information, therefore, the spread of hepatitis B can be reduced by the adoption of sensible precautions. The various high-risk groups and activities were noted above. If precautions are taken in high-risk occupations, in sexual activities, and even in drug use (e.g., not sharing needles and syringes), the transmission of HBV can be mitigated and even eliminated.

A universal neonatal and "catch-up" immunization program will effectively break the chain of disease transmission, but those individuals and groups not included in this program still will need to exercise appropriate caution in their activities, whether occupational or social. The wide availability of information on hepatitis B and its modes of transmission will assist in reducing its spread in Canada.

RECOMMENDATION NO. 5

The Sub-Committee recommends that Health and Welfare Canada, in cooperation with provincial and territorial health departments, develop and implement information and education programs to combat hepatitis B, to prevent the spread of this disease in Canada. Such programs should be directed to the Canadian public generally, and to identified high-risk groups and communities.

IMMIGRATION AND HEPATITIS B

The fact that hepatitis B is much more prevalent in other regions of the world than it is in Canada is an issue that must concern health policy makers in this country. Canada is a country-of-choice for many persons, particularly from developing countries, who are seeking opportunities for a better life for themselves and their families.

Dr. Laurence Blendis, in his testimony, identified immigration from regions of high endemicity of HBV as an important means by which hepatitis B could be spread in Canada:

> We are looking at a tremendous increase in the incidence (of hepatitis B in Canada) The question is, why is this happening? ... the world is becoming a village and we (in Canada) are not in an isolated setting. We are getting new citizens from all over the world all the time, and those citizens are coming from the areas of high prevalence of hepatitis B ... One reason I predict our numbers (of hepatitis B cases) will continue to rise sharply is because of our immigration pattern.[20]

In 1989, Canada received 190,342 immigrants. Of this total, the breakdown by continent of Last Permanent Residence is as follows: Asia, 48.3%; Europe 27.2%; North and Central America, 6.7%; Africa, 6.4%; Caribbean, 5.7%; and South America, 4.6%. Of the almost 92,000 immigrants from Asia, some 45.5% came from Hong Kong, the Philippines, Vietnam and Kampuchea, all areas of high endemicity of hepatitis B. Sub-Saharan Africa is rated as a region of high endemicity and North Africa as intermediate endemicity. Guyana, the principal country of origin of immigrants from South America in 1989, also has a high endemicity of hepatitis B.[21]

The federal government has the sole jurisdiction for the processing and approval of visitors and immigrants to this country. There are two federal acts which deal with immigration and disease: the Quarantine Act and the Immigration Act. The Quarantine Act was created to address diseases that could be dealt with by the quarantine of an individual until he was free of the disease. This is not

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20 *Proceedings,* Issue 2, p. 9.

21 Employment and Immigration Canada, *Annual Report* 1989-1990, p. 45-47.