NSW HEPATITIS B STRATEGY
2014-2020

NSW GOVERNMENT Health

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FOREWORD

Despite being a vaccine preventable disease, hepatitis B is a substantial public health problem in Australia and internationally. It is a major cause of liver disease, including liver cancer, and drives much of the demand for liver transplantation.

In NSW, about 77,000 people are living with hepatitis B, many of whom are not aware that they have the infection. Hepatitis B is disproportionately common among people originating from high prevalence countries and Aboriginal people, and this pattern of infection has implications for the public health response to hepatitis B in NSW.

In recent years in NSW, we have experienced success in preventing locally acquired hepatitis B infections, and our public health professionals are rightly proud of the reach and effectiveness of established hepatitis B vaccination programs, in particular the universal infant hepatitis B vaccination program. Additionally, over many decades our specialist services have made an enormous contribution to the health of individuals and populations through the provision of high quality clinical care.

Nevertheless, more work is required to reduce the impact of hepatitis B in NSW. We need to reduce current levels of hepatitis B transmission, reduce the pool of undiagnosed infections, and do more to ensure that people with chronic hepatitis B are engaging with health services, so that their infection can be regularly monitored and effectively managed.

Our priorities for action are clear. We will build on existing strategies to prevent the transmission of hepatitis B in NSW and make it easier for people at risk of hepatitis B to get tested. We will support people who are newly diagnosed into a pathway of care and support general practitioners and other primary health care professionals to play a larger role in monitoring, managing and treating hepatitis B. And, we will help people with chronic infection to effectively manage their condition. Underpinning these actions is a focus on effective coordination of services and programs to ensure continuity of care for patients.

We have set five Targets to be achieved by 2020. These include to: achieve hepatitis B childhood vaccination coverage of 95%; ensure all pregnant women are screened for hepatitis B; ensure all babies born to hepatitis B positive mothers receive hepatitis B immunoglobulin within 12 hours of birth; reduce sharing of injecting equipment among people who inject drugs by 25%; and increase the number of people living with hepatitis B receiving antiviral treatment (when clinically indicated) by 300%.

I am very pleased to announce the *NSW Hepatitis B Strategy 2014-2020*, a first for NSW. The document describes how the public health system will work with general practitioners, non-government organisations, community organisations, researchers and affected communities to form a coordinated response to the hepatitis B epidemic in NSW. Because the prevalence of hepatitis B is highest in parts of the metropolitan Sydney local health districts, these jurisdictions have particular responsibilities in implementing this *Strategy*.

Achieving the goals and targets of this *Strategy* will require a commitment from key stakeholders to working collaboratively with each other and with affected communities. I invite you to think about how you can support the implementation of this *Strategy* – we each have a unique role to play.

Jillian Skinner MP
Minister for Health
Minister for Medical Research

STRATEGY AT A GLANCE

GOALS

TO REDUCE HEPATITIS B INFECTIONS IN NSW

TO IMPROVE THE HEALTH OUTCOMES OF **PEOPLE LIVING WITH HEPATITIS B** IN NSW

TARGETS

ACHIEVE HEPATITIS B **CHILDHOOD VACCINATION COVERAGE** OF **95%**

ENSURE **ALL PREGNANT WOMEN** ARE **SCREENED FOR HEPATITIS B**

ENSURE ALL BABIES BORN TO **HEPATITIS B POSITIVE MOTHERS** RECEIVE HEPATITIS B **IMMUNOGLOBULIN WITHIN 12 HOURS** OF BIRTH

REDUCE SHARING OF **INJECTING EQUIPMENT** AMONG PEOPLE WHO INJECT DRUGS **BY 25%**

INCREASE THE NUMBER OF PEOPLE LIVING WITH HEPATITIS B **RECEIVING ANTIVIRAL TREATMENT** (WHEN CLINICALLY INDICATED) **BY 300%***

** Not all people living with hepatitis B require antiviral treatment; it is estimated that 8-25% of cases require antiviral treatment.*

ACTIONS

PREVENT: Build on established hepatitis B prevention efforts	TEST AND FOLLOW UP: Increase hepatitis B testing and diagnosis	MANAGE: Improve monitoring, care and treatment
• Increase childhood vaccination coverage • Vaccinate and provide immunoglobulin to babies born to hepatitis B positive mothers • Vaccinate groups at elevated risk of infection with hepatitis B • Strengthen other preventive strategies	• Promote testing and vaccination among groups at elevated risk of infection • Strengthen systems to ensure follow up care of pregnant women living with hepatitis B, their children, and other family members • Provide targeted support for testing, diagnosing and follow up of hepatitis B in geographic areas with elevated prevalence • Support the inclusion of hepatitis B screening and vaccination in Aboriginal Health Checks in a range of settings	• Support best practice care for people living with hepatitis B • Support primary care to play a larger role in monitoring, managing and treating hepatitis B • Improve self-management and health-seeking behaviours among people living with hepatitis B

SYSTEM ENABLERS

- Surveillance
- Performance monitoring and evaluation
- Clinical redesign and innovation
- Health systems and policy relevant research
- Workforce development
- Cultural competence
- Community engagement and partnerships
- Effective governance
- An evidence-informed population health approach

PRIORITY POPULATIONS

- People living with hepatitis B •
- Mothers who are living with hepatitis B and their babies •
- People from culturally and linguistically diverse backgrounds •
- Aboriginal people •
- People who inject drugs and other groups at increased risk of hepatitis B infection

Hepatitis B is vaccine-preventable, and as such immunisation is a key strategy in its prevention. In NSW, the vaccine is offered free in the routine childhood program and to all infants at birth. Consistently over 90% of NSW babies are fully vaccinated against hepatitis B, on average 99% of pregnant women are screened for hepatitis B and 98% of babies born to hepatitis B positive mothers receive hepatitis B immunoglobulin within 12 hours of birth. In addition, immunisation service providers are able to access free hepatitis B vaccine for all the high risk groups recommended by the National Health and Medical Research Council. Increasing the already high vaccination coverage of young infants and supporting people at elevated risk of hepatitis B to get vaccinated are key priorities for NSW Health.

Dr Kerry Chant
NSW Chief Health Officer

CONTENTS

Addressing the burden of chronic hepatitis B in NSW requires a preemptive strategy for the provision of care, focusing in particular on improving diagnosis and management of hepatitis B infections. In NSW, established antenatal screening for hepatitis B provides an opportunity for early detection and intervention in pregnant women and their infants. Diagnosis during pregnancy also provides opportunities to promote testing and vaccination among family and household contacts and to initiate ongoing care to prevent liver disease progression. Critical in pregnancy is the prevention of mother-to-child transmission of hepatitis B through the delivery of vaccination and hepatitis B immunoglobulin to exposed infants, and consideration of therapeutic intervention for hepatitis B positive pregnant women. Therefore, this Strategy highlights the need for a locally coordinated and multidisciplinary response to hepatitis B which ensures effective monitoring of mothers with chronic hepatitis B and follow up care of infants born to high risk mothers. Effective engagement of primary care physicians will be critical to success.

Dr Amany Zekry
Associate Professor of Medicine, UNSW Australia
Director of Gastroenterology and Hepatology, St George Hospital

Dr Miriam Levy
Associate Professor, University of Western Sydney
Head of Department of Gastroenterology and Hepatology, Liverpool Hospital

WHY A STRATEGY FOR HEPATITIS B?

Hepatitis B is both a blood-borne and sexually transmissible infection. The main routes of transmission include: from mother-to-child, usually occurring at or around birth; during unprotected sex; through sharing of injecting equipment; occupational or medical exposure, such as via needle-stick injury; and between people living with hepatitis B and their household contacts.[1-3] Hepatitis B infection is classified as either acute (infection which lasts less than six months) or chronic (infection which lasts for longer than 6 months and often for life). The liver is the main organ affected by hepatitis B.

Between 2004 and 2013, there were 25,246 notified cases of hepatitis B in NSW, the majority of which (24,821 cases) were of unknown duration.[4] In NSW in 2013, there were 34 notifications per 100,000 population (2,512 cases).[4]

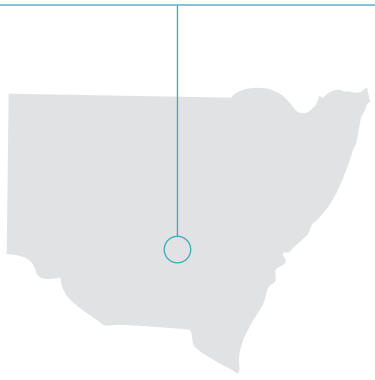
However, a significant proportion of people living with hepatitis B are not aware of their infection. Therefore, notifications of cases of hepatitis B to Public Health Units do not provide an accurate picture of the scale of the problem. It is estimated that more than 77,000 NSW residents have hepatitis B and that the number of people with chronic infection is growing.[5]

Most adults who are infected with hepatitis B virus will clear the infection spontaneously without intervention, with only a small proportion going on to chronic infection. On the other hand, a very high proportion of infants (up to 90%) infected with hepatitis B virus go on to develop a chronic infection in the absence of intervention. Even though mother-to-child transmission is not common in NSW, mothers who are hepatitis B positive and their babies are priority populations in the hepatitis

AN ESTIMATED

77,000

NSW RESIDENTS HAVE HEPATITIS B



B response due to the high likelihood of these babies developing chronic infection in the absence of immunoglobulin and vaccination. People originating from countries with a high prevalence of hepatitis B and Aboriginal people are also priority populations because the prevalence of hepatitis B is elevated in these groups.[4,5,6] Also at risk are people who inject drugs, men who have sex with men, sex workers and people in or recently in custodial settings, and these groups are a priority for hepatitis B prevention.

In NSW, hepatitis B infection is not evenly distributed, with higher rates in some local government areas of some Local Health Districts, including Sydney, South Western Sydney and Western Sydney Local Health Districts. Action addressing hepatitis B should therefore be coordinated locally, informed by local data and enhanced in communities in which the prevalence of hepatitis B is known to be high.

LOCAL HEALTH DISTRICTS WITH ELEVATED HEPATITIS B PREVALENCE

Data source: ASHM. Hepatitis B Mapping Project: Estimates of chronic hepatitis B prevalence and cultural and linguistic diversity by Medicare Local, 2011 – National Report. Surry Hills: Australasian Society for HIV Medicine; 2013.

HEALTH IMPACT OF HEPATITIS B

Chronic hepatitis B infection is a major cause of liver cancer and driver of demand for liver transplantation. Without intervention, 15-25% of people with chronic hepatitis B will experience serious complications and a significant proportion will die from liver cancer or liver failure as a result of the infection.[7] People living with hepatitis B require regular health monitoring to assess liver health and the need for antiviral treatment. Co-infection with hepatitis C or HIV,[8,9] and co-morbidities such as obesity, diabetes and excessive alcohol consumption[10] can exacerbate hepatitis B and accelerate liver disease progression. Many of these co-morbidities can be prevented or managed. Ensuring that people living with chronic hepatitis B are supported to effectively manage their infection and adopt health enhancing behaviours is a priority of this *Strategy.*

The outlook for people with hepatitis-related liver cancer is amongst the poorest of all cancers, with only 19% of patients surviving for at least five years post diagnosis.[11] The risk of advanced liver disease is greatest among people who acquire hepatitis B at birth or during childhood. Chronic hepatitis B can now be effectively brought under control with antiviral therapy. However, among people requiring treatment for hepatitis B, only a small proportion start treatment in any year. This highlights a need to support people with chronic infection and those at risk of infection to effectively engage with health services and to support general practitioners and other primary health care practitioners to adopt best practice in hepatitis B screening, diagnosis, treatment and management. Both of these approaches are particularly needed in areas of elevated hepatitis B prevalence.

We warmly welcome this first hepatitis B Strategy for NSW. Arguably the greatest contributor to its success will be the involvement of the communities most affected by hepatitis B. The health sector needs to base health promotion services on evidence-based practice that uses culturally-specific ways to bring about improvements in the health of people living with chronic hepatitis B. Regular liver health checks, timely treatment access, effective health management and take-up of vaccination programs will depend on greatly improved community awareness, especially within families. And health services will need to adjust to take account of diverse communities' different ways of working. Hepatitis NSW looks forward to working under this Strategy, building on our existing hepatitis B information, education and advocacy activities.

Mr Stuart Loveday
CEO Hepatitis NSW
Former President and founding member of Hepatitis Australia

GOALS AND TARGETS

The goals of this *Strategy* are to:

- Reduce hepatitis B infections in NSW; and
- Improve the health outcomes of people living with hepatitis B in NSW.

To achieve our goals, our program targets are to:

- Achieve hepatitis B childhood vaccination coverage of 95%;
- Ensure all pregnant women are screened for hepatitis B;
- Ensure all babies born to hepatitis B positive mothers receive hepatitis B immunoglobulin within 12 hours of birth;
- Reduce sharing of injecting equipment among people who inject drugs by 25%; and
- Increase the number of people living with hepatitis B receiving antiviral treatment (when clinically indicated) by 300%.*

We will do this through actions that:

- Build on established hepatitis B prevention efforts;
- Increase hepatitis B testing and diagnosis; and
- Improve monitoring, care, and treatment.

PRIORITY POPULATIONS

This *Strategy* focuses our efforts on working with those groups of people that are most at risk or most affected by hepatitis B. These 'priority populations' are:

- People living with hepatitis B;
- Mothers who are living with hepatitis B and their babies;
- People from culturally and linguistically diverse backgrounds – particularly those born in countries with moderate to high rates of chronic hepatitis B infection;
- Aboriginal people; and
- People who inject drugs and other groups at increased risk of hepatitis B infection, particularly: household and sexual contacts of people living with hepatitis B; gay men and men who have sex with men; sex workers; and people in or recently in custodial settings.

** Not all people living with hepatitis B require antiviral treatment; it is estimated that 8-25% of cases require antiviral treatment.*

OUR VALUES

NSW Health's core values are collaboration, openness, respect and empowerment. Everyone has the right to be treated with dignity and respect in their interactions with health services. This is central to our efforts to improve the health and wellbeing of priority populations in this *Strategy*. Unfortunately, shame and stigma is associated with chronic hepatitis B infection, primarily related to a poor understanding of prevention and transmission.[12] Many of our priority populations are also marginalised and experience discrimination. Stigma and discrimination may negatively influence engagement with health services.[12]

Therefore, programs and policies that underpin respectful service delivery and empowerment for our priority populations will be required over the life of this *Strategy*. To ensure NSW Health's services are delivered equitably, the proportion of hepatitis B services provided to priority populations identified in this *Strategy* will, where possible, be reported. While there is no routinely collected data on stigma or discrimination related to hepatitis B specifically, overall performance of the health service in providing care in line with our values is captured in the NSW Health Patient Survey Program, particularly in relation to 'respect', 'dignity', 'politeness' and 'courtesy'.

PRIORITY 1: BUILD ON ESTABLISHED HEPATITIS B PREVENTION EFFORTS

INCREASE CHILDHOOD VACCINATION COVERAGE

Hepatitis B infection can be prevented through vaccination. Universal vaccination programs remain one of the most effective and cost-efficient public health measures to prevent transmission of the hepatitis B virus.

In NSW since 2000, hepatitis B vaccine has been provided free of charge as part of routine childhood immunisation. The population coverage of hepatitis B vaccination among infants in NSW has been consistently high over several years and catch up programs have been conducted until recently in high schools to ensure that unvaccinated adolescents born from 1999 onwards have been offered hepatitis B vaccination. There is therefore a large cohort of young people in NSW with good protection against hepatitis B.

In line with the National Immunisation Program Schedule, hepatitis B vaccination continues to be routinely offered to all infants in NSW, with four doses of vaccine recommended (birth, 2 months, 4 months and 6 months). In NSW, over 90% of infants are reported as fully vaccinated at 1 year of age, which increases to 94% by the time they are 2 years old.[13] Improving this high coverage is a priority of this *Strategy*.

VACCINATE AND PROVIDE IMMUNOGLOBULIN TO BABIES BORN TO HEPATITIS B POSITIVE MOTHERS

Providing immunoglobulin and vaccination within 12 hours of birth to babies born to women living with hepatitis B reduces the risk of infection.[14] Hepatitis B immunoglobulin and vaccination are 95% effective in the prevention of perinatal transmission. In NSW, current coverage of hepatitis B immunoglobulin (98%) and vaccination of these newborns is good. Improving levels of hepatitis B immunoglobulin administration and vaccination is a priority of this *Strategy*.

HEPATITIS B IMMUNOGLOBULIN AND VACCINATION ARE

95% **EFFECTIVE** IN THE PREVENTION OF PERINATAL TRANSMISSION

Although screening of newly arrived refugees for hepatitis B was introduced in NSW in 1994, uptake was variable. Since 2012, a statewide program of nurse-led health assessments for newly arrived refugee settlers has greatly increased the opportunities for detection of chronic infection and immunisation of contacts and of others not immune. Through dedicated refugee clinics and close collaboration with general practitioners, the vast majority of newly arrived refugees to NSW are now screened for hepatitis B soon after arrival. Those affected have their condition explained and are linked into appropriate services for ongoing care.

Dr Mitchell Smith
Director, NSW Refugee Health Service

VACCINATE GROUPS AT ELEVATED RISK OF INFECTION WITH HEPATITIS B

Increasing uptake of hepatitis B vaccination among our priority populations is an important objective in reducing onward transmission of the hepatitis B virus. Improved vaccination coverage will be achieved by ensuring follow-up of sexual and household contacts of people living with hepatitis B and targeted, opportunistic screening by health services. It will also be achieved by strengthening education of primary care providers and at-risk individuals about the availability, safety and benefits of vaccination and by ensuring the hepatitis B vaccine is accessible to those who need it most.

In NSW, the hepatitis B vaccine is available at no cost to people in custodial settings, household and sexual contacts of people living with hepatitis B, immunosuppressed people, men who have sex with men, people with HIV or hepatitis C, people who inject drugs, people on an opioid treatment program, refugees, newly-arrived migrants attending intensive English centres, sex workers, clients of sexual health services, unvaccinated children and Aboriginal people of any age. Although vaccination coverage among Aboriginal children is high (95% at two years of age), the timeliness of vaccination needs to be improved.[13]

Hepatitis B is a notifiable condition in NSW. The disease notification system, through which medical practitioners, hospital Chief Executive Officers and medical laboratory staff notify Public Health Units of cases of hepatitis B, provides an opportunity to inform health care providers about the benefits of encouraging the contacts of people with hepatitis B to get vaccinated.

ENHANCE THE NEEDLE AND SYRINGE PROGRAM

In a significant proportion of notifications of newly acquired hepatitis B, injecting drug use is identified as the route of transmission. Therefore, in line with the *NSW Hepatitis C Strategy 2014-2020*, this *Strategy* includes a focus on reducing sharing of injecting equipment among people who inject drugs, especially young people who inject, by improving the effectiveness and efficiency of the NSW Needle and Syringe Program (NSP).

There is a need to implement NSP models that are flexible and targeted, models that ensure sterile injecting equipment is readily available in the areas of highest need and for those most at risk. Additionally, there will be an ongoing role for the staff of NSPs in educating people who inject drugs about hepatitis B prevention, testing, treatment and care.

ADDITIONAL PREVENTION STRATEGIES

Regulation of skin penetration premises

Unsterile skin penetration procedures are a risk for infection with blood borne viruses. In NSW, premises that perform skin penetration procedures (such as tattooing, acupuncture, ear piercing, some nail treatments and hair removal) have infection control responsibilities, as described in the *Public Health Act 2010* and *Public Health Regulation 2012.* Public Health Units in Local Health Districts and local councils have a role in monitoring adherence to these infection control requirements, with environmental health officers having the power to issue improvement notices and prohibition orders to non-complying premises.

Health promotion and community engagement

Health promotion addressing hepatitis B will be integrated into existing programs which seek to reduce the transmission of sexually transmitted infections and/or blood-borne viruses among priority populations. These integrated and targeted programs will raise awareness about, and support the uptake of, behaviours that reduce the risk of acquiring hepatitis B, such as adopting safe sex practices and using sterile injecting equipment. Health promotion approaches will also be particularly important in preventing risk behaviours associated with home tattooing and similar unregulated skin penetration procedures.

Evidence shows that the most effective health promotion initiatives are those that: are multi-strategic; include the target population at each stage of development, implementation and evaluation; are evidence informed; and address the individual, social and environmental dimensions of a health issue.

In recent times in NSW, several projects have been implemented seeking to provide hepatitis B information to at risk communities. These efforts should be effectively coordinated, align with established health literacy frameworks, and be integrated into comprehensive, evidence-informed health promotion programs.

A core principle underpinning community development is the recognition that the most appropriate responses are identified by the affected communities themselves. The diversity of communities most affected by chronic hepatitis B demands that community engagement and mobilisation approaches form part of the public health response to hepatitis B in NSW, especially in supporting and empowering people at elevated risk of infection to adopt protective behaviours and people with chronic infection to effectively manage their condition and engage with health services.

Ms Barbara Luisi
Manager, Multicultural HIV and Hepatitis Service

ACTIONS

Immunisation

- Health Protection NSW and Local Health Districts to continue implementing existing hepatitis B vaccination policies, population-level programs and strategies, including the universal infant hepatitis B vaccination program and strategies to improve vaccination timeliness among Aboriginal children.

  Partners: Aboriginal Health and Medical Research Council of NSW, Aboriginal Community Controlled Health Services, Building Strong Foundations Services, and general practice organisations.

- Local Health Districts to continue implementing strategies to reduce mother-to-child transmission of hepatitis B, including: screening of pregnant women; ensuring pregnant women who are living with hepatitis B are assessed in the final trimester; and providing timely hepatitis B immunoglobulin and vaccination to their babies.

  Partners: general practice organisations, private obstetricians and Health Protection NSW.

- Ministry of Health and Local Health Districts to support health services to embed hepatitis B screening and vaccination into routine practice in line with established guidelines, especially in those health services that are most commonly used by affected communities.

  Partners: Aboriginal Community Controlled Health Services, Multicultural HIV and Hepatitis Service, NSW Refugee Health Service, non-government organisations, general practice organisations, community health, youth health, sexual health, Justice Health and Forensic Mental Health Network, Corrective Services NSW, school-based health services, needle and syringe programs, and public and private opioid treatment programs.

Other preventive strategies

- Local Health Districts to continue implementing the NSP and enhance hepatitis B awareness among NSP clients.

  Partners: Local Health Districts and non-government organisations.

- Health Protection NSW to support Local Health Districts, local councils and professional bodies in providing educational resources and training to staff and skin penetration practitioners on 'Infection control for the skin penetration industry' and to monitor skin penetration premises for compliance with the *Public Health Regulation 2012.*

  Partners: local government and Local Health Districts.

- Local Health Districts to ensure that health promotion programs address the blood borne virus risks associated with home tattooing and other unregulated skin penetration procedures.

  Partners: Multicultural HIV and Hepatitis Service and non-government organisations.

PRIORITY 2: INCREASE HEPATITIS B TESTING AND DIAGNOSIS

PROMOTE TESTING AMONG GROUPS AT ELEVATED RISK OF INFECTION

A significant proportion of people with hepatitis B are not yet diagnosed.[5] Without knowledge of their infection, individuals cannot make informed decisions about prevention, monitoring and treatment. Therefore, this *Strategy* has a focus on reducing undiagnosed hepatitis B infections by strengthening testing and diagnosis. This will be achieved by supporting and empowering newly arrived migrants and refugees, Aboriginal people and other at risk groups to seek testing for hepatitis B and by supporting health services to improve screening and vaccination for hepatitis B in line with established guidelines. The last of these strategies is particularly needed in areas of elevated hepatitis B prevalence and should have a particular focus on those health services that are most commonly used by our priority populations, especially general practices servicing migrants from high burden countries, Aboriginal Community Controlled Health Services and sexual health clinics.

Chemotherapy and other immunosuppressive treatments can cause reactivation of hepatitis B, with associated morbidity, interruption of treatment and mortality. All patients should be tested for hepatitis B prior to commencing these treatments, so that they can be placed on appropriate prophylactic antiviral therapy to prevent reactivation if required.

STRENGTHEN SYSTEMS TO ENSURE FOLLOW UP CARE OF PREGNANT WOMEN LIVING WITH HEPATITIS B AND THEIR CHILDREN

All pregnant women are routinely offered hepatitis B testing while receiving antenatal care.[15] Diagnosis of hepatitis B during pregnancy provides an opportunity to improve the health of the woman and reduce the risk of mother-to-child transmission. For example, appropriate referral and follow up can ensure mothers living with hepatitis B are assessed and where appropriate considered for antiviral treatment. Although testing of pregnant women during the antenatal period is currently high, more effort needs to be placed in the primary care sector to ensure that babies born to hepatitis B positive mothers have antibody levels measured after completion of the primary hepatitis B vaccination course to ensure that they have been protected against hepatitis B.

PROVIDE SUPPORT TO DIAGNOSING CLINICIANS IN GEOGRAPHIC AREAS WITH ELEVATED PREVALENCE

Prompt follow-up of hepatitis B notifications helps to identify the source of infection in newly acquired cases and prevent further transmissions from the same source. For those cases that are not newly acquired (i.e. are likely to have occurred two or more years ago), there are also opportunities to prevent transmission and support treatment and care for the person concerned through supporting general practitioners to work with patients to understand their diagnosis and provide advice on appropriate actions to take.

PROMOTE HEPATITIS B TESTING AND VACCINATION IN ABORIGINAL HEALTH CHECKS

The Health Assessment for Aboriginal and Torres Strait Islander People (Medicare Benefits Schedule Item 715) exists to help ensure that Aboriginal people of all ages receive primary health care matched to their needs, by encouraging early detection, diagnosis and intervention for common and treatable conditions that cause morbidity and early mortality. Where possible, hepatitis B screening and vaccination should be incorporated into this and other relevant Aboriginal health checks.

Aboriginal Community Controlled Health Services are governed and administered by Aboriginal people to provide accessible comprehensive primary health care for our communities. Aboriginal Community Controlled Health Services deliver hepatitis B vaccination and monitoring programs through a holistic model of health that includes antenatal, child and adult health checks. These health services remain the most effective setting through which to engage Aboriginal communities on health issues, and are key for increasing access to, and knowledge of, hepatitis B treatments.

Ms Sandra Bailey
Chief Executive Officer, Aboriginal Health and Medical Research Council of NSW

ACTIONS

Testing and public health management

- Health Protection NSW and Local Health Districts (including Public Health Units) to facilitate linkages between specialist services and general practitioners to ensure people who are newly diagnosed with hepatitis B are supported into a pathway of care.

  Partners: Ministry of Health, general practitioners, and general practice organisations.

- Local Health Districts to support diagnosing general practitioners and other primary care practitioners to ensure effective patient education, follow-up, and contact tracing with testing and vaccination of contacts.

  Partners: general practitioners, general practice organisations, Ministry of Health and Health Protection NSW.

- Ministry of Health and Local Health Districts to engage general practitioners, practice nurses, Aboriginal health workers, and other primary care providers in best practice hepatitis B testing, contact tracing, assessment of viral load and disease phase, and surveillance for liver cancer.

  Partners: general practice organisations, Health Protection NSW, the Aboriginal Health and Medical Research Council of NSW, Aboriginal Community Controlled Health Services, Justice Health and Forensic Mental Health Network and non-government organisations.

- Ministry of Health to work with agencies to promote hepatitis B testing and vaccination via Aboriginal Health Checks.

  Partners: Aboriginal Community Controlled Health Services, Aboriginal Health and Medical Research Council of NSW and general practice organisations.

- Local Health Districts to integrate hepatitis B testing and vaccination if indicated into routine care of newly arrived refugees, prisoners, clients of drug health services, sexual health clinics and maternity units.

  Partners: Multicultural HIV and Hepatitis Service, Migrant Resource Centres, NSW Refugee Health Service, Justice Health and Forensic Mental Health Network and non-government organisations.

- Multicultural HIV and Hepatitis Service to provide hepatitis B education to newly arrived migrants and refugees and provide links into primary care for screening.

  Partners: NSW Refugee Health Service and non-government organisations

- Local Health Districts to trial innovative models or hepatitis B testing among priority populations.

  Partner: Ministry of Health.

- Ministry of Health and general practice organisations to promote adherence to established testing guidelines.[21]

  Partners: Local Health Districts and non-government organisations.

- Local Health Districts to ensure uniform protocols are in place to ensure appropriate follow-up of hepatitis B positive pregnant women, and their infants, both before and after birth.

  Partners: Ministry of Health and Health Protection NSW.

- Local Health Districts to implement guidelines regarding hepatitis B testing prior to commencement of chemotherapy or other immunosuppressive treatment.

  Partners: NSW Cancer Institute, the Agency for Clinical Innovation and medical organisations.

PRIORITY 3: IMPROVE MONITORING, CARE AND TREATMENT

SUPPORT BEST PRACTICE CARE FOR PEOPLE LIVING WITH HEPATITIS B

Improve monitoring

Diagnosis is a necessary first step, but making real improvements in hepatitis B-related outcomes will require each person with chronic infection to be monitored for disease progress ideally once every six months.[16] This will assist people living with hepatitis B to make informed decisions about their care.

For those people not on treatment, monitoring (via blood test) detects the infection phase, early signs of liver disease and can assist in determining whether treatment might be beneficial. Putting people on treatment at the wrong time can introduce complications, such as medication resistance. Access to non-invasive methods (such as transient elastography) to assess fibrosis and liver health among people living with hepatitis B is also important. In addition, because hepatitis B can progress to liver cancer in the absence of cirrhosis, it is important for people with hepatitis B to have regular ultrasounds and blood tests to screen for cancer when indicated.

Unfortunately, many people with chronic hepatitis B do not monitor their health as they believe themselves to be "healthy carriers". It is now established that the healthy carrier state is a myth. Hepatitis B infection has natural phases of latency and disease activity which are not necessarily sequential.[16] This underscores the need for vigilant monitoring. Unfortunately, it appears that many people with hepatitis B are not aware of this, with a significant number not accessing treatment until they have advanced liver disease.

People who acquired hepatitis B during birth or childhood are at an increased risk of chronic infection and subsequent disease progression and advanced liver disease. It is therefore imperative that we improve rates of regular monitoring in this group of patients.

There are also particular issues related to improving regular monitoring and care among children and young people with chronic hepatitis B. Given the elevated risk of early onset of advanced liver disease among people who develop infection in childhood, it is important that these patients are followed up by a clinician. This can be done by their established primary care provider, with referral to specialist services provided when clinically indicated. Making hepatitis B educational materials available online will also help engage and inform affected communities.

Increase antiviral treatment

The indications for treatment of hepatitis B are based on a combination of five factors: hepatitis B e antigen (HBeAg) status; serum hepatitis B virus DNA levels; immune responsiveness; serum alanine aminotransferase levels; and severity of liver disease.[16]

Over the past 10 years there have been remarkable improvements in treatments for hepatitis B. There is now the potential to reduce the risk of advanced liver disease for many people with chronic infection.

In order to reduce levels of hepatitis B morbidity and mortality, the number of people with chronic infection on treatment and the number of people having their liver checked for liver cancer would need to be increased significantly; in 2010 an estimated 2.5% of those with chronic infection received treatment in Australia.[17] Uptake of treatment is held back by: misconceptions among patients about disease progression and treatability; low levels of knowledge among health professionals about chronic hepatitis B, its diagnosis and management; and the limited capacity of services providing existing patterns of care.

Many clinicians report that uptake of treatment may be particularly low among some communities where the rates of hepatitis B are high – in particular, among Aboriginal people – which results in individuals presenting for treatment with advanced liver disease.[18]

All people living with hepatitis B and undergoing chemotherapy or immunosuppressive therapy need to be monitored, and treated as appropriate with prophylactic antiviral therapy to prevent reactivation.[19]

SUPPORT PRIMARY CARE TO PLAY A LARGER ROLE IN MONITORING, MANAGING AND TREATING HEPATITIS B

For people with chronic hepatitis B, management (including monitoring and treatment) in a primary health care setting is often both clinically appropriate and more convenient than accessing a hepatology or gastroenterology service.

Historically, the role of primary care providers in responding to hepatitis B was largely limited to testing individuals on request and providing vaccination. Disease management and monitoring, on the other hand, was the domain of specialists. However, this is no longer an appropriate response to the challenges posed by hepatitis B. Indeed, to avoid a substantial increase in the burden of advanced liver disease in NSW, primary care providers need to take a more active role in testing those at risk of, and managing people with, chronic hepatitis B. Australian research suggests that primary care providers would be willing to take on an expanded role in the management and treatment of chronic hepatitis B, especially if these providers are confident that they can access specialist advice and support in a timely manner.[20-22] This will require a new process to better link general practitioners with specialist support.

Nurses also have a strong role to play in hepatitis B management. Nurses in the tertiary setting are well placed to provide education, screening and follow-up of patients and providing a link between primary and specialist care. Nurses in primary care can provide the work-up for patients entering into antiviral treatment including managing pathology, ultrasounds and transient elastography.

General practice engagement, coupled with practical support via patient recall and reminder systems, can enhance community-based screening, vaccination, monitoring, treatment uptake and disease surveillance.[23]

In NSW, the public specialist system has led the response to hepatitis B over many decades and has made an enormous contribution to the health of individuals and populations. Over the life of this *Strategy*, public gastroenterology and hepatology services will focus their efforts on providing treatment and care for patients whose clinical needs require specialist intervention and on providing specialist support, including through specialist nurses, to primary care providers delivering hepatitis B care in less complex cases.

Expanding antiviral prescribing in primary care

At present, antiviral treatment can only be initiated by a (public or private) gastroenterologist or hepatologist. Treatment can be safely delivered in primary care settings (general practice and Aboriginal Community Controlled Health Services in particular) via shared care arrangements between community-based and specialist services.

Expansion of primary care involvement will only be possible if primary care providers are knowledgeable about hepatitis B and skilled in diagnosing, monitoring and treating the infection. It will also require effective coordination across specialist and primary care settings. Local Health Districts with a high prevalence of hepatitis B will provide targeted education to health practitioners in their area. The Australian Government and general practice organisations will also have a role in making this possible.

IMPROVE SELF-MANAGEMENT AND HEALTH-SEEKING BEHAVIOURS AMONG PEOPLE LIVING WITH HEPATITIS B

People living with hepatitis B need support in understanding and adjusting to their diagnosis as well as understanding their condition and its management and treatment options. The most appropriate support will vary depending on individual needs, cultural and linguistic background, and experiences of stigma and discrimination.

During the life of this *Strategy*, programs will be implemented in high prevalence communities seeking to: raise awareness of hepatitis B infection; reduce hepatitis B-related stigma and discrimination; build hepatitis B health literacy and health-seeking behaviours; and manage patients with co-morbidities that may accelerate liver disease progression.

Chronic hepatitis B can be a devastating disease that can cause death from liver failure or liver cancer. Too often we see relatively young people from migrant communities present with large untreatable liver cancers that could have been prevented through diagnosis, engagement in regular assessment and monitoring, and appropriate treatment. We must increase awareness of hepatitis B in at-risk communities and their primary care providers. Partnerships between public health units, primary care providers, specialist services comprising physicians and nurses, multicultural services and community groups are of critical importance.

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ACTIONS

Monitoring and management

- Local Health Districts to develop systems to support, and provide targeted education to, health practitioners in the management of hepatitis B, especially in geographic areas with elevated prevalence.

  Partners: Ministry of Health and general practice organisations.

- Ministry of Health to investigate systems that promote regular liver cancer screening among people living with hepatitis B.

  Partners: non-government organisations, Local Health Districts, general practice organisations and Agency for Clinical Innovation.

- Ministry of Health to work with the Australian Government to support general practitioner and nurse participation in hepatitis B management and treatment through the Highly Specialised Drugs Program, Pharmaceutical Benefits Scheme and Medicare Benefits Schedule.

  Partners: Australian Government and general practice organisations.

- NSW Kids and Families to promote systems that support access to monitoring and care among children and young people with hepatitis B, and to babies born to women living with hepatitis B.

  Partners: Local Health Districts and Ministry of Health.

- Justice Health and Forensic Mental Health Network to include a focus on hepatitis B management and treatment among people in custody.

Community engagement and patient self-management

- Ministry of Health and non-government organisations to expand hepatitis B information available online.

- Local Health Districts to implement programs that support patient self-management, including regular disease monitoring and changes to diet, exercise and alcohol intake.

  Partners: Multicultural HIV and Hepatitis Service, Aboriginal Health and Medical Research Council of NSW and other non-government organisations.

- Local Health Districts to implement evidence-based programs targeting affected communities and focussing on identifying undiagnosed or unmanaged hepatitis B, access to treatment and care, including management of co-morbidities, and preventing transmission of the hepatitis B virus to others.

  Partners: Multicultural HIV and Hepatitis Service, Aboriginal Health and Medical Research Council of NSW and other non-government organisations.

Among patients with hepatitis B who are aware that they have the disease, most are not being appropriately managed. Management can include regular disease monitoring for some patients or antiviral therapy for others. There is an urgent need to support primary care professionals to test for and appropriately manage hepatitis B infection, in collaboration with their specialist colleagues. With appropriate capacity building and support from government and relevant stakeholders working with primary care professionals, hepatitis B related liver failure and liver cancer can largely be prevented.

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RESEARCH

During the life of this *Strategy*, the NSW Ministry of Health will fund research that can guide the response to hepatitis B in NSW and support the achievement of our goals and targets. Studies that can directly inform the implementation or evaluation of the actions included in this *Strategy* will be prioritised.

The Kirby Institute for Infection and Immunity in Society and the Centre for Social Research in Health are key partners in the NSW response to hepatitis B, through their work in epidemiology, clinical research, and behavioural and social research.

MONITORING AND EVALUATION

Monitoring and evaluation is a vital component of the *Strategy*. We will develop and implement an evaluation framework with input from stakeholders, including our research partners at the Kirby Institute for Infection and Immunity in Society and the Centre for Social Research in Health. The focus is both to measure progress in achieving the *Strategy* goals, targets and objectives and to provide data on a regular basis to inform implementation decisions and drive better outcomes. Where possible, performance indicators will be developed for Local Health Districts to help local service delivery decision making and assess performance, in addition to measures identified in Service Agreements.

Throughout the life of this *Strategy* opportunities to improve regular data and reporting will be explored and implemented where appropriate. Further, evaluation of key responses will be undertaken to demonstrate outcomes and build evidence for practice.

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