Nutrition-related disorders in Indigenous Australians: how things have changed

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Thirty years ago, I wrote a short article entitled "Undernutrition in the midst of plenty: nutritional problems of young Australian Aborigines".[1] Appropriately for the time, emphasis was on childhood undernutrition, the related high infectious disease burden and the much higher mortality rates in Indigenous infants and young children than in their non-Indigenous counterparts. Awareness of these problems among health professionals and the wider community began to emerge only in the late 1960s and early 1970s. At the time the information for my article was gathered, Western Australia was the only jurisdiction in Australia in which hospital admissions were coded by race of origin. This allowed data on hospitalisation of Indigenous patients to be compared systematically with data from the rest of the population.

Gains and losses

There have been some significant reductions in these problems in the subsequent three decades, and knowledge about them has expanded enormously. Average birthweights of Indigenous infants have increased and the proportion of low-birthweight infants has improved; the infectious diseases burden has been somewhat reduced; and protection by immunisation against vaccine-preventable diseases such as pneumococcal disease and hepatitis B has been successful in many parts of Australia. Despite these improvements, standards of health and rates of disease, morbidity and mortality continue to be much worse among Indigenous Australians than in the rest of the population.[2] For example, rates of skin infection, serious respiratory tract infection, gastroenteritis, genitourinary infection and rheumatic fever are still much higher among Indigenous infants and children than in other Australians of the same age. And while severe marasmic malnutrition and kwashiorkor are nowhere near as prevalent in Indigenous children as they were in the 1960s and early 1970s, lesser degrees of undernutrition and impaired growth are still commonplace, particularly in remote areas. Gastroenteritis, often associated with malnutrition, used to cause many deaths among Aboriginal children,[3,4] but such deaths are now rare.[5] However, mortality rates in Indigenous infants are still much higher than in other Australian infants. A recent report showed that relative mortality risks for Aboriginal infants born in WA between 1980 and 2001 were three times those of other infants.[6] Although the Aboriginal infant mortality rate (IMR) fell from 25.0 per 1000 live births in 1980–1984 to 16.1 per 1000 live births in 1998–2001, the non-Aboriginal IMR fell from 8.4 to 3.7 over the same period.[6] The overall effect was that the relative (Aboriginal versus non-Aboriginal) IMR actually increased from 3.0 to 4.4. Infections and sudden infant death syndrome were significant contributors to the relatively high Aboriginal IMR.

Programs to redress inequities in Indigenous infant and child health require sensitive and focused strategies in order to succeed. One of the most important elements required is the meaningful involvement of Indigenous people in programs that affect their own health and wellbeing. The "Strong women, strong babies, strong culture" program is a good example of such an approach.[7]

ABSTRACT

- Awareness of a serious Indigenous health problem in Australia did not emerge until the 1960s and 1970s. Much attention was focused at the time on poor pregnancy outcomes, high infant and young child mortality rates, and childhood malnutrition and impaired growth, often associated with high infectious disease burdens.
- Although that situation has improved somewhat, Indigenous infant and child health is still poor compared with that of other Australian children.
- Over recent decades, there has been a rapid rise among Indigenous people of nutrition-related "lifestyle" disorders such as obesity, cardiovascular disease, type 2 diabetes mellitus and chronic renal disease and their complications.
- This epidemic of disabling and often fatal chronic diseases in Indigenous Australians is also occurring in disadvantaged groups in many other countries.
- Control of this potentially disastrous epidemic must become a much higher priority in Indigenous health programs. Governments must commit to this task in cooperation and collaboration with Indigenous organisations and communities.

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Shifting causes of disease and death

One of the most disturbing trends in Indigenous health to emerge over recent decades has been the rapid and apparently relentless upsurge in so-called "lifestyle" diseases and their complications and comorbidities. These include overweight, obesity, cardiovascular disease, type 2 diabetes mellitus and chronic renal disease.[8] The statistics are alarming:

- The prevalence of overweight or obesity in Aboriginal adults is at least 40%–45%;[9]
- The incidence and prevalence of diabetes in Indigenous people are 2–4 times those in other Australians[8] (and even higher in some communities[10]);
- Rates of newly diagnosed childhood diabetes in WA are about 18 times higher in Indigenous than non-Indigenous children, and rising rapidly;[11]
- Cardiovascular disease is the leading cause of death in Indigenous Australians, with relative mortality rates being 3–4 times higher than in the non-Indigenous population;[2,12]
- Aboriginal people have disproportionately high rates of chronic renal disease and renal failure.

Most morbidities are strongly associated with risk factors such as overweight, cigarette smoking, excessive drinking, skin sores and scabies.[8,13]

What has caused the deterioration in Indigenous health that contributes to a life expectancy at birth that is 15–20 years shorter for Indigenous people than for the rest of the Australian population?[2] Over the 20-year period 1981–2000, the gap in life expectancy between Indigenous and non-Indigenous Australians in the Northern Territory does not appear to have narrowed, but the causes of death have changed significantly.[14] The contribution of communicable diseases and of maternal, perinatal and nutritional conditions halved over the 20 years, while the contribution of non-communicable diseases increased markedly. Indigenous deaths in the NT from ischaemic heart disease and diabetes have been increasing since 1997, but the increase appears to have slowed modestly in the 1990s.[15]

Underlying factors

The reasons for the increasing impact of non-communicable and chronic disorders and their complications in Australia's Indigenous population are extremely complex. They have prehistorical, historical, cultural, socioeconomic and political dimensions.[16-19] Before European colonisation, Indigenous people were hunter–gatherers who had lived in isolation from other populations for tens of thousands of years. In traditional times, they gathered, trapped and hunted indigenous foods that were predominantly low in dietary energy, fat, salt and sugar, and high in fibre and complex carbohydrates. They also expended considerable physical energy in obtaining sufficient water and food to survive.[17]

At the time of first European contact, Aborigines were described as "slimly built, sinewy featherweights".[20] They were apparently not prone to chronic degenerative diseases such as cardiovascular disease, hypertension or diabetes mellitus.[16]

The significant increase in "lifestyle" diseases,[8] particularly over the past few decades, may be linked to the rapid shift towards "Westernised" diets and lifestyles and a decline in physical activity patterns. High-risk behaviours, such as a sedentary lifestyle, poor nutrition,[21] excessive alcohol consumption[22] and cigarette smoking, are implicated as contributors to these adverse outcomes and are more prevalent among Indigenous Australians.[2] Furthermore, clustering of such risk behaviours is common, and the effects of multiple adverse health-related behaviours are additive. The excessive consumption of alcohol has important nutritional implications, as well as negative social impacts on individuals, families and communities. It has also been linked with an increased prevalence of hypertension.[22]

But these factors do not fully explain the complexities and dynamics of the disturbing upsurge in chronic disease in Indigenous people. Social factors such as poverty, inferior housing, severe overcrowding, poor standards of domestic and community hygiene, racial discrimination, educational disadvantage, high unemployment rates, heavy dependence on social welfare, limited access to affordable and nutritious foods, and poor understanding of health and nutrition all increase the risk of chronic disease in Indigenous people.[2,18] It is also important to appreciate that chronic degenerative disorders tend to be insidious in onset, with long "silent" asymptomatic periods preceding clinical diagnosis. Limited access to quality health care and disease prevention and health promotion programs is another contributory factor. All of these underlying factors must be corrected to overcome the health inequities experienced by Indigenous people.

A global crisis

It is undeniable that the poor health of many Australian Indigenous people is part of a much wider problem of nutrition-related diseases that is occurring in many other countries, particularly among poorer sectors of society, and which has been called "a crisis in public health".[23,24] We have been reminded of the global importance of this through many well conducted large-scale studies of populations in more than 50 countries.[25] The gravity of this so-called "neglected epidemic of chronic disease" will not be resolved without concerted and coordinated political action. Unless this happens, "the gains achieved in reducing the burden of infectious disease will be washed away as a new wave of preventable illness engulfs those least able to protect themselves".[26]

What needs to be done in Australia?

Australian governments and their agencies must commit to the task of reducing chronic disease in the Indigenous population. Aboriginal people can help by being involved in community-based programs that work collaboratively with non-Aboriginal initiatives, or by working independently with Aboriginal-run organisations. There are many examples of the success of this approach[8] — in areas such as infant feeding and child health/nutrition;[7,27] community-based health/nutrition strategies;[28] and reduction in overweight/obesity, cardiovascular disease risk[28,29] and related lifestyle disorders.[30] Suppression of these risk factors, improvement in individual and community hygiene, and more effective clinical detection, intervention, management and supervision can help reduce the risks associated with chronic renal disease.[8] The risk of diabetes and its many comorbidities and complications can, similarly, be reduced by a holistic approach to the problem. This requires wide and strong community-based involvement and a range of influences that will activate community management; provide better-quality, more affordable food supplies; introduce nutrition and exercise programs; and underpin clinical support services and involvement from community schools.[8,31]

Government programs such as the National Strategic Framework for Aboriginal and Torres Strait Islander (ATSI) Health Implementation Plan 2003–2008,[32] the National ATSI Nutrition Strategy and Action Plan 2000–2010,[33] and the National Diabetes Strategy[34] may help address some of these problems. But there is an urgent need for innovative health promotion and disease prevention programs that work cooperatively with Aboriginal organisations, health services and communities as well as with existing clinical service providers and with intersectoral government agencies such as education, housing, infrastructure services, and local government. The Aboriginal-driven Unity of First People of Australia program that operates in remote Aboriginal communities in the Kimberley region of WA is an example of such collaboration.[31]

Regrettably, in many parts of Australia, particularly remote and rural areas, clinical services and programs for health promotion, disease prevention and screening are very patchy or inadequate and health services for Indigenous people are non-existent. The prevalence of nutrition-related chronic diseases and their consequences in Indigenous people will persist and most likely worsen if this situation is allowed to continue. There are basic issues of social justice at stake here. Furthermore, it is surely better, in the long run, to minimise the impact of preventable disease by promoting health and by earlier detection and intervention, rather than by spending limited government resources on expensively treating conditions that have become chronic, disabling and life-threatening.

Thirty years on, the challenges are very different, but just as difficult — perhaps even more so. But, with sufficient will and determination, a country as affluent, technically advanced and well endowed as Australia must be able to erase this internationally shameful state of affairs from its copybook.

Competing interests

None identified.

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