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Aboriginal health: not just tuberculosis

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AS A DISADVANTAGED GROUP in terms of both their health and socio-economic status, Aboriginal people in North America have long been shown to be at high risk for tuberculosis (TB). It is important to understand and examine this excessive risk of TB among Aboriginal people in the broader context of the overall health trends that the population has undergone since the time of the arrival of Europeans. In the space available, this paper can only provide a very brief overview which highlights a few major themes. Readers who wish to seek further background information about the health of Aboriginal people can consult the monographs listed at the end.

One can approach Aboriginal health in terms of health status, health determinants, and health consequences. For example, the relationships between Aboriginal people and the predominantly European newcomers to North America can be considered a health determinant; the rise and fall of epidemics can be considered one aspect of health status, and one health consequence would be the evolution of government health policy to address the worsening health status.

POPULATION DECLINE AND RECOVERY

It is important to recognize that Aboriginal people in Canada and Native Americans in the United States do not constitute a homogeneous group. Across the continent there are many tribes and nations. At the time of the arrival of Europeans, the Aboriginal population already existed in a large number of linguistic and cultural entities, occupying diverse ecological habitats from the frozen tundra in the far north to the hot, dry desert in the south-west. This diversity continues to exist, although all groups now share many similarities as a result of their common socio-political experience vis a vis the dominant North American society.

The indigenous cultures of North America were drastically reshaped by the arrival of Europeans, often referred to as contact. The initial contact with explorers, traders, and missionaries was generally followed by a period of displacement by, and conflict with, new settlers, often accompanied by epidemics and warfare. Ultimately, Aboriginal people came under the domination of the United States and Canadian governments and were incorporated into the modern economy.

There are many estimates of the size of the Aboriginal population in North America prior to the arrival of Europeans, based on widely divergent assumptions. These range from around 1 million to as high as 18 million. The primarily technical debate in historical demography, however, has become very contentious. A low estimate suggests that Europeans merely occupied a 'near-empty' continent, whereas a high estimate leads one to conclude that the decline in population subsequent to the Europeans' arrival was catastrophic, and the term 'holocaust' has even been used. Regardless of the population at the time of contact, most Aboriginal groups did experience a decline in population, as a result of depressed fertility and increased mortality from epidemics of introduced diseases, starvation, and warfare. According to the book by Thornton, the Aboriginal population was halved approximately every 100 years, and reached its lowest point toward the end of the nineteenth century, when they numbered less than 5 per cent of the population at contact.

From the 1900s, the population began to recover, with the birth rate eventually overtaking the death rate. From reasonably accurate census counts of just under 400 000 in 1900 in the two countries, the Aboriginal population grew to 550 000 at mid-century. Today there are around 3 million Americans and Canadians who report some Native/Aboriginal ancestry, about 1% of the total population of the two countries. Notwithstanding the many methodological problems with enumeration and ethnic/racial identification, the documented increase has been phenomenal, and can be attributed to improving health status and the assurance of basic economic security.

RISE AND FALL OF EPIDEMICS

The arrival of Europeans appeared to have unleashed waves of epidemics of infectious diseases, of which tuberculosis is the most recent, an epidemic that

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began in the late nineteenth century, reaching its most devastating peak during the early twentieth century, and did not really come under control until well into the 1960s for some groups. Before TB there were smallpox, measles, influenza, dysentery, diphtheria, typhus, whooping cough and syphilis, not to mention a variety of fevers and fluxes that are hard to categorize. Two theories have been advanced to explain the devastating effects of infectious diseases on the Aboriginal population, neither of which is entirely satisfactory. The 'cold filter' theory maintains that pathogenic microorganisms were filtered out of the ancestors of Aboriginal people when they crossed the Bering Strait from north-eastern Asia into North America. The 'virgin soil' theory posits an immunologically naïve population being exposed to newly introduced pathogens. Regardless of the explanations or mechanisms, the consequences of epidemics are severe and long-lasting. By eliminating able-bodied members of the community in large numbers and within a short time period, the procurement of food was compromised. Famine often accompanied epidemics. There were long-term effects on settlement patterns, disruption of the social structure, and undermining of the traditional religious and healing systems. Ultimately, epidemics affected the relationships between Aboriginal people and European settlers, and provided the impetus for the government to organize special health and social services. The string of tuberculosis hospitals across northern Canada built during the 1940s and 1950s served as the backbone of the Indian and Northern Health Services in post-war Canada.

A HEALTH TRANSITION

In the past 50 years, there have been major qualitative and quantitative changes in the health status of Aboriginal people. The absolute burden of mortality and morbidity has decreased substantially, measurable in terms of life expectancy at birth, infant mortality rate, and age-standardized mortality rate, and the incidence of most infectious diseases. However, the relative contributions of various diseases and health conditions have also changed, a shift that has been called an epidemiologic or health transition which is shared by many other populations undergoing rapid sociocultural change. The key features of this shift is the precipitous decline in infectious diseases (including TB), which, however, has stabilized at a level that remains higher than in the general, national population. There is a concomitant increase in the chronic diseases, especially diabetes. By far the most important group of health problems is the so-called social pathologies—violence, unintentional injuries, and the ill effects of alcohol and substance abuse. Injuries generally account for about one-third of all mortality in Aboriginal people.

HEALTH DETERMINANTS

How did this observable pattern of health and disease come about? Some health determinants relate to human biology, some to individual lifestyles and health practices, and still others to socio-economic status, community infrastructure, and environmental quality. Aboriginal people provide an excellent case study of how genetic susceptibility and environmental factors interact to affect health status and the distribution of disease. For the chronic diseases, especially diabetes, the role for genetics is strong, and theories such as the 'thrifty genotype' have been proposed to account for the emergence of such problems during an era of assured plentiful food supply.

Individual behaviours such as smoking, diet and nutrition, alcohol and drug use, sexual practices and physical activity are all implicated in diverse health problems. Existing data are discouraging in that as a group, Aboriginal people have acquired an unfavourable health risk profile compared to other populations—more smoking, more obesity, less physical activity, etc.

Broader socio-economic and environmental factors, such as income, education, housing, and employment, affect health status through a variety of pathways. Thus overcrowding promotes the acquisition and transmission of respiratory and skin infections; low income and education influence food choices, nutritional status, and the development of chronic diseases; unemployment engenders family breakdown and increases the risk of alcohol abuse and family violence. Again, Aboriginal people tend to fare worse in terms of these indicators than the national population.

LOOK TO THE FUTURE

TB has a long association with Aboriginal people. In fact, it can be considered an indicator disease. Its rise and fall corresponds closely to the immense social, cultural and economic changes experienced by Aboriginal people over the past two centuries. Its place has now been taken over by other indicator diseases, of which diabetes and youth suicide can be considered prominent candidates representing the new epidemics of chronic diseases and social pathologies. Aboriginal health continues to pose a challenge to us as researchers, practitioners and policy makers to uncover the causes of ill health and implement interventions to promote good health.

Further reading

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