RANZCO’s Vision for Australia’s Eye Healthcare to 2030 and beyond

Timely and equitable access to eye healthcare services for all Australian residents regardless of postcode, ethnicity, or income to eliminate avoidable blindness.
RANZCO Vision 2030 and beyond

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This is a living document and will be regularly reviewed and updated by The Royal Australian and New Zealand College of Ophthalmologists, in consultation with stakeholders.

Please see Appendix - Version Control History for major changes made to earlier version.

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We acknowledge the Aboriginal and Torres Strait Islander Peoples, the Traditional Owners of Country throughout Australia and recognise their continuing connection to land, waters and community. We pay our respects to them and their cultures; and to their Elders past, present and emerging. In recognition that we are a bi-national College, we also acknowledge the Rangatiratanga of Māori as Tangata Whenua and Treaty of Waitangi partners in Aotearoa New Zealand.
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Timely access to eye healthcare prevents more than 80% of permanent visual impairment and blindness and is a fundamental human right—

the Right to Sight
Introduction

Sight, as our predominant sense, is integral to our wellbeing, affecting childhood development, education, relationships, independence and productivity.

Timely access to eye healthcare prevents more than 90 per cent of permanent visual impairment and blindness\(^1\), which may otherwise, without timely treatment, become irreversible.

Therefore, access to timely eye healthcare is a fundamental human right – the Right to Sight.

At present in Australia, access to eye healthcare is not equitable. Aboriginal and Torres Strait Islander people, ethnic minorities and other vulnerable groups, regional Australian residents, and those Australians with lower incomes have reduced access to eye healthcare.

As a result, there is a higher rate of visual impairment and blindness in these groups\(^1\) – some of which are irreversible and would have been prevented with timely eye healthcare intervention. This does not sit well with the societal values we hold dear as a country.

This is not new knowledge. Many individuals and organisations, including RANZCO, have been involved in attempting to address this problem over many years with some successes. But still, considerable inequity remains, mainly due to inherent and worsening shortfalls in the structure and funding of our healthcare system.

In addition to the problem of inequity, the need for eye healthcare services is increasing across all patient groups. This is due to our growing and ageing population, with eye disease more prevalent in older Australians, increased obesity and thus diabetic retinopathy, and the advent of new treatments and technologies, which improve outcomes but require increased servicing and costs to deliver.

As the medical college in Australia responsible for the education of ophthalmologists, the doctors who treat the conditions causing permanent visual impairment and loss, RANZCO is ideally placed to lead the way among eye healthcare stakeholders and ensure there is one coherent plan for Australian eye healthcare into the future.

Now more than ever, against the backdrop of a global pandemic, Australian eye healthcare services need to come together to ensure equitable eye healthcare services for all Australian residents.

RANZCO’s Vision for Australia’s Eye Healthcare to 2030 and beyond, lays out RANZCO’s understanding of why our healthcare system is failing vulnerable Australians\(^2\) and what changes are needed to address this problem. It considers how the Australian healthcare system needs to change to meet the increasing demand for services over the coming decades.

This document also considers how foreign policy reform to advance Australia’s engagement in global health diplomacy offers a myriad of potential reputational, regional stability and economic benefits.

This is a pivotal opportunity to transform eye healthcare in Australia and consolidate Australia’s position as a regional leader in sustainable healthcare delivery. We owe this to our patients, our profession, the country and future generations of eye healthcare professionals.
Executive Summary

Timely access to eye healthcare prevents more than 90 per cent of permanent visual impairment and blindness which may otherwise, without timely treatment, become irreversible. It is a basic human right – the Right to Sight.

The need for eye healthcare service delivery continues to increase due to the ageing of Australia’s growing population, advances in medical technology and increased obesity in the population driving an increased prevalence of diabetes and diabetic retinopathy.

Ophthalmology is the branch of medicine dealing with the diagnosis, treatment and prevention of diseases of the eye and visual system and is an essential component of comprehensive multidisciplinary service delivery to acute inpatients in hospital settings.

Ophthalmology service delivery is 80 per cent ambulatory care typically in the outpatient clinic setting and includes the management of common sight-threatening chronic diseases such as age-related macular degeneration, diabetic retinopathy and glaucoma. Most acute presentations are managed in the outpatient setting. The other 20 per cent of ophthalmology comprises surgery care, usually as a day case, with cataract surgery being the most common surgical procedure in Australia.

Access to eye healthcare in Australia is not equitable resulting in an eye health gap

Adult and paediatric public ophthalmology services across Australia are under-resourced to meet the needs of the population they serve with, increasingly long waitlists to access outpatient and inpatient (elective surgery) services. More than half of public ophthalmology outpatient facilities have reduced their services and no longer offer comprehensive ophthalmology services.

Public ophthalmology outpatient services are maldistributed being centralised in larger cities and absent in most regional Local Health Networks (LHNs), even where ophthalmology workforce is available and in many urban LHNs and/or outer urban areas. Consequently, at present, approximately 30 per cent of the entire population and more than 60 per cent of the Aboriginal and Torres Strait Islander population, which is more regionally based, have no or very limited access to publicly funded outpatient services in the area they live.

Regional LHNs are under-resourced. There are longer waits on average in Australia for public ophthalmology elective surgery services in regional LHNs.

Patients are facing increasing costs when accessing healthcare in the private sector. Increasing health insurance policy cost, decreasing policy value with increasing out-of-pocket costs, increasing exclusions, variable benefits and complex and confusing private health insurance policies are well documented along with a reduced and ageing private health insurance membership population. Reduced private health insurance membership and increased out-of-pocket expenses put additional stress on the already overburdened public hospital system.

Poor access to eye healthcare results in increased rates of visual impairment and blindness and is very costly to individuals, to communities, and to Australia

For example, delayed cataract surgery results in prolonged poor vision and delayed access to intravitreal injection is evidenced to cause permanent loss of sight.

Visual impairment and blindness increase the rates of falls, fractures, and motor vehicle accidents, exacerbate dementia, and reduce individuals’ capacity to work, substantially increasing costs to the healthcare, aged care, and social welfare systems and decreasing productivity.

The siloing of funding streams (between departments and jurisdictions) is a barrier to ensuring returns from investment in healthcare, and the consequences of failing to adequately fund healthcare are considered downstream.

The strong underlying principle of our healthcare system in Australia

Medicare, the backbone of Australia’s healthcare system, was founded on the principle of universal healthcare that is simple, fair, and affordable. In signing the National Health Reform Agreement (NHRA), the current funding agreement underpinning public hospital service delivery in the name of Medicare, all the governments of Australia have committed to ensuring equitable access to excellent healthcare. The clinical governance frameworks of each jurisdiction confirm their commitment to excellent and equitable service delivery.
**Service delivery gaps**

Australia has large gaps in healthcare service delivery and unacceptable inequities in health outcomes and access to healthcare services. Service delivery is poorly coordinated with unclear roles and responsibilities, limited accountability, inadequate data collection, and inefficient use of current technology. Multiple reviews recommend structural healthcare reform.  

The unclear and overlapping roles and responsibilities of the Commonwealth, the states, and providers are barriers to coordinated, clinically effective, and efficient health care and have resulted in gaps in service delivery with unacceptable inequities in health outcomes and access to healthcare services and increasing costs and inefficiencies generated by the ‘blame game and cost shifting’ between levels of government.  

The National Commission of Audit (NCOA) implicated the National Health Reform Agreement (NHRA) as a cause of cost-shifting and gaps in service due to duplication and lack of clear accountability for service delivery.  

There are no mechanisms embedded in the NHRA that ensure parties meet the terms of the agreement and little or no consequences for jurisdictions failing to deliver on the agreements made in the NHRA.  

The overlapping roles and responsibilities of the State and the commonwealth have resulted in poor coordination of Australia’s healthcare system, which has not taken advantage of the digital revolution. Siloed patient results and records across and within jurisdictions have resulted in increased risks to patients and substantial inefficiency in and increased costs of service delivery. Poor coordination has led to the fragmentation of patient data across multiple jurisdictions and providers resulting in chronic poor visibility of service delivery shortfalls and gaps at local, jurisdictional, and national levels, and hampering the design and evaluation of health reform solutions.  

Structural reform is required to meet the needs of the population and for the cost of healthcare in Australia to be sustainable into the future.  

**The AIHW reportable data does not fully meet the objective of the NHRA**  

The Australian Institute of Health and Welfare (AIHW), per the Australian Health Performance Framework, is tasked with ensuring clear and transparent annual public reporting of the performance of every LHN. This objective is not achieved because outpatient and procedural waitlist data are not included in the AIHW mandatory reporting data requested from jurisdictions. This resulted in poor transparency regarding the delivery and availability of these essential services.  

**The distribution of healthcare services across Australia is largely arbitrary**  

The distribution of healthcare services across Australia is largely arbitrary with no overarching plan as to what services are best delivered in each area to meet the needs of the population.  

What healthcare services are delivered where and in what order is decided at the local level and largely based on historical service delivery. This has resulted in poorer outcomes for patients, less value for the healthcare dollar, unacceptably high geographic healthcare variation, and healthcare costs rising at an unaffordable rate.  

Australia requires a coordinated, evidence-based, national, consumer-focused framework to inform and enable the delivery of safe, high-quality care in the right place at the right time – with appropriate demographic and geographic calibration.  

The development of an Atlas of Healthcare Delivery Standards (‘the Atlas’) by specialty, patient demographics, and geographic area for all healthcare will:  

- address healthcare variation and the unacceptable inequities in access to healthcare services and health outcomes across Australia by providing LHNs with a detailed map of outpatient and inpatient public hospital services that must be delivered within their area.  
- inform what services should be delivered and in what order for the best patient outcomes and value to the community.  
- remove service inequity resulting from LHNs being left to decide what services they will pay for and which they won’t.
The development of the Atlas will require a national conversation with detailed stakeholder engagement. RANZCO sees the potential to increase access to and distribution of public hospital eye healthcare services by formalising and funding high-value multidisciplinary models of care involving ophthalmologists, optometrists, orthoptists, nurses, allied health assistants, GPs, and Rural Generalists, and incorporating these models in the Atlas. In addition to service mapping, the Atlas could provide coordinated oversight at the national, regional, and local level, and a commitment to establishing benchmarks for minimum standards of access to all healthcare, including primary care, across the diversity of models of care, for every Australian regardless of where they live. 

**Workforce distribution and sustainability are inextricably linked with equitable public hospital service delivery**

The chronic lack of investment in public ophthalmology services across Australia, as outlined above and brought about by chronic shortfalls in funding and governance, has driven a substantial and increasing imbalance in the ophthalmology workforce between the public and private sectors, with most specialist ophthalmology full-time equivalents (FTE) (84 to 87 per cent) in the private sector. It has resulted in a shortage of public ophthalmology training positions and is a direct threat to the sustainability of the ophthalmology workforce in Australia as reported in the 2018 Australia’s Future Health Ophthalmology Workforce Report, which presents long-term, national workforce projections for doctors to 2030.

We recommend the National Medical Workforce Strategy Committee works with the Colleges to set, at the LHN level, per capita Key Performance Indicators (KPIs) for optimal public hospital specialist and specialist training FTE for all specialties and embed these in the National Health Reform Agreement; appropriate given specialist workforce is a key resource in service delivery.

**Workforce maldistribution**

RANZCO is working hard to tackle workforce maldistribution having increased the proportion of trainees with a regional background and having inaugurated a regionally enhanced training network in which trainees spend 60 per cent or more of their training in regional Australia. Both strategies are evidenced to be powerful tools in sustainably addressing workforce maldistribution.

A nationally coordinated strategy that enables medium to long-term workforce planning and funding certainty, especially for regional training posts, would greatly assist colleges in developing and maintaining regionally enhanced programs.

**Aboriginal and Torres Strait Islander Healthcare**

Aboriginal and Torres Strait Islander peoples experience blindness and vision loss at three times the rate of other Australians and wait significantly longer for common sight-saving treatments.

Most Aboriginal and Torres Strait Islander peoples are regionally based. However, 37 per cent of the Indigenous population live in urban areas where they face additional barriers to accessing health care. They comprise just two per cent of the total urban population, are widely dispersed within this much larger, less vulnerable population and largely living in outer urban areas where access to services and public transport are commonly inadequate.

Chronic inadequate investment in and inequitable delivery of public hospital services have had and continue to have the biggest impact on the Indigenous population as Aboriginal and Torres Strait Islander eye healthcare delivery is largely dependent on public hospital and no gap private services. As detailed above, these services are overwhelmed throughout Australia and are commonly absent or in very short supply in the areas where the Indigenous population lives.

Additionally, many Aboriginal and Torres Strait Islander peoples have experienced and continue to face personal challenges and systemic and structural barriers. Health services continue to be unsafe with one-third of Aboriginal and Torres Strait Islander patients reporting in a recent survey that they did not access health services when they needed to for cultural reasons.

Aboriginal and Torres Strait Islander peoples must share in decision-making when developing and implementing solutions to close the gap.

Widespread improvement in public hospital eye healthcare is likely to improve access for Aboriginal and Torres Strait Islander populations but will take years to deliver. And this population will still be at a disadvantage compared to non-Indigenous Australians as increased healthcare delivery will not address the additional challenges many Aboriginal and Torres Strait Islander peoples face.
RANZCO recommends the Commonwealth work with the Australian Indigenous Doctors’ Association (AIDA), the Coalition of Peaks, National Aboriginal Community Controlled Health Organisation (NACCHO), the jurisdictions, the Colleges, and other stakeholders to develop special measures that facilitate access to healthcare services (not just ophthalmology) for Aboriginal and Torres Strait Islander peoples.

Consider working with jurisdictions and community stakeholders to develop a novel approach to funding all healthcare services (not just ophthalmology) for Aboriginal and Torres Strait Islander peoples at a jurisdictional level within the current NHRA framework. For example, consider the case for an Indigenous Local Health Network in each jurisdiction managed in partnership with the community.

Uncorrected refractive error is the most common cause of visual impairment in Australia, with a higher prevalence in the Aboriginal and Torres Strait Islander population. It accounts for approximately 60 per cent of visual impairment in this population. Urgent action is required to address this longstanding issue and ensure unhindered access to these essential healthcare optical aids for Aboriginal and Torres Strait Islander people and other vulnerable Australians.

**Global Eye Health**

Australia finds itself in a rapidly changing geopolitical environment. The upgrading of Official Development Assistance (ODA) may represent a valuable soft diplomacy tool to enhance Australia’s standing both regionally and globally. Health initiatives are pivotal to ODA.

A coordinated strategy that prioritises the diplomatic goals of the national government and involves key governmental and non-governmental stakeholders across the sector is likely to have the maximum impact. This system-level approach has not been used before and RANZCO believes that now is the time for it to happen. RANZCO, as part of its strategic plan, seeks to play an important part in the development and implementation of this strategy.

RANZCO is strategically placed through its association with other medical colleges, and partnerships with national and international bodies, and institutions such as the World Health Organisation (WHO) and the International Agency for the Prevention of Blindness (IAPB) to move things forward and facilitate the development of sustainable Eye Health Care Systems by optimising cooperation across an essential and fully funded and NGO sectors.

**Preventative healthcare – structural reform is required**

“Today’s challenge is chronic disease prevention, diagnosis and management. The idea that health policy now requires a strong focus on chronic disease burden is not new, and it has been a focus of both current and previous Australian governments who have acknowledged it as a significant challenge. There is broad consensus that unless we make fundamental changes, the costs of preventable illness and resulting health care demand will continue to be a major issue for governments and individuals alike. However, the ineffective management of chronic disease is still abundantly clear across Australia’s health service arrangements.”

Chronic poor investment in preventive healthcare is resulting in substantially increased costs in the areas of healthcare, social welfare, aged care, National Disability Insurance Scheme (NDIS), etc and has huge negative economic consequences for Australia as a nation. The path forward is hampered by poorly coordinated and duplicated preventative healthcare arrangements across Australia with governments having unclear roles and responsibilities. There is limited accountability, inadequate data collection, and inefficient use of current technology.

Effective preventative healthcare in Australia requires structural reform with national cohesive stewardship that delineates clear roles and responsibilities, and ensures preventative healthcare is embedded within the national healthcare funding framework as a fully funded part of healthcare, rather than as a separate entity.

RANZCO sees value in the development and implementation of a universal national screening program for diabetic retinopathy that utilises newer more cost-effective technology. Likewise, a national childhood visual screening program is highly likely to be an excellent return on investment with evidence highlighting the role of such a program in ensuring early intervention and minimising the impact of eye disorders on children’s developing visual system.
Sustainability
While many environmental issues are of concern, climate change is distinct because it is a major public health issue, and this empowers doctors to have a strong voice in this area. The World Health Organisation acknowledges climate change to be a major threat to public health in the 21st century and there are already effects observable in the Australian health context.

Healthcare decarbonisation specific to the delivery of eye healthcare requires multiple actions by ophthalmologists as leaders and advocates in the complex health system. Examples that will be important in reducing emissions include reducing travel emissions, reducing consumption of single-use supplies, and making changes to improve sustainability at a clinical practice level while maintaining quality and safety.

As an organisation, RANZCO undertakes to measure the emissions attributable to corporate activities (carbon footprinting) and put in place an appropriate strategy for emission reduction and offsetting to reach net-zero emissions within this decade.

Conclusion
Vision 2030 and beyond represents a pivotal opportunity to transform eye healthcare in Australia and consolidate Australia’s position as a regional leader in sustainable healthcare delivery. We owe this to our patients, our profession, the country, and future generations of eye healthcare professionals.
Our Australian Healthcare System

There is a lot to be proud of in looking at the healthcare system we have in Australia. We have world-class medical services that offer access to cutting-edge care and technologies in both public and private settings. The Pharmaceutical Benefits Scheme (PBS) provides timely access to most necessary medications including, after rigorous evidential assessment, high-cost drugs new to the market. Australian universities, working with teaching hospitals across the nation, offer high-quality education to our many medical students and allied health professionals, and Australian medical researchers are commonly at the forefront of their fields.

We should be particularly thankful for the aspiration of universal access to these world-class services. Medicare espouses to be a universal health insurance scheme, which guarantees all Australians (and some overseas visitors) access to a wide range of health and hospital services at low or no cost. Safety nets have been set up to help access the PBS and out-of-hospital services for low-income families and individuals. There is a robust private sector providing access to specialist services which is subsidised by the private health insurance rebate. The 2020-25 National Health Reform Agreement (NHRA)\(^5\), which underpins the funding of public health care, undertakes to provide equitable access to public hospital services free of charge based on clinical need. Independent National Bodies support Australia’s governments to deliver health and the Health Council is tasked with implementing the NHRA.

With such a robust framework, one may ask why we need this document as there should be equitable delivery of all necessary services given that this is an overarching goal of the sophisticated legislative framework and agreements in place. The best answer to this is that the delivery of healthcare across a nation is a complex task, particularly where multiple governments together hold the responsibility. The NHRA Addendum 2020-2025 recognises there are problems, noting “The current health system in Australia is fragmented, making it difficult for people to get well-coordinated care. There is a complex split between the Commonwealth and State governments, and the not-for-profit and private sectors, regarding who is responsible for planning, funding and delivering different services.”

The National Health Reform Agreement (NHRA) – Long-term health reforms roadmap\(^6\) lays out seven reform streams to deliver the Quadruple Aim in health care—improved health outcomes, improved patient experience, improved provider experience and improved effectiveness and efficiency. Under the NHRA, the Health Council (HC) will take responsibility for implementing this reforms roadmap with the reform streams fitting under the four critical priorities of (1) improving efficiency and ensuring financial sustainability, (2) delivering safe, high-quality care in the right place at the right time, (3) prioritising prevention and helping people manage their health across their lifetime and (4) driving best practice and performance using data and research.

Health spending has generally grown faster than the rest of the economy since 2000–01\(^7\). The ratio of health spending to gross domestic product (GDP) increased from 8.3 per cent in 2000–01 to 10 per cent in 2017–18. Reform is needed to ensure high-quality healthcare is affordable and available to all Australians into the future.

In this document, RANZCO puts forward recommendations for reforms that will add value by improving transparency and accountability, reducing healthcare variation and increasing efficiency. RANZCO challenges governments to implement these necessary reforms which, rather than adding cost, will add value and efficiencies making our healthcare system more affordable into the future.
In response to the NHRA Reforms Roadmap, RANZCO sees considerable inequity in the delivery of eye healthcare across Australia, which is causing unnecessary, sometimes permanent, loss of vision and agrees healthcare reform is needed.

We believe the funding agreements underpinning healthcare are resulting in unintended consequences on the ophthalmology workforce whilst understanding there is also scope for RANZCO to act in this area.

We agree there is a lack of investment in preventative healthcare and poor coordination of health technology including patient data management and that detailed planning and implementation of reforms are essential to ensure a sustainable and equitable healthcare system into the future.

We also see an opportunity for Australia to advance its standing internationally and augment regional stability by increasing its engagement in global health diplomacy.

This document will examine each of these problems in six key areas of focus: service delivery, workforce and training, closing the gap for Aboriginal and Torres Strait Islander healthcare, global eye health, preventative healthcare and sustainability.

Firstly, we will explain why timely access to eye healthcare is so important and what conditions make up more than 80 per cent of eye healthcare needs.
The Importance of Timely and Accessible Eye Healthcare

Why should we all care about eye health?

Why is equitable access to timely quality eye healthcare services a fundamental human right?

- Vision, as our dominant sense, is one of the cornerstones of our existence, affecting early childhood development, schooling and higher education, relationships and the ability to work and live independently.

- The World Report on Vision, WHO, 2019 notes:
  "Vision impairment occurs when an eye condition affects the visual system and one or more of its vision functions. Vision impairment has serious consequences for the individual across the life course. Many of these consequences can, however, be mitigated by timely access to quality eye care and rehabilitation.”

  "The vast majority of cases of vision impairment caused by common eye conditions, such as diabetic retinopathy and glaucoma, are avoidable with early detection and timely intervention.”

- The Economic Impact of Vision Loss in Australia in 2009 is one of many reports documenting the economic impact on society of impairment or loss of sight. This remains a topical issue with Marques et al noting in their 2021 article Global economic productivity losses from vision impairment and blindness that "blindness and moderate and severe vision impairment are associated with a large economic impact worldwide”.

- There is a substantial body of evidence that visual impairment is a risk factor for and results in a substantially increased incidence of falls, hip fractures and mortality. These risks were reversible with treatment (e.g. cataract surgery) demonstrating the potential for considerable health and economic benefits from investment in eye health services to reduce wait times.

Our Right to Sight

- Timely access to sight-saving ophthalmic care is a fundamental human right.

- More than 90 per cent of permanent vision impairment and blindness is avoidable with early detection and timely intervention.

- Moderate and severe vision impairment are associated with a large economic impact.
Five Common Conditions That Cause Visual Impairment in Australia

Five common conditions account for more than 80 per cent of visual impairment in Australia. Apart from cataracts – all are chronic conditions requiring ongoing management. The prevalence of each of these conditions increases in later life - Figure 1

**Figure 1: Age-specific prevalence rates of distance blindness and moderate to severe vision impairment (MSVI) by cause and sex in adults aged 50 years and older in 2020. Solid lines show sex-specific prevalence estimates, with shaded areas indicating 95 per cent uncertainty intervals.**

**Uncorrected refractive error**

This is the most common cause of moderate to severe visual impairment in Australia. The National Eye Health Survey\(^4\) found that the prevalence of severe uncorrected refractive error was 1.1 per cent in non-Indigenous and 14.5 per cent in Indigenous Australians. Risk factors included older Australians, Indigenous Australians, geographical remoteness and not having an eye examination in the previous two years.

**Cataract**

Cataract is a leading cause of treatable vision loss worldwide and in Australia\(^1\),\(^5\). Impaired vision from cataract is caused by progressive clouding of the normally clear lens\(^8\),\(^16\). Individuals with visually significant cataracts experience decreasing visual acuity, typically with an accompanying loss of contrast sensitivity, difficulties with glare and altered colour recognition. This disease is most often age-related with the prevalence increasing rapidly in the later years of life. The definitive treatment for cataracts is the surgical removal of the cataractous material and implantation of a new, synthetic lens.

**Age-related macular degeneration**

Age-related macular degeneration (AMD) is a degeneration of the macular (central retina) causing impairment of the central (detailed) vision\(^8\). The prevalence of AMD increases rapidly in later years. Eight per cent of AMD is the dry form, where there is a gradual degeneration of the macular for which there is no treatment. Twenty per cent of AMD is the wet (neovascular) form where new vessels grow in the macula which leak and can cause a rapid loss of vision\(^16\).
Neovascular AMD remains the leading cause of irreversible blindness in Australia\(^1\) and positive outcomes depend on timely diagnosis and early treatment\(^17\). However, many patients stop their regular outpatient intravitreal injection treatment, with PBS data showing that 28 per cent discontinue treatment after one year and 45 per cent after two years. Left untreated, over 75 per cent of patients are blind within three years\(^17\) demonstrating the negative health and economic outcomes of poorly funded eye care.

Unaffordable out-of-pocket expenses that patients must cover in private hospitals and the lack of ongoing IVI treatment availability in many public hospital outpatient clinics are central to patients choosing to withdraw from these sight-saving treatments\(^18,19\).

**Diabetic retinopathy**

Diabetic retinopathy (DR) is the most common microvascular complication of diabetes\(^20\). The global prevalence of diabetes has tripled in the past 20 years\(^21\). Early detection and timely treatment of vision-threatening diabetic retinopathy can prevent up to 98 per cent of blindness from this cause\(^20\).

*The Global Burden of Disease Study, Lancet Global Health, 2021\(^22\)* finds that “diabetic retinopathy continues to be an identifiable cause of vision impairment. This is of particular concern in younger, economically active age groups” and goes on to note that “the management of severe diabetic retinopathy requires a disproportionate amount of resources”.

*The Burden of Diabetes in Australia Report 2018\(^23\)* finds that “Given the strong evidence that the development and progression of complications can be prevented, improved care and management of people with diabetes could substantially reduce this burden.”

**Glaucoma**

*The Commission on Global Eye Health: vision beyond 2020\(^15\)* notes “Glaucoma is the second leading cause of blindness (age-standardised prevalence), which results in substantial disability before blindness, yet remains undertreated globally. In most prevalence surveys from high-income countries, less than half of all detected glaucoma was previously diagnosed”.

Detection and management of glaucoma present significant challenges:

- There is a need to provide effective treatments that prevent glaucoma progression – by reducing intraocular pressure - but glaucoma lacks a one-stop solution such as cataract surgery, because of its chronic nature and complexity of management.

- Individuals need ongoing monitoring to determine whether their glaucoma is progressing.

Affordable and effective screening approaches are needed to identify individuals at risk of sight loss because glaucoma is mostly asymptomatic until relatively late in the disease.
Inequitable delivery of eye healthcare services in Australia is resulting in avoidable permanent blindness.

Commission on Global Eye Health: vision beyond 2020

- "Access to eye care is not equally distributed between and within countries, with marginalised and socially disadvantaged populations experiencing more difficulty in accessing the required care."
- "In many high-income countries, people can access the eye care they need, although often the most marginalised groups such as Indigenous people or other minority ethnic groups are unable to access eye care, such as those in the USA. Another example is Australia, where most non-Indigenous Australians have access to good quality cataract surgery (effective cataract surgical coverage achieving 6/12 or better, 88.5 per cent, 95 per cent CI 85.2–91.2) compared with only half of Indigenous Australians (51.6 per cent, 42.4–60.7)."

There is an increasing need for eye healthcare services in Australia driven by:

- **Australian population growth of 1.7 per cent per annum**
- **Increasing prevalence of sight-threatening ophthalmic disease in our community**
  - The increasing prevalence of obesity in Australia is driving a higher prevalence of diabetes and consequent diabetic retinopathy.
  - The ageing of Australia’s population is well documented and as the prevalence of cataracts, AMD, DR and glaucoma increase with age, so does the burden of disease which requires treatment. Glaucoma, AMD and DR are chronic diseases requiring long-term care which compounds this burden.

- **Ongoing advances in technologies and treatments have improved patient outcomes and continue to increase the proportion of patients with treatable diseases:**
  - Resulting in increasing resource utilisation and therefore cost due to an increasing patient base and increasing time and cost required to deliver eye healthcare services per patient.
  - For example, the introduction of intravitreal injections for DR and AMD has resulted in an increased need for ongoing patient review and treatment.

- **Chang et al** “With the increased prevalence of sight-threatening ophthalmic disease, it is projected that the number of people with vision-related disabilities and in need of orientation and mobility services will grow exponentially over the coming decades. General health promotion and specific strategies of early detection and timely treatments of major eye diseases may ameliorate the trend in vision-related disability.”
1. An overview of ophthalmology service delivery

1.1 How ophthalmology service delivery differs from other medical and surgical specialties
- 80 per cent of ophthalmology is outpatient-based with an infrequent need for hospital admission beyond day-stay surgery even for acute eye diseases.
- Most acute ophthalmic care is managed in the outpatient setting, often bypassing the general emergency department and infrequently requiring surgery.
- Just 20 per cent of the time spent delivering ophthalmology involves surgical intervention and other inpatient care – the vast majority of this is elective day-stay surgery.

1.2 Eye outpatient services are high-value activities that prevent patients from developing more serious morbidity from existing medical conditions and thus reduce the need for high-cost inpatient services
- Common, sight-threatening chronic diseases requiring ongoing management to prevent permanent visual loss such as diabetic retinopathy, glaucoma and macular degeneration, are managed in the outpatient setting.
- Patients who are unable to gain timely access to ophthalmology outpatient services have a higher risk of permanent visual loss and blindness more than 90 per cent of which is preventable with existing highly cost-effective interventions.
- Many reports over decades, from Australia and across the globe, evidence the profound economic impacts of unnecessary visual impairment and blindness – the irreversible nature of visual loss, if treatment is delayed in chronic ophthalmic diseases – and the higher costs of delivering care when delayed access to treatments results in more advanced disease presentation.

1.3 High-value, collaborative models of outpatient care can assist in facilitating access to public eye healthcare services across Australia
- As a key component of Vision 2030 and beyond, RANZCO has commenced consultation with stakeholders such as Optometry Australia, Orthoptics Australia, the Australian Ophthalmic Nurses Association, and the Royal Australasian College of General Practitioners and the Australian College of Rural and Remote Medicine, to document and further develop collaborative models of care based on existing research and experience in Australia and elsewhere. A resource outlining these models of care will be developed and made available to health service providers. See Focus on Workforce and Training for further details.
- Models of care would clearly define the roles of each eye care professional and incorporate co-management pathways with optometrists, orthoptists, nurses and GPs.

1.4 Ophthalmology services play a crucial role in Australia’s tertiary and quaternary hospitals
- Ophthalmology is one of the medical specialties required to deliver a comprehensive multidisciplinary service to acute inpatients.
- Despite the infrequent need for patients being managed solely for eye diseases to require acute hospital admission, ophthalmologists do commonly deliver urgent and crucial inpatient services to admitted patients in Australian hospitals and are an essential part of the multidisciplinary team.
- Some examples of these essential inpatient services are:
  ◊ Multi-trauma patients frequently sustain eye injuries such as ruptured globes, penetrating eye injuries, orbital fractures, traumatic optic neuropathies, etc. These patients require urgent assessment and treatment, frequently in the emergency department and/or ICU. These patients are unsafe to transfer to outpatient facilities for assessment and management and require timely access to inpatient ophthalmology services.
  ◊ Systemically unwell immunocompromised patients with systemic infections require urgent ophthalmology assessment, commonly in the setting of the ICU.
Neurology, neurosurgery, ear nose and throat, oral maxillary facial, endocrinology, general medical and ICU services frequently require urgent ophthalmic assessment for their inpatients to manage a wide variety of diseases.

Ophthalmology also works with paediatric services. Premature neonates require regular, frequent screening for retinopathy of prematurity. Urgent ophthalmology review is needed to assess children where there is a suspicion of non-accidental injury. Ophthalmology services also frequently manage paediatric patients with ocular injuries and corneal foreign bodies.

A wide variety of other life-threatening conditions such as suspected raised intracranial pressure and orbital cellulitis, require urgent inpatient ophthalmology review.

2. Enablers of and barriers to facilitating equitable eye health delivery across Australia

2.1 Specialty-specific service delivery networks within jurisdictions would enable a more equitable distribution of services and support regional areas using a hub and spoke model of care

- Public eye healthcare services are currently sponsored and delivered within each LHN.
- There is very high healthcare variation in the delivery of these services across and within jurisdictions (see Gaps in public eye healthcare services).
- For specialties such as ophthalmology, which are largely outpatient-based, an alternative mechanism to govern the delivery of services within jurisdictions, such as a State or Territory Eye Healthcare LHN, could present the opportunity to support more equitable service delivery.
- A jurisdictional approach to services delivery areas could assist regional areas using a hub and spoke model of care that could support regional specialist ophthalmology workforce where there are workforce shortages. This could enable the development of additional regional training posts and contribute to sustainably addressing workforce maldistribution.

2.2 Improving access to health services for Australian residents below the poverty line

- Long-term data shows the rate of poverty in Australia to approximately 13 per cent with more than one in eight adults and more than one in six children are living in poverty.
- The long- and short-term costs to the community of poor health outcomes resulting from poverty are poorly defined but thought to be very large.
- There are cost barriers preventing people on low incomes from accessing the healthcare they need to stay healthy.
- It could be assumed that available safety nets would facilitate access to alternative services in the private sector for lower socioeconomic groups. However, unless well-designed for this purpose, this is not the case.
  
  For example, an independent review of the Extended Medicare Safety Net (EMSN) found that 55 per cent of EMSN benefits were distributed to the 20 per cent of people living in Australia's most socioeconomically advantaged areas with the 20 per cent of people living in the least advantaged areas receiving less than 3.5 per cent. This is because they struggle to afford the gap fees that enable them to reach the EMSN thresholds and have a barrier to accessing a partially subsidised health service due to other competing priorities such as buying groceries.
- Bulk-billing does not target this group well either. For example, the MBS Review Taskforce found the bulk-billing rate for cataract surgery only varies slightly across socio-economic groups, ranging from two per cent in the least disadvantaged group to 5.9 per cent in the most disadvantaged group in FY2015/16.
- Special measures to facilitate access to public healthcare services for vulnerable, at-risk, patient groups could reduce adverse health outcomes from delays in access to services.

For example, consider the use of vulnerable patient status as a comorbidity to categorise vulnerable patients to facilitate them accessing public services more rapidly.
2.3 The importance of individuals holding clinical governance leadership positions in Health Service Organisations having the appropriate qualifications to meet the governance, leadership and culture requirements of the National Safety and Quality Health Service (NSQHS) Standards

- A robust clinical governance framework is essential for Health Service Organisations (HSOs) to maintain and improve the reliability, safety and quality of health care\(^\text{16}\).
- The five components of the Clinical Governance Framework are as follows:
  ◊ Governance, leadership and culture
  ◊ Patient safety and quality improvement systems
  ◊ Clinical performance and effectiveness
  ◊ Safe environment for the delivery of care
  ◊ Partnering with consumers
- Appropriately trained medical leadership is crucial to ensure the effective delivery of each HSO’s Clinical Governance Framework.
- At present, there is no requisite qualification in the National Model Clinical Governance Framework for individuals in clinical governance leadership positions within HSOs.
- Introducing the requisite qualifications, such as those offered by the Royal Australian College of Medical Administrators (RACMA), necessary for individuals to hold clinical governance leadership positions within HSOs would ensure HSOs have the appropriately skilled medical leadership to deliver on their Clinical Governance Frameworks.
- To ensure HSOs adhere to requisite clinical governance leadership qualification requirements, include them in HSO accreditation requirements.
- Robust clinical governance is a cornerstone of good corporate governance in HSOs\(^\text{38}\).
- The clinical governance leadership of each HSO must be appropriately empowered to effectively deliver the organisation’s clinical governance framework.
- Embedding the requirement for HSOs to have a fully empowered, RACMA-trained, executive director of medical services within the National Model Clinical Governance Framework and including this measure within hospital accreditation requirements would support the delivery of robust clinical governance frameworks within HSOs\(^\text{39}\).

2.4 Short-term service plans constrain service delivery, capacity building and additional training opportunities

2.4.1 Medium-term (four-to-five year) funding plans will add value by reducing locum use and service capacity (and waitlist) fluctuations and by facilitating service development.

- In a number of jurisdictions across Australia, the funding for public hospital services is administered through short-duration service delivery plans that run for the financial year—with some forward estimates planning. Typically, there is no provision to roll over funding not used in one financial year onto the next and no guarantee that the current level of funding will be ongoing.
- Uncertainty in the funding available past the current financial year represents a financially insecure environment for service planning and places constraints on building sustainable service capacity which meets patient needs. Financial uncertainty hampers the recruitment of the medical workforce, including specialist doctors, which often results in higher causal and locum award salaries being paid, and interferes with the procurement of equipment and the development of supporting infrastructure.
- At least medium-term (four-to five year) financial certainty is required to adequately plan service delivery, secure and keep the skilled workforce needed in our public hospitals, and to keep medical facilities adequately appointed to enable the delivery of safe, high-quality healthcare.
- RANZCO recommends that medium-term financial planning should be introduced as standard practice in Local Hospital Networks (LHNs) with this expectation outlined in a set of compulsory governance requirements that would be detailed in the NHRA.
- Ideally, health funding at the federal and jurisdictional levels would be unhinged from the political cycle, with political parties working cooperatively to develop a funded jurisdiction-wide rolling five- to 10-year strategic plan with measurable outcomes and milestones which should be reactive to unexpected events, such as COVID-19.

2.4.2 Short-term lump funding directed at over-boundary surgical waitlists is a low-value, short-term fix. Service planning presents a high-value, long-term solution and will enable the development of additional accredited specialist training positions.

- While additional funding is always welcome in health, the tap-on-tap-off approach to the funding of over-boundary surgical waitlists, which has occurred for many years, is an unhelpful approach that is commonly linked to political cycles and is a barrier to growing additional workforce and service capacity.

- Typically, the services that any proffered lump sum pays for must be delivered within a constrained period. For example, one financial year. The ability to rapidly ramp up service capacity within the constrained theatre footprint and existing service capacity (staffing and equipment) of a public hospital is challenging. As the funding is not ongoing, locum staff or out-sourcing solutions must be used to provide additional capacity, which on one hand is costly and on the other hand result in no ongoing solution to the underlying cause of the problem—an inadequate capacity to service waitlists over the longer term.

- Essentially, lump-sum payments are a low-value, short-term fix, which do not address the reason the waitlist was over boundary—an inadequate baseline public service capacity.

- Service plans funded over a four-to-five year period present a high-value, long-term solution and help services prosper, increase training opportunities and stabilise waitlists.

- A large increase in service capacity is needed in the short term to bring an over-boundary waitlist within boundary.

- As well as ramping up public capacity as much as possible, outsourcing is typically required as public services are working within a finite public facility and establishment footprint.

- However, returning to the status quo (existing capacity) will just result in a recurrence of over-boundary waits.

- A long-term solution requires an increase in the baseline capacity—so demand equals capacity. This can be achieved through steady increases in public hospital permanent establishment, equipment and theatre footprint.

- This approach moves away from the boom-and-bust, ‘put out fires’ approach to over-boundary waitlists and provides a sustainable baseline capacity volume, which in turn will facilitate the creation of additional specialist training positions.

- Services plans, though centrally sponsored, must be crafted for each district and delivered locally.

2.4.3 Unhinge health from the political cycle to enable medium- to long-term health service planning and eliminate health funding being used as political capital during elections.

- Health, having a finite budget with many demands upon it, is a difficult portfolio in government. It is strongly influenced by the desire for political capital and therefore decisions are more likely to reflect immediate needs rather than necessary long-term change.

- In line with the increasing cost and the importance of healthcare delivery to our society, a non-partisan approach to healthcare delivery, such as the RBA for the economic sector, could be appropriate to ensure Australians get the best value out of the health dollar. For example, an overarching single national authority funded as a percentage of GDP with the aim of improving health outcomes for all Australians, would facilitate long-term change and eliminate funds being used to bolster short-term political goals.
2.5 Barriers to investment and reform in healthcare

2.5.1 Siloed departments within healthcare
- A major barrier to making the returns from investment in health visible is the division of funding within health into silos. When increased service delivery in one silo results in positive investment returns, in another silo there is little or no scope for this to be recognised.

For example, delivering timely eye healthcare yields investment returns in many other areas within health – decreasing falls, road traffic accidents, fractures and dementia.

More broadly, investment returns will also be seen in other government departments with improved quality of life, increased productivity and decreasing demand for NDIS, social and aged care services.

- Current budgeting arrangements make investment returns from health difficult to chart and are a barrier to growing services. When investment in health is likely to result in net positive revenue in other departments, this should be considered in overall health expenditure, with some of this investment return flowing back into health.

- Similarly, the Health Reform Roadmap recognises effective prevention requires cross-portfolio action and engagement across multiple governments.

- Public hospital services are funded with public money. At an individual, family and community level, the population is not concerned about which of the many silos across multiple governments’ public money required for their care comes from. They are concerned about the healthcare services available to them when they need them, that they are delivered fairly and that the funds are used to pay for value.

2.5.2 Complexity in healthcare
- The report Australian Health Services: Too Complex to Navigate looks at the recommendations from 16 major Australian health reviews over the last 35 years and finds that a complex, poorly integrated system is a major contributor to poor patient experiences and poorer health outcomes. The report notes: “Successive reviews have found that current funding arrangements create – or fail to address – barriers to coordinated, clinically effective and efficient health care; that is, health care that is of the required quality and clinical appropriateness and that is delivered in the most cost-effective setting, particularly for chronic disease.” It identified common themes in the successive reviews including: “Without structural change to the way in which health care is delivered and financed, the Australian health care system will continue to struggle to meet contemporary needs and expectations of its citizens.”

- Another barrier to effective investment in healthcare is the traditional analogue approach government uses in delivering services – its structure, hierarchy, silos, teams and reporting chains. Current approaches to healthcare improvement are more and more challenged by the unintended consequences of using reductionist, linear models.

- Government and healthcare are increasingly recognized as complex adaptive systems – systems with inherently unpredictable and non-linear behaviour.

- There has been a steady increase in research into the application of complexity theory and an increasing number of commercial enterprises utilising complexity theory and incorporating network mapping in assisting governments and companies with system redesign.

- Meadows’ model of levers within a complex system is useful in understanding how different types of interventions have very different magnitudes of effect.

The traditional linear approach to service delivery typically utilises levers that are less effective than deeper leverage points, which can have profound effects in driving change such as reframing the goal or the mindset of the system.
- For example, the dominant societal model of the welfare state is that it is a cost to the state:
  ◊ what if we reconceive the welfare state as an investment in the future potential of society; and
  ◊ what societal value any investment will bring.40
- “Health care will have to go through a huge cultural change to improve its organisational maturity
  with enabling and adaptive leadership...[whose role] is not to solve problems, but rather to facilitate
  the necessary adaptive work of the people directly confronting the problems - often in the front-
  line in health care.”41

2.6 Enablers of safer, more efficient and equitable service delivery

2.6.1 Better data is needed to improve transparency and identify inequity so it can be addressed.

It is not currently possible to adequately visualise the inequity between, across and within
LHNs and jurisdictions as centralised data is not available and data available is not uniform
and is incomplete.

- The size of the problem patients have in accessing regional, outer urban and public ophthalmology
  services is not well defined by the current data available.
  ◊ The percentage and number of patients in each LHN that need to travel for their ophthalmic
    care, how often and for how far on average is unknown.
  ◊ The social and economic impacts on patients and their caregivers travelling out of the area to
    access care are unknown.
  ◊ How many patients do not access ophthalmology services they need or are delayed in accessing
    them and for what reasons are unknown because there is no universal referral pathway, no
    public outpatient services and no waitlist data available.
  ◊ How many patients do not access services when they need them (as they consider it charity
    when they enquire about bulk-billed services so refuse to ask) is unknown.
  ◊ What percentage of patients sometimes end up with a gap which causes them financial stress
    (as they are embarrassed to admit their financial circumstances and ask for fee relief from the
    private ophthalmology service) is unknown.
- There is a lack of transparency around waitlist wait times:
  ◊ Data on the ‘wait for the wait’ (the time taken to get on the inpatient waitlist to then wait for
    surgery) is not collected.
  ◊ There is no requirement for wait times to be reported where outpatient services are available
    and wait times are variably reported by some jurisdictions only.

2.6.2 An electronic universal referral pathway in each state and territory:

- Would facilitate equitable access to public hospital services at the jurisdictional level.
- Would facilitate patients in accessing the closest services when these services are not available
  where they live. The design of this electronic universal referral pathway would include a mechanism
  for patients to be referred to a provider in another jurisdiction if this is the closest and/or best service
  for the patient to access.
- A multi-platform portal for electronic referrals with referrer and patient interfaces would facilitate
  referrals and enable consumers to see any active referrals and their outcomes – in line with the
  National Safety and Quality Health Service Partnering with Consumers Standard44.
- Referrals to public hospitals for eye healthcare are high-volume event occurrences that frequently
  involve large image file transfers between primary care and hospital services, and referral
  management currently takes up a substantial amount of clinicians’ time.
- An electronic referral system specifically designed to collect the essential information needed
  to triage referrals for eye healthcare and to provide an entry portal for image file transfer could
  streamline eye healthcare referrals, interact seamlessly with electronic patient records, reduce costs
  by improving the efficiency of referral management, ensure referrals fit within referral guidelines
  and contain the necessary clinical information to reduce waste, enhance safety by ensuring
  streamlined red-flagging of referrals, and could provide an opportunity to measure the efficiency
  of the referral system.
2.6.3 Central inpatient and outpatient waitlist management and visibility to consumers and referrers in each state and territory

- Current management of inpatient and outpatient waitlists in Australia is variable and does not facilitate equitable access to patients across and within LHNs and jurisdictions.
- Waitlists typically sit with each hospital or sometimes LHN, rather than at a state or territory level, driving inequity in access to services within jurisdictions, with a large variation in waiting times seen for the same services across. For example, greater metropolitan areas and between urban and regional areas.
  Many individuals are on waitlists at several different institutions waiting to see which gets them to the front of the queue first.
- There is a focus on inpatient (elective surgery) waitlists as this waitlist data is reportable to the AIHW whereas outpatient waitlist data is not.
  The ‘wait for the wait’—the length of time spent waiting on the outpatient waitlist for a clinic appointment, so a patient can be assessed and placed on the elective surgery waitlist—is typically not taken into consideration when assessing how LHNs perform in providing access to inpatient services.
- There is a lack of transparency for patients and referrers regarding the wait for outpatient services. Some jurisdictions do not report outpatient wait times and where jurisdictions do report outpatient wait times, the reporting is variable between jurisdictions, making comparisons difficult.
- The “adoption of a national standard for data collection of waiting times, and greater transparency in reporting, would enable better insight into the true waiting times for patients referred to public hospitals and allow tracking of future progress.”
- A multi-platform portal for referrers and patients to see all current waitlist entries for a patient and the likely waiting time until the service is available, would greatly enhance the interfaces between primary, community and hospital healthcare, and assist patients and their doctors in making informed decisions regarding their care, in line with the National Safety and Quality Health Service Partnering with Consumers Standard.

2.6.4 A patient-centred record, in addition to facility records, with all relevant clinical information for a patient in one place would increase patient safety and reduce cost by adding value (less duplication, streamlined service provision, etc).

- Currently, individual patient clinical records and results are fragmented across and within facilities because medical records are facility-orientated rather than patient-centric.
- Missing clinical information at the time of clinical service delivery is evidenced to substantially increase the risk of harm to patients and the cost of delivering healthcare.
  Commonly, crucial patient clinical information is absent or unavailable (being held in other facilities) when patients present to Health Service Organisations for medical care. This results in numerous avoidable adverse events each year in Australia.
- Legislation that requires a minimal dataset of clinical information, all patient prescriptions and all clinical test results to be recorded in a patient-centred (personal) clinical record for each episode of healthcare delivery for a patient would ensure all relevant information for each patient is held in one place.
- This measure would improve safety, reduce patient harm from avoidable adverse events, and add value by streamlining service delivery and reducing duplication of services.
- Legislation to mandate the use of a patient’s Individual Healthcare Identifier (IHI) for all clinical records would eliminate duplication of patient records and prevent adverse events resulting from patients having multiple medical records.
2.6.5 A universally available Ophthalmic Electronic Health Record system

- “The field of ophthalmology has a number of unique features compared with other medical and surgical specialties regarding clinical workflow and data management. This has important implications for the design of electronic health record (EHR) systems that can be used intuitively and efficiently by ophthalmologists and that can promote improved quality of care.”

- Ophthalmology is heavily reliant on imaging and investigations, nearly all of which are performed within the outpatient department and require integration within the electronic medical record system for safe and efficient analysis.

- Ophthalmology has a very high number of interventional procedures performed in the clinic setting (including intravitreal injections, laser treatments and minor operations).

- Ophthalmology accounts for more sentinel (never) adverse events than any other subspeciality.

- The development of Eye Health Electronic Medical Records Standards for Australia, such as has been done in other countries, would help minimum quality standards be met.

2.6.6 A multi-platform electronic interface for patients, carers, clinicians, pharmacists, etc would streamline service delivery, reduce waste and improve safety

- Despite the acceleration of the capabilities and availability of digital technology over the last two decades, including the rapid increase in the ownership of smart devices in the community, healthcare in Australia has been slow to take advantage of the potential benefits to individual and population health that this technology could deliver.

- A multi-platform electronic interface for patients, carers, clinicians, pharmacists, etc would have enormous potential to reduce the cost burden of healthcare nationally by:
  ◊ Facilitating preventative healthcare by incorporating health advice to patients.
  ◊ Facilitating access to referral, waitlist and appointment information, test results (where and when appropriate), prescriptions and patient-specific medical information (with privacy directed by the patient and/or their carer).
  ◊ Streamlining service delivery and reducing did-not-attends and the duplication of services.
  ◊ Streamlining the coordination of the management of patients with complex diseases and augmenting the care of chronic diseases such as diabetes.
  ◊ Reducing avoidable adverse events.
  ◊ Reducing unnecessary referrals for services by incorporating national guidelines.

- Each partner in the healthcare equation would have an application to meet their needs. For example, iPatient (for patients), iCarer (for parents and other caregivers), iDoctor, iPharmacist, etc.

3. Gaps in eye healthcare services in Australia and a detailed analysis of the causes, consequences and solutions

- The availability of public ophthalmology services across Australia has decreased relative to the population they serve over several decades and does not meet patient demand. This has a disproportionately greater effect on vulnerable and marginalised Australian residents.

- Over the same period, there has also been an increase in out-of-pocket expenses in the private sector for services where there is an expected gap to pay.

- This has occurred alongside the increasing need for eye healthcare services and reduced private health insurance cover in the community – the perfect storm.

A. Gaps in public eye healthcare services

- Public eye healthcare services are no gap payment services delivered by the states and territories and funded under the NHRRA using a growth model with a 55/45 split between the states and territories (55 per cent) and the Commonwealth (45 per cent). They include public hospital services, which may be outsourced to the private sector, and state and territory delivered community outpatient services.
State and territory governments devolve operational management for public hospitals and accountability for local service delivery to the local level with Local Hospital Networks (LHNs) responsible for directly managing single or small groups of public hospital services and their budgets\(^\text{53}\).

Most LHNs are responsible for the provision of public hospital services in a defined geographical area but in some jurisdictions, a small number of LHNs provide services across a number of areas.

Some jurisdictions have their own local names for the areas and administrative units known nationally as Local Hospital Networks. For example in New South Wales they are known as ‘Local Health Districts’, in Queensland they are known as ‘Hospital and Health Services’, in Western Australia they are known as ‘Health Service Providers’, and in South Australia they are known as ‘Local Health Networks’.

- RANZCO has identified the following gaps in public eye healthcare service delivery.

**Gap 1: There is a widening gap between the capacity of existing urban public ophthalmology services and patient demand for these public services.**

- Public ophthalmology services across Australia, where present, are under-resourced to meet the needs of the population they serve, with long waitlists to access outpatient and inpatient (elective surgery) services\(^\text{19,52,54,55}\).
- Each year more than 250,000 people in Australia undergo cataract surgery\(^\text{56}\). It is estimated that 70,000 (28 per cent) of these cataract surgeries are performed in a public hospital setting\(^\text{56}\).
- Waiting times are an issue in public hospital settings with a NSW study finding that 61 per cent of cataract patients are still waiting for an initial outpatient appointment 12 months after the initial referral\(^\text{44}\). Data across jurisdictions reveals variation with best-case scenario waiting times for a public patient to have cataract surgery within four months of referral, and worst case involving a wait of over two years\(^\text{45}\).
- “True waiting times for cataract care are undisclosed or inconsistently reported by governments. Estimates of true waiting times range from four to 30 months and have been extended during the coronavirus disease 2019 (COVID-19) pandemic”\(^\text{45}\).
- A recent study\(^\text{49,54}\) that provides data (see Table 1) to help clarify the public-private division of clinical care provided by doctors in Australia found that for the specialties analysed (which included ophthalmology), a large majority of the time spent delivering patient care was provided in the private sector. In this article, the authors note:
  ◊ “If the ratio of time allocation of new physicians parallels that of current specialists, simply producing more of the specialists examined in the present study will result mostly in a marked increase in capacity in the private sector and have a very limited effect in the public sector. To have a meaningful increase in public sector clinical capacity, an essential element appears not to be overall physician supply, but rather public funding for speciality care.”
  ◊ “Public hospital specialist positions are tied to state funding of hospitals. If no positions are available in the public sector, new or existing specialists cannot work in that area. Importantly, if the healthcare system increases training positions but does nothing to expand funding for speciality care in public hospitals, no effect on elective surgical or out-patient waiting times will occur.”
  ◊ “Unfortunately, patients who cannot afford the cost of private insurance and the out-of-pocket costs associated with both private in-patient and out-patient care are caught in a current paradox of the Australian healthcare system. The effect of out-of-pocket costs is especially relevant in the out-patient arena where there is, by law, no private coverage available. For these Australians, the proportion of public and private care provided by specialists is fundamental to their ability to receive timely care.”
  ◊ The authors found that 87 per cent of all clinical care provided by ophthalmologists in Australia is delivered in the private sector.
Table 1: Public versus private proportion of care for ophthalmology (n=839)

<table>
<thead>
<tr>
<th></th>
<th>All work</th>
<th>In-patient</th>
<th>Out-patient</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Public</td>
<td>Private</td>
<td>Public</td>
</tr>
<tr>
<td>Number of clinicians</td>
<td>433</td>
<td>821</td>
<td>218</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>9.2</td>
<td>33.6</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>8</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>% split</td>
<td>13</td>
<td>87</td>
</tr>
</tbody>
</table>

Adapted from Freed et al, Public or private care: where do specialists spend their time? Australian Health Review. Oct 2017. The mean and median proportion of time worked in the public and private sectors are shown as a percentage of total time worked.

- As the authors in the above study note, the shortage of ophthalmologists and ophthalmology services in the public sector is not because ophthalmologists do not wish to work in the public sector, but rather in large part due to longstanding stagnant growth in the full-time equivalents (FTE) of funded positions in the public sector. Notably, public sector positions are not vacant for long in most jurisdictions where workforce is available and approximately 45 per cent of all ophthalmologists do some work in the public sector, albeit mostly part-time (RANZCO Workforce Survey 2017).

- There is an understanding that the income differential for specialist ophthalmologists between the public and the private sector is a factor in recruiting workforce to the public sector. With the necessary growth required in public hospital FTE to increase public service capacity, which will occur with appropriate jurisdictional investment, it is anticipated that the public-private income differential will impact recruitment. However, there are effective measures available that can be implemented to address this issue. See Focus on Workforce and Training.

- Inadequate capacity in public service provision, including in metropolitan areas, is not a new problem. Long wait times to access public eye health care services have been an endemic and worsening problem in Australia for decades with the Improving access to eye health care services report, a chapter of the National framework for action to promote eye health and prevent avoidable blindness and vision loss, noting in 2005 that “Disparities in services also occur within metropolitan areas, with service development at times lagging behind population growth in newer growth areas. With population growth the distribution of ophthalmic services within metropolitan areas will also require review, to ensure equitable access to local ophthalmology services in metropolitan areas.” Since the commissioning of this 2005 national framework, the wait for public hospital eye health care services and the public-private workforce maldistribution has observably worsened.

- The reduction, in real (population) terms, of public ophthalmology service capacity in Australia, has largely occurred due to the failure of investment in the growth of public ophthalmology services over many years brought about by shortfalls in the funding and governance frameworks.
Gap 2: Many public ophthalmology outpatient facilities have reduced their services and no longer offer a comprehensive ophthalmology service, e.g. by not providing IVIs or appointments for waitlisting for cataract surgery.

- An internal RANZCO survey of public ophthalmology departments conducted in 2021 showed that more than half of public outpatient facilities have limits on eye conditions accepted, in addition to the accepted minimum standard of exclusions. See Table 2.
- In this survey, 39 per cent of public ophthalmology facilities did not provide paediatric services.
- With ongoing and worsening capacity shortfalls, much of the care provided in public hospital clinics is urgent and semi-urgent eye healthcare. In the face of stagnant funding across the sector, heads of departments are left with little choice but to close the doors to non-urgent patients as limited appointment availability commonly leaves little available capacity for non-urgent patients to be seen in public clinics.

### Table 2: Results from internal RANZCO survey of public ophthalmology departments 2021.

<table>
<thead>
<tr>
<th>Survey question “Any limits on eye conditions (excluding an accepted minimum referral standard) accepted?”</th>
<th>Public eye services with limits on eye conditions accepted</th>
<th>Public eye services with no limits on eye conditions accepted</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of eye services</td>
<td>13</td>
<td>10</td>
<td>23</td>
</tr>
<tr>
<td>Percentage of total</td>
<td>56.5%</td>
<td>43.5%</td>
<td>100%</td>
</tr>
</tbody>
</table>

- Examples of shortfalls in services available within public hospital departments frequently include no provision of intravitreal injections and no appointments for patients to be assessed and waitlisted for cataract surgery.
- Patients are instead required to see a private ophthalmologist and be waitlisted from the private sector onto the public inpatient waitlist.
- This is a bigger barrier to accessing services for patients from lower socio-economic groups and increases the time it takes for these patients, who are also least likely to be able to afford private health insurance coverage, to be placed on the inpatient waitlist (the ‘wait for the wait’).

Gap 3: Public ophthalmology outpatient services are maldistributed being absent in most regional LHNs (even where ophthalmology workforce is available) and in many urban LHNs and/or outer urban areas.

- In addition to the public versus private services capacity imbalance, there is also a maldistribution of public service delivery. Despite outpatient services being eligible for public health funding, most regional LHNs, and many outer urban LHNs and outer urban areas within larger metropolitan LHNs, offer no or limited access to public ophthalmology outpatient services even when there is ophthalmology workforce available to deliver care in the area.
- Despite urban sprawl over many decades, public outpatient sites remain largely centralised across Australia as shown in Figures 2 and 3 that display the public outpatient sites for Greater Perth and Greater Brisbane. This particularly impacts the lower-income Australians who live in these outer urban suburbs. See Focus on Workforce and Training for more detail on outer urban disadvantage.
- Consequently, approximately 30 per cent of all Australian residents and more than 60 per cent of Aboriginal and Torres Strait Islanders have no or extremely limited access to public ophthalmology outpatient services in the area they live.
- Some major public hospital ophthalmology services have been withdrawn with little notice or consultation, e.g. St Vincent’s Hospital Department of Ophthalmology in Sydney. This continues to be a problem with a recent threat to ophthalmology service continuity at the Royal Adelaide Hospital – South Australia’s major quaternary public hospital facility.
Figure 2: Estimated resident population hear map of Greater Perth. Public Hospitals are marked with blue dot and those with public clinics are starred.

Figure 3: Estimated resident population hear map of Greater Brisbane. Public hospitals are marked with a blue dot and those with public clinics are starred.
- New public hospital developments across Australia have frequently not included ophthalmology outpatient departments, e.g. Sunshine, Fiona Stanley and Gosford Hospitals.

- It is acknowledged that workforce maldistribution also has a major impact on eye healthcare service availability across both the public and the private sector for regional and outer urban populations. See Focus on Workforce and Training for more detail on workforce maldistribution.

**Gap 4: Regional LHNs are under-resourced. There are longer waits on average in Australia for public ophthalmology inpatient (elective surgery) services in regional LHNs.**

- Data in Admitted patient care 2013-14 - Australian Hospital Statistics\(^58\) on surgery by remoteness found that cataract extraction had the greatest variation in waiting times by remoteness area compared to any other surgical procedure (10).

- Data in Admitted patient care 2017–18 - Australian Hospital Statistics\(^59\) demonstrates that the disparity in the availability of public cataract surgery by area of remoteness remains a problem. See Table 3. These wait times do not include the wait time to be listed on the public inpatient waitlist—the 'wait for the wait'\(^45\).

<table>
<thead>
<tr>
<th>The remoteness of the area of usual residence</th>
<th>Major Cities</th>
<th>Inner Regional</th>
<th>Outer Regional</th>
<th>Remote</th>
<th>Very Remote</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cataract extraction wait times in days - 50 percentile</td>
<td>69</td>
<td>139</td>
<td>129</td>
<td>84</td>
<td>114</td>
<td>85</td>
</tr>
</tbody>
</table>

(a) The total includes records for which the remoteness area could not be categorised

- The National Efficient Cost Block funded model is used for the small regional and remote hospitals\(^60\). The Annual Report 2020-21 of the Administrator of the National Health Funding Pool - Improving the transparency of public hospital funding in Australia\(^60\) notes the significant challenges faced by small hospitals in rural settings and reports that NSW has introduced an alternative methodology in an attempt to better meet these challenges and integrate care between small regional and remote hospitals and Activity Based Funding (ABF) hospitals.

- Whilst effective reform in this area is welcome, the service plans underpinning the Service Agreements for regional LHNs in NSW do not for the most part, as noted in Gap 3, include the provision of public ophthalmology outpatient services. Waits for regional public inpatients services both in NSW and elsewhere are longer than in urban areas as demonstrated by the data provided.

**B. The private sector**

**Gap 5: Patients face increasing costs when accessing healthcare in the private sector**

- Many reports detail the decreased value in real terms of the Medicare rebate.

  - The cost of delivering ophthalmology services in the private sector has risen at a higher rate than the consumer price index over the decades\(^61,62\). However, the Government’s indexation of Medicare rebates has not kept pace with the rising cost of medical practice or even with the Consumer Price Index (CPI)\(^62,63\). See Figure 4. The MBS rebate is now worth less than 50 per cent of the equivalent 1984 rebate\(^61\).

  - Average Weekly Earnings (AWE) and the CPI have increased on average by 2.4 per cent and 1.4 per cent respectively, per year. However from 1995 to 2012, Medicare rebates only increased between 1.2 per cent to 2.5 per cent and between 2012 and 2017, all MBS rebates were frozen with no indexation. From 2018, specialist consultations were indexed at 1.5 per cent which increased to 1.6 per cent in 2019.\(^27\)
In the five years from 2016 to 2020, CPI rose 7.8 per cent. CPI for health alone rose 16.8 per cent but the MBS index only rose 3.7 per cent\(^6\).

A recent AMA report on Private Health Insurance highlights the increasing gap from 2009 to 2020 between the Medicare rebate and the cost of differing healthcare (Health CPI) and private health insurance premiums (PHI premiums). See Figure 4\(^6\).

**Increasing health costs; private health insurance premiums, health consumer price index and medical benefit schedule increase versus average weekly earnings and general consumer price index.**

![Figure 4: Sourced from The AMA Private Health Insurance Report Card 2021](image)

**b) The effects of the reducing value in real terms of the Medicare rebate**

- The reducing value, in real terms, of the Medicare rebate “impacts practice viability and affordability for patients”\(^3\) and has major effects on patients when accessing services in the private sector.
  - It has directly resulted in out-of-pocket costs increasing over time\(^4\) in real terms. See Figure 4. Total patient out-of-pocket expenses for primary and specialist care have significantly increased over the past 10 years, rising from $9.7 billion in 2001–02 to $17.1 billion in 2011–12, a 76 per cent increase\(^5\). The effect of out-of-pocket costs is especially relevant in the out-patient arena where there is, by law, no private coverage available\(^6\).
  - It has resulted in the cost to a private practice of providing bulk billing services steadily increasing.

**c) Increasing private health insurance policy cost, decreasing policy value, increasing exclusions, variable benefits and complex and confusing policies are well-documented along with a reduced and ageing private health insurance membership population\(^7,6\)**.

- Health insurance premiums are more expensive in real terms as they are increasing faster than the AWE and the CPI\(^6\). See Figure 4.
- Widening gap payments\(^3,6,6\) reduce the value of private health insurance to the patient and place substantial additional cost burdens on those patients paying for private health cover, forcing many to seek outpatient and inpatient (elective surgery) care in the public sector and to cease private health insurance coverage\(^3,6\).
- The number of policies containing exclusions has grown— in 2018, the number of policies with exclusions overtook the number without. Cataract surgery is covered under all gold-tier policies and some silver-plus-tier policies.
- Navigating health insurance policies is confusing and complex.
- Benefits paid by insurers for the same service vary significantly. See Table 4.

Table 4: Benefits paid for select admitted medical services by different private health insurers as of 29 November 2021. Adapted from The AMA Private Health Insurance Report Card 2021.

<table>
<thead>
<tr>
<th>MBS item</th>
<th>MBS description</th>
<th>MBS fee</th>
<th>Bupa</th>
<th>HCF no gap rate</th>
<th>AHM Medibank Private</th>
<th>nib</th>
<th>AHSA</th>
<th>HBF no gap rate</th>
<th>Lowest to highest</th>
</tr>
</thead>
<tbody>
<tr>
<td>42702</td>
<td>Cataract Surgery</td>
<td>$791.45</td>
<td>$1,231.85</td>
<td>$1,226.75</td>
<td>$1,231.85</td>
<td>$1,197.25</td>
<td>$1,298.50</td>
<td>$1,237.05</td>
<td>$101.25 8%</td>
</tr>
</tbody>
</table>

- The AMA Private Health Insurance Report Card observes that “after five years of continuous decline in the proportion of people with hospital treatment policies (falling from 47.4 per cent in June 2015 to 43.6 per cent in June 2020), the last year has seen four quarters of growth (a 1.1 per cent increase to 44.7 per cent in September 2021). The COVID-19 pandemic is likely to have contributed to this increase but it also coincides with the implementation of the government’s age-based discount.” See Figure 5.
- The age of the insured population is increasing which increases the cost of care per policyholder.

Figure 5: Private Health Insurance - the proportion of the population with hospital treatment cover. Sourced from The AMA Private Health Insurance Report Card 2021.

- Ongoing increasing costs per insured population and a reduced funding pool due to a smaller insurance population than eight years ago bring into question the ongoing sustainability of the industry.

RANZCO Vision 2030 and beyond, April 2023 - 31
In summary:
Existing public ophthalmology services across Australia are overwhelmed with long waits. More than half of the available public hospital outpatient services available do not offer comprehensive care. Even where there is a sufficient regional workforce, the waits to access public healthcare are worse in regional Australia.

Public services are maldistributed. Some inner urban, many outer urban, and most regional LHNs do not fund public ophthalmology outpatient services at all. These services present 80 per cent of ophthalmic healthcare delivery and timely access is essential in preventing irreversible visual loss in common ophthalmic conditions.

At present, approximately 30 per cent of the entire population and more than 60 per cent of the Aboriginal and Torres Strait Islander population, which is more regionally based, have no or very limited access to publicly funded outpatient services in the area they live.

Increasing health insurance policy cost, decreasing policy value with increasing out-of-pocket costs, increasing exclusions, variable benefits and complex and confusing private health insurance policies are well-documented along with a reduced and ageing private health insurance membership population. Reduced private health insurance membership and increased out-of-pocket expenses put additional stress on the already overburdened public hospital system.

Box 1, located in the next page, analyses each gap in detail, looking at the resulting problems it causes, why this gap is occurring, what is needed to close it and what outcome measures are required to provide governance over this process.
Box 1: Analyses of Gap in Eye Healthcare Services

**Goal:** Timely and equitable access to ophthalmology services for all Australians regardless of postcode, ethnicity, or income

### A. Gaps in public eye healthcare services

**Gap 1:**
There is a widening gap between the capacity of existing urban public ophthalmology services and patient demand for these public services.

**Gap 2:**
Many public ophthalmology outpatient facilities have reduced their services and no longer offer a comprehensive ophthalmology service, e.g. by not providing IVIs or appointments for waitlisting for cataract surgery.

**Gap 3:**
Public ophthalmology outpatient services are maldistributed being absent in most regional LHNs (even where ophthalmology workforce is available) and in many urban LHNs and/or outer urban areas.

**Gap 4:**
Regional LHNs are under-resourced. There are longer waits on average in Australia for public ophthalmology inpatient (elective surgery) services in regional LHNs.

### The reasons there are gaps in public eye healthcare services

**A. There is a growing demand for ophthalmology outpatient and inpatient (elective surgery) services.**
- There is ongoing growth in the need for ophthalmology services due to population growth, an ageing population, treatment advances and increased obesity and hence, diabetic retinopathy

**B. Increasing out-of-pocket expenses, driven by the reducing real value of Medicare rebates, is decreasing patient access to private outpatient healthcare services and self-funded inpatient services, and is driving patients towards the public sector.**

**C. A reduced level of private health insurance is increasing the demand for public hospital (ophthalmology) services.**
- "From June 2015 to June 2020, private health insurance membership fell for 20 successive quarters" and "the age of the insured population is increasing" which "creates a cycle of increasing insurance premiums as insurers seek to deal with the increased cost of care per policyholder"[39].
- There is an increase in private health insurance products which do not cover cataract surgery often leaving patients underinsured.

**D. Reducing public sector funding, in real terms, for eye healthcare services over many decades is preventing the growth in capacity necessary to meet the demand for public services.**
- The growth in public outpatient and surgical ophthalmology services has not kept pace with population needs due to a lack of investment.
- Stagnant public full-time equivalent (FTE) funding for specialist ophthalmologists results in services being pushed into the private sector as the available workforce grows but no increase in public FTE occurs and increases the proportion of specialist FTE in the private sector (87 per cent) as compared to the public sector (13 per cent)[34].
- There is stagnant FTE funding for nurses, orthoptists, visual screeners, allied health assistants and optometrists — all essential support staff in the collaborative care team. See Focus on Workforce and Training for more detail.
- Under the NHRA Addendum 2021-25, the Commonwealth and the States are held jointly responsible for funding the growth in and the increasing cost of public hospital services.
E. The delivery of public ophthalmology services varies greatly between and within jurisdictions resulting in high healthcare variation.

- A key objective of the NHRA Addendum 2021-25 is for the Commonwealth and the States to ensure equitable access to public hospital services regardless of geographic location.
- Public hospital services are defined as the services, functions and activities funded by the Commonwealth under the NHRA Addendum, including services subject to activity-based funding, block funding, or public health activities. Public outpatient services are funded under the NHRA as Tier 2 services.
- The NHRA does not provide structured information to LHNs to define which services should be delivered by each specialty in each geographic region. Despite a key objective of the NHRA being the equitable delivery of services by jurisdictions, it is left up to each LHN to decide which services will be delivered within their area within the limited and reduced (in real terms) financial footprint available. This ad hoc approach to delivering equitable services presents a conflict of interest – with the decision to deliver a service and to what degree being determined by the body paying for the service.
- States and territories have Clinical Governance frameworks that emphasize the need for equity of access for patients throughout their jurisdiction, but they have not put in place mechanisms that ensure equitable service delivery and they are not held accountable for meeting the ambitions of their Clinical Governance Frameworks.
- For example, most regional LHNs do not fund public ophthalmology outpatient services, even where there are resident ophthalmologists, and despite urban sprawl over many decades, public outpatient sites remain largely centralised within greater metropolitan areas.
- Some regional LHNs may not have considered innovative funding models such as outsourced-to-private outpatient services using ABF. This would reduce some of the cost burdens to regional private ophthalmology practices which are delivering a greater proportion of no-gap services than their city counterparts.
- There is less funding available in real terms to regional LHNs.

F. Access to medicines in public hospital settings varies across Australia with some jurisdictions (NSW and the ACT) not signatories of the Pharmaceutical Reform Agreements (PRAs) accentuating inequity in access to care between jurisdictions.

G. Public outpatient and procedure waitlist data (including for ophthalmology) are not in the required data set that must regularly be provided to the Australian Institute of Health and Welfare (AIHW) by jurisdictions.

- The data plans developed by the States and Territories, and the National Bodies under the NHRA Addendum 2021-25 do not include the mandatory reporting of outpatient or procedural waitlist data despite the equitable delivery of these services being essential to quality healthcare provision and funded under the NHRA.
- The AIHW, per the Australian Health Performance Framework, must provide a clear and transparent annual public reporting of the performance of every LHN, the hospitals within it, every private hospital and every Primary Health Network. Outpatient and procedural waitlist data is a key component of the performance of LHNs but is currently not included in the AIHW data set.
- The absence of outpatient and procedural waitlist data in the AIHW mandatory reporting data set signifies to LHNs and jurisdictions a lack of importance regarding timely access to public (ophthalmology) outpatient and procedural services which results in low visibility of and thus poor transparency regarding outpatient and procedural service delivery.
- A consequence of ophthalmology services being delivered predominantly in outpatient and day-stay settings is that acute inpatient admission and emergency medicine reportable data, which provide accountability in the delivery of and drive growth in public hospital services such as general surgery and emergency medicine, do not work to drive growth in public ophthalmology service delivery as outpatient waitlist data (80 per cent of ophthalmology) is not reportable.
  Effectively, this means 80 per cent of waitlists for public ophthalmology services are invisible in AIHW data sets and it is unclear which LHNs do not opt to deliver these services at all.
- Some jurisdictions choose to self-report outpatient and procedural waitlist data and others do not. Where transparent waitlist data is not readily available, patients and referrers are unable to make informed decisions regarding which healthcare pathways to access.
H. There is limited accountability required of jurisdictions and LHNs to demonstrate the planning and delivery of healthcare equitably and no consequences if this does not occur.

- The NHRA requires each national body to develop a data plan that considers the objectives of the NHRA Addendum. The Health Chief Executives Forum (HCEF), formerly the Australian Health Ministers Advisory Council, is tasked with periodically reviewing the three-year data plans of the national bodies for the effectiveness and appropriateness of data requested from jurisdictions. This body should identify that the existing reportable data sets do not fully meet the objective of the NHRA to ensure equitable access to care regardless of geographic location, as the data sets do not include procedural and outpatient waitlist data in each LHN.
- There is a lack of planning by jurisdictions and LHNs around the delivery of complete and equitable services to patients. They are not currently required to demonstrate they are providing equitable and comprehensive public services and how they plan to fill in any service gaps.
- There are no consequences, such as financial penalties, when jurisdictions and LHNs fail to deliver healthcare services in an equitable and timely manner.

I. Regional and outer urban workforce maldistribution - See Focus on Workforce and Training.

J. Safety nets are poorly designed to help low-income and vulnerable Australians.

K. Healthcare activities that do not add value to the patient and unnecessarily increase costs.

L. Inadequate investment in preventative healthcare in Australia over many years.

The consequences of gaps in the delivery of public eye healthcare services

1. Effects on patients and their families
   a) Prolonged waits to access outpatient services (where they are available) for newly referred patients and delayed follow-up for existing patients across Australia result in the following problems.
      - An increased risk of prolonged temporary vision loss and avoidable permanent visual impairment and blindness.
      - Delayed addition to inpatient waitlists—the ‘wait for the wait’—and a higher risk of complications at the time of surgery.
      - Increased rates of visual impairment and blindness with consequent economic impacts on individuals and families from the loss of driving licenses, independence, the ability to work, etc.
      - Patients requiring services not offered or available in a reasonable timeframe in the public setting having to access these in the private sector if they can afford to do so.
      - Patients who are unable to access no out-of-pocket private services or afford to pay the gap to access these essential services in private (where they are available) have longer waits for services or are unable to access these services at all. There has a higher impact on socio-economically disadvantaged patients.
      - Patients are unable to get listed for public surgery if they must see a private ophthalmologist for this to occur but cannot afford to do so.
   
   b) Increasingly long waits to access public surgical services across Australia.
      - Resulting in prolonged periods of visual impairment and blindness for many patients and an increased risk of a poor outcome from the surgery.
      - Loss of car license, loss of job, loss of independence, poorer mental health, increased dementia, etc.
      - The longest waiting times, on average, for surgery occur in regional Australia.
      - Visual impairment and blindness have a greater impact on persons living in regional areas due to increased travel distances and limited and frequently absent public transport services.
   
   c) Increased effects on patients in vulnerable and low socioeconomic groups.
      - Appropriate funding of public services and addressing healthcare variation will increase access to services for vulnerable Australians but will not address the additional challenges and systemic and structural barriers in accessing healthcare that many vulnerable Australians face. This will leave them at a relative disadvantage compared to Australians who do not have these challenges.
      - It could be assumed that available safety nets would facilitate access to alternative services in the private sector for lower socioeconomic groups. However, unless well-designed for this purpose, this is not the case. For example, an independent review of the Extended Medicare Safety Net (EMSN) found that 55 per cent of EMSN benefits were distributed to the 20 per cent of people living in Australia’s most socioeconomically advantaged areas with the 20 per cent of people living in the least advantaged areas receiving less than 3.5 per cent. This is because they struggle to afford the gap fees that enable them to reach the EMSN thresholds.
      - Bulk-billing does not target this group well either. The MBS Review Taskforce found the bulk-billing rate for cataract surgery only varies slightly across socio-economic groups, ranging from two per cent in the least disadvantaged group to 5.9 per cent in the most disadvantaged group in FY2015/16.
Where patients need to travel to access care

- The need to travel for care is a significant barrier to accessing ophthalmic services in regional and outer urban Australia.
- Patients with no or poor access to public services in their area, who cannot afford private services (if available), must travel elsewhere to access scarce public services.
- Regional and outer urban areas have a higher proportion of patients of lower socio-economic status who cannot afford private care and therefore miss out on or need to travel to access healthcare.
- Poor public transport from outer urban and regional areas, and the cost of travel and parking where required, are barriers for many low-income patients.
- Patients who can afford to travel for services do so often at considerable personal expense despite jurisdictional transport support as this does not fully cover costs and does not cover loss of income. The time required to be off work can be considerable when accessing services out of the LHN area.
- There is also a loss of income for carers travelling with patients.
- Patients are unable to be listed for public surgery locally if they must see a private ophthalmologist for this to occur but cannot afford to, or there is no or limited service availability. After considerable delay, patients are commonly listed for surgery in the LHN they travel to for their outpatient service, and so must also travel again to access inpatient services.

2. Increased health service and community costs from delayed or no access to public services

- Increased prevalence of temporary and permanent visual impairment and blindness results in increased falls and car crashes, reduced mobility, and exacerbation of dementia due to reduced vision. There are consequent increased health service costs and economic losses to the community.
- The higher burden of disease in regional and outer urban areas results in higher rates of visual impairment or blindness from lack and access to services and at relatively higher economic costs.
- Delayed eye healthcare increases the need for expensive inpatient services such as vitreoretinal surgery.
- There is a substantial social and economic cost to regional communities when a significant percentage of patients need to travel away from their local area to access medical services.
- Loss of revenue to regional and outer urban communities when patients and their carers must spend monies on travel, accommodation (for regional patients) and other services outside the area they live in when they travel into inner urban areas to access essential healthcare services.
- Increased congestion of roads and public transport when the majority of public services must be accessed in central urban locations.

3. Effects on the specialist ophthalmology workforce from chronic underinvestment in public ophthalmology services and high healthcare variation with most LHNs not delivering outpatient services in regional and outer urban areas.

a) Effect on workforce sustainability

◊ A chronic lack of investment in public ophthalmology services across Australia, brought about by shortfalls in funding and governance frameworks, has resulted in this substantial maldistribution of the ophthalmology workforce between the public and private sectors. It is threatening the medium- and long-term sustainability of the specialist ophthalmology workforce—a national resource. See Focus on Workforce and Training.

◊ The 2018 Australia’s Future Health Workforce Report - Ophthalmology found that if the historical rate of growth (three per cent) in ophthalmology training positions in Australia continues unchanged, there will be an overall and worsening shortage of ophthalmologists in Australia from 2025 onwards.

b) Effect on workforce distribution

◊ The lack of investment is more profound regionally exacerbating workforce maldistribution, with just 15 per cent of RANZCO accredited training positions based in regional Australia despite 29 per cent of the population living regionally. See Focus on Workforce and Training.

c) Effect on existing regional specialist workforce

◊ Outpatient services in much of regional Australia are not available and regional private practices bridge this gap where they can.

◊ Low private health insurance levels in regional Australia alongside a lower-income population mean there is a large need for no out-of-pocket services in regional Australia which can present an economic burden to practices that offer these services—which many do on an as-needed basis.
Solutions: Reform will require a commitment from the Commonwealth and the jurisdictions to plan, fund and implement the equitable delivery of comprehensive outpatient and inpatient ophthalmology services across LHNs in line with their clinical governance frameworks and the intent of the NHRA Addendum 2021-25.

1. **Address healthcare variation and reduce inequities in the funding model**
   - Develop an Atlas of Healthcare Delivery Standards by specialty, patient demographics and geographic area for all healthcare—to be known henceforth as the ‘the Atlas’.
     ◊ To enable the delivery of safe, high-quality care in the right place at the right time with appropriate demographic and geographic calibration.
     ◊ This will provide LHNs with a detailed map of outpatient and inpatient public hospital services that must be delivered within their area. This will also address healthcare variation and provide equitable access to services across Australia at the LHN level where workforce currently allows this.
     ◊ This will remove service inequity resulting from LHNs being left to decide what services they will pay for and which ones they won’t.
     ◊ Services in the Atlas will be funded under the NHRA and therefore must deliver value and positive outcomes for patients and the LHNs.
     ◊ The development of the Atlas will require a national conversation with detailed stakeholder engagement.
     ◊ The Atlas could also establish benchmarks for minimum standards of access to primary care.
   - To achieve equitable access to medicines in public hospital settings across Australia, the Commonwealth should make the PRAs a uniform policy in Australia and enter into PRAs with New South Wales and Australian Capital Territory so all jurisdictions are signatories of the PRAs.68

2. **Outpatient service reform is required to prevent prolonged temporary and avoidable permanent visual impairment and blindness and thereby, reduce the resultant economic impact on the community and healthcare system of increased falls, reduced productivity, loss of independence and loss of vision.**
   - The HCEF to formally acknowledge the importance of timely and equitable access to all public outpatient services (including ophthalmology) and oversee a process to facilitate the inclusion of outpatient and procedural waitlist data in the AIHW data set.
     ◊ As high-value activities that reduce the requirement for expensive inpatient services, both acute and elective, this is relevant to all medical and surgical specialties.
   - The Commonwealth and each jurisdiction to plan, fund and provide the required outpatient services within each LHN as defined by the Atlas and be held accountable for these commitments.
     ◊ Each LHN to provide a plan to establish absent and bolster incomplete or under-resourced services within one year of the completion of the Atlas. Plans should detail how service gaps will be bridged within three years.
     ◊ LHNs should include detailed patient referral pathways and consider innovative models of care in delivering services, delivery in collaboration with primary care and allied health, such as outsourcing of services to private using ABF (particularly in regional Australia when there are workforce shortages), increased telehealth services, etc.
     ◊ Planning should include the funding of patient liaison officers to facilitate vulnerable patient groups in accessing healthcare services.
     ◊ Regional and outer urban planning should include investment in the coordination of comprehensive patient transport in all districts to bolster access to health services, particularly for vulnerable patient groups.
   - The Independent Hospital Pricing Authority (IHPA), in consideration of the services included in the Atlas, to determine if any recalibration of the current pricing and classification of services should occur.
     ◊ IHPA to engage with stakeholders regarding service classification as required, including Tier 2 services.
     ◊ IHPA to consider the increased cost of delivering services in regional settings and whether an increase in regional loading is required.
   - The HCEF to consider a one-off recalibration of the annual level of Commonwealth funding to jurisdictions under the NHRA when absent or incomplete services are established under approved plans to meet the requirements of the Atlas.
   - The AIHW to develop a set of outpatient data to be included in jurisdictional mandatory reporting obligations.
     ◊ Using the detailed outpatient service delivery requirements in the Atlas, the AIHW and the jurisdictions must work together to develop an agreed minimum data set.
     ◊ Outpatient data collection between and within jurisdictions is highly variable and does not meet the requirements of the NHRA to deliver equitable services and is a barrier to national data collection, the transparency of service delivery and patient and referrer decision-making.
     ◊ These bodies to consider how health technology may cohesively deliver enhanced health data using one information system for data collection across all LHNs, as recommended by the NHRA Long-Term Health Reforms Roadmap6.
3. **Inpatient service reform**

- The Commonwealth and each jurisdiction to plan, fund and provide the required inpatient services within each LHN as defined by the Atlas and be held accountable for these commitments.
  - Each LHN to provide a plan to establish absent and bolster incomplete or under-resourced services within one year of the completion of the Atlas. Plans should detail how service gaps will be bridged within three years.
  - This measure will prevent permanent visual loss and reduce the economic impact on the community of increased falls, reduced productivity, loss of independence and loss of vision.

4. **Strengthen governance, transparency and accountability frameworks**

- Institute uniform clinical governance, transparency and accountability frameworks that all parties must conform to with appropriate penalties for non-compliance.
  - Enforce waiting time limits by triage category for all services to improve service delivery and access to health care for all Australians, with penalties for non-compliance to provide accountability.
  - The HCEF and jurisdictions to consider what measures may be put in place to ensure timely and equitable delivery of services under the NHRA Addendum, e.g. financial penalties.
  - The national bodies to work with jurisdictions to consider how health technology may deliver a cohesive electronic universal referral pathway and waitlist interface to allow oversight of inpatient and outpatient referrals and waitlists at the jurisdictional level.
  - Provide transparency for patients and referrers regarding outpatient, procedural and inpatient services, healthcare pathways, access and waitlists at the LHN and local hospital level.

5. **Reforms to reduce public hospital demand for services**

- Reforms to plan, fund and implement innovative models of care. Collaborative Models of Care document under development.
- Reforms to plan, fund and implement increased health literacy and prevention strategies. See **Focus on Preventative Healthcare**.
- Reforms to increase private health insurance coverage. See Gap 5.

6. **Consider special measures to facilitate access to public healthcare services for vulnerable and at-risk patient groups, e.g. use vulnerable patient status as a comorbidity to categorise vulnerable patients to facilitate their access to public services more rapidly.**

7. **Measures to address workforce maldistribution.** See **Focus on Workforce and Training**.

8. **Measures promote clinicians ‘Choosing Wisely’ thus reducing healthcare cost.**

**Outcome measures**

1. **By end of 2023**

- The development of the Atlas—a detailed map of outpatient and inpatient public hospital services for each specialty that must be delivered within each LHN, calibrated to the geographic area the LHN is located.

2. **By end of 2024**

- IHPA to complete any necessary review of service classification and pricing in response to the Atlas.
- Each LHN to provide a detailed service delivery plan, which includes facility, equipment and workforce (see **Focus on Workforce and Training**) Key Performance Indicators (KPIs), to establish absent and bolster incomplete or under-resourced services by 2028. Larger LHN service plans should include collaborative models of care and prioritise populous outer urban areas.
- Service plans should include innovative models of collaborative care to roll out outpatient services where needed in outer urban areas. See **Focus on Workforce and Training**.
- Each LHN to provide a detailed service delivery plan to establish absent and bolster incomplete or under-resourced services by 2028.
- Commonwealth and jurisdictional governments to commit to jointly funding each service delivery plan.
- The centrally sponsored development of key performance indicators (KPIs) which includes facility, equipment and workforce (see **Focus on Workforce and Training**) KPIs to track expenditure on ophthalmology.
- Mandatory AIHW data reporting requirements to include agreed outpatient and procedural waitlist data.
- The rollout of uniform clinical governance, transparency and accountability frameworks.
3. **Longer-term outcomes**
   - Improved equity in access to services including for vulnerable patient groups.
   - Increased transparency for patients and referring clinicians regarding clinical care pathways, service availability and wait times for services.
   - Increased funding for patient liaison officers to coordinate the delivery of healthcare.
   - **Regional outcomes:**
     - Reduced workforce pressure on regional ophthalmologists.
     - Increased sustainability of regional practices.
     - Privatised regional outpatient services using activity-based funding models.
     - Established regional training pathways (See Focus of Workforce and Training).
     - Improved subspecialty services in regional areas.
     - Ongoing growth of the regional health workforce.

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**Gap 5: Patients face increasing costs when accessing healthcare in the private sector**

### The reasons this is happening

- Decreased value in real terms of the Medicare rebate over several decades\(^3\) resulting in:
  - Increasing out-of-pocket costs for patients to access private inpatient and outpatient services\(^4\).
  - Increasing costs to private practices of providing bulk billing services.

- Health insurance premiums are increasing at a faster rate than the CPI\(^6,2,4\).
  - Increasing costs of delivering healthcare - Health CPI is increasing at a faster rate than the CPI.
  - A reduced and ageing private health insurance membership population creates a cycle of increasing insurance premiums as insurers seek to deal with the increased cost of care per policyholder\(^3\).
  - "There has also been a marked change in the last decade regarding the composition of private health insurance companies. In 1995, only four per cent of the 49 insurers operated on a for-profit basis. Private health insurers have moved from primarily not-for-profit organisations to the current situation where over 65 per cent of the insured population are now covered by for-profit funds\(^6\)."

- Increasing exclusions, variable benefits and complex and confusing policies can result in unexpected additional costs for patients\(^3,6,2,4\).

### The consequences of this problem

- Increasing patient costs to access outpatient and inpatient services in the private sector at the same time as health insurance premiums are increasing more rapidly than the CPI reduces the value of health insurance membership to consumers. This acts as a driver away from health insurance and increasing the likelihood of consumers withdrawing from private health insurance.

- As withdrawing patients are more likely to be young, the health insurance population with health insurance is ageing, increasing the cost of servicing health insurance policies per policyholder.

- COVID-19 is also resulting in decreased value to the patient when they are unable to access benefits for the insurance cover they hold.

### The solutions to this problem

1. **Measures that support the attractiveness of private health insurance products to consumers**
   a) Ensure patient choice and medical-led care remain central.
   b) **Consider changes to the health insurance legislation that:**
      - Reduce the variability of and simplify private health insurance (PHI) products for consumers\(^4\).
      - Simplify product information and enhance product disclosure (in simple language) to consumers\(^4\).
      - Increase transparency regarding out-of-pocket expenses and exclusions for consumers\(^4\).
      - Reduce rebate variability between health insurance providers\(^4\).
c) Measures that facilitate patient choice and reduce out-of-pocket costs, particularly for outpatient services, increase the attractiveness of PHI products.
- Consider options utilised successfully in other countries such as legislation to allow private health insurance companies to provide products that insure consumers against out-of-pocket expenses.
- For individuals in the low to medium-income brackets that choose to hold PHI, an effective measure that subsidises out-of-pocket expenses for accessing specialist outpatient services would increase the likelihood of these individuals retaining their private health insurance.
- The Department of Health and Aged Care has set up the Medical Cost Finder website to facilitate patient choice and reduce out-of-pocket costs. RANZCO supports the ongoing development of this resource to further enhance patients in making informed decisions about their care and is keen to actively work with the Department to further this aim.

2. Measures that reduce the cost of PHI for consumers
a) Reduce the cost of delivering cover for PHI companies and thereby reduce product costs.
- Bolster disincentives for not holding PHI and strengthen incentives for PHI membership for younger Australians to reduce the average age of policy holders. See Incentives and Disincentives below.
- Government incentives fund more than 25 per cent of healthcare delivered in the private sector with the Health Insurance Rebate costing approximately $6 billion per annum.
- Given the large amount of Government money involved, consider changes to legislation to ensure services eligible paid for under private health insurance policies deliver value and positive outcomes for patients as per the Atlas.
- In 2018–19, dental (53 per cent) and optical (17 per cent) services were the two largest areas of expenditure by private health insurers for general treatment.

Uncorrected refractive error is the commonest cause of visual impairment in Australia, with a higher prevalence in low-income and vulnerable populations. Cost is a barrier to accessing dental care for people who are socially disadvantaged or on low incomes and Aboriginal and Torres Strait Islander people, resulting in poorer oral health in these groups which has a significant impact on overall health and wellbeing.

The exclusion of most optical care devices and dental care under Medicare increases the inequity of delivery of these services across Australia, reducing accessibility for lower socioeconomic groups. Funding dental care and optical care devices under Medicare would reduce the cost of delivering private health insurance services and ensure these essential services can be more equitably delivered and accessed across Australia.

b) Incentives for having PHI
- Ensure the Private Health Insurance Rebate (PHIR) is effective and it is well directed and does not represent ‘middle-class welfare’.
- That is, do not fund incentives for individuals and families that are likely to, based on their income, hold PHI regardless of any rebate.
  Consider eliminating Tiers 1 and 2 income brackets and reducing the taxable income cut-off for the PHIR Base Rate eligibility.
  Consider redirecting funds to increase the PHIR for those earning below the median income.
- Ensure only creditable PHI products (that provide substantial hospital cover with limited exclusions and are therefore likely to provide offsetting benefits from reduced pressure on the public health system) are eligible for the PHIR.
- Consider increasing the PHIR Base Rate for younger Australians with a sliding scale with increasing age.
c) Disincentives for not having PHI

- Ensure only creditable PHI products, (that provide substantial hospital cover with limited exclusions, and are therefore likely to provide offsetting benefits from reduced pressure on the public health system), meet eligibility criteria for consumers to be exempt from the Medicare Levy Surcharge (MLS)\(^74\) and meet the criteria for Lifetime Health Cover (LHC).

- The Medicare Levy Surcharge:
  - The (MLS) is designed to encourage people to take out private patient hospital cover and use the private hospital system\(^75\).
  - Consider reducing the income threshold for and increasing the rate of the MLS to further disincentivise consumers with a higher income from not holding private health insurance membership.

- Lifetime Health Cover loading:
  - Consider LHC loading exemption for individuals and families earning below the median income.
  - Consider if this measure in its current form is effective or if it requires re-evaluation as to its utility and/or consider whether or not it needs to be strengthened\(^76-78\).

**Outcome measures**

- Sustainable levels of private health insurance coverage with increased retention of existing policyholders.
- Improved composition of PHI demographics with a reduced average age of membership.
- Improved transparency of PHI policies and reduced policy variability and exclusions.
- Decreased out-of-pocket expenses for consumers with PHI.
- Reduced inflation in PHI premiums due to a more sustainable PHI membership and rationalisation of services covered by PHI.
- An increased level of protection from managed care.
1. Overview

The 2018 Australia’s Future Health Workforce Report - Ophthalmology, henceforth referred to as the Report, which presents long-term, national workforce projections for doctors to 2030, recommends an increase in the intake of new trainees by three per year from 2019 to address an impending workforce shortage. The Report also identifies a maldistribution of ophthalmologists with most working in urban locations, a higher-than-average reliance on specialist international medical graduates (SIMGs), an impending critical shortage of paediatric ophthalmologists and a lack of funded training positions in the public sector. The Report notes:

“The medical workforce is a national resource; a resource that is valuable to the community both in terms of the cost of training, which is substantially borne by the taxpayer, and in terms of the benefit derived by the community from a well-trained health workforce.”

This section of Vision 2030 and beyond outlines threats to the sustainability of the ophthalmology workforce, how ophthalmologists are trained in Australia, what the optimal ophthalmology workforce and workforce distribution would look like to provide equitable services across Australia and why there is workforce maldistribution. It then outlines what RANZCO is doing to address these issues and puts forward recommendations requiring action from the governments of Australia to support the ultimate goal of a sustainable ophthalmology workforce distributed to provide equitable eye health service delivery to all Australians.

2. Ophthalmology public-private workforce maldistribution and growing Australia’s ophthalmologists of the future

A healthy ophthalmology workforce into the future is, for the most part, dependent on a healthy public ophthalmology service right across Australia as this is where most specialist training does and should continue to occur. Ophthalmology trainees require supervision by specialists to produce the highly skilled and dynamic ophthalmologists we need to service the eye health needs of Australia. The Report finds most specialist ophthalmologist full-time equivalents (FTE) are situated in the private sector (84 per cent) with just 16 per cent in the public sector. More recent evidence shows that just 13 per cent of ophthalmology FTE in Australia is based in the public sector.

A chronic lack of investment in public ophthalmology services across Australia, brought about by shortfalls in funding and governance frameworks, has resulted in this substantial maldistribution of the ophthalmology workforce between the public and private sectors and is threatening the medium- and long-term sustainability of the specialist ophthalmology workforce—a national resource. There is no shortage of interest among ophthalmologists to work in the public system. They relish the opportunity for increased collegiality, teaching and contribution to their communities with approximately 45 per cent of ophthalmologists engaged in delivering some public sector services regularly. The limiting factor is the lack of public jobs.

The Report found that if the historical rate of growth (three per cent) in ophthalmology training positions in Australia continues unchanged, there will be an overall and worsening shortage of ophthalmologists in Australia from 2025 onwards. See Table 5.

In response to this, from 2018 on, the RANZCO Bi-national Qualifications and Education Committee has called on each State Chair to increase advocacy efforts aimed at the creation of additional training positions within their jurisdiction. These advocacy efforts have taken place in each public hospital department across the country. The key limitation has been a lack of funding in public hospitals for the additional space, clinics and operating lists required to support new trainees.
However, the number of training positions has grown minimally (at less than three per cent) since 2015 (when the workforce data the Report was based on was collected). At the LHN level, where funding for public FTE must be sought, additional funding for ophthalmology FTE is rarely available despite public waitlists for outpatient and inpatient services being over boundary – with non-urgent patients often waiting years for their first visit where services are available\(^1\) – and in many areas there having no or very limited public service availability. Some LHNs refuse to accept Commonwealth Specialist Training Scheme (STP) funding due to the top-up of the funding required to employ a training registrar.

Table 5: Dynamic intake scenario TAP, 2010-2030. Actual data in blue and projected data from 2016 onwards. Adapted from Australia’s Future Health Workforce – Ophthalmology 2018

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Table 6: Actual RANZCO workforce data since the publication of Australia’s Future Health Workforce – Ophthalmology 2018

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Table 6 demonstrates a worsening rather than improving situation regarding the total number of new fellows each year due to the lack of growth in training positions and decreased numbers of SIMG new fellows. There are 20 fewer total trainees than modelled by the Report as necessary to avoid a shortage of ophthalmologists in Australia by 2030.

The new intake of trainees has fallen over the last few years from a high of 33 in 2017. In 2022, there has been some recovery with a new intake of 31 new trainees but without considerable overall growth in training FTE, a national shortage of specialist ophthalmologists in Australia is inevitable.

To avert this crisis, Australia needs an immediate and steady increase in the overall number of training positions in ophthalmology nationally. To support additional training positions, additional specialist ophthalmology and support staff FTE, additional facility and equipment are required along with LHN service plans, which include the delivery of additional outpatient and inpatient ophthalmology service capacity. If correctly calibrated at a local, regional, jurisdictional and national level, the growth in public ophthalmology services will build a sustainable specialist ophthalmology workforce into the future.
As part of their training, ophthalmology trainees (training registrars) provide essential public ophthalmology services across Australia. Placing an additional ophthalmology trainee in any location will immediately increase available public services and this should be considered in determining the optimal training locations across Australia. Training registrars can be used to ameliorate workforce shortages and fill regional and outer urban service gaps. Placing registrars where additional public services are most needed – patient-centred care – as well as helping to alleviate current service shortfalls, will increase the likelihood of specialist ophthalmologists practising in these workforce short areas in the future.

Perhaps ironically, paying for additional public services will also save health money and result in economic gains by reducing temporary (that will recover with treatment) and permanent visual impairment and blindness across Australia.

This is not surprising given that, as stated in the *Lancet Global Health Commission on Global Eye Health, vision beyond 2020*, "Vision impairment reduces mobility, affects mental wellbeing, exacerbates risk of dementia, increases likelihood of falls and road traffic crashes, increases the need for social care, and ultimately leads to higher mortality rates. By contrast, vision facilitates many daily life activities, enables better educational outcomes, and increases work productivity, reducing inequality."

3. **How does specialist ophthalmology training work in Australia?**

RANZCO is the only medical college in Australia that trains ophthalmologists.

The RANZCO Vocational Training Program (VTP) is a five-year training program upon completion of which graduates are eligible to be admitted as Fellows of the College (FRANZCO) and apply for specialist recognition with AHPRA.

The objective of the VTP is to produce a specialist ophthalmologist who, on completion of training, is equipped to undertake safe, unsupervised, comprehensive, general ophthalmology practice.

3.1 **The VTP comprises five years of training**

   **Basic Training:** Two years of basic training during which trainees must demonstrate integrated clinical skills and knowledge in the Ophthalmic Sciences and the Ophthalmic Basic Competencies and Knowledge.

   **Advanced Training:** Two years of advanced training during which trainees are expected to demonstrate integrated knowledge and clinical and surgical skills as documented in the clinical standards.

   **Final Year Training:** A final year during which the trainee develops their specialist experience in preparation for specialist qualification and to function in the community as an independent general ophthalmologist.

3.2 **Selection into training**

   The College uses a robust bi-national selection process to reduce the pool of applicants and rank them according to pre-determined criteria aligned to the eight key roles which underpin ophthalmic practice. Candidates who identify as Aboriginal and Torres Strait Islander and those from a regional background are eligible for additional points. Those candidates who identify as Aboriginal and Torres Strait Islander are automatically eligible to progress to the College interview.

3.3 **Established Vocational Training Networks (VTNs)**

   - VTNs select trainees to undertake the Vocational Training Program (VTP) from the College list, employ them in RANZCO-accredited training posts and oversee the delivery of high-quality training experiences and the progression of trainees through the VTP.

   - There are six VTNs in Australia, which have been in place for many years. These are the West Australian, South Australian, Royal Victorian Eye and Ear Hospital, Queensland, Sydney Eye Hospital and Prince of Wales Hospital VTNs. All are urban-based models with some regional terms. Trainees train in the VTN they are selected to join for the first four years of the VTP.

   - Recently, RANZCO inaugurated a seventh VTN in Australia: the Regionally Enhanced Training Network (RETN). Trainees will complete their five training years in this network and will spend at least 60 per cent of their training time in a regional setting across the five year VTP.
3.4 Quality improvement

Systems have been developed to capture feedback to and from all parties involved in training and assessment. This feedback enables continuous quality improvement of the training system.

Training and assessment through the VTP and the VTNs continue to produce ophthalmologists of the highest order by supporting trainees to attain eight key roles that underpin ophthalmic practice.

4. So, how many ophthalmologists does Australia need?

Workforce projections in the Report determined approximately 1,300 ophthalmologists, with 221 trainees in the training pipeline, will be needed in Australia by 2030 to meet the demand for services with no perceived shortfall and provide an in-balance workforce situation. As the population in Australia is projected to be approximately 30,000,000 by 2030, about one ophthalmologist is needed per 25,000 and one trainee per 130,000 population on average.

5. The importance of ophthalmology workforce composition - the critical shortage of paediatric ophthalmologists in Australia

As well as enough workforce, we need a workforce composition that can deliver the broad scope of comprehensive ophthalmology, including paediatric ophthalmology.

In regional Australia, most ophthalmologists are competent and confident to deliver a comprehensive service that includes paediatric ophthalmology. However, there is a shortage of regional ophthalmologists across Australia.

In larger cities across Australia, there has been a move away from comprehensive practice towards subspecialty practice and the subspecialty of paediatric ophthalmology has not been able to attract enough fifth year trainees and newly graduated Fellows to train in this subspecialty. Consequently, the paediatric subspecialty workforce is ageing, unsustainable and there are insufficient subspecialists to meet the population’s requirements for these services.

Currently, the number of paediatric ophthalmologists across Australia is critically short. In the Health Workforce 2025 – Volume 3 – Medical Specialties, data provided by RANZCO highlighted the small number (20 full-time equivalents) of paediatric ophthalmologists (defined as an ophthalmologist whose practice is at least 50 per cent paediatric) in Australia in 2012. It was noted that this workforce is nearing retirement, which will affect training supervision capacity. The funding of additional supervised training places in paediatric ophthalmology was highlighted as crucial.

As these are the specialists that deliver the bulk of paediatric ophthalmology services in the larger cities (given the subspecialty nature of practice in cities), this has led to shortfalls in paediatric ophthalmology services in many urban locations despite there being many ophthalmologists in the area (who are not comfortable to treat children).

Delays in access to paediatric ophthalmology services are particularly problematic in this field of medicine as there is a critical period of visual development, that tapers off rapidly from the age of seven years, during which the treatment of amblyopia (lazy eye) is much more effective. Children with eye disorders that do not receive timely and definitive treatment promptly during this time frame frequently develop permanent visual impairment and unilateral blindness.

This causes an increased prevalence of visual impairment and blindness in the community with a disproportionately larger effect on lower socioeconomic groups in the community.

There are ongoing consequences for individuals throughout their life and therefore for the community, with individuals having reduced vision in one eye, having an increased risk of bilateral visual impairment and blindness given the cumulative lifetime risk of losing sight in the ‘good’ eye.

---

1 Eight key roles which underpin ophthalmic practice: ophthalmic expert and clinical decision-maker, communicator, collaborator, manager, health advocate, scholar, culturally safe practitioner and professional
5.1 There is a critical shortage of ophthalmologists who are skilled in the screening and treatment of retinopathy of prematurity (ROP) and available to regularly engage in delivering these services. This essential service screens at-risk infants for ROP and treats neonates when indicated to prevent permanent blindness. The existing workforce is undersized, under-resourced and rapidly ageing. Many factors act as negative incentives to taking on this highly skilled and challenging work which need to be addressed to ensure a robust and sustainable service to all neonatal units across Australia. This work requires at least a weekly commitment and cannot be deferred or slowed during holiday periods. It is potentially highly litigious with massive payouts to affected patients and their families where outcomes have been poor in Australia and overseas. The Neonatal Intensive Care Units (NICUs) where the work is undertaken are often located far away from clinicians’ usual practices. This means it would take several hours of unpaid travel time to undertake one to three hours of work, which is poorly remunerated. When a baby requires treatment, this is usually performed after hours and is unpaid in many circumstances. There has been poor investment in equipment – none in some jurisdictions such as NSW\(^5\). This is a barrier to clinicians delivering the best quality of care and obtaining second opinions as the equipment needed to image the retina is often not available.

5.2 Why do graduating ophthalmologists choose not to practice comprehensive ophthalmology which includes paediatric services? Public ophthalmology services, including public paediatric ophthalmology services in our cities, have not grown with the population or with the growth in trainee numbers despite considerable advocacy to address this. The lack of investment in paediatric ophthalmology services across Australia is highlighted by the plight of the Westmead Children’s Hospital ophthalmology department where 50 per cent of the supervising consultant staff have worked for many years and continue to work in honorary positions for no pay. The waiting time to access public hospital paediatric ophthalmology services across Australia is well over boundary. Routine appointments which should be seen within one year has a typical waiting time of 18 to 24 months and semi-urgent appointments are seen waiting for a year when it should commonly be 90 days\(^5\). The lack of public paediatric ophthalmology services means that paediatric ophthalmology training posts are in short supply. For most trainees, just three months out of their five year training is spent in the field of paediatric ophthalmology. Fellows have given RANZCO feedback that this is not sufficient for some graduating ophthalmologists to feel confident and competent in practising paediatric ophthalmology as part of comprehensive practice on graduating as a Fellow. Most ophthalmologists that have graduated in the last 15 years, and who choose to practice paediatric ophthalmology after graduating, have gone on to do additional training after graduating. RANZCO recently updated the VTP to address some of these confidence and competence issues by mandating trainees to complete a required minimum number of specified surgical procedures that cover the breadth of comprehensive ophthalmology, including in the field of paediatric ophthalmology, by the end of their training. This requirement commenced in 2022. RANZCO sees value in increasing trainees’ exposure to paediatric ophthalmology during training to six months. This is another measure that would support increased confidence and competence in practising paediatric ophthalmology as part of comprehensive ophthalmology. Currently, the number of paediatric ophthalmology training posts available in Australia would not support this initiative and is a barrier to increasing training numbers across the board.
5.3 Why don’t more graduating ophthalmologists choose paediatric ophthalmology as a subspecialty for their future careers?

Just three months of exposure to paediatric ophthalmology during training as detailed above is a major reason.

Another consideration is the imbalance in MBS remuneration for paediatric ophthalmologists. Previous advocacy has resulted in an increase in the MBS remuneration for an initial outpatient paediatric ophthalmology attendance, which has been very helpful. However, in the field of paediatric ophthalmology, outpatient reviews necessarily take additional time compared to the review of an adult patient. Additionally, MBS remuneration for common paediatric ophthalmology procedures, such as squint surgery, receive less than the remuneration for cataract surgery despite these services taking approximately three times longer to deliver. The imbalance in MBS remuneration undervalues paediatric ophthalmology as a subspecialty, reducing its attractiveness to ophthalmologists in training, and has resulted in high out-of-pocket costs to consumers.

6. The critical role of the collaborative care team in delivering outpatient and inpatient eye care services

Ophthalmologists work as part of a multidisciplinary team to deliver care to patients in both public hospital and private outpatient settings. In the outpatient setting, patients are typically screened and undergo several ancillary tests performed by nurses, orthoptists, visual screeners, allied health assistants and/or optometrists. A robust and sustainable allied health and nursing workforce is essential to support the efficient delivery of ophthalmic care.

There are now numerous successful models of care in public outpatient clinics across Australia, led variably by nurses, orthoptists and/or optometrists. These are evidenced to improve access to care, reduce hospital costs and reduce wait times without compromising the quality of care. They typically target common diseases such as diabetic retinopathy, glaucoma and cataract.

RANZCO looks forward to working with other stakeholders such as Optometry Australia, Orthoptics Australia and the Australian Ophthalmic Nurses Association to develop a living resource outlining these models of care that would be made available to eye healthcare service providers.

Orthoptists commonly work closely with ophthalmologists in both public and private settings as well as working independently. Having a sufficient orthoptic workforce is particularly crucial to the effective delivery of public outpatient services. They are essential to the team in many areas including paediatric ophthalmology care, neuro-ophthalmology, and the management of orbital fractures. Whilst there has been an expansion of the role of the orthoptist in the eye care team, there has been no increase in orthoptic numbers in public hospitals in most jurisdictions across Australia. This results in long delays, inadequate treatment and poorer outcomes for vulnerable patients. This orthoptic workforce shortage in public hospital settings is a threat to the sustainable delivery of eye healthcare services and is a particular threat in the area of paediatric eye healthcare delivery.

Optometrists, as well as working as independent eye care professionals, also work collaboratively with ophthalmologists and are an important part of the team. Whilst the optometry workforce is robust in numbers, it also has a relative maldistribution which the profession is working to address.

In the public and private theatre setting, ophthalmologists also work as part of a team that includes anaesthetists and nurses, some of whom are skilled in assisting in the delivery of ophthalmic procedures. There is a nationwide shortfall in skilled theatre nurses which is important to address.
7. Specialists not settling regionally is an ongoing problem. Out of the ophthalmologists who trained in Australia and graduated between 2013 and 2016, 90 per cent are now residents in urban areas. See Table 7.

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8. What would an optimal distribution of ophthalmologists in regional Australia look like and how do regional ophthalmology services work?

Twenty-nine per cent of Australia’s population lives regionally\(^a\). But regional Australia includes regional centres with surrounding catchment areas ranging from populations of just a few hundred or a few thousand to catchment areas approaching 300,000. As a fair proportion of regional Australian residents live rurally on farms, towns of around 35,000 for example, commonly supply services to a much larger catchment population of up to 80,000 and sometimes to 150,000 or more.

8.1 Models of service delivery

Regionally-based ophthalmologists typically deliver their services in the town they reside. Patients travel from the surrounding rural catchment area to access services in the town.

Sometimes regionally-based ophthalmologists also provide regular outreach services to smaller settlements in the surrounding area, known as a hub-spoke service delivery model, often covering large catchment areas this way. An example of this is the Central Australian Regional Eye Service Community Clinic which operates out of Alice Springs Hospital and provides regular outreach to 32 settlements over an area the size of Spain.

Additional regional services are provided by ophthalmologists travelling from elsewhere, often urban locations, to provide outreach services.

The catchment area size and population that can be serviced from a given location depends on the model of service delivery.

- Regional ophthalmology practice services with no additional outreach

The catchment area will depend on how far it is reasonable for patients to travel by road to access the service. This will vary with remoteness and population density. In general, one to two hours of travel is very reasonable, and up to three hours of travel can be acceptable for remote locations. Four or more hours of travel may be necessary for very remote locations with very small populations, but is not optimal.

- Hub and spoke services

The doctor, other team members and equipment travel to remote locations typically by air, e.g. the Royal Flying Doctor service. Services are supplied either in local medical clinics or sometimes in mobile eye clinics. These services can cover vast catchments. They may operate from regional ophthalmology practices (e.g. the Royal Darwin Hospital Outreach Program, the Central Australian Regional Eye Service Community Clinic which operates out of Alice Springs Hospital, the Lions Outback Vision Van which operates out of Broome, and North-West Eyes operating out of Tamworth). There may be services organised to cover a catchment area from urban Australia (e.g. the Outback Eye Service out of Prince of Wales Hospital in Sydney).
- Outreach by ophthalmologists outside the catchment area of their usual practice.

This is very common throughout regional Australia. This outreach can be to localities that are too small to sustain a resident ophthalmology service or may supplement or provide the only service in workforce-poor areas that cannot attract sufficient or indeed any resident workforce. Outreach services may bring subspecialty ophthalmology services in some situations to augment comprehensive services on the ground and reduce the need for patients to travel for these services, thus delivering patient-centred care.

8.2 Catchment area population size, demographics and distribution determine the workforce required to provide sufficient ophthalmology services.

The population in each catchment area (dependant on the service model) in turn determines the ophthalmology FTE required to provide adequate level of ophthalmology services to the population using one ophthalmologist for every 25,000 people as a guide.

Other factors such as an older population, a higher proportion of Aboriginal and Torres Strait Islander service delivery, a higher burden of disease regionally and the challenges presented in supplying services over a broad geographic area mean that more than one ophthalmologist per 25,000 may be required in some regional areas.

Optimally, all regional areas would have, on average, no less than one ophthalmologist per 25,000 people, with at least one training registrar per 130,000 people and the provision of any subspecialty outreach required to augment services on the ground needed to provide a comprehensive ophthalmology service. This would mean very few patients would need to travel into the city for care. Optimally, both publicly funded and private care would be available for all outpatient and inpatient services. However currently, this is not the case. The ophthalmology workforce in Australia is concentrated in metropolitan areas (84 to 87 per cent in Modified Monash Model (MMM) area 1) despite 29 per cent of the population living in MMM2-7 resulting in many regional Australians having delayed or no access to ophthalmology services where they live [18,54,69].

See the Appendix for more detail on the current state of regional services across Australia and optimal models of care for differing catchment sizes.

8.3 Collaboration with other specialist colleges to safely deliver ophthalmic medical services in rural and remote Australia

RANZCO notes that, in the rural and remote areas, primary care is well positioned to ensure the provision of all patients’ essential health care needs. This will often involve the provision of services extending from general practice clinic-based care to contribution to, and facilitation of as much as practicable of people’s secondary and tertiary needs in the most accessible possible way.

In line with this, in rural and remote areas, where the population catchment is insufficient to support resident ophthalmologists and in regional areas where there is an ophthalmology workforce shortage, RANZCO sees benefit in partnering with the Australian College of Rural and Remote Medicine (ACRRM), the Royal Australasian College of General Practice (RACGP), and the Australasian College of Emergency Medicine (ACEM), to ensure ophthalmic medical services, such as the management of conditions requiring the delivery of intravitreal injections, including the delivery of these injections by appropriately upskilled doctors, and acute assessment of ophthalmic emergencies, can be safely and appropriately delivered to the people living in these areas.

This partnership will involve developing resources and training pathways to upskill and accredit Rural Generalists, General Practitioners (GPs), and Emergency Physicians, and models of care for service delivery that may incorporate specialist ophthalmology telemedicine support.
9. What would an optimal distribution of ophthalmologists in urban Australia look like?

Seventy-one percent of our population live in urban Australia\(^8\). When considering the resident population as a whole, most cities in Australia have sufficient ophthalmologists (one per 25,000 people) to adequately deliver services. However, the distribution of specialists’ services does not match the distribution of the population resulting in a significant outer urban shortfall in the delivery of ophthalmology services, which disproportionately affects individuals and families in lower socio-economic groups.

Public ophthalmology outpatient departments are commonly centrally located in our cities and many outer urban LHNs and outer urban zones in cities with larger metropolitan. LHNs don’t currently have public hospital eye clinics, e.g. Nepean, Wollongong, Gosford, Rockingham, Murdoch, Elizabeth Vale, Melton and Bacchus Marsh, Werribee, Mornington, West Moreton, Logan and Caboolture.

The 2018 Outer Urban Public Transport Report\(^44\) finds that while Australian cities, particularly Melbourne and Sydney, have experienced a degree of concentrated growth in inner-city areas in recent years, outer urban areas continue to grow rapidly. Close to half the population of our five largest cities live in the outer suburbs. The expansion of our cities away from public transport routes, particularly high-capacity railways, has resulted in a range of challenges, particularly around access to jobs, services and leisure activities. The report notes that inner-city areas have become unaffordable to lower socio-economic groups and finds inadequate access to public transport and poor service levels are important drivers of disadvantage for people in outer urban areas. These conditions can have a tangible impact on the quality of life and prosperity of these communities by limiting access to employment, education and other social infrastructure within reasonable travel time. About 1.4 million in Melbourne’s and 1 million people in both Sydney and Brisbane’s outer suburbs are not within walking distance of reasonable quality public transport.

Optimally, ophthalmology services would be broadly available across our major cities, including sufficient services in the outer suburbs to match population needs. This would enable the delivery of patient-centred care, facilitate lower socio-economic groups in accessing the care they need and reduce congestion in our inner-city hospitals, and on roads and public transport systems.

In summary

There is a substantial imbalance in the ophthalmology workforce between the public and private sectors with most specialist ophthalmology FTE (84 to 87 per cent) in the private sector. This is largely due to a chronic lack of investment in public ophthalmology services across Australia, brought about by shortfalls in funding and governance frameworks\(^54,69\).

In Australia, most specialist ophthalmology training is delivered in the public sector. And this remains the preferred training sector for urban specialist training as our public hospitals provide the dynamic, comprehensive and concentrated training experiences that are essential to continue to produce the excellent ophthalmologists that Australia requires. Insufficient public specialist FTE and service delivery results in insufficient public training posts and is a threat to workforce sustainability in the medium term with an impending, overall workforce shortage predicted by 2030\(^69\).

Additionally, there is increasing maldistribution of ophthalmologists with most working in inner urban locations with shortages of outer urban ophthalmology workforce and profound workforce shortages in much of regional Australia. There also is a critical shortage of paediatric ophthalmology workforce in Australia.

Box 2 analyses each workforce threat and/or shortfall in detail, looking at the reasons it is happening, the consequences of and solutions to the problem, and what outcome measures are required to provide governance over this process.
Box 2: Threats to and shortfalls in the specialist ophthalmology workforce in Australia

1. There is a substantial imbalance in the ophthalmology workforce between the public and private sectors with most specialist ophthalmology FTE (84 to 87 per cent) in the private sector\textsuperscript{33,64}. Available public sector FTE is maldistributed being mainly based in central urban areas with outer urban public workforce shortages and the absence of regional public workforce in many areas.

The reasons this is happening

- Public ophthalmology FTE has not increased at the same rate of growth as the population in Australia\textsuperscript{18} for many decades. This is due to a chronic lack of investment in public ophthalmology services across Australia, brought about by shortfalls in funding and governance frameworks. No governance structure ensures the equitable delivery of outpatient services (80 per cent of ophthalmology) under the NHRA and there are no KPIs to ensure sufficient workforce FTE and adequate workforce growth across and within jurisdictions. See Focus on Service Delivery for a detailed analysis.

This is despite workforce sustainability and distribution being crucial to deliver services and supply the specialist ophthalmologists Australia needs into the future; and public hospitals across Australia receiving Teach-Training-Research (TTR) block funding to fulfil their key role of providing quality training and assessment.

- The dominant model of public service delivery is in teaching hospitals which are commonly located more centrally in Australia’s large cities.

- Another factor is the income differential for specialist ophthalmologists between the public and the private sector. Despite this, many ophthalmologists relish participating in the public sector and most public hospital positions remain filled with approximately 45 per cent of ophthalmologists engaged in delivering some public sector services regularly\textsuperscript{78}. With the necessary growth required in public hospital FTE, which will occur with appropriate jurisdictional investment, it is anticipated that the public-private income differential may have an impact on recruitment. However, some mechanisms can be employed to address this issue.

- Across much of regional Australia, there is very little regional public FTE as most public service delivery is outsourced to the private sector (inpatient services) or not available (outpatient services).

The consequences of this problem

- An imbalance in service delivery between the private and public sectors with 87 per cent of ophthalmology services in Australia delivered in private\textsuperscript{54}. Long waiting lists to access public outpatient and inpatient services\textsuperscript{19,52}.

- Delayed or no access to services for many low-income Australians. This results in an increased prevalence of temporary and permanent visual impairment and blindness in this group\textsuperscript{27}.

It is unclear what percentage of the population is unable to afford to pay out-of-pocket expenses to access private medical services.

In Australia, 56 per cent of the population has no private health insurance membership\textsuperscript{85} and more than one in eight adults and more than one in six children are living in poverty—14 per cent of the population on average\textsuperscript{82}. In the Families in Australia Survey\textsuperscript{36}, one in three respondents said that they or someone in their household had experienced at least one of a list of financial stresses in the previous six months.

Given the above data, it is conservatively feasible and probable that between 20 to 30 per cent of the population is unable to afford out-of-pocket expenses to access medical care.

- Delayed, reduced or no access to services for many outer urban and regional Australians. This results in an increased prevalence of temporary and permanent visual impairment and blindness in these groups.

- Future workforce insecurity.

Insufficient public specialist FTE and service delivery results in insufficient public training posts. In Australia, most specialist ophthalmology training is delivered in the public sector. And this remains the preferred training sector for urban specialist training as our public hospitals provide the dynamic, comprehensive and concentrated training experiences that are essential to continue to produce the excellent ophthalmologists that Australia requires.
The solutions to this problem

RANZCO actions:

◊ Develop high-value collaborative models of care working with optometrists, orthoptists, nurses, GPs, and Rural Generalists.
  To deliver public services equitably across larger metropolitan areas. See Focus on Service Delivery for additional details.
◊ Lobby for governments to implement these collaborative models of care at the LHN level.

Solutions requiring Australian Governments implementation:

◊ Sufficient investment in and growth of public ophthalmology services to meet community demand.
  Implementation of the measures put forward under Gap 1 in the Focus on Service Delivery section will result in public ophthalmology service sector reform, sustainable and equitable service delivery, and the appropriate and necessary growth in public ophthalmology FTE.
◊ Investment in outer urban clinics which offer collaborative models of care closer to where patients live - patient-centred care.
◊ Incentives for public service provision by specialist ophthalmologists.
  Across much of Australia, ophthalmology inpatient surgical services are delivered using an outsourced-to-private funding model informed by the National Efficient Price (NEP) and local commercial considerations. Currently, the provision of these services by ophthalmologists is not aligned with the provision of public outpatient services, on-call services and the supervision of training registrars.
  RANZCO sees value in an agreement across and within jurisdictions that aligns the provision of public ophthalmology outpatient services, on-call services and the supervision of training registrars with specialist ophthalmologists' eligibility to deliver contracted outsourced-to-private or Fee-For-Service surgical services.
◊ Understand that ophthalmology services in regional areas with population catchments of less than 200,000 may be best serviced by private ophthalmology practices (see Focus on Workforce and Training Appendix). Regional areas this size would therefore not be expected to have significant public specialist FTE.
  Facilitate equity of access to public ophthalmology services in regions of this size by requiring LHNs to deliver public services via outsourced to private outpatient and inpatient services.

Outcome measures and reportable expectations

- For regions with a population of 200,000 or more (see Focus on Workforce and Training Appendix)
  ◊ Set population-informed KPIs for the optimal public hospital specialist ophthalmologist FTE for all LHNs.
  ◊ Require LHNs to develop plans to meet these targets by 2030, which include equitable public workforce distribution across larger metropolitan LHNs. This measure will address urban workforce maldistribution.
  ◊ Mandate the reporting of public hospital specialist ophthalmologist FTE and on-call provision for all LHNs.
  ◊ Set a target of 30 per cent percentage of the specialist ophthalmologist services to be delivered in the public sector by 2030.
  - Require LHNs to provide data informing the involvement of ophthalmologists in the delivery of inpatient, outpatient and on-call services across Australia to allow service gaps to be detected and addressed.
  - These measures to be incorporated into the implementation strategy of the National Medical Workforce Strategy 2021–2031 (NMWS).

2. Australia’s ophthalmology workforce of the future is under threat with an impending, overall workforce shortage

The reasons this is happening

- Causes relating to funding:
  ◊ Stagnant State and Territory funding for specialist ophthalmology training FTE.
  Public ophthalmology specialist trainee FTE has not increased with the rate of growth of the population in Australia for many decades. This is due to a chronic lack of investment, and therefore poor growth, in public ophthalmology services across Australia, brought about by shortfalls in funding and governance frameworks (see detailed analysis under Focus on Service Delivery).
Colleges have no leverage to drive funding for FTE to increase the number of training positions. RANZCO has been directed to grow training positions but has no leverage to mandate the creation of additional training posts within individual LHNs, which provide the funding for most specialist training FTE. Essentially, Colleges are caught in the middle between Commonwealth expectations, which RANZCO wishes to prosecute, and jurisdictional funding availability. RANZCO is, on the one hand, being required to increase training positions by the Commonwealth whilst being provided with no governance mechanism which enables this to happen.

- There has been a substantial decrease in SIMG applications for RANZCO Fellowship and consequently more than halving the number of fully comparable new RANZCO Fellows from this source since 2016. This has had an impact on the ophthalmology workforce, which is overly reliant on the SIMG workforce. See Table 6.

The consequences of this problem

- Increasing shortages of specialist ophthalmologist services in Australia and increasing workforce maldistribution.
- Ongoing reductions in public hospital ophthalmology service availability followed by private service shortfalls.
- Reducing number of specialist training positions as specialist ophthalmologists become more stretched in their ability to provide ophthalmology services to the community through their private practices.
- Reducing access to ophthalmology services across Australia, with a disproportionately larger effect on lower socioeconomic groups in the community, results in an increased prevalence of temporary and permanent visual impairment and blindness.
- Increasing shortages of paediatric ophthalmologists.
- Increasing dependence on the SIMG workforce.

The solutions to this problem

Solutions that increase the number of training positions in Australia.

RANZCO actions:

Most service registrar positions in Australia are not close to meeting RANZCO accreditation. This is most commonly due to the limited availability of surgical sessions. Accredited training positions require two supervised operating sessions and four supervised outpatient clinics on average per week.

There are a small number of unaccredited registrar positions around Australia that are likely to be able to meet RANZCO accreditation standards with some post-improvement. RANZCO aims to bolster these unaccredited regional registrar positions where possible so they reach RANZCO accreditation requirements and can be accredited.

Solutions requiring Australian Governments implementation:

Sufficient investment in and growth of public ophthalmology services to meet community demand will result in the necessary growth in specialist training positions—solution as per workforce problem¹.

The Commonwealth Health Workforce Division to work with the Colleges to set reportable KPIs for all specialty training FTE (not just ophthalmology) at the LHN level on a per capita basis. This is to ensure State and Territory governments and Local Health Networks are held accountable to equitably deliver the specialist training required to protect this vital national resource as well as to deliver equitable service delivery.

This measure is to be incorporated into the implementation strategy of the NMWS⁸⁷

Outcome measures

- Reportable KPIs for all specialty training (not just ophthalmology) at the LHN level.
- Increases in specialist training FTE for ophthalmology.
### 3. There is increasing maldistribution of ophthalmologists with most (84 per cent) working in urban locations

#### The reasons this is happening

1. **There is a shortage of regional training positions.**
   - Just 15 per cent of RANZCO accredited training positions are in regional Australia despite 29 per cent of the population living regionally. Exposure to regional practice during postgraduate training is evidenced as increasing the likelihood of longer-term regional practice in the future and there is evidence that, once situated in a location, the location of ophthalmology workforce is relatively stable.
   
   Currently, the average ophthalmology trainee has just six months of training experience in regional practice throughout their five-year training. Typically, this experience is in either one six-month posting or two three-month postings. Regional postings of this duration, whilst being valuable to provide some exposure to regional practice, are not thought to result in a useful connection to a place that may produce an outcome of future regional practice in that location.

   There are several reasons for the low number of regional as compared to urban training positions:
   - **Funding constraints** - see below.
   - Lack of public regional outpatient services offered by many LHNs.
   - The provision of public outpatient services within an LHN drives training registrars FTE. This equitable service delivery is required of jurisdictions under the NHRA.
   - Regional workforce shortages
     
     Regional training posts can only be accredited where there is adequate supervision to do so. RANZCO sees value in increasing trainees’ exposure to regional ophthalmology during training to 12 months and increasing each regional training posting to at least six months in duration. This is a measure that would be likely to increase regional connections, confidence and competence in practising comprehensive ophthalmology in a regional location and the likelihood of longer-term regional practice. Currently, the number of regional ophthalmology training posts available in Australia would not support this initiative.

2. **The proportion of those entering specialist ophthalmology training from a regional background has been lower than the proportion of the population from a regional background for many years.**

   Doctors with a regional background are three times more likely to declare an intention to work regionally after training. RANZCO Workforce Survey 2017 found that:
   - Just 9.3 per cent of Australian ophthalmologists have a regional background.
   - Australian ophthalmologists with a regional background were 2.7x more likely to have their principal place of practice in regional Australia. Forty per cent of those with a regional background had their principal place of practice in a regional area compared to just fifteen per cent of those without a regional background.

   RANZCO has introduced selection points for regional background to address this issue. More than 40 per cent of trainees selected in the last two years had a regional background. This measure has recently been strengthened by allocating eight regional points out of a total of 100 in RANZCO’s bi-national selection process.

3. **Until recently, all RANZCO Vocational Training Networks in Australia have used an urban-based training model with most of the training (85 per cent on average) being spent in urban locations.**

   Regionally enhanced post-graduate training is evidenced as promoting future longer-term regional practice. Wilkinson et al found that more than 50 per cent of postgraduate training is regional. Graduating general practitioners were over 10 times more likely to practice rurally.

   Another study by Kwan et al found a combination of rural background and two years of rural clinical school attendance is associated with the highest probability of future long-term rural practice – 84 per cent in GPs and 52 per cent in specialists.

   Specialist training programs where the trainees are located regionally for more than 50 per cent of their training are referred to as ‘flip-model’.
4. There has been a gradual change in ophthalmology practice across Australia from mainly comprehensive practice to mainly subspecialty practice over many decades.

Similarly, over several decades, the range of surgeries that training registrars have exposure to performing themselves during their training has declined as subspecialty practice has increased. The increase in the number of subspecialty fellowship positions in our large teaching hospitals has meant that hands-on exposure to many of these procedures is mainly limited to fifth-year or overseas trainees during their subspecialty fellowship year.

It is thought that current trainees are likely to, at least in part, model their careers on those of their supervisors and mentors. If most of their supervisors and mentors are subspecialist ophthalmologists, it may be more likely they will favour subspecialty practice in their future career choice.

Graduating ophthalmologists may not have the confidence and competence to work in regional Australia, particularly where they have limited exposure to regional practice, even if they wish to practice comprehensive ophthalmology.

An ophthalmologist who practices mainly in one subspecialty area may not have the confidence and competence to work in regional Australia—particularly in areas of low workforce and in smaller catchment areas where a comprehensive service delivery model is preferable.

There may be a perception amongst trainees and others, which requires challenging, that subspecialty practice is superior to comprehensive ophthalmology practice—a cultural cringe directed at comprehensive practice.

5. More profound shortages of ophthalmologists in some jurisdictions.

It is thought that State-wide shortages of ophthalmologists have a significant impact on overall training numbers in that jurisdiction, particularly on regional training as there is increased regional workforce scarcity. With an overall shortfall of ophthalmic FTE in a state, having the availability of supervision in regional areas in that state will be less likely.

For example, Queensland has significantly lower overall ophthalmology FTE, fewer accredited training positions per capita and no regional training positions.

6. The cultural cringe between urban and regional settings regarding regional medical practice.

Registrars frequently look to urban locations for fifth-year fellowship positions rather than considering positions in regional Australia.

This is despite these positions having a wealth of experience and challenges to offer trainees with high volume, diverse surgery, a wider range of interesting pathologies, a high burden of disease and supervision by some of Australia’s most competent and experienced ophthalmologists.

Regional areas also offer a great opportunity to expand independent practice.

In a recent qualitative systematic review of recruitment and retention, poor perception of rural practice, especially in those not from a rural background, was a common barrier to recruitment, along with concerns over career progression and isolation.

7. Other major drivers of decisions to work and remain a rural doctor outlined in this review are:

- Employment opportunities for partners.
- The educational needs of children affect decisions to move rural and remain, especially once children reach high school age when educational options in rural areas become limited.
- Lack of professional education and support, including difficulty in obtaining locums to cover while attending compulsory continuing medical education.

Doctors with access to local training and those able to build professional support networks in their community are more likely to remain practising rurally.

- Burnout and poor working hours—especially being on call.
- Relatively less remuneration than urban colleagues causes doctors to leave rural areas. These long-term financial negatives outweigh any initial financial incentives that draw some doctors to rural positions.

- Retaining doctors in rural areas requires support systems that allow them to be integrated as a member of the community beyond simply being known as the local doctor.
- Rural doctors face mental health challenges associated both with being a doctor and with living in a rural community. Maintaining good mental health is critical in retaining rural doctors.

Independence, autonomy and willingness to take on risks, but with the ability to work cooperatively, are all beneficial qualities for doctors entering the rural workforce.
8. Causes relating to funding:

- Poor availability of State and Territory funding for regional specialist ophthalmology training FTE.

  With no provision of public outpatient service in most of regional Australia and the ability to outsource inpatient services to the private sector when workforce is available, LHNs do not need to employ training registrars in regional Australia except where there is provision of regional public outpatient services, e.g. Hobart, Darwin, Alice Springs, Broome and Broken Hill. This has made the development of ophthalmology specialist training positions in regional Australia largely STP-dependant.

  Ten of the 17 regional training positions in Australia receive STP funding. Just seven year one to four training registrars are employed by LHNs without STP funding assistance in regional Australia. These sites are Albury-Wodonga, Ballarat (part-time position), two positions in Wagga Wagga (where ophthalmologists used private practice payments from the LHN to finance one of the two training positions), Lismore, Darwin (one of two trainees), and Broken Hill.

  FTE funding for training registrars would be available in some sites in regional Queensland but there is currently an inadequate specialist workforce to accredit training positions at these sites, e.g. Townsville.

  The Commonwealth’s STP program is limited to funding no more than seven per cent of specialist training across all specialties in Australia. Equitable specialist training for a population that is 29 per cent regional would itself be 29 per cent regional. Hence, STP funding will never be sufficient to cover the requirements for regional FTE funding for specialist training FTE. This emphasises the importance of funding for training FTE being available from regional LHNs.

- Workforce planning constraints brought about by short-term Commonwealth funding delivery and planning model for specialist training FTE via the Specialist Training Program (STP).

  The Specialist Training Program (STP) seeks to extend vocational training for specialist registrars (trainees) into settings outside traditional metropolitan teaching hospitals, including regional, rural, remote and private facilities. RANZCO acknowledges this program as being of huge benefit in growing ophthalmology training positions in recent years and in working towards addressing workforce maldistribution. However, RANZCO finds some limitations in the program’s effectiveness relating to the short-term planning and funding model.

  There is no guarantee of ongoing STP funding beyond short-term funding contracts (three to four years), which presents a considerable barrier to medium- and long-term workforce planning particularly for regionally enhanced Integrated Rural Pipeline Training (IRTP) in which RANZCO registrars train in a fifth year pathway utilising a variety of funding sources. These funding and planning uncertainties undermine this sizable investment impacting its effectiveness in addressing workforce maldistribution.

  For example, RANZCO recently was successful in lobbying for STP-IRTP funding (RETN Proposal Brief). This success was very welcome but was confirmed with a very short lead-time, which has greatly impacted the ability to utilise this funding over the coming contract term. As the Commonwealth is currently unable to confirm if additional funding may be available by 2025, or even if the funding currently available will continue onto the next contract period, RANZCO is unable to fully realise the rollout of its Regionally Enhanced Training Network (RETN) and is taking on considerable risk—as without funding continuity, many training registrars would be left with no training positions part way through their training.

  For STP funding to achieve a maximal benefit in addressing rural workforce maldistribution, RANZCO sees value in measures that allow the planning of workforce funding forward for a minimum of 8-10 years into the future. This will allow for more rapid development of the regional workforce required to offset the ageing of the current specialist medical workforce.

- RANZCO has no leverage to mandate that LHNs accept STP funding for training positions when this is available from the Federal government.

  LHNs sometimes refuse available STP funding as it is intentionally not calibrated to fully cover the cost of a training registrar because LHNs are expected to make some contribution.

### The consequences of this problem

1. Difficulty accessing specialist ophthalmology services for many regional Australians.

   - Increased risk of temporary and permanent visual impairment and blindness for the regional population.
   - Thirty per cent of all Australians and 60 per cent of those who identify as Aboriginal and Torres Strait Islanders live regionally.
2. **Stresses for regional ophthalmologists working in workforce-poor areas.**
   - The frequent on-call required when there is one or just a few specialist(s) in an area is commonly not sustainable, increases the likelihood of burnout and can drive specialist(s) away from the area.
   - There is no or little access to services when the specialist(s) is/are on leave unless a locum can be arranged.
   - Reduced local collegial support can be isolating for regional specialists.
   - There is pressure to work longer hours to meet community demand for services increasing the risk of burnout. Regional ophthalmologists work longer hours (RANZCO Workforce Survey 2017).
   - No public outpatient service funding in most of regional Australia results in higher bulk-billing pressure on practices, especially in workforce-poor areas, e.g. Northwest Tasmania.

3. **Difficulty in establishing and maintaining specialist training positions in regional Australia.**
   - Accredited training posts require sufficient specialist supervision without which they cannot be accredited.
   - Specialists report difficulty training registrars in areas of extreme workforce stress. Typically in these areas, only fifth-year registrars can train, e.g. Northwest Tasmania.

4. **Ageing of the current regional specialist ophthalmology workforce.**
   - As a lower proportion of ophthalmologists in recent decades have chosen regional practice, the regional specialist ophthalmology population is ageing rapidly which is exacerbating the workforce maldistribution and the resulting consequences of this maldistribution.
   - Without urgent and effective action soon, there will be an increasingly lower likelihood of establishing additional and maintaining many existing regional training positions.

### The solutions to this problem

1. **Increase the number of regional training positions so all trainees can spend a minimum of one year of training in regional Australia as sufficient regional training positions become available.**

   **RANZCO actions:**
   - Develop Qualifications and Education Committee (QEC) standards for training posts incorporating outreach and remote supervision.
     Would be suitable for advanced trainees, fifth years and SIMGs.
     Use the Broken Hill training post as an example currently in action.
   - Where feasible (good supervisor support) and when funding is available for registrar FTE, develop Broken Hill model training positions in key regional locations.
     Utilise innovative models of supervision, where possible, to accredit additional regional training positions which continue to deliver high-quality, well-supported, positive training experiences which incorporate dedicated time and support for teaching and learning.
   - Teaching hospitals to adopt a workforce-poor regional area.
     Develop a program that invites urban teaching hospital ophthalmology departments and their specialist ophthalmologists to adopt a regional area that is low in workforce to provide outreach services, training supervision and subspecialty expertise to that region.
   - Bolster unaccredited regional registrar positions where possible so they reach RANZCO accreditation requirements and can be accredited.
     This is currently achievable for regional positions in Hobart and Darwin, which are planned to be incorporated into the RETN.
   - Develop an SIMG RANZCO Fellowship pathway program that facilitates the utilisation of the SIMG workforce in the short- to medium-term to build regional training positions and bolster regional workforce and services in key workforce-poor areas. Use this measure to facilitate the ultimate long-term aim of reduced dependence on the SIMG workforce.
     Develop a model of training and support for partially comparable SIMGs that provides a clear pathway to Fellowship to attract the SIMG workforce to and retain them in key locations.
     SIMGs would be eligible to enter this RANZCO Fellowship pathway program if they are successfully recruited to eligible SIMG training positions in key regional locations chosen as they would offer good pathway training and would allow the development of additional regional training positions for Australian training registrars.
     Develop a mentorship program for pathway SIMGs to support their professional development and integration into the Australian community and workforce.
This will have strong support from regional Fellows as it would provide them with more needed relief from workforce stress in workforce-poor areas. It would provide more certainty and support for SIMGs in their pathway to Fellowship and hence, hence to the regional practices where they work.

The model should acknowledge that it is difficult for SIMGs to train and upskill when under workforce pressure and so recruitment to an area should be sufficient to allow for this.

The recent qualitative systematic review of recruitment and retention referenced above found studies on international medical graduates (IMGs) show they encounter the same barriers as domestically-trained doctors but to a greater extent. Lack of connection within the community and poor community acceptance leads to decreased retention. Additional bureaucratic requirements result in greater time away from practice and difficulties in meeting family requirements are more acute. Rural IMGs from smaller ethnic communities feel more isolated and the presence of their community in metropolitan centres results in many moving there once their service commitment is complete. This study also notes that restricted IMGs might have limitations on procedural work and professional autonomy, which has been demonstrated as a strong driver for the retention of rural doctors. IMGs need additional support mechanisms to retain them in the community after their program requirements have been met.

These factors should be taken into consideration, where possible, in constructing the SIMG pathway to RANZCO Fellowship model.

- For pivotal, larger regional catchment areas of more than 200,000, where a public hospital department is a definite solution, build a public hospital service from the ground up.
  
  For example, in Townsville and Rockhampton.

  Work with LHNs to recruit partially or fully comparable SIMG ophthalmologists where there is a workforce shortage and Australian ophthalmologists are unable to be recruited.

  Aim to recruit a minimum of three to four SIMGs and/or Australian ophthalmologists when building a department up from a very low or no base. This allows for recruited ophthalmologists who are not overworked, have time to develop professionally, and can have a lifestyle that allows them to integrate into the community.

  This level of recruitment will allow the development of two or more accredited training positions at each site, which is optimal for registrar development and on-call provision, especially where a third, unaccredited, registrar position is recruited to.

**Solutions requiring Australian Governments implementation.**

- Where the accreditation of a regional training position is achievable, reportable KPIs for specialty training FTE (see above) will drive LHNs to provide funding for training FTE and accept STP funding where this is available.

- RANZCO recommends the Commonwealth Department of Health:
  
  a. Provides the Medical Colleges with medium- to long-term (8 to 10-year) FTE funding certainly, by inclusion in the forward estimates the amount of STP funding that will be available to Medical Colleges within the STP funding framework, particularly for the funding of regionally enhanced IRTP FTE.

  b. Prioritises FTE funding for flip-model regionally enhanced specialist training programs. This measure is also supported by the Medical Deans of Australia and New Zealand.

  c. Works with each Medical College to align the provision of FTE funding for regionally enhanced training programs with Medical Colleges' medium- and long-term plans for the regional workforce to maximise regionally enhanced specialist training FTE.

  RANZCO notes that training networks, such as those employed by RANZCO, in which trainees can be directed to fill regional training positions, are a strong mechanism to ensure regional training posts are filled in preference to urban training posts.

  d. Works with stakeholders to strengthen the roles of and connections between the [Rural Health Multidisciplinary Training (RHMT) program](#), the Regional Training Hubs (RTH), and the Medical Colleges to build a supported and well-integrated rural training pipeline from medical school to graduation as a specialist or GP. This make use of the now high percentage (36 per cent) of medical school graduates who express a preference for a future career working outside capital cities. This measure is also supported by the Medical Deans of Australia and New Zealand.

  Incorporate the outcome of this engagement into the NMWS.

  e. In 2020, RANZCO sought provisional specialist billing rights for fifth-year trainees working in MM3-MM7 areas. This received approval in principle however, legislative change is required to grant full specialist billing rights rendering the program in its current form unviable.

  RANZCO recommends the necessary legislative change occurs to allow final year specialist trainees who have completed their final fellowship exams to be granted full provisional specialist billing rights when working in MM3-MM7 areas.
f. **Measures to support SIMG in integrating into regional communities.**

For SIMGs situated in MMM3-7 who are being supported by College processes to gain specialist recognition, measures that bolster inclusion and integration into the community, certainty that they can keep training in the area, and access to services for them and their family would increase retention once specialist recognition is achieved.

For example, full access to Medicare for the entire family, government-funded schooling for their children, and measures that provide them with security that they will be able to remain in one place as they train should they continue to meet the requirements of their upskilling program rather than the current process which provides them with recurrent six monthly VISAs.

g. **Districts of Workforce Shortage (DWS) and Areas of Needs (AoN).**

RANZCO recommends the Rural Distribution Section of the Health Workforce Division of the Australian Government Department of Health, expedites telegraphed changes to specialist DWS to ensure they reflect current workforce distribution requirements on the ground.

RANZCO recommends the Rural Distribution Section works with the relevant departments in each State and Territory, the Medical Colleges and other stakeholders to ensure AoN processes are uniform across Australia, transparent and calibrated to bolster the local workforce and training requirements and planning into the future.

### 2. Increase the number of trainees with a regional background.

**RANZCO actions:**

- Selection: RANZCO has increased the available points for rural attributes and candidates that identify as Aboriginal and Torres Strait Islander to eight out of 100.
- RANZCO is working with stakeholders to provide rurally-based medical students and junior doctors with increased opportunities in the field of eye research to facilitate their successful application for a training position.
- RANZCO is engaging with Rural Clinical Schools, Regional Training Hubs and AIDA to help identify and foster medical students and junior doctors who are likely to make a career in rural and regional areas.

### 3. Strengthen comprehensive ophthalmology practice.

RANZCO is in the final stages of the most comprehensive revision of our Vocational Training Program (VTP) in 20 years with some components already launched and the full switchover planned for 2023.

The selection process has been updated to encourage applicants who identify as Aboriginal and Torres Strait Islander and regional applicants and to facilitate trainees joining the program at a younger age. This has been achieved by de-emphasizing the academic requirements in favour of Aboriginal and Torres Strait Islander heritage and rural background and experience.

The new VTP is focused on training competent general ophthalmologists who can practice in any location including regional ones. This is achieved through the following measures:

- The training syllabi emphasise general ophthalmology competencies.
- Examinations are assessed at the level of a general ophthalmologist.
- Cultural safety has been added as a key competency and the training will be in-depth. This will ensure any RANZCO ophthalmologist is well-placed to work across culturally-diverse communities.
- For those surgeries, a competent general ophthalmologist should be able to perform. We have introduced mandatory minimum numbers to complete during training. Not only will this ensure that graduates are comfortable with these surgeries, but it will also require training networks to provide a more diverse experience.
- A new waypoint at 45 months through training will determine whether a trainee has yet achieved the competencies of a general ophthalmologist. If so, they may choose to undertake a subspecialty final year. If not, then their final year must fill any gaps to ensure they are comprehensively trained.
- Final-year trainees will receive supervisor training to ensure they are equipped to teach trainees themselves. This should encourage them to become clinical tutors.
- Final-year trainees will receive instruction in working with insurance companies and Medicare, billing, setting up a practice etc. This should give them more confidence to settle in an area that may have little existing support.
4. Establish the Regionally Enhanced Training Network (RETN) which will work collaboratively with existing urban models of training. The evidence shows that the RETN training model (60 per cent of specialist training time spent regionally) greatly increases the likelihood of longer-term rural practice as a specialist.

**RANZCO actions:**
- The design of and lobbying for the RETN. See RETN Proposal Brief, initial pathway design and current pathway status. The pathways continue to evolve to reflect ongoing post-development.

  Funding for five STP-IRTP posts from the Commonwealth has been confirmed. This amount of funding, alongside existing STP and jurisdictional funding, will allow the inauguration of two out of a possible four regional training pathways that are ready to recruit into from 2023.

  Commencement of the first RETN training registrars is expected in 2023.

  RANZCO is lobbying for a commitment to fund an additional six STP-IRTP posts from 2026, which would allow all four RETN pathways to be recruited from 2023. This would double the RETN trainee numbers from 10 registrars to 20 registrars in the RETN from 2027 onwards. This additional funding would also double the number of workforce-poor areas targeted from four to eight.

- **FATES funding submission in June 2022 to seek funds for the inauguration of the RETN.**
- **Employment of the RETN Project Officer** - dependant on a successful June 2022 FATES funding submission.

  The project officer will:

  - Implement the initial RETN rollout.
  - Develop a national plan which maps the path forward to address regional, rural and remote workforce shortages across Australia with locally relevant, stakeholder-supported solutions for each workforce-poor area, using RETN pathways where appropriate.
    - Undertake necessary groundwork for the roll-out of additional RETN pathways in areas where they are not currently feasible, with locally-tailored actions supported by stakeholders.
    - Develop and implement targeted awareness and marketing measures to attract First Nations doctors and doctors with rural attributes to consider RETN training pathways.
    - Coordinate ongoing pathways planning in regional areas not currently targeted to develop tailored, locally relevant, stakeholder-supported solutions for each workforce-poor area across Australia – a national plan.

- **Australian Governments' actions that are required to support the roll-out of the RETN:**
  - State and Territory funding of consultant, RETN trainee (in addition to STP-IRTP funding where required) and support staff FTE, surgical volume and surgical operating lists, and infrastructure and equipment where required. Funding requirements for each post are detailed in the Proposal Brief.
  - Commonwealth Health Department funding RANZCO's FATES funding submission in June 2022 should it be successful.

5. Increase professional support and available education for regional ophthalmologists and trainees.

**RANZCO actions:**
- The inauguration of a RANZCO bi-national virtual teaching program for all trainees is planned for 2023. Video conferencing will allow teaching sessions to be delivered in real-time for trainees based in different locations. It will also be recorded for trainees to watch later if they cannot attend a session and when revising topics. Benefits of a bi-national teaching program include:
  - **Efficiency** with the organisation of just one program rather than the current set up of multiple programs all attempting to do the same thing.
  - **Fairness and consistency.** All trainees have access to the same teaching program and learning resources aligned to RANZCO's curriculum.
  - **Leveraging expertise** by bringing together Fellows from different networks to teach each topic and form an expert panel to discuss issues, answer questions etc, trainees are exposed to a range of expertise and approaches to diagnosing and managing conditions and addressing professional issues.

- Formalise a network of subspecialty ophthalmologists and advanced trainees to provide regionally located trainees and ophthalmologists with subspecialist clinical advice for and facilitate the expedited transfer of complex subspecialty patients where appropriate. This may be delivered by metropolitan public hospital eye departments sponsoring a regional area and training site(s).

- The RANZCO Australian Ophthalmology Workforce and Services Committee will prioritise regional considerations and provide a conduit for networking, support and engagement with regional ophthalmologists.
Solutions requiring Australian Governments implementation:
- Work with stakeholders to develop incentives to make regional practice more attractive. Consider measures such as rental subsidies/allowances, motor vehicle allowances as rural/regional doctors would travel greater distances, a rural loading on top of the salary package being offered, additional annual leave, etc.
- Consider innovative models of high school education in regional Australia which would be available to the entire community to address the key concerns of specialist medical and other highly skilled workforce have regarding education for their children. Work with the universities to increase university entry points for students coming from regional Australia and ensure the medical specialist and other highly skilled workforce are aware of this measure.
- Consider developing and implementing a national strategy that supports regional emergency and urgent care doctors by providing regional clinicians with real-time virtual quaternary support.
- An example of this that is already in use in Australia is the Telehealth Emergency Management Support Unit in Brisbane which connects rural, remote, and regional Queensland through acute telehealth.
- RANZCO puts forward an innovative idea to address the lack of support to the struggling regional workforce - the Australian Telehealth, InReach and Outreach Service (ATIOS).

ATIOS could take on many roles in support of regional services and clinicians such as:
- Delivering telehealth services via a network of specialists and training registrars.
- Supporting regional emergency and urgent care doctors by providing regional clinicians with real-time virtual quaternary support.
- Acting as a conduit for regional doctors, including training registrars to access immediate subspecialty advice for complex regional patients and to facilitate their referral and transfer where appropriate.
- Delivering outreach services:
  - In line with patient-centred care – to provide subspecialty outreach services closer to where patients live and to fill service gaps.
  - To bolster services in areas where regional clinicians are under severe workforce pressure.
  - To provide formalised locum relief to regional clinicians.
- To deliver InReach services. Close the Gap by providing specialist services at alternative service delivery sites in urban areas with an emphasis on culturally safe delivery through smaller clinics, such as an outsourced-to-private-rooms model of care, which are sited to provide broader, population-driven urban coverage.
- ATIOS would provide training registrars from all specialties with additional exposure to regional practice and the care of Aboriginal patients.
- An ATIOS Department could be attached to a tertiary or quaternary teaching hospital or hospitals in each major metropolitan centre.

6. Measures to address urban versus regional and subspecialist versus comprehensive cultural cringe:
- Recognise regional achievements.
- Ensure a positive representation of comprehensive and regional practice is modelled for trainees.
- Recognise the extra skills required for comprehensive rural practice.
- Emphasise that regional ophthalmology is not an urban-lite or second-class career but rather, regional ophthalmologists commonly manage a broader range of medical and surgical ophthalmological conditions.
- Challenge anti-rural cultures and behaviours.
- Encourage VTNs to utilise comprehensive ophthalmologists as supervisors where possible.

7. Ensure information regarding the optimal management of common eye emergencies are widely available and accepted across Australia and doctors in Australia have the key competencies needed to assess eye emergencies:
- There are several eye emergency manuals developed in Australia currently available for use such as the Royal Victorian Eye and Ear Clinical Practice Guidelines and The Eye emergency manual. These guidelines assist ED physicians and nurses in managing eye emergencies when there is no opportunity to connect with an ophthalmologist.
- RANZCO would welcome working with the Australasian College for Emergency Medicine (ACEM) to promote these and other eye emergency manuals to improve their uptake and usage, thus facilitating the optimal management of common eye emergencies. Consideration could be given to developing an Australasia eye emergency manual.
There are also potential opportunities for RANZCO and ACEM to collaborate to develop diagnostic and procedural competency resources for use by medical schools, emergency department doctors, and other medical practitioners to facilitate the use of eye emergency manuals and the competent assessment of eye emergencies and increase patient safety.

### Outcome measures

- **Short to medium term**
  - Multiple RETN training pathways are commissioned across Australia.
  - An increase in training posts and trainees based in rural or remote areas.

- **Longer-term**
  - Reversal of ageing of the regional ophthalmology workforce.
  - Increased regional workforce.

### 4. There is a critical shortage of paediatric ophthalmology workforce in Australia

#### The reasons this is happening

- Over many decades, fewer ophthalmologists particularly in urban areas, have chosen to deliver comprehensive ophthalmology, which includes paediatric services. This has reduced the workforce delivering paediatric ophthalmology and has made paediatric ophthalmology workforce numbers and service delivery largely dependent on the number of subspecialty paediatric ophthalmologists.

- However, over the same period, the subspecialty of paediatric ophthalmology has not been able to attract enough fifth-year trainees and newly graduated Fellows to train in this subspecialty. Consequently, the paediatric subspeciality workforce is ageing and is not sustainable and there are insufficient subspecialists to meet the population’s requirements for these services.

- Why do graduating ophthalmologists choose not to practice comprehensive ophthalmology which includes paediatric services?
  - The chronic lack of investment in paediatric public ophthalmology services across Australia has resulted in public services not growing with the population and the number of training positions not growing with the growth in trainee numbers.
  - Currently, the majority of training registrars have just three months of exposure to paediatric ophthalmology throughout their five-year training unless they elect to do a fellowship year in this field.
  - Fellows have given RANZCO feedback that three months of training is not sufficient for some graduating ophthalmologists to feel confident and competent in practising paediatric ophthalmology as part of comprehensive practice on graduating as a Fellow.
  - With the move to a subspecialty practice model, the range of paediatric ophthalmology surgeries that training registrars have exposure to performing themselves during their training has declined.
  - Most ophthalmologists that have graduated in the last 15 years, and that choose to practice paediatric ophthalmology after graduating, have gone on to do additional training after graduating.

- Why don’t more graduating ophthalmologists choose paediatric ophthalmology as a subspecialty for their future careers?
  - Three months of exposure to paediatric ophthalmology during training may not be long enough for trainees to develop an attachment to this subspecialty. The practice of paediatric ophthalmology requires the development of a range of skills in addition to those that are required for adult ophthalmology. At the three-month mark, most trainees are only just starting to consolidate these skills and feel confident in their paediatric ophthalmology practice.
  - The imbalance in MBS remuneration undervalues paediatric ophthalmology as a subspecialty, reducing its attractiveness to ophthalmologists in training, and has resulted in high out-of-pocket costs to consumers.

Previous advocacy has resulted in an increase in the MBS remuneration for an initial outpatient paediatric ophthalmology attendance which has been very helpful. However, in the field of paediatric ophthalmology, outpatient reviews necessarily take additional time compared to the review of an adult patient.

MBS remuneration for common paediatric ophthalmology procedures, such as squint surgery, receive less than the remuneration for cataract surgery despite these services taking approximately three times longer to deliver.
### The consequences of this problem

- There are shortfalls in paediatric ophthalmology services in many urban locations despite there being many ophthalmologists in the area (who are not comfortable treating children).
- Many urban areas have had difficulty attracting paediatric ophthalmology workforce over many years, e.g. Newcastle.
- Low availability of paediatric ophthalmology services results in delayed access to services with many patients missing out on care.
- Delays in access to services are particularly problematic in this field of medicine as there is a critical period of visual development, that tapers off rapidly from the age of 7 years, during which the treatment of amblyopia (lazy eye) is much more effective. Children with eye disorders that do not receive timely and definitive treatment promptly during this time frame frequently develop permanent visual impairment and unilateral blindness.
- This causes an increased prevalence of visual impairment and blindness in the community, with a disproportionately larger effect on lower socioeconomic groups in the community.
- There are ongoing consequences for individuals throughout their life and therefore for the community, with an increased risk of bilateral visual impairment and blindness given the cumulative lifetime risk of losing sight in the ‘good’ eye.\(^{82}\)

### The solutions to this problem

#### RANZCO actions:

- RANZCO recently updated the VTP to address some of the confidence and competence issues reported regarding the practice of paediatric ophthalmology.
- Trainees are now mandated to complete a required minimum number of a range of specified surgeries that cover the breadth of comprehensive ophthalmology, including in the field of paediatric ophthalmology, throughout their training.
- This VTP requirement commenced in 2022.
- RANZCO-driven change to specialist registration to allow for sole paediatric ophthalmology practice for comparable SIMG. This measure will allow SIMG doctors who have been practising overseas as a subspecialist in the field of paediatric ophthalmology to be eligible to apply to RANZCO for paediatric ophthalmology subspecialty recognition. If successful, it will allow them to be registered with AHPRA as a specialist ophthalmologist limited to paediatric practice.
- Increase trainees’ exposure to paediatric ophthalmology during training to six months, as increased training opportunities become available, to support increased confidence and competence in practising paediatric ophthalmology as part of comprehensive ophthalmology and to increase the likelihood of trainees choosing this subspecialty.
- Has introduced mandatory exposure to and familiarity in neonatal ophthalmic examination and ROP detection as a mandatory component of RANZCO Ophthalmology Registrar training.\(^{83}\)

#### Solutions requiring Australian Governments implementation:

- Sufficient investment in and growth of public paediatric ophthalmology services to meet community demand will result in the necessary growth in subspecialist training positions—solution as per workforce problem 1.
- The Commonwealth Health Workforce Division to work with RANZCO to set reportable KPIs for paediatric ophthalmology subspecialty training FTE at the LHN level.
- Increased MBS remuneration for paediatric ophthalmology services is required to address the undervaluing of this essential subspecialty in comparison to other ophthalmological items. RANZCO would like this to be addressed in the MBS review.
- Consider solutions that allow adequate and consistent remuneration to ophthalmologists for delivering ROP screening and treatment services across Australia.\(^{81}\)
- To support workforce recruitment and retention, governments to engage with the ROP Working Group to introduce a uniform minimum standard of equipment for each NICU level to support clinicians in delivering safe, timely, high-quality screening and treatment and in accessing second opinions where required.\(^{81}\)
- A sufficient orthoptic workforce is essential to support the effective delivery of paediatric ophthalmology services. RANZCO recommends developing KPIs for FTE at the LHN level for both orthoptists and orthoptists in training.
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<td>1. An increased number of paediatric ophthalmology training posts in Australia.</td>
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<td>2. Increased paediatric ophthalmology subspecialty training FTE visible via reportable KPIs at the LHN level.</td>
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Focus on Workforce and Training Appendix

The current state of regional services across Australia and optimal models of care for differing catchment sizes

As noted by Wakerman et al.4 “with increasing remoteness and decreasing population size and density, different model types” (in reference to models of care) “assume prominence in addressing key PHC” (Comprehensive Primary Health Care) “principles relating to accessibility, appropriateness and sustainability. The different models provide some guidance as to appropriate options for different settlement patterns in rural and remote areas.”

The same principles apply to the provision of eye health care services. This appendix details some of the models of care in use and how they vary depending on population catchment and catchment areas across Australia.

1. Services to catchment areas with a population of less than 25,000

When the population of a regional settlement and its surrounding catchment area is less than 25,000 (the population required to support one full-time ophthalmologist), a resident ophthalmologist is unlikely to be able to make a living and therefore settle in the area.

Regional populations of less than 25,000 need to be managed with specialist ophthalmology outreach, e.g. Longreach, Flinders’ Island, most remote outback settlements, etc. But populations of 15,000 or more are difficult to adequately service with outreach.

When the population in the catchment is substantial (20,000 or more) a training registrar can be based there if robust support from supervisors is provided via regular, frequent specialist ophthalmologist outreach and remote supervision. Broken Hill has had this training model working for many years. This is the only publicly funded complete service to populations of this size in Australia.

Optimally, all areas with a population of less than 25,000 would have regular outreach services that meet community needs, with or without a Broken Hill model training post. Both public and private services would be available for all outpatient and inpatient services.

Ideally, these services would be supplemented with remote telehealth, where appropriate for service delivery, with locally-based medical services having real-time access to ophthalmic-specific advice to facilitate them in safely meeting community needs for acute ophthalmic care.

2. Services to catchment areas with a population of 25,000 to 45,000

This population is too large to routinely service with outreach. Outreach services are supplied intermittently so they don’t provide acute care when this is needed.

Commonly, catchment areas of this size in Australia have no resident ophthalmology workforce resulting in residents needing to travel to access services or missing out on the care they need. In line with patient-centred care, services should be supplied locally where possible. With appropriate investment, Broken Hill model training posts could be set up to do this in suitable locations of this size. Examples of potential sites are Mt Isa, Port Lincoln, Port Augusta, and Kalgoorlie.

Catchment populations between 25,000 and 35,000 can support one full-time ophthalmologist but not two, bringing into play the challenges of isolated regional practice. In regional Australia, with the large catchment areas of service delivery and the increased burden of eye disease seen in the population, populations greater than 35,000 may support two full-time ophthalmologists and indeed may require this workforce to provide sufficient ophthalmology services.

A training registrar brings value in supporting a sole practitioner where there is one, however, local service delivery and training need to be supported with outreach services to bring the variety of trainee supervision required to create an accredited training post. An example of this is the post in Alice Springs.

In just one LHN this size around Australia, public hospital funding provides ophthalmology outpatient services to the community. This is Alice Spring Hospital Eye Clinic and the associated Central Australian Regional Eye Service Community Clinic.

Optimally, all areas with a population of 25,000 to 45,000 would have one to two resident ophthalmologist(s) supported by a training registrar and targeted outreach (to fill in any service gaps). Where there is no resident ophthalmologist, a Broken Hill model training post supported by regular specialist outreach would be the best solution. Both public and private services would be available for all outpatient and inpatient services.

3. Services to catchment areas with a population of 50,000 to 195,000

Populations in this range can support two to six resident ophthalmologists. Typically, in catchment areas this size, ophthalmologists are based in private practice settings with no public health outpatient funding. There are many locations around Australia with this setup. Sometimes outreach from cities supplements the services supplied by the local ophthalmologists, providing residents with access to additional service capacity and sometimes providing additional subspecialty services. Although once the resident ophthalmology population reaches four to six specialists, this is commonly sufficient to cover the delivery of most subspecialty services.

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Some regional private practices in Australia have training registrar positions which bring the opportunity for no out-of-pocket outpatient service delivery in some cases. Examples include Launceston, Port Macquarie, Lismore, Albury-Wodonga, Wagga Wagga, Mackay, Bunbury, etc.

However, many areas this size currently have an insufficient resident workforce to meet population needs and frequently, some or all the ophthalmologists in these areas are close to retirement, e.g. Devonport, Geraldton, Orange, Warrnambool, Mt Gambier, etc.

In service areas with severe workforce shortages, ophthalmologists find the supervision of trainees, particularly junior, difficult to manage.

Many locations this size have no resident ophthalmic workforce and are dependent on outreach services, e.g. Dubbo, Mildura, Horsham, Traralgon, Griffith, etc.

Typically, there is no provision of public health funding for ophthalmology outpatient services in areas this size in regional Australia. As private practice is the only outpatient service available, there is more pressure on regional ophthalmologists than their urban colleagues to provide no out-of-pocket services. The reduced value of MBS rebates in real terms over time places greater financial stress on regional private practices than urban ones.

In just one LHN this size around Australia, public hospital funding provides some outpatient ophthalmology services to the community using an Activity Based Funding (ABF) model of outsourcing to a private clinic. This is in the Northwest Coast of Tasmania with a planned extension of this funding to provide services to Northern Tasmania which, with the public hospital service in southern Tasmania, would provide public ophthalmology outpatient services to all Tasmanian residents.

Optimally, all areas this size would have no less than one ophthalmologist per 25,000 people and at least one training registrar, increasing to two once the population reaches more than 130,000, with the provision of any subspecialty outreach required to augment services on the ground to provide a comprehensive ophthalmology service. This would mean very few patients would need to travel into the city for care. Optimally, a resident vitreoretinal subspecialist would be available for populations of 100,000 or more.

Ideally, both public and private services would be available for all outpatient and inpatient services. Public outpatient services would be delivered in existing private practices using an ABF funding model to provide no out-of-pocket public outpatient services to these populations and address the current stresses on regional ophthalmology practices.

4. Services to catchment areas with a population of 200,000 and greater

As catchment populations approach 200,000, the establishment of a public hospital clinic offers many benefits where the workforce is sufficient to allow this.

Examples of catchment areas this size are Hobart, Darwin, Townsville, Cairns, Rockhampton, Toowoomba, the Broome Eye Clinic, and associated Outback Vision Van.

Workforce shortages are a barrier to setting up and sustaining a public hospital outpatient service. Typically, ophthalmologists in workforce-poor areas have difficulty servicing the need in private and work longer hours to do so. Outpatient service delivery via private practice may be the only or the best option where there is a severe workforce shortage as this offers the most efficient service delivery model with ophthalmologists not required to split their time between public and private facilities.

The above catchment examples highlight this. Hobart and Darwin both have sufficient ophthalmic workforce, and both have robust comprehensive public outpatient services with the Royal Darwin Hospital Eye Department and associated Outreach Program providing publicly funded outreach outpatient services across much of the upper half of the Northern Territory. Townsville, Cairns and Rockhampton all have severe ophthalmology workforce shortages and have struggled to staff and maintain ophthalmology outpatient services in the public hospital setting, with the training post in Townsville recently losing RANZCO accreditation due to this situation.

In just one LHN this size around Australia, public hospital funding provides the main outpatient ophthalmology services to the community using outsourcing to a private clinic. This service is the Broome Eye Clinic and associated Lions Outback Vision Van.

Optimally, all areas this size would have no less than one ophthalmologist per 25,000 people. These with or more ophthalmologists would deliver a comprehensive ophthalmology service including a full range of subspecialty ophthalmology services in a public ophthalmology clinic. There would be at least two training registrars. There would be a resident vitreoretinal subspecialist. This would mean very few patients would need to travel elsewhere for care.

Where the workforce is insufficient to sustain a public hospital outpatient clinic, at least two registrars would be based in private practices and public outpatient services would be delivered in these practices using an ABF funding model to provide no out-of-pocket public outpatient services.
Focus on Aboriginal and Torres Strait Islander Healthcare

Inequitable access to eye healthcare is causing avoidable permanent blindness

1. Overview

RANZCO acknowledges the progress to date achieved through the Implementation Plan for the National Aboriginal and Torres Strait Islander Health Plan 2013-2023, the National Agreement on Closing the Gap, and the Road map to Close the Gap for Vision.

The vision of the Health Plan is for the Australian health system to be free of racism and inequality and for all Aboriginal and Torres Strait Islander peoples to have access to timely, effective, high-quality, appropriate, and affordable health services.

Whilst progress has been made, Aboriginal and Torres Strait Islander peoples still experience blindness and vision loss at almost three times the rate of other Australians and wait significantly longer for common sight-saving treatments. There remains much to be done to Close the Gap.

In 2016 the National Eye Health Survey reported vision loss was 2.8 times more prevalent in Aboriginal and Torres Strait Islander Australians than in non-Indigenous Australians after age and gender adjustment. The survey also reported that 13.6 per cent of older Indigenous people had vision impairment compared to 4.6 per cent of non-Indigenous people, the rates of cataract surgery were 61 per cent versus 88 per cent and rates of diabetic retinopathy screening, as recommended by NHMRC guidelines, were 53 per cent versus 78 per cent.

RANZCO sees value in measures that promote community ownership and empowerment to broaden access to public and no out-of-pocket eye healthcare services, address longstanding shortfalls in service delivery, and increase transparency and accountability regarding the equitable funding and delivery of these services.

RANZCO is committed to striving for equity of access to healthcare and health outcomes for Aboriginal and Torres Strait Islander peoples. As highlighted in the National Aboriginal and Torres Strait Islander Health Plan 2021–2031, RANZCO supports the fostering of genuine partnerships with communities, governments and other stakeholders to enhance service delivery, strengthen regional networks and support Aboriginal Community Controlled Health Services (ACCHSs) to further embed eye care in their service delivery models through shared decision making and co-design.

To facilitate this, RANZCO has embarked on a reconciliation journey, launching the College’s first Reconciliation Action Plan (RAP) in 2019. RANZCO’s Innovate RAP 2021-23 continues our learning journey, focusing on developing and strengthening relationships with Aboriginal and Torres Strait Islander peoples, fostering culturally safe practices by RANZCO clinicians, engaging staff and stakeholders in reconciliation, and developing and piloting innovative strategies to empower Aboriginal and Torres Strait Islander peoples.

RANZCO welcomes the inauguration of the First Nations Eye Health Alliance and looks forward to the Aboriginal and Torres Strait Islander voice and leadership that the alliance will bring to the eye health space.
This document summarises RANZCO’s understanding and thoughts regarding Aboriginal and Torres Strait Islander eye healthcare in each of the following areas:

1. Current funding of and access to eye health services for Aboriginal and Torres Strait Islander peoples.
2. There is an unmet need. Current healthcare service delivery is not meeting the eye and the overall healthcare needs of Aboriginal and Torres Strait Islander peoples both in the volume of services delivered and the cultural safety of services.
3. The reasons Aboriginal and Torres Strait Islander peoples are not getting timely and equitable access to eye healthcare services.
4. Measures that could be considered to make access to healthcare services more equitable for Aboriginal and Torres Strait Islander people.
5. Supporting Aboriginal and Torres Strait Islander workforce development and sustainability.
6. Preventative healthcare for Aboriginal and Torres Strait Islander people.
1. Current funding of and access to eye health services for Aboriginal and Torres Strait Islander peoples

1.1 Key points

- Aboriginal and Torres Strait Islander eye healthcare delivery is largely dependent on core health services funding (via Medicare) through the MBS and public hospital services.
- The funding available, in addition to mainstream health service funding, does not fund eye health service delivery by eye health professionals. Rather, additional funding programs facilitate service delivery by subsidising some costs like travel and accommodation, equipment, facility fees and administrative support.
- Very little of the non-core funding to facilitate service delivery is available to the 37 per cent of Aboriginal and Torres Strait Islander peoples who live in urban areas\(^{105}\).
- Thus, despite the additional monies spent on the facilitation of service delivery, which is in itself very important particularly for bringing services to regional Australia, Aboriginal and Torres Strait Islander eye healthcare delivery by eye healthcare professionals is largely dependent on the availability and adequate funding of the core health services funding (via Medicare) through the MBS and public hospital services.

1.2 Funding of mainstream (core) services

Medicare is a public health insurance scheme funded by the Australian Government, which provides all Australians with ongoing access to free or subsidised healthcare. Medicare provides Australians, permanent residents, and some overseas visitors with:

- Free treatment as a public patient in a public hospital. Under the NHRA, Commonwealth, State, and Territory governments together fund public hospital services that all Australians, including Aboriginal and Torres Strait Islander Australians, can access at no cost where these services are available.
- Reduction in the costs of some services if you are a private patient in a public or private hospital.
- Subsidised access to treatment by doctors and other health professionals via the Medicare Benefits Scheme (MBS). For all Australians, the standard Medicare Safety Net (MSN) can help to lower out-of-pocket medical costs for out-of-hospital services once a threshold amount is reached in a calendar year. An extended MSN (EMSN) is available for eligible individuals and families.

The Australian government pays for Medicare through a combination of the general tax revenue, the Medicare Levy and the Medicare Levy Surcharge which working Australians pay as part of their income tax.

The Pharmaceutical Benefits Scheme (PBS) offers reduced-cost prescription medicines to all Australians holding a Medicare card. For eligible individuals and families, the PBS Safety Net can reduce or remove the costs of PBS medicines once a threshold spending amount is reached in a calendar year.

It could be assumed that available safety nets would facilitate access for lower socioeconomic groups. However, unless well-designed for this purpose, this is not the case. For example, an independent review of the EMSN found that 55 per cent of EMSN benefits were distributed to the 20 per cent of people living in Australia’s most socioeconomically advantaged areas with the 20 per cent of people living in the least advantaged areas receiving less than 3.5 per cent\(^{35}\). This is because they struggle to afford the gap fees that enable them to reach the EMSN thresholds\(^{36}\).

1.3 Private services and the barrier of out-of-pocket healthcare costs

Access to private inpatient and outpatient services whilst partly subsidised by Medicare involves out-of-pocket expenses, which present a barrier for many Aboriginal and Torres Strait Islander patients in accessing their healthcare needs\(^{106}\).

The 2013 Towards better Indigenous health data report\(^{107}\) finds about 15–20 per cent of Indigenous Australians have private health insurance cover and this also impacts their relative access to private hospitals. In 2018–19, in non-remote areas, 21 per cent of Indigenous Australians aged 15 and over were covered by private health insurance (similar to 20 per cent in 2012–13)\(^{108}\).
In comparison, in June 2019, 11.2 million Australians (44 per cent of the population) had some form of private patient hospital cover and 13.6 million (53 per cent) had some form of general treatment cover (APRA 2019).

Low-income individuals and families are unable to take advantage of the private health insurance rebate the Australian Government offers to subsidise the costs of private health insurance premiums as they cannot afford even subsidised private health insurance premiums. This makes this investment by the government directed more towards Australia’s middle class.

In 2021, Ryder et al. note that “out-of-pocket healthcare expenditure (OOPHE) are expenses not covered by universal taxpayer-funded health insurance. In elderly Australians or those with chronic conditions, OOPHE can cause substantial burden and financial hardship and, in the most extreme cases, induce bankruptcy. Despite higher hospital admissions and disease burden, little is known about how OOPHE impacts Aboriginal and Torres Strait Islander families. Additionally, in Australia, no OOPHE survey tools have been appropriately assessed; this includes for use with Aboriginal and Torres Strait Islander families.”

Also of note, out-of-pocket costs have been increasing over time in real terms and the MBS rebate is worth less than 50 per cent of the equivalent 1984 rebate. This makes access to private services for Australians in lower socioeconomic groups more financially burdensome and/or bulk billing dependent.

1.4 Additional core service funding for Aboriginal and Torres Strait Islander people

There are additional Medicare and pharmaceutical benefits for Aboriginal and Torres Strait Islander peoples. Your guide to Medicare for Indigenous health services provides health workers with basic information about Medicare Indigenous health services. The Indigenous Access Program provides access to these Medicare services for Aboriginal and Torres Strait Islander peoples including:

- An Indigenous access phone line with culturally trained staff who can match people with the right Medicare services.
- Medicare liaison officers who work with communities and health services around Australia.
- A free annual health check (also called a 715 check) every nine to 12 months.
- Closing the Gap (CTG) – a PBS co-payment Program for patients who identify as Aboriginal and Torres Strait Islander Australians.

Additional item numbers and services for Aboriginal and Torres Strait Islander peoples directly relevant to eye healthcare:

- Item numbers for a free annual health check (e.g. item number 715 when performed by a GP) are detailed in Indigenous health checks and follow-ups. These items have included a mandatory visual acuity assessment from 2013.
  - Proformas are available with a tick box to check once visual acuity has been assessed but these forms do not require the visual acuity to be recorded or define how it should be checked. The use of a specific form to record the results of a health check is not mandatory. Indigenous Eye Health does provide a resource for primary practitioners: the 4-Step Adult Eye Check but it is not known if this is widely adopted.
  - Between 2010–11 and 2018–19, the age-standardised proportion of Indigenous Australians who had a health assessment (including a telehealth assessment) increased from 11 per cent to over 30 per cent before slightly declining to 28 per cent in 2019–20.

It would be logical that the increased number of individuals having a primary health check, which includes an eye check, should generate increased referrals to optometry or ophthalmology.

However, the age-standardised proportion of indigenous Australians who had an eye examination with an optometrist or an ophthalmologist only increased from 14 per cent in 2008–09 to 16 per cent in 2018–19 which may not be statistically significant or reflect a clinically meaningful effect of this primary health program with regards to eye health.

It may be that health assessments are more likely to screen individuals with higher engagement in their own healthcare and who have better health and less pathology, other more pressing health concerns may take priority or there may be barriers to accessing eye healthcare (availability locally, cost, etc).
- MBS item number 12325
  ◊ For the provision of retinal photography with a non-mydriatic retinal camera.
  ◊ To allow screening for diabetic retinopathy in the primary care setting.
  ◊ Assessment by a medical practitioner (not an optometrist or ophthalmologist).
  ◊ Among Indigenous Australians who had a diabetes test, the age-standardised proportion who were screened for diabetic retinopathy rose from an estimated 30 per cent in 2008–09 to 34 per cent in 2019–203.

1.5 Funding in addition to core health services funding

In addition to funding for mainstream services, across the healthcare sector funding for Aboriginal healthcare is fragmented with numerous Commonwealth grants, which fund many projects under the National Aboriginal and Torres Strait Islander Health Plan 2021–2031103. Funding for projects is commonly delivered using short- or medium-term contracts typically with no guarantee of ongoing funding.

The following funding programs are relevant to the delivery of eye health:

1. The Remote Area Aboriginal Health Services (RAAHS) Program allows clients of approved RAAHS to receive medicines from their RAAHS without the need for a normal PBS prescription form, and without charge.

2. The Rural Health Outreach Fund (RHOF) supports outreach initiatives that improve access to medical specialists, general practitioners (GPs) and allied and other health providers in regional, rural, and remote areas of Australia for all Australians by covering some costs – like travel and accommodation, meals, facility fees and administrative support at the outreach location, locum support at the home practice and the lease and transport of equipment. Funds are managed and delivered by a fundholder organisation in each state and territory.

3. The Indigenous Australians’ Health Programme115 funds the delivery of primary care through ACCHSSs, capital works projects and many other health initiatives such as the following eye and vision health programs:
   - Initiatives to prevent eye disease.
   - Eye health equipment has been funded at more than 160, mainly rural and remote sites across Australia, with Aboriginal Medical Services being prioritised.
   - The Indigenous Eye Health Unit at the University of Melbourne, which undertakes research to address Indigenous eye health in Australia.
   - The Addressing Trachoma program funds:
     a) The Northern Territory, Queensland, South Australia, and Western Australia governments:
        - to identify communities most at risk of trachoma
        - educate at-risk communities on how to prevent trachoma
        - treat people with the condition
        - provide data to the National Trachoma Surveillance and Reporting Unit
     b) The National Trachoma Surveillance and Reporting Unit to collect and analyse the data and produce the annual Australian Trachoma Surveillance Report.
   - The Medical Outreach Indigenous Chronic Disease Program (MOICDP) supports outreach delivery for the management of chronic disease by covering similar costs to those covered by the RHOF. MM1 - MM7 locations are eligible for MOICDP services.
   - The Eye Surgical Support Program facilitates more timely and convenient surgery for Aboriginal and Torres Strait Islander people who live in rural and remote areas. It funds the travel and accommodation costs for health professionals who provide visiting surgical services so that they can get as close as possible to rural and remote patients’ homes, and patients and carers who need to travel to access surgery.

4. The Indigenous Health Research Fund initiative118, funded by the Medical Research Future Fund (MRFF)116 will invest $160 million over ten years (2019-20 to 2028-29) in health and medical research that can make a difference to Aboriginal and Torres Strait Islander peoples suffering debilitating diseases.

None of these programs funds eye health services delivered by eye health professionals but rather they, in some cases, facilitate the delivery of these services. The only exception is the Addressing Trachoma program which does fund the treatment of patients diagnosed with trachoma.
2. There is an unmet need. Current healthcare service delivery is not meeting the eye and the overall healthcare needs of Aboriginal and Torres Strait Islander peoples both in the volume of services delivered and the cultural safety of services.

2.1 Key points
- Service data available demonstrates eye healthcare services are not increasing commensurate with needs and Aboriginal and Torres Strait Islander peoples, despite having higher comorbidities and a greater need, have less service delivery per capita and wait longer than the non-Indigenous population for these services.
- Data shows that the availability of culturally safe healthcare services for Aboriginal and Torres Strait Islander peoples continues to be a problem.

2.2 Unmet need
Despite Medicare’s vision as a universal healthcare scheme and the additional funded initiatives listed above, the Indigenous eye health measures 2021 report\(^9\) data indicates access to many eye health services for Aboriginal and Torres Strait Islanders plateaued in 2017-18 and has since decreased for some services, is poorer than for non-Indigenous Australians and does not meet estimated services requirements.

- In 2019–20, there were around 104,300 Indigenous Australians who had had an eye examination undertaken by an optometrist or ophthalmologist in the preceding 12 months—12 per cent of the population. This was less than the estimated number of eye examinations needed for Indigenous Australians each year\(^9\).
- Age-specific rates of eye examinations by an optometrist or ophthalmologist increased between 2009-10 and 2017-18 for Indigenous Australians, before declining between 2017-18 and 2019-20 across all age groups. Rates for non-Indigenous Australians aged 65 and over increased from 32 per cent to 48 per cent before declining to 45 per cent over the same period\(^9\).
- Between 2009-10 and 2018-19, the total age-standardised proportion of Indigenous Australians tested for diabetes who had an eye examination increased from 29 per cent to 36 per cent before decreasing to 34 per cent in 2019-20, while for non-Indigenous Australians it rose from 35 per cent to 44 per cent before decreasing to 42 per cent\(^\text{114}\).
- Between 2009-10 and 2018-19, there were around 6,100 hospitalisations for Indigenous Australians for cataract surgery—a rate of 3,655 per 1,000,000 population. The number of hospitalisations over the two years from 2017-19 was below the estimated annual number of Indigenous people needing cataract surgery\(^9\).
- In 2018-19, the median waiting time for elective cataract surgery for Indigenous Australians was longer than for non-Indigenous Australians (124 days and 82 days, respectively)\(^9\). See Figure 6.

Aboriginal and Torres Strait Islander Health Performance Framework 2020 summary report\(^\text{106}\) notes that in 2018-19, 30 per cent (243,700) of Aboriginal and Torres Strait Islander peoples reported that they needed to, but did not see a health care provider on at least one occasion in the previous 12 months. This was the same proportion as in 2012–13. Indicating that the problem of access to services remains difficult to solve.

Figure 6: Waiting times for elective cataract surgery by Indigenous status 2012–13 to 2018–19.
Among those who did not see a health care provider when they needed to, the following reasons were given (more than one reason could be provided):

- Thirty-six per cent said they were too busy—37 per cent in non-remote areas, compared with 30 per cent in remote areas.
- Thirty-four per cent said cost was a factor—36 per cent in non-remote areas, compared with 21 per cent in remote areas.
- Twenty-three per cent said they disliked the service or were embarrassed or afraid—24 per cent in non-remote areas, compared with 15 per cent in remote areas.
- About one in three (33 per cent) said:
  ◊ waiting times were too long or the service was not available.
  ◊ at the time required, they did not have transport or the service was too far away.
  ◊ the service was not available in their area—54 per cent in remote areas, compared with 29 per cent in non-remote areas.

3. The reasons Aboriginal and Torres Strait Islander peoples are not getting timely and equitable access to eye healthcare services

3.1 Key points
- The relative social determinants of health in each population are largely responsible for inequity in health between Aboriginal and Torres Strait Islander peoples and the broader Australian population.
- Understanding the challenges Aboriginal and Torres Strait Islander peoples face, the population demographics and distribution, and the distribution and availability of eye healthcare services help to appreciate some of the current and longstanding funding limitations and barriers to eye healthcare service delivery.
- Many Aboriginal and Torres Strait Islander people face additional challenges and systemic and structural barriers in accessing healthcare and largely reside in areas where public hospital comprehensive eye healthcare services are absent, and/or their ready availability is severely limited by capacity. Additionally, access to bulk billing and no out-of-pocket services through private practices is increasingly under threat due to the decreased value in real terms of MBS rebates on a backdrop of practice costs increasing faster than the CPI.
- A large proportion (38 per cent) of the Aboriginal and Torres Strait Islander population live in largely outer, urban areas and this population faces significant barriers to accessing health care, making up just two per cent of the total urban population.
- Many Aboriginal and Torres Strait Islander patients continue to report being racially discriminated against when accessing healthcare services and 32 per cent did not access health services when they needed to for cultural reasons.
- All these factors contribute to Aboriginal and Torres Strait Islander peoples not getting timely and equitable access to eye healthcare services.

3.2 The social determinants of health in each population are largely responsible for inequity in health between Aboriginal and Torres Strait Islander peoples and the broader Australian population.
- Inequity in health, between and within countries, is mostly attributable to social determinants of health17.
- Vision loss and access to eye care are greatly affected by social determinants14. These encompass many issues: social exclusion, gender inequity, racism, early childhood development, educational opportunities, employment conditions, design and implementation of health systems and public health programs, urbanisation, globalisation, and commercial determinants117.
- At each stage of life, multiple biological, socioeconomic, and environmental factors interact to determine the development and course of eye health14. The socioeconomic environment into which a child is born has profound effects on eye health over the individual’s life course.

*Some conditions (e.g. glaucoma and age-related macular degeneration) have a complex polygenetic background, which can interact with nutrition and other biological factors. Diabetes and diabetic retinopathy
are influenced by multiple social and environmental determinants (diet, activity, obesity). Cataract arises from multiple factors across the life course that promote lens ageing: ultraviolet light exposure, smoking, poor nutrition, diabetes, and severe dehydration.

The life course trajectory of visual function is not fixed. Many conditions and risk factors are amenable to interventions, including social determinants along the spectrum of promotion, prevention, treatment, and rehabilitation. These are complex issues, requiring multisectoral approaches (nutrition, housing, social security, education), long-term policies, and health system investment for greater health equity. 

3.3 Many Aboriginal and Torres Strait Islander peoples have experienced and continue to face personal challenges and systemic and structural barriers.

The Overcoming Indigenous Disadvantage Key Indicators 2020 report finds Aboriginal and Torres Strait Islander peoples have a higher prevalence of the personal risk factors associated with poorer outcomes and are more likely to have multiple risk factors. The report also shows that Aboriginal and Torres Strait Islander peoples are often disproportionally affected by structural barriers due to their particular circumstances or the disadvantage they experience. Some data that underpin these statements follow.

The Australian Bureau of Statistics Socio-Economic Indexes for Areas (SEIFA) ranks areas from most disadvantaged to most advantaged. In 2016, almost half (47 per cent) of Indigenous Australians lived in areas ranked in the most disadvantaged quintile compared with fewer than two in 10 (18 per cent) non-Indigenous Australians. See Figure 7.

However, the AIHW notes, “Indigenous residents often represent a small proportion of an area’s total population, and therefore the socioeconomic status of that area as a whole will not always reflect the socioeconomic status of its Indigenous residents (the ‘ecological fallacy’). One study found that Indigenous Australians consistently had a lower socioeconomic status than the SEIFA score for their area (Kennedy & Firman 2004).”

Thirty-six per cent of people who identify as Aboriginal and/or Torres Strait Islander are below the poverty line – almost triple the proportion of the total population. See Figure 8.

The AIHW notes, “the relationship between socioeconomic status and health outcomes is typically characterised by poorer health for those of lower socioeconomic status—that is, health outcomes follow a social gradient” and the relationship between low socioeconomic status and health also exists in reverse. Poor health is a contributor to poor socioeconomic circumstances (Bhattacharya et al. 2013). A study in Australia found that people with serious chronic illnesses, and their carers, faced greater financial stress (Jeon et al. 2009).
3.4 Many Aboriginal and Torres Strait Islander patients continue to report being racially discriminated against when accessing healthcare services and 32 per cent did not access health services when they needed to for cultural reasons.

Aboriginal and Torres Strait Islanders peoples understandably carry a significant mistrust—at times distrust—of the government\(^\text{121}\). This is not surprising given Australian history, and indeed present-day circumstances, in Australia.

This mistrust and distrust present a significant barrier to Aboriginal patients feeling safe to access non-acute medical services in a large government institution such as a hospital. Rather, individuals in this population, tend to present to Emergency Departments acutely when their health deteriorates, and they require urgent care\(^\text{120}\). While Indigenous Australians make up three per cent of the population, they represent six per cent of emergency department presentations in hospitals for which data are collected\(^\text{106}\).

This is not helped by the ongoing lack of cultural safety in our health care system. Thirty-two per cent of Indigenous Australians who did not access health services when they needed to, indicated this was due to cultural reasons, such as language problems, discrimination, and cultural appropriateness\(^\text{122}\).

Data from the 2020 Australian Reconciliation Barometer indicate that 22 per cent of Indigenous Australians or their families were racially discriminated against by doctors, nurses and/or medical staff in the last 12 months\(^\text{122}\).

3.5 The Aboriginal and Torres Strait Islander population is majority regionally based with the largest proportion based in inner and outer regional areas.

In the Profile of Indigenous Australians 2020 Snapshot\(^\text{123}\), the number of Indigenous Australians in 2021 was estimated to be 881,600. The Indigenous Australian population is projected to reach about 1.1 million people by 2031.

The Aboriginal and Torres Strait Islander population has a relatively young age structure compared to non-Indigenous Australians\(^\text{123}\). In 2021, a projected 32 per cent of Indigenous Australians are aged under 15 (compared with 18 per cent of non-Indigenous Australians) and only 5.4 per cent of Indigenous Australians are aged 65 and over (compared with 17 per cent of non-Indigenous Australians).

Using projections for 2021, 62 per cent of Aboriginal and Torres Strait Islander peoples live regionally\(^\text{123}\) with:

- Thirty-eight per cent (337,400) live in major cities
- Forty-four per cent (389,200) live in inner and outer regional areas
- Eighteen per cent (154,900) live in remote and very remote areas combined

In contrast, Australia’s health 2018\(^\text{18}\) finds 29% of all Australians live in rural and remote areas.
3.6 Public ophthalmology outpatient services are absent in most regional LHNs and there are longer waits on average in Australia for public ophthalmology inpatient (elective surgery) services.

Public ophthalmology outpatient services are absent in most regional LHNs (even where the ophthalmology workforce is available) and there are longer waits on average in Australia for public ophthalmology inpatient (elective surgery) services in regional LHNs. See Focus on Service Delivery for more detail on gaps in regional service availability.

3.7 The Aboriginal and Torres Strait Islander population makes up a small percentage of the total urban and inner-regional population.

The proportion of the total population who were Indigenous increased with remoteness, from 1.8 per cent in major cities to 32 per cent in remote and very remote areas. See Table 8.

When a vulnerable population makes up a small percentage of a larger, less vulnerable population and is widely dispersed within that larger population, it brings additional challenges in reaching individuals in the smaller vulnerable population and in providing equitable service delivery.

Table 8: Proportion of persons aged 18 years and over in each equivalised gross weekly household income quintile, by Indigenous status, 2014–15

<table>
<thead>
<tr>
<th>Category</th>
<th>Indigenous population</th>
<th>Non-Indigenous population</th>
<th>Total population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major cities</td>
<td>2%</td>
<td>98%</td>
<td>100%</td>
</tr>
<tr>
<td>Inner regional</td>
<td>4%</td>
<td>96%</td>
<td>100%</td>
</tr>
<tr>
<td>Outer regional</td>
<td>8%</td>
<td>92%</td>
<td>100%</td>
</tr>
<tr>
<td>Remote</td>
<td>18%</td>
<td>82%</td>
<td>100%</td>
</tr>
<tr>
<td>Very remote</td>
<td>47%</td>
<td>53%</td>
<td>100%</td>
</tr>
<tr>
<td>Australia</td>
<td>3%</td>
<td>97%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: HPF Table D2—AIHW analysis of Australian Bureau of Statistics (ABS) population estimates based on 2016 Census.

3.8 Eye healthcare public services in metropolitan Australia are typically centralised and are absent in many urban LHNs and/or outer urban areas.

In contrast to the Aboriginal and Torres Strait Islander population, public services in metropolitan Australia are typically centralised with outpatient services absent in many urban LHNs and/or outer urban areas. For example, public hospital eye healthcare services are shown in blue on the following workforce map of Sydney. See Figure 10.

In addition to the limited distribution of public hospital outpatient services, the waiting times to access those available services are unacceptably long across Australia. Outpatient services, which represent 80 per cent of service delivery in ophthalmology, are the gatekeeper to accessing the other 20 per cent of ophthalmology services—surgery. See Focus on Service Delivery for more detail on gaps in urban service availability.

3.9 A large proportion (38 per cent) of the Aboriginal and Torres Strait Islander population live in urban areas—largely in outer urban areas and this population faces significant barriers to accessing health care.

*Health Care Access for Aboriginal and Torres Strait Islander People Living in Urban Areas, and Related Research Issues* finds

“A significant majority of the total population of Australian Aboriginal and Torres Strait Islander people live in urban areas. They represent a heterogeneous and mobile population, with frequent movement between urban and other areas, and within urban areas. Aboriginal and Torres Strait Islander people within urban areas have been described as an ‘invisible minority’ and are exposed to discrimination and to an attitude that they are not ‘real Aborigines’.”

“The assumption is sometimes made that the availability of mainstream health services in urban areas means that access to health care is not a major problem for urban-dwelling Aboriginal and Torres Strait Islander people. There has been only a limited amount of research into issues of health care access for Aboriginal and Torres Strait Islander people living in urban areas, and culturally safe research that addresses some of the outstanding issues is needed. However, the literature agrees that there are significant barriers to accessing health care for Aboriginal and Torres Strait Islander people living in urban areas.”

“Despite the development of ACCHSs over the past thirty-five years, barriers to health care access persist. The current emphasis on increasing Aboriginal and Torres Strait Islander access to mainstream services in urban areas is obviously important, but unless it is complemented by strategies that recognise the unique needs (and strengths) of the Aboriginal and Torres Strait Islander communities, the limited evidence from the literature suggests the problems will continue.”

ACCHSs are evidenced to be clinically effective and trusted health delivery services that importantly, put “Aboriginal health in Aboriginal hands”.

ACCHSs and other Australian Government-funded organisations that provide health services to Aboriginal and Torres Strait Islander peoples provide some primary healthcare services to almost 50 per cent of the Aboriginal and Torres Strait Islander population across Australia but a smaller proportion of the urban population accesses services.

*Figure 9: Aboriginal population heat map for Greater Sydney* Geography Level Statistical Area 2. https://nationalmap.gov.au/
The 2018 Outer Urban Public Transport Report finds inadequate access to public transport and poor service levels are important drivers of disadvantage for people in outer urban areas. See Focus on Workforce and Training for additional information.

Where transport options are available, the cost of travel to the facility and parking, where needed, act as barriers to accessing services.

The Aboriginal and Torres Strait Islander population in our major cities is concentrated in outer urban areas as demonstrated by the population heat map of Sydney created using the National Map tool shown in Figure 9.

3.10 Private eye healthcare services in metropolitan Australia are more widely distributed than public services but are still somewhat clustered centrally

Private services, shown on the Sydney workforce map in red, have a wider distribution, though still do not provide an even coverage to the population being somewhat clustered centrally. See Figure 11.

These services are not easily accessible to low-income Australians, and hence to many Aboriginal and Torres Strait Islanders.

Figure 11: In this map of Greater Sydney, private ophthalmology services are marked by a red star, (RANZCO CRM), and public hospitals with outpatient ophthalmology services are marked by a blue star.

3.11 Public ophthalmology services across Australia, where present, are under-resourced to meet the needs of the population they serve and out-of-pocket costs to access private services have increased

As noted above, Aboriginal and Torres Strait Islander eye healthcare delivery is largely dependent on core health services funding—via Medicare—through the MBS and public hospital services.

Public ophthalmology services across Australia, where present, are under-resourced to meet the needs of the population they serve with long waitlists to access outpatient and inpatient (elective surgery) services and many services no longer offer a comprehensive ophthalmology service. See Focus on Service Delivery for more detail on gaps in public hospital eye healthcare shortfalls.

Additionally, out-of-pocket costs have been increasing over time. In real terms, the MBS rebate is worth less than 50 per cent of the equivalent 1984 rebate making access to private services for Australians in lower socioeconomic groups financially unviable when bulk billing is not available.
Aboriginal and Torres Strait Islander patients are much more likely to be in lower socioeconomic groups (24) and are less than half as likely as non-Indigenous Australians to have private health insurance187. They wait longer to access public healthcare than non-Indigenous Australians99.

3.12 Despite successful advocacy for Indigeneity to be utilised as a clinical modifier to facilitate access to public eye healthcare services, this measure has not been implemented in most jurisdictions.

Given the known Aboriginal and Torres Strait Islander disadvantages, a much higher percentage of this population compared to the non-Indigenous population are reliant on the availability of public ophthalmology services.

To facilitate access to public healthcare services in 2012, Indigenous Eye Health undertook advocacy that called for indigeneity to be used as a universal clinical modifier to expedite access to outpatient and inpatient services. Although this resulted in support from the Chief Medical Officer of Australia at the time127, there has been limited uptake of this initiative across jurisdictions and LHNs.

This is in large part due to jurisdictions not taking steps to embed this measure in daily operations. Additionally, there are considerable constraints to implementation brought about by the fragmented approach to public referrals and waitlists across and within LHNs and jurisdictions, with little central oversight and therefore limited identification of where service delivery is inequitable across LHNs and between different demographic groups. Queensland has had indigeneity listed as a universal clinical modifier for some time, but its utilisation is not consistent across LHNs in Queensland.

4. Measures that could be considered to make access to healthcare services more equitable for Aboriginal and Torres Strait Islander people

4.1 Key points and ideas summary

- To improve outcomes, Aboriginal and Torres Strait Islander peoples must share in decision-making around the development, implementation, and delivery of all measures and service models118.
- Measures that enable Aboriginal and Torres Strait Islander community ownership and control of service delivery should be utilised where possible.
- Any service model or measures considered should hold cultural safety and respect for the community central at all stages of development and implementation118.
- Any service model considered should include detail on how service and waitlist data will be collected and used expeditiously to provide a contemporaneous, clear, and ongoing picture of service delivery across, between and within jurisdictions to ensure gaps in service delivery can be easily identified within each local area.
- As noted above, Aboriginal and Torres Strait Islander peoples are largely dependent on the core health service funding for public hospitals under Medicare.

Addressing public hospital service funding, distribution, and capacity issues will improve service delivery to this population but will take many years. This measure alone is unlikely to entirely address inequitable access for Aboriginal and Torres Strait Islander people.

- Special measures are required that address the additional challenges many Aboriginal and Torres Strait Islander peoples face in accessing healthcare services118. For example, consider the use of Indigenous status as a clinical modifier to expedite access to care.
- Current public health funding arrangements present a barrier to the equitable delivery of public health services to Aboriginal and Torres Strait Islander peoples as this population makes up a very small proportion of the much larger, broader population, particularly in urban and inner regional areas.

Consider working with jurisdictions and community stakeholders to develop a novel approach to funding all healthcare services (not just ophthalmology) for Aboriginal and Torres Strait Islander peoples at a jurisdictional level within the current NHRA framework.

◊ For example, consider the case for an Indigenous Local Health Network in each jurisdiction managed in partnership with the community.
- Consider measures that facilitate access to services delivered under the MBS for Aboriginal and Torres Strait Islander peoples.
- Consider reportable KPIs for service delivery to Aboriginal and Torres Strait Islander people in each LHN (public hospital activity) and PHN (MBS services).
- Consider implementing universal measures that facilitate the recognition of patients who wish to identify as Aboriginal and/or Torres Strait Islander within each healthcare delivery facility.
- Consider mandating ongoing cultural competency training throughout the healthcare workforce.
- Ensure nationally consistent subsidised spectacle schemes are put in place across Australia.
- Implement measures that enhance the coordination of all healthcare services to Aboriginal and Torres Strait Islander peoples across Australia.

◊ Ensure there are robust clinical care pathways to deliver eye (and all other) healthcare services to Aboriginal and Torres Strait Islander peoples within each Local Hospital Network, set KPIs for pathways and assign a hub in which all pathways are held for each Primary Health Network (PHN)/LHN, e.g. Healthpathways.

◊ Set KPIs for patient coordination and liaison at both the community and LHN levels.

- Extend and further develop innovative models of care that facilitate the delivery of eye healthcare services and training opportunities in extended settings:
  ◊ Outer urban high-value collaborative community eye healthcare clinics.
  ◊ Consider the development of an InReach Network.
  ◊ Enhance outreach service delivery – multiple measures.
  ◊ Fund and facilitate the expansion and increased coverage of ophthalmology telemedicine, including store and forward, services across Australia.
  ◊ Consider the case for an Australian Telehealth InReach and Outreach Service (ATIOS) based in a major metropolitan teaching hospital in each capital city (see Focus on Workforce and Training).

4.2 Overcoming Indigenous Disadvantage Key Indicators 2020 Report

The Overcoming Indigenous Disadvantage Key Indicators 2020 report notes that approaches that appear to be successful in improving outcomes for Aboriginal and Torres Strait Islander peoples share the following common characteristics:

- Addressing racism and discrimination in the Australian community, through structural changes, and building knowledge and education.
- Enabling Aboriginal and Torres Strait Islander peoples to share in decision-making on things that affect them.
- Addressing laws, policies, and practices that operate to the detriment of Aboriginal and Torres Strait Islander people.
- Ongoing government investment, collaboration, and coordination.
- Ensuring access to effective culturally safe services at the right time and suited to the local context.

A. Address shortfalls in public hospital service funding, distribution, and capacity issues

- As outlined above, Aboriginal and Torres Strait Islander peoples are largely dependent on core health service funding for public hospital services under Medicare.
- Addressing shortfalls in public hospital service funding, distribution, and capacity will improve access to eye healthcare services for all Australians and therefore for Aboriginal and Torres Strait Islander peoples.
- In Focus on Service Delivery, measures to address gaps in public hospital service delivery through government investment, collaboration, and coordination, are covered in detail.
- Even with the best possible outcome from the Vision 2030 and beyond advocacy drive, it is feasible that widespread improvement in public hospital services eye healthcare will take years to deliver.
- Also, this measure alone is unlikely to entirely address inequitable access for Aboriginal and Torres Strait Islander people due to the additional challenges this population faces.
- Despite this, public hospital funding, with its overarching mandate to provide equitable healthcare delivery, robust financial governance, and buy-in from all the governments in Australia remains the preferred funding stream for this population.
B. **Consider measures to address the additional challenges many Aboriginal and Torres Strait Islander peoples face in accessing healthcare services**

- Aboriginal and Torres Strait Islander patients, regardless of how well-funded and distributed public hospital services are, will still be at a disadvantage compared to non-Indigenous Australians, given the additional challenges many Aboriginal and Torres Strait Islander peoples face\(^1\). This is because increased funding for public healthcare delivery will not address these additional challenges.

- Given this understanding, it seems logical that in addition to measures that result in improved public hospital healthcare funding, service capacity and distribution for the entire population, special measures that allow Aboriginal and Torres Strait Islander patients a degree of preferential access to these services would be beneficial in enhancing healthcare service delivery to this population.

- For example, indigeneity could be used as a universal clinical modifier in all medical specialties to expedite access to public outpatient and inpatient services.

- RANZCO recommends the Commonwealth work with AIDA, the Coalition of Peaks, NACCHO, the jurisdictions, the Colleges, and other stakeholders to develop special measures that facilitate access to healthcare services (not just ophthalmology) for Aboriginal and Torres Strait Islander peoples.

- For this measure to be successfully implemented, systems would need to be put in place in each Local Hospital Network to facilitate this measure. To ensure success, there must be KPIs for all critical elements and a timeframe within which compliance must occur. For example, accurately recognising all patients who identify as Aboriginal and/or Torres Strait Islander at each step in their healthcare journey is critical to success.

C. **Address current public health funding arrangements that present a barrier to the equitable delivery of public health services to Aboriginal and Torres Strait Islander peoples**

- Existing public healthcare funding and delivery arrangements present another barrier to equitable service delivery.

- Delivery of healthcare across jurisdictions via multiple LHNs, each commonly having multiple hospitals, makes it difficult to obtain a clear picture of service shortfalls and relative inequity in access to services for the relatively small proportion of the population identifying as Aboriginal and Torres Strait Islanders within each LHN.

- Consider working with jurisdictions and community stakeholders to develop a novel approach to funding all healthcare services (not just ophthalmology) for Aboriginal and Torres Strait Islander peoples at a jurisdictional level within the current NHRA framework.

  For example, consider the case for an Indigenous Local Health Network in each jurisdiction managed in partnership with the community:

  ◊ This measure could enable Aboriginal and Torres Strait Islander community ownership and control of service delivery.

  ◊ The creation of one LHN across a jurisdiction for this relatively small population could enable the provision of more equitable service delivery and provide a better understanding of gaps in services. It could facilitate visibility and accountability as all the services provided in a jurisdiction would be visible within the one LHN.

  ◊ Such an LHN could have a wider range of service providers which could be contracted to deliver services such as public and private hospitals, private practices, etc.

  ◊ Any contracted service provided would need to verify a culturally safe environment in which to deliver services.

  Any measure implemented should result from shared decision-making and partnership with community stakeholders and provide an avenue for enhancing access to public hospital services for Aboriginal and Torres Strait Islander Peoples.

D. **Consider developing a model or models to facilitate access to services delivered under the MBS for Aboriginal and Torres Strait Islander peoples**

- Mechanisms that increase bulk billing of patients that identify as Aboriginal and/or Torres Strait Islander should be considered. For example, increasing MBS scheduled payments for MBS items delivered to patients who identify as Aboriginal and/or Torres Strait Islander.
RANZCO recommends the Commonwealth work with AIDA, the Coalition of Peaks, NACCHO, the jurisdictions, the Colleges, and other stakeholders to develop special measures to reduce out-of-pocket costs and increase bulk billing for Aboriginal and Torres Strait Islander peoples in the private sector.

**E. Improve data services to allow inequitable service provision between and within LHNs and in accessing services under the MBS to be easily seen and expeditiously tracked**

- Public outpatient service waitlists are not reportable by jurisdictions to the AIHW. These services represent 80 per cent of ophthalmology and are absent where more than 60 per cent of Aboriginal and Torres Strait Islander Peoples live.
- As put forward in *Focus on Service Delivery*, mandating the reporting of outpatient waitlists would provide visibility to these services at a national level and ensure the data supplied by each jurisdiction is comparable.
- Developing community-directed measures that report, in addition to the usual reporting, inpatient and outpatient service delivery, waitlists, etc. separately for Aboriginal and Torres Strait Islander Peoples at a granular, LHN and local hospital level, would provide visibility of gaps in service delivery and facilitate the implementation of measures to close these gaps to be made and progress charted.
- Develop measures that allow visibility of the provision of MBS services to the Aboriginal and Torres Strait Islander population in each local area to enable gaps to be visualised, measures to close the gaps implemented and progress tracked.
- Ensure data is available at frequent intervals, for example quarterly, to ensure progress can be expeditiously tracked.

**F. Consider setting agreed, reportable KPIs for wait times to access services and volume of public hospital service provision for Aboriginal and Torres Strait Islander peoples within each LHN**

- There is a need for consistent monitoring and evaluation against agreed performance indicators to improve service delivery to all Aboriginal and Torres Strait Islander peoples.
- For example, the Federal Government and State Governments to consider setting KPIs/benchmarking for the wait time to be placed on the inpatient waitlist and the wait time for cataract surgery to occur.

**G. Consider measures that facilitate the recognition of patients who wish to identify as Aboriginal and/or Torres Strait Islander within each healthcare delivery facility**

- Whilst ‘asking the question’ is the gold standard for each facility that delivers healthcare services to recognise which patients wish to identify as Aboriginal and/or Torres Strait Islander, in practice this question is not universally asked. This is a barrier to recognising all of the patients receiving healthcare services who wish to identify as Aboriginal and/or Torres Strait Islander.
- Consider working with community stakeholders to develop measures that would be put in place nationwide to allow whether patients identify as Indigenous to be included and automatically shared, with each patient’s permission, as part of each patient’s Medicare details.
- Such measures could facilitate access to no-out-of-pocket healthcare services. They would also enhance data collection and better show where there are gaps in service delivery for the Aboriginal and Torres Strait Islander populations.

**H. Consider measures that enhance and maintain cultural competency in the healthcare delivery workforce**

- All staff involved in healthcare delivery to Aboriginal and Torres Strait Islander peoples should have undertaken cultural safety training.
- Consider introducing measures nationally that enhance and maintain cultural competency in the healthcare workforce Australia-wide.
- For example, consider introducing measures at a national level to include regular cultural competency training in mandatory competency requirements for all healthcare practitioners.

- RANZCO has taken the following measures to increase cultural competence amongst RANZCO Fellows and trainees:
  ◊ Cultural safety training is embedded at multiple points in the RANZCO training program.
  ◊ RANZCO Fellows have access to the RANZCO Cultural Safety Module as a component of CPD for ophthalmologists.
  ◊ RANZCO has committed to continuous improvement and evaluation of the cultural safety learning modules in the RANZCO curriculum.

- See Established and Effective Models of Eye Healthcare Delivery for Aboriginal and Torres Strait Islander Peoples and their Implementation, for further detail.

I. Ensure nationally consistent subsidised spectacle schemes are put in place across Australia
- Uncorrected refractive error is the most common cause of visual impairment in Australia, with a higher prevalence in the Aboriginal and Torres Strait Islander population. It accounts for approximately 60 per cent of visual impairment in this population.

- Urgent action is required to address this longstanding issue and ensure unhindered access to these essential healthcare optical aids for Aboriginal and Torres Strait Islander people. Engagement with governments on this issue has been longstanding and leadership needs to drive a solution and mandate appropriate changes are put in place across Australia as a matter of priority.

- Collaboration between community stakeholders, the eye healthcare sector and governments are required to develop solutions.
  Solutions should adhere to Optometry Australia’s Principles for nationally consistent subsidised spectacle schemes for Aboriginal and Torres Strait Islander people: Recommended implementation standards endorsed by NACCHO and Vision 2020 Australia.

- When developing solutions, consider the case for funding spectacles under Medicare for Aboriginal and Torres Strait Islander peoples to uniformly increase equity of access across Australia.

J. Implement measures that enhance the coordination of all healthcare services to Aboriginal and Torres Strait Islander peoples across Australia
- a) Ensure there are robust clinical care pathways to deliver eye (and all other) healthcare services to Aboriginal and Torres Strait Islander peoples within each Local Hospital Network, set KPIs for pathways and assign a hub in which all pathways are held for each Primary Health Network (PHN)/LHN, e.g. Healthpathways
  - In line with work by Indigenous Eye Health at the University of Melbourne, continue to bolster or develop (where none exist) ‘non-leaky’ referral pathways that allow streamlined access to public or no gap outpatient and inpatient services for Aboriginal and Torres Strait Islander peoples. Consultation and collaboration amongst local stakeholders including:
    ◊ ACCHSs, liaison health workers and other community stakeholders
    ◊ Optometrists, orthoptists, and nurses
    ◊ General practitioners (GPs)
  - Seek an ongoing dialogue with stakeholders within existing clinical care pathways to facilitate continuous quality improvement and the building of pathway capacity.
  - Set a hub for holding clinical care pathways (e.g. Healthpathways) and KPIs for their existence, maintenance and use for Aboriginal and Torres Strait Islander peoples in each LHN.

  GPs treat a broad spectrum of the population. Using Healthpathways as the hub would ensure all pathways for the broad population, and those for Aboriginal and Torres Strait Islander peoples, are held in one place familiar to primary care, thus facilitating access.
Access could also be provided to other healthcare workers. The broad healthcare workforce undergoes continual renewal and staff turnover is common. Situating locally relevant pathways for each PHN in Healthpathways would ensure healthcare workers new to an area will be able to immediately access the clinical care pathways for their patients.

b) Set reportable KPIs for Aboriginal and Torres Strait Islander Health Workers/Liaison Officers at the community and public hospital level

◊ Patients in clinical care pathways need support from both community and public hospital Aboriginal liaison officers to coordinate and facilitate services in each service area.

Setting reportable KPIs for the funding of an adequate number of Aboriginal and Torres Strait Islander Health Workers/Liaison Officers by public hospitals and the Commonwealth funding of Health Workers/Liaison Officers in community health services is crucial to facilitating robust service delivery within each area.

K. Engage with stakeholders to further develop innovative models of care to facilitate the delivery of eye healthcare services in extended settings

- Australia’s public hospital services are centralised, particularly in greater urban areas. Regional services within public hospitals frequently are incomplete and additionally offer inadequate geographic coverage and capacity to meet the needs of the population.

Given the distribution of Aboriginal and Torres Strait Islander peoples, a much higher proportion of this population is adversely affected by centralised urban and inadequate regional public hospital service delivery.

- Consider increasing the availability and accessibility of services where patients live by delivering public hospital services to Aboriginal and Torres Strait Islander peoples in extended settings using innovative models of service delivery and funding.

For example, consider the provision of outsourced to private outpatient service delivery by LHNs where public outpatient clinics are absent. See Focus on Service Delivery for more detail.

a) Optimal eye healthcare services:

◊ Ensure cultural safety is prioritised and central to each service delivery model and facilitate a patient-centred and family-centred approach.

◊ Ensure that services are available at no cost to the patient. Out-of-pocket expenses present an absolute barrier for many Aboriginal and Torres Strait Islander patients in accessing their healthcare needs124,131.

◊ Are accessible when needed, delivered close to where patients live where possible, reliable, and at least as good as any mainstream service.

◊ Ensure services are co-designed with the community in a process that incorporates robust and ongoing stakeholder engagement, allowing the community to lead the design process, have community ownership and control of service delivery.

◊ Ensure each model of care prioritises service coordination to provide a complete end-to-end service for patients.

Where possible, offer streamlined outpatient services, whether public or private, that allow Aboriginal and Torres Strait Islander patients to be waitlisted for procedures from one appointment directly on to the public hospital waitlist.

◊ Where possible, involve training registrars in models of care to increase the likelihood of graduating Fellows being involved in the delivery of care to Aboriginal and Torres Strait Islander peoples.

◊ RANZCO’s Established and Effective Models of Eye Healthcare Delivery for Aboriginal and Torres Strait Islander Peoples and their Implementation provides more detail on models of service delivery and is a resource to assist Fellows in setting up effective clinical care pathways and optimal service delivery models.
b) Develop collaborative community eye healthcare clinics, particularly in outer urban areas, linked to existing public hospital ophthalmology departments

◊ Stakeholders in the community, across the eye healthcare sector and governments to work together to develop collaborative care community clinics that incorporate models of care that consider the strengths of each workforce, enhance access to services for patients where they live, and streamline service delivery in line with patient-centred care.

◊ Respect and cultural safety must be at the fore in the design of these clinics which would deliver eye healthcare to the broad population.

c) Consider the case for the development of an InReach Network in large urban areas

◊ An InReach Network would consist of private ophthalmology practices facilitated to deliver no-out-of-pocket ophthalmology services to Aboriginal and Torres Strait Islander patients in a culturally safe environment within each greater urban area in Australia.

◊ Private practices in urban areas have a greater geographic spread than public hospital clinics enabling wider distribution of service delivery.

◊ Private practices may be better positioned to provide culturally safe spaces for Aboriginal and Torres Strait Islander peoples than busy urban public hospital clinics.

◊ This is especially considering the mistrust and distrust many Aboriginal and Torres Strait Islander peoples hold regarding the government and large government institutions such as hospitals.

◊ Each private practice in an InReach Network would be linked with the public hospital with ophthalmology services closest to the practice. This would enable patients to be waitlisted for surgery directly on to the public hospital waitlist.

A process to expedite the inpatient care of Aboriginal and Torres Strait Islander patients on inpatient waitlists would be put in place.

◊ Each private practice in an InReach Network would be affiliated with a RANZCO Vocational Training Network with training registrars based in some of these practices. They would then be able to give trainees increased opportunities to experience delivery of healthcare to Aboriginal and Torres Strait Islander patients and increasing the likelihood of them incorporating this into future practice as a specialist.

Training registrars working in the InReach Network would have supervised operating sessions at the associated public hospital (maybe outsourced to a private facility).

◊ Referral pathways from ACCHSs, GPs, optometrists, nurses, etc could be developed and socialised to facilitate access to practices in the InReach Network.

◊ There are opportunities to partner with other health delivery organisations such as Optometry Australia to link optometry practices offering no-out-of-pocket services to Aboriginal and Torres Strait Islander peoples into the InReach Network.

This measure could assist in developing end-to-end models of patient care and facilitate access to spectacles for Aboriginal and Torres Strait Islander patients in a culturally safe environment.

Key design considerations:

◊ Co-design and ongoing collaboration with community stakeholders at the local level are essential for each service developed as part of an InReach Network.

Funding considerations:

◊ The associated public hospital could use activity-based funding to outsource outpatient services to private specialist rooms. This model of care is currently being used to deliver public outpatient services in Northwest Tasmania. For further details on outsourced to private, public outpatient services see Focus of Service Delivery.

◊ Bulk billing service delivery is frequently provided by private practices across Australia and is endorsed by RANZCO for all patients who identify as Aboriginal and/or Torres Strait Islander.
However, the decreased value in real terms of the Medicare Benefits Scheme rebate over several decades to less than 50 per cent of the equivalent 1984 rebate increasing threatens bulk billing models of care.

Consideration by the Commonwealth to increase the MBS rebate, particularly for the delivery of services to Aboriginal and Torres Strait Islander peoples could help drive increased service delivery, including no-out-of-pocket service delivery to this population.

Funding for patient liaison services is crucial.

**InReach outcomes:**

- Improved service delivery across greater urban areas for Aboriginal and Torres Strait Islander patients.
- Increased opportunities for enhancing cultural safety in the delivery of services.
- Normalising the delivery of eye healthcare to Aboriginal and Torres Strait Islander patients by incorporating it into everyday mainstream practice.
- Increased training opportunities for trainees in the delivery of care to Aboriginal and Torres Strait Islander patients to increase cultural competency and promote future practice in this area.
- Strengthened relationships between and within communities.

This model of care could be considered by other medical specialists such as endocrinologists and renal physicians, in delivering healthcare to Aboriginal and Torres Strait Islander peoples.

d) **Enhance outreach service delivery**

- **Identify and fill gaps in service delivery**
  - Enhanced data from jurisdictions and the AIHW (see above) would better enable the identification of gaps in service delivery.
  - Invite ACCHSs to approach RANZCO if there is a shortfall in available eye healthcare services in an area.
  - Use the RANZCO Outreach Portal to assist in identifying service gaps.

- **Simplify the funding of the facilitation of outreach services and improve transparency and accountability**
  - Consider what measures may simplify the currently fragmented funding model that facilitates the delivery of outreach services by funding transport, accommodation, etc for visiting health practitioners.
  - Measures considered should facilitate community control and increase transparency around Department of Health funding for outreach programs.
  - Consider how funding for outreach services may better be administered when addressing current public health funding arrangements that present a barrier to the equitable delivery of public health services to Aboriginal and Torres Strait Islander Peoples. See section C above.
  - Consider whether funding to facilitate outreach services may be better placed in the funding streams of regional PHNs or LHNs.
  - Increased funding is required from the Commonwealth and jurisdictional governments to further facilitate the delivery of outreach services in regional Australia.

- **Ensure regional LHNs equitably deliver comprehensive eye healthcare services as required by the NHRA**
  
  See Focus on Service Delivery for detailed solutions.

- **Continue to improve collaborative models of care for outreach services, streamline service delivery and coordination, and ensure maximum service delivery coverage**
  - Stakeholders in the community across the eye healthcare sector and governments to work together to continue to strengthen collaborative models of outreach service delivery.
Document models currently in action around Australia that work well to coordinate and streamline outreach services across the eye healthcare sector. This will provide a resource for the development of additional outreach services.

- This work has already commenced. See RANZCO’s Established and Effective Models of Eye Health-care Delivery for Aboriginal and Torres Strait Islander Peoples and their Implementation.

- Preference community-led, transparent service planning with robust and ongoing stakeholder engagement from the whole population in each outreach location.

- Consider developing models of care that link regional (and outer urban) outreach services to urban public hospital eye services and private practices

  - Encourage the development of outreach programs that link to existing urban public hospital ophthalmology departments. An example of this is Prince of Wales Hospital’s development and ongoing support of the Broken Hill Hospital Ophthalmology Service.

  - Encourage more ophthalmologists to get involved in outreach services. Consider an ‘Adopt a Town’ approach whereby Fellows and/or practices undertake to provide ongoing care to an area.

  - Consider the case for ATIOS. See Focus on Workforce and Training.

e) Fund and facilitate the expansion and increased coverage of ophthalmology telemedicine, including store-and-forward services across Australia

- Telemedicine is the provision of healthcare-related services from a distance, typically involving a variety of telecommunication tools including smartphones, wireless devices, and remote video connections. Telemedicine is well established in ophthalmology and evidenced to facilitate more efficient and equitable distribution of limited healthcare resources. This allows the delivery of care to distant areas where there is a shortage of doctors and other professionals, reducing travel and increasing access to specialised medical services for regional patients.

- Store-and-forward telehealth (S&F) refers to the acquisition and storing of clinical information and then forwarding the information via computer-based telecommunication methods to another site for clinical consultations or second opinions. The S&F telehealth models of care have matured over the last 20 years and are used successfully in many medical specialties. S&F models of care have shown efficiency in patient referral decision-making, increasing patient access to services and enhancing medical education, especially for rural and remote consultations.

- Planning, coordinating, facilitating, and funding the growth of ophthalmology telemedicine services across Australia will increase access to services for regional communities where patients live, streamline access to necessary face-to-face services and reduce patient travel. This will reduce the cost of service delivery.

- Ensure telemedicine services (including S&F) are funded both under the MBS and the NHRA – with funding for FTE to deliver these services.

- Consider the case for the development of an Australian Telehealth, InReach and Outreach Service (ATIOS). See Focus on Service Delivery for more detail.

5. Supporting Aboriginal and Torres Strait Islander workforce development and sustainability

5.1 Increase the number of ophthalmologists who identify as Aboriginal and/or Torres Strait Islander

- Measures to increase the number of ophthalmology trainees who identify as Aboriginal and/or Torres Strait Islander are in place:

  - RANZCO selection processes allocate an eight out of a total of 100 points to individuals who identify as Aboriginal and/or Torres Strait Islander.

  - Continue to actively promote ophthalmology as a career to junior doctors and medical students who identify as Aboriginal and/or Torres Strait Islander.

  - Continue to actively facilitate the selection of trainees into training networks across Australia.
5.2 Support the development of robust training pathways in healthcare for students who identify as Aboriginal and/or Torres Strait Islander from school onward

- Governments to incentivise and fund the development throughout Australia of additional programs such as Indigenous Allied Health Australia’s (IAHA’s) High School to Health Careers Program and the National Aboriginal and Torres Strait Islander Health Academy.

5.3 Stakeholders to consider whether the development of an Aboriginal Eye Healthcare Worker certificate could add value. For example, a course delivered through the IAHA National Aboriginal and Torres Strait Islander Health Academy could be funded by governments.

5.4 Introduce KPIs for Aboriginal Health Workers/Liaison Officers in the community and public hospital sectors to increase the workforce to a ‘critical mass’, promote liaison work as a sustainable career and ensure a sustainable liaison workforce.

6. Preventative healthcare for Aboriginal and Torres Strait Islander people

6.1 Address the relative differences in the social determinants of health between the Aboriginal and Torres Strait Islander and the broader Australian population

- As noted above, inequity in health between and within countries is mostly attributable to social determinants of health\(^\text{117}\).

  But “the life course trajectory of visual function is not fixed. Many conditions and risk factors are amenable to interventions, including social determinants, along the spectrum of promotion, prevention, treatment, and rehabilitation. These are complex issues, requiring multisectoral approaches (nutrition, housing, social security, education), long-term policies, and health system investment for greater health equity.”\(^\text{15}\)

Vision loss and access to eye care are greatly affected by social determinants\(^\text{15}\).

- “Society has traditionally looked to the health sector to deal with its concerns about health and disease. Certainly, maldistribution of health care, i.e. not delivering care to those who most need it, is one social determinant of health. But much of the high burden of illness leading to appalling premature loss of life arises because of the immediate and structural conditions in which people are born, grow, live, work, and age”\(^\text{117}\).

- The Commission on Social Determinants of Health asks:
  “Is closing the gap in a generation possible? This question has two clear answers. If we continue as we are, there is no chance at all. If there is a genuine desire to change, if there is a vision to create a better and fairer world where people’s life chances and their health will no longer be blighted by the accident of where they happen to be born, the colour of their skin, or the lack of opportunities afforded to their parents, then the answer is: we could go a long way towards it”\(^\text{117}\).

- Leadership and vision are needed from the governments of Australia to commit to a lasting partnership with community leaders and other stakeholders to develop and implement solutions that sustainably address the social determinants of health in Australia.

Actions taken should aim to improve daily living conditions, tackle the inequitable distribution of power, money, and resources, measure and understand the problem and assess the results of action in line with recommendations by the World Health Organisation report Closing the gap in a generation Health equity through action on the social determinants of health\(^\text{135}\).

Robust cross-jurisdictional engagement and commitment to making lasting change and cross-portfolio funding avenues will be essential to success.

Without effective action, healthcare will continue to have to put out the fires as best as it can from the high burden of disease directly attributable to the social determinants of disease in the Aboriginal and Torres Strait Islander population.
6.2 **High population health literacy is seen as the foundation for prevention.**
- More than 40 per cent of the Aboriginal and Torres Strait Islander population is under the age of 20\(^1\). Measures to improve early childhood services and schooling present an opportunity to impact a large proportion of the population in a relatively short period.

Key to the development of any educational program will be working with community stakeholders to ensure the delivery of a robust culturally appropriate health literacy curriculum.

6.3 **Prevention is better than cure**
- Public health approaches can prevent or treat most common eye diseases\(^1\).
- Preventive initiatives that reduce smoking, improve diet, and promote physical activity are likely to have shared benefits for general and ocular health\(^1\).

Aboriginal and Torres Strait Islander Australians are almost three times as likely to have diabetes as their non-Indigenous counterparts\(^1\) making preventative measures particularly important in this population.

- See [Focus on Preventative Healthcare](#) for additional details.

6.4 **When disease occurs – early detection delivers better outcomes**
- Diabetic retinopathy is a major cause of permanent visual loss in the Aboriginal and Torres Strait Islander population\(^1\).
- Early detection and timely treatment of vision-threatening diabetic retinopathy can prevent 95 per cent of blindness from this cause.

Currently, approximately one-third of Aboriginal and Torres Strait Islander patients diagnosed with diabetes have screening for diabetic retinopathy each year – well below the annual screening recommended\(^9\).

- Measures to increase the rate of diabetic retinopathy screening in this population are urgently required. They will need to overcome the many barriers to accessing healthcare.

Changes to the MBS billing rules for item 12325 could encourage additional screening by allied health workers and nurses. For example, currently a GP is required to sign off on every photo whether they see it or not. This is a barrier to screening for the many ACCHSs, particularly in remote and very remote Australia, that do not routinely have a GP on staff. Additionally, the requirement of visual acuity to be 6/12 or better may result in a delayed assessment for those patients more severely affected by diabetic retinopathy. This is for the reason that they may wait for the next outreach reach when a retinal photo could inform when more rapid assessment and patient transfer for this assessment may be more appropriate.

Consideration of extending settings for acquiring retinal images may present some solutions given the current overburden on primary care facilities in many areas, particularly in regional Australia.

- Novel approaches driven by technological advances may present opportunities for retinal images to be acquired using smartphones in time.

- See [Focus on Preventative Healthcare](#) for additional details.

**In Summary**

There is much work to be done to ensure the gap in eye health is closed within our generation.

Leadership and vision are needed from the Aboriginal and Torres Strait Islander community. A commitment to lasting change and working in partnership with the community are required from all the governments of Australia and all stakeholders across the eye health sector and beyond.
In addition to necessary health reforms, actions taken should aim to improve daily living conditions, tackle the inequitable distribution of power, money, and resources, measure and understand the problem and assess the results of action in line with recommendations by the World Health Organisation report *Closing the gap in a generation Health equity through action on the social determinants of health.*

Success would see Aboriginal and Torres Strait health in Aboriginal and Torres Strait Islander hands, increased transparency and accountability regarding the service funding and delivery, the meeting of estimated population-based service delivery needs, and confirmation from the National Eye Health Survey that avoidable visual impairment and blindness are minimised.

Equity and parity should be demonstrated with equal wait times for services and the volume of service provision for Aboriginal and Torres Strait Islander and non-Indigenous Australians when the burden of disease in each population is considered. Most importantly, the incidence of permanent visual impairment and blindness should be the same for Aboriginal and Torres Strait Islander and non-Indigenous Australians.

Let's work together to Close the Gap for good.
Australia is amongst the richest countries in the world. Its ‘sphere of influence’ extends to many countries but especially to the regions of the South and Western Pacific and a lesser extent, Asia.

Australia has an opportunity to bolster its regional leadership and in particular, global health diplomacy through substantial increases in its overseas aid budget.

Australia has a longstanding involvement in global avoidable blindness prevention. Australian-based Non-Government Organisations (NGOs), the eye healthcare sector and the Australian government have collectively contributed to many initiatives globally.

RANZCO has a long history of advocating for and providing leadership at a local and global level in eye care and blindness prevention. The College prioritises capacity building and infrastructure, and leadership development in the Asia Pacific region and beyond. Collaboration with international governmental and non-governmental partner organisations in the health and development sector has been undertaken to achieve their aims in this regard. RANZCO has worked in many countries in the Indo-Pacific region over many years to raise the standard of eye health education by facilitating teaching, access to conferences and examinations, and research, observership and fellowship opportunities.

RANZCO is well situated to assist with the relatively small but high-profile eye health sector. Restoring sight to a blind person may be considered the high point of global health diplomacy given its remarkable impact on the life of the patient and modest cost to the donor.

1. The global prevalence and distribution of blindness and visual impairment

The Lancet Global Health Commission on Global Eye Health Report revealed that 1.1 billion people were living with untreated vision impairment in 2020, and this number is expected to grow to 1.8 billion by 2050. Despite progress in recent years against certain infectious diseases, millions continue to live with impaired vision and blindness unnecessarily. Ninety per cent of people living with these conditions live in low and middle-income countries, and vision impairment disproportionately affects women, rural populations, and ethnic minority groups.

2. Improvements in eye healthcare contribute to sustainable development

Increasing the provision and quality of eye health services globally will contribute to the United Nations Sustainable Development Goals (SDGs), including those related to overall health, poverty, economic productivity, education, and equality.

The International Agency for Prevention of Blindness has outlined the direct connections between eye health services and the SDGs that were included in the findings of the Lancet Global Health Commission on Global Eye Health.

“Improved eye health reduces poverty (SDG 1) and improves productivity (SDG 8)"

Several studies have shown increases in productivity, household expenditure and household income following the introduction of eye health interventions. For example, in the Philippines, household per capita expenditure increased by 88 per cent over one year in people who underwent cataract surgery.
Improved eye health advances general health and wellbeing (SDG 3)

Reviews complementary to this study have shown associations between vision impairment and mortality, falls, quality of life, dementia, mental health, cardiovascular disease, respiratory disease and cancer.

Improved eye health advances educational outcomes (SDG 4)

Good vision is associated with improved educational outcomes. The provision of spectacles can improve academic test scores, with one study in China showing that the provision of spectacles reduced the odds of failing a class by 44 per cent.

Improved eye health advances equality (SDGs 5 & 10)

Interventions such as training rural community eye health volunteers and provision for cataract surgery can reduce gender inequality in relation to attendance and treatment. Similarly, income equality has been shown to be improved through cataract surgery.

Improved eye health reduces road traffic accidents (SDG 11)

Cataract has been found to increase the odds of being involved in a collision by 2.5x. Studies have shown that cataract surgery can reduce driving-related difficulties and motor vehicle crashes.

Overall, 27 studies reported that eye health services had a positive effect on advancing one or more SDG targets, with indirect effects proposed for all further goals. Cataract surgery and spectacles were the interventions with the largest number of reported beneficial effects on an SDG.

3. The 73rd World Health Assembly (WHA) resolution on “integrated, people-centred eye care, including preventable blindness and vision impairment”

In 2020, the 73rd World Health Assembly adopted the resolution on “integrated, people-centred eye care, including preventable blindness and vision impairment”. The introduction of this resolution was led by Australia and Indonesia and it has since been adopted by more than 45 countries. The key proposal of the report and resolution is to make integrated people-centred eye care (IPEC) the care model of choice and to ensure its widespread implementation.

The resolution sets the global agenda for eye health for the decade to 2030, committing to a plan to make eye care an integral part of Universal Health Coverage to eliminate preventable blindness and impaired vision.

4. Why assistance for eye healthcare programs is important

As outlined on the Fred Hollows Foundation website, sight and its restoration matter:

“With good vision, children can go to school, teenagers can pursue higher education, adults can work, and families can raise children. People can also start businesses, make art, take part in commerce, science, and technology or go into medicine and restore sight themselves.

Ending avoidable blindness improves the economy, equality, skills and development of a country while reducing its financial and social burden. For every $1 invested in eye health, there’s at least a $4 return to the economy.

If more people can see then more people get the opportunity to be productive, take part in economic activities, and live life on their terms. And that is why sight matters”.

The global initiative for the elimination of avoidable blindness, “Vision 2020: The Right to Sight”, was jointly launched in 1999 by the World Health Organisation (WHO) and the International Agency for the Prevention of Blindness (IAPB) to intensify and accelerate activities for the prevention of blindness to eliminate avoidable blindness by 2020. This initiative was pivotal in achieving a unified and coordinated advocacy for key priorities for action in the field of eye care at a global, regional and national level.

However, the WHO’s World Report on Vision notes that there remains a large unmet need for eye healthcare services and the global need for eye care is projected to increase dramatically in the coming decades. This poses a considerable challenge to health systems.
Health systems face significant challenges in meeting the current and projected eye care needs of the world’s population. There is no choice but to take on these challenges. The premise of the WHO’s World Report on Vision is that integrated people-centred eye care has the potential to accelerate action and meet these challenges. For this to become a reality, this report recommends five important actions:

1. **Make eye care an integral part of universal health coverage.**
2. **Implement integrated people-centred eye care in health systems.**
3. **Promote high-quality implementation and health systems research complementing existing evidence for effective eye care interventions.**
4. **Monitor trends and evaluate progress towards implementing integrated people-centred eye care.**
5. **Raise awareness and engage and empower people and communities about eye care.**


5. **Leveraging an available ophthalmology workforce**

   RANZCO Fellows have a longstanding track record in providing their time and expertise to tackle avoidable blindness in the Indo-Pacific region and beyond.

For many decades, RANZCO Fellows have supported disadvantaged communities in overseas countries to access much-needed but otherwise unavailable eye care services, including eye surgery to prevent avoidable blindness. These Fellows continue to do this through a range of assistance models, in response to the requested and identified needs of each community. This has ranged from leading visiting medical teams to provide direct ophthalmic clinical services in those communities to teaching, training, supervising, and mentoring national eye health personnel to provide those services, supporting national and regional training institutions that are setting and maintaining standards, and training national eye care personnel to a tertiary level.

Much of this work has been possible because of the passion, determination and remarkable commitment of individual Fellows offering their time pro bono through many charities and institutions. Some examples are included in Table 9.

<table>
<thead>
<tr>
<th>Program Name</th>
<th>Program Location</th>
<th>Supporting Charity</th>
<th>Year Established</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fred Hollows Foundation</td>
<td>Multiple Countries</td>
<td>Fred Hollows Foundation</td>
<td>1992</td>
<td>Training, service provision, infrastructure development</td>
</tr>
<tr>
<td>East Timor Eye Program (ETEP)</td>
<td>Timor-Leste</td>
<td>ETEP – Royal Australasian College of Surgeons (RACS)</td>
<td>2000</td>
<td>Development of Eye Care Service</td>
</tr>
<tr>
<td>Sumba Eye Program</td>
<td>Indonesia</td>
<td>Foresight Australia - RACS</td>
<td>2007</td>
<td>Service Provision and Training</td>
</tr>
<tr>
<td>Foresight Australia</td>
<td>Multiple countries</td>
<td>Foresight Australia - RACS</td>
<td>1975</td>
<td>Service Provision and Training</td>
</tr>
<tr>
<td>Pacific Eye Institute</td>
<td>Fiji</td>
<td>Fred Hollows NZ</td>
<td>2006</td>
<td>Training of Pacific Eye Health Personnel</td>
</tr>
<tr>
<td>Sight for All</td>
<td>Multiple countries</td>
<td>Sight for All</td>
<td>2009</td>
<td>Service Provision, Research and Training</td>
</tr>
</tbody>
</table>
The College has celebrated these achievements and the significant impact of this work on the communities helped through its publications and at College meetings and by providing travel grants to ophthalmologists from lower or middle-income countries to participate in College meetings.

Australia is a wealthy nation with an enviable health care system, however, many communities in our nearest neighbouring states, including the Pacific Islands, Papua New Guinea, Indonesia, Timor Leste, and the Philippines have limited access to optimal eye care services. The efforts of RANZCO Fellows working closely with their regional and local counterparts in-country in these communities continue to be pivotal to ensuring ongoing access to appropriate treatment and care. This work is supported by the College to ensure that the RANZCO standards and values regarding sustainable development are upheld.

6. The philosophy of a successful eye health aid program

RANZCO’s philosophy of a successful eye health program is derived from the Royal Australasian College of Surgeons’ approach.

Global eye health program aim: That safe, affordable eye care is available and accessible to everyone. It should effect changes in one or more of the following domains of change.

- **Domain of Change 1:** Improve access to eye health services by supporting the delivery of vital health services that contribute to improved access, inclusion, and agency.
- **Domain of Change 2:** Develop the capacity of the eye health workforce by supporting clinical and surgical training, mentorship, education, and essential equipment.
- **Domain of Change 3:** Strengthen health systems by working with services and decision-makers to improve service coordination and priority setting, and support workforce planning and investment.
- **Domain of Change 4:** Advocate for sustainable surgical and health care by building partnerships for action at a global, regional, and national level.

7. The benefits of Australia increasing its Official Development Assistance (ODA), including eye health aid, to countries in the region

To help achieve the United Nations (UN) Sustainable Development Goals (SDGs), wealthier countries are asked to support developing countries. Best practice targets set by the UN request that Organisation for Economic Co-operation and Development (OECD) member countries such as Australia, contribute 0.7 per cent of their Gross National Income (GNI) to Official Development Assistance (ODA) for developing countries. However, Australia does not deliver this much ODA with the OECD reporting Australia contributed 0.22 per cent of its GNI in 2021, including contributions towards COVID-19 amelioration.

The COVID-19 pandemic has, over the last two years, had a severe economic impact on neighbouring countries and seen resources, including ODA, diverted from many sectors including health. There is a lot of catching-up to do. With increasing COVID-19 vaccination rates in the region and more manageable mutations, the timing is optimal to restart ‘non-COVID’ spheres of assistance. Alleviation of poverty and improvement of the socioeconomic status of the developing countries in the Indo-Pacific region cannot happen without attention to the health sector.

Geopolitical forces in the Indo-Pacific region have changed. Australia is an important player in the region, which is looking to Australia for leadership, assistance, and a ‘reboot’ in terms of relations. Soft diplomacy (including ODA for health in general and eye health in particular) is an effective way to enhance Australia’s position in this regard and will greatly benefit the region in achieving the UN SDGs. It will also benefit Australian institutions.

Increased delivery of eye health aid by Australian ophthalmologists is easily achievable given the strong history of successful programs in the Asia-Pacific region and improvements in eye health are highly visible and result in a profound, and measurable decrease in poverty and an increase in productivity.

The time is right for Australia to play a more significant part in the global diplomacy movement by emulating the examples of some of the Scandinavian countries like Sweden and Norway. Enhancing Australia’s engagement by putting in place a plan to steadily increase ODA over time to at least meet the 0.7 per cent GNI target set by the OECD will increase Australia’s regional and international standing.
In the eye health sector, ODA can be bolstered by philanthropic organisations and delivered effectively utilising existing collaborations between NGOs, RANZCO and other key stakeholders such as optometrists, orthoptists, nurses, academic institutions, and industry. These partnerships across the eye health sector work well for all concerned and ultimately enhance the ‘aid’ delivered as a sector, improving Australia’s reputation and standing in the region.

8. Strategic directions

RANZCO seeks to work with other stakeholders and calls for:

- An increase in the development aid budget to support our near neighbours in the Indo-Pacific region. In doing so, Australia will follow the lead of other OECD countries that have more substantial overseas development budgets.
- An increase in the financial support for building resilience for Pacific Island nations who are suffering from increasingly worsening weather events resulting from climate change affecting not only the health and wellbeing of their citizens but also their livelihoods.
- An increase in the financial support for building in-country capacity, including infrastructure and training, to provide sustainable medical and eye health services in Australia’s neighbouring countries (including the Pacific islands), harnessing the large number of Australian medical and allied health volunteers to build hospital-to-hospital links and exchange programs that facilitate mutual learning.
- Provision of financial support for the development and implementation of a comprehensive regional (eye) health strategy to support local solutions that involve multiple stakeholders and support partnership development (government representatives, NGOs, community organisations, etc).
- The utilisation of established collaboration with IAPB and WHO to create partnerships, enhance networks and set standards for the local context.

9. At an operational level

RANZCO has established a Global Eye Health Committee to oversee RANZCO’s mission for sustainable and equitable eye healthcare in the region. RANZCO’s philanthropic arm, the Australian and New Zealand Eye Foundation (ANZEF), will work closely with the Global Eye Health Committee to:

- Ensure that sight restoration and blindness initiatives are a part of any comprehensive health aid program.
- Advocate for regional eye health initiatives at a government level including encouraging increasing the overseas aid budget, particularly in health.
- To ensure that aid programs work towards the overarching aim of ensuring self-sufficiency and independence in eye care.
- Ensure appropriate practice and training standards are maintained by creating a framework and setting minimum standards for aid programs.
- Better support Fellows working in these areas and reduce duplication of efforts by Fellows by creating a registry of overseas aid programs and interested eye care personnel across the sector to create eye care teams to be deployed in aid initiatives.
- Encourage advanced trainees to participate in overseas aid initiatives.
- Work proactively with other Medical Colleges, such as RACS, that have a large well established Global Health Division, to avoid duplication and create one ‘point of contact’ for the Government to refer to for comprehensive overseas health aid programs.

Aid programs underpinned by these operational aims will bring credit to the College and its Foundation and enhance the reputation of RANZCO Fellows.

If thought to be advantageous, in time ANZEF could apply for Australian Aid Accreditation Status to enable eye health aid initiatives to access the DFAT Australian NGO Cooperation Program.

Amongst the medical colleges, there is much expertise and established structures to deliver appropriate 'health development assistance and aid'. RANZCO can utilise its membership in CPMC to ensure that overseas aid is delivered in an integrated, comprehensive, and holistic way rather than being single-organ or disease-focused.
For example, putting in place a program for the management of diabetes requires a coordinated multidisciplinary approach that includes the design and implementation of preventative health measures, screening programs and active disease management strategies.

In practical terms, areas of cooperation should include the four pillars of:
1. Education
2. Service delivery
3. Infrastructure development and ultimate independence in eye care
4. Research

In Summary

Australia finds itself in a rapidly changing geo-political environment. The upgrading of ODA may represent a valuable soft diplomacy tool to enhance Australia’s standing both regionally and globally. Health initiatives are pivotal to ODA.

A coordinated strategy that prioritises the diplomatic goals of the national government and involves key governmental and non-governmental stakeholders across the sector is likely to have the maximum impact. This system-level approach has not been used before and RANZCO believes that now is the time for it to happen. RANZCO, as part of its strategic plan, seeks to play an important part in the development and implementation of this strategy.

RANZCO is strategically placed through its association with other medical colleges, and partnerships with other national and international bodies and institutions such as WHO and IAPB, to move things forward and facilitate the development of sustainable Eye Health Care Systems by optimising cooperation across governmental and NGO sectors.
Focus on Preventive Healthcare

1. Introduction

“Today’s challenge is chronic disease prevention, diagnosis and management. The idea that health policy now requires a strong focus on chronic disease burden is not new, and it has been a focus of both current and previous Australian governments who have acknowledged it as a significant challenge. There is broad consensus that unless we make fundamental changes, the costs of preventable illness and resulting health care demand will continue to be a major issue for governments and individuals alike. However, the ineffective management of chronic disease is still abundantly clear across Australia’s health service arrangements.”

1.1 What is Prevention?

Prevention or preventive health is any action taken to protect or promote the health of populations. Prevention aims to prevent poor health, illness, injury and death from occurring and increase the likelihood that people will stay healthy and well for as long as possible.

For preventive health strategies to have an impact on changing health behaviour, they require governments, organisations, and individuals to collaborate. Broad-scale preventive health strategies that have proven to be effective have involved one or more of the following:

- Systems thinking to inform interventions that target infrastructure change – addressing factors that impact psychological, social and physical environments.

- Extensive stakeholder collaboration to identify shared interests and champions – for example, RANZCO, MDFA, Glaucoma Australia, Diabetes Australia, Orthoptics Australia, Optometry Australia, and the Australian Ophthalmic Nurses Association working together to achieve shared goals.

- The collaborative development of evidence-based, patient-centred, collaborative models of care, (e.g. patient screening and referral pathways for AMD, Diabetic Retinopathy, and Glaucoma).

- The implementation of education targeting an at-risk population to improve health literacy. Risk profiling is used to identify vulnerable populations that are at increased risk and likely to have multiple risk factors.

- Population screening to detect a condition early, ensure timely referral and prevent life-threatening outcomes.

- Comprehensive evaluation to assess effectiveness and impact, and establish reliable databases to inform decisions around scaling up interventions, considering sustainability.

- Legislation and policies aimed at modifying risk factors or behaviour. For example, cigarette warning labels and retail restrictions, food packaging labels and health star ratings, and school canteen guidelines.

The Australia Government Department of Health and Aged Care have developed the National Preventive Health Strategy 2021–2030 and the National Obesity Strategy 2022–2032. RANZCO welcomes this national approach to preventative healthcare and calls on the Australian Government to fully fund the effective implementation of these National strategies.

To deliver on the management of risk factors and ensure continuous improvement in access to timely referral and preventative care for major eye conditions, RANZCO prioritises prevention and early intervention strategies.
1.2 What elements should be considered in justifying a population screening program?

“The era of modern screening began in 1968 with a landmark publication by Wilson & Jungner for WHO, which stated:

*Screening is the presumptive identification of unrecognised disease or defect by the application of tests, examinations, or other procedures which can be applied rapidly.*

*Screening tests sort out apparently well persons who probably have a disease from those who probably do not.*

*A screening test is not intended to be diagnostic.*

*Persons with positive or suspicious findings must be referred to their physicians for diagnosis and necessary treatment.*

Wilson & Jungner stated 10 principles that should be used to assess whether screening is an appropriate course of action to improve public health. See Box 3.

These principles laid the foundation for a scientific debate about the benefits, harm, costs and ethics of screening programmes.

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**Box 3: Wilson & Jungner’s principles of screening**

1. The condition should be an important health problem.
2. There should be an accepted treatment for patients with recognized disease.
3. Facilities for diagnosis and treatment should be available.
4. There should be a recognizable latent or early symptomatic phase.
5. There should be a suitable test or examination.
6. The test should be acceptable to the population.
7. The natural history of the condition, including development from latent to declared disease, should be adequately understood.
8. There should be an agreed policy on whom to treat as patients.
9. The cost of case-finding (including a diagnosis and treatment of patients diagnosed) should be economically balanced in relation to possible expenditure on medical care as a whole.
10. Case-finding should be a continuous process and not a “once and for all” project.

“Screening is a rough sorting process. It operates like a sieve, separating the people who probably do have the condition from those who probably do not. A screening test is never 100 per cent accurate; it does not provide certainty but only a probability that a person is at risk (or risk-free) from the condition of interest.

The purpose of screening is to identify people in an apparently healthy population who are at higher risk of a health problem or a condition, so that an early treatment or intervention can be offered. This, in turn, may lead to better health outcomes for some of the screened individuals.

“Screening is not the same as early diagnosis. Screening invites people who do not have symptoms to undergo testing, whereas early diagnosis is intended to detect conditions as early as possible among people with symptoms.

An early diagnosis program identifies and addresses barriers to diagnostic and treatment services in the population and among service providers. It builds service capacity and quality and establishes referral pathways. These are all essential preparatory steps before starting a screening program.

Screening programs test large numbers of people. This requires considerable investment in equipment, personnel and information technology, which can put strain on a health system. In contrast, early diagnosis is a strategy focusing just on the people with symptoms, which is a much smaller number and therefore uses fewer resources.”
In essence, the WHO recommendations\textsuperscript{150} for discerning the case for a population-based screening program rests on whether:

- There is sufficient prevalence of a condition causing significant health concerns to the individual, for example, diabetic retinopathy, to justify screening for the condition.
- An acceptable mass screening test is available, for example, retinal photographic screening to detect diabetic retinopathy.
- An acceptable and effective treatment is available, for example, anti-vascular endothelial growth factor injections and laser treatments for diabetic retinopathy.
- The cost of case-finding using screening is cost-effective when balanced against possible expenditure on healthcare for when the condition presents at a later stage in the disease process\textsuperscript{147,151}.

Vision screening programs have a role in ensuring continuous improvement in equity of access to timely referral and preventative care for major eye conditions – facilitating high-value care and maximising access for high-priority referrals – those referrals for patients with sight-threatening disease\textsuperscript{151,152}.

For detailed definitions and prevalence data on the major eye conditions, including uncorrected refractive error, cataract, age-related macular degeneration, diabetic retinopathy, and glaucoma, please refer to section 3: ‘Our Australian Healthcare System’.

2. Diabetes and diabetic retinopathy

2.1 Disease prevalence and a national approach to diabetes

In Australia, diabetes is fast becoming one of the biggest contributors to the burden of disease. Evidence highlights approximately 1.8 million Australians have diabetes\textsuperscript{23,153} including:

- 1.3 million individuals with diagnosed diabetes (of all types).
- Approximately 500,000 individuals with undiagnosed type 2 diabetes.

Between 25 and 44 per cent of people with diabetes have some form of diabetic retinopathy\textsuperscript{154}.

Data from 2008 indicated that at the time, 300,000 Australians had some diabetic retinopathy and 65,000 had sight-threatening retinopathy\textsuperscript{154}. Projections from the above data find that in 2022, more than 500,000 Australians have some form of diabetic retinopathy and more than 100,000 have sight-threatening retinopathy.

Aboriginal and Torres Strait Islander populations are three times more likely to have type 2 diabetes compared to non-indigenous Australians, with even higher incidence rates for those indigenous Australians living in remote areas\textsuperscript{155}.

Indigenous Australians are also at greater risk of complications than non-indigenous Australians, with a ten-fold higher risk of kidney failure and up to eight-fold higher risk of high blood pressure\textsuperscript{155}.

The Australia Government Department of Health and Aged Care have developed the Australian National Diabetes Strategy 2021-2030\textsuperscript{156}. RANZCO welcomes this national approach to the prevention, early detection and management of diabetes and looks forward to the full funding and implementation of this strategy.

2.2 The cost of diabetes

The total annual cost impact of diabetes in Australia is estimated at $14.6 billion\textsuperscript{157}, including direct health care costs and indirect costs such as reduced productivity, absence from work, early retirement and premature death. Twelve per cent of global health expenditure is spent on diabetes\textsuperscript{158,18}.

2.3 Diabetic retinopathy from a preventative healthcare perspective

Prospective trials have shown that control of diabetes and the control of hypertension in patients with diabetes, will reduce the risk of visual loss from diabetic eye disease\textsuperscript{154}.

Early detection of sight-threatening retinopathy by regular eye exams is the key to reducing visual loss and blindness from DR\textsuperscript{154}.

Screening for diabetic retinopathy is necessary to detect referable cases that need timely full ophthalmic examination and treatment to avoid permanent visual loss\textsuperscript{21}.

The International Council of Ophthalmology Recommendations for Screening, Follow-up, Referral, and Treatment Based on Resource Settings\textsuperscript{20} finds that “from a public health perspective, vision loss resulting
from DR can be prevented with a broad-based systems-level approach: first, by increasing public knowledge with targeted health care education; second, by well-implemented community-level or national screening programs for all persons with diabetes mellitus; third, with timely referral for more severe levels of DR; and finally, with appropriate treatment for advanced DR such as PDR and DME."

Based on available evidence, RANZCO has developed a model of care and patient pathway involving multidisciplinary teams from within the eye healthcare sector to facilitate appropriate and timely referrals for diabetic retinopathy, the RANZCO: Patient Screening and Referral Pathway Guidelines for diabetic retinopathy.

Currently in Australia, there is an opt-in program, KeepSight, in which people diagnosed with diabetes can register to receive regular reminders to have an eye check. This program is led by Diabetes Australia and Vision 2020.

There is, however, no overarching program to deliver a universal diabetic retinopathy screening to Australians diagnosed with diabetes along the lines of national and international screening guidelines despite the known cost-effective benefits of such a program. Rather it is left up to individual practitioners to recommend to their patients that they access screening where they can.

The proportion of Aboriginal and Torres Strait Islander people accessing screening for diabetic retinopathy is significantly lower than for the non-Indigenous population. Only half of all Aboriginal and Torres Strait Islander people with diabetes have had their annual eye check for diabetic retinopathy, and a quarter of those with diabetes will not have a screening test at all. This compares with a screening rate of 78 per cent among non-Indigenous adults, representing a substantial gap in primary eye care for people with diabetes.

Evidence highlights screening programs targeted at diabetic retinopathy are not only highly cost-effective but are cost-saving.

Tele-medicine and non-mydriatic retinal photography may be cheaper than conventional examinations (ophthalmoscopy) reaching higher patient numbers, but these technologies have been hampered by relatively high technical failure rates (around 10 per cent or higher) and difficulties in reliably detecting macular oedema. However new technologies are changing screening strategies and improving cost-effectiveness.

RANZCO sees value in the development and implementation of a universal national screening program that utilises newer more cost-effective technology. Such a screening initiative has the potential to increase the rate of early detection of vision-threatening complications of diabetic retinopathy, particularly in vulnerable patient groups, and therefore is likely to be a cost-effective investment by the government.

3. Vision problems in children– what are the health, social, and economic costs?

Eye disorders are one of the most common long-term health problems experienced by Australian children. If left untreated, these eye conditions can lead to vision loss or blindness, having a lasting impact throughout childhood and adult life.

Findings from the Sydney Myopia Study indicate:
- Five per cent of 6-year-old children had an uncorrected refractive error in one or both eyes
- 4.4 per cent of the 6-year-old sample were already wearing glasses

Including health expenditure, lost productivity, and other financial costs, the estimated economic impact of vision impairment in children is $624 million per year or $1,845 per child.

3.1 Paediatric visual screening programs

The newborn and six-week baby check are the currently adopted screening models in Australia to detect sensory deprivation from amblyogenic lens opacities or intraocular masses.

For other causes of amblyopia, whilst the exact age of this period is not rigidly defined, it is accepted that the best window for intervention is from ages three months to seven years. Evidence from global research highlights screening children later than four-five years is likely to result in poorer outcomes as early detection of amblyopia is key to early intervention.
Current guidelines in Australia are developed through state government initiatives. In Australia, vision screening is mostly conducted at school entry, five to six years of age however in some states, screening occurs before school starts.

For example, NSW Health runs the StEPS program (State-wide Eyesight Pre-schooler Screening) which offers all four-year-old children free vision screening before school starts through the local health district preschools and childcare centres. Opt-in consent forms are needed to participate and alternative options for vision assessment are available at respective NSW Health Child and Family Health services and GP practices. Whilst this program is highly successful, screening at the preschool level can lead to children not in childcare missing out on screening.

Nationally coordinated programs ensure the majority of children are captured. In the United Kingdom, all children are screened in the first year of entering primary school with visual acuity assessment and referral through the national health system. The age of screening ranges from four-five years as all children must enter reception (kindergarten) by the time they turn five in August of the school year. This is one of the gold standard models of screening as the timing of the discovery of amblyopia ensures the ability to treat for several years before expected visual maturation. However, unlike in the UK, in NSW, parents can choose what age their child enters the education system with some children not commencing until age six. This is perhaps too late for the initiation of amblyopia treatment, missing most of the window of neuroplasticity open during the critical period of visual development.

### 3.2 Why we need national universal preschool vision screening

Evidence highlights the role of children's vision screening programs in ensuring early intervention and minimising the impact of eye disorders on children's developing visual system and finds children's vision screening programs can be a great return on investment.

Throughout 2021-2022, RANZCO has participated in extensive stakeholder collaboration for the development of a minimum national standard for children's vision screening. The Vision2020 Australia Children's Vision Screening Working Group includes representation from peak organisations across the eye health sector including orthoptics and optometry as well National Aboriginal Community Controlled Health Organisation (NACCHO) and Brien Holden Vision International (BVHI). Outputs from this process have included a Children's Vision Screening National Framework and Advocacy Strategy including steps toward implementation across jurisdictions.

The expert consensus from the Vision2020 Australia working group highlights a national screening program would ensure early intervention and minimise the impact of eye disorders on children's developing visual system. One solution would be to scale up Statewide Eyesight Preschooler Screening (StEPS, NSW) across Australia given its proven effectiveness in:

- Detecting eye and vision problems early to maximise treatment outcomes and optimise restoration of normal vision development
- Reaching the target population with increasing referral rates:
  - Data indicates a steady increase overall and more specifically, in rural and regional NSW (2009-2016).
  - Data indicates higher rates of referrals in areas where catch-up clinics are available in the LHDs, showing the role of collaborative, integrated care.

However, the Evaluation of the StEPs finds the lack of public hospital Paediatric Ophthalmic Outpatient Clinics (POOCs) outside the Sydney metropolitan area likely contributes to more than double the rate of non-follow-up for high-priority referrals in rural and regional LHDs compared to metropolitan LHDs. This emphasises the importance of the establishment of referral pathways when implementing the screening program in jurisdictions, especially for high-priority referrals for specialist care where through screening, children are identified with potentially significant vision loss.

A barrier to the establishment of high-priority referral pathways in many jurisdictions is the systemic issues in public health departments. These include a chronic lack of investment in public paediatric ophthalmology services resulting in an inadequate service capacity and a lack of funded training positions in the public sector. This has a downstream effect on the specialist workforce with a critical and worsening shortage of paediatric ophthalmologists, placing additional pressure on this subspecialty. The result is inadequate neonatal and paediatric services in public hospitals across Australia. However, given there are even fewer paediatric and comprehensive (those whose services include all areas of general ophthalmology including paediatric...
ophthalmology) ophthalmologists outside the urban centres, and an overall ophthalmology workforce maldistribution with a regional workforce shortage, the problem is exacerbated in regional and outer urban areas.

The evaluation of STEPS showed access to secondary orthoptic screening reduces the number of high-priority referrals directed to POOCs and may detect false-positive referrals. This then reduces the burden on POOCs.

The Evaluation of the Statewide Eyesight Preschooler Program also notes the high value of catch-up clinics that provide an opportunity for children who were absent from preschool or childcare on the day of screening, or who are not enrolled in a preschool or childcare and recommends these be consistently available in all screening areas. Best practice highlights the need for a safety net primary school screening for those who have missed out on the earlier pre-school program.

Vision 2020 Australia’s National Framework for Vision Screening for 3.5-5-year-olds outlines the minimum considerations/inclusions for an effective vision screening program for Australian children. RANZCO strongly recommends that the Governments of Australia adopt this National Framework and ensure its implementation in each jurisdiction.

4. **Prevention of myopia**

Myopia is one of the most common eye disorders, and its prevalence is increasing worldwide. Increased incidence and prevalence of myopia in Australia have also been reported.

Myopia with associated complications is termed pathological myopia and is expected to become the leading cause of permanent blindness worldwide. Longer axial length increases the risk of myopic complications, including glaucoma, choroidal neovascular membrane secondary to myopic macular degeneration, retinal detachment, and presenile cataract. The prevalence of pathological myopia is as high as eight per cent in the young adult Asian population. Recent review studies noted that approximately half of the individuals with high myopia could develop pathological myopia.

RANZCO’s position statement, *Progressive Myopia in Childhood*, summarises the current evidence of the causes, management and prevention of progressive myopia.

There is still much to be determined regarding factors that bring about progressive myopia and the optimal interventions to minimise progression. However it is well-accepted that if children are not spending time outdoors, it is more likely they will develop myopia. Exposure to the brightness of sunlight is important to reduce the development and progression of myopia, however, as UV radiation is damaging to the eyes, children need to do it in a sun-safe manner.

It is recommended that children spend at least two to three sun-protected hours outdoors, per day. Outdoor time also affords children time away from close-range reading, with evidence suggesting prolonged study times indoors without eye breaks can be a contributing factor to myopia.

Public awareness of the increasing incidence and lifelong visual complications of myopia is currently limited. Parental understanding of the causes and health risks of myopia is poor, and parents/caregivers may be nonchalant regarding myopia in their child. Increasing public awareness could be important in improving myopia control. This review also strongly advocates increased sunlight exposure as a public health strategy to limit myopia progression.

RANZCO is well placed to engage with public health clinicians to ensure that well-evidenced strategies for the prevention of progressive myopia are embedded in public health frameworks across Australia. This is important to ensure there are ongoing public awareness campaigns, and that prevention strategy are implemented uniformly and are responsive to the evidence as it develops.

5. **Promoting health literacy—Education on modifiable risk factors for disease**

RANZCO endorses the use of evidence-based advocacy strategies to promote health literacy and leverage broader public health initiatives to:
- Increase awareness of modifiable risk factors for disease.
- Target at-risk audiences where there is potential for greater impact.
RANZCO's Public Health Campaign Advocacy strategy involves the development of relevant evidence-based position statements on modifiable risk factors for major eye diseases. For example:

- Smoking cessation and its impact on eye health, in particular AMD and vision - *Smoking Cessation as a Protective Factor against Eye Disease.*
- RANZCO’s Position Statement on Diabetes and Diabetic Eye Disease.
- The Impact of Health and Lifestyle on Age-related Cataract (ARC) and other age-related eye conditions
- The use of UV protective eyewear when sun exposure is frequent and regular is an evidenced modifiable risk factor for the prevention of age-related eye conditions - *UV-Eye-Protection.*

RANZCO identifies windows of opportunity to time media communications, to align with broader national public health initiatives. For example JulEYE, Macular Month and World Sight Day all serve as opportunities to promote the significant role of ophthalmology in preventing avoidable disease progression and loss of vision through accurate diagnosis and early detection and treatment of eye health conditions.

RANZCO’s advocacy strategy involves extensive collaboration with optometrists, GPs and other health care professionals, as well as peak patient advocacy organisations to ensure buy-in from these organisations, signifying their role in collaborative models of care. Such advocacy is aimed at ultimately ensuring patient safety and access to best-practice, evidence-based care.

6. **Low Vision Services – essential in preventing falls and other consequences of vision impairment and blindness**

Despite advances in eye healthcare, it is unavoidable that some Australians will continue to suffer permanent visual impairment and blindness. Visual impairment and blindness have many effects on individuals including a higher risk of physical injury and mortality, emotional and psychological distress, an increased risk of dementia, loss of independence and self-esteem, and isolation and vulnerability.

Many of these effects can be ameliorated or prevented in part by low vision services which include orientation and mobility training. These services are essential for vision-impaired individuals to learn how to use their remaining vision and/or other senses such as hearing and touch to compensate for reduced visual information.

RANZCO recommends the governments of Australia work with stakeholders to develop a strategy that ensures there is universal access to these essential services across Australia.

7. **Prevention of ocular trauma**

Ocular trauma is a leading cause of visual impairment and blindness most often affecting people under the age of 46.

Close to 52,000 people required an admission to hospital for treatment of eye injury between 2010–11 and 2014–15. The mean cost of a hospitalised eye injury in NSW was estimated to be $181 322, indicating the financial cost of treating hospitalised eye injury across Australia to be a significant financial burden for the Australian health system.

“Beyond the direct financial cost, the consequences of ocular trauma are devastating and costly to an individual, their families and the community. Lifelong implications associated with vision loss include increased mortality, morbidity, anxiety and depression.”

A recent study concludes that up to 90 per cent of ocular trauma is preventable, and preventative efforts should be based on an understanding of why, when and where ocular trauma occurs. Prevention strategies such as policies, legislation and the introduction of eye protection are effective in reducing the incidence of ocular trauma.

RANZCO recommends the development and implementation of a national strategy and awareness campaign for the prevention of ocular trauma.
Focus on Sustainability

1. The scope of sustainability

Sustainability encompasses a range of environmental concerns including pollution and environmental degradation, preserving healthy water systems, agriculture and food systems, biodiversity preservation, and climate change.

While many environmental issues are of concern, climate change is distinct because it is a major public health issue, and this empowers doctors to have a strong voice in this area. The World Health Organisation acknowledges climate change to be a major threat to public health in the 21st century, and there are already effects observable in the Australian health context.

These threats are not evenly distributed with the effects of climate change thought likely to exacerbate many of the health inequalities already experienced by those in regional and rural areas.

Leaders across medicine and science have called for doctors to become climate activists as this threat becomes emergent. Interventions to mitigate climate change are predicted to result in many co-benefits to human health and equity, as well as addressing many other environmental concerns at the same time. Prioritising climate change is an appropriate environmental issue for doctors to address.

Climate change is an ever more urgent and growing concern, and the response will require reducing greenhouse gas emissions to mitigate temperature rises, while also adapting health systems for a modified climate.

2. Ophthalmologists and colleges as climate advocates

Ophthalmologists generally agree that climate change is an urgent issue in need of mitigation, and yet the proportion who deny the importance of climate change is greater than in the general population. Even amongst those who are concerned about climate change, a substantial proportion felt that ophthalmologists did not have authority or expertise on this topic. The Royal College of Pathologists of Australasia takes the position that climate change is one of many social issues, and they choose to comment only on matters requiring pathologist expertise. However, most medical colleges in Australia and New Zealand are moving to embrace their roles as advocates, leaders, educators, and communicators in this domain of climate and health.

It is the position of RANZCO that climate change is an important public health problem and thus an issue on which doctors should have a voice, and this is supported by a majority of Fellows and trainees. Doctors as individuals make their own choices to act or remain silent on these societal health issues such as obesity, smoking, road safety, and eye protection. It is common for individuals to feel futility or despair if they do not see climate leadership from their organisations, and thus RANZCO is leading and supporting its members in advocacy on this issue.

In a current assessment of multiple college activities in this area, common recommendations were: 1) taking corporate responsibility to show leadership to members, 2) engagement with and education of members, and empowering them with resources and tools and, 3) advocacy to higher organisations and governments, as well as support for members engaged with regional and local governance.

3. Advocacy on sustainability

Decarbonisation of society will require major strategic high-level changes internationally from national governments, jurisdictions, and regional authorities, as well as practical changes made in organisations and by individuals.
RANZCO supports bold and aggressive policy to support international action on funding the decarbonisation challenge and to meet strong national emission reduction targets. In this broader effort, RANZCO has participated in multi-college and pan-professional projects and statements, with Doctors for the Environment Australia (DEA) and Ora Taiao, and with medical organisations such as the Australian Medical Association and the Council of Medical Colleges (NZ). These policy statements support the work of the Global Alliance for Climate and Health, which is the peak body for medical advocacy to combat the negative health effects of climate change. RANZCO will continue to support high-level policy for climate action through collaboration and support of pan-professional bodies.

Through participation in the Climate Action Working Group of the International Agency for the Prevention of Blindness (IAPB), RANZCO has contributed to the development of a Call to Action on Climate Change and a toolkit for eye health sector organisations guiding them on activities that support adaptation and mitigation and continues to participate in awareness-raising events and conferences.

At a national and regional level, RANZCO also has a voice for climate change. In 2022, RANZCO was amongst 10 colleges that participated in the Healthy Climate Future advocacy campaign in the run-up to the Australian election, calling for a ‘Climate Ready’ health system (adapting to climate threats) and a ‘Climate Friendly’ health system (cutting emissions from the health system). In May 2022, alongside four other medical colleges, RANZCO called on Australian energy companies and all levels of government to commit to replacing coal with renewable energy by 2030.

Advocacy at a regional level includes supporting green initiatives in public transport and energy infrastructure and supporting members in their health systems to act on sustainability.

4. **Decarbonising healthcare**

Doctors recognise the need for reducing emissions from the health system, which contributes around 5 per cent of national emissions, more than aviation. Governments will need to regulate emission reductions to achieve decarbonisation of the health system. Offseting is not a viable solution for the long term, and emissions themselves will need to reduce drastically.

The greatest impact will come from changing energy use within hospital systems (renewable sources for heating and electricity supply) and changes to transport systems (ambulances, staff commutes, shipping, patient travel), but every part of the health system will need to change. Larger state-level and regional projects to address energy and transport around healthcare are supported by organisations like DEA and Ora Taiao. RANZCO will continue to support this advocacy for urgent and large-scale upgrades.

Healthcare decarbonisation specific to the delivery of eye healthcare will require multiple actions by ophthalmologists as leaders and advocates in the complex health system. Examples that will be important in reducing emissions include:

1) **Travel emissions**

Reducing emissions from travel in ophthalmology involves eliminating low-value care and unnecessary visits, and this can make use of telehealth methods such as phone and video calls. Community delivery of services closer to patients’ homes, particularly for the delivery of ongoing routine for chronic diseases such as diabetic retinopathy, age-related macular degeneration and glaucoma will also be important. Modelling the distribution of services to population distribution and transport networks would optimise this. Shared care models facilitated by the sharing of patient health records may also reduce travel and unnecessary investigations.

2) **Procurement and consumption**

Consumption of disposable and single-use supplies in surgery and minor procedures is the greatest source of emissions in ophthalmology. Large amounts of pharmaceuticals are also wasted. Reducing consumption of single-use supplies can be achieved through a combination of:

- Industry collaboration, developing re-usable devices such as blades or gowns, and cataract surgery tubing and cassettes.
- Minimising the disposal of unused items (don’t open what you won’t use) and reviewing surgical packs and set lists to eliminate any unnecessary items from the surgical set-up.
- The selection of cheaper, less packaged, and lower emission options for items such as viscoelastic, gloves, and drapes.
- The use of multi-use topical perioperative medications.\textsuperscript{183}

Ophthalmologists will need to show leadership in their health services and advocate for bold policy within their organisations and local governments to progress these service changes. Thankfully, most changes that reduce greenhouse gas emissions from healthcare delivery also reduce the cost, which has benefits to society, improving access and equity.

In the first part of this decade, the carbon footprint of cataract surgery in developed countries is around 150kgCO\textsubscript{2}e\textsuperscript{181,182}. At the same moment in time, the footprint in India is around 6kgCO\textsubscript{2}e\textsuperscript{184,185} with much lower cost and equivalent safety outcomes\textsuperscript{156,186} indicating there exists affordable technology for low-carbon ophthalmology. It is interesting to reflect on the barriers that prevent RANZCO ophthalmologists from immediately operating like colleagues in India, such as the habits of training, prevailing practice patterns, convenience and supply chain issues. Ophthalmologists do have an appetite to make bold changes to practice for sustainability if safety is maintained\textsuperscript{176,187}.

Looking forward, RANZCO aims to support Fellows in making changes to improve sustainability at a clinical practice level while maintaining quality and safety. This strategy includes a preferred practice guideline, that recommends against wasteful consumption and offers evidence for practice changes to reduce resource consumption and carbon emissions. Similarly, the Choosing Wisely initiative encourages reflection in practice to reduce low-value care and RANZCO aims to continue developing these guides to facilitate clinical practice decision-making.

5. Corporate responsibility

The offices and staff of RANZCO will help demonstrate RANZCO’s commitment to sustainability. Sustainability will be an important consideration for RANZCO affairs into the future.

Recent major renovations at RANZCO have incorporated sustainable building concepts and greatly reduced energy consumption in the corporate activities of RANZCO.

The financial investments of RANZCO are rated to an A level or better by the Environmental, Social and Governance (ESG) reporting systems, and yet several major industries that consume and contribute large quantities of greenhouse gas emissions are still included in this rating level and therefore in RANZCO investments. There is some debate about how divestment from emitting industries can impact the behaviour of those industries (as there will be other investors who will take up the shares), but RANZCO must demonstrate that it is not profiting from environmentally and socially harmful industries to be a trusted professional advocate.

RANZCO undertakes to measure the emissions attributable to corporate activities (carbon footprinting) and put in place an appropriate strategy for emission reduction and offsetting to reach net-zero emissions within this decade.

6. Engagement and education on sustainability

Sustainability will become part of the training curriculum for future ophthalmologists. For current members of the College, sustainability will be encouraged as a topic for continuing professional development (CPD). This will require the provision of tools and information for Fellows to measure their carbon footprints, offering inspiration for opportunities to reduce the footprint, and encouragement to connect with those members of the surgical facility who can enact change. Regular College communications and presentations will continue to signal the importance of sustainability for the College and its members.
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## Appendix – Version Control History

<table>
<thead>
<tr>
<th>Version</th>
<th>Section</th>
<th>Heading</th>
<th>Description of changes</th>
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<tbody>
<tr>
<td>Version 2, April 2023</td>
<td>Executive Summary Page 8</td>
<td>The distribution of healthcare services across Australia is largely arbitrary</td>
<td>‘Rural Generalists’ included as part of multidisciplinary models of care. A new paragraph added: In addition to service mapping, the Atlas could provide coordinated oversight at the national, regional, and local level, and a commitment to establishing benchmarks for minimum standards of access to all healthcare, including primary care, across the diversity of models of care, for every Australian regardless of where they live.</td>
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<td></td>
<td>Focus on Service Delivery Page 17</td>
<td>1.3 High-value, collaborative models of outpatient care can assist in facilitating access to public eye healthcare services across Australia.</td>
<td>‘The Australian College of Rural and Remote Medicine’ is included as a key stakeholder</td>
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<td></td>
<td>Focus on Workforce &amp; Training Page 49</td>
<td>8. What would an optimal distribution of ophthalmologists in regional Australia look like and how do regional ophthalmology services work?</td>
<td>Added a section 8.3 Collaboration with other specialist colleges to safely deliver ophthalmic medical services in rural and remote Australia</td>
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<td>Focus on Workforce and Training Appendix Page 65</td>
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<td>Added a preamble</td>
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<td></td>
<td>Focus on Preventative Healthcare Page 97</td>
<td>1.1 What is Prevention</td>
<td>Added a paragraph referencing the National Preventative Health Strategy 2021-2030 and the National Obesity Strategy 2022-2032.</td>
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<td></td>
<td>Focus on Preventative Healthcare Page 99</td>
<td>2.1 Disease prevalence and a national approach to diabetes</td>
<td>Added a paragraph referencing the National Diabetes Strategy 2021-2030.</td>
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<td></td>
<td>Focus on Preventative Healthcare Page 100</td>
<td>2.3 Diabetic retinopathy from a preventative healthcare perspective</td>
<td>‘KeepSight’ program included</td>
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