The eye health of Indigenous people before non-Indigenous people came to Australia was probably very good [1]. In fact, it is believed that the vision of Indigenous people was better than that of non-Indigenous people [2].

Today, however, it is likely that the eye health of Indigenous people is not as good as that of non-Indigenous people. The level of blindness among Indigenous people appears to be higher than that among non-Indigenous people, with some eye problems much more common among Indigenous people than among non-Indigenous people [2, 3].

Importantly, Indigenous people are less likely than non-Indigenous people to receive appropriate levels of eye health services and treatment [4] as should be expected in a prosperous country like Australia.

What are the main types of eye conditions that affect Indigenous people?

The main conditions affecting the eye health of Indigenous people are:

- blindness
- eye focussing problems (refractive error)
- eye problems caused by diabetes (diabetic retinopathy)
- cataracts
- Infections, including trachoma and gonococcal conjunctivitis

(For details of each of these conditions, see What is known about eye health?)

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More detailed information about eye health in Indigenous people can be found at:
http://www.healthinfonet.ecu.edu.au/eye_review
Information about how these conditions affect Indigenous people is provided in the following sections.

What is known about blindness among Indigenous people?

A report on Indigenous eye health in 1997 reported that blindness occurred up to 10 times more often in the Indigenous population than in the non-Indigenous population [2]. For Indigenous people blindness was mainly caused by cataracts or damage to the eyes from trachoma.

A major national survey of more than 10,000 Indigenous people in 2004-2005 found that:
- about one in three people living in non-remote areas, and about one in four people living in remote areas, reported eye or sight problems;
- blindness was around one-and-a-half times more common for Indigenous than for non-Indigenous people [3].

What is known about eye focussing problems (refractive error) among Indigenous people?

The major national survey of more than 10,000 Indigenous people in 2004-2005 found that:
- about one in six people were long sighted - needed glasses to see close objects and
- about one in ten people were short-sighted - needed glasses to see far objects [3].

The main issues for Indigenous people with eye focussing problems are:
- being able to have their eyes tested; and
- the cost and repair of glasses [4].

This is largely because Indigenous people often didn’t use mainstream government schemes that provided low-cost glasses [2]. (Low-cost glasses for looking at close objects, which can be bought from community or town stores, are fine to use and do not do any harm.)

The Nganampa Health Council, which provides health services to people in the AP lands of north-western South Australia, makes low-cost glasses available through community stores [4]. These are popular, even after improved access to subsidised, prescription (specially-made) glasses had been organised. The Council covers the ‘gap’ payment between the price and the state subsidy for one pair of prescription spectacles per person per year - if these are broken or lost many people turn to the ready-made store spectacles.

What is known about eye problems caused by diabetes (diabetic retinopathy)?

Many Indigenous people have diabetes, which can cause an eye problem called diabetic retinopathy and can lead to blindness, as well as a number of other health problems.

There is not much information available about diabetic retinopathy in the Indigenous population, but a study in the Katherine region of the Northern Territory in 1993 and 1996 found that that about one in five Indigenous people with diabetes had eye problems due to diabetic retinopathy [5]. About one in twelve Indigenous people with diabetes were at risk of losing their eyesight, which is a rate similar to that of non-Indigenous people with diabetes.

A study of over 1,500 Indigenous adults living in remote SA between 1999 and 2004 included over 700 people with diabetes, one in five of whom had signs of diabetic retinopathy [6]. One in twelve of those with diabetic retinopathy had leakage of blood vessels on the central part of the retina, the macula, which is responsible for reading and fine detail vision.

There are a number of relatively simple ways to screen for diabetic retinopathy [7]. Screening with special cameras has been carried out successfully in a number of Indigenous settings.

People with diabetes should have their eyes checked every year, unless they already have diabetes related eye problems in which case they should have their eyes checked more often.

With the high and increasing levels of diabetes among Indigenous people, it is likely that blindness from diabetic retinopathy will become more common among Indigenous people unless the level of screening and treatment increases [8].

What is known about cataract among Indigenous people?

According to the major national survey of more than 10,000 Indigenous people in 2004-2005 cataracts were around one-and-a-half times more common among Indigenous people than among non-Indigenous people [3]. Cataract was reported more frequently by Indigenous females (3 in 100 females) than by Indigenous males (1 in 100 males).
The level of cataract among Indigenous people is slightly higher among Indigenous people than among non-Indigenous people, but many Indigenous people have quite long delays in having the surgery that can improve their eyesight [2, 4].

The delays are mainly caused by limited access to the surgery, but delays can also be because of:
- lack of understanding of the need for surgery
- language barriers;
- financial cost;
- worries about being in a hospital; and
- being away from family and land [4, 8].

What is known about eye infections among Indigenous people?

Trachoma and gonococcal conjunctivitis are two eye infections affecting Indigenous people more than non-Indigenous people.

Trachoma

Trachoma, which has been a major cause of blindness among Indigenous people, is still quite common in some communities in northern and central Australia. Recent evidence about trachoma among Indigenous people includes:

- more than one-third of children up to 10 years of age living in the Katherine region of the NT in the 1990s had trachoma [5].
- trachoma was found in more than one-half of the children surveyed in the Pilbara region in 1996 [1] and one in seven schoolchildren aged 5 to 16 years in the Kimberley region in 2000 (Trachoma doesn't occur as often as it used to in wealthier regions like Broome, Derby and Kununurra [9].
- less than one in four of more than 800 children aged 4-15 years living in East Arnhem Land in 2002 were found to have trachoma [10].
- The drop in recent years in the number of people affected by trachoma in the Anangu Pitjantjatjara lands of SA is thought to be due to improvements in social and economic conditions, community development and increased access to medical care [9].
- Trachoma was found to be more common in the wet season than in the dry season among preschool and school-aged children living in two communities in the west Kimberley region of WA [11].
- Trachoma control programs are based on the strategy SAFE which stands for Surgery, Antibiotic, Facial cleanliness, Environment (see background info) [4]. In areas where people move from place to place, trachoma control programs need to cover larger areas rather than just a single community.

An antibiotic called azithromycin, an effective treatment for trachoma, is available as a free or subsidised medicine [12].

Nearly all the recent information about trachoma among Indigenous people relates to the infectious stages, when the disease can pass from person to person. There is little information about Indigenous people suffering the later effects of trachoma, where scars can be formed or eyelashes turn in causing damage to the eye, but the following studies give some details:

- more than one-half of the 200 adults attending eye clinics in Indigenous communities in remote central Australia in 2003 had scarring from trachoma [13].
- 17 of the nearly six hundred Indigenous people aged 50 years or over screened in the Kimberley region of WA in 1998 were found to have eyelashes damaged by trachoma [14].
- a study in 1990 of over 1,500 people living in the Anangu Pitjantjatjara lands of SA found that more than one in four, mainly older people, had signs of the later stages of trachoma (such as scarring and in-turned eyelashes) [15].

Gonococcal conjunctivitis

There have been several outbreaks of gonococcal conjunctivitis in Indigenous populations in central Australia [16]. (See What is known about eye health?, for details about gonococcal conjunctivitis.)

A large outbreak occurred in 1997 when nearly 500 people were affected. It is important to monitor the situation and use laboratory tests to confirm cases when outbreaks occur.

Why is the use of eye health services less among Indigenous people than among non-Indigenous people?

The use of eye services is less among Indigenous people than among non-Indigenous people for a variety of reasons. This is partly because many more Indigenous people than non-Indigenous people live in rural and remote parts of Australia, where specialist eye health services - by ophthalmologists (eye doctor) and optometrists (another type of health care professional specialising in eye health) - are less accessible than in major urban and regional centres.
As well as the lack of services where many Indigenous people live, other factors contributing to their lower use of eye health services include:

- financial aspects
- limited transport
- cultural and language barriers;
- lack of culturally appropriate services
- lack of understanding of the need for screening and surgery;
- worries about being away from family and land and of hospitals [4, 8].

References

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The Australian Indigenous HealthInfoNet is an innovative Internet resource that contributes to ‘closing the gap’ in health between Indigenous and other Australians by informing practice and policy in Indigenous health.

Two concepts underpin the HealthInfoNet’s work. The first is evidence-informed decision-making, whereby practitioners and policy-makers have access to the best available research and other information. This concept is linked with that of translational research (TR), which involves making research and other information available in a form that has immediate, practical utility. Implementation of these two concepts involves synthesis, exchange and ethical application of knowledge through ongoing interaction with key stakeholders.

The HealthInfoNet’s work in TR at a population-health level, in which it is at the forefront internationally, addresses the knowledge needs of a wide range of potential users, including policy-makers, health service providers, program managers, clinicians, Indigenous health workers, and other health professionals. The HealthInfoNet also provides easy-to-read and summarised material for students and the general community.

The HealthInfoNet encourages and supports information-sharing among practitioners, policy-makers and others working to improve Indigenous health – its free on line yarning places enable people across the country to share information, knowledge and experience. The HealthInfoNet is funded mainly by the Australian Department of Health and Ageing. Its award-winning web resource (www.healthinfonet.ecu.edu.au) is free and available to everyone.

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FEATURED ARTWORK
Life before the drought
by Julie Weekes

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