

Review

## **Cataract surgery and Indigenous eye care: A review**

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## **ABSTRACT**

Cataract remains the leading cause of blindness in Aboriginal and Torres Strait Islander peoples and is still a major cause of vision loss. The pathway of care to cataract surgery has many potential gaps and barriers. Although there has been a significant increase in services over the last few years, there is still the urgent need to facilitate timely and affordable cataract surgery. Particularly for public surgery there needs to be a significant decrease in waiting times for the clinical assessment of those needing surgery and for those on a surgical waiting list.

**Key Words:** Cataract surgery, Indigenous eye health

## 1. INTRODUCTION

A survey in 2008 showed that Aboriginal and Torres Strait Islander peoples were 12 times more likely to be blind from cataract than other Australians<sup>1</sup>. Cataract was the single largest cause of blindness and was responsible for 27 percent of blindness. At that time Indigenous Australians were having to wait more than 50 percent longer for cataract surgery than other Australians, were four times more likely to wait for more than one year for cataract surgery and surgery was being performed seven times less frequently<sup>2</sup>.

These and other findings led to the development of the Roadmap to Close the Gap for Vision that was launched in 2012<sup>2</sup>. The Roadmap recognised that there was not a simple fix or even two or three key things to sort out. It identified 42 issues that needed to be addressed to provide well coordinated care and support for Indigenous people requiring eye care and making sure that eye services were adequately resourced and supported to meet the population-based needs of communities. Since 2012 some very significant progress has been made with strong support from the Aboriginal Community Controlled Health sector, the eye care stakeholders and from successive governments<sup>3</sup>.

## 2. DATA SOURCES

Data to show the progress that is being made come from different sources and not all cover the same time frame. Fortunately, the Australian Institute of Health and Welfare now gathers many of these data and publishes an annual report on Indigenous Eye Health Measures that gathers data from a number of different sources<sup>4</sup>.

Sometimes it is hard to compare data from one group to another. This occurs for example if there is a difference in the age distribution in the two groups and a particular condition becomes more common as one gets older. To compensate “age standardisation” is often used to adjust the rates to a try to make the age distribution of the two groups similar<sup>4</sup>. It is well established that the average life expectancy of Indigenous Australians is a decade less than non-Indigenous Australians. Age adjustment works well if the conditions occur at the same rate in the two groups. Certainly for cataract it is well known that it occurs more commonly as people age<sup>5</sup>. However, the average age of Indigenous people having cataract surgery is at least 10 years younger than non-Indigenous patients<sup>6</sup>. Further the rate of blindness in Indigenous Australians aged 50-59 is similar to the rate of blindness in non-Indigenous Australians aged 70-79<sup>4</sup>! So although the crude rates do not give a precise comparison because of the difference in age distributions, the age adjusted rate underestimates the difference because of the earlier onset of vision problems including cataract in Indigenous Australians.

### **3. PROGRESS IS BEING MADE**

Since 2012 the number of eye examinations received by Indigenous Australians has increased from 81,719 in 2013-14 to 95,600 in 2017-18 (+17%)<sup>4,7</sup>. The specific programs that fund visiting optometrists and ophthalmologists to provide eye care to Indigenous people have also increased remarkably. The number of Indigenous people seen in outreach optometry visits has increased from 11,726 in 2011-12 to 29,161 and those seen by the visiting ophthalmology services that are funded under two outreach programs have increased for 4,977 in 2011-12 to 9,859 in 2017-18.

Many other changes have occurred in the eye care system, including the organisation of regional networks to coordinate regional eye care, changes in

Medicare item numbers, the enhancement of screening for diabetic retinopathy and the dramatic reductions in the rates of trachoma<sup>3</sup>.

Progress has also been made with regard to cataract surgery. In 2007-08 there were 1,063 cataract surgeries performed for Indigenous Australians, a crude rate of 2,239 per million per year, the so-called cataract surgery rate (CSR)<sup>4</sup>. This compared with CSR of 9,453 for other Australians. In 2015-17, there were 5,131 hospitalisations for cataract surgery to give a CSR of 3,443. Age adjusted, the CSR jumps to 8,105 compared to the non-Indigenous adjusted rate of 8,559. The AIHW data also show that much more cataract surgery is done in younger Indigenous patients, 45-64 years old, than for non-Indigenous people in that age range but much less surgery in older Indigenous people. This again points to the potential confusions in understanding this age adjustment of the CSR.

Another parameter is the Cataract Coverage Rate (CCR), that is the percentage of those with visually significant cataract who have already been operated on. In 2008 the CCR for Indigenous Australians was only 65 percent<sup>8</sup>. In 2015 the National Eye Health Survey using a vision on less than 6/12 as the criterion found the CCS for Indigenous Australians was 59 percent but was 88 percent for non-Indigenous Australians<sup>9</sup>.

For non-Indigenous Australians, most cataract surgery is performed in private. In 2017-18 only 29 percent of all cataract surgery in Australia was performed in public<sup>10</sup>. It is not possible to determine the frequency with which Indigenous Australians have cataract surgery performed in private but overall 73 percent of hospital admissions for Indigenous Australians are to public hospitals compared to 33 percent for non-Indigenous Australians. So Indigenous Australians are more than

twice as likely to seek public hospital care and also more likely to have cataract surgery in public hospitals.

Once Indigenous patients reached the position of actually being booked for cataract surgery in a public hospital, in 2016-17, on average, they waited 58 percent longer for surgery than non-Indigenous patients, 141 days instead of 89 days<sup>4</sup>. They were also twice as likely to wait for more than one year for surgery. There had been little change since 2014-15. So that despite an increase in the number of cataract operations being performed, the time that most Indigenous patients still have to wait for cataract surgery once they are on a public hospital waiting list has not been reduced. However, various ways to “fast track” appointments have been made including the use of teleophthalmology<sup>11</sup>.

These lengthy waiting times continue despite a call sent by the Commonwealth Chief Medical Officer to his jurisdictional colleagues indicating that indigeneity should be used as a “comorbidity” when classifying patients for surgery (email communication from Chris Baggoley (Chris.Baggoley@health.gov.au) on 23 April 2013). The standard for patients awaiting cataract surgery is to be listed as Category 3 and to have surgery within 365 days, although this is varied depending on the severity of vision loss. Those with comorbidities such as diabetes or other chronic diseases, or indigeneity should be classified as Category 2 and have surgery performed within 90 days, as happens for example in Queensland<sup>12</sup>.

#### **4. THE UNMET NEED**

Given the size of the Aboriginal and Torres Strait Islander population and the prevalence of cataract one would expect about 7,581 cataract operations would be required in 2015-17 for Indigenous people<sup>13</sup>. This population-based rate does not

necessarily take into account the backlog of unoperated cases. In those years AIHW reports that only 5,131 operations were done or 68 percent of the estimated need<sup>4</sup>. This gap of some 2,400 operations each year is large in comparison to the number of Indigenous cataract procedures performed but is miniscule in comparison to 296,570 cataract operations performed in 2017-18 in Australia<sup>14</sup>.

## **5. THE BARRIERS TO CATARACT SURGERY**

The work that led to the Roadmap to Close the Gap for Vision showed there were many points along the pathway of care, or the patient journey, where barriers could be encountered<sup>2</sup>. The analogy was used of a leaky pipe with many leaks. As mentioned, many have been addressed to some degree but a number of issues around access to public cataract surgery still need to be considered.

It is important to recognise that there was a number of successful Indigenous eye care programs, such as in Alice Springs, Broome and Weipa. There are also others where significant changes and improvements are being made in eye care and in the provision of cataract surgery in particular. These include the changes made at the Victorian Aboriginal Health Service and the Royal Victorian Eye and Ear Hospital in Melbourne, and between the Institute for Urban Indigenous Health and the Mater Hospital in Brisbane.

As indicated by the figures given above there has been a substantial increase in the number of outreach services that are funded and the support provided for other components of coordination of the services and the patient journey<sup>4</sup>. However, the current level of funding still does not meet the population-based needs and optometry services need to be increased by about 59,588 a year and ophthalmic services by about 2,461<sup>4</sup>. IEH modelling using the AIHW data suggest that to meet

the population-based needs the outreach services shortfall is 33,000 for VOS and 1,400 for outreach cataract surgeries. Other support and case management services similarly require additional funding and support to meet the population-based needs.

However, in many areas there are still real barriers for someone who has been identified as needing cataract surgery. In many regional areas public eyecare outpatients do not exist<sup>2</sup>. Here patients can only be booked for public cataract surgery once they have been seen by an ophthalmologist in private. The cost uncertainty related to bulkbilling and gap fees and often the perceived lack of cultural safety can be almost insurmountable barriers to elderly visually impaired Indigenous people<sup>2</sup>. The Royal Australian and New Zealand College of Ophthalmologist has recommended that all Fellows of the College while they are being supported by the government outreach funds should not charge Indigenous patients gap fees<sup>15</sup>. This is particularly important for the clinical assessment required before they can be referred to a public hospital cataract surgery waiting list. It should also be noted that overall only 3.5 percent of cataract surgery is bulkbilled, although a breakdown by indigeneity is not available<sup>16</sup>. The overall bulk billing rate for all specialist services in 2017-18 was 32 percent<sup>17</sup>.

In other areas where public eye outpatient services exist, there can be other barriers. Some hospitals may demand a written referral with the more or less complete information from a comprehensive eye exam before being given an outpatient appointment. This again necessitates a prior visit to an optometrist or an ophthalmologist.

A bigger problem that is so often hidden or overlooked is the waiting times for assessment in the eye clinic. Data on outpatient waiting times are not easy to find and are not reported at a national level. The data are also expressed in many

different ways. However, data are available for some states and also for some individual hospitals. In Victoria, the median wait for an initial eye outpatient appointment ranges from 62 days to 347 days and 90 percent would be seen between 159 and 828 days<sup>18</sup>. In Tasmania the 'estimated' time for a non-urgent appointment, which would be typical for someone with cataract, is 375 days in the Southern Region, and there are no ophthalmology outpatient services in the North West or Northern regions<sup>19</sup>. In Queensland, 85 percent of non-urgent patients will be seen in the eye outpatient clinic within 365 days<sup>20</sup>. In South Australia the median waiting time is between 12.4 and 17.7 months and the maximum waiting time between 61.4 months to 133.7 months, or over 11 years<sup>21</sup>!

Clearly the public hospital system is not working in many areas. Given the propensity for Indigenous patients to seek public hospital care this has a differential and discriminatory effect on Aboriginal and Torres Strait Islander people and is a key area that needs to be addressed to close the gap in Indigenous cataract surgery outcomes.

## **6. WHAT NEEDS TO BE DONE**

During the preparation of the Roadmap a study was undertaken on the barriers to cataract surgery and potential solutions<sup>22</sup>. The solutions that were proposed included regional planning and organisation, case management and support, resources to meet population-based needs, monitoring and evaluation, and the need for oversight at multiple levels. In the Roadmap itself these issues were worked out in more detail and in the end 35 of the 42 recommendations it contained related to cataract surgery<sup>2</sup>.

Vision 2020 Australia has prepared a report "Strong eyes, strong communities"<sup>23</sup>. This calls for the incremental increase in funding for outreach ophthalmology and optometry, for case management and local support to meet the population-based needs and for the full establishment of the regional coordination of services. They also call for appropriate funding and support for eye care services in Aboriginal Community Controlled Health Organisations and for subsidised spectacles. These requests for further funding are consistent with and extend the recommendations of the Roadmap and push towards the sustainable development of eye services to meet the communities' needs including for cataract surgery.

With these recommendations in mind it is very heartening to see that the COAG Health Council in March 2019 set the elimination of avoidable blindness as a high priority issue for Aboriginal and Torres Strait Islander people<sup>24</sup>. Further, the elimination of avoidable blindness by 2025 has been set as one of the priorities in the Long Term National Health Plan<sup>25</sup>. Whereas the Roadmap was set to address the gap in eye health and vision between Indigenous and non-Indigenous Australians, the bar has been reset to address all avoidable causes of blindness which should lead a further improvement in vision and eye care.

What we need now is the firm commitment of the appropriate funding right away to fully implement the plans and requirements so clearly documented and that already have been shown to be highly effective. We need to develop these long-term sustainable solutions so that avoidable blindness and in particular blindness from unoperated cataract is addressed and eliminated.

More specifically, the improvement of access to and the utilisation of cataract surgery requires a number of changes. The regional hubs and stakeholder groups need their services to be fully funded to meet the population-based needs. People

requiring cataract surgery should have access to public hospital surgery without long waits for their initial assessment. If that clinical assessment has to be done in private, then it should be done without gap fees. Finally, once on a cataract surgery waiting list, the surgery must be done in a timely manner.

Public hospitals should report on the performance of their waiting lists for both the outpatient assessment, and for surgery, by giving the percentage of those who have waited for less than 90 days. A wait of less than 90 days should become the standard remembering that indigeneity itself should be used as a comorbidity factor. Public hospitals also need to review their capacity to make sure that they can cope with the needs for outpatient assessment and cataract surgery and that they can meet these targets.

## **7. CONCLUSION**

A lot of progress has been made in improving eye care to Aboriginal and Torres Strait Islander people, but there is still a significant gap in the eye care received and eye health outcomes. One of the critical areas remaining to be addressed is the provision of access to prompt, culturally safe and affordable cataract surgery. Much needs to be done to rectify the often totally unacceptable waiting times for both outpatient assessment and cataract surgery in Australia's public hospitals.

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