical blitz” each year at Weipa where approximately 50 cataract operations are conducted in one week.

In Children’s Health Queensland Hospital and Health Service babies born with cataracts are all operated on before eight weeks of age to enable optimum clinical and developmental outcomes.

**Action Area: Affordability**

In Wide Bay Hospital and Health Services the Patient Transport Subsidy Scheme was utilised for rural and remote patients to accessing treatment.

In Central West Hospital and Health Service the Patient Transport Subsidy Scheme was utilised for rural and remote patients to accessing treatment. Central West Hospital and Health Service is also reliant on the philanthropy of the local private specialist.

Children’s Health Queensland Hospital and Health Service provided contact lenses without cost to public patients after cataract surgery.

The Spectacle Supply Scheme provided eligible Queensland residents with a pair of basic prescription spectacles once every two years. The Scheme provides a complete set of spectacles for both adults and children, including basic frames, lens and lens treatments.

**Action Area: Cultural accessibility**

In Torres and Cape Hospital and Health Service the programmes in both the Northern and Southern sector are designed to respect and be responsive to cultural matters. The provision of surgery in the homelands makes the attendance rate much better than it would be if individuals were required to attend in Cairns.

**Action Area: Public Awareness**

Wide Bay Hospital and Health Service commenced a media campaign informing the community of the ophthalmology service.

***Example of a successful initiative – Queensland***

***Indigenous Diabetes Eyes and Screening (IDEAS) initiative***

In 2013-14, the Queensland Government provided \$5 million to the Diamond Jubilee Partnerships Ltd to fund the Indigenous Diabetes Eyes and Screening (IDEAS) Van. This initiative aimed to reduce the incidence of avoidable blindness by addressing the impact and severity of diabetes and diabetic retinopathy in Aboriginal and Torres Strait Islander people. It provides access to ophthalmic specialist services to Indigenous communities in Queensland.

The initiative consists of a mobile clinic set on a semi-trailer truck and which is fully equipped with state of the art ophthalmology equipment. This clinic travels to rural and remote communities and is supported by 40 clinicians. Services are normally delivered in partnership with 21 Aboriginal Medical Services, which are community-controlled health clinics that would otherwise not have the ability to offer these specialist health care services to its patients locally. In addition, the IDEAS service is also coordinated with the Royal Flying Doctor Service to expand its reach and scope to other rural and remote areas across the state of Queensland.

In its first nine months, the IDEAS initiative conducted 47 specialist clinics with 1,827 people screened and 728 patients receiving treatment on the van. The IDEAS initiative represents a new level of collaboration between the public, private and community-controlled health sectors to deliver specialist health care to Aboriginal and Torres Strait Islander people in Queensland.

***Key Area for Action 4: Improving the systems and quality of care***

**Action Area: Service integration**

In 2014, Children’s Health Queensland Hospital and Health Service successfully integrated the Eye Departments from the Mater Children’s and Royal Children’s Hospitals into one Department at the Lady Cilento Children’s Hospital.

**Action Area: Workforce Development – Specialist Workforce**

A number of Hospital and Health Services recruited additional ophthalmology staff. In Central West Hospital and Health Service specialists brought students and ophthalmology registrars with them on outreach trips.

**Action Area: Workforce Development– Primary Healthcare Workforce**

In Torres and Cape Hospital and Health Service visiting specialists provided basic instruction in eye health and post-operative care to nurses and health workers who work in the Primary Health Care Clinics.

## ***Key Area for Action 5: Improving the evidence base***

### **Action Area: Eye research workforce development**

Children's Health Queensland Hospital and Health Service actively encouraged registrars and fellows to publish papers

### **Action Area: Knowledge transfer**

West Moreton Hospital and Health Service supported the University of Queensland by facilitating an Ophthalmology Workshop that is attended by Year 2 Medical Students. A Visiting Medical Officer at Ipswich Hospital mentors the students on identifying eye problems.

## Jurisdictional update – South Australia

### *Key Area for Action 1: Reducing the risk*

#### **Action Area: Raising Public Awareness**

The South Australian Institute of Ophthalmology (SAIO) is well renowned for its clinical, laboratory based and epidemiological research. This research along with both national and international research collaborations, has produced a large number of peer-reviewed publications between 2011 and 2014. These publications contribute to raising public awareness.

#### **Action Area: Maternal and Child Health**

During the reporting period, health and development checks were provided at 1-4 weeks, 6-9 months, 18-24 months for infants/children whose parents accessed the Child and Family Health Service:

- A history was obtained of any family vision problems that may have occurred in relatives during childhood or early adolescence.
- The 'appearance of the eyes' included an assessment of the external eye, the lids, sclera, conjunctiva, sclera, cornea and iris.
- Fixation/ following and corneal light reflex examination was used to identify any strabismus.

For preschool children aged 4 years, a history was taken as above but extended to include information about any symptoms that may relate to vision such as headaches that come with close work and may persist at night, but are absent on weekends or on holidays.

Challenges encountered during the reporting period:

- Not all families access health and development checks.
- National promotion was required to promote eye health and inform families of signs of poor eye health that require medical attention.
- Ensuring clients had access to transport to attend specialist appointments.

#### **Action Area: People with Diabetes**

During the reporting period, clients who had a Diabetes Care plan were scheduled to have their eyes checked regularly. The staff from the Aboriginal Family Clinic facilitated these specialist appointments and transport was available.

Challenges encountered during the reporting period:

- Ensuring clients had access to transport to attend specialist appointments.

#### **Action Area: Research**

The Central and Northern Ophthalmology Network runs an investigator initiated clinical trials unit at the Royal Adelaide Hospital and the Queen Elizabeth Hospital and has run a number of clinical trials during the reporting period.

## **Key Area for Action 2: Increasing early detection**

### **Action Area: Public Awareness**

*Sight For All*, in conjunction with RANZCO, has teamed up with the Royal Society for the Blind and the Freemason's Foundation to raise awareness in the wider South Australian communities of blinding yet avoidable eye diseases and services available for the vision impaired.

The 'My Eye Health Program' was formally launched in October 2010 by My Eye Health patron Mr Kevin Scarce, Governor of South Australia. The Program runs education days delivered by trained eye health educators to a range of target audiences in metropolitan and regional areas of Australia. These include high school students, retirement village residents, allied health staff and the general community. Up to 2014, 776 presentations reaching 17,705 people had been delivered. Visit [www.myeyehealth.org.au](http://www.myeyehealth.org.au) for further information and to download the free booklet.

### **Action Area: Primary Health Care**

Between 2011-2014, the Trachoma Control Program undertook trachoma screening of 5-9 year old Aboriginal and Torres Strait Islander children living in remote South Australian (SA) communities classified "at risk" of trachoma. Between 2011 and 2014, 5,003 Aboriginal children aged 0-14 years were screened for trachoma. Children with trachoma, household members and their contacts were treated with antibiotics as per the recommendations in the Guidelines for the Public Health Management of Trachoma<sup>27</sup> in Australia.

In 2013, funding was provided by the Commonwealth Government for the continuation of the Trachoma Control Program over a four year period ending in June 2017. The prevalence of trachoma is generally trending downwards but still present at rates of 10% in some remote communities. In 2013 and 2014 increased efforts were undertaken in the complementary strategy of promoting clean faces. The aim is to reduce the prevalence of trachoma to under 5% by 2020, as per the Commonwealth Government's commitment to the World Health Organization's Global Elimination of Trachoma strategy.

Country Health SA contracted Aboriginal Community Controlled Health Organisations in remote "at risk" communities to screen for trichiasis disease in Aboriginal and Torres Strait Islander adults aged 40+ years. During the reporting period, a total of 4,219 Aboriginal adults over 40 years of age were screened for trichiasis.

In addition to screening, health services were responsible for referring patients to an ophthalmologist and supporting them to receive treatment, which involved surgery in many cases. Tackling trachoma and trichiasis in SA is guided by the World Health Organization's public health approach to treat and prevent trachoma, the Surgery, Antibiotics, Facial Cleanliness and Environmental improvements (SAFE) Strategy.

The health sector worked closely with the education sector to promote clean faces as a norm in school settings. Classroom resources were used which increased children's understanding of germs and how infections are transmitted.

During the reporting period, the Aboriginal Family Clinic (AFC) offered Adult Health Checks to all eligible clients in the Southern Adelaide Local Health Network catchment. The Adult Health Checks consisted of various assessments including a visual acuity test.

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<sup>27</sup> [Trachoma – National Guidelines for Public Health Units](#)

### **Action Area: People with Diabetes**

During the reporting period, clients who had a Diabetes Care plan were scheduled to have their eyes checked regularly. Staff from the AFC facilitated these specialist appointments and transport was available.

Challenges encountered during the reporting period:

- Ensuring clients had access to transport to attend specialist appointments.

### **Action Area: Childhood Screening**

During the reporting period, the pre-school community screening programme improved access to orthoptic-led primary assessments at the community level. Health and developmental checks of children were also undertaken and recorded at 1-4 weeks, 6-9 months, 18-24 months and 4 years of age for children whose parents accessed the Child and Family Health Service.

The number of pre-school health checks which included visual screening between 1 January 2011 and 31 December 2014 was 39,128. Of that figure, there were 5,977 external referrals for further management of eye issues.

Challenges encountered during the reporting period:

- Not all families access health and development checks.
- Availability of orthoptic staffing.
- Community nurse support for screening, coordination, record keeping and facilities.

## ***Key Area for Action 3: Improving access to eye health care services***

### **Action Area: Workforce Supply**

The SAIO have supported and trained a number of international paediatric ophthalmologists and ophthalmic support staff both in Australia and overseas via in-country fellowships. This training is in conjunction with the Royal Society for the Blind, Department of Foreign Affairs and Trade and the Adelaide Metropolitan Hospitals such as the Royal Adelaide Hospital, the Queen Elizabeth Hospital, the Lyell McEwin Hospital and the Flinders Medical Centre.

### **Action Area: Rural and Remote Communities**

During the reporting period, the Royal Adelaide Hospital consultants averaged two trips per year to the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands. These trips were arranged in conjunction with the Aboriginal Health Council and usually consisted of one senior consultant and a trainee. Approximately half of all cataract procedures were undertaken outside the Adelaide metropolitan area.

### **Action Area: Access to Cataract Surgery**

During the reporting period, SA Health performed approximately 7,000 cataract procedures each year.

### **Action Area: Affordability**

During the reporting period, SA maintained the SA Spectacles Scheme. The Scheme provides assistance to people who hold a Pensioner Concession Card or have held a Health Care Card continuously for 12 months. The purchase of spectacles was made through participating optometrists and ophthalmologists.

### **Action Area: Cultural Accessibility**

During the reporting period, *Sight for All* undertook considerable work in improving access to health care for Aboriginal and Torres Strait Islander people in SA. They produced several videos which continued to be promoted, including:

- a diabetic eye disease awareness video titled “Sid’s Bad Sugar”;
- a cataract surgery awareness video titled “Big City Trip”; and
- an eye health awareness music video titled “Eyes”.

Adelaide metropolitan hospitals offer Aboriginal liaison officers and interpreter services.

During the reporting period 2011-2014, referral processes were in place for further eye assessments for Aboriginal and Torres Strait Islander clients. The AFC is a culturally appropriate clinic whose staff are able to engage with Aboriginal and Torres Strait Islander clients and facilitate access to further assessments for clients eye needs.

### **Action Area: Public Awareness**

During the reporting period, *Sight For All* has been involved in the following public awareness initiatives:

- My Eye Health Program in conjunction with Royal Society for the Blind, Freemasons Foundation and RANZCO started in 2011.
- Music video – Aboriginal and Torres Strait Islander eye health in 2011.
- Patient Pathways video in 2013.
- Animated video explaining cataract surgery, the process – aimed at the Aboriginal and Torres Strait Islander community in 2013.
- My Eye Health Booklets.

## **Key Area for Action 4: Improving the systems and quality of care**

### **Action Area: Service Integration**

The presence of an Orthoptist at community screening centres has improved access to hospital specialist care, whilst reducing the numbers of ‘false positive’ referrals made by less skilled examiners.

Challenges encountered during the reporting period:

- Orthoptic staffing capacity

### **Action Area: Workforce Development – Specialist Workforce**

During the reporting period, medical students, residents and specialist ophthalmology registrar training took place. There were also orthoptic training placements.

### **Action Area: Workforce Development – Primary Health Care Workforce**

Ophthalmology Central Adelaide trained on average 5 fellows per year in sub-specialty areas of ophthalmology since 2011. These fellowships were open to Australian and overseas doctors.

*Sight For All* and Ophthalmology SA worked closely with regards to providing subspecialty training to overseas doctors from target developing countries. These fellowships take the form of in-country training and training in South Australian locations.

*Sight For All* provides subspecialty fellowship training at SAIO, Adelaide Women's and Children's Hospital. The comprehensive fellowships are available in anterior segment-corneal surgery, glaucoma, medical retina-vitreo-retinal surgery, oculoplastic surgery and paediatric ophthalmology and range from short one to three month observerships to full 12-month hands-on fellowships. Training of community nurses, Optometrists and GPs also took place.

### **Action Area: Consumer Focus**

SA Health is committed to ensuring the SA health care system is safe, of a high quality and accessible for all. SA Health works in partnership with consumers to improve patient safety and quality of care. SA Health's Safety and Quality priorities tie closely to the national agenda of the Australian Commission for Safety and Quality in Health Care. These priorities have been determined based on evidence of the greatest benefit for consumers, and focus on saving lives and reducing harm.

## **Key Area for Action 5: Improving the evidence base**

### **Action Area: Research Gaps and Priorities**

The SAIO Ophthalmic Research Laboratory is co-located in the Centre for Neurological Disease Research within the Hanson Institute. The laboratories conduct world-leading basic retinal cell biology and visual science research with a special focus on clinical translation.

### **Action Area: Eye Research Workforce Development**

The SAIO Ophthalmic Research Laboratory is co-located in the Centre for Neurological Disease Research within the Hanson Institute. The laboratories conduct world-leading basic retinal cell biology and visual science research with a special focus on clinical translation.

### **Action Area: Knowledge Transfer**

The SAIO researchers work closely with core clinical staff and education and research is conducted with senior and junior medical staff involvement. SAIO collaborates with Flinders Medical Centre ophthalmic researchers on various projects.

***Example of a successful initiative – South Australia  
Eye health research***

The South Australian Institute of Ophthalmology (SAIO) is well renowned for its clinical, laboratory based and epidemiological research.

This research, along with both national and international research collaborations, has produced over 300 peer-reviewed publications between 2011-2014.

In the past 5 years, Professor Casson, Dr Wood and Dr Chidlow have received approximately \$3 million in competitive grant funding, with seven National Health and Medical Research Council project grants.

## Jurisdictional update – Tasmania

### *Key Area for Action 1: Reducing the risk*

#### **Action Area: Raising Public Awareness**

At the end of the Tasmanian Eye Health Vision Initiative, an awareness campaign was conducted in 2011 and 2012, with the Tasmanian Government providing funding of \$100,000 and Optometry Association Australia (Tasmanian Branch) providing funding of \$50,000, for a campaign highlighting the need for the population over 40 years to have their eyes tested.

Public Awareness campaigns continued to be run by organisations such as the Macular Disease Foundation and Glaucoma Australia in Tasmania.

A Visual Impairment Prevention Program continued in 2014, with the Guide Dogs Association engaged to manage clinics. Ongoing discussions are occurring with the National Disability Insurance Scheme. The health service collaboration between GPs, optometrists and ophthalmologists, fostered by the Tasmanian section of the Visual Impairment Prevention Program, also continued.

The Visual Impairment Prevention Program increased the awareness of Low Vision Clinics (LVC) of which there are four in Tasmania - three are under the auspices of the Guide Dog Association of Tasmania in Hobart, Launceston and Ulverstone and the fourth LVC is conducted by optometrists at the Royal Hobart Hospital. In 2014, patient Care Pathways were developed as a Tasmanian Medicare Local initiative in collaboration with community organisations, General Practice Tasmania, the Department of Health and Human Services (DHHS), child care organisations and the Department of Education.

#### **Ongoing Programmes with Annual Funding from the Department of Health and Human Services**

Two programmes receiving funding from DHHS were:

- 1) Royal Guide Dogs Association of Tasmania; and
- 2) Rural Primary Health Print Radio.

These programmes provided information and referrals for services and equipment and developed community awareness and education on the special needs of those with vision impairment and the most appropriate ways of meeting those needs. They also contributed to national and international research, development and training in the fields of mobility, sight enhancement and technology development leading to the availability of optimum resources for people who have vision impairment.

Through the radio broadcasting programme, information was provided to people with significant visual impairment, including readings from local newspapers, current magazines, government information and special areas of interest.

In 2014, the Telemedicine Model to Prevent Blindness from Familial Glaucoma project continued, with research undertaken through the Eye Health Demonstration Grants Program, Royal Hobart Hospital. The project builds on 15 years of work with the Glaucoma Inheritance Study in Tasmania, where families have been alerted to the heritable nature of glaucoma and DNA testing for myocilin

mutations has been conducted on 1,500 glaucoma cases and several thousand family members examined for glaucoma. In particular, individuals with a family history of Glaucoma were targeted.

### **Action Area: Maternal and Child Health**

Over the last four years, the Medical Specialists Outreach Assistance Program (MSOAP) provided funding for orthoptic clinics on the North West coast and a paediatric ophthalmologist to visit Launceston.

From 2012, TAZREACH has funded a paediatric ophthalmologist from Melbourne to deliver an outreach service in Launceston through the Rural Health Outreach Fund (RHOF) (previously Medical Specialist Outreach Assistance Program). This service provides screening, consultations and surgical procedures for children, including follow-up care for babies and children born prematurely who are at risk of, or have been treated for, retinopathy.

In the 2012-13 financial year, a paediatric ophthalmologist visited Launceston seven times for two day visits and saw 267 clients. In the 2013-14 financial year, a paediatric ophthalmologist visited Launceston eight times for two day visits and saw 395 clients.

The Royal Hobart Hospital also provided a Retinopathy of Prematurity service during the reporting period.

### **Action Area: People with Diabetes**

During the reporting period, patients with diabetes are responding to media advice regarding the benefits of screening for diabetic eye disease as numbers presenting to their General Practitioner have increased over the past few years.

TAZREACH<sup>28</sup> funds a number of visiting services across Tasmania (Flinders Island, St Helens, Launceston, Burnie and Devonport) through the Rural Health Outreach Fund (RHOF) and the Medical Outreach Indigenous Chronic Disease Program (MOICDP) targeting the prevention and management of diabetes. Services include diabetes nurse educators, dieticians, exercise physiologists and general physicians. Education around the prevention of eye disease and vision loss is included as a core part of these services.

Eye care is part of diabetic management. Diabetic nurse educators address modifiable risk factors through diet exercise and control for both adults and children. In 2013-14, under the RHOF, a Diabetes Team consisting of a diabetes nurse educator, dietician and exercise physiologist visited Flinders Island 10 times and saw 100 clients.

MOICDP services targeted the management and prevention of chronic disease as a whole, including the prevention of diseases such as diabetes, including information on eye care. Specific eye care services provided by diabetes health staff 2013-14 are shown in the table below.

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<sup>28</sup> In Tasmania, this programme was originally MSOAP. MSOAP expanded to include allied health professionals – see Glossary of Terms.

Service	Location	2013/14 client data
Dietician	Cape Barren Island	32
Diabetes Nurse Educator	Cape Barren Island	9
General Physician	Hobart	72

*Type 2 Diabetes Referral Guide and Personal Diabetes Record: 2014-ongoing*

The Referral Pathways Guide has facilitated improvement in appropriate utilisation and coordination of services across the multidisciplinary health team for people with type 2 diabetes and includes recommendations on timely referral to eye health practitioners for the prevention and management of eye diseases associated with diabetes.

The Patient Diabetes Record is used by GPs and Diabetes Educators in general practices and Diabetes Educators in DHHS. This record assists patients in communicating with the professionals involved in their care and is used as a reminder for regular screening appointments in addition to providing information.

**Action Area: Eye Injury Prevention**

Most of the work by Tasmanian government agencies and associated bodies on eye injury prevention takes place under the auspice of the *Work Health and Safety Act 2012* (Tas) (the Act). Under the Act, a ‘serious illness or injury’ includes a ‘serious eye injury’ (s 36). Under the Act, a person with a health and safety duty must eliminate risks as far as reasonably practicable, and where those risks are not able to be eliminated to *minimise* those risks as far as is reasonable practicable (s17). Personal Protective Equipment (PPE) policies are an example of risk minimisation strategies, where the elimination of the hazards is not possible or additional protection is required. The Act is supported by the Work Health and Safety Regulations, specifying the way certain workplace health and safety (WH&S) duties need to be met. Codes of Practice provide practical guidance on how to meet the standards set out in the Act and Regulations. Further, workplaces enact their own WH&S policies and many of these refer specifically to the prevention of eye injury.

An example of a Code of Practice relating, to the prevention of eye injury, is the *Tasmania Forest Safety Code 2000* (the Code). The Code imposes certain requirements on all those working in the Tasmanian Forest Industry, specifying particular occupational eye protection to be worn by all personnel who may be exposed to risk of eye injury such as safety glasses or goggles and a face visor for those working using a chainsaw, brush cutter, rotating knives or hand tools when felling trees; or safety glasses or goggles alone when using hand tools to weed or clean, applying pesticides, mechanised debarking or firefighting.

Hydro Tasmania (Hydro) and TasTAFE are two examples of bodies that have enacted PPE policies. Both reference the prevention of eye injury and include general requirements for the use of eye protection (goggles, shields, visors etc.). The Hydro policy, makes eye protection mandatory for all personnel entering, or working on, all Hydro Tasmania asset worksites. The Hydro policy also identifies the additional risk of eye injury associated with specific tasks and work areas, for example

exposure to ultra violet (UV) and infrared radiation, related to both working outdoors and when undertaking industrial processes such as welding and heating. Wearing sun hats is required for outside work, and specific eye protection is required for welders.

The Tasmanian Parks and Wildlife Service also emphasises PPE requirements as part of their Safety Checklist procedures, for example as part of their Workshop Induction for all Workshop Users. Eye protection equipment such as safety glasses or goggles, full face masks and welding face shields are identified as required in relation to certain tasks. Each Tasmania Parks and Wildlife employee is supplied with their own PPE appropriate to their work.

In general terms the incidence of eye injuries has fallen year on year for many years. Accidents from motor vehicle accidents have fallen due to seat belts, speed limits and speed cameras, better policing of drink-driving, improvements in wind screen glass and other factors have contributed to decreasing eye injuries in vehicle accidents. Better industrial safety, and the decline in manufacturing industry have reduced industrial accidents. Conversely, eye injuries from pastimes such as gardening appear to be increasing.

### **Action Area: Research**

Familial history of glaucoma research was led by Dr Alex Hewitt at the Royal Hobart Hospital and the Menzies Institute, with Dr Hewitt leading the research. Funding of \$150,000 was provided for the research grant which was managed by the Menzies Institute. This 18 year project had new impetus in the past two years under the leadership of Professor Hewitt.

Glaucoma research and public health campaigns assisted in raising public awareness of glaucoma. The Glaucoma Inheritance Study in Tasmania was ongoing during the reporting period. A telemedicine model to Prevent Blindness from Familial Glaucoma project research also had continued funding through the Eye Health Demonstration Grants Program, Royal Hobart Hospital. This project built on 15 years of work with the Glaucoma Inheritance Study in Tasmania, in which families have been alerted to the heritable nature of glaucoma and in particular, individuals with a family history of glaucoma.

### **Key Area for Action 2: Increasing early detection**

#### **Action Area: Public Awareness**

During the reporting period TAZREACH actively promoted eye health services funded through the RHOF and MOICDP in Tasmania through its website, newsletter, marketing posters and engagement with relevant community stakeholders including local and visiting clinicians, local health organisations and establishments, and Aboriginal organisations.

TAZREACH funded outreach orthoptic services in the north and north-west of Tasmania, with frequent visits enabling continuity of treatment and increased access to the services, as well as sustaining relationships with families and communities to ensure best possible outcomes.

#### **Action Area: People with Diabetes**

During the reporting period, systems previously in place continued successfully.

### Action Area: Childhood Screening

During the reporting period, child health nurses undertook checks of three year old children and GPs undertook screening at the four year old check.

### Key Area for Action 3: Improving access to eye health care services

#### Action Area: Workforce Supply

The number of registrars (trainees in ophthalmology) increased in January 2013 and January 2014, from one in the state to the current level of three: two in the south and one in the north. Local training helps retain those willing to return to work as consultants.

RHOF and MOICDP try to ensure that the frequency of funded services is sufficient to meet the need of the host location. The following services are funded through RHOF:

- paediatric ophthalmologist to Launceston, eight visits per annum.
- ophthalmologist and orthoptist to St Helens, four times per annum.
- ophthalmologist and orthoptist to Flinders island, four times per annum.
- orthoptist to the North West (Burnie and Devonport), 14 times per annum.

#### Action Area: Rural and Remote Communities

TAZREACH funds services at a local level in rural and remote communities in north and north-west Tasmania, thereby making services equitable and easily accessed, as outlined in the table below. Outreach services were provided at St Helens, Flinders Island, Launceston, Burnie and Devonport. Telemedicine continued to provide opportunities for colleagues to liaise across the sector.

#### Services funded by TAZREACH in N/NW Tasmania

Area	Ophthalmologist	Orthoptist
<b>Flinders Island</b>		
2012/13	4 single day visits per annum 75 clients seen in total for the financial year	
2013/14	4 single day visits per annum 84 clients seen in total for the financial year	4 single day visits per annum 68 clients seen in total for the financial year
<b>St Helens</b>		
2012/13 (when part of MSOAP)	4 single day visits per annum 59 clients seen in total for the financial year	
2013/14	4 single day visits per annum 94 clients seen in total for the financial year	5 single day visits per annum 119 clients seen in total for the financial year

Area	Ophthalmologist	Orthoptist
<b>Launceston</b>		
2012/13 (when part of MSOAP)	N/A	7 2-day day visits per annum 264 clients seen in total for the financial year
2013/14	N/A	8 2-day visits per annum 390 clients seen in total for the financial year
<b>North West (Burnie and Devonport)</b>		
2012/13 (when part of MSOAP)	N/A	11 2-day day visits per annum 395 clients seen in total for the financial year
2013/14	N/A	12 2-day visits per annum 447 clients seen in total for the financial year

### Action Area: Access to Cataract Surgery

Tasmania has some of the longest waiting lists for public elective surgery in Australia, including cataract surgery. Funding from the Commonwealth and State governments has enabled initiatives to increase the number of people having surgery. The figures below show the increasing number of clients being seen as a result of these funded initiatives:

2011 – 973 clients  
2012 – 1,037 clients  
2013 – 1,438 clients  
2014 – 1,565 clients

Commonwealth funds of \$1.95 million (over three years) were allocated for the provision of 975 cataract procedures to be undertaken between June 2012 and June 2015. As at December 2014, Tasmanian Health Organisation-South (THO-S) had completed 895 procedures.

### Action Area: Affordability

Tasmania has more difficulty achieving economies of scale than larger states. TAZREACH services reduce client travel cost and time. Services are bulk-billed thereby making them more affordable. Eligible clients have access to the state government funded Spectacles Assistance Scheme.

### Action Area: Cultural Accessibility

Translator services assist in the provision of services to an increasing number of refugees in Tasmania. Eye health services are available to all community members within the host location. Providers undergo cultural awareness training when delivering services to Aboriginal and Torres Strait Islander organisations. The public health services continue to liaise with the Aboriginal Health Service which is best placed to facilitate access to services for the Aboriginal population.

TAZREACH also ensures equitable access by facilitating and encouraging communication between all stakeholders involved in service delivery. Interpreters are widely utilised in the state

## **Key Area for Action 4: Improving the systems and quality of care**

### **Action Area: Service Integration**

A public-private partnership of health services, whilst not unique, has been implemented to improve timely access to care. The partnership recognises the limitations in the public sector and enables consistent throughput of cases, improving service delivery to patients. A vitreo retinal surgeon, based at the Hobart Eye Surgery (private) provides a service to the Royal Hobart Hospital. All Retinopathy of Prematurity work is undertaken from the Royal Hobart Hospital. A public-private partnership to deliver the 975 cataract procedures was negotiated between Tasmanian Health Organisation-South and the private sector.

TAZREACH tries to ensure integration of the visiting private eye health providers with local public and private health services at the host location to ensure a consistent, safe and well-coordinated service. This is done through ongoing communication with all stakeholders involved in service delivery.

### **Action Area: Workforce Development – Specialist Workforce**

During the reporting period, a significant number of optometrists attended sessions with ophthalmologists to attain higher certification and increase their knowledge of eye diseases and treatment.

### **Action Area: Workforce Development – Primary Health Care Workforce**

Ongoing links with the Rural Health Continuing Education Program for training in eye care continued over the reporting period. General Practitioner postgraduate placements into the eye care programmes averaged three per year during the reporting period.

## **Key Area for Action 5: Improving the evidence base**

### **Action Area: Research Gaps and Priorities**

Funding sources for research in Tasmania were limited in the reporting period. A cell culture laboratory is required to facilitate research projects.

As Tasmania is an island, the population is less mobile than mainland Australia and so has excellent records of births deaths and marriages extending back to the early days of European settlement, making it one of the best places in the world for genetic research led by Professor Davis Mackey for many years. Professor Mackey has moved to become Professor of Ophthalmology in Perth.

Other research projects include:

- risks and benefits of femto laser assisted cataract surgery, led by Dr Brendan Vote;
- incidence of complications in different settings of intravitreal injections for wet macular degeneration, led by Dr Brendan Vote; and
- biochemical analysis of the trabecula meshwork in normal and glaucomatous individuals, led by Dr Tse Yo Toh.

**Action Area: Eye Research Workforce Development**

The appointment of the new head of Eye Research at the Menzies Institute has led to increased research across the Royal Hobart Hospital and the Menzies Institute, and oversight of significant research projects such as the familial history of glaucoma.

**Action Area: Knowledge Transfer**

During the reporting period knowledge transfer took place via the following ways:

- Ophthalmologists trained registrars and medical students.
- The Eye Hospital trained student nurses in the eye theatre.
- The Eye Hospital encouraged staff to do courses set by the American Academy of Ophthalmology available through telemedicine.
- The Tasmanian branch of the Royal Australian and New Zealand College of Ophthalmology held regular meetings.
- Optometrists Association Australia (Tasmanian Branch) held an annual lifestyle congress with national and international speakers across all related professions and sectors.

**Action Area: Eye Health Data**

The Glaucoma Inheritance Study collects valuable data on eye health. Funding from the Commonwealth under the Eye Health and Vision Care Initiative enabled Royal Hobart Hospital to progress the development of an evidence base to support the effectiveness and cost of family eye screening.

## Jurisdictional update – Victoria

### Key Area for Action 1: Reducing the risk

#### Action Area: Raising Public Awareness

In the reporting period, the Vision Initiative was the Victorian Government's public health response to the *National Framework for Action to Promote Eye Health and Prevent Avoidable Blindness and Vision Loss* (the Framework). Managed by Vision 2020 Australia, the aim of the Vision Initiative is to prevent avoidable blindness and address the impact of vision loss in the Victorian community. The Vision Initiative works toward addressing all five key action areas of the Framework. The three strategic objectives of the Vision Initiative are to:

- increase the awareness and knowledge of at-risk<sup>29</sup>, non-tested<sup>30</sup> and under-tested<sup>31</sup> groups about the importance of prevention activity, regular eye tests and low vision services;
- improve the understanding and awareness of health professionals and eye health professionals of eye health and vision issues and referral pathways across the full continuum of care; and
- ensure a platform for collaboration and sustainable partnerships between Victorian eye health and vision care providers, government and other organisations.

As at April 2015, the Vision Initiative is being evaluated.

#### Vision Initiative Pilot Projects

Since 2012, the Vision Initiative has implemented pilot projects to test a localised project design that delivers eye health and vision care messages to people at risk of eye disease in the local government areas (LGAs) of Darebin, Greater Geelong, Greater Shepparton and Latrobe. Each pilot project has been designed to deliver a concentrated level of eye health and vision care messages to at-risk groups in a three-tiered approach:

1. Deliver eye health promotion activity directly targeting people who are at risk of eye conditions.
2. Provide information, training and tools to primary health care professionals to help communicate the importance of eye health to those at risk of eye problems as part of everyday practice.
3. Deliver a local general media campaign to help raise awareness and understanding of the importance of eye health and vision care.

Since 2012, through the Vision Initiative Pilot Projects, a number of projects have been implemented in these areas. For example:

- the Diabetes and Eye Health project was a collaboration between Vision 2020 Australia, Diabetes Australia – Victoria Branch and the Australian Centre for Behaviour Research in Diabetes (ACBRD) to address diabetic retinopathy in the Victorian population.

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<sup>29</sup> At-risk = people with a greater chance of getting an eye condition.

<sup>30</sup> Non-tested = people who have never had an eye test before by an eye health professional.

<sup>31</sup> Under-tested = people who don't regularly have an eye test with an eye health professional, once every two years.

- Vision Initiative – Community Service Announcements, TV and radio. To assist in raising awareness of the importance of regular eye examinations, the Save Your Sight community service announcement (CSA) campaign was revived to support Vision Initiative activity in the four pilot project areas.

As at April 2015, the pilot projects are being evaluated.

### Koolin Balit Projects (Victoria's Aboriginal Health Strategy)

The four Koolin Balit projects built on the delivery, community engagement and health promotion of the Victorian Eyecare Service (VES) (and the Victorian Aboriginal Spectacles Subsidy Scheme (VASSS) to raise community and sector awareness about eye health needs and options. The projects also undertook research to identify the treatment pathways, barriers in accessing eye health care and collating data to inform service planning. The projects are spread across Victoria in four regions being Barwon South Western, Loddon Mallee; Grampians; and the North and West Metropolitan Region. A Victorian Statewide Eye Health Coordinator is based at the Victorian Aboriginal Community Controlled Health Organisation to support the implementation of the Koolin Balit Aboriginal Eye Health Plan.

To 'strengthen preventive health care' is an action area in the *Victorian Public Health and Wellbeing Plan* which demonstrates the Victorian Government's commitment to supporting early detection and early intervention for populations most at risk. During the reporting period, the VES provided vision assessment, eyecare and subsidised visual aids for people experiencing disadvantage or barriers to accessing eye care services. VES is highly valued by clients and highlights the Government's commitment to positive, healthy ageing for all Victorians through the provision of quality eyecare. The VES was delivered by the Australian College of Optometry (ACO).

### **Action Area: People with Diabetes**

The Diabetes and Eye Health project is a Vision Initiative Pilot Project commenced during the report period and one of several implemented since 2012 to raise awareness in communities at increased risk of eye disease.

### ***Example of a successful initiative-Victoria***

#### ***Vision Initiative – Diabetes and Eye health project***

The Diabetes and Eye Health project is a collaboration between Vision 2020 Australia, Diabetes Australia – Victoria and the Australian Centre for Behaviour Research in Diabetes (ACBRD) to address diabetic retinopathy in the Victorian population. Through a literature review of psychosocial and behavioural studies, effective communication interventions (leaflets) have been identified, developed and piloted among a sample of Victorians diagnosed with type 2 diabetes.

Findings from pre-intervention analyses and from in-depth qualitative interviews informed development of communication message content focussing on three key behavioural targets:

1. ensuring that HbA1c and blood pressure levels, which are both modifiable risk factors for diabetic retinopathy are maintained as close to target as possible;
2. engaging in regular eye examinations for the early detection of diabetic retinopathy; and
3. ensuring early and/or timely treatment of diabetic retinopathy.

Five target change processes consisting of 11 evidence-based behaviour change techniques have been used to achieve the behavioural targets cited above. The behaviour change techniques provide the foundation for over 50 persuasive messages embedded in the eye health leaflet.

### ***Key Area for Action 2: Increasing early detection***

#### **Action Area: Primary Health Care**

##### **Vision Initiative**

The Vision Initiative team provided training and a range of resources to primary health care professionals in the Vision Initiative Pilot Project areas to assist in their ability to identify patients/customers who may be at risk of eye diseases and refer them to a local optometrist for an eye examination. All primary health care professionals were encouraged to ask a simple question “When was the last time you had an eye examination with an eye health professional?” as part of their everyday interactions with patients/customers.

Each GP practice and pharmacy was provided with an Eye Health Kit, with contents of the kit provided in the table below. In addition, online training has been provided free of charge for all participating GPs, practice nurses and pharmacists in each pilot project area.

Content of the eye health kits – 1 pack per health practice				
Content list	Pharmacy		GP Practice	
	In kit	On CD (PDF)	In kit	On CD (PDF)
CD	Yes	No	Yes	No
User guide	Yes	Yes	Yes	Yes
<b>Referrals tools</b>				
Referral pathway diagram - Pharmacy	Yes	Yes	Yes	Yes
Referral pathway diagram – GP practice	Yes	Yes	Yes	Yes
Vision Initiative recommendation card (100/kit)	Yes	No	Yes	No
Vision Initiative referral letter	No	No	No	Yes
Optometry Victoria referral form	No	No	Yes	Yes
Australian College of Optometry (ACO) referral form (Darebin only)	No	No	Yes	Yes
RVEEH <sup>32</sup> referral form and all accompanying documentation	No	No	Yes	Yes
Vision Australia referral pad	Yes	No	Yes	No
Guide Dogs Victoria referral pad	Yes	No	Yes	No
ACO Low Vision Clinic referral pad (Darebin only)	Yes	No	Yes	No
Optometry scope of practice	Yes	Yes	Yes	Yes
<b>Health promotion materials</b>				
DL simulation plastic cards	Yes	No	Yes	No
DL online training promotion card	No	No	Yes	No
DL Vision Initiative website promotion card	Yes	No	Yes	No
DL awareness brochure (100/kit)	Yes	No	Yes	No
A3 poster (2/kit)	Yes	No	Yes	No
Window decal (1/kit)	Yes	No	Yes	No
Shelf talkers (30/kit)	Yes	No	No	No
Vision Initiative information sheets x9	No	Yes	No	Yes
Vision Initiative resources order form	Yes	Yes	Yes	Yes

<sup>32</sup> Royal Victorian Eye and Ear Hospital

## Action Area: Childhood Screening

### *Example of a successful initiative – Victoria*

#### ***Australian College of Optometry (ACO) research in a disadvantaged community***

During the reporting period, the ACO (Victorian Eyecare Service provider) conducted a study in order to explore the barriers to correction of vision problems in a disadvantaged school community and to inform the delivery of public health programmes directed at the children from such schools.

The study found that vision problems were common, with over 23% of all children having some disorder. Children at School B – a small private school north of Melbourne - were almost three times more likely to have had a previous eye test than children at School A – a primary school in Melbourne’s western suburbs with demographic indicators of social disadvantage, including recent refugee arrivals, low income profile and families from non-English speaking backgrounds.

The cost of glasses and medicines was perceived as a significant barrier to receiving vision correction by both parents and teachers at School A. Additionally parents perceived the normal costs of eye examination as being a barrier even before any treatment costs. Teachers lacked confidence in identifying students with vision problems.

## **Key Area for Action 3: Improving access to eye health care services**

### Action Area: Rural and Remote Communities

#### Koolin Balit Projects (Victoria’s Aboriginal Health Strategy)

Victoria increased access for Aboriginal people to eye health services through the development of regional service directories, engagement with private optometrists to deliver eye health services and referral pathways and systems analysis to determine barriers that may inhibit access for Aboriginal people to eye care and treatment services. One regional service directory was developed in the Loddon Mallee Region in 2014 with others under development. The four Koolin Balit regions are Barwon South Western Region; Loddon Mallee Region; Grampians Region; and the North and West Metropolitan Region.

#### Victorian Eyecare Service (VES)

In rural Victoria, VES is provided through a network of over 100 private practices and direct service provision by ACO to rural areas. The VES ‘Looking to the Future’ review of rural services (2011) reported that the rate of people living in rural areas accessing VES is much higher than in the metropolitan area. The difference in utilisation rates has implications for the planning of services, especially if the differential rates are primarily due to levels of access.

### ***Example of a successful initiative – Victoria***

#### ***Victorian Eyecare Service “Looking to the future” 2011, excerpt from a review***

Survey responses by previous providers indicated that the reasons why they originally provided VES Rural were because they wanted to ‘ensure full use of optometrist time’ or because they felt a social obligation to do so. Individual consultations with previous providers also identified these as being the key reasons for previous providers’ initial interest in delivering VES Rural.

Providers were asked what they considered to be the benefits to their practice of providing services to eligible patients through VES Rural. Respondents indicated they consider it important to service people in their community who may be disadvantaged or whose circumstances change. Four providers stated that there was no or little benefit however their response was also qualified with a statement about the fact that they considered it important to be providing a community service.

*‘Although increased remuneration would always be greatly appreciated, the scheme is about helping others. I do hope that the corporates never destroy or take over this valuable social scheme.’ (Provider)*

One respondent who is not currently a VES Rural provider stated that they had considerable knowledge of VES Rural and that the need in the community for the service would encourage them to become a VES Rural provider. Other benefits that respondents identified were the continual or increased patient base that results from delivering VES Rural; and the promotion of the practice and new private referrals that are generated through being a VES Rural provider. Maintaining competition with corporations ... was included in statements about the promotion of the practice.

### **Action Area:      Affordability**

#### **Victorian Eyecare Service (VES)**

During the reporting period, VES provided vision assessment, eye care and subsidised visual aids for people experiencing disadvantage or barriers to accessing eye care services. VES is highly valued by clients and highlights the Government's commitment to positive, healthy ageing for all Victorians through the provision of quality eye care. VES is delivered by the ACO.

VES provides subsidised eye care and visual aids to Victorians experiencing disadvantage and barriers to care. VES funding supports the development and support of service provision directed at people experiencing disadvantage and targeted populations; and subsidises the cost of visual aids. VES promotes the prevention of eye disease and avoidable vision loss from diseases such as age-related macular degeneration, refractive error, diabetic retinopathy and glaucoma. Early detection, monitoring and treatment of eye disease can improve quality of life and decrease overall medical costs.

The target group for VES includes all permanent Victorian residents who hold or are listed on a concession or pension card or who meet the eligibility criteria. Eligible people are then prioritised for service provision.

VES is available for residents of Victoria who have:

- a current health care card and have done so for at least 6 months;
- a current pensioner concession card; and
- child protection involvement for their care.

### Victorian Aboriginal Spectacles Subsidy Scheme (VASSS)

VASSS is funded by the Victorian Department of Health and Human Services and delivered by ACO. The ACO administers VASSS which assists individuals to access specifically designed frames along with the prescribed lens. VASSS is in addition to the VES state government subsidy to reduce the co-payment for Aboriginal people in Victoria.

During the reporting period, VASSS provided subsidised visual aids (spectacles) to Aboriginal and Torres Strait Islander (Aboriginal) Victorians. The Scheme builds upon the infrastructure of two pre-existing programmes, VES and VOS. Medicare Australia subsidises the cost of optometry consultations.

VASSS assists individuals to access specifically designed frames along with the prescribed lens. VASSS is an additional state government subsidy to reduce the co-payment for Aboriginal people in Victoria. VASSS is supported by the Victorian Eye Service Aboriginal Liaison Officer at the ACO to work alongside optometrists to support culturally appropriate services and engage with Aboriginal community controlled organisations and communities to increase access to eye health services for Aboriginal and Torres Strait Islander people.

VASSS is also delivered through optometry visits to regional Victoria, supported by the Commonwealth Department of Health Visiting Optometrist Scheme (VOS) and VES, and provided by ACO. The majority of the optometry services provided by ACO directly are delivered in partnership with Aboriginal Community Controlled Health Services and a network of optometrists across regional Victoria. VASSS has proven to be a successful programme supporting Aboriginal Victorians with their eye health needs.

Between 2010-2013, 4,199 spectacles were provided under VASSS with an additional 2,000 spectacles provided in 2013-2014:

- 2011 – 1,587 spectacles;
- 2012 – 1,500 spectacles; and
- 2013 – 1,863 spectacles.

An evaluation of VASSS was undertaken in 2012. The key findings of the evaluation indicate VASSS has been highly successful in increasing the number of people accessing eye health services and using spectacles.

### ***Example of successful initiatives – Victoria***

#### ***Appropriate, accessible services under Victorian Eyecare Service, the Visiting Optometrist Scheme (VOS) and the Victorian Aboriginal Spectacles Scheme Subsidy (VASSS)***

An Aboriginal male received an eye health examination under the VOS after previously avoiding examinations after previous negative eye health experiences. He had diabetes for 10 years and had been previously unable to procure glasses. A diagnosis was provided for his vision, along with a diabetic assessment. He was provided with glasses that enabled him to obtain employment and support members of his community with their health needs. It markedly improved his lifestyle and ability to participate in activities he previously was unable to do. The functional improvement from the eye examination and treatment also encouraged him to seek regular diabetic eye reviews and seek support to improve the management of his diabetes.

In 2014, a female Aboriginal person who was also on a disability support pension presented at an Aboriginal community controlled health service in a regional area. Visual tasks such as reading, watching television and participating in recreational activities were extremely difficult. Previously she had an examination with a private optometrist who prescribed her glasses. Due to the costs involved she was unable to afford the glasses and continued for several years without seeking further treatment. Upon accessing the VASSS, she was able to obtain a pair of spectacles which enabled her vision to be corrected and improved her lifestyle.

A young Aboriginal and Torres Strait Islander person attended an optometry examination as part of a Children's Health Day at an Aboriginal Community Controlled Health Service in 2013. The young person reported intermittent blurred vision over a period of time and complained that reading was problematic as he could not see the words. This disappointed the young person as he loved to read. The young person's mother noticed his difficulty in reading and noticed him squinting to see words. The examination revealed eye correction was required and glasses were prescribed under the VASSS. The young person was very pleased as he is now able to read books comfortably.

### **Action Area: Cultural Accessibility**

#### **Victorian Eyecare Service (VES)**

Within the target population, VES focuses on groups that may experience difficulty gaining access to eyecare services:

- people from Aboriginal and Torres Strait Islander backgrounds;
- people from culturally and linguistically diverse (CALD) backgrounds;
- people experiencing financial disadvantage (including people who experience or are at risk of homelessness);
- people living in rural and remote areas; and
- people living in public sector residential aged care, supported residential services, disability accommodation services, youth justice facilities and older person public housing.

There is no restriction on access to VES based on residency status or visa type. Other barriers to access are also considered when targeting VES services. For example age, gender identity, sexual orientation, faith and spirituality may be barriers to access.

### Vision Initiative multilingual materials

According to the 2008 Victorian Health Population Survey, nearly 30% of Victorians who spoke a language other than English at home had never had an eye examination. In local government areas with high levels of cultural diversity, the proportion of Victorians never tested increased to over 50%, including Darebin, one of the Vision Initiative Pilot Project areas.

Community consultations, discussions with key health services and results from the at-risk baseline evaluation of the Vision Initiative identified that CALD groups:

- misunderstood or lacked knowledge on the services offered by optometrists;
- misunderstood that only ophthalmologists could provide eye health services;
- misunderstood that optometry services only provide glasses and do not check the health of the eye; and
- sought information on eye health from their GPs rather than optometrists compared to those from non-CALD backgrounds.

Given the high proportion of people from CALD groups not engaging in eye examinations, many were unnecessarily placing themselves at increased risk of eye disease. To assist in breaking down barriers of health literacy and cultural understanding, the Vision Initiative embarked on a large scale translation project to promote eye health and the role of eye health professionals in six languages. These languages include: Arabic, Greek, Italian, Vietnamese, Cantonese (Chinese Traditional) and Mandarin (Chinese Simplified). These six community languages were identified as the most common languages spoken among CALD groups in Victoria in populations over the age of 40. The translation project was finalised in 2014.

Materials have been distributed through the Vision Initiative Pilot Project areas, and have also been provided to the ACO and the Royal Victorian Eye and Ear Hospital (RVEEH), where large volumes of CALD communities receive eye health services. Multi-media clips were also made available to health and eye health professionals, migrant centres, community health care organisations, Medicare Locals, local government facilities with video playing facilities (e.g. local council receptions and libraries) and have been uploaded to the Vision Initiative website and the Vision 2020 Australia YouTube channel.

The ACO is the primary service provider of VES, managing the state wide service delivery for metropolitan, outreach and rural services. ACO delivered VES at their Carlton site and through associated community health care services across metropolitan Melbourne. ACO delivered VES outreach for people who experience barriers to accessing mainstream services, for this VES provided portable eye care in facilities provided by partner organisations such as supported residential services, public sector residential aged care facilities, Aboriginal cooperatives, homelessness services, youth justice services and disability services, including residents of public housing, residential aged care and supported residential services.

## **Action Area: Public Awareness**

### **Koolin Balit Projects (Victoria's Aboriginal Health Strategy)**

The four Koolin Balit projects built on the delivery, community engagement and health promotion of VES (and VASSS) to raise community and sector awareness about eye health needs and options in four regions: Barwon South Western Region; Loddon Mallee Region; Grampians Region; and the North and West Metropolitan Region.

## ***Key Area for Action 4: Improving the systems and quality of care***

## **Action Area: Service Integration**

### **Victorian Eyecare Service (VES)**

With a holistic approach to eye care, the VES was the first step as people engage with the wider health care system. Working in partnership and collaboration with other community providers to provide services for people in disadvantaged communities ensures better outcomes, multiple health and social issues may be present. When a person received a VES occasion of service, practitioners may also identify referral needs for broader health and wellbeing.

ACO, through their work to deliver VES, collaborated with community health care centres, supported residential services, public sector residential aged care facilities, Aboriginal cooperatives, homelessness services, youth justice services and disability services, private practitioners, the Royal Victorian Eye and Ear hospital, Vision Australia, and the Royal Flying Doctor Service.

To complement and extend VES delivery of subsidised visual aids, ACO delivered eye care services through VOS and Rural Workforce Agency Victoria. ACO had an established VOS programme, delivering eye care services to the Aboriginal communities including Orbost, Lake Tyers, Bairnsdale, Sale, Wodonga, Heywood, Wangoom, Halls Gap, Mildura, Robinvale, Echuca, Swan Hill and Dareton.

### **Victorian Service Coordination Tool Templates (SCTT)**

The SCTT suite of templates facilitate and supported service coordination. The SCTT was revised in 2012 and included prompts about eye health checks for screening and assessment. The SCTT supported the collection and recording of initial contact, initial needs identification, referral and coordinated care planning information in a standardised way. Using the SCTT can improve communication between service providers, the recording of information generated by screening and assessment processes, information sharing, and the quality of referrals and feedback between service providers. This can assist service providers to share relevant information to support better outcomes for consumers.

### ***Example of a successful initiative – Victoria***

#### ***Koolin Balit Aboriginal Eyehealth Advisory Group***

To provide advice on Aboriginal eye health in Victoria and support the Department of Health in developing and implementing the Koolin Balit Aboriginal Eye Health Plan, the Advisory Group discussed Victorian Aboriginal eye health as a stakeholder group, with the aim of closing the gap for vision: by sharing successes and addressing challenges in the implementation of programmes and projects related to Aboriginal eye health. Through the Advisory Group, coordination of state-wide activity in Aboriginal eye health was undertaken to avoid duplication of effort.

The Aboriginal Eye Health Advisory Group includes representatives from the following organisations: Australian College of Optometry, Commonwealth Department of Health, Victorian Department of Health and Human Services, Royal Australian and New Zealand College of Ophthalmologists, Royal Victorian Eye and Ear Hospital, University of Melbourne, Indigenous Eye Health Unit, Vision Australia, Victorian Aboriginal Community Controlled Health Organisation, Victorian Aboriginal Health Service, Vision 2020 Australia, Rural Workforce Agency Victoria, Fred Hollows Foundation and the Victorian Aboriginal Community Controlled Health Organisation.

The Group is extremely active in contributing to high quality eye health policy and identifies and collaborates to improve planning and programmes which are supported by high quality research and data. The group is a leading example of collaboration that brings together a variety of experts in the field to implement change that meets the needs of consumer.

### **Action Area: Workforce Development – Primary Health Care Workforce**

#### **Victorian Eyecare Service (VES)**

Through their delivery of VES, ACO provided opportunities for optometry students to work with the diverse VES client base. Private practice optometrists also had opportunities to work in this VES public health optometry space, by signing up as a VES provider in rural Victoria, or by doing sessional hours at ACO.

#### **Vision Initiative**

The Vision Initiative provided online training for GPs, nurses, home and community care and aged care workers, and pharmacists. Online delivery provides accessible training options both in Victoria and across Australia.

#### **ThinkGP ‘Common Eye Conditions’**

The training module targeted GPs and is available on the [ThinkGP website](#). Health professionals can complete the training for free and receive continuing professional development (CPD) points from the Australian College of Rural and Remote Medicine, the Royal Australian College of GPs and the Royal College of Nursing Australia.

### Australian Primary Health Nurses Association – ‘An Introduction to Eyes’

Practice nurses worked in General Practitioner practices providing assessment, screening, treatment care and education to patients from all sections of the community. They are a growing and vital component to the primary health care team, providing a holistic approach to care. Knowledge of eye health and awareness of the need for vision care is of particular importance when nurses are seeing patients with diabetes, depression, the elderly and those in high risk groups for eye disease. CPD points are available for this training.

### Australian Nursing and Midwifery Federation – ‘Vision Care’

Nurses and midwives make up the largest health professional group in the world and make a positive and lasting contribution not only to the people they care for, but to the whole community. The Australian Nursing Federation’s (ANF) online education platform for nurses and midwives was particularly useful for remote and rural nurses. The Vision Care module takes two hours to complete and it is accredited by the ANF providing CPD points.

### Learning Seat – ‘Introduction to Eyes’

The Vision Initiative has an online training programme that targeted community care and aged care workers with the ‘Introduction to Eyes’.

### Pharmaceutical Society of Australia

#### **Vision Initiative Pilot Projects – Eye Health webinar online training**

A pharmacy training module was developed with an experienced optometrist and delivered in both webinar and face-to-face formats. A webinar was originally delivered on 15 October 2013 and was promoted as a training programme for pharmacists working within Darebin, Greater Geelong, Greater Shepparton and Latrobe. Promotion of the training was done through the Pharmaceutical Society of Australia – Victoria.

## ***Key Area for Action 5: Improving the evidence base***

### **Action Area: Eye Health Data**

#### Victorian Eyecare Service (VES)

The annual performance target for VES is 75,800 occasions of service. These are the figures reported on to the Department of Treasury and Finance. VES data is reported to the Department of Health and Human Services and then to the Department of Treasury and Finance. VES targets are listed in the state budget and must be reported on accordingly. The Department receives data every quarter from the ACO - annotated data in PDF format.

The VES Minimum Dataset provides Department programme managers with data to enable evidence based strategic planning about VES programme policy and future service enhancements/expansions; strengthen monitoring of service delivery and accountability by VES service providers; assist VES service providers in the provision of high quality services and management processes; facilitate consistency and comparability with other Department-funded aged, community care and health services.

## Jurisdictional update – Western Australia

### *Key Area for Action 1: Reducing the risk*

#### **Action Area: Eye Injury Prevention**

Western Australia - Health Promotion Strategic Framework 2012–2016 (WA HPSF)

The WA HPSF sets out WA Health's strategic directions and priorities for preventing chronic disease and injury over a five-year period (2012-2016), including eye health prevention. The goal of the WA HPSF is to reduce the number of people living with chronic disease and/or the impact of injury in WA by helping to adopt healthier lifestyles in communities that are safer and healthier, no matter if they are at home, work or play. The target populations for the HPSF are people who are currently well, and anyone at risk of becoming sick or injured.

Challenges encountered during the reporting period:

- The cessation of the National Partnership Agreement on Preventive Health has had a significant impact on the intensity of jurisdictional efforts in combatting lifestyle behaviours that contribute to chronic disease and injury, including eye health disease prevention.

#### ***Example of a successful initiative-Western Australia***

##### ***Chronic Disease Prevention Directorate modifying chronic disease risk factors***

The Chronic Disease Prevention Directorate (CDPD) was established in 2010 signalling the Departments' intent to play a larger, more proactive role in developing and promoting the state and national prevention agendas. The work of the Directorate is focused on the modifiable risk factors common to most preventable chronic diseases; overweight and obesity, poor diet, physical inactivity, smoking and injury. It also has an important role in supporting and actively encouraging WA Health policies, services and programmes that value and respect the social, cultural and linguistic diversity of the Western Australian community.

During the reporting period (2011-2014), a key responsibility of the CDPD was funding delivery of population-based health promotion initiatives in partnership with the not for profit community services sector, area health services and other government agencies. The CDPD funds programmes in areas of: tobacco, nutrition, physical activity, overweight and obesity, injury prevention and community safety, all while ensuring that contracted services take into account, as appropriate, the needs of culturally and linguistically diverse (CALD) communities. While not directly to do with eyes, these programmes address risk factors common to eye diseases and injury, including overweight and obesity, diabetes, physical inactivity, poor nutrition, and tobacco use.

## **Key Area for Action 2: Increasing early detection**

### **Action Area: Raising Public Awareness**

#### Western Australia (WA) – State Eye Health Plan

The WA State Eye Health Plan (the Plan) provides key recommendations in relation to preventable eye disease and has been used in developing Area Health Service clinical service plans. The Plan was utilised as an internal foundation document to inform the development of three working groups for eye health services in WA:

- Health Promotion and Education Working Group;
- Training and Workforce Working Group; and
- Regional and Indigenous Working Group.

These Working Groups were established to make recommendations relating to health promotion and education, identify opportunities to address key priority issues and to drive the implementation of strategies for eye health in WA.

#### Challenges encountered during the reporting period:

- Due to resource issues and competing priorities limited progress has been made on the WA State Eye Health Plan since 2011-12.

### **Action Area: People with Diabetes**

#### Aboriginal and Older Australian Tele-Eyecare Project

Over an 18 month period February 2012 – June 2014, screening of diabetic, older Australians and Aboriginal people for diabetic retinopathy in the Goldfields and Great Southern regions took place. A total of 781 people were screened in this project which involved the use of satellite broadband services to transmit images to Perth-based ophthalmologists for reading.

#### Challenges encountered during the reporting period:

- difficulty introducing new equipment and systems in health ICT network environment;
- access to Wi-Fi; and
- introducing technological solutions within parameters set by current policies, such as transmission of images and Health Information Network policies related to remote access.

#### Diabetes related outreach health services in WA funded by Rural Health West

During the reporting period, services were provided through two Commonwealth Department of Health programmes: the Rural Health Outreach Fund (RHOF) and Medical Outreach Indigenous Chronic Disease Program (MOICDP). The Outreach Eye Service provided an ophthalmology team to Bunbury and East Perth.

#### Diabetic retinopathy (DR) Screening - Lions Outback Vision

During the reporting period, Lions Outback Vision supported camera operators around the state to provide retinal screening for diabetic patients. Retinal photographs were sent electronically

for centralised grading in Perth. A total of 950 patients with diabetes were screened in 2014 from the Kimberley and Pilbara. The service also includes East Perth, Derbarl and Yerrigan. Patients were followed up for treatment if required by Lions Outback Vision outreach.

An animated diabetic retinopathy video resource was made available through Lions Outback Vision to encourage Aboriginal and Torres Strait Islander people to consider having laser treatment for diabetic retinopathy. It explains how laser treatment works and the process of having laser treatment to halt the risk of progressive vision loss.

## **Action Area: Childhood Screening**

### **Western Australia Country Health Services (WACHS) Trachoma Control Program**

In 2013-14 the Commonwealth Department of Health funded WA with \$5.416 million to conduct the Trachoma Control Program across four WACHS regions (Kimberley, Pilbara, Midwest and Goldfields). The programme aimed to provide trachoma screening, treatment and prevention services to endemic communities in the identified regions.

Aboriginal children aged 5-9 years were the primary target group for screening, conducted in school settings where appropriate. Active cases of trachoma were treated along with household contacts, or community-wide treatment was undertaken depending on trachoma prevalence. Trachoma Control Program activities were based on the Surgery, Antibiotics, Facial cleanliness and Environmental improvements (SAFE) Strategy, with a significant focus on hygiene education and reduction of environmental risk factors in identified communities.

Challenges encountered during the reporting period:

- Continued focus on addressing environmental risk factors was required to sustain gains in reducing trachoma prevalence.

Childhood screening by child health nurses across WA

### **Universal Child Health Schedule and School Health Services (2011- 2014)**

School Entry Health Assessment (SEHA) included distance vision assessment, cover test and corneal light reflection attended for strabismus screening. Any abnormalities were referred to GPs. Parent Evaluated Developmental Scores were completed by parents on SEHA forms.

Children in Care (2011-2014)

Health assessments were conducted within 30 days of children entering into the care of the Department of Child Protection, and included visual behaviours, distance vision, cover test and corneal light reflex. Annual health assessment of all children in care, including the screening tools mentioned previously.

### ***Example of a successful initiative- Western Australia***

#### ***Western Australia Country Health Services Trachoma Control Programs***

From February 2012 to June 2014 the CSIRO/ Western Australia Country Health Services (WACHS) Aboriginal and Older Australian Tele-Eyecare Project identified some cases of diabetic retinopathy and because of early intervention the problems were rectified with minimum harm to patients. This project raised awareness in communities of eye health and the value of screening people at risk of poor eye health.

The WACHS Trachoma Reference Group provided leadership for Trachoma Control Programs in endemic regions and allowed a greater level of collaboration around trachoma control data and activities:

- in 2014, WA identified 59 communities in four regions as being at risk of trachoma;
- of the 59 at-risk communities, 58 communities were determined to require screening for trachoma and one further community was identified as requiring treatment without screening;
- the observed prevalence of trachoma in children aged 5-9 years screened was 2%. Prevalence ranged from 0% - 11.5%;
- no trachoma was reported in 45 communities;
- endemic levels of trachoma were reported in eight communities, including communities that screened for trachoma in 5-9-year-old children and that did not screen in accordance with guidelines; and
- non endemic levels of trachoma have been reported for nine communities over a period of five years which may reclassify these communities as being not at risk for trachoma.

### **Key Area for Action 3: Improving access to eye health care services**

#### **Action Area: Rural and Remote Communities**

##### ***Example of a successful initiative – Western Australia***

##### ***Lions Outback Vision Service and Research***

Lions Outback Vision, established in 2010 as a service and research unit, provides comprehensive eye services to patients in rural and remote Western Australia. During the reporting period, services were provided to the Pilbara, Kimberley, Goldfields, Midwest, Southwest and Great Southern regions of Western Australia. In addition, clinics at Derbarl Yerrigan Health Service (DYHS) and Royal Perth Hospital every six weeks provide metropolitan liaison for country patients and Aboriginal patients living in Perth.

[Dr Angus Turner, Director of Research, Outback Vision at the Lions Eye Institute](#) was named the 2015 First Amongst Equals in the 40 under 40 Awards<sup>33</sup>, for his work in establishing Lions Outback Vision in 2010 to provide specialist eye health services and sustainable models of service delivery in regional, remote and Indigenous communities in WA.

The service emphasises coordination between ophthalmology and optometry, integration with local health services, and the increasing use of telehealth to improve timeliness and access to specialist eye care.

#### **Action Area: Cultural Accessibility**

Translator services were available, and all providers of eye health services who work for WA Health completed mandatory Aboriginal Cultural Awareness training provided by the WA Department of Health.

### **Key Area for Action 4: Improving the systems and quality of care**

#### **Action Area: Service Integration**

Australian Telehealth Research and Development Group (ATRDG)

In June 2012, the Department of Health WA entered into a Grant Agreement with the Commonwealth Scientific and Industrial Research Organisation (CSIRO) to establish the ATRDG based in Perth. Part of the work programme covers a project that connected ophthalmologists to patients with eye conditions in rural and remote Western Australia and Queensland. The aim was to demonstrate a sustainable delivery and business model to continue service provision after the trial. The project used computer-aided grading of images for diabetic retinopathy – disease (mild, moderate or severe)/no disease.

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<sup>33</sup> The 40 under 40 Awards programme recognises and celebrates Western Australia's 40 leading business entrepreneurs under the age of 40. Each year, one person is selected from the 40 winners as the First Amongst Equals and becomes an ambassador for the programme that year.

## Implementation of the Central Referral Service (CRS)

On 24 February 2014 the WA Department of Health launched its new CRS to better manage external referrals for patients requiring a first specialist outpatient appointment including ophthalmic referrals within the public health system. In relation to ophthalmic patients the CRS aims to:

- standardise and streamline the referral process for first specialist outpatient;
- improve access and reduce patient delays for initial outpatient appointment and therefore subsequent downstream services; and
- allocate referrals to the most appropriate site, based on patient location, specialty required, level of service required, and demand measures across the system.

### **Key Area for Action 5: Improving the evidence base**

#### **Action Area: Eye Research Workforce Development**

##### State Health Research Advisory Council (SHRAC) Research Translation Projects 2013

This project, titled *Cost savings and improvements in accuracy and timeliness of diagnosis as a result of employing molecular diagnostic methods for patients affected with an inherited retinal disease*, received \$94,000 in funding to establish the feasibility of translating molecular diagnosis findings into clinical practice, and to establish the resulting cost.

##### WA Department of Health Medical and Health Research Infrastructure Fund

The Fund provides infrastructure funds for researchers as such funds are not generally provided with research grants. These grants cover services such as support staff salaries and overhead costs. A recipient was the Lions Eye Institute, and they received the following funding:

- 2011-12: \$305,020 (GST exclusive);
- 2012-13: \$276,355 (GST exclusive); and
- 2013-14: \$357,575 (GST exclusive).

##### New research facilities in Western Australia

A total of \$50 million from the WA State Government and \$100 million from the Commonwealth Government was allocated to establish new research facilities at the QEII Medical Centre and the Fiona Stanley Hospital. The Lions Eye Institute (LEI) is part of the consortium in the QEII Medical Centre facility, which was opened on 11 March 2014. LEI will have access to more space for staff and equipment to undertake specialised eye research. Lotterywest also provided a grant to the LEI of \$1 million in May 2014 to help purchase equipment including specialised ocular imaging technology which will help clinicians examine in detail the structure of the eye under normal and disease conditions.

#### **Action Area: Eye Health Data**

##### Honours thesis project 2013-14

The project looked into retinal detachment incidence and characteristics in WA using a linked data set extending over a decade. The study was designed to calculate the incidence of retinal detachment in WA between 1996 and 2008, examine trends in surgical repair types over time and determine the

proportion of cases by age, sex, season and comorbid diabetes. The cohort included nearly 2,900 retinal detachment cases, nearly 2,500 of which were incident cases. As well as determining the fact there is no seasonal affect, it was also established that retinal detachment in WA:

- occurred at a rate of between 7.1 and 12.4 cases per 100,00 persons per year between 1996 and 2008;
- occurred at a significantly higher rate for males, people aged between 40 years and 79 years and for those with diabetes; and
- was treated using two main types of surgical procedure, the preference for which changed over the course of the study period.

This research will enable health planners to better prepare for a likely increase in retinal detachment cases due to an ageing population and enable practitioners and health campaigners to target more effectively those at risk. It will also help identify areas for further research.

## Appendix 1: Eye Health Working Group Membership

### Membership of the CCPHPC Working Group in 2015

Jurisdiction	Name/Title	Chair/Member
Commonwealth	Mr Louis Young Director Chronic Disease Management Section Primary Healthcare Branch Health Services Division Department of Health	Chair
New South Wales	Ms Jan Steen Ophthalmology Network Manager, NSW Agency for Clinical Innovation NSW Health	Member
Victoria	Ms Milica Markovic Senior Project Officer Victorian Women's Health Program Department of Health	Member
Queensland	Mr Graham Kraak Director Strategic Policy Policy and Clinician Engagement Unit Queensland Health	Member
Northern Territory	Ms Dagmar Schmitt A/g Director Health Development Territory-Wide Service NT Department of Health	Member
Western Australia	Ms Trish Morton-Smith A/g Development Officer Health Strategy and Networks Strategic System Policy & Planning WA Department of Health	Member
South Australia	Mr Adam Monkhouse A/g Manager Clinical Engagement and Service Development SA Health	Member
Tasmania	Ms Lee McGovern Chief Allied Health Adviser/Director Regulation Department of Health and Human Services Tasmanian Health Service	Member
Australian Capital Territory	Mr Matthew Richter Senior Manager Policy and Government Relations ACT Health	Member

The Working Group was supported by a Secretariat comprised of staff from the Commonwealth

## Glossary of Key Terms for Third Progress Report

Organisation	Description
Aboriginal Health Worker (AHW)	Aboriginal and Torres Strait Islander health workers who provide clinical and primary health care for individuals, families and community groups. They deal with patients, clients and visitors to hospitals and health clinics and assist in arranging, coordinating and providing health care in Aboriginal and Torres Strait Islander community health clinics.
APY Lands	Anangu Pitjantjatjara Yankunytjatjara (APY) lands are a large Aboriginal local government area located in the remote north west of South Australia.
Allied Health Professionals (AHPs)	Tertiary qualified health professionals who apply their skills to diagnose, restore and maintain optimal physical, sensory, psychological, cognitive and social function. They include, but are not limited to: Aboriginal health workers, audiologists, speech pathologists, nutritionists and dietitians, occupational therapists, optometrists, pharmacists, physiotherapists, podiatrists, psychologists, and social workers.
COAG	Council of Australian Governments (COAG) – the peak intergovernmental forum in Australia. COAG comprises the Prime Minister, State Premiers, Territory Chief Ministers and the President of the Australian Local Government Association.
Child Family Health Nurse (CFHN)	CFHNs are registered nurses with further qualifications in the specialty of child and family health nursing. CFHNs are recognised as practicing at an extended level of nursing working within a primary health care model with families, their infants and young children.
Community health care	Diagnostic, therapeutic and preventative health services provided for individuals in the community, funded by the states and territories. These services may share a number of characteristics of primary care and primary health care services, and provide more specialised community based health services for defined target groups, for example post-acute care, aged care, mental health, and drug and alcohol services.
Diabetic retinopathy	A condition in which the retina is damaged by high and abnormally varying levels of blood sugar associated with diabetes.
Indigenous Diabetes Eyes and Screening (IDEAS)	The Queensland Government and Diamond Jubilee Partnerships Ltd fund the Indigenous Diabetes Eyes and Screening (IDEAS) Van. The initiative aims to give Aboriginal and Torres Strait Islander people living in regional and remote Queensland access to specialist eye health services.
General Practitioner (GP)	A registered medical practitioner who is qualified and competent for general practice in Australia. A general practitioner has the skills and experience to provide whole person, comprehensive, coordinated and continuing medical care and maintains professional competence for general practice.
Local Health District (LHD)	Local Health Districts (LHDs) are an arm of, and are funded by, the NSW Government Ministry of Health. LHDs have responsibility

Organisation	Description
	for the delivery of public health care in defined geographic areas of NSW and manage all public health facilities throughout NSW from major teaching hospitals to small district hospitals. Eight LHDs cover the Sydney metropolitan region and seven LHDs cover rural and regional NSW.
Medicare Locals	Network of independent primary health care organisations linked to local communities and health professionals established under the national health and hospital reforms to improve access to care and integration across GP and primary health care services. Disbanded in 2015 to be replaced by Primary Health Networks (PHNs).
Medical Outreach Indigenous Chronic Disease Program (MOICDP)	<p>MOICDP is funded by the Commonwealth Department of Health and administered by Rural Health West. The MOICDP aims to increase access to a range of health services, including expanding primary health for Indigenous people in the treatment and management of chronic diseases.</p> <p>The objectives of the MOICDP program are to increase access to multi-disciplinary services in primary health care settings and to increase the range of services offered by visiting health professionals to prevent, deter and manage chronic disease more effectively.</p> <p>MOICDP focuses on five chronic conditions: diabetes, cardiovascular disease, chronic respiratory disease, chronic renal (kidney) disease and cancer.</p>
Multidisciplinary care	A multidisciplinary team involves a range of health professionals, from one or more organisations, that work together to deliver patient care. A multidisciplinary team may include GPs, practice nurses, community health nurses, allied health professionals and health educators.
My Eye Health Program (South Australia)	<p>Four organisations in South Australia established a community education programme around issues of eye health, intervention and rehabilitation: The Royal Society for the Blind, the Freemasons Foundation, the Royal Australian and New Zealand College of Ophthalmologists (South Australia Branch) and Sight for All.</p> <p>The programme aims to educate and create awareness of:</p> <ul style="list-style-type: none"> <li>• eye health and prevention of vision loss;</li> <li>• eye care services available;</li> <li>• referral pathways;</li> <li>• skills transfer to the allied health sector and local government; and</li> <li>• management and rehabilitation strategies for chronic vision loss.</li> </ul>
National Diabetes Services Scheme (NDSS) <sup>34</sup>	The National Diabetes Services Scheme commenced in 1987 as an initiative of the Commonwealth administered by Diabetes

<sup>34</sup> [National Diabetes Services Scheme](#)

Organisation	Description
	Australia. The NDSS delivers diabetes-related products at subsidised prices and provides information and support services to people with diabetes. Registration is free and open to all Australians diagnosed with diabetes. The NDSS website has an online services directory and map with population data about Australians diagnosed with diabetes.
National Diabetes Strategy Advisory Group (NDSAG) <sup>35</sup>	The Government committed to developing a new National Diabetes Strategy to prioritise the national response to diabetes and identify appropriate approaches to addressing the impact of diabetes in the community. In December 2013 the then Minister for Health and Minister for Sport announced the establishment of an Advisory Group to provide advice on all aspects of the National Diabetes Strategy development process, which provides expert policy advice to Government to develop a national response to diabetes across prevention and primary health care, support for patients with complex health conditions and the growing burden of chronic disease on our health system.
Nurse practitioner	Registered nurse with advanced educational preparation and experience, who is authorised to practice in an expanded nursing role, including prescribing medicines and ordering and interpreting investigations and tests that may have traditionally been performed by other health professionals.
Optometrist	A qualified practitioner who practices optometry, providing primary eye and vision care, eye examinations to detect vision problems, and who prescribes corrective lenses to correct vision problems.
Ophthalmologist	An ophthalmologist is a medical doctor who has undertaken additional specialist training in the diagnosis and management of disorders of the eyes and visual system; the medical and surgical care of the eyes and visual system and prevention of eye disease and injury.
Primary care	Also referred to as primary medical care. Community-based services which often constitute the first point of contact for people experiencing an illness. The focus is on clinical services provided by GPs, practice nurses, primary/community health care nurses, early childhood nurses and community pharmacists.
Orthoptist	Orthoptists were traditionally involved in the management of patients with eye movement disorders and specifically with strabismus (squint), double vision and amblyopia (lazy eye). Over the last several decades orthoptists have expanded their role and not only specialise in eye movement disorders but are also involved in the care of patients with eye disease such as cataracts, glaucoma, diabetic eye disease, age related macular degeneration, systemic or neurological vision disorders and low vision.

<sup>35</sup> [National Diabetes Strategy Advisory Group – February 2014 to December 2015](#)

Organisation	Description
Primary Health Care (PHC) <sup>36</sup>	A health reform movement launched at Alma Ata in 1978 to move towards Health for All. Incorporates primary care, with a broader focus through providing a comprehensive range of generalist services by multidisciplinary teams that include GPs, nurses, AHPs and other health workers such as multicultural health workers, AHWs and community development workers. Also incorporates: health education; health promotion; shifting service delivery to people-centred primary care; ensuring health in all policies; and promoting inclusive leadership and governance.
Primary Health Networks (PHNs)	PHNs replaced Medicare Locals and work directly with GPs, other primary health care providers, secondary care providers, hospitals and the broader community to ensure improved outcomes for patients. PHNs will be outcome focussed to improve services between primary care and hospital treatment for patients with chronic or complex conditions, in alignment with Local Health Networks.  The Commonwealth set six key priorities for PHNs to target work in mental health, Aboriginal and Torres Strait Islander health, population health, health workforce, eHealth and aged care.
Remote Area Nurse (RAN)	A Remote Area Nurse is defined as a registered nurse whose day to-day scope of practice encompasses broad aspects of Primary Health Care and requires a generalist approach.  This practice most often occurs in an isolated or geographically remote location. The RAN is responsible, in collaboration with others, for the continuous, coordinated and comprehensive health care for individuals and their community. <sup>37</sup>
Retinopathy of Prematurity (ROP)	An eye problem seen in some premature babies where the blood vessels in the retina have developed abnormally after birth.
Rural Health Outreach Fund (RHOF)	The RHOF is an Australian Government programme which consolidated the activities of five programmes to provide a larger, flexible funding pool for initiatives aimed at improving access to medical specialists, GPs, allied and other health providers in rural, regional and remote areas of Australia. The Fund supports the delivery of all medical specialties and a range of primary health care services in rural, regional and remote Australia. These include but are not limited to multi-disciplinary maternity services, eye health services and their coordination, and services by female GPs.
SAFE WHO-developed strategy for trachoma <sup>38</sup>	International efforts to eliminate trachoma as a blinding disease are based on the WHO-developed strategy "SAFE" which stands for Surgery for trichiasis (inturned eyelashes), Antibiotics, Facial cleanliness and Environmental improvement. These

<sup>36</sup> [Health Systems Strengthening Glossary](#)

<sup>37</sup> [A Framework for Remote and Isolated Professional Practice](#)

<sup>38</sup> [Prevention of Blindness and Visual Impairment](#)

Organisation	Description
	interventions are community targeted and seek community involvement through the primary health care approach and were decided at a meeting convened by the WHO programme for the Prevention of Blindness and Deafness held at WHO's headquarters, Geneva, in 1996.
Sight for All	Sight For All Foundation is an eye health care partnership organisation with a moral commitment to fighting blindness in the developing world. Based at the South Australian Institute of Ophthalmology in Adelaide, Sight For All seeks to determine, through collaborative field research, the magnitude and causes of blindness in partner countries and to offer solutions that can help reduce the overwhelming socio-economic impact of visual impairment. By assisting local ophthalmologists and their staff with the equipment and skills to prevent blindness and restore sight, the Foundation can leave a long-term legacy of sustainable care with ripple effects improving the daily lives of thousands of people.
TAZREACH in Tasmania <sup>39</sup>	Originally known as the MSOAP (Medical Specialist Outreach Assistance Program), established with the aim of increasing access to health services in rural and remote areas of Australia by supporting outreach services to these areas. The term TAZREACH was used when MSOAP expanded to include funding support for allied health professionals. TAZREACH incorporated the following programmes: MSOAP – Maternity Services (MSOAP-MS); MSOAP – Indigenous Chronic Disease (MSOAP – ICD); Urban Specialist Outreach Assistance Program (USOAP). In 2013, the Commonwealth Department of Health consolidated existing funding measures into two new funds, the Rural Health Outreach Fund (RHOF) and the Medical Outreach Indigenous Chronic Disease Program (MOICDP). The main changes to TAZREACH since transitioning to RHOF and MOICDP are: funds can be used to support allied health professionals, nurses, and medical specialists; multi-disciplinary teams can be supported to provide outreach services; and services can be provided to inner regional areas such as Launceston and Hobart.
Telehealth	The use of electronic information and communication technologies to provide and support health care when distance separates the participants.
Trachoma	Trachoma is the leading infectious cause of blindness in the world. It is caused by an obligate intracellular bacterium called <i>Chlamydia trachomatis</i> . The infection is transmitted through contact with eye and nose discharge of infected people, particularly young children who are the principal reservoir of infection. It is also spread by flies which have been in contact with the eyes and noses of infected people.

<sup>39</sup> [The History of TAZREACH](#)

Organisation	Description
Trichiasis	Trichiasis means ingrowth or introversion of the eyelashes. It is the medical term for abnormally positioned eyelashes that grow back toward the eye, touching the cornea or conjunctiva, causing irritation.
The Visiting Optometrists Scheme (VOS)	The Visiting Optometrists Scheme was established in 1975 to provide funding to optometrists to deliver outreach eye care services to people living in regional, rural and remote locations, who do not have ready access to primary eye care services. In 2009-10 the VOS was expanded to provide increased optometry services to Aboriginal and Torres Strait Islander people, particularly in remote and very remote locations.