Use of eye care services by Indigenous Australian adults
Anna-Lena M R Arnold, Lucy Busija, Jill E Keeffe and Hugh R Taylor

TO THE EDITOR: Indigenous Australians have a higher risk of vision loss from preventable and treatable causes than non-Indigenous Australians and have been reported to attend eye care services at a lower rate than non-Indigenous Australians. Here, we report results from the National Indigenous Eye Health Survey which indicate that many Indigenous Australians with vision problems have accessed eye care services but not as frequently as recommended by the National Aboriginal Community Controlled Health Organisation (NACCHO) and the National Health and Medical Research Council (NHMRC), particularly for high-risk groups of patients with diabetes.

The survey methods have been reported elsewhere. Briefly, 1694 Indigenous children and 1189 Indigenous adults from 30 communities across Australia had a standardised eye examination and completed a questionnaire in 2008. Recruitment rates were 84% for children aged 5–15 years and 72% for adults aged ≥ 40 years, and 96% of responses to questionnaire items were complete.

Seventy-nine per cent (936/1189) of Indigenous adults reported vision problems, of whom 83% (778/936) had sought care from an eye care service (Box 1). Similar to previous studies, we found use of eye care services increased with increasing age, but being male and having no education were barriers to accessing services. There was a significant association between higher education levels and higher rates of using of eye care services, with the odds for using eye care services being the highest among those with the highest level of education (data not shown). These factors should be considered when designing public health messages on the importance of using eye care services.

As elsewhere in Australia, optometric services were the most frequently used facilities (49%, 378/778) across all regions except very remote inland, where primary health care services had the highest reported usage (33%, 49/149). Participants from very remote coastal and very remote inland regions were twice as likely to consult an ophthalmologist compared with the other regions (Box 2).

Twenty-three per cent (179/769) of participants with vision problems reported that they had last seen someone about their vision problem within the previous year, 67% (519/769) within the previous 3 years, and for 33% (250/769) it had been ≥ 3 years. Only 20% (87/444) of participants with self-reported diabetes had seen someone about their vision problem within the previous year. NACCHO recommends that Indigenous adults aged ≥ 40 years should be screened for reduced visual acuity at least every 2 years, and NHMRC guidelines recommend that Indigenous adults with diabetes have their eyes checked every year. Our results show that we are far from reaching these targets. As regular eye examinations have the potential to reduce the incidence of vision loss, this is a matter of great concern. The importance of regular eye examinations and follow-up, particularly for high-risk groups, should be emphasised to health care providers and the community.

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1. **Self-reported history of vision problems, facilities used and resolved vision problems for Indigenous adults**

   - **Indigenous adults (n = 1189)**
   - **No history of vision problems 21% (n = 253)**
   - **History of vision problems 79% (n = 936)**
     - **Initial care sought 83% (n = 778)**
     - **No consultation 17% (n = 156)**
     - **Data missing < 1% (n = 2)**
   - **Primary health care 33% (n = 255)**
   - **Hospital 6% (n = 48)**
   - **Optometrist 49% (n = 378)**
   - **Ophthalmologist 12% (n = 91)**
   - **Not specified 1% (n = 6)**
   - **Problem resolved 35% (n = 275)**
   - **Problem resolved 27% (n = 69)**
   - **Problem resolved 48% (n = 23)**
   - **Problem resolved 39% (n = 146)**
   - **Problem resolved 37% (n = 34)**
   - **Problem resolved 50% (n = 3)**

2. **Indigenous adults with self-reported vision problems, by facility used and region**

<table>
<thead>
<tr>
<th>Region</th>
<th>Primary health care (n = 255)</th>
<th>Hospital (n = 48)</th>
<th>Optometrist (n = 378)</th>
<th>Ophthalmologist (n = 91)</th>
<th>Not specified (n = 6)</th>
<th>No consultation (n = 156)</th>
<th>Total</th>
<th>χ²</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major city</td>
<td>34 (31%)</td>
<td>6 (6%)</td>
<td>48 (44%)</td>
<td>7 (6%)</td>
<td>0</td>
<td>13 (12%)</td>
<td>108</td>
<td>22.5</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Inner regional</td>
<td>39 (28%)</td>
<td>4 (3%)</td>
<td>71 (52%)</td>
<td>8 (6%)</td>
<td>1 (1%)</td>
<td>14 (10%)</td>
<td>137</td>
<td>17.7</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Outer regional</td>
<td>51 (34%)</td>
<td>6 (4%)</td>
<td>56 (37%)</td>
<td>13 (9%)</td>
<td>1 (1%)</td>
<td>25 (16%)</td>
<td>152</td>
<td>18.3</td>
<td>&lt; 0.01</td>
</tr>
<tr>
<td>Remote</td>
<td>55 (28%)</td>
<td>9 (5%)</td>
<td>79 (40%)</td>
<td>12 (6%)</td>
<td>2 (1%)</td>
<td>42 (21%)</td>
<td>199</td>
<td>—</td>
<td>0.16*</td>
</tr>
<tr>
<td>Very remote coastal</td>
<td>27 (14%)</td>
<td>8 (4%)</td>
<td>81 (43%)</td>
<td>30 (16%)</td>
<td>2 (1%)</td>
<td>41 (22%)</td>
<td>189</td>
<td>0.87*</td>
<td></td>
</tr>
<tr>
<td>Very remote inland</td>
<td>49 (33%)</td>
<td>15 (10%)</td>
<td>43 (29%)</td>
<td>21 (14%)</td>
<td>0</td>
<td>21 (14%)</td>
<td>149</td>
<td>12.7</td>
<td>0.03</td>
</tr>
</tbody>
</table>

* Fisher exact test.
Reasons given for not seeking eye care were: not enough time (41%, 62/153); condition not severe enough (22%, 33/153); too expensive (17%, 26/153); eye care not available in area (14%, 22/153); decided not to seek care (14%, 22/153); transport or distance issues (10%, 15/153); and waiting time too long (10%, 15/153). The two most common reasons for not seeking care indicate a lack of awareness about the importance of regular eye examinations, possibly because of a lack of culturally appropriate public health messages.

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