

Prevention and Control of Hepatitis B and Hepatitis C in the Philippines: A Call to Action

National Viral Hepatitis Task Force

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Hepatitis B and hepatitis C in the Philippines

Hepatitis B and Hepatitis C infection are major public health problems in the Philippines with an increasing economic and social burden resulting from the infections. An estimated 7.3 million Filipinos (16.7% of the adult population) are chronically infected with the hepatitis B virus (HBV).¹ This rate is extremely high in comparison to other countries and is more than double the 8% average prevalence of HBV infection in the Western Pacific region.^{2,3}

Reflecting the economic impact of the infections, a 2003 survey showed the prevalence of hepatitis B being highest in the 20-49 year age group, which comprise the workforce or those entering the workforce.¹ In addition, small-scale studies suggest that up to 1% of Filipinos could be infected with the hepatitis C virus (HCV).⁴

Both hepatitis B and hepatitis C are strongly associated with the development of liver cirrhosis and liver cancer (hepatocellular carcinoma or HCC).⁵⁻⁸ Globally, 30% of cirrhosis cases can be attributed to hepatitis B infection, with 27% being attributed to hepatitis C.⁸ These proportions are likely to be higher in the Philippines, and while reliable data is not available, viral hepatitis may account for almost 60% of HCC cases in the country, most of which are due to hepatitis B.⁹ It is estimated that liver cancer is the third leading cancer in the Philippines, affecting over 7,000 new people yearly. HCC carries a poor prognosis, making it the second leading cause of cancer death locally.¹⁰⁻¹¹ Hepatitis B and hepatitis C can also cause other organ injury and can contribute to all-cause mortality, not just from liver disease.

Most people with hepatitis B and hepatitis C are asymptomatic, and could unknowingly transmit the virus to other people, especially those close to them. Hepatitis B and hepatitis C are transmitted through:¹²⁻²⁰

- Infected blood and body fluids
 - Transfusion of infected blood and blood products
 - Sharing of contaminated personal items such as razors and toothbrushes
 - Unsanitary body modification including unregulated tattooing or body piercing
 - Reuse of contaminated medical equipment
 - Needle sharing in people who inject drugs;
- Sexual transmission; and,
- Vertical transmission from mother to infant, particularly of hepatitis B. The impact of vertical transmission is substantial because it is more likely to lead to chronic or lifelong infection that can be transmitted from one generation to the next. The prevalence of hepatitis B among pregnant women is 8%.²¹

Hepatitis B transmission is preventable through vaccination. Hepatitis B vaccination should be given to all infants, and people who belong to high risk populations (e.g., healthcare workers; men who have sex with men; commercial sex workers; people who inject drugs; people in close contact with people with chronic hepatitis B; people in custodial setting; and people with HIV).²² Healthcare workers belong to a special group in that, aside from them being at risk of occupational exposure, they may also transmit infections to patients they handle.

Infection with hepatitis B and hepatitis C has a significant social impact not just from the disease, but from fear, stigma and discrimination.²³⁻²⁵ A lack of understanding within the community about these infections means that many people think that people with the infections can casually transmit the disease. Many of the general public assume that patients must have done immoral acts to have gotten the virus, unaware that these infections can be unwittingly transmitted through innocent routes such as contaminated shared personal items, contaminated blood products, contaminated medical devices, during childbirth, and close household contact.

Hepatitis is the cause of a heavy economic burden. Aside from the high cost of antiviral treatment, not to mention the treatment for liver failure, cirrhosis, and liver cancer, many people with viral hepatitis suffer from loss of productivity, and are deprived of meaningful employment.

The Department Of Labor and Employment (DOLE) Department Advisory No. 05 (Series of 2010), also known as the Guidelines for the Implementation of a Workplace Policy and Program on Hepatitis B, emphasizes that hepatitis B is not spread through usual workplace activities²⁶ and provide for confidentiality and non-discriminatory policy and practices in the workplace. Nonetheless, many patients, even those not from the healthcare profession, continue to be declared unfit to work based solely on their chronic infection (seropositivity for the hepatitis B surface antigen)²⁷ and many are denied overseas employment.

Problem areas in hepatitis B and hepatitis C control and prevention

There are several factors contributing to the high burden of hepatitis B and hepatitis C infection in the Philippines.

- Primarily is the lack of awareness about viral hepatitis and its transmission, prevention, screening, clinical management and impact among patients, the general public, and healthcare providers.²⁷ This lack of awareness essentially affects the response to viral hepatitis in the Philippines and is fueled by stigma towards the disease. This stigma has a range of impacts including preventing people from being screened for the infections and accessing clinical care.²⁵ Due to discrimination, individuals decline to be tested.
- Gaps exist in preventing further transmission. Hepatitis B transmission is effectively prevented through a vaccination program. Hepatitis B immunization is included in the Maternal, Newborn, Child Health and Nutrition (MNCHN) Package of services of the Department of Health. Republic Act 10152 (An Act Providing for Mandatory Basic Immunization Services for Infants and Children, Repealing for the Purpose Presidential Decree No.996 as amended) provides mandatory hepatitis B vaccination to all infants, with the first dose given within the first 24 hours of life.²⁸

In 2005, members of the World Health Organization (WHO) Western Pacific Regional Office (WPRO), including the Philippines, aimed to reduce chronic hepatitis B

prevalence to less than 2% in children at least 5 years old by 2012, and to further lower it to less than 1% over the longer term (2017).²⁹ This would be done by having at least 85% three-dose coverage of hepatitis B vaccination, and at least a 65% timely birth dose coverage given within the first 24 hours of birth of an infant. In the Philippines, three-dose coverage was acceptable in 2008-2009, but has begun to decline in the following years.²⁹ Recently, the target coverage has been increased to 95%.

In 2011, timely birth dose coverage in the Philippines was only 40%.²⁹ Several issues seemed to contribute to the low coverage. One is the high rate of births unattended by a skilled birth attendant (20% to 28%) and births outside a health facility (40%).^{29,30} Among births within a health facility, there is a wide variation in timely birth-dose coverage, depending on the type of facility. While timely coverage was 90% for government clinics and 87% for government hospitals, the coverage in private hospitals (which account for 18% of all live births) was surprisingly only 50%.²⁹

Among sites with poor coverage, several issues have been identified leading to missed opportunities for vaccination. Forty percent of facilities had at least one instance of vaccine shortage within a year. Moreover, only 57% and 70% of preterm neonates and low-birth weight neonates were vaccinated, respectively. Finally, gaps in supervision and reporting were also found.

In addition, many pregnant women do not know their serologic status of infection.

Lastly, while a catch-up program may protect older children, there is no catch-up program for unimmunized children beyond the age of 24 months.³¹

- There is scanty information on the transmission of viral hepatitis through health settings including through the blood supply and inadequate infection control procedures. Local data is lacking on viral contamination of blood products and contaminated injections, but global data suggest that this contributes to 32% of new hepatitis B infections, and 40% of new hepatitis C infections.³²

Republic Act 7719, also known as the National Blood Services Act of 1994, was enacted to encourage voluntary blood donation, upgrade blood donation services and facilities, and phase out commercial blood banks to prevent blood contamination.³³ Since then, the WHO has reported a steady increase in voluntary blood donation in the Philippines.³⁴ While local data on viral hepatitis transmission through the blood supply is lacking, national human immunodeficiency virus (HIV) surveillance showed that less than 1% of all HIV cases were due to transfusion of blood products, supporting the improvement in blood supply services in the Philippines. However, vigilant surveillance is still necessary.³⁵

- Intravenous drug use is another route of contaminated blood. There are up to 18,000 injecting drug users in the Philippines.³⁶ With poor access to sterile injecting equipment and stigma related both to injecting drug use and hepatitis C, these individuals remain at high risk for needle sharing, and for acquiring hepatitis B and/or hepatitis C and/or HIV.

- There is a lack of data comprehensively describing the increasing burden of viral hepatitis in Philippines. Serologic surveillance of hepatitis B and hepatitis C is also lacking in scope and depth. To date, there is limited up-to-date information on the national prevalence of hepatitis B and hepatitis C, as well as its prevalence in vulnerable groups. This lack of surveillance data hinders policy making and program monitoring.

Screening of people with viral hepatitis is essential to reduce the burden of infection on individuals, community and the health systems. The barriers to this screening include that it is currently not covered by the Philippine Health Insurance Corporation (Philhealth); that there is no systematic process for conducting screening on people with or at risk of the infections; and that stigma towards people with viral hepatitis prevents them from accessing health services and reduces screening rates.

- Hepatitis B and hepatitis C is undertreated in the Philippines. There are several reasons for this, including the lack of symptoms in most infections; lack of systematic screening; lack of education on how to respond to a positive diagnosis; and the high cost of treatment. Philhealth currently has no outpatient package for the treatment or management of these infections. An additional impact of the high cost of treatment has led to the mushrooming of unscrupulous persons peddling questionable products with no approved therapeutic claims, aimed at taking advantage of the large number of patients desperately seeking fast cures. Meanwhile, among those who choose to receive appropriate care, the system of referral remains to be ill defined.
- There is no policy or systematic approach to the provision of education about hepatitis B and hepatitis C within health care education and training. This is critical since future health care providers can either be susceptible to infection or sources of infection.
- The private business sector response to hepatitis B needs to be strengthened and enhanced in order to address the issues of employment and workplace discrimination, and to contribute to the prevention and control of viral hepatitis in the Philippines.
- Poverty prevents patients from accessing information, screening, testing, and treatment for hepatitis B and hepatitis C.

Due to the multifaceted problem of hepatitis B and hepatitis C, there is an urgent need for an organized and multisectoral solution.

Call for control and prevention of hepatitis B and hepatitis C

In the 1990s, the prevalence of hepatitis B in Hong Kong and Taiwan was at least 10%. Today, the prevalence in these areas is below 2%.^{37,38} This was accomplished through a comprehensive national vaccination program and an integrated, multisectoral approach. This multisectoral approach included public education campaigns, improved screening access and protocols, effective policy development and implementation, provision of information for

people diagnosed with the infection; and access to free clinical management including treatment.

Similar comprehensive programs are long overdue in the Philippines. In 2010, the Philippines was a signatory to the World Health Assembly Resolution 63.18 that established the Global Hepatitis Programme, and which mandates signatories to improve national control of viral hepatitis, through:³⁹

- Improvement of surveillance and laboratory capacity;
- Integration of policies, strategies and tools recommended by the WHO;
- Strengthening of national health systems, protection of health-care workers, access to preventive, diagnostic and treatment technologies against viral hepatitis;
- Implementation of monitoring and evaluation tools;
- Observance of World Hepatitis Day (July 28); and,
- Promotion of injection safety.

Furthermore, Republic Act 10526 (Liver Cancer and Viral Hepatitis Awareness and Prevention Month Act) designated January of every year as the "Liver Cancer and Viral Hepatitis Awareness and Prevention Month".⁴⁰ The Act encourages public education and awareness about viral hepatitis, including its causes, transmission, consequences, diagnosis, treatments and prevention. It highlights the importance of at-birth infant immunization and its correct schedule and dosage, as well as the importance of child and adult vaccination. Lastly, it encouraged inter-agency and multisectoral effort.

In response to the call for a comprehensive and multisectoral action to control hepatitis B and hepatitis C, the National Viral Hepatitis Task Force (NVHTF) was convened. The NVHTF is a public-private partnership; it is a multisectoral coalition of stakeholders with a shared interest in viral hepatitis prevention and control. The member organizations of the task force are (see Appendix A):

- Hepatology Society of the Philippines (HSP) as Convenor;
- Department of Health (DOH);
- Occupational Safety and Health Center (OSHC);
- Philippine Health Insurance Corporation (Philhealth);
- Philippine College of Physicians (PCP);
- Philippine Cancer Society (PCS);
- Philippine Pediatric Society (PPS);
- Philippine Society of Gastroenterology (PSG);
- Philippine Society of Microbiology and Infectious Diseases (PSMID);
- World Health Organization (WHO); and,
- Yellow Warriors Society of the Philippines (YWSP).

International partners include the Coalition for the Eradication of Viral Hepatitis in Asia Pacific (CEVHAP), Viral Hepatitis Foundation (VHF), and the World Hepatitis Alliance (Appendix B).

The mission of the NVHTF is to develop and maintain a national strategy to eliminate or significantly decrease the prevalence of hepatitis B and hepatitis C in the Philippines. It aims to:

- Increase knowledge and awareness of hepatitis B and hepatitis C among the public, health policy makers, and health care providers;
- Promote appropriate hepatitis B and hepatitis C testing, and hepatitis B vaccination according to local practice guidelines;
- Create a framework for comprehensive services for hepatitis B and hepatitis C, including screening, counseling, treatment, and surveillance of infected persons;
- Create a framework for public health surveillance systems for acute and chronic hepatitis B and hepatitis C infection and for complications of acute and chronic hepatitis B and hepatitis C infection (i.e., fulminant liver failure, cirrhosis, and liver cancer); and,
- Create a framework to minimize the social and economic impact of hepatitis B and hepatitis C on the country, on patient groups, and on the individual.

This current document serves as a call to action from the NVHTF for the national government together with other interested parties to create a national comprehensive program to combat hepatitis B and hepatitis C. This document hopes to lay the grounds for a comprehensive and consistent road map for the prevention and control of hepatitis B and hepatitis C in the Philippines.

To align the efforts of NVHTF with those of the World Health Assembly Resolution 63.18, the NVHTF resolved to adapt the comprehensive health system approach of the WHO's *Prevention and Control of Viral Hepatitis Infection: Framework for Global Action*, and the four axes outlined in the Framework.²¹ These axes are:

- Axis 1: Raising awareness, promoting partnerships, mobilizing resources;
- Axis 2: Evidence-based policy and data for action;
- Axis 3: Prevention of transmission; and,
- Axis 4: Screening, care and treatment.

Attacking viral hepatitis using this four-prong approach ensures that all sectors cooperate in unison, and that the problem is addressed in its entire spectrum.

Roadmap to control of viral hepatitis

Axis 1. Organizing action, raising awareness, promoting partnerships and mobilizing resources

Enacting legislation

Organizing and implementing nationwide programs to address hepatitis B and hepatitis C, especially those that involve many sectors of society, requires the authority of legislation to be effective. The DOLE Department Advisory No. 05 (Series of 2010) has already laid guidelines regarding viral hepatitis in the workplace.²⁶ This includes provisions for worker protection; health education for people at risk and those with infection; and confidentiality and non-discrimination. However, to further strengthen the thrust for proper implementation of workplace policies and programs on viral hepatitis, a Bill on Instituting a Policy and Program on Hepatitis B in the Workplace should be submitted to our legislators for enactment into law. Other legislative, regulatory and policy gaps will be systematically identified.

Institutionalization of the NVHTF

The NVHTF believes that organized action and accountability is important in sustaining all collaborative actions towards viral hepatitis control. To facilitate this, the NVHTF has to become institutionalized into a formal entity, with a working office and designated staff. NVHTF—under the same name or a different one—as a formal entity and consisting of a broad representation of key stakeholders, will serve as a long-term central hub. It shall be accountable for sustained national efforts to develop and maintain the national strategy on hepatitis B and hepatitis C control, including coordination, public information, and fund raising efforts. Possible approaches to accomplish this institutionalization include, but are not limited to: establishing the NVHTF as a study group under the National Institutes of Health; as a technical working group under the Department of Health; as a legal entity registered with the Securities and Exchange Commission; or as an independent foundation.

Public Education

In the Philippines, hepatitis B and hepatitis C are shrouded in stigma as a result of a lack of knowledge by the general community about these infections. This has prevented at-risk individuals and groups; infected patients; and the general public from getting correct and adequate information about the disease. Poor knowledge of the disease promotes transmission and delays treatment in addition to perpetuating misconceptions about the disease. Advocacy and raising awareness will help reduce both transmission and stigma in the community.²²

Embracing the old adage of the “Rule of Sevens” (i.e., “The prospective buyer should hear or see the message at least seven times before they buy it”), a massive, persistent, nationwide multimedia awareness and education campaign is needed. All forms of traditional and non-traditional media should be used to ensure maximal coverage. This includes television, radio,

print, and electronic media. All communications should be reviewed and approved by the NVHTF and the Department of Health.

Campaigns should target a wide multisectoral audience, from at-risk populations; to policy-makers, the general public, and even healthcare professionals. Communication messages should be appropriate for the target audience. For example, women of reproductive age should be educated on knowing their serological status and getting appropriate and timely maternal and infant vaccination and clinical management of their infection. The workforce and the general public should be educated on hepatitis B and hepatitis C transmission, prevention, screening, and treatment goals and options. Professional societies should aim to educate health professionals, update knowledge, and dispel misconceptions.

Annual Hepatitis Awareness Days

The highlight of all awareness and education campaigns nationwide will be every January. This month has been designated, under Republic Act 10526, as "Liver Cancer And Viral Hepatitis Awareness and Prevention Month."²⁸ During this month, nationwide public education and awareness campaigns on the prevention of liver cancer and viral hepatitis will be conducted by national and local government, non-governmental organizations, and other interested stakeholders, through a multisectoral and collaborative interagency effort. The role of compulsory immunization for hepatitis B of all infants within 24 hours of birth, will be always highlighted, as mandated by the Act. Other topics on the holistic approach to preventing and treating liver cancer and viral hepatitis will also be highlighted, in accordance with the annual celebration's theme. These campaigns will involve multiple channels and media to ensure wide reach.

In addition, the World Hepatitis Day is celebrated on the the 28th of July of every year. The celebration of the "Liver Cancer And Viral Hepatitis Awareness and Prevention Month" in January and of the World Hepatitis Day in July will serve to sustain the awareness and education campaigns throughout the year.

Tapping into patient and health provider organizations and raising funds

As part of increasing linkage and partnership, people with viral hepatitis should be encouraged to join patient organizations. Strengthening patient organizations is a vital element in the campaign against viral hepatitis. There should be an active initiative to support increasing the membership base of the Yellow Warriors Society of the Philippines (YWSP). This is a national organization welcoming people with hepatitis B and hepatitis C and those who advocate for the eradication of viral hepatitis. The YWSP can be a major resource in increasing public information.

Enjoining different medical societies in the education of medical professionals also encourages linkage and partnerships that may improve care of patients with hepatitis. This effort can begin with member organizations of the NVHTF.

As much as possible, implementation at the grassroots level should be performed within the devolved framework of the local government units involved.

Finally, all these efforts require resources with planning needed on fund raising, and mobilize these funds in an unrestricted manner. Contributions may be through direct appeal to sponsors dedicated to the fight against viral hepatitis; through fundraising campaigns and events; and partnerships with different institutions.

Axis 2. Data for policy and action

Policies and actions should be evidence based, guided by documented needs. Accurate data help policy-makers and other stakeholders understand the burden of hepatitis B and hepatitis C, and the needs of control programs. Such data shall serve to guide policy, make evidence-based economic arguments, and incite action.

Tap into available data banks

Currently, national data exists including infection rate data from the Philippine Red Cross; surveillance data from the STD AIDS Cooperative Central Laboratory (SACCL); morbidity and mortality data from the National Statistics Office and Philhealth; and the upcoming or soon to be completed 2013 seroprevalence survey on 0-to-5 year old children by the Department of Health in collaboration with the Institute of Child Health and Development and the WHO. The quality and scope of these data should be collated and assessed. Furthermore, data from local and international studies, whether published or unpublished, should be collected in a data repository for easy access and analysis.

Establish surveillance systems

Surveillance is critical in generating data. Standard surveillance schedules allow regular updating of data; monitoring, review, and improvement of control programs; and tracking of progress, efficiency, and success of these programs. Feasible disease and seroprevalence surveillance systems using a standardized and independent process should be developed, in partnership with and guidance from the WHO. Surveillance of hepatitis B and hepatitis C can be conducted together with other nationwide health surveys, such as the National Nutrition and Health Survey conducted every 5 years. Vulnerable populations (e.g., children) and other high-risk populations identified from databases (e.g. national and provincial statistics and vaccination coverage reports, as well as Philhealth coverage) should be prioritized.

Cost-benefit analysis

Cost-benefit analysis studies on the impact of hepatitis B and hepatitis C on the burden and treatment of cirrhosis and liver cancer, as well as the impact of the infection on the economic productivity of those who are infected should be performed to strengthen the economic argument of controlling hepatitis B and hepatitis C; tailor fit programs; and prioritize and allocate resources to different interventions.

Identification of the impact of viral hepatitis on people with the infection.

People with viral hepatitis carry the brunt of the impact of the disease. A systematic investigation of the needs of people with viral hepatitis or Needs Assessment could identify their experience of living with the virus. This study would identify all aspects of the patient

journey, including the patient's medical, psychological, and social needs. As part of this study, the Philippine health system—from vaccination, to screening and diagnosis, to treatment and management of complications—should be assessed to determine specific areas that can be targeted for improvement. Results of data analysis should be communicated to the appropriate stakeholders, especially policy makers and health care professionals caring for people with the infections.

Axis 3.Prevention of transmission

The prevention of transmission is the cornerstone of control of infectious diseases like hepatitis B and hepatitis C. Preventing transmission reduces the disease burden and reduces the pool of carriers who can perpetuate further transmission. It also reduces the need for costly treatment of infection and complications. The prevention of viral hepatitis requires a two-prong approach: widespread vaccination among the susceptible population, and reduction of high-risk behavior.

Vaccination

Hepatitis B is a vaccine-preventable disease. The hepatitis B vaccine affords protection in up to 95% of individuals.^{31,41} It is usually given in a course of three vaccine injections, where the second injection is given at least one month after the first dose, and the third injection is given six months after the first dose. Under the Expanded Program on Immunization (EPI) of the DOH, hepatitis B vaccination is given as follows: the monovalent hepatitis B vaccination is given at birth ideally within 24 hours after birth and the combination diphtheria-pertussis-tetanus-hepatitis B-*Haemophilus influenza* B, also called the Pentavalent vaccine, is given at 6 weeks, 10 weeks, and 14 weeks. Therefore, under the EPI, an infant should receive a total of four doses of hepatitis B immunizations before reaching 1 year old.⁴⁷

Hepatitis B vaccination is an important component of prevention of mother-to-child transmission.^{42,43} Based on the 2011 birth coverage of hepatitis B vaccinations, an estimated 225,000 chronic HBV infections and 38,000 HBV-related deaths were prevented in that cohort alone. In addition, increasing vaccination coverage to the target levels recommended by the WHO WPRO would have prevented an additional 39,000 chronic infections and almost 7,000 deaths in each birth cohort.²⁹

Infant vaccination

Population level hepatitis B vaccination is mandated by Republic Act 10152 through mandatory vaccination of all infants, ensuring that the first dose is given within the first 24 hours of life.²⁸ However, this law needs a set of forceful Implementing Rules and Regulations (IRR). The IRR should ensure that the correct vaccination schedule is defined; that the birth dose is given in a timely manner; that the person responsible for this is clearly indicated; and that the mechanisms to achieve timely birth dose especially for births outside a health facility are in place.

Knowledge of vaccination, of Republic Act 10152, and of its IRR should be communicated to mothers, care givers, and healthcare professionals. This can be done through guidelines,

community-based campaigns, and media. This will not only encourage acceptance and delivery of vaccination but will also empower the end-users to clamor for these services. This will likewise ensure completion of the vaccination regimen.

Timely vaccination coverage should be encouraged especially in births at private hospitals, which contribute 18% of all births, but only have a 50% coverage of timely birth dose.²⁹ Uptake of free vaccination under the EPI should be increased in this setting. Forums to advocate hepatitis B vaccination through EPI should be initiated.

Currently, the four doses of hepatitis B vaccine are given free for children below 1 year old under the EPI of the DOH. Philhealth also has coverage of the birth dose of hepatitis B vaccine for its members. Harmonization of the programs of DOH and Philhealth, as well as streamlining of access pathways, should be considered to maximize vaccine coverage.

To improve and standardize birth vaccination procedures in hospitals and healthcare facilities, the Essential Intrapartum and Newborn Care framework, where birth dose hepatitis B vaccination is a component, should be encouraged.

Since around 40% of births are delivered at home, reaching home births is an important opportunity to increase birth coverage.²⁷ Healthcare workers attending home births should be trained on the use of the vaccine, and given access to vaccine supply.

Nationwide vaccination programs should be monitored using key performance indicators and serologic surveys. Monitoring of vulnerable populations, such as children, should be prioritized.

Catch-up vaccination

Importantly, even with the attainment of the WHO WPRO target of 85% coverage of hepatitis B vaccination, a significant 15% of children will remain unprotected and have the potential to get infected and become chronic carriers. Furthermore, this target has been recently increased to 95%.

A national catch-up program should be initiated to ensure that unimmunized children and adults receive the necessary vaccination regimen. While this catch-up program would be limited to a certain number of years, public-private partnerships should be explored to realize the massive requirements of a catch-up program. Testing before vaccination for hepatitis B needs to be instituted.

Reduction of high-risk behavior

Reduction of risky behavior is another important aspect of viral hepatitis transmission. Both hepatitis B and hepatitis C can be transmitted through activities such as unsterile injecting; unhygienic body modification including tattooing; sharing of blood-contaminated personal items; and unprotected sex.¹²⁻²⁰ Since there is no vaccine yet for hepatitis C, reducing risky behavior is the major intervention for its prevention. Needle and syringe distribution, drug substitution and other harm reduction programs increases the number of safe injecting occasions and reduce the transmission of blood borne viruses.

Occupational safety in healthcare facilities should be encouraged through the effective implementation of infection control processes. Policies to ensure adequate hygiene facilities; containment and proper disposal of infectious and potentially contaminated materials; provision of personal protective equipment; and universal precaution should be developed and implemented.

Health promotional campaigns should be implemented targeting people at greater risk of viral hepatitis infection. Topics should include occupational safety, safer sex, safe and rational use of injections, and safe blood transfusions and medical practices.

Axis 4. Screening, care, and treatment

People who are infected with hepatitis B or hepatitis C should be given appropriate information, counseling and clinical management including treatment to prevent complications, such as cirrhosis, liver cancer, and death. For the first time in history, hepatitis C is curable through medication.^{44,45} Infected persons should be diagnosed early and informed of the consequences of the infection through systematic screening and testing to be able to receive the appropriate treatment and care; and also to encourage behavioral changes aimed to prevent both transmission and further harm (e.g., abstaining from alcohol and tobacco, weight management, and avoidance of hepatotoxic drugs, thus decreasing the risk of developing other liver conditions such as alcoholic liver disease and non-alcoholic steatohepatitis).

Establishing Local Guidelines

One major obstacle to achieving good outcomes among people with hepatitis B and hepatitis C is the poor quality of care they receive. Overall quality of care may be improved through standardized care. Local guidelines are currently being developed to standardize diagnosis, treatment and follow-up of patients. Guidelines on screening for both hepatitis B and hepatitis C should be developed together with standardized pre- and post-screening information and counseling. The serological parameter to be used for screening programs needs to be defined.

Expanding coverage for hepatitis B and hepatitis C

National policy should ensure access to vaccines, screening, and treatment. One strategy to achieve this is expanding the coverage of Philhealth to include reimbursements for these interventions. Additional revenues generated from Republic Act No. 10351 (Sin Tax Reform 2012) can be used to finance these inclusions.⁴⁶ Interventions for vulnerable populations should be prioritized, such as screening of pregnant mothers for chronic hepatitis B infection and vaccination of newborns. Care for hepatitis B and hepatitis C should be made more accessible. This may be achieved through the creation of a network of outpatient hubs for screening, pre- and post-test counseling, and linkage/referral to specialty care if appropriate.

Educating and empowering healthcare providers

To ensure continuity of care from primary to specialist care, non-specialist healthcare providers should be educated on the proper screening of viral hepatitis, pre- and post-test counseling, and when to refer patients for specialist treatment. Timely referral will help ensure that patients do not receive inappropriate treatments with no approved therapeutic claims.

Lastly, all interventions, from vaccination, to screening and treatment, should employ an integrated, multisectoral, interagency approach to leverage the strength and resources of each sector or agency, and maximize on the work already accomplished.

Monitoring of key performance indicators

The following section outlines the objectives, key performance indicators, and timeframe of each proposal included in this document.

Axis	Objective	Key performance indicator	Timeframe
Axis 1: Raising awareness, promoting partnerships, resourcing	Strengthen the organization and implementation of workplace policies and programs	Submission of a Bill on Instituting a Policy and Program on Hepatitis B in the Workplace, to the Congress for eventual passage into Law	Q1 2014
	Organize actions under one accountable, sustained entity	Institutionalize NVHTF as a formal entity	First half, 2014
		Presence of a working office, designated staff, and if possible, online presence	
	Increase awareness and knowledge of the general public, people with infections, vulnerable populations, healthcare professionals, decision makers and policy makers regarding hepatitis B and hepatitis C	Develop a comprehensive awareness and education plan	6 months, beginning January 2014
		Implementation of a nationwide multimedia awareness and education campaign	12 months, beginning Q3 2014
		Implementation of educational campaigns for vulnerable populations	12 months, beginning Q3 2014
		Implementation of educational and advocacy campaigns towards healthcare	12 months, beginning Q3 2014

		professionals, decision makers, and policy makers	
		Conduct Liver Cancer And Viral Hepatitis Awareness and Prevention Month celebrations every January	Annually
		Conduct World Hepatitis Day celebrations nationwide every July 28.	Annually
	Increase linkage and partnership among patients and stakeholders	Active referrals of patients to the YWSP	Year-round
		Regular meeting of NVHTF members	Quarterly
	Raise and mobilize funds; encourage philanthropic funding	A fund development and implementation plan	December 2013 to full-year 2014
		NVHTF annual financial reporting	End of every fiscal year
Axis 2: Evidence-based policy and data for action	Collect and analyze data on hepatitis B and hepatitis C in the Philippines	Databank of information from the National Statistics Office; SACCL; Philhealth; and published and unpublished studies on hepatitis B and hepatitis C in the Philippines.	Q2 2014, and updated annually
		Effective and cost-efficient national surveillance system	Q4 2014, implemented year round
		Cost-benefit analysis studies	Q4 2014, updated every 5 years
	Determine the needs of persons infected with hepatitis B and hepatitis C	Patient Needs Assessment Study	Q4 2014, updated every 5 years
	Communicate the results of data analyses to appropriate stakeholders	Regular meeting of NVHTF members	Quarterly
Axis 3: Prevention of	Achieve 85% three-dose coverage of	Approval of the Implementing Rules and Regulations of	Q4 2014

transmission	hepatitis B vaccination, and 65% timely birth dose coverage given within the first 24 hours of birth of an infant	Republic Act 10152	
		Forums with private hospitals on the Expanded Program of Immunization	12 months, beginning Q3 2014
		Training and access program for healthcare workers attending home births	12 months, beginning Q3 2014
		Planning and implementation of a national catch-up program	Q1 2015, implemented year round
		Monitoring of vaccination programs through serologic surveys	Every 3 years starting Q1 2017
	Reduce risky behaviors	Health promotional campaigns on occupational safety, safer sex, safe and rational use of injections, and safe blood transfusions and medical practices	12 months, beginning Q3 2014
Axis 4: Screening, care and treatment	Improve access and quality of care in screening and treatment of infected patients	Approval and cascade of local guidelines on screening and treatment	Q3 2014
		National policy on access of viral hepatitis screening and treatment; coverage of Philhealth	Q1 2015
		Establishment of outpatient hubs and point-of-care facilities	Q1 2015
		Educational campaigns on screening, pre- and post-test counseling, and referral to specialist care.	12 months, beginning Q3 2014
	Ensure an integrated, multisectoral approach	Regular coordination meetings of NVHTF members	Quarterly

Conclusion

Hepatitis B and hepatitis C are persistent health problems in the Philippines. Both have pathological, economic, and psychosocial consequences. These infections should be controlled through an integrated multisectoral approach, led by the NVHTF. Awareness should be increased among all stakeholders, and partnership and philanthropy should be encouraged. Control programs should be supported by policy based on surveillance data and needs assessment. Transmission should be prevented through nationwide vaccination programs and efforts to reduce risky behaviors. Access and quality of screening, care and treatment should be improved. The implementation of these recommendations will contribute to major and sustained improvements in health of hepatitis patients and future generations of Filipinos.

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APPENDIX A

Members of the National Viral Hepatitis Task Force

Member organization	Description
Department of Health	The executive department of the Philippine government responsible for ensuring access to basic public health services by all Filipinos through the provision of quality health care and the regulation of all health services and products
Occupational Safety and Health Center	An attached agency of the Department of Labor and Employment responsible for initiating and coordinating nationwide preventive action on occupational safety and health through training, research, technical advisory services, information dissemination and networking.
Hepatology Society of the Philippines	A professional organization of medical specialists focused in the study and treatment of liver diseases
Philippine College of Physicians	The umbrella organization of internists in the Philippines
Philippine Cancer Society	A private non-stock, non-profit organization that aims to help the Filipino cope with cancer by preventing it and diminishing death caused by it, especially among the disadvantaged, through information, education, advocacy and focused services
Philippine Health Insurance Corporation	A tax-exempt, government-owned and government-controlled corporation of the Philippines, mandated to insuring a sustainable national health insurance program for all Filipinos
Philippine Pediatric Society	The umbrella organization of pediatricians in the Philippines
Philippine Society of Gastroenterology	The umbrella organization of gastroenterologists in the Philippines
Philippine Society of Microbiology and Infectious Diseases	The leading professional association of specialists in infectious diseases and microbiology in the Philippines
World Health Organization	The specialized agency of the United Nations that is concerned with international public health
Yellow Warriors Society of the Philippines	A national organization of hepatitis B virus patients and advocates who fight for and believe in the eradication of hepatitis B

APPENDIX B

International Partners of National Viral Hepatitis Task Force

Organization	Description
Coalition for the Eradication of Viral Hepatitis in Asia Pacific	A not-for-profit organisation aiming to promote better health outcomes for people with chronic viral hepatitis, especially in the Asia Pacific region
Viral Hepatitis Foundation	A non-profit organization based in the United States dedicated to addressing the health care issues evolving around viral hepatitis and how it has become a global public health problem
World Hepatitis Alliance	A not-for-profit international umbrella non-governmental organisation of over 170 organisations who work in the field of viral hepatitis, representing every region of the world. It acts as the global voice for the 500 million people worldwide living with viral hepatitis.

SIGNATURE PAGE

NATIONAL VIRAL HEPATITIS TASK FORCE MEMBERS

ORGANIZATION	SIGNATURE	DATE
Department of Health	<i>Ma. Aurora</i>	8/13/2014
Occupational Safety and Health Center	<i>Dr. T. J. C.</i>	4/2/2014
Hepatology Society of the Philippines	<i>James Ong</i>	March 7, 2014
Philippine College of Physicians	<i>Francis B. Ong</i>	13 March 2014
Philippine Cancer Society	<i>Belgica</i>	March 7, 2014
Philippine Health Insurance Corporation	<i>JM</i>	3/19/2014
Philippine Pediatric Society	<i>Nate</i>	4/1/2014
Philippine Society of Gastroenterology	<i>John</i>	March 10, 2014
Philippine Society of Microbiology and Infectious Diseases	<i>YSL</i>	March 14, 2014
World Health Organization	<i>#</i>	March 7, 2014
Yellow Warriors Society of the Philippines	<i>CSBL</i>	March 13, 2014

SIGNATURE PAGE

INTERNATIONAL PARTNERS

ORGANIZATION	SIGNATURE	DATE
Coalition for the Eradication of Viral Hepatitis in Asia Pacific		
Viral Hepatitis Foundation	Robert G. Gubel M.D.	13.08.14
World Hepatitis Alliance	Carla Cove	13.08.14