

## HEPATITIS B VACCINATION POLICY

*The Public Health Association of Australia notes the following with respect to Hepatitis B infection:*

1. Hepatitis B is a major global health problem. In 2000 the World Health Organization (WHO) estimated that more than two billion people alive today, or 1 in 3 of the world's population, have been infected with the hepatitis B virus at some point in their life. An estimated 350 million (75% in South East Asia) of these developed chronic (lifelong) infection.<sup>1-3</sup> Overall, approximately 45% of the global population live in areas of high HBV prevalence.<sup>3</sup> Hepatitis B causes around 60 – 80% of the world's liver cancers and results in approximately 500,000 – 1.2 million deaths per year.<sup>3</sup>
2. The outcome of acute hepatitis B infection depends largely on the age at which it is contracted, 95% of babies and 5% of adults exposed to the virus are unable to clear the virus and develop a lifelong chronic infection. Many with chronic hepatitis B will remain generally healthy for many years, however, over their lifetime there is a 25% chance of developing cirrhosis or liver cancer.<sup>4</sup> Babies will generally appear healthy and asymptomatic at the time of infection and only around half of teenagers or adults will show signs of acute infection such as jaundice.<sup>4</sup>
3. In Australia, good data on the prevalence and incidence of disease are lacking. However, it has been estimated that there are approximately 90 000 to 160 000 people with chronic hepatitis B,<sup>5, & 6</sup> and that around 1 200 people die of the sequelae of infection each year.<sup>7</sup> There have been 147 liver transplants for HBV in Australia in the last 15 years. Chronic hepatitis B-related mortality, and the number of cases of hepatitis B-related liver cancer in Australia are increasing despite improvements in antiviral therapy(s).<sup>8</sup> Only a small proportion of those who would benefit from antiviral therapy are currently accessing treatment.
4. Australia is considered to be an area of "low endemicity," meaning that perinatal and child to child transmission is relatively uncommon. The majority of people with chronic hepatitis B in Australia were born overseas, predominantly in endemic regions within South East and North East Asia and Asia-Pacific region. Second and third generation descendants of people born in endemic regions are at increased risk of perinatal and transmission within the household. Other high risk groups include Indigenous Australians (16%); men who have sex with men (8%) and people who inject drugs (5%).

5. The incidence and mortality of liver cancer has doubled in NSW in the last two decades, NSW accounts for 40% of all notified cases of hepatitis B. Worldwide over 80% of liver cancer cases are related to hepatitis B or hepatitis C infection. Effective hepatitis B treatment and screening programs are expected to reduce the number of late diagnoses of liver cancer associated with chronic hepatitis B infection.  
[http://www.nswcc.org.au/html/policyaction/submissions/downloads/submission\\_state\\_budget\\_hepB\\_livercancer.pdf](http://www.nswcc.org.au/html/policyaction/submissions/downloads/submission_state_budget_hepB_livercancer.pdf)
6. The first universal vaccination program for hepatitis B was implemented in 1996 in Australia<sup>11</sup>, and universal vaccination against hepatitis B was introduced into all Australian Territories and States in 2000. A catch-up program for 10 - 13 year olds is in place although the uptake rate is unknown. The vaccination in some cases is also offered free of charge to other high risk groups, such as, Aboriginal and Torres Strait Islanders, injecting drug users, and health and community care workers.<sup>12</sup> Most but not all people will respond to the vaccination and become immune.
7. Vaccination coverage within high-risk adult and adolescent populations could be increased, as infection at this older age still presents a danger for acute clinical disease even though chronic infection is unlikely to develop.<sup>13</sup>

***The Public Health Association of Australia affirms the following:***

8. Safe, effective preventive health policy characterised by a long-term view and population approach to disease control is an underlying tenet of improved public health.
9. There is little debate in the public health arena about the value of immunisation. Immunisation has made a major contribution to the prevention of suffering and loss of life.<sup>14</sup> As with other vaccine-preventable diseases, hepatitis B vaccination is relatively inexpensive, safe, efficacious, easy to administer and does not require complex infrastructure or major capital investment. Hepatitis B vaccination is recommended for everyone and has been proven to be 95 percent effective in preventing infection.<sup>15</sup>
10. Hepatitis B vaccination must be expanded to address the possibility of infection amongst those not previously vaccinated, particularly adolescents and adults. Many people who become infected do so before realizing that they are at risk. Targeted vaccination outreach programs to at risk populations must be expanded to cope with the multifaceted epidemiology of the hepatitis B virus.<sup>16</sup>  
  
In Australia, where the bulk of infection apparently occurs in adolescence and early adult life, the most rapid impact on the incidence of hepatitis B infection and clinical acute hepatitis will be achieved through effective universal immunisation in early adolescence.
11. In Australia, the major public health responses to hepatitis B have included: securing the safety of the blood supply since the early 1970's; screening of antenatal women; the funding and implementation of the universal infant and

adolescent hepatitis B immunisation program, and the provision of treatment via the Government funded Pharmaceutical Benefits Scheme (PBS).

***The Public Health Association of Australia therefore believes the following steps should be taken:***

#### **In Australia**

12. Public health authorities should undertake consultation with appropriate consumer groups, such as peer injecting drug user groups to implement the most acceptable strategy. Pilot programs of different schedules and appropriate health services research should occur in the intervening period, so that programs can be based upon appropriate local experience and evaluation.
13. Some elements of a selective strategy should remain in place for the time being, aimed at:
  - susceptible household members of families containing a member with acute or chronic hepatitis B infection;
  - adults known or perceived to be at increased risk of infection; and
  - infants and children at increased risk due to ethnicity.
14. Screening of all pregnant women should continue with administration of Hepatitis B Immune Globulin and intensified efforts introduced immediately to ensure that a complete course of hepatitis B vaccine is given to all infants born to carrier mothers.
15. A comprehensive surveillance strategy for hepatitis B and its sequelae should be implemented.
16. Activities aimed at the control of hepatitis B and reduction in late diagnosis should be enhanced and evaluated.
17. The Federal Government in a partnership approach with key stakeholders and affected communities should lead the development of a comprehensive National Hepatitis B Strategy.

#### **Globally**

18. Given the global importance of hepatitis B as a health problem, Australia should actively support the efforts of the World Health Organisation to decrease the harm of hepatitis B, including taking measures to provide support as a donor country for developing countries with medium to high endemicity. Appropriate support could be provided through technology transfer assistance for vaccine manufacture, support for procurement of vaccines and sterile equipment for their administration, and by research into novel, effective means of vaccine delivery suitable for conditions in the developing world.

***The Public Health Association of Australia resolves that:***

19. In partnership with key stakeholders and affected communities, PHAA will advocate for the Australian Government to lead the development of a comprehensive National Hepatitis B Strategy.
20. PHAA will work with Hepatitis Australia (formerly the Australian Hepatitis Council), and other key stakeholders and relevant organizations to develop a strategy over the next two years to address hepatitis B related issues.
21. PHAA will work with Hepatitis Australia and relevant agencies for the improvement of hepatitis B surveillance data.
22. The PHAA Board, Branches and members should publicise the need for more effective control of hepatitis B in Australia.
23. The PHAA will urge the Federal Government to rapidly improve early adolescent and childhood catch- up hepatitis B immunisation programs, in addition to programs targeting individuals who are at high risk of infection. Adolescent vaccination should be undertaken as part of a comprehensive package of health promotion to address risks of disease transmitted through sex or drug use. These activities should be considered as public health measures and should be implemented without direct cost to the consumer.
24. The PHAA will urge Federal Government to explore and participate more actively in efforts for the global control of hepatitis B particularly in the Asia-Pacific; South East Asia and North East Asia, as part of integrated primary health care.
25. Health promotion issues relating to chronic infection with hepatitis B need to be identified and strategies developed to address these issues, for example: development of health maintenance and support resources and infrastructure that reflects and represents those people living with hepatitis B.

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**ADOPTED 1995, REVISED AND RE-ENDORSED 2002, 2005 AND 2008**

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