Education is generally considered to be a key factor in improving the health and wellbeing of Indigenous Australians. Higher levels of educational attainment improve employment prospects, which in turn, affect income, standard of housing and access to health care (SEWRSBEC 2000). Education also provides the necessary skills to better access and utilise health and community services and information about welfare (Boughton 2000).

Participation in education by Indigenous Australians continues to slowly increase across all sectors (schools, universities, and vocational education and training (VET)). The number of Indigenous people who have attained a non-school qualification has also increased. Yet despite these improvements, the educational participation and attainment of Indigenous Australians remain below that of other Australians. This is due in part to the high proportion of Indigenous students who experience chronic health problems, such as middle ear infection and nutritional deficiencies, which negatively affect their school attendance and learning outcomes. Other factors that affect participation in education include lack of access to educational institutions, financial constraints and social, cultural and language barriers.

This chapter presents an overview of the educational participation and attainment of Aboriginal and Torres Strait Islander people, and outlines some of the ways in which education and health are interlinked within the Indigenous population. This chapter draws on a range of data sources, including the 2002 National Aboriginal and Torres Strait Islander Social Survey (NATSISS), the National Schools Statistics Collection, the Higher Education Statistics Collection, VET statistics and various academic research papers. Comparisons over time are included where possible.

There was a steady increase in the number of full-time Indigenous students attending primary or secondary schools between 1996 and 2004 (graph 3.1). There were increases in every state and territory, with Australia-wide enrolments reaching 130,400 in 2004. The proportion of all full-time students who were of Indigenous origin also rose from 3% in 1996 to 4% in 2004. This reflects the increasingly younger age profile as a result of increased growth in the Indigenous population over this period; and the improved identification of the Indigenous status of students in administrative records.
A major focus of Indigenous education initiatives has been to encourage students to continue their education beyond the compulsory years of schooling in order to increase their future employment prospects and opportunities for non-school education.

The National Schools Statistics Collection showed that, in 2004, the apparent retention rate for Indigenous full-time students from Year 7/8 to Year 10 was 86% and to Year 12 was 40% (see the Glossary for more information on apparent retention rates).

Indigenous retention to Year 10 and beyond steadily increased between 1996 and 2004 (table 3.2). This trend was particularly evident at the Year 11 level, where the apparent retention rate from Year 7/8 rose from 47% in 1996 to 61% in 2004.

While Indigenous retention rates remain considerably lower than those for non-Indigenous school students, the gaps between the two groups are slowly closing (table 3.3). In Year 11, the gap between Indigenous and non-Indigenous students closed by nine percentage points between 1996 and 2004. While the Year 12 gap closed by six percentage points over this time period, Indigenous students were still around half as likely as non-Indigenous students to progress to the final year of schooling in 2004.
In 1997, all Australian states and territories agreed to implement standardised benchmark testing in order to provide nationally comparable data on the literacy and numeracy of Australian children. As the benchmarks represent a minimum level of competence for literacy and numeracy at various grade levels, non-achievement of the benchmark indicates that the student will have difficulty progressing satisfactorily at school (MCEETYA 2005). It is important to note that students from low socioeconomic backgrounds and those who speak English as a second language are likely to be at a disadvantage during these standardised assessments (DEST 2003).

In 2002, more than three-quarters of Indigenous Year 3 students who took part in the testing achieved the reading benchmark (77%), the writing benchmark (77%) and the numeracy benchmark (78%). In Year 5, these rates were 68%, 76% and 66% respectively.

In 2002, fewer Indigenous students achieved the Year 3 and Year 5 benchmarks in reading, writing and numeracy compared with all students (table 3.4). The largest differences between Indigenous students and all students occurred at the Year 5 level in numeracy and reading.
Unlike the VET sector, Indigenous students are under-represented in the higher education sector. Data from the Higher Education Statistics Collection show that Indigenous Australians comprised 1% of the total higher education population in 2003, with 9,000 students. This was the highest number of Indigenous higher education enrolments recorded between 1997 and 2003. However, the proportion of Indigenous students within the higher education population remained largely unchanged over this time period.

Indigenous VET enrolments increased between 1997 and 2002, before declining slightly in 2003 (table 3.5). The proportion of Indigenous students within the total VET population also increased over this time period.

The National Centre for Vocational Education Research (NCVER) reports that in 2003, approximately 58,000 Indigenous students were enrolled in VET courses, representing about 3% of the total student population. Indigenous males slightly outnumbered Indigenous females in 2003 (53% and 47% respectively). Over one-quarter (27%) of Indigenous VET students had a postal address in a remote region, compared with 3% of non-Indigenous VET students.

Success in VET is ultimately dependent upon successful completion of modules. In 2003, the rate of VET module completions for Indigenous students was 65%, compared with 78% of the total VET student population.

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There was a notable gender imbalance among Indigenous higher education students in 2003, with females accounting for approximately two-thirds (63%) of all Indigenous students. As shown in graph 3.6, the gap between male and female enrolments has remained relatively unchanged since 1998.
Results from the 1994 National Aboriginal and Torres Strait Islander Survey (NATSIS) and the 2002 NATSISS show that the proportion of Indigenous people aged 25–64 years who had a non-school qualification increased from 20% in 1994 to 32% in 2002. For those who reported their level of qualification, there was an increase in the proportion who had completed a Certificate or Diploma (13% in 1994 compared with 24% in 2002) and a Bachelor degree or above (1% in 1994 compared with 5% in 2002).

There was little difference in the proportion of males and females who had a non-school qualification in 2002 (33% for males and 31% for females). Reflecting the location of tertiary institutions and the availability of jobs that utilise tertiary qualifications, the likelihood of having a non-school qualification decreased with increasing geographic remoteness. Overall, 36% of Indigenous people aged 25–64 years in non-remote areas had a non-school qualification compared with 23% of people in remote areas.

Of those who had a non-school qualification in 2002, 70% had obtained a Certificate (of which 34% had a Certificate level III/IV and 31% had a Certificate level I/II), 11% an Advanced Diploma or Diploma and 14% a Bachelor degree or above. The majority of Indigenous people with a Diploma or above were female. Indigenous women were twice as likely as men to have an Advanced Diploma or Diploma and one and a half times as likely to have a Bachelor degree or above.

Management and Commerce was the most common main field of study among those who had a non-school qualification in 2002 (20%), followed by Engineering and Related Technologies (18%), Society and Culture (13%), and Health (10%). Indigenous men and women varied in their choice of field. Men were more likely than women to have a qualification in the fields of Engineering and Related Technologies, and Architecture and Building, whereas women were more likely than men to have a qualification in the fields of Management and Commerce, Health, and Education.

Although there have been significant improvements in the educational participation and attainment of Indigenous Australians in recent years, their levels of attainment remain below those of non-Indigenous Australians. Among those aged 25–64 years, non-Indigenous people were nearly twice as likely as Indigenous people to have a non-school qualification in 2002 (57% compared with 32% respectively). Non-Indigenous
Abooriginal and Torres Strait Islander school students are much more likely than their non-Indigenous peers to experience ear disease and hearing problems. There is a high rate of otitis media (middle ear infection) among Indigenous children, particularly in remote areas (DEST 2000). The prevalence of otitis media has been found to range from 40% to 70% in Indigenous communities compared with only 5% in more advantaged populations around the world (McRae et al. 2000). In Western Australia, the rates of otitis media among Aboriginal children aged 5–9 months has been found to be as high as 72% (Zubrick et al. 2004).

Chronic suppurative otitis media (CSOM) or ‘runny ears’ is the chronic condition that results from recurrent episodes of otitis media. It is typically characterised by a ruptured eardrum and discharge from the middle ear, which causes fluctuating and sometimes permanent hearing loss, as well as other complications associated with infection (NACCHO 2003a). The World Health Organization (2003) recognises that a prevalence of CSOM greater than 4% in a given population is indicative of a major public health problem. In Australia, CSOM can affect up to 40% or more of Indigenous children living in remote areas (NACCHO 2003a). For more information on ear and hearing problems in the Indigenous population, refer to chapters 5 and 7 in this report.
Poor nutrition is another significant health issue affecting many Indigenous school students. Children who lack regular meals or have inadequate access to fresh, nutritious food tend to be tired, underweight and prone to other illnesses (SEWRSBEC 2000). These problems are magnified for those students learning English as a second language (Collins 1999; McRae et al. 2000). However, there remains a lack of solid quantitative evidence to show the effects of this condition on Indigenous educational outcomes (Mellor & Corrigan 2004).

There is evidence to suggest that Indigenous children with CSOM attend school less frequently than other children. The National Aboriginal Community Controlled Health Organisation’s (NACCHO) Ear Trial and School Attendance Project found that during the trial period, children with CSOM attended school only 69% of the days available compared with 88% of other children in the same schools (NACCHO 2003b). Furthermore, a study in the Northern Territory showed that Indigenous children who had low attendance rates were more likely than those with high attendance rates to have ear disease and associated hearing loss (Collins 1999).

Common school-based strategies to help prevent and combat the effects of ear disease include regular health screenings and ear examinations in schools, as well as installing amplification systems in classrooms to create an enhanced listening environment (Collins 1999). Access to salt water or chlorinated swimming pools (due to the anti-bacterial properties of salt water and chlorine) also helps reduce the number of ear infections among Indigenous children (Lehmann 2003).

Hearing loss as a result of CSOM has been associated with poor school achievement for Indigenous students (McRae et al. 2000). Indigenous children who are unable to hear correctly in the classroom are placed at a significant disadvantage, particularly in reading and language acquisition. These problems are magnified for those students learning English as a second language (Collins 1999; McRae et al. 2000). However, there remains a lack of solid quantitative evidence to show the effects of this condition on Indigenous educational outcomes (Mellor & Corrigan 2004).

Hearing loss continued

There is evidence to suggest that Indigenous children with CSOM attend school less frequently than other children. The National Aboriginal Community Controlled Health Organisation’s (NACCHO) Ear Trial and School Attendance Project found that during the trial period, children with CSOM attended school only 69% of the days available compared with 88% of other children in the same schools (NACCHO 2003b). Furthermore, a study in the Northern Territory showed that Indigenous children who had low attendance rates were more likely than those with high attendance rates to have ear disease and associated hearing loss (Collins 1999).

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Poor nutrition

Poor nutrition is another significant health issue affecting many Indigenous school students. Children who lack regular meals or have inadequate access to fresh, nutritious food tend to be tired, underweight and prone to other illnesses (SEWRSBEC 2000). Reports by the Northern Territory Health Services show that 13% to 22% of Indigenous children aged five years or younger in non-urban areas of the Northern Territory are clinically underweight (Collins 1999). Moreover, school screening in the Northern Territory in 1993 revealed that 39% of Indigenous children living in remote communities were anaemic and 22% were malnourished (Paterson, Ruben & Nossar 1998).

Poor nutrition severely limits a child’s capacity to concentrate and learn at school. Children with poor diets are often lethargic or disruptive in the classroom and are more likely to be absent from school (SEWRSBEC 2000). In recognition of this issue, NIELNS emphasises the value of school-based nutrition programs in improving school performance and attendance. As well as distributing healthy meals to students at school, these programs provide an opportunity to convey health and nutrition information to the students and their families (see box 3.7). For more information on Indigenous nutrition, refer to Chapters 6 and 8 in this report.
Results from the 2002 NATSISS show that education was positively correlated with self-assessed health status. Table 3.8 shows that Indigenous persons aged 18–34 years who had completed Year 12 were more likely than those who had left school at Year 9 or below to rate their health as excellent or very good (63% compared with 45%). They were also less likely to rate their health as fair or poor (9% compared with 16%). The causal pathways that underlie this interaction are complex and difficult to measure, therefore it is not known whether higher levels of educational attainment lead to better health, or better health leads to higher educational attainment.

There was also an association between highest level of schooling and whether a person had a disability or long-term health condition. About one-third (35%) of people aged 18–34 years who had left school at Year 9 or below had a disability in 2002, compared with 18% of those who had completed Year 12. Among the former group, the most common type of disability reported was a physical disability, followed by a sight, hearing or speech disability. However, because the NATSISS did not collect information about the age of disability onset, it is not known whether the person’s disability was present while they were at school or whether it occurred later in life.
Many Aboriginal and Torres Strait Islander people have a holistic concept of health and wellbeing, which is based on a sense of balance among people, land and spirit (MCEETYA, 2001). Health in this context extends beyond physical illness and encompasses spiritual, cultural, emotional and social aspects as well.

A study by Lowell and colleagues (2003) explored the links between education and health within an Indigenous context. Set in Galiwinku, a remote Island community of about 1,400 Yolgnu (Indigenous) people, the project provided the community with an opportunity to express their views on the connections between education and health.

Participants stressed the importance of Yolgnu knowledge, systems and practices in influencing health and wellbeing. The increase in health problems within the community was overwhelmingly believed to be the result of a loss of this knowledge and changes in lifestyle as a result of Western influence. Yolgnu health-related education both at home and at school, as well as strengthening Yolgnu knowledge and practices within the community were widely regarded as the key to achieving better health outcomes. Consequently, the researchers emphasised the need for a greater level of Indigenous input and control over health and education programs in order to increase their relevance and benefit to the community.

SUMMARY

There have been significant improvements in the educational participation and attainment of Indigenous Australians in recent years. Between 1996 and 2004, there were steady increases in Indigenous primary and secondary school enrolments and in Indigenous apparent retention rates. Indigenous participation in vocational education and training also increased, with Indigenous students comprising 3% of the total VET student population in 2003. Indigenous students continue to be under-represented in the higher education sector, accounting for only 1% of the total higher education population in 2003.

The 1994 NATSIS and the 2002 NATSISS showed that the proportion of Indigenous people aged 25–64 years who had a non-school qualification increased from 20% in 1994 to 32% in 2002. However, Indigenous people were about half as likely as non-Indigenous people to have a non-school qualification in 2002 (32% compared with 57%).

While international research has clearly established that higher levels of educational attainment are associated with better health outcomes, there has been little investigation into whether this relationship applies to Indigenous Australians. The ways in which health impacts on educational attainment, however, is better understood. Hearing loss as the result of chronic ear infection, and poor nutrition are the two health issues that are commonly identified as being the most detrimental to Indigenous educational outcomes. Research has shown that both of these conditions are associated with poor school attendance and achievement.