Trends in indigenous participation in health sciences education: the vocational education and training sector, 1994–97

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April 1999

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While there is evidence in recent years of increasing levels of participation in post-secondary education by indigenous students, until now it has been unclear to what degree that trend has carried over into the health field. This paper reports the results of an exploratory study of recent (1994–97) indigenous participation in health sciences education and training in the vocational education and training (VET) sector.

Data sources and key variables

The data reported in this paper refer to institutions offering education and training through five distinct avenues: publicly funded Technical and Further Education (TAFE) institutions, community-based providers, private providers, enterprises, and secondary schools. In this paper, data on indigenous students enrolled in courses of study in the field of 'health, community services' are presented according to six key variables: field of study, State/Territory, qualification level, gender, enrolment type and provider type.

Findings

- Indigenous student numbers in the health, community services field of study between 1994 and 1997 increased from 1,769 to 4,332, a rise of 145 per cent. There was a corresponding 122 per cent increase, from 62,923 to 139,467, among all Australian students.
- In 1994, 69 per cent of all course enrolments were in the field of study community, family, personal health but by 1997 an increased diversification in enrolments was evident and only slightly over half the enrolments (56 per cent) were in this field of study.
- Between 1994 and 1997, growth in the fields of dental services, medical science, medicine and rehabilitation services were relatively flat. Enrolments in health support services more than doubled and health sciences and technologies enrolments increased more than three-fold.
- The steady increase in enrolments in health, community services between 1994 and 1997 was not evenly distributed among the States and Territories. The largest increases were in Queensland (757 per cent) and Victoria (177 per cent) while enrolments remained very low in the Australian Capital Territory and Tasmania with minimal increases of 21 and 29 per cent, respectively. South Australia was the only State to show an overall decline (31 per cent).
- Increases in enrolments between 1994 and 1997 were distributed across all qualification levels though most enrolments (nearly 68 per cent) in 1997 were for lower level courses leading to a certificate level qualification. Only about 13 per cent of course enrolments in 1997 were at the higher levels (advanced diploma or diploma).
- Health, as a field of study in the VET sector, attracts more indigenous female than male students. In 1997, 35 per cent of indigenous enrolments were by male students compared to 30 per cent for all Australians.
- The primary mode of enrolment is part-time study for four out of five indigenous students, a pattern that is becoming more pronounced over time.
- Indigenous students in health, community services courses in the VET sector are more likely than other Australians to enrol at TAFE institutions.

Implications for policy

- Given the diversity of training in the VET and higher education sectors, we believe there could be significant value in mapping the occupational category 'health worker' in the indigenous context as a mechanism to identify gaps in education and training.
- We suggest it is important for education and health policy makers to explore the development of alternative pathways to higher education by way of the VET sector.

- The continuing lack of enrolments aimed at higher qualifications suggests a vacuum and skill deficit may already exist and may be perpetuated if qualified managers and policy makers are not produced by the post-secondary system.
- We believe there is a need to implement a system for routine performance monitoring of indigenous student participation in health sciences education and training in the VET sector.
- It appears that there are now significant opportunities to attempt to steer students toward health fields, such as dental services, which have low indigenous enrolments but are of particular health concern for indigenous communities.
- The predominance of female students has significance for indigenous health care provision where cultural constraints surrounding interaction between the sexes may affect the willingness of indigenous men to seek out health care.
- A high proportion (78 per cent) of indigenous enrolments in health, community services programs are part-time students, a pattern that is becoming more pronounced over time; the relationship between levels of support for part-time students and outcomes such as qualification level needs further examination.

Acknowledgments

Part of the research that underpins this paper was originally undertaken by the Centre for Aboriginal Economic Policy Research (CAEPR) at The Australian National University under contract to the Department of Health and Family Services' (now Department of Health and Aging) Office of Aboriginal and Torres Strait Islander Health Services (OATSIHS). OATSIHS commissioned the research to identify and analyse available data pertaining to indigenous participation in post-secondary health education in order to develop appropriate policy directions for workforce development in the various health fields.

Preliminary findings from that project were presented at a CAEPR seminar in late May 1998, and we are grateful for the many useful comments provided by participants in that seminar. In addition, we would like to acknowledge the patient and helpful assistance of Toni Cavallaro and Stuart Varney of the National Centre for Vocational Education Research who facilitated access to the vocational education and training sector data used in this this project. Finally, we wish to thank Linda Roach and Hilary Bek for editorial assistance and Jennifer Braid for her layout and production efforts.

Introduction

While there is evidence in recent years of increasing levels of participation in post-secondary education by indigenous students, until now it has been unclear to what degree that trend has carried over into the health field.[1] This paper undertakes an exploratory study of recent indigenous participation in health sciences education and training in the vocational education and training (VET) sector and is intended to complement an earlier paper detailing indigenous participation in health sciences education and training in the higher education sector (Schwab and Anderson 1998).

The research is significant in that it addresses the critical intersection of two of the core elements of current indigenous affairs policy: education and health. The findings are of particular value in the development of strategies to enhance indigenous participation in health sciences training in general and indigenous workforce strategies in particular, and they articulate with a broad base of policy study, strategy and framework documents relevant to the continuing development of an indigenous health workforce.

The recognition of the need to address the provision of health sciences education and training to indigenous health workers goes back many years, but issues related to workforce development gained national prominence in 1989 with the publication of the *National Aboriginal Health Strategy* (National Aboriginal Health Strategy Working Party 1989). Additional relevant policy discussion has continued to appear in a wide variety of contexts such as: the Australian Health Ministers' Advisory Council's (1994) *A National Framework for Education and Training Arrangements for Rural Health Services*; the Commonwealth Department of Human Services and Health's *Public Health Workforce Education and Training Study* (Rotem 1995); and the National Health and Medical Research Council's (1997) *A National Training and Employment Strategy for Aboriginal and Torres Strait Islander Health Workers and Professionals Working in Aboriginal and Torres Strait Islander Health*.

Prominent among the themes to emerge from these varied documents are: the promotion of appropriate and accessible education and training programs; an emphasis on holistic approaches; the encouragement of models of community control; and advocacy of a public health orientation with an emphasis on primary health care. In particular, increasing attention has focused on the development of educational strategies for Aboriginal health workers, whose unique role as primary health care and community development workers has been integral to the development of Aboriginal primary health care over the last 30 years. Over this time the role of Aboriginal health workers has also diversified to encompass specialised domains of practice such as mental health, health promotion and maternal and child health. This paper, documenting indigenous participation in health sciences education and training in the VET sector during the period 1994–97, is intended to provide a baseline snapshot and contribute to the development of policies for increasing, targeting and monitoring indigenous health education in the future.

The nature and limitations of the data

Post-secondary education in the field of health is available primarily through the higher education system and various VET institutions. Descriptive data on indigenous participation in health training is available for both sectors. The higher education system data have been standardised for several years and are comparable across States and over several years. The VET data, on the other hand, are more problematic because of historical variations in reporting among institutions and States. The quality of the VET data is rapidly improving, however, as a result of moves toward standardised reporting by institutions and States and Territories and it is now possible to get a broad picture of indigenous student participation at the national level.

Vocational education and training is provided through five distinct avenues: publicly funded Technical and Further Education (TAFE) institutions; community-based providers; private providers; enterprises; and secondary schools. Funding for VET education is either public (from

Commonwealth or State/Territory funds) or private (where, for example, a company purchases a particular training program for its employees).

VET participation data are collected by the National Centre for Vocational Education Research (NCVER) under contract to the Australian National Training Authority. The data collection is underpinned by the Australian Vocational Education and Training Management Information and Statistical Standard which is intended to facilitate nationally comparable data, but because of changes in reporting over time and variations in data reported between States and Territories, it can be very difficult to compare data from one year or one State to the next. This is particularly true for data before 1994. Fully standardised reporting was in place at the end of 1998. Where data presented in this report have been manipulated in an attempt to make meaningful comparisons of the years 1994–97, they are noted.

VET data are reported by NCVER in various forms. Data are available by course level, according to 'stream of study', but also by module enrolments not associated with a particular course or stream of study. This is relevant for some types of analysis as students (referred to in the NCVER data as clients) can and do enroll in modules which are not part of a particular course of study. In addition, VET students undertake study in either vocational or recreational streams. Vocational streams are those related to employment, while recreational streams are those taken for personal enrichment, leisure or recreation. There has been little detailed data on indigenous participation in the VET sector until the publication of a snapshot paper focused on 1996 (NCVER 1998). For the purposes of this research, only students enrolled for study in the vocational stream are included in the analysis, and within that group, only students undertaking study in the 'health, community services' field of study are considered.[2]

The data and analysis presented in this paper refer only to those individuals who enrolled in courses and identified as being of indigenous descent. Though all students in publicly-funded VET programs are asked to indicate whether or not they are of Aboriginal or Torres Strait Islander descent when they enrol, large numbers of individuals in the VET system do not identify one way or the other. For example, in 1997, 2.6 per cent of VET clients in vocational programs identified as indigenous while 75.4 per cent identified as not indigenous. The remaining 22 per cent did not indicate descent. Given the relatively high numbers of indigenous identifying VET students (the 1996 Census indicates about 2 per cent of the Australian population identifies as indigenous) and the lack of any evidence to indicate any pattern of under-reporting, it seems safe to assume the data are reflective of real average patterns of indigenous participation. It is likely, however, that the reported numbers are slightly low. Some of this can be accounted for as a result of changes in reporting. For example, the inclusion of data from private providers for the first time in 1996 revealed an increase in numbers of all students for that year of about 2.5 per cent over and above the 'natural' growth in enrolments. In summary, while there is probably a slight undercount in the data, it is marginal and is most likely to be evenly distributed across the country, across institutions, and across various fields of study.

Key variables

In this paper, data on indigenous students enrolled in courses of study in the field of health, community services are presented according to six key variables: field of study, State/Territory, qualification level, gender, enrolment type, and provider type.[3]

Field of study

The field of study data for the VET sector are organised hierarchically within 12 broad fields of study. The broad field health, community services includes seven major fields: health, community services – general; dental services; health support activities; health sciences and technologies; medical science, medicine; rehabilitation services; and community, family, personal health care. Each of these major fields contains several minor fields of study.[4]

State and Territory

This paper portrays individual enrolments in the various States and Territories. Unlike Department of Education, Training and Youth Affairs (DETYA) higher education data which provide institutional breakdowns, VET data are released by NCVER only in State/Territory aggregate form. Consequently, it is not currently possible to identify patterns within States or individual institutions.

Qualification level

There were 20 different qualification categories in the VET system in 1997. The high number is a function of the incomplete transition to a qualification model built upon the Australian Qualifications Framework (AQF). By 1999, the Australian VET system will operate under a uniform qualifications framework with six levels. For the purposes of this analysis, and in an attempt to consolidate the various qualifications used during the period 1994–97, six categories are employed here: advanced diploma; diploma; advanced certificate; certificate; other, and not applicable.[5]

Gender and enrolment type

Indigenous health science enrolment data are presented according to student gender and enrolment type (for example, part-time or full-time).

Provider type

Finally, data are provided that show the distribution of indigenous students according to provider type—TAFE and other providers (government-funded community education and private providers). Excluded are all fee-for-service enrolments by private providers.

Findings: VET course enrolments

Growth in the VET sector has been strong in recent years. Increasing numbers of individuals are seeking education and training through the diverse programs offered in the sector. Between 1994 and 1997, all Australian client numbers in the VET sector increased by nearly 10 per cent, from 1,330,000 to 1,440,000. Indigenous participation during this period increased from 23,844 to 38,500, a rise of 62 per cent. Indigenous student numbers in the health, community services field of study between 1994 and 1997 increased from 1,769 to 4,332, a rise of 145 per cent. In comparison, there was a corresponding 122 per cent increase, from 62,923 to 139,467, among all Australian students enrolled in courses in this field of study during this period.

Figure 1 (and Appendix Table A1) show the distribution of indigenous course enrolments among the seven major fields of study for the period 1994–97. In 1994, 69 per cent of all course enrolments were in community, family, personal health but by 1997 an increased diversification in enrolments was evident and only slightly over half the enrolments (56 per cent) were in that field of study. These are courses of study focused on childcare, and social support services associated with families and groups in the community.

Between 1994 and 1997, growth in the fields of dental services, medical science, medicine and rehabilitation services were relatively flat. Enrolments in other areas, however, increased, many markedly. Health support services enrolments more than doubled and health sciences and technologies enrolments increased more than three-fold. Health, community services – general showed the greatest proportional growth, from 38 to 446 enrolments, a ten-fold increase. The dental services field of study had the lowest number of course enrolments with less than 1 per cent (30) of all indigenous health sciences enrolments in 1997 (Table 1).

Figure 1. Indigenous VET course enrolments in health, community services by field of study, 1994–97

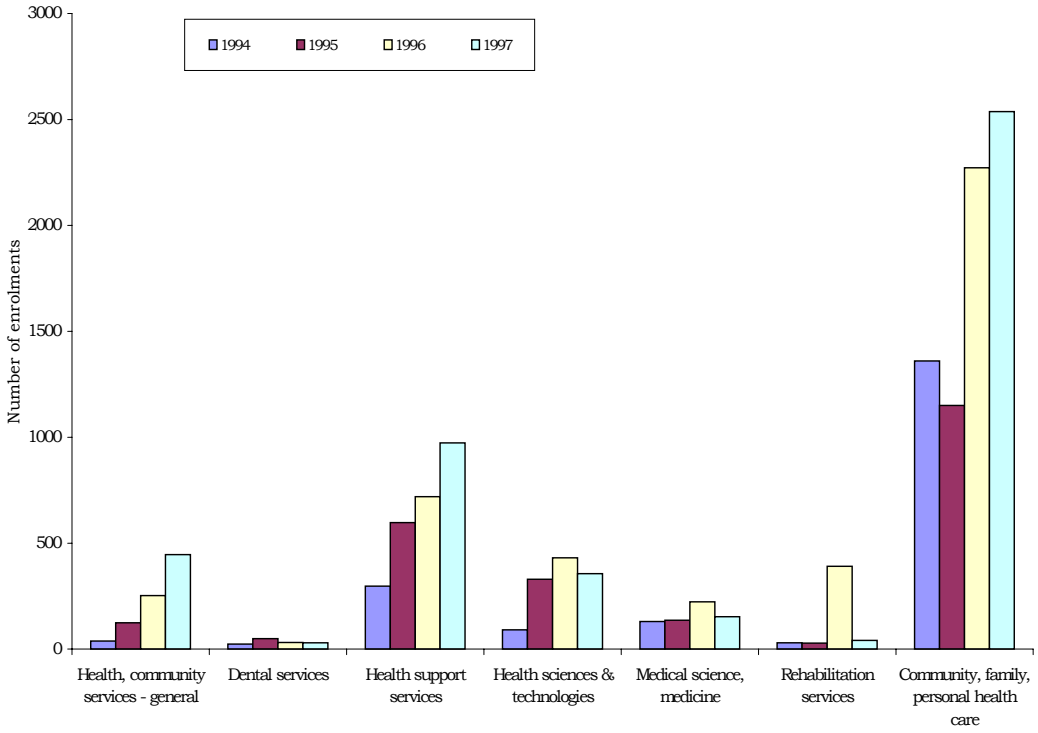

Table 1. Indigenous VET course enrolments in health, community services by field of study, 1994–97

Year	Health, comm. services-general	Dental services	Health support services	Health sciences & technol.	Medical science, medicine	Rehab. services	Comm. family, personal health care	Total
1994	38	24	297	91.5	130.5	30.0	1,360	1,971
1995	124	50	597	330.0	136.5	27.5	1,150	2,415
1996	252	31	720	431.0	223.0	391.0	2,272	4,320
1997	446	30	973	356.0	153.0	41.0	2,537	4,536

Figure 2. Indigenous VET course enrolments in health, community services by State/Territory, 1994–97

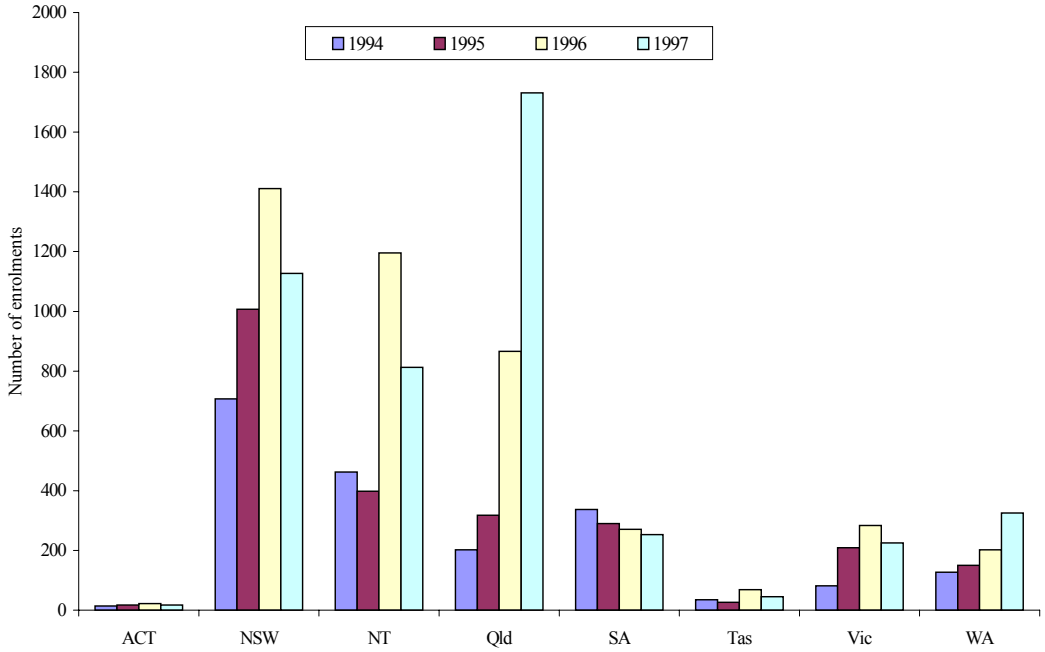

Figure 2 (and Appendix Table A2) show the distribution of indigenous course enrolments across the various States and Territories for the period 1994–97. The steady increase in health, community services enrolments between 1994 and 1997 was not evenly distributed among the States and Territories.

The largest increases between 1994 and 1997 were in Queensland (757 per cent) and Victoria (177 per cent). Additional increases appeared in New South Wales (59 per cent)) and Western Australia (156 per cent). Enrolments remained very low during the period 1994–97 in the Australian Capital Territory and Tasmania with minimal increases of 21 and 29 per cent, respectively. South Australia was the only State to show an overall decline (31 per cent) between 1994 and 1997.

South Australia accounted for only about 6 per cent of all indigenous enrolments in 1997 (down from 17 per cent in 1994). A proportionally large increase was evident in Queensland between 1994 and 1996 (from 10 per cent to 38 per cent of all national indigenous enrolments in health). Where New South Wales had the largest proportion of enrolments in 1994 (36 per cent), that proportion declined to 25 per cent in 1997 (Table 2).

Table 2. Indigenous VET course enrolments in health, community services by State/Territory, 1994–97

Year	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Total
1994	14	707	462	202	337	35	81	127	1,965
1995	17	1,007	398	318	290	26	209	150	2,415
1996	22	1,411	1,196	866	271	69	283	202	4,320
1997	17	1,127	813	1731	253	45	225	325	4,536

Figure 3. Indigenous VET course enrolments in health, community services by qualification level, 1994–97

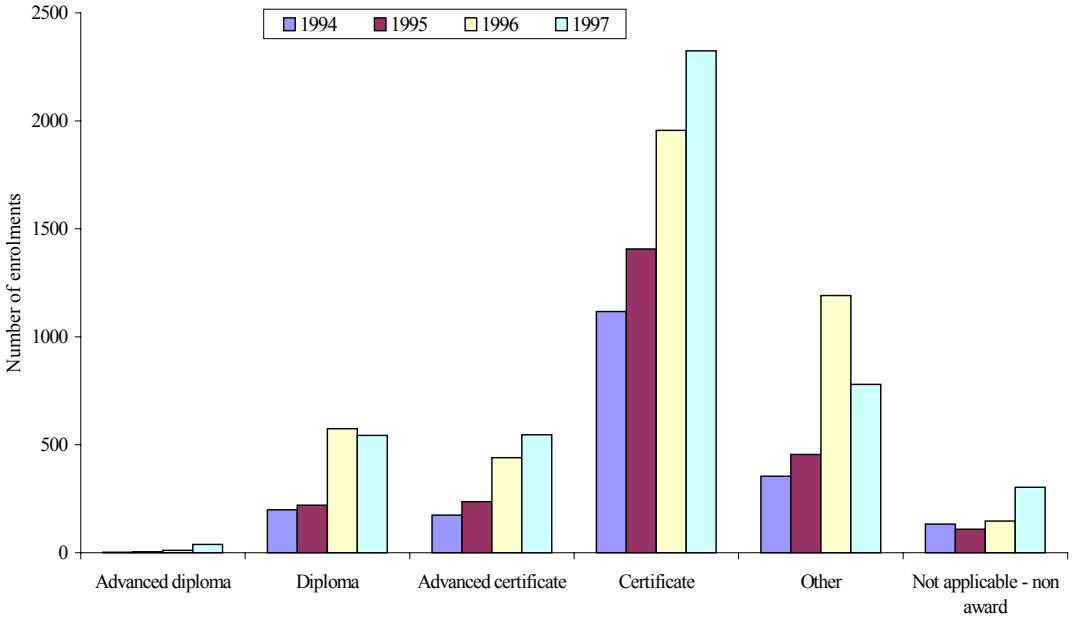

Figure 3 (and Appendix Table A3) shows indigenous VET course enrolments by qualification level for the period 1994–97. In this figure, those levels to the left are higher level qualifications. Overall increases in enrolments between 1994 and 1997 were distributed across all qualification levels.

As in 1994, most (51 per cent) enrolments in 1997 were in courses leading to a certificate level qualification. Advanced diploma enrolments were relatively low in number for all four years, though numbers have doubled (in both 1995 and 1996) and quadrupled (1997) since 1994. Only about 13 per cent of course enrolments in 1997 were at the higher levels (advanced diploma or diploma). This is up slightly from 1994 when about 10 per cent of enrolments were at this level.

Though the numbers were small, during the period 1994–97, the largest proportional increases in enrolments were at the diploma (174 per cent) and advanced certificate (213 per cent) levels. In general, however, most enrolments in 1997 were for lower level qualifications such as certificates or other (nearly 68 per cent). Overall, the proportion of enrolments at the certificate level have declined from about 57 per cent to 51 per cent between 1994 and 1997. Our interpretation of these patterns is that most indigenous students prepared to study in courses leading to higher qualifications in health sciences are opting to enrol in courses in the higher education sector (Table 3).

Table 3. Indigenous VET course enrolments in health, community services by qualification level, 1994–97

	Advanced diploma	Diploma	Advanced certificate	Certificate	Other	Not applicable—non award	Total
1994	2.5	198.5	174.5	1,117.0	354.5	133	1,971
1995	5.0	220.5	236.5	1,406.5	455.5	109	2,415
1996	11.0	575.0	440.0	1,956.0	1,191.0	147	4,320
1997	39.0	543.0	546.0	2,324.0	780.0	304	4,536

Figure 4. Indigenous VET course enrolments in health, community services by gender and enrolment type, 1994–97

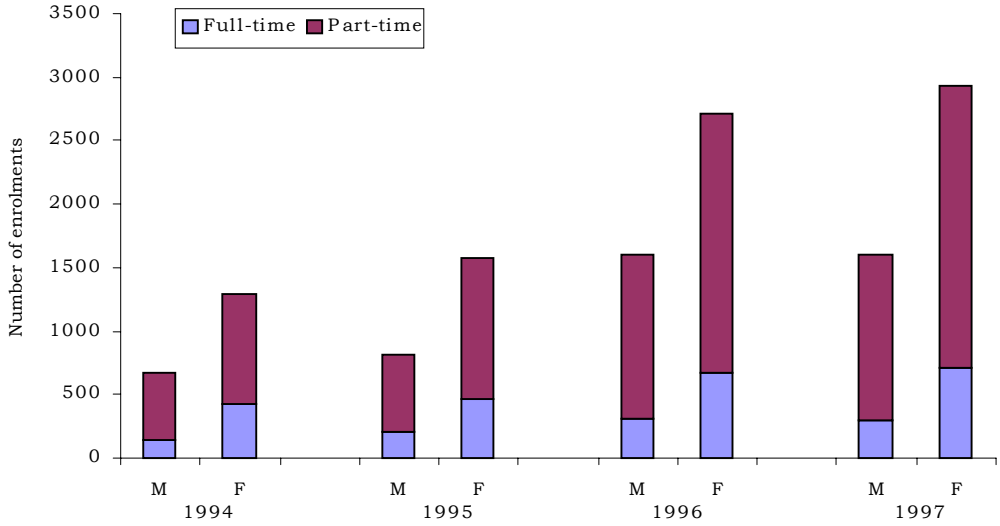

Figure 4 (and Appendix Table A4) portrays indigenous VET enrolments by gender and enrolment type for the period 1994–97. Clearly, health as a field of study in the VET sector attracts more indigenous female than male students. The predominance of female students continued over the period 1994–97. In 1997, 35 per cent of indigenous enrolments in health, community services were male. In comparison, only 30 per cent of health science enrolments among all Australian students comprised male students in this same year.

Table 4. Indigenous VET course enrolments in health, community services by gender and enrolment type, 1994–97

Year		Full-time	Part-time	Total
1994	Male	139	532	671
	Female	429	864	1,293
1995	Male	202	615	817
	Female	459	1,115	1,574
1996	Male	305	1,298	1,603
	Female	668	2,049	2,717
1997	Male	291	1,309	1,600
	Female	708	2,225	2,933

The primary mode of enrolment in health is part-time study with about four out of five indigenous students enrolled for part-time study. Part-time enrolments are becoming more pronounced over time; between 1994 and 1997 the proportion of part-time enrolments increased from 71 per cent to 78 per cent. This suggests movement toward alignment with patterns of all Australian student enrolments, where, in 1997, 87 per cent of all Australian student health enrolments were part-time. The reduction in full-time enrolment is most pronounced for females among whom full-time enrolments dropped from 33 per cent to 24 per cent between 1994 and 1997 (Table 4).

Figure 5 (and Appendix Table A5) compares indigenous and all Australian enrolments by type of provider. As presented here, 'other providers' includes both community education providers and private providers in receipt of government funding. Indigenous enrolment data on provider type has only been available since 1995.

While health, community services enrolments in TAFE courses for all Australians have remained relatively stable between 1995 and 1997 at about 77 per cent, indigenous enrolments fell from 95 per cent in 1995 to 77 per cent in 1996 then climbed to 86 per cent in 1997. Indigenous enrolments in courses provided by other providers rose between 1995 and 1996 from 5 per cent to 23 per cent, but then dropped to 14 per cent in 1997; comparable data for all Australian enrolments show 23 per cent of such enrolments were by other providers in 1996 and 1997. What these perturbations might mean is unclear, but it does seem that by comparison, indigenous students in health, community services courses in the VET sector, are more likely than other Australians to enrol at TAFE institutions (Table 5).

Figure 5. Indigenous VET course enrolments in health, community services by provider type, 1995–97

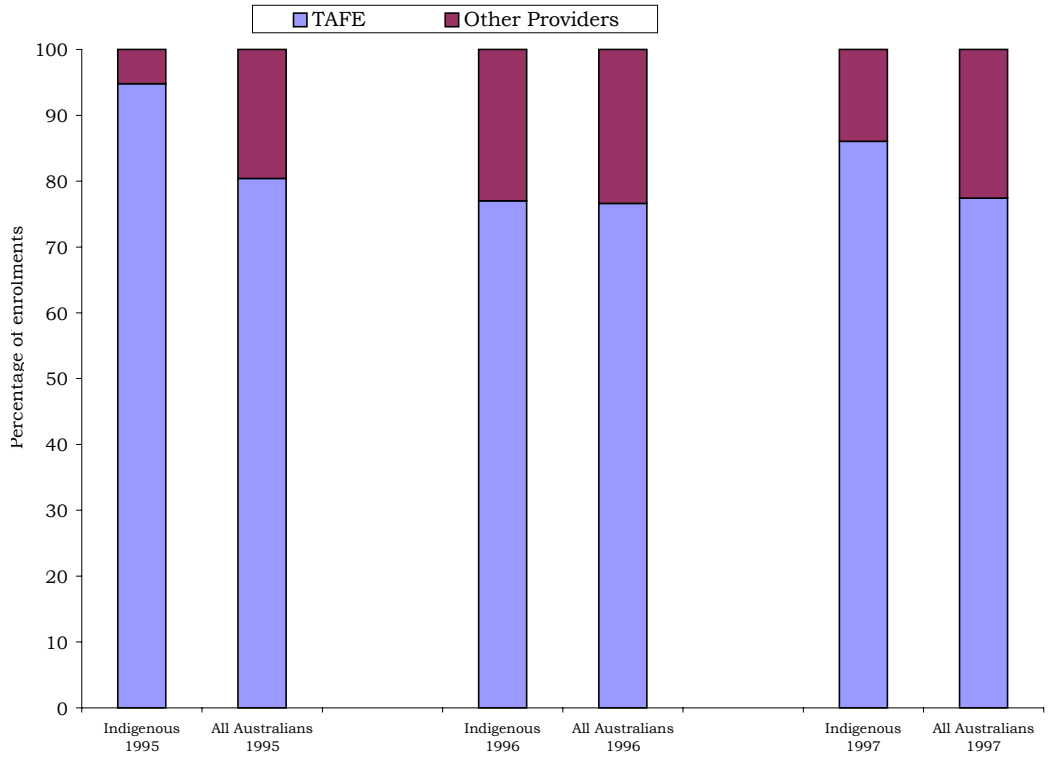

Table 5. Indigenous VET course enrolments in health, community services by provider type, 1995–97

Year		TAFE	Other Providers	Total
1995	Indigenous	2,289	126	2,415
	All Australians	81,087	19,777	100,864
1996	Indigenous	3,326	994	4,320
	All Australians	103,197	31,492	134,689
1997	Indigenous	3,903	633	4,536
	All Australians	119,730	34,944	154,674

Implications for policy

As we argued in the context of our previous analysis of higher education sector data, we believe it is possible to sustain an argument, in terms of Aboriginal and Torres Strait Islander education policy, for a focus on outcomes in health sciences (Schwab and Anderson 1998). For instance, in the context of human capital theory, it has been argued that the social returns on investment in post-secondary education are relatively higher for indigenous than for non-indigenous Australians (Daly and Liu 1995). Presumably, this would also be the case for specific domains of higher educational achievement, such as the health sciences where indigenous students who choose to study do so to accrue 'cultural capital' (Schwab 1996). The significance of this, in this context, is not so much that cultural capital may be converted to cash in the dominant economy, but rather, that it provides the cultural competencies necessary for indigenous people to engage with systems of health care delivery and to move with comfort and confidence in such systems. Such competencies are also significant in that they strengthen the development of skilled indigenous leadership on health related issues in Aboriginal and Torres Strait Islander communities (Anderson 1994).

Current national approaches to indigenous health are focused on building more effective systems of health care delivery to indigenous Australians. This involves a particular focus on bolstering primary health care delivery capacity, especially indigenous-specific primary health care services such as Aboriginal community controlled health services. Aboriginal health workers play a pivotal role in such delivery structures. The importance of this occupational group to indigenous health is underscored by the emphasis given them in the development of the indigenous health workforce strategy (Department of Health and Family Services (DHFS) 1997).

National health care approaches also extend more generally to strategies to build cultural and indigenous health competencies with mainstream health care structures. Increasingly, this approach is also being taken up in non-indigenous-specific health workforce policy and strategy (General Practice Strategy Review Group 1998; Ministerial Review of General Practice Training 1998). Further, indigenous initiatives, such as the creation of the Council for Aboriginal and Torres Strait Islander Nurses and the Australian Indigenous Doctors Associations, point to a growing organisation of Aboriginal and Torres Strait Islander graduates within these professional structures.

Mapping the category 'health worker'

Aboriginal health workers have a range of educational experiences in health care, from informal on-the-job training to higher education bachelor and diploma level courses. As we have shown above, significant numbers receive training in the VET sector. Given the diversity of training, we believe there could be significant value in mapping the occupational category 'health worker' in the indigenous context as a mechanism to identify gaps in education and training. At the moment there is no uniform system of training, and although national competency standards have been developed, they have not been implemented. In part this reflects the diverse needs and approaches taken to the development of educational systems for Aboriginal health workers, but it is also a politically sensitive issue since some in the field perceive the national competency standards as a bureaucratic imposition. For these reasons, the Commonwealth is currently negotiating a customisation of the national competency standards with key stakeholders in each jurisdiction. A mapping exercise could also contribute a great deal to the resolution of this issue.

Higher education and VET linkages and pathways

Strategically it is important to build linkages and pathways between VET and higher education health sciences training structures for indigenous people. As we have shown elsewhere, there is a declining participation of Aboriginal and Torres Strait Islander students in health sciences education in the higher education sector and those who are completing courses have lower level qualifications than do other Australians studying in health-related fields (Schwab and

Anderson 1998). We believe these patterns are related to the low retention rates in higher secondary education. At the same time, as we have shown above, indigenous health science enrolments in the VET sector are outstripping those of other Australians. We suggest that education and health policy makers should explore the development of alternative pathways to higher education health education and training by way of the VET sector.

Developing indigenous health leaders

Within a community development framework, achieving sustained growth in indigenous participation in health sciences is essential to the production of an effective health workforce capable of meeting the health needs of Australia's indigenous communities.[6] This is particularly true at the 'grassroots' levels of community TAFE and other community-based and community-controlled VET courses, an argument that has been made more generally in other contexts (Schwab 1996; Schwab 1998; Teasdale and Teasdale 1996; Boughton 1998). Yet, we would also argue that focusing too intently on indigenous health training as an avenue purely for the development of an indigenous community health workforce is too narrow. Whether indigenous health sciences graduates return to work in indigenous health, or choose to work elsewhere, is a less important issue than are the development of competence and facility with the health care system and the provision of opportunities to develop indigenous health policy leaders. Indeed there is some evidence from overseas to suggest that a significant proportion of indigenous graduates will work in non-indigenous specific contexts (Taylor 1989).

This study found that most of the enrolments of indigenous students in the health, community services field of study were in courses leading to lower levels of qualification than were non-indigenous students. This pattern parallels that of the higher education sector and raises some important questions about the goals of indigenous education in this field and the adequacy of outcomes. While indigenous health workers with low levels of qualification certainly have a place in effective, high quality health provision, the continuing low numbers of enrolments aimed at higher qualifications suggests a vacuum and skill deficit may exist and may be perpetuated if qualified managers and policy makers are not produced by the post-secondary system. It is clearly the case that a system providing indigenous health care where the highest qualifications are held by non-indigenous people is highly problematic. As in the higher education sector, the lack of depth in the current profile raises significant questions about existing capacity to develop and sustain a cadre of indigenous public health and health sciences leaders and policy makers.[7]

Supply patterns and performance monitoring

Higher education sector data show that there are now proportionally fewer indigenous people commencing health study than other Australians (Schwab and Anderson 1998). VET data, however, indicate the opposite: a relatively greater proportion of indigenous VET students enrol in health sciences courses than do other Australian students. Indeed, the data suggest that Indigenous participation in health sciences training in the VET sector will continue to grow at a rate that exceeds the growth in participation of non-indigenous students.

Traditionally, indigenous health study in the VET sector has focused on courses related to child care, community services, social work and the like. Yet, as numbers of indigenous enrolments have increased, there has been a diversification of enrolment among the various fields of study. Increasing numbers are now enrolling to study in courses in other fields of study. For example, health community services enrolments have increased five-fold in four years. It seems reasonable to wonder, however, if in time indigenous students in the VET sector, like their counterparts in higher education, will exhibit what appears to be a broadening of interests in courses of study resulting in a corresponding redistribution of students out of health and across the other various fields of study. We believe there is a need to implement a system for routine performance monitoring of indigenous student participation in health sciences education and training in the VET sector.

Targeting enrolments in specific fields

Participation in this sector is qualitatively different in many ways from participation in the higher education sector. Access is often easier, employer support is common, and enrolment and study more flexible. It appears that there are now significant opportunities, as evident in the growing numbers of indigenous health enrolments, to attempt to steer students toward health fields where there is a particular need for indigenous health care workers. For example, one such field where there is a need for indigenous health care workers is dentistry, but dental services enrolments remain surprisingly low.

Culture and gender issues

The proportion of male students to female students in health studies has been relatively stable over time, but the significant gender imbalance remains of concern. Indigenous health sciences students in the VET sector are predominantly female; accounting for 65 per cent of enrolments in 1997. In comparison, 70 per cent of all Australian enrolments in health were by females. These patterns mirror an existing gender bias in the public health field in Australia, but have significance for indigenous health care provision where cultural constraints surrounding interaction between the sexes may affect the willingness of indigenous men to seek out health care. Attention to this issue is critical for particular aspects of current national strategy such as indigenous sexual health (Australian National Council on AIDS and Related Diseases. Working Party on Indigenous Australians Sexual Health 1997; DHFS 1997).

Implications of part-time study

A high proportion (78 per cent) of indigenous enrolments in health, community services programs are part-time students, a pattern that is becoming more pronounced over time. This trend, however, is one of a movement toward alignment with all Australian enrolments in the health, community services field of study where 87 per cent of enrolments were by part-time students. While it is difficult to interpret this pattern, it may be that indigenous students are increasingly enrolled for study while employed. If this is true, the relationship between levels of support for part-time students and outcomes such as qualification level should be carefully examined.

Variations between States and Territories

Analysis of the data reveal some important differences between the individual States and Territories. While Queensland enrolments rose sharply during the 1994–97 period, South Australian enrolments dropped at a puzzling rate. The reasons for these changes are not interpretable from the data we have at hand but we suggest there would be value in a closer examination of these patterns. A policy to support regional or State/Territory development of indigenous health workers should have as a foundation a clear understanding of policies and programs at those levels.

Conclusion

Workforce planning for the provision of indigenous health services is both a strategic and an equity issue, and reaching an effective and appropriate level of indigenous participation in that provision continues to be a major challenge for policy planners. The aim of this research has been to provide a snapshot of recent patterns of indigenous participation in health training in the VET sector and to begin to identify some policy issues for consideration. Policy decisions made in relation to these issues will shape not only workforce composition but also health provisions for indigenous people throughout the country.

Notes

1. Some of the issues related to barriers in indigenous access to post-secondary education in general are discussed in Schwab (1996, 1998) and Schwab and Campbell (1997).

2. Most of the VET data collected by NCVER and presented here detail enrolments, not individual students. This is a feature of NCVER data related to the fact that VET students sometimes enrol in more than one course. It is possible, however, to estimate actual student numbers in health sciences programs based on ratios of students to enrolments. In 1994 the ratio for indigenous students was 0.90, in 1995 it was 0.92, in 1996 it was 0.84 and in 1997 it was 0.96.

3. Some of the enrolment figures presented according to field of study appear as fractional numbers. For example, this analysis shows 130.5 course enrolments in the medical science, medicine field of study in 1994. These fractional counts are an artefact of the way some data for 1994 and 1995 are reported by NCVER. Rather than actual numbers, NCVER inserted a symbol in their data tables to represent 'figures less than five'. For the purposes of this analysis, these cells were converted to an average of 2.5 persons.

4. The enrolment data are clustered within the seven major fields as follows:

   - Health, community services—general
     - Health, community services—general
   - Dental services
     - Dental services—general
     - Dentistry and dentist support
     - Dental therapy
     - Dental technology
     - Dental services—other
   - Health support activities
     - Health support activities—general
     - Health and health care administration
     - Health counselling
     - Health surveying/inspection, environmental health
     - Occupational health and safety
     - Health support activities—other
   - Health sciences and technologies
     - Health sciences and technologies—general
     - Nursing and nursing support—basic
     - Nursing and nursing support—post-basic
     - Medical imaging
     - Medical technology
     - Nutrition and dietetics
     - Optometry, optical technology
     - Pharmacy
     - Podiatry
     - Health sciences and technologies—other
   - Medical science, medicine
     - Medical science, medicine—general
     - Medical science
     - Medicine, medical aid
     - Medical science, medicine—other
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     - Rehabilitation services—general
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     - Physiotherapy
     - Speech pathology, audiology
     - Rehabilitation services—other
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     - Child care, residential client care, care for disabled
     - Family care, community services
     - Personal health/social/recreational education
     - Community, family, personal health care—other

The numbers of enrolments in several of the minor fields of study is low. Consequently, for the purposes of this analysis, data are presented by major fields with specific examples provided from minor fields of particular interest. This reduces the fields from 37 to seven.

5. Comparisons between different States and Territories and between different years require some careful clustering of variously titled qualification levels. For the purposes of this analysis, we have merged pre-AQF and AQF levels under the following model:

Qualifications used in this report:	Equivalent pre-AQF qualification:	Equivalent AQF qualification:
Advanced diploma	Diploma	Advanced diploma
Diploma	Associate diploma	Diploma
Advanced certificate	Advanced certificate—post trade Advanced certificate—other	Certificate IV
Certificate	Certificate—trade Certificate—not elsewhere classified	Certificate III Certificate II
Other	Endorsements to certificates Statement of attainment Certificate of competency Certificate of proficiency	Senior secondary Certificate I Other
Not applicable (not an award course)	Not applicable (not an award course)	Not applicable (not an award course)

6. There is not space here to address the issue of achievable outcomes in this context, though we acknowledge this is an important issue.

7. Sibthorpe, Baas Becking and Humes (1998) show in their 1995 survey of community controlled and State health services that of 792 indigenous people in health related occupations, 49 per cent had diplomas or certificates but only 3 per cent had bachelor's degrees.

Appendix

Table A1. Indigenous VET course enrolments in health, community services by field of study, 1994–97 (percentage)

Year	Health, commun. services – general	Dental services	Health support services	Health sciences & technolog.	Medical science, medicine	Rehab. services	Commun. family, personal health care	Total
1994	1.93	1.22	15.07	4.64	6.62	1.52	69.00	100.00
1995	5.13	2.07	24.72	13.66	5.65	1.14	47.62	100.00
1996	5.83	0.72	16.67	9.98	5.16	9.05	52.59	100.00
1997	9.83	0.66	21.45	7.85	3.37	0.90	55.93	100.00

Table A2. Indigenous VET course enrolments in health, community services by State/Territory, 1994–97 (percentage)

Year	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	Total
1994	0.71	35.98	23.51	10.28	17.15	1.78	4.12	6.46	100.00
1995	0.70	41.70	16.48	13.17	12.01	1.08	8.65	6.21	100.00
1996	0.51	32.66	27.69	20.05	6.27	1.60	6.55	4.68	100.00
1997	0.37	24.85	17.92	38.16	5.58	0.99	4.96	7.16	100.00

Table A3. Indigenous VET course enrolments in health, community services by qualification level, 1994–97 (percentage)

Year	Advanced diploma	Diploma	Advanced certificate	Certificate	Other	Not applicable —non award	Total
1994	0.13	10.07	8.85	56.67	17.99	6.75	100.00
1995	0.21	9.13	9.79	58.24	18.86	4.51	100.00
1996	0.25	13.31	10.19	45.28	27.57	3.40	100.00
1997	0.86	11.97	12.04	51.23	17.20	6.70	100.00

Table A4. Indigenous VET course enrolments in health, community services by gender and enrolment type, 1994–97 (percentage)

Year		Full-time	Part-time
1994	Male	20.72	79.28
	Female	33.18	66.82
1995	Male	24.72	75.28
	Female	29.16	70.84
1996	Male	19.03	80.97
	Female	24.59	75.41
1997	Male	18.19	81.81
	Female	24.14	75.86

Table A5. Indigenous VET course enrolments in health, community services by provider type, 1995–97 (percentage)

Year		TAFE	Other providers
1995	Indigenous	94.78	5.22
	All Australians	80.39	19.61
1996	Indigenous	76.99	23.01
	All Australians	76.62	23.38
1997	Indigenous	86.04	13.96
	All Australians	77.41	22.59

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- Health sciences and technologies
  - Health sciences and technologies—general
  - Nursing and nursing support—basic
  - Nursing and nursing support—post-basic
  - Medical imaging
  - Medical technology

Nutrition and dietetics
Optometry, optical technology
Pharmacy
Podiatry
Health sciences and technologies—other

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