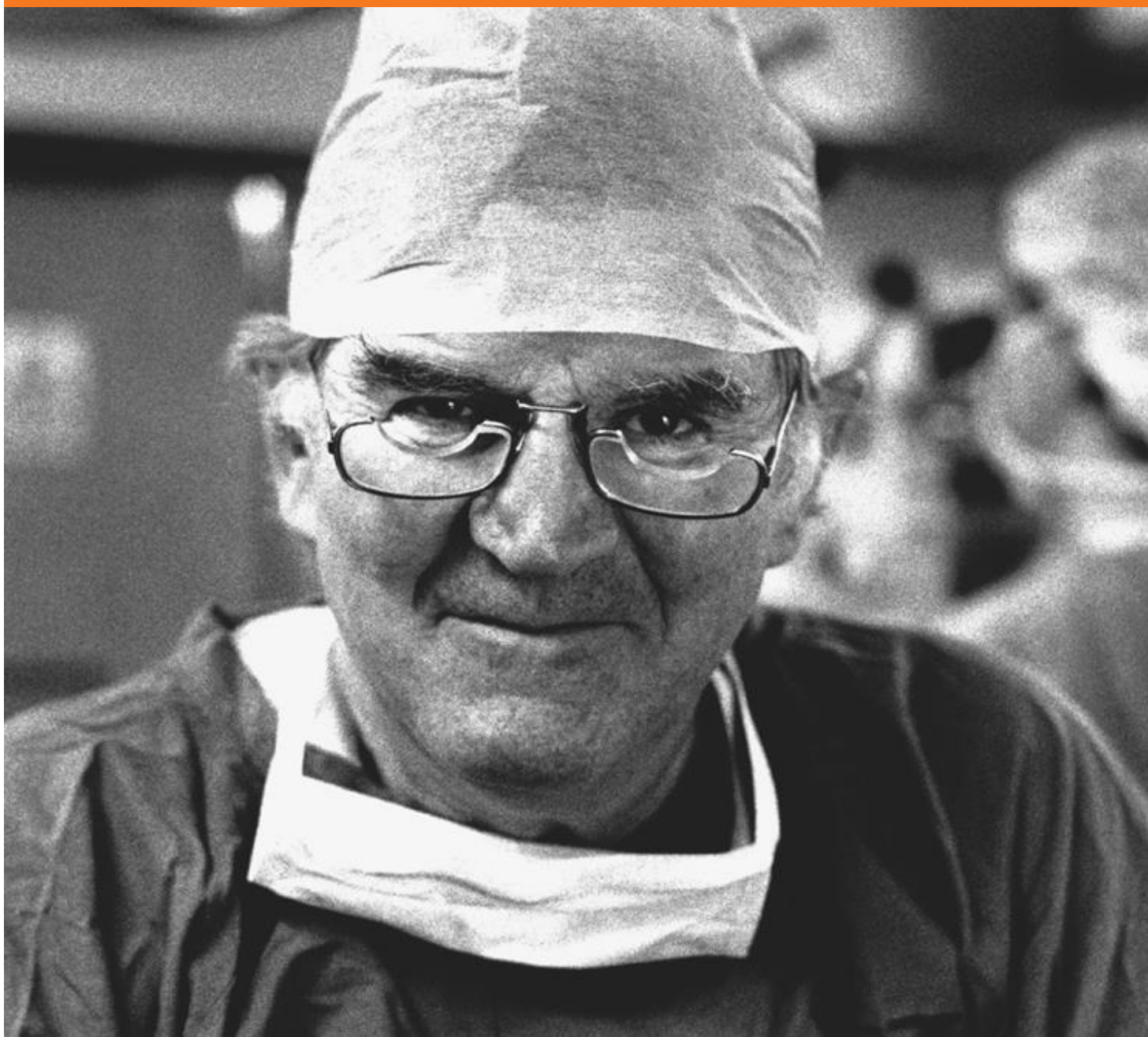


WORKING TO DETECT, ASSESS AND TREAT DIABETIC RETINOPATHY IN ABORIGINAL AND TORRES STRAIT ISLANDER POPULATIONS

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INTRODUCTION

Diabetic retinopathy (DR) is the third leading cause of vision loss and blindness for Aboriginal and Torres Strait Islander people. Timely diagnosis (via annual diabetic eye checks or retinal examinations) and treatment are vital to prevent vision loss from DR.

The Indigenous Australia Program (IAP) has invested in projects focused on raising awareness about and improving detection and treatment of DR.

KEY ACHIEVEMENTS

The IAP DR programs have developed and tested components of the model of care for diabetes eye health. Specifically, the partner-led, IAP supported programs have focused on:

- Patient centric care – by ensuring the right care in the right place for Aboriginal and Torres Strait Islander people living with diabetes
- Equitable access – by reaching remote populations
- Integrated care – by strengthening treatment protocols and referral pathways
- Efficient utilisation of resources – by providing retinal cameras and task-shifting retinal examinations to health care professionals in primary health care (PHC) settings to facilitate more accessible examinations
- Quality, comprehensive care – by developing systems for ensuring examinations lead to treatment, as appropriate.



Diabetic retinopathy

Diabetic retinopathy (DR) is a serious eye problem that can develop in people with diabetes. It occurs when chronic high blood sugar levels result in changes in blood flow that damage small blood vessels in the retina of the eye (i.e. the thin layer of tissue that lines the back of the eye on the inside). DR progresses over time and can lead to vision loss and blindness.

Diabetic retinopathy among Aboriginal and Torres Strait Islander people

Diabetic retinopathy is the third leading cause of blindness in Aboriginal and Torres Strait Islander adults with diabetes. It accounts for 20% of blindness (Foreman et al 2016).

Diabetic retinopathy contributed to a higher proportion of vision impairment cases in Aboriginal and Torres Strait Islanders adults with diabetes when compared to non-Indigenous adults with diabetes (5.5% versus 1.5%) (Foreman et al 2016).

Detecting diabetic retinopathy

Regular retinal examinations are needed to detect DR. If a special digital camera (retinal camera) is available to take photographs of the retina, retinal examinations can be carried out by a health worker, nurse or doctor in primary health care settings. Eye specialists (optometrists or ophthalmologists) can also carry out retinal examinations using a retinal camera, slit-lamp or ophthalmoscope.

The National Health and Medical Research Council (NHMRC) guidelines recommend that Aboriginal and Torres Strait Islander people with diabetes have a retinal examination every year (and every second year for non-Indigenous people).

In 2016, almost half of the Aboriginal and Torres Strait Islander people living with diabetes had not undergone the recommended annual retinal examination (Foreman et al 2016).

Treating diabetic retinopathy

Treatment is usually required when DR has advanced to proliferative stage, characterised by the growth of new retinal blood vessels, or when the part of the eye responsible for central vision begins to be affected by macular oedema^a.

Treatment for DR can slow or prevent vision loss. Treatment options include:

- Laser treatment – to seal leaking blood vessels and reduce growth of new fragile (abnormal) vessels, helping prevent vision loss
- Intravitreal injection – which involves injection of medications directly into the vitreous of the eye^b
- Surgery – for severe cases of vision threatening DR.

(Dirani, 2013)

^a Diabetic macular oedema is characterised by the leaking of blood from the damaged vessels of the retina into the macular (the section of the eye that enables clear, sharp vision).

^b The vitreous chamber is positioned at the back of the eyeball. It takes up around 80% of the eye.

BACKGROUND

Context

The DR related work of the IAP is influenced by factors in the external and internal environments. Key external factors include government policy and technology. The key internal factor is the organisation's strategic plan.

External environment

In November 2016 two new items, 12325 and 12326, were listed on the Medicare Benefits Schedule (MBS). MBS items 12325 and 12326 enable general practitioners and specialists managing patients' diabetic care to test for diabetic retinopathy with a non-mydriatic retinal camera¹. Aboriginal and Torres Strait Islander patients are eligible for the test once every year (item 12325) and non-Indigenous patients once every two years (item 12326).

The new items are designed to enable easy and affordable eye screening within PHC settings. They have been described as a major advance in closing the gap for vision (Taylor, 2017).

Table 1 shows the number of services claimed or processed under each item since they were introduced. More detailed patient demographics are available from the [Australian Department of Human Services website](#).

Table 1: Medicare items processed from July 2015 to May 2017

MBS Item	State / Territory					Total
	NSW	VIC	QLD	WA	NT	
	Services	Services	Services	Services	Services	Services
12325	3	16	117	95	1	232
12326	54	106	52	23	1	236
Total	57	122	169	118	2	468

(Source: [Australia Department of Human Services Medicare Australia Statistics website](#). Retrieved July 11, 2017)

Further, the Australian Department of Health is investing AUD\$4.8 million in equipment (retinal cameras and slit-lamps) and training (for PHC workers on how to use retinal cameras). The plan is designed to support the new MBS items. The initiative is being rolled out over three years from July 1, 2016.

These initiatives have informed the efforts of the IAP to support partner organisations to embed diabetic eye care into their PHC.

¹ Non-mydriatic retinal cameras are fully automated (thus requiring minimal operator experience) and deliver an 80% accuracy rate for images captured. Pupil dilation is not required for many people. Although Aboriginal and Torres Strait Islander people often need to have dilating eye drops (IAP Development Effectiveness Bulletin 8).

Internal environment

The Fred Hollows Foundation Strategic Plan 2014 – 2018 includes three long-term outcomes relevant to DR:

- Eye health services are available throughout the world for people living with diabetes
- Eye health services and systems are sustainable, and integrated into national health systems
- Eye health is appropriately resourced.

These long-term outcomes underpin and influence the approach adopted by the IAP to address DR.

Direct programming responses

Table 2 details projects implemented to: integrate eye health services for Aboriginal and Torres Strait Islander people living with diabetes into health care settings, and; ensure these services are appropriately resourced.

Table 2: IAP DR Programs

Project name	Description	Key outputs
Diabetic Retinopathy Screening Trial (2012)	<p>The project gave PHC workers the skills and resources required to conduct retinal examinations as part of diabetes health checks / chronic disease management plans.</p> <p>The workers were located in five remote health centres – two government and three Aboriginal Community Controlled Health Services (ACCHOs).</p> <p>Key activities were as follows:</p> <ul style="list-style-type: none"> • Five retinal cameras (the CentreVue Digital Retinography System) were installed in five remote health centres– two government clinics and three Aboriginal Community Controlled Health Organisations – in the top end of the Northern Territory. • PHC workers (Aboriginal and Torres Strait Islander health practitioners, diabetes educators, doctors and remote area nurses) participated in training. • The training covered the installation, maintenance and use of the retinal camera and referral procedures including the transfer of retinal images. It also covered visual acuity checks. 	49 PHC workers trained

Project name	Description	Key outputs
Pilbara Diabetic Eye Care Program (2014-2016)	<p>Working with the Lions Outback Vision (LOV), the project involved integrating retinal photography into well-established optometry and ophthalmology services in the Pilbara region of Western Australia. Key activities were as follows:</p> <ul style="list-style-type: none"> • Retinal cameras were placed in community controlled clinics and hospitals. • Aboriginal Health Practitioners and Remote Area Nurses, in remote clinics, were trained to use the cameras to screen for DR. • Health promotion resources on eye health and eye conditions were developed and disseminated to community health services and community members. • An eye care patient pathway was developed and implemented to ensure patients were referred directly to the optometry schedule and / or specialist services, as required. • An 'eye' database was developed to incorporate private optometry records and retinal examination reports for ophthalmologists. 	<p>2015 387 retinal examinations</p> <p>2016 22 eye care workers trained in DR clinical support 17 health workers trained in basic eye health 421 retinal examinations 133 DR treatments (including laser and vitreo-retinal surgery)</p>
Integrating DR screening into chronic disease model of care (2015 – present)	<p>This project involves supporting the Sunrise Health Service (SHS), an Aboriginal Community Controlled Health Organisation (ACCHO), to integrate DR detection into their existing chronic disease management (CDM) process. The Head Office of the SHS is based in Katherine, Northern Territory. SHS services 14 communities located east of Katherine. Activities completed to date are as follows:</p> <ul style="list-style-type: none"> • A retinal camera was placed at SHS health centres. • An Aboriginal and/or Torres Strait Islander Health Practitioner (AHP) was employed to facilitate the retinal camera training and coordinate diabetic eye checks and visiting optometry and ophthalmology services. • A diabetes retinal photo-screening course was delivered to CDM and PHC workers. • Standard operating procedures for utilisation of the camera were developed. • The CDM treatment protocols were updated to incorporate eye care. • Patient referral pathways were developed, along with a schedule for visiting optometry and ophthalmology services. 	<p>2015-2016 10 health staff (doctors, nurses and health workers) trained in diabetes retinal photo-screening 167 retinal examinations</p> <p>2017 174 retinal examinations</p>

Project name	Description	Key outputs
Nganampa Health Council – Eye Health Coordination Project (2015-present)	<p>The Nganampa Health Council (NHC), an ACCHO delivering primary health care to the Anangu on the APY lands in remote north west South Australia, partnered with the IAP to increase access to eye care. Joint project activities relevant to the detection, assessment and treatment of DR are as follows:</p> <ul style="list-style-type: none"> • A full-time eye health nurse was employed (with funding from IAP). • A retinal camera was purchased • Specialist treatment (coordinated by the eye health nurse) has been available for DR treatment. <p>The NHC is also documenting all Medicare income generated from item 12325 with a view to understanding whether this revenue will be sufficient to fund eye health positions in the future.</p>	<p>2015 28 DR treatments</p> <p>2016 262 retinal examinations 24 DR treatments</p> <p>2017 6 treatments (up to June 30, 2017)</p>

Reflections on the IAP contribution to DR detection

All of these IAP supported programming responses are contributing to the detection, assessment and treatment of DR in Aboriginal and Torres Strait Islander populations. Table 3 provides some basic (first-order) estimates of how much of the need for annual retinal examinations has been met. In the Pilbara and Katherine regions the IAP supported programming responses meant that over half of the estimated number of adults with diabetes requiring an annual retinal examination received one. For example, the estimated number of adults in the Pilbara requiring an annual retinal examination was 760². In 2015 the LOV delivered 387 retinal examinations (meeting 51% of the estimated need) and in 2016 it was 421 (or 55% of the anticipated need). In the APY lands more adults received retinal examinations than estimated by the calculator for delivery of eye care services³ (262 compared to 232).

Table 3: Estimate of how IAP supported programming responses are meeting the need for annual retinal examinations

	Pilbara (LOV)	Katherine Region (SHS)	APY Lands (NHC)
Estimated Aboriginal and Torres Strait Islander population	7,903 (ABS 2017)	2,835 (ABS 20117)	2,409 (ABS 2017)
Estimated of number of adults (40 years or more) with diabetes requiring annual retinal examination ³	760	273	232
Actual retinal examinations provided in 2015	387 (51%)	167 (61%)	No data available
Actual retinal examinations provided in 2016	421 (55%)	174 (63%)	262 (113%)

² This estimate is based on prevalence rates from the 2009 National Eye Health Survey. It is derived from calculator for delivery and coordination of eye care services (see below).

³ The calculation for the number of Aboriginal and Torres Strait Islander people over 40, with diabetes, requiring annual retinal examinations was derived using the Minum Barreng Indigenous Eye Health Unit [calculator](#) for delivery and coordination of eye care services. The calculator estimates for a given population of Aboriginal and Torres Strait Islander people the annual requirements for delivery of eye care services.

In future the IAP will work with partners to capture baseline data (resident populations, prevalence and incidence rates of diabetes etc.) and strengthen the capture of service delivery monitoring data to enable more accurate calculations.

Other complementary IAP activities

In addition to these direct programming responses, the IAP is seeking to strengthen eye care systems. Many of the IAP initiatives with this aim include discrete activities that facilitate or enable early detection, assessment and/or treatment of DR.

Central Australian Barkly Integrated Eye Health Strategy (CABIEHS)

- The CABIEHS is driven by a partnership between key eye health stakeholders in the Central Australian and Barkly regions of the Northern Territory. Members come from Aboriginal Community Controlled Health Services, the Northern Territory and Commonwealth Governments, the IAP and other non-government stakeholders.
- The CABIEHS partners have been investigating options for integrating and improving eye health information systems across service providers in the region. This work involves a review of how PHC providers can upload retinal images for review by ophthalmologists.

Ophthalmic Equipment

Getting equipment in the right place to ensure the right care by the right people at the right time

- In 2014, the IAP entered an agreement with the Australian Government Department of Health to purchase specialised ophthalmic equipment. These equipment included three DRS retinal cameras. One was provided to Derbal Yerrigan (an Aboriginal Medical Service in Perth). The other two were provided to the Sunrise Health Service and Lions Outback Vision (see table 2).
- In 2015, the IAP donated an IOL Master and OCT Machine to the Top End Health Service to replace existing ophthalmology equipment that was sent to the Gove District Hospital. The IOL Master allows for fast, accurate measurements of multiple areas of the eye which are necessary for cataract surgery. The OCT (Optical coherence tomography) machine uses light waves to take cross-section pictures of the retina. An ophthalmologist uses the pictures to diagnose retinal disease including diabetic retinopathy.



National eye care equipment inventory project (NECEIP)

- In 2016, the Australian Department of Health engaged the IAP to work with health services to catalogue existing eye care equipment in PHC facilities in regions that have a high proportion of Aboriginal and Torres Strait Islander people. The project focuses on eye health testing equipment (such as retinal cameras and slit-lamps).
- The Australian Department of Health will use the collected information to assist in identifying sites for the: placement of new retinal cameras and slit-lamps; maintenance of existing equipment, and; provision of training.

Knowledge translation and exchange

- The IAP and the Australian Indigenous HealthInfoNet developed an evidence-based [diabetic retinopathy factsheet](#) and [animated infographic](#). These resources were designed to inform practice among PHC providers caring for Aboriginal and Torres Strait Islander people with diabetes and support health education.

Workforce initiatives

Coordination and culturally appropriate patient support

- The IAP has funded a number of coordination positions. Dedicated coordination positions, like Regional Eye Health Coordinators, arrange services for patients with eye health needs and support the patients along the pathway of care. The IAP experience suggests that investment in a coordination workforce results in the improved uptake of eye care services; improved continuity of care for people with diabetes and DR; and increased health literacy amongst people with diabetes. Further work is needed to robustly identify, confirm and document all the benefits of the coordination positions.
- The IAP has also funded a number of Indigenous Liaison Officer (ILOs) positions. ILOs provide emotional, social and cultural support to Aboriginal and Torres Strait Islander patients and their families when they seek eye care (either in outreach settings or at hospitals). Anecdotal accounts indicate that ILO involvement in eye care improves communication between patients and eye care professionals and reduces 'no-show' or non-attendance rates for eye health services. Further investigations are needed to validate the full benefits.

Supported ophthalmic practice

- The IAP has supported fifth year ophthalmology trainees to obtain clinical experience in hospitals and private settings. In 2016, a fifth year ophthalmology trainee worked at Royal Darwin Hospital as part of the Top End Integrated Eye Health Program. Almost 40 procedures for DR (including laser and surgery) were undertaken during the placement. In the same year another trainee was placed with the [Lions Eye Institute](#)⁴ in Western Australia. Over three hundred DR procedures were completed in 2016 and almost 250 up to June, 30 2017.
- In 2017 the IAP funded the [vision van](#) operated by the Lions Eye Institute. The van completes two circuits per year throughout the Western Australia. Places visited include Fitzroy Crossing, Halls Creek, Kununurra and Warmun. It is a mobile eye health clinic, providing comprehensive ophthalmology care for cataracts, trachoma, glaucoma and DR.
- In 2016-17, the IAP funded the [Outback Eye Service \(OES\)](#)⁵ to employ a full-time ophthalmic nurse and a part-time orthoptist. These positions increase the capacity of the OES to deliver ophthalmic services to the western NSW region.

⁴ The Lions Eye Institute (LEI) is a not-for-profit organisation providing eye care delivery and research into the prevention of blindness. It incorporates Lions Outback Vision. The Lions Outback Vision provides telehealth (to manage eye health issues via the internet and telecommunications) and outreach services. The outreach services are delivered using the 'vision van' (described above).

⁵ The Outback Eye Service (OES) provides ophthalmology services to rural and remote areas of New South Wales. The program has been running for over 10 years.

Initiatives from the global team at The Fred Hollows Foundation

The Global Partnerships, Policy and Advocacy Division (GPPA) commissioned an Australian-based research project related to DR. The [Telehealth Eye and Associated Medical Services Network \(TEAMSnet\) project](#) ran for four years (2012-2016). It involved using web-based health information and mobile tablet technologies to prevent, detect and manage DR and cardiovascular disease. For further information contact [The Fred Hollows Foundation's Research Unit](#) or [TEAMSnet](#).

REFLECTIONS AND LEARNINGS

Table 3 details reflections on and key learnings gained from implementing, together with partners, DR programs in Australia. Reflections and learnings are provided against a number of *guiding principles*. The Foundation's Global Program Division identified these [guiding principles](#) to inform the development of DR programs.



Table 3: Reflections on and lessons learned (by guiding principle) when implementing DR programs in Australia

Guiding Principles for DR Programming	Reflections on IAP DR Programming	Learnings and Opportunities
<p>Programs align with The Foundation’s Diabetic Eye Health Strategy and grow the evidence base for effective models of eye care</p>	<ul style="list-style-type: none"> The IAP DR programs address the Diabetic Eye Health Strategy priority of ‘select programming to build an evidence base for DR programs’. Operational research in DR programming has not been undertaken to date. 	<ul style="list-style-type: none"> The establishment of the Policy, Advocacy and Engagement unit within the IAP will enable the pursuit of other priorities within the Diabetic Eye Health Strategy such as local advocacy to build a commitment to diabetic eye care. DR operational research will be included in the research strategy for 2018.
<p>Locations are selected where opportunities exist to promote available, accessible and/or affordable eye care for people with diabetes</p>	<ul style="list-style-type: none"> IAP partnered with well-established PHC clinics with a desire to enhance diabetes eye care delivery. Programs were designed to support the integration of eye care into the routine care of people with diabetes. 	<ul style="list-style-type: none"> Partner capacity limited the full implementation of some projects. Current efforts to enhance capacity assessments will help the IAP to identify all of the enablers and barriers to the implementation of integrated diabetic eye care. Assessment results will inform program design and delivery in future.
<p>Integrated and comprehensive models of eye care developed and tested</p>	<ul style="list-style-type: none"> The IAP programs were designed to integrate eye care into PHC and ensure that care was coordinated between the various service providers. 	<ul style="list-style-type: none"> Well-coordinated optometry and ophthalmology services in WA supported the delivery of treatment for people identified with DR. These services successfully used telehealth. Optometrists contacted an ophthalmologist (at agreed times) to introduce patients requiring specialist care, obtain explanations of treatment options and secure patient consent. Retinal images and examination reports were shared using a custom built eye database. Further work is required with stakeholders in other jurisdictions to enable such seamless communication. Lessons learned from the WA-based project will inform future IAP programming and advocacy actions for enhanced diabetic eye care through telehealth The lack of an AHP to coordinate diabetes eye checks and visiting optometry and ophthalmology services, for the duration of the SHS project, will most likely result in a failure to meet service delivery targets. <p>In the Kimberley (WA), a Diabetic Eye Health Coordinator was associated with improved examination outcomes and expansion of the DR screening program (Moynihan & Turner 2016).</p> <p>This research highlights the importance of continuing to document the benefits of the coordination workforce. The evidence generated will contribute to advocacy efforts to secure sustainable funding for eye care coordination roles in the future. In addition, the IAP may consider a project related to workforce recruitment, training and retention.</p> <p>Partner organisations often experience difficulties recruiting and retaining workers. Identifying the reasons for poor retention and possible solutions will help the IAP to determine whether it can - through direct programming, policy or advocacy efforts – help facilitate positive change.</p>

Guiding Principles for DR Programming	Reflections on IAP DR Programming	Learnings and Opportunities
<p>Efficient, cost-effective, innovative approaches delivered and tested through partners</p>	<ul style="list-style-type: none"> • The DR programs were delivered through local non-government partners. • The programs involved efficient, innovative approaches including placement of retinal cameras, identification and training of ‘non-eye’ health professionals (i.e. PHC workers as opposed to optometrists or ophthalmologists) to conduct examinations and strengthened referral pathways. • The programs considered and sought to address access issues for remote Aboriginal and Torres Strait Islander populations. • Chronic disease prevention and treatment plans were updated to incorporate eye care. 	<ul style="list-style-type: none"> • The IAP programming responses have been localised. With a view to adopting a health systems strengthening approach, there is an opportunity to determine whether and how local lessons might be applied at a regional, state and national level to enhance the six building blocks of a health system⁶. Existing governance structures, such as CABIEHS, could provide an avenue for identifying / confirming health system strengthening priorities and determining joint action for positive change in the availability and accessibility of diabetic and DR services. IAP priorities include: <ul style="list-style-type: none"> ○ Sustainable sources of finance for the upkeep and maintenance of retinal cameras. ○ A clinical protocol that will enable remote area nurses and Aboriginal and Torres Strait Islander Health Practitioners to administer dilating eye drops for retinal photography. • To potentially streamline the review of retinal images and referrals the IAP is interested in investigating the use of retinal image grading software. • To ensure diabetic eye care is available to all target populations retinal cameras may need to be transported to satellite clinics. Where appropriate, arrangements will continue to be made to ensure cameras are portable (e.g. custom made hard cases). • The PHC workers participated in an instructor-led diabetes retinal photo-screening course. Flexible training media (such as DVDs or online sessions) may be required to ensure health services retain the capacity to conduct retinal examinations despite staff turnover. • Program implementation revealed the high workplace demands on PHC workers reduced their ability to incorporate retinal examinations into their everyday practice. The IAP will explore other avenues (such as CQI processes; see below) to support the integration of diabetic eye care into standard practice routines. • With the introduction of MBS item 12325 there will continue to be opportunities to work with partner organisations around how best to use this mechanism to introduce or increase retinal screening in a sustainable and cost-effective way.
<p>The program development approach of The Foundation is adopted</p>	<ul style="list-style-type: none"> • Both of the DR programs were designed in keeping with the program development approach of The Foundation. 	<ul style="list-style-type: none"> • In future our analysis of the eye health needs will be strengthened by the efforts of governance structures, like CABIEHS, to identify and obtain timely local and regional data on the prevalence and incidence of diabetes and DR.

⁶ The six building blocks of a health system are: service delivery; health workforce; information; medical products, vaccines and technologies; financing, and; leadership and governance (World Health Organisation 2007).

Guiding Principles for DR Programming	Reflections on IAP DR Programming	Learnings and Opportunities
<p>Programs are developed, assessed and monitored according to quality standards</p>	<ul style="list-style-type: none"> A monitoring and evaluation framework was developed for each program. (See the section on challenges for more information). 	<ul style="list-style-type: none"> An opportunity exists for the IAP to investigate and possibly adopt the quality standards under development by The Foundation⁷. The IAP team also have considerable experience in continuous quality improvement (CQI). Internal discussions are underway around how CQI might be adopted to support the provision of quality, affordable and integrated eye care services.

⁷ The Foundation is developing quality standards by which DR programs can be planned, delivered and measured. For more detail see section eight of the document titled [Diabetic Eye Health Programming at The Fred Hollows Foundation: An Overview and Guide](#).

CHALLENGES

As Table 3 demonstrates the IAP is accumulating a wealth of knowledge about the enablers and barriers to improved detection and treatment of DR for Aboriginal and Torres Strait Islander populations. All of the lessons learned from previous programming experiences will inform the design of future programming, policy and advocacy actions.

To strengthen the evidence base the IAP needs to demonstrate the outcomes, impacts and cost-effectiveness of DR programs. While the IAP has sought to embed sound monitoring and evaluation into project design, limited partner capacity and/or competing priorities within partner organisations have contributed to delays in the conduct of timely evaluations.

Given the importance of generating evidence on the suitability and effectiveness of components of care and of the model of care as a whole, the IAP will work with partner organisations to implement monitoring and evaluation approaches appropriate to the project context. Innovative solutions will be sought to challenges faced in the past. For example, project officers may be embedded within partner organisations to establish a baseline and collect, analyse and use information to track a project's progress toward desired objectives.

FUTURE DIRECTIONS

IAP will continue to work with partner organisations to integrate eye care into diabetic patient care and ensure that care is well coordinated between the various service providers. Lessons learned from previous projects will inform these efforts. Monitoring and evaluations will also be conducted to demonstrate the outcomes and impacts of DR programs.

Operational research in DR programming will be included in the research strategy for 2018. Research projects under consideration include measuring the cost effectiveness of retinal examinations in PHC settings as compared to other settings and investigating the effectiveness of task-shifting retinal examinations to 'non-eye' health professionals.

Generated evidence will be used to support policy and advocacy actions designed to embed and coordinate the detection, assessment and treatment of DR.



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