

APPENDIX A

THE NEW ZEALAND PROGRAM

Several witnesses cited the hepatitis B vaccination program in New Zealand as an example that Canada might emulate to combat the threatened spread of hepatitis B infection in this country.

The principal focus of the immunization program in New Zealand has been the protection of children against infection because of their relatively high risk of becoming lifetime carriers of the hepatitis B virus. Such carriers are the major source of infection for others and they are also at some risk of developing chronic liver disease later in life.

Epidemiological studies of hepatitis B in New Zealand were carried out in the 1980s. Among the findings were the following: carrier rates amongst New Zealanders of European origin were less than 1% and the lifetime risk of infection in this group was less than 10%. Among Pacific Islanders and Maoris, however, the carrier rates were between 5% and 10% and the lifetime risk of infection could exceed 50%. New Zealand falls into the category of "intermediate endemicity" according to the World Health Organization (WHO) classification.

Canada somewhat resembles New Zealand in having a general population of largely European extraction with low endemicity of hepatitis B, and certain communities – e.g., aboriginal peoples and immigrants from Asia and Equatorial Africa – with high endemicity. Australia and the United States display comparable endemicity patterns in their populations.

In New Zealand, the transmission of virus from mother to child during birth is thought to contribute about 20-30% of the carrier pool (vertical transmission) for hepatitis B virus. The remainder results predominantly from the spread of virus between young children in the school environment (horizontal transmission). This latter mode of transmission is common in the North Island of New Zealand. There, the climate is warmer than the South Island, and the children wear lighter clothing. They are thus more subject to cuts and scrapes during play, and the possibility of transmission through blood is increased.

New Zealand's immunization program for hepatitis B was based on recommendations made by the Communicable Disease Control Advisory Committee, a body roughly equivalent to Canada's National Advisory Committee on Immunization (NACI). In 1985, the New Zealand Department of Health set as its initial target the highest risk group, namely the infants of highly infectious carrier mothers, a group of about 300 infants per year.

In 1986, additional funding was allocated to extend the program to include neonates of all carrier mothers, about 1500 infants per year. In 1987, the program was further extended to include all neonates in seven out of 18 health districts in the country. These seven districts were rated as "high risk" for early-childhood infection. This phase of the program marked the first time that an attempt was made to bring horizontal, as well as vertical, transmission of the virus under control.

In February of 1988, the New Zealand Cabinet, acting on recommendations from the Department of Health, approved extension of the immunization program to all neonates. Free immunization was also made available to close contacts of women identified as carriers from tests