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Guidelines for contributors

Articles which could be published in `Brief communications', `Selected reviews' or `Book reviews' are most welcome. Those suitable for `Brief communications' or `Book reviews' should not exceed 1,500 words.

The Editors would be grateful for any assistance in the compilation of the Bulletin, particularly with regard to `Current topics', `Recently published research', and `Recent reports, publications and theses'.

Authors are urged to write in plain English so that their works can be easily understood. They should follow the style used in the most recent issue of the Bulletin. In other cases the recommendations of the AGPS *Style Manual* should be followed. The Harvard system of referencing should be used.

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Brief communications

Editorial

The specific ethical aspects of research in Aboriginal health have been the subject of increasing attention over recent years, particularly since the 1986 Alice Springs conference on 'Research priorities in Aboriginal health'.

From the early 1980s, a number of Aboriginal organisations, most notably the Central Australian Aboriginal Congress, had been demanding observation of special ethical guidelines, but there was a need for such guidelines to be adopted and observed more generally. The Alice Springs conference—organised by the National Health and Medical Research Council (NHMRC)—provided stimulus to develop guidelines for the conduct of Aboriginal health research.

The NHMRC has kindly allowed the reproduction of guidelines in this Bulletin; these guidelines have been circulated subject to the endorsement of the Aboriginal and Torres Strait Islander Commission (ATSIC). They were developed by NHMRC along the lines set by Aboriginal people at a national workshop held in 1987, so are being increasingly followed by institutional ethics committees (including that of the Australian Institute of Health and Welfare). Hopefully, they should be endorsed shortly (or modified as required) by ATSIC and the Council for Aboriginal Health.

Another matter that has attracted attention recently, particularly through the Royal Commission into Aboriginal Deaths in Custody, is the need for special cultural awareness training for non-Aboriginal health professionals. In this Bulletin, Coralie Mathews and colleagues report on a workshop on Aboriginal culture and health for non-Aboriginal health staff working in remote communities in the Top End of the Northern Territory. Programs such as this, supported by the Commonwealth's Rural Health Support Education and Training Scheme (RHSET), provide a useful model for other parts of the country.

In response to requests from readers, we describe in this issue of the Bulletin the role of the Institute in the development of Aboriginal health statistics.

This issue marks the end of my time as editor of the Bulletin. My departure from the Institute to take up a position with the Health Department of Western Australia is an opportune time to seek new ideas and directions for the editorship of the Bulletin. I take this opportunity to thank the many people who have supported the Bulletin during these years—without your active assistance and encouragement its continued production would not have been possible. I wish the new editor every success in the years ahead.

Neil Thomson

The continued publication of the Bulletin over the past ten years owes much to the personal commitment of Neil Thomson. Neil has left the Australian Institute of Health and Welfare to return to his home State of Western Australia.

Bruce English

Recently published research

Adelson PL, Frommer MS, Pym MA, Rubin GL
Teenage pregnancy and fertility in New South Wales: an examination of fertility trends, abortion and birth outcomes.
Australian Journal of Public Health 1992; 16(3):238–44

This study reviews available data on teenage fertility rates and pregnancy outcomes in New South Wales. For the 15–19 year age group, the fertility rate for Aborigines was found to be 83 per 1,000 females compared with 20 per 1,000 for non-Aboriginal females. Twenty per cent of Aboriginal teenage confinements were for females aged 16 years or younger; for non-Aboriginal females the rate was around 12 per cent. Unfortunately, the only measure of pregnancy outcome reported for Aborigines is perinatal mortality: for teenage pregnancies the Aboriginal rate is 30.3 perinatal deaths per 1,000 total births, around two-and-a-half times the non-Aboriginal rate of 11.9.

Barker AP, Ahmed S
Renal abscess in childhood.
Australian and New Zealand Journal of Surgery 1991; 61(3):217–21

This summary of eight patients with renal abscess seen over a fifteen-year period includes five Aborigines, all of whom were female. Only one of the eight patients was male. The authors concluded that the diagnosis of renal abscess should be considered in patients with a febrile septicaemic illness, particularly Aboriginal females. Ultrasonography was recommended as the investigation of choice, which can also be used to facilitate percutaneous drainage and thus avoid open surgery; intensive antibiotic therapy must be commenced as early as possible.

Bijlmer HA
World-wide epidemiology of *Haemophilus influenzae* meningitis: industrialized versus non-industrialized countries.
Vaccine 1991; 9 supplement: S5–S9

This review notes the much higher incidence of *Haemophilus influenzae* meningitis among Australian Aborigines, some indigenous groups in North America (Alaskan Eskimos, Navajo and White Mountain Indians) and some African populations (Gambians and Senegalese) than among non-indigenous American and some European populations. The author concludes that case fatality rates are more dependent on access to health care facilities than on the state of industrialisation, and differences between industrialised and non-industrialised areas in the epidemiology of *Haemophilus influenzae* type b (Hib) disease are sufficiently different to justify thorough testing of conjugated Hib vaccine before it is released in non-industrialised communities.

Boivin MJ
The effect of culture on a visual–spatial memory task.
Journal of General Psychology 1991; 118(4):327–34

In discussing the methods used by psychologists to evaluate cognitive distinctions between different racial groups, Kearins (1976) suggested that such measures should be guided by a consideration of the environments in which the different racial groups developed. Thus Kearins developed visual–spatial memory, visual perception and identification tasks to evaluate the cognitive skills of Australian Aboriginal children. This paper investigates the visual–spatial memory ability of 25 children from Zaire compared with that of 23 children from Scotland using a variation of Kearins' object placement task and drawing on results of a study of Aboriginal children by Drinkwater undertaken in 1976. The author found that although the Australian Aboriginal children's performance on the visual–spatial task was superior to that of the non-Aboriginal children of European descent, the Zairian children's performance was not superior to that of the Scottish children. Thus Boivin posits that environment may have forced Aboriginal children to develop an aptitude for direction-finding that Zairians (whose ecological situation more closely resembles that of Europeans) have not.

Brady M
Petrol sniffing among Aborigines: differing social meanings.
International Journal on Drug Policy 1991; 2(4):28–31

This article looks at the use of volatile substances by young Aboriginals from a social anthropological viewpoint. The impact and perceptions of cultural awareness as a method of addressing the problem are also discussed.

Brady M
Psychoactive substance use among young Aboriginal Australians.
Contemporary Drug Problems Summer 1991; special reprint. Federal Legal Publications Inc.

This publication is a revised report prepared as part of a series of ethnographic studies on psychoactive substance use and abuse by young people, commissioned by the World Health Organization. The author looks at historical and contemporary issues regarding psychoactive substance use and abuse by young Aboriginals. Individual chapters cover matters such as 'traditional' substance use and the demographic profile of Aboriginal youth before moving onto the question of substance use and abuse by young Aboriginals.

Chen LZ, Easteal S, Board PG, Kirk RL
Genetic affinities of Oceanic populations based on RFLP and haplotype analysis of genetic loci of three chromosomes.
Human Biology 1992; 64(1):1–15

Restriction length polymorphism at the renin and factor XIIIB loci located at chromosome 1q32–1q42 were studied in fourteen ethnic groups from the west Pacific region. The allele frequencies were combined with previously described ß-globin and albumin-vitamin D binding protein haplotype frequencies, and used to assess genetic affinities among eight major ethnic–geographic groups in the region. The population groups were divided into two cluster groups with Australian Aborigines, island Melanesians, and highland Melanesians forming one cluster. The other cluster comprised east Asians, southeast Asians, Micronesians and Polynesians. The authors found that the Micronesians and Polynesians are derived from populations in southeast Asia and may have originated independently of the Melanesian populations.

Christiansen FT, Zhang WJ, Griffiths M, Mallal SA, Dawkins RL
Major histocompatibility complex (MHC) complement deficiency, ancestral haplotypes and systemic lupus erythematosus (SLE): C4 deficiency explains some but not all of the influence of the MHC.
Journal of Rheumatology 1991; 18(9):1350–58

In an earlier paper the authors reported an increased frequency of C4A null amongst Caucasians with systemic lupus erythematosus (SLE). Since then the authors have shown that many supratypes identify unique segments of DNA conserved from a common but remote ancestor. Many of the ancestral haplotypes (AH) carry disease genes and some bear C4 null alleles. The authors therefore set out to test whether in SLE C4 null alleles are directly involved. HLA and complement allotyping was performed on 62 Caucasians and 9 Australian Aborigines with SLE and on the 10 out of 133 healthy individuals with 7 or more international units of ANA. The data confirmed an association of SLE with C4A null in Australian Caucasians and an increased frequency of C4B null in Australian Aborigines.

Clarke M
Hearing loss in Aboriginal children.
Aboriginal Child at School 1992; 20(1):38–50

Aboriginal children are more prone to ear infections which often lead to chronic conditions causing deafness. The author considers the educational and social implications of children suffering hearing deficiencies.

Cooke CT, Nolan JR, Kilburn CJ
Sudden death associated with a cardiac diverticulum.
American Journal of Forensic Medicine and Pathology 1991; 12(4):340–43

The authors report a case history involving a twenty-year-old Aboriginal man who dies one day after admission to hospital with chest pains. Necropsy revealed an extensive anterior myocardial infarction in the left ventricle. An isolated diverticulum arising from the subaortic valve region of the left ventricle had compressed the left main coronary artery.

Danenberg PJ, Hirsch RS, Clarke NG, Leppard PI, Richards LC
Continuous tooth eruption in Australian Aboriginal skulls.
American Journal of Physical Anthropology 1991; 85(3):305–12

Anthropologists, epidemiologists and clinical studies utilise the increase in the distance from the cemento-enamel junction to the alveolar crest (CEJ-AC) as reference points when measuring periodontal attachment loss (periodontitis). This study investigates the relationship between CEJ-AC distance, tooth wear, gender, site of CEJ-AC measurements, and age in 161 pre-European-contact Australian Aboriginal skulls. The study concludes that continuous tooth eruption occurred without the concomitant coronal movement of alveolar bone.

Delamothe T
Aboriginal skeletons in the closet [editorial].
British Medical Journal 1991; 303(6817):1564

The editorial considers colonial history and the collection of human skeletal remains, especially Australian Aboriginal remains. Most of the remains have either been returned or are in the process of being returned to the descendants. The question of scientific ethics is raised and considered.

Dowd T, Eckerman AK
Cultural danger or cultural safety: remote area health services.
Australian Nurses' Journal 1992; 21(6):11–12

The authors consider the delivery of health services, especially to Aborigines in remote localities. Different concepts of health are briefly explained in illustrating the requirement for health practitioners to be sensitive to the cultural needs of others. The authors point out that cultural sensitivity is not synonymous with 'Aboriginalisation' and argue that health services need to be fully integrated into the culture to a point where the health care services fit the people; not the people being required to fit the service.

Gao X, Serjeantson SW
Diversity in HLA-DR4-related DR,DQ haplotypes in Australia, Oceania, and China.
Human Immunology 1991; 32(4):269–76

The relative distribution of 12 HLA-DR4-related DRB1 alleles in indigenous populations of Australia, Melanesia, Micronesia, Polynesia and northern and southern China have been determined by analysis of oligonucleotide hybridisation patterns of 406 examples of HLA-DR4. The study based on SSO hybridisation of HLA class II PCR products revealed considerable heterogeneity in DR4-related alleles and haplotypes in Australia, Oceania and China. Although SSOs give only a partial view of nucleotide sequences, the advantages of the PCR-based HLA-typing protocol are said to be evident.

Gao X, Serjeantson SW
Heterogeneity in HLA-DR2-related DR,DQ haplotypes in eight populations in Asia–Oceania.
Immunogenetics 1991; 34(6):401–8

The relative distributions of 480 DR2-related DR,DQ haplotypes have been determined in Australian Aborigines, Papua New Guinea Highlanders, coastal Melanesians, Micronesians, Polynesians, Javanese, and southern and northern

Chinese. The results suggest that the type of study undertaken has important implications for molecular HLA-typing protocols that assume particular DRB1, DRB5 or DR,DQ linkage relationships.

Gao X, Veale A, Serjeantson S
AB1: a novel HLA-DPB1 allele found in one-third of an Australian population.
Immunogenetics 1992; 36(1):64–6

The distribution of HLA-DP antigens and HLA-DPB1 alleles in Australian Aboriginal populations are unknown. The results of the study revealed a novel allele present within the pool of 172 Aboriginal donors.

Gilbert GL
Epidemiology of *Haemophilus influenzae* type b disease in Australia and New Zealand.
Vaccine 1991; 9 Supplement:S10–3

The epidemiology of infection due to *Haemophilus influenzae* type b (Hib) varies in different groups of Australian and New Zealand children. One of the factors highlighted by the author is the striking difference experienced by Aboriginal children in the Northern Territory, where the annual case attack rate is approximately 450 per 100,000 children under 5 years of age. This rate compares with 88 per 100,000 for non-Aboriginal children. The author states that while there is geographical difference within Australia, the difference between Maori and Caucasian children in New Zealand is not as pronounced. The study suggests that different immunisation strategies may be required between different populations within Australia and New Zealand.

Goedde HW, Agarwal DP, Fritze G, Meier-Tackmann D, Singh S, Beckmann G, Bhatia K, Chen LZ, Fang B, Lisker R, Paik R, Rothhammer F, Saha N, Segal B, Srivastava LM, Czeizel A
Distribution of ADH_2 and $ALDH_2$ genotypes in different populations.
Human Genetics 1992; 88(3):344–6

The distribution of the human liver alcohol dehydrogenase (ADH_2) and aldehyde dehydrogenase ($ALDH_2$) genotypes in 21 different populations comprising Mongoloids, Caucasoids and Negroids was determined by hybridisation of the amplified genomic DNA with allele-specific oligonucleotide probes. The atypical ($ALDH_2$) allele $ALDH_2^2$ was found to be extremely rare in Caucasoids, Negroids, Papua New Guineans, Australian Aborigines and Aurocanians (south Chile). In contrast this mutant gene was found to be widely prevalent among the Mongoloids. Individuals possessing the abnormal $ALDH_2$ gene show alcohol-related sensitivity responses, have a tendency not to be habitual drinkers, and apparently suffer less from alcoholism and alcohol-related liver disease.

Goldblatt J, Minutillo C, Pemberton PJ, Hurst J
Ellis-van Creveld syndrome in a Western Australian Aboriginal community.
Medical Journal of Australia 1992; 157(4):271–2

This study looks at the relatively high frequency of the Ellis-van Creveld syndrome (which is rare outside the Amish community of Pennsylvania, United States) and the occurrence of isolated postaxial polydactyly in a Western Australian Aboriginal community. The study suggests that these may be due to a heterozygous manifestation of the Ellis-van Creveld gene possibly introduced into the Western Australian Aboriginal community from an Amish following the wreck of the Dutch vessel Zuytdorp in 1712. (Records indicate that Dutch survivors of the shipwreck interacted with the local Aboriginal people.)

Gracey M
Diarrhoea in Australian Aborigines.
Australian Journal of Public Health 1992; 16(3):216–25

Infant diarrhoea is a major public health problem for Australian Aborigines and contributes significantly towards their high infant and child mortality rates. The author reviews available literature and looks at intervention strategies that may be used to address the problem.

Guest CS, O'Dea K
Diabetes in Aborigines and other Australian populations.
Australian Journal of Public Health 1992; 16(4):340–49

Diabetes mellitus is a major worldwide public health problem. This paper looks at the epidemiological aspects of the disease with reference to the Australian Aboriginal population. In particular the authors have used data on the prevalence of diabetes to suggest that the occurrence of the disease has both genetic and environmental determinants. The use of physical exercise as an intervention strategy is considered.

Guest CS, O'Dea K, Carlin JB, Larkins RG
Smoking in Aborigines and persons of European descent in south-eastern Australia: prevalence and associations with food habits, body fat distribution and other cardiovascular risk factors.
Australian Journal of Public Health 1992; 16(4):397–402

As part of a population-based study of risk factors for heart diseases, the authors looked at smoking rates for Aborigines and persons of European descent in south-eastern Australia. The study found that Aborigines smoked more and that there may be an association between food habit and smoking. The authors conclude that there is a real need for smoking cessation programs for Aborigines and all young women and that the nutritional status of smokers requires further investigation.

Guest CS, O'Dea K, Hopper JL, Nankervis AJ, Larkins RG
The prevalence of glucose intolerance in Aborigines and Europids of south-eastern Australia.
Diabetes Research and Clinical Practice 1992; 15(3):227–35

This paper reports on a survey of diabetes among Aborigines and non-Aborigines of European extraction living in two country towns in south-eastern Australia. After adjustment for differences in the age structures of the populations, the prevalence of diabetes among Aborigines was found to be more than twice that of the non-Aboriginal population surveyed (the crude prevalence was 7.8 per cent for Aborigines and 3.4 per cent for non-Aborigines of European extraction). The crude prevalence of impaired glucose tolerance among Aborigines was only slightly higher than that of non-Aborigines of European extraction. The survey confirmed the results of other studies that the onset of diabetes was earlier for Aborigines than for non-Aborigines of European extraction.

Hill PS, Murphy GJ
Cultural identification in Aboriginal and Torres Strait Islander AIDS education.
Australian Journal of Public Health 1992; 16(2):150–57

This paper examines the ways in which the participation of Aboriginal and Torres Strait Islander people has contributed to the development of culturally appropriate AIDS educational material, involving visual and narrative communications.

Hogg RS
Indigenous mortality: placing Australian Aboriginal mortality within a broader context.
Social Science and Medicine 1992; 35(3):335–46

This study compares contemporary Australian Aboriginal mortality patterns with those experienced by Canadian Registered Indians, New Zealand Maoris, American Indians and Alaskan Natives.

The groups had similar patterns of high adult mortality, but Australian Aborigines were generally characterised by lower life expectancies at birth and higher age-specific and cause-specific death rates. The author argues that overall mortality patterns for Australian Aborigines are different to those of the other indigenous groups, and that current information on risk, psychosocial and genetic factors does not really explain the differences in high death rates and low life expectancies.

Houston S, Legge D
Aboriginal health research and the National Aboriginal Health Strategy [editorial].
Australian Journal of Public Health 1992; 16(2):114–15

This editorial summarises the directions in Aboriginal health research endorsed at a three-day workshop held in Canberra in April 1992. In considering the role of health research in overcoming the barriers to improvements in Aboriginal health, the workshop gave top priority to knowledge that would be most useful in solving the problems faced by Aboriginal communities and community-controlled health services in applying existing biomedical and public health knowledge. The workshop also noted the need for research into some diseases (renal disease, for example) and the role of the Aboriginal and Torres Strait Islander Commission. It also identified the need for revision of the infrastructure to determine and administer Aboriginal health research, and for increased training and opportunities for Aboriginal researchers.

Hunter EM
The social and family context of Aboriginal self-harmful behaviour in remote Australia.
Australian and New Zealand Journal of Psychiatry 1991; 25(2):203–9

In examining the sociohistorical context of recent Aboriginal suicides in the Kimberley region of Western Australia, the author notes a corresponding increase in the incidence of violence. The author directs particular attention to the changing environment of childhood, especially structural and functional changes in caretaking roles.

Hunter EM
An examination of recent suicides in remote Australia: further information from the Kimberley.
Australian and New Zealand Journal of Psychiatry 1991; 25(2):197–202

Following the recognition of a substantially increased incidence of Aboriginal suicide (particularly of adult males) in the Kimberley region of Western Australia during the early and middle 1980s, the author examines eight suicides that occurred in 1988 and 1989. Of the various social and historical aspects involved, the author concludes that 'the most suggestive single historical factor was the extension of drinking rights … in 1971'.

Hunter EM
Out of sight out of mind: Part 1—emergent patterns of self-harm among Aborigines of remote Australia.
Social Science and Medicine 1991; 33(6):655–9

The author examines the findings of the Royal Commission into Aboriginal Deaths in Custody and draws attention to the wider context of suicides in custody by looking at self-harmful behaviour and changing Aboriginal mortality patterns in the Kimberley region of Western Australia.

Hunter EM
Out of sight out of mind: Part 2—social and historical contexts of self-harmful behaviour among Aborigines of remote Australia.
Social Science and Medicine 1991; 33(6):661–71

This paper considers suicide behaviour among indigenous peoples, with particular reference to the Kimberley region of Western Australia. The author examines the socio-historical context in evaluating patterns of harmful behaviour, and the relationship to alcohol use.

Hurley W, Dunne MP
Psychological distress and psychiatric morbidity in women prisoners.
Australian and New Zealand Journal of Psychiatry 1991; 25(4):461–70

Aboriginal women were over-represented in a women's prison survey which screened for psychological distress and psychiatric morbidity using the 12-item General Health Questionnaire, the Hamilton Depression Rating Scale, a Recent Stressful Life Events questionnaire and the Structured Clinical interview for DSM-III-R.

There was no difference in psychological distress between Aboriginal and non-Aboriginal women, but clear differences in the 51 women (55 per cent) with a lifetime history of psychoactive substance use disorder—96 per cent of heroin users were Caucasian while 69 per cent of the alcohol abusers were Aboriginal (75 per cent of Aboriginal women had a history of alcohol abuse, but none had abused other drugs).

Kirkland MA, Frasca J, Bastian I
Adult T-cell leukemia lymphoma in an Aborigine.
Australian and New Zealand Journal of Medicine 1991; 21(5):739–41

This paper summarises details of the first reported case of adult T-cell leukemia lymphoma due to HTLV-I in an Australian Aborigine.

Klekamp J, Riedel A, Harper C, Kretschmann HJ
Morphometric study on the postnatal growth of the hippocampus in Australian Aborigines and Caucasians.
Brain Research 1991; 549(1):90–4

Using mathematical growth functions, the authors found no difference between Aboriginal and Caucasian males in hippocampal volume, but the volume for Aboriginal females was significantly smaller than that for Caucasian females. The results are discussed in relation to secular changes of growth parameters of the human brain during the last century, the socioeconomic and health status of Aborigines and the sexual differences in development and plasticity of the hippocampus.

Lee JI, Hampson DJ
Intestinal spirochaetes colonizing Aborigines from communities in the remote north of Western Australia.
Epidemiol Infect 1992; 109(1):133–41

Intestinal spirochaetal bacteria were isolated from 59 of 181 (33 per cent) faecal samples obtained from Aboriginal children and adults living in the Kimberley region of Western Australia. In contrast, spirochaetes were recovered from only eight of 695 (1.2 per cent) samples from mainly non-Aboriginal children and adults in Western Australia and the Northern Territory, even though most of these individuals were suffering from gastrointestinal disturbances.

Colonisation was more common in Aborigines aged between two and eighteen years than in adults and babies. Three of the 22 children sampled on consecutive years were colonised on both occasions.

The authors suggest that abnormal and watery stools are most likely to be associated with spirochaetes, but it was not possible to prove a causal link between spirochaetes and diarrhoea.

Lumb R, Hardiman R
Isospora belli infection. A report of two cases in patients with AIDS.
Medical Journal of Australia 1991; 155(3):194–6

The authors report the first case of AIDS-related isosporiasis in an Aboriginal male, but conclude it was likely that the infection was acquired before the patient became HIV seropositive.

Marlton P, Taylor K, Elliott S, McCormack J
Monoclonal large granular lymphocyte proliferation in SLE with HTLV-I seroactivity.
Australian and New Zealand Journal of Medicine 1992; 22(1):54–5

This article reports on a 60-year-old Aboriginal woman who developed severe neutropenia and a large granular lymphocyte proliferation five years after the diagnosis of systemic lupus erythematosis.

McKendrick J, Cutter T, MacKenzie A, Chiu E
The pattern of psychiatric morbidity in a Victorian urban Aboriginal general practice population.
Australian and New Zealand Journal of Psychiatry 1992; 26(1):40–7

This study reports the frequency and nature of psychiatric disorders among urban Aboriginal adults attending a general practice at the Victorian Aboriginal Health Service in Fitzroy. The authors found a high rate of psychiatric morbidity, adverse sociodemographic factors and heavy substance abuse.

McPherson B, Preston G, Canuto C, Kimber L
Teacher identification of hearing loss in Aboriginal children.
Australian Journal of Audiology 1992; 14(1):41–8

Teacher responses to a questionnaire based on physical and behavioural characteristics often indicative of hearing loss correctly identified 70 per cent of those children found to have a 30dB loss by audiometric testing. The authors conclude that teacher-based information is of value in the identification of Aboriginal schoolchildren with hearing loss.

O'Dea K
Traditional diet and food preferences of Australian Aboriginal hunter–gatherers.
Philosophical Transcriptions of the Royal Society London. Series B: Biological Sciences 1991; 334:233–41

The author argues that the low energy density of the traditional diet and the labour intensity involved in food acquisition provided a natural constraint on energy intake. Together with other nutritional qualities of the diet (high fibre, slowly digested carbohydrate, low saturated fats, relatively high proportion of the long-chain highly polysaturated fatty acids, low sodium/high potassium, magnesium and calcium) this would have protected against obesity, non-insulin-dependent diabetes, and cardiovascular disease, all of which are highly prevalent in the present day Aboriginal communities.

Pang SC, Clayton AS, Harrison RH
Culture-positive tuberculosis in Western Australia.
Australian and New Zealand Journal of Medicine 1992; 22(2):109–13

In the 485 patients with culture-positive tuberculosis in Western Australia in 1980–89, the incidence among Aborigines was four times that of non-Aboriginal Australians but less than one-quarter that of Asians. The report details tuberculosis among migrants, chemoprophylaxis and drug resistance; the authors argue for continued surveillance, monitoring and evaluation.

Pratt J, Muller M, Blake T, Musgrave IA, Alsop-Shields L, Dugdale AE
The infant mortality rate at Cherbourg Aboriginal community: an update.
Journal of Paediatrics and Child Health 1992; 28:64–6

The authors suggest that major improvements in the infant mortality rate may be due to an increase in community awareness of health issues, the installation of basic environmental health facilities (such as piped, chlorinated water supply and sewerage systems) and an intensive campaign to eradicate intestinal worms.

Ree GH
Pattern of leprosy in Queensland, Australia, 1855–1990.
Leprosy Review 1991; 62:420–30

This historical review includes details of the leprosy prevalence among Aboriginal and Torres Strait Islander peoples.

Ross R, Whiteford P
Poverty in 1986: Aboriginal families with children.
Australian Journal of Social Issues; 27(2):92–111

Using data from the 1986 Census of Population and Dwellings and the 1986 Income Distributions Survey, the authors sought to estimate poverty rates for Aboriginal and other families. Measuring income poverty using the Henderson poverty line, the authors conclude that income poverty rates are much higher among the Aboriginal population than the non-Aboriginal population, although the gap is less dramatic for sole-parent families than it is for two-parent families. Unemployment is a major factor, with over half of all Aboriginal families with children having no employed adults. Poverty is still higher among those Aboriginal families with children in which there is at least one employed adult than it is among comparable non-Aboriginal families with children.

Sayers SM, Powers JR
An evaluation of three methods used to assess the gestational age of Aboriginal neonates.
Journal of Paediatrics and Child Health 1992; 28(4):312–17

A retrospective study of 605 births to Aboriginal females in the Royal Darwin Hospital found that a good estimate of gestational age could be obtained by using the Dubowitz method of assessment at birth and ultrasound measurements taken in the first trimester of pregnancy.

Smith RM, Spargo RM, Craig IH, Nestel PJ
Hypertension and ischaemic heart disease in Australian Aborigines [letter].
American Journal of Hypertension 1991; 4(9):792

Rates of hypertension were higher among a sample of the Aboriginal population of the Kimberley region of Western Australia than those documented in the National Heart Foundation of Australia's 1983 survey. For certain age groups, correlations were found with obesity and/or alcohol consumption.

Soeharso P, Summers KM, Cooksley WG
Allotype distribution of human T-cell receptor beta and gamma chain genes in Caucasians, Asians, and Australian Aborigines: relevance to chronic hepatitis B.
Human Genetics 1992; 89(1):59–63

A significant frequency decrease of one T-cell antigen receptor (TCR) γ allele in Aboriginal HBV carriers suggests the possible involvement of TCR γ allotypes in the development of the chronic HBV carrier state in Aborigines.

Taylor R, Quine S, Lyle D, Bilton A
Socioeconomic correlates of mortality and hospital morbidity differentials by Local Government Area in Sydney, 1985–1988.
Australian Journal of Public Health 1992; 16(3):305–14

Considerable differences were found in mortality and hospital morbidity by Local Government Area (LGA) in Sydney. The Aboriginal proportion in the population was one of the socioeconomic and demographic variables highly correlated with adult mortality and hospital morbidity.

Thomas D
The Royal Commission into Aboriginal Deaths in Custody [letter].
Medical Journal of Australia 1992; 156(5):365–6

Acknowledges the value of a recent review of the RCIADIC (refer Bulletin 17) and identifies the role of the Aboriginal community controlled health services, especially their focus for providing culturally appropriate services.

Thornalley PJ
Population genetics of human glyoxalases.
Heredity 1991; 67(2):139–42

The gene for glyoxalase I (E.C.4.4.1.5), *Glo*, has two alleles, Glo^1 and Glo^2, which are autosomally inherited in a co-dominant manner. Glo^1 allele-frequency is highest in native Alaskan Eskimo and Indian populations and decreases geographically south and east, to minimum levels in Australian Aboriginal and Papua New Guinean populations. There was no correlation between Glo^1 frequency and incidence of insulin-dependent diabetes mellitus (IDDM). The frequencies of GLO phenotypes, *Glo* 1-1, *Glo* 1-2 and *Glo* 2-2, are disturbed in IDDM, and there is a suggestion that IDDM patients (with or without chronic, clinical complications) have characteristic frequencies.

Trejaut J, Dunckley H, Sullivan J, Kennedy C, Crane G
Analysis of HLA class II allogenotyping in Australian Aborigines and Papua New Guinea populations.
Tissue Antigens 1992; 39(1):1–7

Human leukocyte antigen (HLA) class II allogenotyping has been applied to investigate polymorphism of the DRB, DQB1, DQB2, DQA1, and DQA2 genes in Aborigines from the east coast of Australia and in Melanesians from Papua New Guinea north-east coast and Highlands.

In the past, polymorphism of the MHC has been utilised to investigate the relationships between various ethnic groups by serological and cellular techniques and more recently using restriction fragment length polymorphisms (RFLPs). Based on observances, certain genetic traits can be used to distinguish between different ethnic groups and/or populations.

As a result of the study, three new DR/DQ arrangements were observed (two among the Australian Aboriginal population and one within the PNG population). DQA2 and DQB2 allogenotyping with TaqI and PstI digested genomic DNA revealed little polymorphism among the Papua New Guineans, with DQA2-Xa1 and DQB2-Xb1 the most common alleles in all groups. However, the presence of DQA2-Xa2 in Papuans and Australian Aborigines reflects the degree of admixture with Caucasoids while the DQA2-Xa4 allele in Madang was suggested as a possible marker of Mongoloid origin.

Yellowlees P
Bush psychiatric services.
Australian and New Zealand Journal of Psychiatry 1992; 26(2):191–96

This paper considers the factors impacting on the provision and expansion of psychiatric services to the remote areas of western New South Wales. The practice includes private, public, hospital and prison patients.

Yellowlees P, Kaushik AV
The Broken Hill psychopathology project.
Australian and New Zealand Journal of Psychiatry 1992; 26(2):197–207

This paper reports on a variety of psychiatric disorders associated with such life problems as domestic violence, sexual assault, incest, and alcohol and tranquilliser abuse among 707 residents of far western New South Wales. As only 4 per cent of the patients were Aboriginal, the data are insufficient to justify presentation of Aboriginal-specific results.

Zhang B, Chan A
Teenage pregnancy in South Australia, 1986–88.
Australian and New Zealand Journal of Obstetrics and Gynaecology 1991; 31(4):291–8

In South Australia in 1986–88, teenage pregnancies accounted for 6 per cent of confinements and 25 per cent of legal abortions. Teenage confinements were most likely to be single, primigravid and Aboriginal, to have had few antenatal visits and to have had medical or obstetric complications during pregnancy. The youngest teenagers had the most risk factors and worst outcomes. For a small group of Aboriginal females aged 16 years or less, one-third of the babies had low birthweight or were pre-term, and one in 12 births resulted in a perinatal death.

Brief communications

National Health and Medical Research Council guidelines on ethical matters in Aboriginal and Torres Strait Islander health research[1]

At its 111th session, the National Health and Medical Research Council (NHMRC) approved the release of guidelines on ethical matters in Aboriginal and Torres Strait Islander health research, subject to endorsement by the Aboriginal and Torres Strait Islander Commission (ATSIC).[2] ATSIC has yet to advise the NHMRC of the outcome of its deliberations. However, because of their importance to persons involved in Aboriginal health research,[3] the guidelines are reproduced below. There are a number of appendixes that accompany these guidelines which include statements on human experimentation and scientific practice, and a report of a national workshop on ethics of research in Aboriginal health. Copies of the guidelines are available from:

NHMRC
GPO Box 9848
Canberra, ACT 2601

Historical background

In December 1986, the NHMRC and the Menzies Foundation convened a national conference on 'Research priorities in Aboriginal health' in Alice Springs. Of the conference recommendations, ethics in relation to Aboriginal health research was seen as a high priority, and the NHMRC agreed to fund a national workshop of Aboriginal community representatives with the view to producing a set of ethical guidelines.

The 'National workshop of ethics in Aboriginal health' (the Ethics workshop) was held over three days in August 1987 at 'Tallimba', near Camden, New South Wales. The workshop was attended by some thirty Aboriginal community

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1. The editors are grateful to NHMRC for approval to reproduce the edited version of the guidelines included in this article.
2. ATSIC referred the guidelines to the Council of Aboriginal Health which has yet to consider the document.
3. The term 'Aborigines' is used to mean both Australian Aborigines and Torres Strait Islanders. Aboriginal identification is in accordance with the accepted 'working definition': an Aboriginal or Torres Strait Islander is a person of Aboriginal or Torres Strait Islander descent who identifies as an Aboriginal or Torres Strait Islander and is accepted as such by the community in which he or she lives (Department of Aboriginal Affairs 1981).

representatives and two NHMRC observers. The result of this meeting was a set of 'Advisory notes' on the ethics of research in Aboriginal health.

At the time of the Alice Springs conference, the NHMRC Medical Research Ethics Committee (MREC) was convinced that the Aboriginal community justified special consideration because of:

- its conspicuous level of poor health stemming from social, historical and cultural factors;
- the fact that past research into Aboriginal health had failed to address this poor level of health adequately, but had often concerned itself primarily with matters of interest to science or to non-Aborigines;
- insensitivity among researchers to the values, needs and customs of Aboriginal and Torres Strait Islander communities.[4] These have included:
    - lack of understanding concerning cultural responsibilities and sensitivities of 'women's business' and 'men's business'
    - inadequate awareness of the sensitivity of medical dealings with women as opposed to men
    - inappropriate procedures in performing post-mortem examinations (in which the removal or withholding of organs presents particular difficulties)
    - inappropriate requests for, and handling of, blood and other biological specimens
    - publication of inappropriate pictorial material (for example, photographs of deceased persons)
- a lack of appreciation of ethical issues relevant to research involving Aboriginal and Torres Strait Islander people, which led to:
    - advice and approval of Aboriginal or Torres Strait Islander individuals in government departments being accepted as a substitute for proper community consultation and negotiation
    - lesser standards for obtaining consent among disadvantaged Aboriginal and Torres Strait Islander communities
    - failure to appreciate that the researcher's social status as determined by a community was a vital consideration in determining whether access to sensitive areas was permitted
    - conflict between activities thought to be ethically proper for scientific research and Aboriginal and Torres Strait Islander views on moral, social and cultural correctness

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[4] The term 'communities' is used throughout this document for ease of expressing. It refers to Aborigines and Torres Strait Islanders living in urban, rural or remote locations. Where no clearly identifiable community exists in a geographical sense, an Aboriginal or Torres Strait Islander controlled agency may be an appropriate body to negotiate with a researcher.

— Aboriginal and Torres Strait Islander groups being more vulnerable than other human groups in Australia to exploitation by persons conducting research.

MREC recognised that the special consideration due to Aboriginal and Torres Strait Islander communities and groups justified the highest standards in the conduct of research concerning them. In particular, open publication of methods and findings was the essence of ethical, verifiable scientific research.

Related developments

In several States, Institutional Ethics Committees (IEC) have been established within Aboriginal and Torres Strait Islander controlled organisations. These committees can decide on ethical approval of research proposals initiated by workers within the Aboriginal and Torres Strait Islander controlled organisations or on proposals from institutions that do not have an IEC. These committees can also be invited to advise on and facilitate deliberations on ethical matters for research proposals on Aboriginal and Torres Strait Islander communities and groups, which have been initiated by workers from other institutions.

The guidelines

In assessing a research proposal involving study of Aboriginal and Torres Strait Islander individuals or communities, an Institutional Ethics Committee (IEC), in addition to assessing whether the proposal conforms to the NHMRC Statement of Human Experimentation and Supplementary Notes, shall satisfy itself that:

Consultation

1. In the preparation of the research proposal, the researcher has sought advice not only from State, Territory and Federal Aboriginal and Torres Strait Islander health agencies, but also from local community-controlled Aboriginal and Torres Strait Islander health services and agencies.
2. The Aboriginal and Torres Strait Islander community, or appropriate community-controlled agency able to represent the Aboriginal and Torres Strait Islander group which is the focus or context of research, has indicated that the research being proposed will be potentially useful to the community in particular, or Aboriginal and Torres Strait Islanders in general, and will be conducted in a way that is sensitive to the cultural and political situation of that community.
3. The researcher has obtained written documentation of consent from the communities in which it is proposed to conduct research. Where this has not been possible, the reasons should be documented.
   In such circumstances, informed consent should be shown to have involved:
   (a) provision of information in a form accessible to community members and able to be readily understood by them. This information should have included details of the collection and analysis of data, and the drafting and publication of reports. It should also list any potential costs to the community as well as potential benefits;

(b) face-to-face discussions with community groups and individuals concerned wherever possible. Where this has not been possible, the reasons should be documented;

(c) the allowance of sufficient time for the community and the individuals concerned to assimilate and respond to the information offered;

(d) demonstration of a process for obtaining free consent from individuals as well as written evidence of consent by the community-at-large;

(e) provision of information to participants that consent may be withdrawn at any time.

Community involvement

4. Members of the Aboriginal and Torres Strait Islander community being studied will be offered the opportunity to assist in the research and will be paid for the assistance, and the funds to support that assistance are included in the research budget proposal. Specifically, Aboriginal and Torres Strait Islander women, as advised by the community, will be involved when research deals with women's or children's health issues; and the specific cultural and social needs of Aboriginal and Torres Strait Islander men will be similarly recognised.
5. The researcher has accounted for any resources which may be made use of in the conduct of the research, has costed these in the research proposal, and has demonstrated a process for reimbursing the community and/or individuals for any such costs.
6. The researcher recognises the right of the community to request further information about aspects of ongoing research, and accepts that changes in research protocols, procedures or methodologies will require further negotiations with the community and consent for that change by the community or an agency nominated by the community. The IEC must also be notified and be given the opportunity to approve changes to the research protocol.
7. The researchers and IECs must observe the requirements for surveillance of research set down in Supplementary Note 1 of the NHMRC Statement on Human Experimentation and Supplementary Notes, as published from time to time.

Ownership and publication of data

If there is any reason to expect that there may be a misunderstanding between researchers and Aboriginal and Torres Strait Islander research subjects over the conduct of research, the ownership of raw data or the rights to publication of research findings, these matters must be discussed and negotiated and preferably agreed upon by both parties before the research begins.

8. Following completion of data collection and analysis, and before any publication or presentation of this data, a summary of the findings will be reported to the community as a whole. Details of findings relevant to their health or wellbeing will be confidentially conveyed to individuals who participated together with counselling as appropriate.

9. If a researcher wishes to use the information or blood or tissue samples gathered in the course of research for any purpose other than that for which consent was obtained, further permission must be sought from the community.
10. The return of identifiable raw data, its destruction, or secure storage on completion of the research, should be negotiated with the community, or its nominated representative or agency, prior to the commencement of the research.
11. Results will not be published in a form which permits identification of individual subjects. Results which identify a particular Aboriginal or Torres Strait Islander community will not be published without permission from that community or from a community-controlled agency able to represent that community.
12. Pictorial material will be made only with the consent of the local community and will be handled in accord with their wishes.
13. Proper acknowledgment will be given to individuals and communities who took part in the research.
14. Wherever practicable, Aboriginal or Torres Strait Islander assistants who contributed to the research will be involved in the preparation of publications and will be acknowledged. Publication acknowledgment shall be in accordance with the NHMRC Statement on Scientific Practice.
15. Should the media solicit comments from researchers, once their work is in the public arena, researchers should first seek the consent of the community concerned. Comments to the media should be sensitive and professional and should focus on the research issues under consideration.

An introductory program on Aboriginal culture and health for non-Aboriginal health staff working in remote communities in the Top End of the Northern Territory[5]

Coralie Mathews, Louisa Collins, Tarun Weeramanthri, Terry Nienhuys *(Menzies School of Health Research, Darwin)*, **Sally Ross** *(Danila Dilba Medical Service, Darwin)* and **Rob Curry** *(Rural Health Services, Northern Territory Department of Health and Community Services)*

Background

The delivery of effective health care in remote Aboriginal communities is hampered by a lack of culturally appropriate education and training of non-Aboriginal health professionals. Both the National Aboriginal Health Strategy Working Party (1989, p93) and the Royal Commission into Aboriginal Deaths in Custody (1991: Recommendation 247) commented on the lack of training in this area.

It is generally agreed that where training is offered it should be ongoing. It should not only cover the types of medical and health conditions likely to be encountered in a particular locality, but it should also discuss sociocultural issues. Special training to sensitise staff to likely communication barriers is also seen as an integral part of the training issue. This approach would also help retain staff in remote areas, as there seems little doubt that the effectiveness of health care is influenced by the poor retention of non-Aboriginal health professionals in most remote areas (Reid and Trompf 1991).

In an attempt to address the issue, an introductory program on Aboriginal culture and health for non-Aboriginal health staff working in remote communities in the Top End of the Northern Territory was held in Darwin. It was hoped that the introductory course in Aboriginal culture and health would help non-Aboriginal staff provide a more effective service, lead to greater job satisfaction, and perhaps encourage them to stay in remote areas for longer periods.

Organisation and planning

Representatives from the Menzies School of Health Research, the Rural Health section of the Northern Territory Department of Health and Community Services and Danila Dilba Medical Service (a community-controlled Aboriginal health service) worked together over a six-month period to plan the five-day program.

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[5] The Commonwealth Rural Health Support Education and Training Scheme (RHSET) funded the Menzies School of Health Research to conduct this pilot program and to provide a detailed evaluation. The overall cost of the program, which included subsidised travel, was $7,000. Accommodation was provided at no cost in the Menzies School building. Funding was also received to conduct a program in central Australia.

A preliminary notice brought over 70 expressions of interest from 27 registered nurses, 14 allied health professionals, 10 mental health nurses, 6 medical officers and others involved in health administration and health education. Fifteen of these people were based in remote communities, 36 were from the Darwin region and 31 were from Royal Darwin Hospital.

The number of registered nurses working in hospitals who expressed interest in the program is noteworthy. Most of these were young nurses working in an acute hospital clinical situation with Aboriginal people from remote communities. This would seem to indicate a need for a specific program for these nurses which emphasises the cross-cultural nature of their work and the alienation and cultural displacement of their patients.

The course was limited to 25 participants so that training sessions could be interactive. Fifteen places went to those applicants who were working or had applied to work in remote communities, and the remaining ten places went to staff in the Darwin region with remote area responsibilities.

The program

The main challenge in developing a suitable program was the attempt to do justice to such a vast subject in a week while allowing time for informal interactions and time off for rural staff who visit Darwin infrequently. Only four one-hour sessions were planned daily with at least thirty minutes for discussion in each session.

It was hoped to achieve a balance between topics on Aboriginal culture, health, and cross-cultural communication. The first two days focused on historical, political and cultural aspects of Aboriginal life. Subjects included 'Aboriginality and history', 'Customs and culture', 'The land and the law', 'Traditional medicine', 'Aboriginal child-rearing patterns', 'Cross-cultural interaction', 'The role of the Aboriginal health worker' and 'Self-determination and community control'. The third and fourth days included sessions on 'Health statistics', 'Mental health', 'Treatment protocols', 'Communicable diseases', 'Non-communicable diseases', 'Substance abuse' and 'Women's health'. The final day included a session on nutrition and a forum which discussed the running of an Aboriginal health centre. The titles of each session were not intended to be proscriptive, and no attempt was made to avoid repetition of subject matter. On the contrary, it was expected that the more important issues would be raised more than once.

It was considered important that speakers were predominantly Aboriginal, with some joint Aboriginal/non-Aboriginal presentations. Aboriginal people from Aboriginal community-controlled, grant-in-aid missions and government health centres were all involved, as were people working in education, child care, community organisations, government departments and the land councils. The speakers, who came from all over the Top End (including the Tiwi Islands, East Arnhem, and Katherine regions), were chosen because of their experience, reputation and personality. They were encouraged to spend the whole week with the group and many managed to attend for extended periods.

Non-Aboriginal speakers came from the Northern Territory Department of Health and Community Services, Batchelor College, Danila Dilba Medical Service and the Menzies School of Health Research.

At the beginning of the week, participants were invited to comment on difficulties encountered when working in remote communities, or with people from those communities. Language and communication problems were commonly mentioned, as were difficulties comprehending cultural differences in expectations of health and health delivery, and the seeming short-term perspective of some clients. Participants stressed that they wanted to learn more about Aboriginal culture and social mores, understand Aboriginal views of health, learn ways of interacting with Aboriginal people, and meet other non-Aboriginal people in similar situations.

Program evaluation

Each day, participants were asked to complete a structured written evaluation on the content and presentation of each session and about 20 forms were returned daily. These were reviewed immediately, which allowed a prompt response to comments. For example, the positive response to the cross-culture session allowed scheduling of an extra workshop later in the week (this session further examined the verbal, non-verbal and other aspects of communication behaviours which may hinder or enhance cross-cultural interpersonal interactions). Five minutes of verbal feedback given by the evaluators at the beginning of each day provided an extra sense of cohesion to the program for speakers and participants.

During the week, there were very many positive comments from the participants about the presented overviews of Aboriginal history and culture by Aboriginal speakers and the ensuing interaction. The opportunity to listen to Aboriginal people talking in some depth on cultural issues was appreciated, as was the chance to question them or raise problematic issues during or after the sessions. Many participants specifically commented upon what they had learned about the differences between Aboriginal and non-Aboriginal views of health. Often speakers ran over time; some participants favoured this approach while others wished for more structure to the day and the talks. The organising committee felt strongly that part of the real experience of the week was an appreciation of Aboriginal communication styles and narrative discourse, and some participants felt that the diversions away from the session topics were the most informative parts.

The session on cross-cultural interaction was found to be especially valuable, although too short. Most participants felt that it was important to include clinical material, especially the session on women's health.

Other suggestions included the provision of a resource manual for bush workers and a session which examined the motives of non-Aboriginal staff going to live in remote communities and how these motives affected their settling in. It was pointed out that separate concurrent sessions should have been held on men's and women's business. Some participants felt that the program was most relevant to those who had already spent some time in the bush, and a separate, shorter orientation would be suitable for new staff.

Others suggested that small group sessions were needed, as some people may be unable or unwilling to express their feelings in a large group. The majority felt that the balance of the course was about right in terms of subject matter, though some wanted more time on all areas.

Nearly all participants offered the comment that an introductory program such as this should be compulsory and that it was long overdue.

At the end of the course participants were asked if they would do things differently in their work situation as a result of the program. The dominant response was that they would interact to a much greater extent with Aboriginal health workers. This would involve asking them for advice, drawing on their cultural experiences, or giving them more responsibility and being more supportive.

Conclusions

Many more people wished to attend this pilot program than there were places, suggesting that such programs are not only desirable in terms of efficient service delivery, but also that there is a felt need among service providers.

Initially, it was planned to target non-Aboriginal health staff working in remote Aboriginal communities. However, it was difficult to ignore the needs of staff working in acute clinical settings where many of the patients come from remote Aboriginal communities. These groups may need to be catered for separately in future.

There were some logistic difficulties in organising the program. All except two of the applicants from remote communities were employed by the Northern Territory Department of Health and Community Services. Relief staff had to be found for many of the positions vacated during the week of the program. In some cases it seemed as though the program was causing problems rather than assisting with solutions.

The Northern Territory Government has responded officially and positively to the report of the Royal Commission into Aboriginal Deaths in Custody, and has affirmed the need for orientation programs such as this one. The experience gained in organising and evaluating this pilot program suggests that the key elements needed to run such a program include: detailed collaborative planning, a wide variety of Aboriginal speakers from communities and organisations (from health and other disciplines and from different regions of the Northern Territory), a mix of communication, cultural and specific health issues, and an ongoing evaluation that allows the program to run flexibly.

Acknowledgments

Thanks are extended to all the speakers and participants who made the program so positive and enjoyable, and to members of the organising committee for their valuable contributions.

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Aboriginal health statistics and the Australian Institute of Health and Welfare

Neil Thomson, Bruce English *(Aboriginal and Torres Strait Islander Health Unit, Australian Institute of Health and Welfare)*

Introduction

In all areas of the Australian health care system, including Aboriginal health, decision makers and health managers at all levels require reliable and timely information to enable them to formulate policies, plan and manage services, and to assist them in making difficult choices between competing demands for resources. The availability of, and access to, health statistics and other health information is crucial for the evaluation of current approaches, and essential also to make them more equitable, appropriate and efficient. For these purposes, health statistics are essential (Australian Institute of Health and Welfare 1992).

Sources of health statistics

Sources of health statistics are wide and varied. Many of the data collections used for health statistical purposes are the by-products of administrative collections (for example, deaths, hospital inpatient episodes and the use of medical services funded by Medicare). Other collections (such as the notification of communicable diseases) are specifically designed to monitor disease prevalence, incidence or outcomes, while others monitor the cost of health care interventions.

Because of the cost of data collection, analysis and dissemination, most large health statistical collections are the responsibility of government agencies (or of agencies funded by government), but private and community organisations also produce administrative by-product statistics and gather information for their own use.

With the States and Territories having the primary responsibility for health care delivery (and for the registration of births and deaths), a large proportion of the health data collected is at a State or Territory level. Some of these datasets are collated at a national level by agencies such as the Australian Bureau of Statistics (ABS) and the Australian Institute of Health and Welfare (AIHW), with subsets of original collections standardised for interstate or regional comparisons. The collection of information is often structured to meet recognised international standards (for example, the World Health Organization's (WHO) International Classification of Diseases (WHO 1977).

Disease registers, such as the cancer registries, are a potentially valuable source of information about major health conditions. Since 1972, State and Territory-based cancer registries have collected information about new cases of cancer as well as collating information about deaths from cancer. Comprehensive national data are now available from 1982 to 1985 (Jelfs, Giles, Shugg et al. 1992).

As well as large-scale data collections, there are many small data collections which have been set up to monitor particular aspects of health or health care provision (van Ommeren, Merton, Short 1991).

Apart from specific collections, much useful information about health and health services is produced from special studies undertaken by government and other organisations, tertiary institutions, and individuals.

At a national level, the most useful of these studies are periodic population surveys (such as ABS's 1989–90 National Health Survey and the National Heart Foundation's Risk Factor Prevalence Surveys), which have increased the information available about the whole population, including those who do not enter hospital or use health services. As well, surveys have allowed social and economic factors about individuals to be associated with measures of health status and risk factors.

Information about disabilities and handicaps, an area for which data have been particularly difficult to collect, has also become available as a result of special population surveys (the most recent is ABS's 1988 Survey of Disabled and Aged Persons).

However, most major health surveys rely on individuals reporting on their own health problems, which can introduce the possibility of bias.

Towards national Aboriginal health statistics

The need for national Aboriginal health statistics has been recognised for many years, and a high level Federal Task Force on Aboriginal Health Statistics established in 1984 reached agreements with all States and Territories except Queensland (which it did not visit) to identify Aborigines in a number of 'priority' health statistical collections (Task Force on Aboriginal Health Statistics 1985). Those collections identified as priorities were the birth and death registration systems, and the hospital morbidity and maternal/perinatal collections.

Two other key health collections—cancer registrations and communicable disease notifications—were not identified as priorities, and the Task Force did not appear to direct much attention to other sources of health information, such as major national and other health surveys.

The National Aboriginal Health Strategy Working Party (1989) identified four key areas for which monitoring and evaluation mechanisms should be established:

- health service delivery
- systems infrastructure and intersectoral collaboration
- environmental and social health
- vital statistics and sentinel health events.

In recognising the importance of health information for monitoring and evaluation purposes, the Working Party supported, in terms of large-scale collections, the priorities established by the Task Force on Aboriginal Health Statistics.

The announcement in June 1990 by the Commonwealth, State and Territory Ministers responsible for health and Aboriginal affairs, of the implementation of the National Aboriginal Health Strategy, directed specific attention to the priority collections. It was agreed that:

- each State and Territory nominate a senior person in the relevant department to be responsible for the implementation of the recommendations of the 1985 National Taskforce on Aboriginal Health Statistics, and
- an appropriate level of resources be made available to the Australian Institute of Health (now Australian Institute of Health and Welfare) to enable comprehensive Aboriginal and Torres Strait Islander data collection, analysis and reporting.

The Council for Aboriginal Health was given the task of monitoring and evaluating the development of a national database of Aboriginal health statistics.

The development of Aboriginal health statistics

Prior to the Task Force on Aboriginal Health Statistics, a number of States and Territories already had the capacity to identify Aborigines in some of their priority and other collections; however, for the development of national statistics, there was a need to extend the coverage to all States and Territories.

Provision now exists in one form or another for the identification of Aborigines in all priority collections except the births and deaths registration systems in Queensland (Table 1). As well, all except the Tasmanian cancer registry provide for Aboriginal identification in cancer registrations. Much less progress has been made in providing for Aboriginal identification in communicable disease notifications.

Table 1: *Current collections by State and Territory*

Type of collection	New South Wales	Victoria	Qld	Western Australia	South Australia	Tas	ACT	NT
Birth Notification Forms	January 1991	November 1986	No	2 Sept 1991	In Place August 1984	25 July 1988	In place January 1985	In place Sept 1988
Death Notification Forms	In place 1980, implemented 1981	November 1986	No	In place 1985	In place August 1984	25 July 1988	In place January 1985	In place Sept 1988
Medical Certificates of Cause of Death	No	Mid-1988	No	1983	No	No	No	In place
Medical Certificates of Cause of Death Perinatal Deaths	In place 1980, implemented 1981	No	No	In place 1982, implemented 1983	In place	In place	In place	In place
Hospital Morbidity	In place	In place	Partly in place 1992	In place	February 1984	Proposed	In place	In place 1977
Maternal/ Perinatal Collections	In place 1981	In place	In place Nov 1986	In place	In place 1981	In place	In place	In place 1972
Cancer Registrations	1992	1982	1992	1982	1977	Yes	1992	1981
Communicable Diseases Notification Forms	Yes	No	In place	Yes	Yes	No	Yes	In place

Note: Queensland has indicated that it anticipates including Aboriginal and Torres Strait Islander identification in its birth and death records as from 1 July 1994.

Source: Australian Institute of Health and Welfare Statistical Sources, using information provided by the States and Territories

Of the major health surveys undertaken by the Australian Bureau of Statistics, the first to provide for the identification of Aborigines was the 1989–90 National Health Survey, but no special sampling procedures were employed to ensure that an adequate sample of Aborigines was included. Aborigines have not been separately identified in the National Heart Foundation's Risk Factor Prevalence Surveys.

As part of its response to the Royal Commission into Aboriginal Deaths in Custody, the Commonwealth Government announced its intention to conduct, through the ABS, a national Aboriginal survey in the first half of 1994. Information will be collected on the demographic, social, economic and health characteristics of the Aboriginal and Torres Strait Islander population.

The role of the Australian Institute of Health and Welfare

Since its establishment in early 1985, the Australian Institute of Health and Welfare has had a role in the development of national Aboriginal health statistics.

This role was extended in December 1990, as part of the Commonwealth Government's implementation of the National Aboriginal Health Strategy. At that time, the Government decided to 'increase the effort by the Australian Institute of Health and Welfare in the collection, analysis and reporting of Aboriginal health statistics'.

Although no funds were allocated for this increased effort, the costs have been absorbed by the Human Services and Health portfolio ($100,000 per annum for 1990–91 increasing to $120,000 per annum for 1993–94 and 1994–95). Of this, the Commonwealth Department of Human Services and Health agreed to provide the Institute with $70,000 per year from 1991–92 to 1994–95. These new funds have permitted an expansion of the Unit's staffing from around 1.5 to 3 full-time equivalent positions.

The work program of the Institute's Aboriginal and Torres Strait Islander Health Unit has been largely governed by the report of the Task Force on Aboriginal Health Statistics (as supported by the National Aboriginal Health Strategy), particularly in relation to the Task Force's identification of priority collections.

The Unit's major focus on these priority collections is complemented by:

- the collation of other data on Aboriginal health;
- the dissemination of information about Aboriginal health—by the six-monthly *Aboriginal Health Information Bulletin*, by reports in the Institute's Aboriginal and Torres Strait Islander Health Series, by special reviews in journals and other publications, and in response to specific requests;
- the undertaking of specific research—such as the studies of disabilities and of fertility and mortality.

With regard to the priority collections, the Aboriginal and Torres Strait Islander Health Unit continues to develop its databases. The following table provides a brief explanation, and shows the status of these databases at the time of publication.

Aboriginal and Torres Strait Islander Health Database Status

Births

The data held by AIHW on births to Aboriginal mothers vary according to year. Until relatively recently, the data were provided by State and Territory health authorities largely for estimating infant mortality rates. As such, these data are simply the numbers of births (live births plus foetal deaths or stillbirths) to Aboriginal mothers. Some of the newer data include other details of the mother and baby (for example, age of mother, baby's weight). From the mid-1980s, the State and Territory births registration systems started to provide for the identification of Aborigines, but the Institute's databases are still derived from information provided by the health authorities.

Current AIHW data holdings

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
1991	Y			Y	Y			Y
1990	Y		Y(1)	Y	Y			Y
1989			Y(1)	Y	Y			Y
1988	Y		Y(1)	Y	Y			Y
1987	Y		Y(1)	Y	Y			Y
1986			Y(1)	Y	Y			Y
1985			Y(1)	Y	Y			Y
1984			Y(1)	Y	Y			Y
1983			Y(1)	Y	Y			Y
1982			Y(1)	Y	Y			Y
1981			Y(1)	Y	Y			Y
1980			Y(1)	Y				Y
1979			Y(1)	Y				Y
1978			Y(1)	Y				Y
1977			Y(1)	Y				Y
1976			Y(1)	Y				Y
1975			Y(1)	Y				Y
1974			Y(1)	Y				Y
1973			Y(1)	Y				Y
1972			Y(1)	Y				Y

(1) Data relate to Aborigines living in the Queensland communities (about one-fifth of the State's Aboriginal population).

Birthweight

In addition to the birth data, comprehensive information on birthweights is available in current holdings for South Australia, Western Australia and the Northern Territory from 1988 to 1991, and for the Queensland communities from 1972 to 1990.

Current AIHW data holdings

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
1991	Y			Y	Y			Y
1990	Y		Y(1)	Y	Y			Y
1989			Y(1)	Y	Y			Y
1988	Y		Y(1)	Y	Y			Y
1987	Y		Y(1)					
1986			Y(1)					
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(1) Data relate to Aborigines living in the Queensland communities (about one-fifth of the State's Aboriginal population).

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Deaths

Provision for the identification of Aboriginal deaths now exists in the deaths registration systems of all States and Territories except Queensland. This enables the extraction from the basic Mortality database of information on Aboriginal deaths. However, provision for the identification of Aborigines in these data has only recently been implemented in most jurisdictions—the following table shows the years for which data on Aboriginal deaths are available. For some jurisdictions (indicated with a footnote), the identification of Aborigines is believed to be so incomplete as to preclude meaningful analysis. Information on deaths of Aborigines living in the Queensland communities (about one-fifth of the State's Aboriginal population) is available for the period 1972–90.

Current AIHW data holdings

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
1992	Y(1)	Y(1)		Y	Y	Y(1)	Y	Y
1991	Y(1)	Y(1)		Y	Y	Y(1)	Y(1)	Y
1990	Y(1)	Y(1)	Y(2)	Y	Y	Y(1)	Y(1)	Y
1989	Y(1)	Y(1)	Y(2)	Y	Y	Y(1)	Y(1)	Y
1988	Y(1)	Y(1)	Y(2)	Y	Y		Y(1)	Y
1987	Y(1)	Y(1)	Y(2)	Y	Y		Y(1)	
1986	Y(1)	Y(1)	Y(2)	Y	Y		Y(1)	
1985	Y(1)		Y(2)	Y	Y		Y(1)	
1984	Y(1)		Y(2)	Y				
1983	Y(1)		Y(2)	Y				
1982	Y(1)		Y(2)					
1981	Y(1)		Y(2)					
1980	Y(1)		Y(2)					

(1) For these years the identification of Aborigines is believed to be so incomplete as to preclude meaningful analysis.

(2) Deaths identified by Queensland Health, but not by the formal deaths registration system. Data relate to Aborigines living in the Queensland communities (about one-fifth of the State's Aboriginal population).

Foetal and infant deaths

These data have been provided by State and Territory health authorities, and do not necessarily correspond to the Aboriginal deaths identified by the formal registration systems maintained by the State and Territory Registrars of Births, Deaths and Marriages. The data form the basis of AIHW estimates of Aboriginal perinatal and infant mortality rates.

Current AIHW data holdings

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
1991	Y			Y	Y			Y
1990	Y		Y(1)	Y	Y			Y
1989			Y(1)	Y	Y			Y
1988	Y		Y(1)	Y	Y			Y
1987	Y		Y(1)	Y	Y			Y
1986			Y(1)	Y	Y			Y
1985			Y(1)	Y	Y			Y
1984			Y(1)	Y				Y
1983			Y(1)	Y				Y
1982			Y(1)	Y				Y
1981			Y(1)	Y				Y
1980			Y(1)	Y				Y
1979			Y(1)	Y				Y
1978			Y(1)	Y				Y
1977			Y(1)					Y
1976			Y(1)					Y
1975			Y(1)					Y
1974			Y(1)					Y
1973			Y(1)					Y
1972			Y(1)					Y

(1) Data relate to Aborigines living in the Queensland communities (about one-fifth of the State's Aboriginal population).

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Hospitalisation

The hospital morbidity systems maintained by each State and Territory now provide for the identification of Aborigines. However, for some jurisdictions, the identification of Aborigines is believed to be so incomplete as to preclude meaningful analysis. The database entry in this catalogue provides details of the years for which the Institute holds hospital morbidity data, but special approval is generally required from the relevant State or Territory health authority to permit analysis of these data for episodes of Aboriginal hospitalisation.

Current AIHW data holdings

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
1991–92	Y	Y			Y			
1990–91	Y	Y			Y			
1989–90	Y	Y			Y			
1988–89	Y	Y			Y			
1987–88	Y	Y			Y			Y

The data on hospital morbidity are not consistent for all States and Territories. The Institute holds limited data for Western Australia for (1990–92), Tasmania (1990–92), NT (1987–88) and ACT (1987–89 and 1990–91). In all areas, completeness of coverage and accuracy of information cannot be guaranteed.

In addition to the above specific Aboriginal and Torres Strait Islander databases, other databases accessed that have an Aboriginal and Torres Strait Islander identifier include:

- Hospital Utilisation and Cost Study
- National Death Index
- National Cancer Statistics Clearing House
- Mortality
- Hospital Morbidity.

These data sources have the potential for providing a vast amount of information about Aboriginal and Torres Strait Islander health and work is continuing to improve the level of Aboriginal and Torres Strait Islander identification within all database areas.

References

Australian Institute of Health and Welfare (1992) *Australia's health 1992: the third biennial report of the Australian Institute of Health and Welfare*. AGPS, Canberra

Jelfs P, Giles G, Shugg D, Taylor R, Bonett A, Thompson J, Ring I, Durling G (1992) *Cancer in Australia 1983–1985*. Australian Institute of Health and Welfare: Cancer Series No. 1, AGPS, Canberra

National Aboriginal Health Strategy Working Party (1989) *A national Aboriginal health strategy*. Department of Aboriginal Affairs, Canberra

Task Force on Aboriginal Health Statistics (1985) *Towards a national system of Aboriginal health statistics*. Commonwealth Department of Health, Canberra

van Ommeren M, Merton C, Short G (1991) *Inventory of Australian Health Data Collections*. AGPS, Canberra

World Health Organization (1977) *Manual of the international statistical classification of diseases, injuries and causes of death*. Ninth revision, volumes 1 and 2. WHO, Geneva

Recent reports, publications and theses

Aboriginal and Islander Health Worker Journal
The journal covers a wide range of topics that address important issues within the Aboriginal and Torres Strait Islander community. The information is often timely; all those working in the field of Aboriginal and Torres Strait Islander health should be aware of this magazine.

Vol. 16, No. 3, May/June 1992

This issue includes an international comparison of mortality rates among indigenous peoples, and articles on AIDS, health education, diabetes and harm from drug abuse.

Vol. 16, No. 4, July/August 1992

Considers options for increasing the participation of Aboriginal people within the medical profession. Other items include the identification and treatment of epilepsy and the Australian Government's response to the recommendations of the Royal Commission into Aboriginal Deaths in Custody.

Vol. 16, No. 5, September/October 1992

Contains a report of the International Indigenous Conference on Addiction Free Lifestyles. An article on using health information for community action is also included.

Vol. 16, No. 6, November/December 1992

Aboriginal use of tobacco, mental health awareness and domestic violence in Aboriginal communities are major features of this issue.

Clapin M
Observation of fluctuations in hearing thresholds and middle ear function in 6- to 10-year-old children of Aboriginal and Caucasian descent in the eastern goldfields region of Western Australia. Master of Audiology thesis, University of Queensland, St Lucia, 1992

This study reports the findings of a year-long program involving monthly assessment of changes in hearing and middle ear function in 65 Aboriginal and 57 Caucasian children. Tests used at each assessment were pure tone audiometry, otoscopy and typanometry.

Caucasian children had a lower prevalence of hearing loss and middle ear disorder than did Aboriginal children, and the types of abnormalities also differed between the two groups. Otitis media and tympanic membrane perforation were more common among Aboriginal children, and the abnormalities tended to persist throughout the school year. In contrast, Caucasian children more commonly had eustacian tube disorders which rarely lasted longer than 3 months. Also, fluctuations in hearing thresholds were greater for Aboriginal than Caucasian children.

fluctuations in hearing thresholds were greater for Aboriginal than Caucasian children.

The thesis discusses the implications of these patterns for the planning of ear health screening and monitoring programs for Aboriginal children.

Hogg R
Indigenous mortality: placing Australian Aboriginal mortality within a broader context. Working Papers in Demography No. 29, Research School of Social Sciences, Australian National University, Canberra, 1991

This paper considers contemporary Australian Aboriginal mortality trends and compares the levels with those of indigenous peoples of Canada and New Zealand. The author documents similar patterns of high adult mortality for Australian Aborigines, Canadian Indians and New Zealand Maoris, but notes differences in life expectancies at birth and in age- and cause-specific death rates.

Kunitz SJ, Santow MG, Streatfield R, de Craen T
The health of populations on North Queensland Aboriginal Communities: change and continuity. Working Paper No. 30, National Centre for Epidemiology and Population Health, Canberra, 1992

This study, which examines twelve Aboriginal communities in north Queensland, found that improvements in Aboriginal infant mortality rates were not reflected in improvements in Aboriginal life expectancy, especially in older age groups. The authors suggest that infant mortality has improved due to direct intervention of health care providers, but that improvements in life expectancy have not occurred because of the lack of substantial community development health programs.

Ward BR
The auditory status of urban adult Aborigines and Torres Strait Islanders. Bachelor of Speech Therapy (Hons.) thesis, University of Queensland, St Lucia, 1991

Fifty adult Aborigines and Torres Strait Islanders living in Brisbane were studied to assess the prevalence of hearing loss and the relationship between actual and perceived levels of hearing impairment. Each person was assessed using pure tone audiometry, otoscopy, tympanometry and acoustic reflexometry, as well as a questionnaire concerning their perception of hearing problems.

The prevalence of hearing loss (in one or both ears) was 36 per cent, predominantly in the slight loss category. No correlation was found between actual and perceived levels of hearing impairment, but there was a strong awareness of hearing problems in the community. The author concludes there is a need to assess the level of hearing health service use by Aboriginal and Torres Strait Islander adults.

General publications and reports

Ellerby K
Aboriginal adventure
Nursing Times; July 88(29):54–6

Looks at some of the problems facing nurses working in the Top End of Australia's Northern Territory.

Fardon K, van Beurden E, James R, Christian J, Brooks L[6]
Does dietary change follow nutrition advice given at public cholesterol screening?
Australian Journal of Nutrition and Dietetics 1992; 49(4):117–20.

The North Coast cholesterol check campaign has screened over 40,000 people since its inception in 1987. Results suggest that participants are following the recommendations of the cholesterol advisers, thereby demonstrating that adults are able to modify dietary patterns when the advice is offered in an appropriate manner.

House of Representatives Standing Committee on Aboriginal and Torres Strait Islander Affairs
Mainly Urban: report of the inquiry into the needs of urban dwelling Aboriginal and Torres Strait Islander people.
Australian Government Publishing Service, Canberra, November 1992

This is one of the few reports by this Committee that directs attention to the almost 70 per cent of Aborigines and Torres Strait Islanders who live in cities or towns having a population of 1,000 or more (24 per cent live in cities with populations of 100,000 or more). The substantive chapters of the report address access to local government services, participation and representation in local government, barriers to participation in education, access to employment and training, housing needs (including needs for temporary or emergency accommodation), access to recreational and cultural activities, and community perceptions.

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[6] See also *Aboriginal Health Information Bulletin*, No. 17. Fradon K, van Beurden E, Ferguson J, Christian J (1991) North Coast Aboriginal nutrition feasibility study, or *Improving Aboriginal nutrition; a feasibility study from north coast New South Wales.* Health Promotion North Coast Public Health Unit.

Kramer A
Modern human origins in Australasia: replacement or evolution?
American Journal of Physical Anthropology 1991; 86(4):455–73

Theories on the origins of modern humans in Australasia see two competing hypotheses: replacement or multiregional variation. The former argues for a central origin from which subsequent migration occurred while the latter argues for several pockets of contemporaneous development.