EXPERT CONSULTATION ON TRIPLE ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION OF HIV, HEPATITIS B AND SYPHILIS IN THE WESTERN PACIFIC

20–21 February 2017
Manila, Philippines
MEETING REPORT

EXPERT CONSULTATION ON TRIPLE ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION OF HIV, HEPATITIS B AND SYPHILIS IN THE WESTERN PACIFIC

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NOTE

The views expressed in this report are those of the participants of the Expert Consultation on Triple Elimination of Mother-to-Child Transmission of HIV, Hepatitis B and Syphilis in the Western Pacific and do not necessarily reflect the policies of the conveners.

This report has been prepared by the World Health Organization Regional Office for the Western Pacific for Member States in the Region and for those who participated in the Expert Consultation on Triple Elimination of Mother-to-Child Transmission of HIV, Hepatitis B and Syphilis in the Western Pacific in Manila, Philippines from 20 to 21 February 2017.
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACRONYMS</strong></td>
<td>5</td>
</tr>
<tr>
<td><strong>SUMMARY</strong></td>
<td>1</td>
</tr>
<tr>
<td><strong>1. INTRODUCTION</strong></td>
<td>3</td>
</tr>
<tr>
<td>1.1 Meeting organization</td>
<td>3</td>
</tr>
<tr>
<td>1.2 Meeting objectives</td>
<td>3</td>
</tr>
<tr>
<td><strong>2. PROCEEDINGS</strong></td>
<td>3</td>
</tr>
<tr>
<td>2.1 Opening session</td>
<td>3</td>
</tr>
<tr>
<td>2.1.1 Opening remarks</td>
<td>3</td>
</tr>
<tr>
<td>2.1.2 Global and regional updates on maternal, newborn and child health care</td>
<td>4</td>
</tr>
<tr>
<td>2.2 Global progress and updates on EMTCT</td>
<td>4</td>
</tr>
<tr>
<td>2.3 Regional progress and updates on EMTCT</td>
<td>6</td>
</tr>
<tr>
<td>2.3.1. EMTCT of HIV, hepatitis B and syphilis in Asia and the Pacific</td>
<td>6</td>
</tr>
<tr>
<td>2.3.2 Steps and challenges towards EMTCT of HIV, hepatitis B, syphilis and Chagas in Latin America and the Caribbean</td>
<td>6</td>
</tr>
<tr>
<td>2.4 Coordination and integration of services during antenatal, labour and postnatal period: Country examples</td>
<td>7</td>
</tr>
<tr>
<td>2.4.1 China</td>
<td>7</td>
</tr>
<tr>
<td>2.4.2 Mongolia</td>
<td>8</td>
</tr>
<tr>
<td>2.4.3 Lao People’s Democratic Republic</td>
<td>8</td>
</tr>
<tr>
<td>2.4.4 Viet Nam</td>
<td>9</td>
</tr>
<tr>
<td>2.4.5 Summary recommendations based on country examples</td>
<td>9</td>
</tr>
<tr>
<td>2.5 Introduction of the draft integrated regional framework for triple elimination</td>
<td>10</td>
</tr>
<tr>
<td>2.6 Key issues</td>
<td>10</td>
</tr>
<tr>
<td>2.6.1 Testing of pregnant women and linkages to treatment</td>
<td>10</td>
</tr>
<tr>
<td>2.6.2 Increasing HepB-BD coverage</td>
<td>11</td>
</tr>
<tr>
<td>2.6.3 MTCT of syphilis</td>
<td>11</td>
</tr>
<tr>
<td>2.6.4 Strengthening MNCH service coverage through integrated approach to triple elimination</td>
<td>12</td>
</tr>
<tr>
<td>2.6.5 MTCT of hepatitis B: control to elimination</td>
<td>13</td>
</tr>
<tr>
<td>2.6.6 Monitoring and validation of EMTCT</td>
<td>15</td>
</tr>
<tr>
<td>2.6.7 EMTCT of hepatitis B: criteria, indicators and coordination with existing criteria and mechanisms</td>
<td>17</td>
</tr>
</tbody>
</table>
3. CONCLUSIONS AND RECOMMENDATIONS .......................................................... 18

3.1 Conclusions .................................................................................................. 18

3.2 Recommendations....................................................................................... 18

3.2.1 Recommendations for Member States .................................................. 18

3.2.2 Recommendations for WHO ................................................................. 19

3.3 Next steps ................................................................................................... 19

ANNEX 1. AGENDA .......................................................................................... 20

ANNEX 2. LIST OF PARTICIPANTS ................................................................. 23

Keywords

Child health/ Hepatitis B / HIV infections / Maternal health / Syphilis
ACRONYMS

ANC  antenatal care
ANC1  antenatal care 1st visit
ANC4  antenatal care 4th visit
ART  antiretroviral therapy
EENC  Early Essential Newborn Care
EMTCT  elimination of mother-to-child transmission
EPI  Expanded Programme on Immunization
ERP  Expert Resource Panel for Hepatitis B Control through Immunization
HepB-BD  hepatitis B vaccination birth dose
HepB3  hepatitis B vaccine coverage with three doses
HBeAg  hepatitis B envelope antigen
HBsAg  hepatitis B surface antigen
HBV  hepatitis B virus
MDG  Millennium Development Goal
MNCH  maternal, newborn and child health
MTCT  mother-to-child transmission
OCC  out of cold chain
PMTCT  prevention of mother-to-child transmission
PNC  postnatal care
SDG  Sustainable Development Goal
STI  sexually transmitted infection
STAC  Strategic Technical Advisory Committee for Viral Hepatitis
TDF  tenofovir disoproxil fumarate
U5MR  under-five mortality rate
UNICEF  United Nations Children’s Fund
WHO  World Health Organization
SUMMARY

The Expert Consultation on Triple Elimination of Mother-to-Child Transmission of HIV, Hepatitis B and Syphilis in the Western Pacific was held in Manila, Philippines from 20 to 21 February 2017. Global, regional and national experts from maternal, newborn and child health (MNCH), HIV, immunization, sexually transmitted infections (STIs), and hepatitis programmes participated and shared experiences on integration. The objectives of the consultation were to discuss key challenges and opportunities in coordinating services of maternal and child health and disease control programmes towards triple elimination and to discuss and provide recommendations on the draft regional framework for triple elimination in Asia and the Pacific 2018–2030.

The group unanimously endorsed the concept of triple elimination and the development of a regional framework, which proposes an integrated and coordinated approach towards triple elimination building upon the MNCH platform. It was recognized that grouping these disease-specific elimination efforts within the MNCH programmes would contribute not only to better health of women, children and their families and progress towards triple elimination, but also to the strengthening of more efficient, equitable and sustainable health systems.

The following specific recommendations were developed for the draft regional framework and implementation of the triple elimination in the Region.

Member States are encouraged to consider:

• establishing high-level political commitment for triple elimination to ensure an integrated or coordinated policy along with appropriate resource allocation for implementation;
• clarifying roles and responsibilities of each programme for better coordination and integration;
• including interventions for triple elimination in essential health services packages in the country;
• exploring preferences of women for improving access to and utilization of MNCH services and creating demand for early and regular antenatal care, health facility delivery and postnatal care visits;
• strengthening of HIV and syphilis screening for pregnant women and partners and linkages to prevention and treatment and scale-up of hepatitis B vaccination including timely birth dose;
• applying an incremental approach for the introduction of additional interventions for hepatitis B including hepatitis B surface antigen (HBsAg) screening of pregnant women, use of hepatitis B immunoglobulin and antivirals, and follow-up of exposed infants with due consideration for the capacities of health systems, MNCH programmes, and current and upcoming WHO recommendations;
• improving the quality of epidemiological and programme data including data from private health facilities; and
• ensuring that the MNCH services include quality assurance of testing, medications and vaccines.

The World Health Organization (WHO) and partners are requested to:

• develop and update guidelines and tools including a set of essential indicators for triple elimination;
• assist countries to develop communication strategies to promote triple elimination within the MNCH platform;
• assist countries with the provision of quality laboratory services including the use of rapid point-of-care tests and introduction of dual rapid tests for HIV and syphilis;
• conduct a decision tree analysis of additional, stepwise interventions for hepatitis B including its cost-effectiveness and develop clear guidance on the introduction of additional interventions;
• review and update the progress towards elimination of mother-to-child transmission (EMTCT) in the region;
• facilitate stronger participation of civil society in the drive towards the elimination of parent-to-child transmission of HIV, hepatitis B and syphilis; and
• assist countries to prepare for validation.

Following the Expert Consultation, further consultations with Member States and stakeholders will be organized and the final draft regional framework will be developed based on the inputs received. These will be submitted to the WHO regional committees for the Western Pacific and South-East Asia in 2017.
1. INTRODUCTION

1.1 Meeting organization

The Expert Consultation on Triple Elimination of Mother-to-Child Transmission of HIV, Hepatitis B and Syphilis in the Western Pacific Region was held in Manila, Philippines from 20 to 21 February 2017, attended by global, regional and national experts from maternal, newborn and child health (MNCH), HIV, immunization, sexually transmitted infections (STIs) and hepatitis programmes.

1.2 Meeting objectives

The objectives of the meeting were:

- to discuss key challenges and opportunities in coordinating services of maternal and child health and disease control programmes towards triple elimination of mother-to-child transmission (EMTCT) of HIV, hepatitis B and syphilis; and
- to discuss and provide recommendations on the draft integrated regional framework for triple elimination.

2. PROCEEDINGS

2.1 Opening session

2.1.1 Opening remarks

Dr Takeshi Kasai, Director, Programme Management, WHO Regional Office for the Western Pacific

The three interlinked global health sector strategies on viral hepatitis, HIV and STIs for the period 2016–2021 were endorsed at the World Health Assembly in 2016 with defined EMTCT targets.1 Interventions for the prevention of mother-to-child transmission (PMTCT) of these diseases must be scaled up to reach these global targets. Existing global initiatives such as the Global Strategy for Women’s, Children’s and Adolescents’ Health, 2016–2030 also supports this endeavour.2 The World Health Organization (WHO), in collaboration with the United Nations Children’s Fund (UNICEF), and other partners are unified behind the goal of streamlined services for mothers and babies. An anticipated outcome of this meeting is to review and develop recommendations for the draft framework.

Dr Shirley Mark-Prabhu, Regional HIV and AIDS Knowledge and Advocacy Specialist, UNICEF

Dr Mark-Prabhu highlighted UNICEF’s commitment to the initiatives in Asia and the Pacific aimed at strengthening coordinated and integrated essential service packages for mothers and newborns. She cited countries that have already been validated for EMTCT of HIV and syphilis, such as Cuba and

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Thailand, emphasizing the need for political commitment and leadership from Member States to guide coordinated policies and strategies to achieve triple elimination goals at the country level.

2.1.2 Global and regional updates on maternal, newborn and child health care

Dr Howard Sobel, Coordinator, Maternal, Newborn and Adolescent Health, Division of NCD and Health through the Life-Course, WHO Regional Office for the Western Pacific

Globally, addressed by Millennium Development Goal 4 (MDG4) to reduce child mortality, the under-five mortality rate (U5MR) decreased by 53% between 1990 and 2015. A third of countries worldwide achieved the MDG4 target, including in the WHO Western Pacific Region Cambodia, China and Mongolia. The Region showed the highest annual rate of reduction of U5MR among all WHO regions. However, reduction of the neonatal mortality rate lagged behind that of U5MR. Neonatal deaths in South-East Asia and the Western Pacific account for more than 50% of U5MR globally. The Action Plan for Healthy Newborn Infants in the Western Pacific Region (2014–2020), jointly developed by WHO and UNICEF, aims to eliminate preventable newborn mortality providing universal access to high-quality Early Essential Newborn Care (EENC). In the Western Pacific Region, over 95% of births occur in health facilities. Quality EENC services have been introduced in health services according to the EENC guidelines.

For MDG5 to improve maternal health, several countries in the Western Pacific achieved the targeted reduction in the maternal mortality ratio, but others had insufficient or no progress.

There are still many gaps in the continuity of care for pregnant women and their babies, both between and within countries. In 2016, WHO released new recommendations for antenatal care (ANC), emphasizing respectful provision of quality care and support throughout pregnancy including an increase in the number of ANC contacts to eight times. Provision of provider-initiated testing and counselling for HIV and integration of HIV testing with syphilis is also recommended. Hepatitis B vaccine birth dose is also included in the EENC guidelines.

In order to integrate the vertical programmes for HIV, syphilis and hepatitis B within the MNCH platform, the draft framework was developed including coordinated national policy and strategy; seamless quality care for women, newborns, children and their families; and monitoring and validation of EMTCT (Annex 3).

2.2 Global progress and updates on EMTCT

Dr Karen Hennessey, Routine Immunization Officer, Expanded Programme on Immunization (EPI), WHO headquarters

Dr Marc Bulterys, Team Leader, Global Hepatitis Programme, Department of HIV, WHO headquarters

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3 Action plan for healthy newborn infants in the Western Pacific Region (2014–2020); Manila: WHO Regional Office for the Western Pacific; 2014 (http://www.wpro.who.int/publications/regional_action_plan_newborn_infants.pdf).


Approximately 257 million people globally are chronically infected with hepatitis B, with about 500 000–700 000 annual deaths. The Western Pacific Region is disproportionately affected, mother-to-child transmission (MTCT) being the most common route of infection, although horizontal transmission also occurs early. Prevention of hepatitis B has been effective through immunization, with timely birth dose within 24 hours (HepB-BD) followed by three or four vaccine doses (HepB3). Hepatitis B immunoglobulin (HBIG), if available, is recommended for infants of mothers who have tested positive for hepatitis B surface antigen (HBsAg). Currently, WHO does not recommend antiviral therapy for PMTCT of hepatitis B, except in situations where women need it for their own health.

In 2015, global coverage of HepB3 immunization and HepB-BD was estimated to be 84% and 39%, respectively. Many countries have not introduced timely HepB-BD despite recommendations from WHO since 2009. Strategies to increase HepB-BD include: increasing facility births, skilled birth attendants at delivery and supply of monovalent vaccine, which should be added to midwifery kits; providing cold chain equipment or taking vaccine out of the cold chain (OCC); and improving birth notification systems.

The global impact indicator for elimination of hepatitis B by 2030 is 0.1% HBsAg prevalence among children 5 years of age. WHO recommends HBsAg prevalence be measured in children through national serosurveys. Global validation mechanisms for hepatitis B should be aligned with those for HIV and syphilis.

Transmission of HIV can occur during pregnancy, labour and delivery, and postpartum during breastfeeding, and the estimated risk of transmission is 25–40% without intervention. Since 2015, several countries have achieved EMTCT of HIV and syphilis: first Cuba, then Thailand, followed by others with smaller epidemics. None of these validated countries are from sub-Saharan Africa, which is home to over 90% of new infections in children. The WHO African Region, however, has made the most progress towards reducing the global burden of HIV in children. The success of the Treat All policy for pregnant and breastfeeding women known as Option B+ is the likely reason for this advancement. Over 85% of countries are actively implementing Option B+ and more than 75% of HIV-infected pregnant women now have access to antiretroviral therapy (ART). As a result, new infections in children globally had dropped over 60% by 2015.

Congenital syphilis estimates from 2012 show 350 000 adverse pregnancy outcomes among approximately 1 million pregnant women with syphilis. These MTCT cases are twice as many as those for HIV. Approximately half of these adverse pregnancy outcomes occur as stillbirths or neonatal deaths. Prevention of these adverse pregnancy outcomes requires diagnosis and one-time treatment with penicillin for the mother.

There are challenges in monitoring EMTCT indicators for congenital syphilis. Congenital syphilis surveillance systems are less developed than those for infant HIV and there are often limited or no connections between overall stillbirth surveillance and stillbirths due to congenital syphilis.

WHO is developing tools to support EMTCT of syphilis including interim guidance on the use and interpretation of the rapid dual HIV/syphilis test and the congenital syphilis estimation tool. This congenital syphilis estimation method will be incorporated into the Spectrum-STI tool using Mongolia as the pilot country in February 2017.
2.3 Regional progress and updates on EMTCT

2.3.1. EMTCT of HIV, hepatitis B and syphilis in Asia and the Pacific

Dr Ying-Ru Lo, Coordinator, HIV, Hepatitis and Sexually Transmitted Infections Unit (HSI), WHO Regional Office for the Western Pacific

Dr Sergey Diorditsa, Coordinator, EPI, WHO Regional Office for the Western Pacific

Dr Razia Pendse, Regional Advisor, HIV, Hepatitis and Sexually Transmitted Infections, WHO Regional Office for South-East Asia

Although HIV cases among children in Asia and the Pacific have been decreasing, an estimated 19,000 new infections occurred in 2015, which fell short of the elimination target by 10,000. The ART coverage for HIV-positive pregnant women in Asia and the Pacific remained low as compared to other regions, although isolated countries such as China, Malaysia, Mongolia and Thailand have high ART coverage. There is a significant gap between the number of pregnant women estimated to be living with HIV and those being diagnosed and linked to treatment.

There is also a high incidence of STIs in Asia and the Pacific, especially in the Western Pacific Region, with congenital syphilis on the rise in some countries. The estimated STI burden in the Western Pacific far outnumbers other parts of the world. The high prevalence of syphilis in some countries in the Region is evidence of system failures, since syphilis could be readily diagnosed and treated.

The regional prevalence of chronic hepatitis B virus (HBV) infection among 5-year-old children in the Western Pacific is less than 1%. The Regional Action Plan for Viral Hepatitis in the Western Pacific 2016–2020 was endorsed in 2015, prioritizing areas for reducing hepatitis B and hepatitis C. The Region regularly convenes the Hepatitis B Immunization Expert Resource Panel (ERP) to recommend regional goals and targets and assess progress among countries and areas towards meeting regional targets. As of February 2017, 16 countries and areas were verified by the ERP and 13 are in various stages of verification review, with six countries identified as needing additional support. Five of the six countries presented HepB-BD improvement strategies to the ERP in February 2017.

Challenges identified included: expanding the use of hepatitis B vaccine OCC, preventing stock-outs, and improving communication about the benefits of hepatitis B vaccination.

In the WHO South-East Asia Region, only the Democratic People’s Republic of Korea and Myanmar have high hepatitis B endemicity (8% or more). All countries have a national policy for hepatitis B vaccine and seven countries include HepB-BD, whilst four have yet to meet the HepB3 coverage target of 90% or more. HepB-BD coverage remains around 50%. A regional plan in line with the Western Pacific Regional Action Plan is being developed in the South-East Asia Region.

2.3.2 Steps and challenges towards EMTCT of HIV, hepatitis B, syphilis and Chagas in Latin America and the Caribbean

Dr Massimo Ghidinelli, Unit Chief, HIV/AIDS, STI, TB and Hepatitis, WHO Regional Office for the Americas/Pan American Health Organization

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While ANC coverage and health facility delivery rates in Latin America and the Caribbean (LAC) are high, almost 12 million pregnant women still have no access to ANC. Despite high rates of HIV and syphilis testing among pregnant women, more than 3 million women were not tested for HIV and 2.7 million were not screened for syphilis. Increasing syphilis cases in Brazil accounted for a rise in congenital syphilis cases in the region in 2015. Reasons for this included: failure in surveillance systems, shortages of benzathine penicillin, and the reluctance in providing treatment at the primary health-care level due to fear of adverse effects. As of 2015, 18 countries in LAC reported data consistent with dual elimination. Approximately 2.8 million people in LAC are chronically infected with hepatitis B. Most countries are of low endemicity, apart from the Caribbean and the Amazon basin. General vaccination coverage is more than 95% for HepB3, and HepB-BD coverage was about 75% in 2015. There are limited national and subnational hepatitis B serosurvey data. Chagas disease has a significant presence in many countries and the WHO Regional Office for the Americas is developing a revised regional framework to include hepatitis and Chagas disease called the EMTCT+ framework.

2.4 Coordination and integration of services during antenatal, labour and postnatal period: Country examples

2.4.1 China

Dr Wang Ailing, National Center for Women and Children’s Health, Chinese Center for Disease Control and Prevention

In China, ANC coverage and facility delivery rates are high. China started a pilot PMTCT programme in one county in 2001, which was then scaled up in all regions. In 2010, an integrated PMTCT programme for HIV, syphilis and hepatitis B was launched. The country has been gearing up for triple elimination since 2015 in all regions. Government financing for the PMTCT control programme has increased substantially. Front-line MNCH personnel are empowered to provide ANC services as well as perform testing for HIV, syphilis and hepatitis at their first ANC visit (ANC1) at the health centre level with subsequent treatment and immunization of pregnant women and babies as necessary. Deliveries occur at county-level hospitals or at health centres assisted by doctors and midwives regularly supervised by MNCH officers, and HepB-BD is administered within 24 hours by nurses regularly supervised by EPI officers. After discharge, doses of HepB3 are administered at 1 month and 6 months later by community staff directed by EPI officers at the health centre level. The MNCH department at the central level takes responsibility for coordinating triple elimination. Normally, if women are HIV-positive and infected with syphilis, they are referred to the county level or higher level of care and receive free treatment for themselves and their baby; delivery costs are covered by the national PMTCT programme. One dose of HBIG is administered to babies of HBsAg-positive women within 24 hours after delivery free of charge, although antiviral therapy for pregnant women must be paid out of pocket, as does the cost of partner testing for HIV, hepatitis B or syphilis. China has established a laboratory network focused on early infant diagnosis of HIV, as a result of which early infant diagnosis coverage improved from 15% in 2010 to 73% in 2015. Challenges remain such as: limited coordination between MNCH and other programmes at the local level, insufficient capacity of rural health-care staff, regional disparities in service delivery, and difficulties in providing a continuum of service for migrant pregnant women. Data reporting for hepatitis B in pregnant women and infants needs to be improved, and syphilis-infected pregnant women are still being missed.
2.4.2 Mongolia

Dr Bolormaa Narantuya, Officer-in-Charge, Maternal and Infant Health, Ministry of Health

In 2014, syphilis seroprevalence among pregnant women in Mongolia was 5% and the number of reported cases of congenital syphilis totalled 52 and 42 in 2015 and 2016, respectively. With regard to reported hepatitis B vaccine coverage in 2015: timely HepB-BD coverage was 97%, any HepB-BD coverage was 99%, and HepB3 coverage was 97%. From 2005 to 2016, 10 HIV-positive women delivered 14 babies in Mongolia, none of whom were HIV-positive. HIV, syphilis and hepatitis B tests are offered at ANC1; however, only the HIV and syphilis tests are free. There is a high level of facility births, normal deliveries mostly occur at the primary health-care level or maternity hospitals, and HepB-BD, the delivery and vaccination are free of charge, as are postnatal visits and booster HepB3 doses. Women with HIV or syphilis are referred for delivery at secondary level facilities where mothers receive care and treatment, antiretrovirals for HIV and penicillin for syphilis. All pregnancy-related care (including HIV and syphilis testing) is free, covered by national funds and the Global Fund to Fight AIDS, Tuberculosis and Malaria, and the government is increasingly taking over support. There is also a national health insurance scheme, which covers HBsAg-positive women, for antiviral therapy and HBIG administration for newborns, but for those without health insurance these are out-of-pocket expenses. A high level of coordination of services is in place. Partner testing and referral for care for HIV and syphilis are free, while testing for hepatitis B is an out-of-pocket expense. However, Mongolia has a challenging geographic environment for patient follow-up; there is a lack of policy integration for HIV, hepatitis and syphilis; staff turnover is high; syphilis testing is not standardized; and there are concerns about quality assurance. Additionally, integrated, real-time data and strategic information are lacking, and gaps between screening and access to treatment continue to occur.

2.4.3 Lao People’s Democratic Republic

Dr Hiromi Obara, Health Policy Advisor, Japan International Cooperation Agency, Lao People’s Democratic Republic

The Government of the Lao People’s Democratic Republic is beginning to discuss improving quality ANC. It is a timely opportunity to consider integrating triple elimination of HIV, hepatitis B and syphilis given that the antenatal/postnatal care (PNC) guidelines will be updated in 2017. MNCH is the core component of the country’s basic health services: coverage for ANC1 is high (91%) but drops to approximately 50% for ANC4 or more visits. In addition, only about 49% of deliveries occur in health facilities. HIV testing for pregnant women and partners is free (covered by the Global Fund), but coverage of HIV testing and treatment of pregnant women is low because services are centralized and only provided at 17 provincial hospitals and a few others. No routine data for syphilis are collected, and testing is performed sporadically in some provincial hospitals. Syphilis testing and treatment are out-of-pocket expenses, as is payment for HBsAg screening in pregnancy for which there are no formal screening recommendations. HepB-BD is free of charge, but coverage was 37% in 2012 and reporting of timely HepB-BD needs to be improved. MNCH in the Lao People’s Democratic Republic is functioning well and could be the platform on which to integrate services. Currently, there is a national discussion around establishing an MNCH health package which includes screening and treatment of HIV and syphilis. Challenges in the country include: lack of integration of services, even within MNCH; poorly coordinated sub-programmes; balancing the need for quantity versus quality of services; and heavy dependence on external funding.
2.4.4 Viet Nam

Dr Dinh Anh Tuan, Deputy Director, Maternal Child Health Department, Ministry of Health

Viet Nam has good ANC1 coverage and generally high levels of skilled birth attendants at delivery and health facility deliveries, except in remote mountainous areas where there remains a high rate of home deliveries. HIV prevalence in pregnant women has decreased from 0.38% to 0.17% in 2006–2013, but heterosexual HIV transmission is rising and women are increasingly becoming infected. Health insurance now covers up to 80% of the population, but most screening and treatment services are not implemented in commune health centres and many are not covered by health insurance. HIV and hepatitis B screening of pregnant women is available and increasing in hospitals at district and upper levels. Syphilis testing, however, is not routinely offered and needs to be recommended by a doctor. HIV, hepatitis B and syphilis testing is covered for those with health insurance if recommended by a physician. HepB-BD is free of charge and provided in commune health centres and many delivery services, but coverage has been low, albeit improving. Hepatitis B vaccine is manufactured in the country but cannot be used OCC. Ongoing challenges in Viet Nam include: lack of integrated HIV, hepatitis B and syphilis programmes; a decreasing budget for national programmes; and poor data on MTCT of hepatitis B and syphilis which leave health workers and the public unconvinced about the benefits of screening and interventions. Additionally, health workers and parents remain afraid of adverse events following immunization from HepB-BD, and those who cannot afford health insurance are likely to be the most marginalized and at higher risk for the HIV, hepatitis B and syphilis.

However, there are opportunities to improve integration in the country, which has a widely available health-care network for all levels of care. PMTCT of HIV has been handed over from the HIV/AIDS control system to the MNCH programme since 2016, with the Ministry of Health issuing integrated MTCT indicators and a procedure for linking MNCH with HIV and STI services in 2016. EENC procedures including PMTCT of HIV and hepatitis B have also recently been issued. Furthermore, the Ministry is distributing nationwide an MNCH handbook, which includes information on vaccination and PMTCT of HIV, hepatitis B and syphilis for continuum of care. Health insurance covers almost all HIV, hepatitis B and syphilis-related services of pregnant woman and children, including HBIG if recommended by a physician.

2.4.5 Summary recommendations based on country examples

High-level commitment for policy development, planning and budget allocation is required and national plans for triple elimination integrating hepatitis B into policy documents for HIV and syphilis should be developed where these are not already in place. The roles and responsibilities at the subnational level and for each programme must be clarified to ensure empowerment and accountability of staff. Standardized, validated rapid tests with dual platforms should be introduced. Improved strategic information and surveillance mechanisms to support EMTCT service delivery at ANC should be developed. Countries should focus their attention on areas where performance is poor and populations where disease burden is high, and accessibility of services for migrant pregnant women with a coordinated reporting system must be improved. Partner testing for all three diseases should be free of charge. Countries depending on external funding sources should move towards sustainable funding models not reliant on donor funding.
2.5 Introduction of the draft integrated regional framework for triple elimination

Dr Mari Nagai/Dr Joseph Woodring/Dr Naoko Ishikawa, WHO

The proposed integrated regional framework for triple elimination of MTCT of HIV, hepatitis B and syphilis in Asia and the Pacific for 2018–2030 encompasses the targets and goals for each of the three diseases set by existing global and regional strategies. It defines key interventions and harmonized elimination criteria, and develops a minimum set of indicators for monitoring and evaluation. Positive feedback on the framework has been received from countries. Following the expert consultation, a draft will be discussed with countries and a final draft submitted to the WHO Regional Committee for the Western Pacific later in 2017. Integration of hepatitis B into the validation system for HIV and syphilis will be developed in the coming months. A costing tool for integrated triple elimination is being developed by taking into consideration different scenarios for integration depending on what countries already have in place. The aim of the tool is to estimate health and cost outcomes of triple elimination efforts as an advocacy tool, as well as to estimate resource requirements and cost savings based on different scenarios.

2.6 Key issues

2.6.1 Testing of pregnant women and linkages to treatment

Gaps between testing and treatment along the care cascade of pregnant women in the WHO Western Pacific Region, especially for those from hard-to-reach populations such as migrants or those living in remote areas, were highlighted. Since the prevalence of HIV and syphilis in the Region is low, there is a perception that it is unnecessary in many countries to test for these diseases. Several studies show, however, that it saves costs to test for HIV and syphilis, especially if done together. Routine testing for all three diseases, amongst others, is already in place in several countries and dual HIV/syphilis rapid tests are available, with a few triple rapid tests coming to the market as well. Dual tests are convenient and make reporting simpler, and reporting can also be automated with the some of the newer tests.

Group discussion

How can we ensure that all pregnant women are tested for HIV/syphilis (i.e. screening and confirmatory test) and linked to treatment through the MNCH platform?

The quality of testing services should be standardized at all facilities, with timely (preferably same-day) reporting of results and provided free of charge or covered by health insurance for all. Better quality assurance for syphilis tests is particularly needed. The use of dual HIV/syphilis testing platforms should be encouraged. Technical and financial systems linking people who test positive to treatment and care must be improved, and donors should be encouraged to support integrated services rather than vertical programmes. Locally adapted guidelines should be developed or updated to improve access of pregnant women to testing for HIV and syphilis. Roles and responsibilities of those doing the testing must be clarified to empower front-line health-care providers to perform tests, and health-care providers’ compliance with the guidelines must be evaluated. Checking whether women have been tested when they present for delivery may act as a quality control mechanism. These cross-system programmes should be easily expandable to include other tests at a later stage.

How can the MNCH platform support follow-up of infected mothers and exposed infants?

Support networks for infected pregnant women should be created and providers should help patients link to further care as necessary. Responsibilities should be assigned for this (e.g. physicians in China
are incentivized to follow up with mothers and infants about further care). Treatment should be provided at sites where the diagnosis is made as much as possible, in particular for syphilis. All information should be recorded on the mother and child health information cards.

**How can we improve the coverage of partner testing?**

Partner testing should be a standard service and free of charge, with referrals to care and treatment. Responsibilities for these referrals need to be assigned. Information material to encourage testing should be given to women to take home and partners should be encouraged to attend ANC visits of pregnant women. When encouraging partner testing, issues related to the stigma, discrimination and serostatus disclosure need to be addressed. Support networks for male partners may also be set up.

### 2.6.2 Increasing HepB-BD coverage

#### Group discussion

**How do we ensure timely HepB-BD within 24 hours of delivery?**

Ensuring that national MNCH guidelines are consistent with national EPI guidance on timely HepB-BD (within 24 hours) is essential, standing orders should be available at health facilities, and training with repeated evaluation of health workers for HepB-BD administration must be conducted regularly. Babies should not be released from the health facility without having the birth dose. Country assessments should be conducted to determine the barriers preventing higher HepB-BD coverage. The private sector is often outside the health information system and the national programmes need to include data from the private sector. Communication strategies should be implemented to educate pregnant women during ANC about the risks of hepatitis B and the benefits of HepB-BD vaccination to increase its uptake, and governments should have a risk communication response strategy to mitigate the negative impact from adverse events following immunization. Countries should factor in the costs of vaccine as Gavi funding covers only pentavalent vaccine and not monovalent vaccine for HepB-BD.

**How do we ensure implementation of timely HepB-BD for home deliveries?**

There is good evidence that the vaccine is stable OCC for at least a month, although this has not been implemented outside of pilot projects of limited duration. In order to overcome barriers to using the vaccine OCC, WHO needs to work with manufacturers and national regulatory authorities to relabel the vaccine for use in a controlled temperature chain. Community health workers are critical to engaging with mothers who have just given birth, and they should be encouraged to link women to health facilities for post-partum care in addition to ANC visits and health facility deliveries.

**How do we ensure HBsAg-positive mothers and exposed babies are linked to care?**

HBsAg screening at ANC is already being conducted in some countries. Countries should conduct feasibility and economic analyses, as even further testing will be required and some women will need antiviral treatment. The policy for screening and treatment will necessitate the existence of national guidelines.

### 2.6.3 MTCT of syphilis

Syphilis testing in pregnancy is not a new recommendation, but there are still enormous barriers that need to be addressed. Generally, compared to HIV, syphilis testing and treatment is under-reported in the Region. Health workers are afraid to give penicillin injections to mothers and infants. The case definition of congenital syphilis is complex and varies among countries. Limited congenital syphilis
stillbirth surveillance and tracking systems exist, and the connection between overall stillbirth surveillance and stillbirth due to congenital syphilis is poor. Tracking of infants born to women with syphilis is generally poor, as is quality assurance of syphilis laboratory testing. Maternal treatment data are not always collected, and diagnosis and treatment policies for mothers and syphilis-exposed infants are unclear. Within the private sector, knowledge of syphilis screening and treatment policies is limited. In order to achieve elimination, data collection and surveillance programmes need to be improved to determine the number of congenital syphilis cases, maternal testing coverage, seroprevalence, and treatment coverage so that they can be validated against the criteria for elimination.

**Group discussion**

*How do we ensure treatment of maternal syphilis?*

Policies and protocols for testing and treatment for maternal syphilis must be reviewed and updated, and implementation must be monitored. Syphilis needs to be identified as early as possible in pregnancy to improve outcomes (the optimal time for diagnosing syphilis is 8–12 weeks because treatment is most beneficial if given early). WHO recommends a minimum of one syphilis test in pregnancy and treatment be given immediately following the first positive test. There is no need for repeat testing unless the risk is high. Treatment with benzathine penicillin is adequate, and this must be operationalized and clearly defined so that treatment is available at the health facility where testing happens. Stocks of benzathine penicillin must be prioritized specifically for congenital syphilis, and stock-outs need to be tracked. Clear syphilis treatment algorithms must be available and roles and responsibilities of health workers for testing and treatment must be clarified.

*How do we monitor and record congenital syphilis cases?*

Improved case reporting, surveillance or monitoring for congenital syphilis must be implemented. Country monitoring of stillbirths must be improved and all mothers of stillbirths should be tested for syphilis. Sentinel surveillance for syphilis should be considered. There is also a need to look for synergies with neonatal tetanus elimination and congenital rubella syndrome monitoring.

*How do we improve quality of data?*

Recording of information for syphilis indicators needs to be improved and should also be updated to include:

- number of stillbirths due to congenital syphilis (testing all mothers of stillbirths as above);
- a specific indicator for the proportion of women with ANC1 in the first trimester; and
- an indicator for linkage to treatment.

Each country should set up and monitor screening and treatment cascades, put in place a policy for routine testing and treatment of mother and partner, and improve the quality of testing for syphilis and linkages between testing and treatment. WHO should reconsider simplifying the case definition of congenital syphilis, and advocate prioritization of and investment into STIs. It is also important to clarify the roles and responsibilities for data quality and monitoring progress.

### 2.6.4 Strengthening MNCH service coverage through integrated approach to triple elimination

**Group discussion**

*What are the key challenges in improving service coverage of ANC (more than four visits), health facility delivery and PNC?*
How can HIV, EPI and STI stakeholders contribute to MNCH to improve ANC, health facility delivery and PNC coverage?

Village health workers should be trained and utilized to offer integrated services. Outreach activities can be developed to advocate and educate the public about the importance of early ANC visits, health facility delivery and going to postnatal clinics. With more services being offered, pregnant women could be motivated to seek health care in a timely manner, building a customer care model to improve women’s health-seeking behaviour. Financial incentives for mothers or health facilities to encourage pregnant women to seek health care at an early stage of pregnancy and health facility delivery could be explored. Coordinating PNC visits with routine EPI visits, and integrating interventions such as immunization, nutritional status of infants, condition of mothers and breastfeeding could also motivate women to go to their PNC visits. Human resources capacities to integrate EPI and ANC could be explored. EPI data from private clinics must be shared with MNCH programmes to estimate the number of ANC visits and number of deliveries in private facilities. A mechanism for the private sector to report all cases of infectious diseases to the government should also be implemented (e.g. as in Singapore). Finally, all countries should implement mandatory vital registration.

2.6.5 MTCT of hepatitis B: control to elimination

New interventions for EMTCT of hepatitis B (screening of pregnant women, use of HBIG and antivirals, and monitoring of exposed infants)

Dr Marc Bulterys

Hepatitis B immunization of children and newborns has been the main driver of control of the disease since it was first introduced in the 1990s. The current immunization schedule is 3–4 vaccine doses, with the first dose to be given within 24 hours of delivery. If the mother is HBsAg positive, the infant receives HBIG if available. HepB3 vaccine coverage improved in all regions between 1989 and 2014. Globally, HBsAg prevalence in children has decreased to 0.4%, although it remains above 1% in African children. While HBV vaccine, including timely HepB-BD, remains the cornerstone of HBV prevention, use of antiviral drugs in pregnancy is likely to increase as new evidence becomes available. Recent data were shared from two studies among hepatitis B mono-infected women where tenofovir disoproxil fumarate (TDF) was given. The study by Jourdain et al. showed that the timing of HBIG and HepB-BD is especially critical. In their randomized clinical trial among 331 pregnant Thai women with chronic HBV infection (positive for HBsAg and hepatitis B envelope antigen (HBeAg)), none of the 147 infants in the TDF arm were infected with HBV versus three of the 147 (2%) in the placebo arm (p=0.12). Ninety-nine per cent of infants in the trial received HBIG and HepB-BD 1.3 hours after birth (median). All three infected infants had mothers with very high viral load at delivery. In addition, data were shared from a phase II clinical trial in Guangxi, China on the use of TDF among HIV/HBV-coinfected pregnant women.

The next level of prevention of hepatitis B in children requires a focus on implementation of HBsAg testing at ANC with HBeAg, HBV DNA viral load and potential access to antivirals for women with

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high viral load. Discussions are under way to define the future role of antiviral drugs in pregnancy, and to identify the pros and cons of different methods to measure impact as prevalence rates in children decrease.

Group discussion

WHO has not yet developed a clear recommendation for the use of antiviral drugs for pregnant women with high viral loads to prevent MTCT. MTCT rates are low when HBIG and HepB-BD are provided very soon after birth (within less than two hours in the Thai study). Cost-effectiveness studies are needed to carefully define the incremental benefit and costs of adding TDF (or other antiviral drug therapy) for pregnant women with high viral load. Whereas HBIG is not universally available, TDF may be more readily available in some countries, is cheaper, and could be given to women with high viral loads to further reduce transmission. Studies are ongoing to directly compare HBIG with TDF.

Country example – China

Dr Fuqiang Cui, School of Public Health, Peking University

In 2015, China’s population was estimated at 1.36 billion, with over 16 million children under the national Child Health Care Scheme. In the past two decades, China has implemented universal infant HepB vaccination, and data from three nationwide serosurveys have demonstrated great progress. Given the country’s large population, HBsAg seroprevalence in children of less than 1% translates into approximately 50,000 infants becoming infected each year. As of 2015, 96% of pregnant women were screened, and vaccine and HBIG were given to exposed infants. In addition, in order to further reduce MTCT, national experts introduced an operational research study called the Shield Project where antiviral treatment is given to pregnant women with high HBV DNA viral load in the third trimester (normally after 28 weeks), to reduce the viral load and protect the newborns. By December 2016, 995 pregnant women were enrolled in 10 research centres, including 612 HBeAg-positive and 362 HBeAg-negative cases. China has also conducted a pilot post vaccine serological testing project in four provinces jointly with the WHO Country Office, to evaluate the effect among infants born to HBsAg-positive mothers who were given timely HepB-BD plus HBIG, as well as to collect evidence for future policy-making.

Group discussion

A strong regional framework is important to set regional standards to which individual countries can aspire. The Western Pacific Region comprises very diverse countries and HBV screening for pregnant women should be addressed within country-specific contexts. Some countries may have low prevalence, while others face particular geographical challenges. EMTCT of hepatitis B in many countries will need to be achieved using a tiered approach. It was generally agreed that as a minimum countries need to achieve high HepB-BD and HepB3 coverage. The recommendation for this should come from the highest levels as an integrated directive from the MNCH, EPI and STI programmes within WHO and guidelines from all should be consistent. This would make the dissemination of guidance easier in countries. Without losing focus on scaling up HepB-BD and HepB3 coverage, countries may decide to add on screening and other incremental interventions. Many countries already have recommendations for screening of HBsAg in women and it was noted that this is a
recommendation coming from WHO in recently released guidelines for testing for hepatitis B and hepatitis C. Guidance from WHO and partners is needed about when and how to add HBsAg screening at ANC, testing for HBeAg, or HBV DNA viral loads, HBIG and antiviral therapy. Economic analyses to determine the benefits and costs of adding interventions should be conducted. When countries decide to add screening for HBsAg for pregnant women, this should be done in the context of triple elimination and linkage to care and treatment, which must also be in place. Antiviral treatment is important not only for PMTCT of hepatitis B but also for the health of mothers, especially if it is already available in countries. Finding hepatitis B-positive mothers may have further benefit in helping to identify other infected members in families.

Some practical considerations were suggested: national stakeholder groups in each country should ensure that policies for triple elimination are in place, that there are protocols available, and that monitoring of implementation of policies and protocols can occur. Hepatitis indicators need to be included in quality of care indicators in a way that is appropriate and suitable. The Strategic Technical Advisory Committee (STAC) for Viral Hepatitis and the Hepatitis B Immunization ERP will meet in 2018 and a small group of experts could be convened to map the current situation in countries and prepare a decision tree analysis with incremental recommendations for costs and benefits of different interventions in individual countries.

2.6.6 Monitoring and validation of EMTCT

Key indicators for the integrated framework for triple elimination

Participants were tasked with reviewing the current indicators for EMTCT of HIV and syphilis to improve and include them with hepatitis B elimination indicators together with those for reporting MNCH targets. The goal was to develop an integrated set of indicators that would be concise and simple for front-line health-care workers to complete. The following set of indicators was suggested:

**MNCH**

Process indicators
- Number of women aged 15–49 years with a live birth in the past 12 months
- Pregnant women visiting an ANC clinic at least once (align with Demographic and Health Surveys / Multiple Indicator Cluster Surveys)
- Pregnant women visiting an ANC clinic at least four times
- Pregnant women with an early first ANC visit (first trimester)
- Delivery in health facilities
- Women who received a health check on week 6 after delivery (using EPI to collect)
- Newborns who received a health check on week 6 after delivery

**Syphilis**

Impact indicators
- Case rate of congenital syphilis per 100 000 live births

Process indicators
- ANC attendees tested for syphilis
- ANC attendees tested seropositive for syphilis

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- Syphilis seropositive pregnant women who receive adequate treatment (define adequate)
- Partners of syphilis seropositive women who are appropriately treated
- Mothers of stillbirths tested for syphilis

Systems indicators
- Health facilities that have experienced a stock-out of syphilis testing materials in the last six months
- Health facilities that have experienced a stock-out of benzathine penicillin in the last six months
- Reference laboratories that have achieved at least 90% on external quality assessment in the last year

**HIV**

Impact indicators
- Case rate of new paediatric HIV infections due to MTCT per 100 000 live births
- MTCT rate of HIV in breastfeeding population or MTCT rate of HIV in non-breastfeeding population

Process indicators
- Pregnant women who are tested and know their HIV status
- Partners of pregnant women who are tested and know their HIV status
- HIV-positive pregnant women who received antiretrovirals to reduce MTCT
- Infants born to HIV-positive mothers on antiretrovirals to prevent MTCT in the first six weeks
- Infants born to HIV-positive mothers receiving a virological test of HIV within two months of birth
- Infants born to HIV-positive mothers started on cotrimoxazole prophylaxis within two months
- Pregnant women (and breastfeeding women with exposed infants) known to be alive and on treatment 12 months after ART initiation

Systems indicators
- Health facilities providing ANC services that also provide ART
- Health facilities that offer paediatric ART
- Health facilities that provide virological testing services for diagnosis of HIV in infants on-site or from dried blood spots
- Health facilities that have experienced a stock-out of antivirals
- Country has a national antenatal screening policy for HIV/AIDS

**HBV**

Impact indicators
- HBsAg prevalence among children 5 years of age

Process indicators
- First tier:
  - ANC attendees tested for HBsAg
  - Infants receiving HepB-BD within 24 hours of birth
  - Infants born to HBV-positive women receiving HBIG within 24 hours of birth
  - Coverage of third dose of HBV vaccine
• Second tier:
  o Infants of HBsAg-positive mothers who have post vaccine serological testing (conditional on HIV reporting)
  o HBsAg-positive women with high viral load
  o Hepatitis B-positive women who are HBeAg-positive (if done)
  o Linkage to care for hepatitis B-positive women
  o Mothers with high viral load who receive antivirals for prevention of MTCT
  o Hepatitis B-positive women whose partners are tested

Systems indicators
• Country has a national antenatal screening policy for HBV
• Country has a plan to verify global elimination goals
• Country has a national policy for HepB-BD
• If applicable, a policy for OCC vaccines
• Plan in place for adverse events following immunization

2.6.7 EMTCT of hepatitis B: criteria, indicators and coordination with existing criteria and mechanisms

The verification process requires countries to conduct serosurveys among children around 5 years of age and also includes an assessment of vaccination coverage. The lower the prevalence, the more challenging it is to measure. Mechanisms such as classification cluster surveys and modelling will be needed in countries with low HBsAg prevalence.\(^{11}\) Hepatitis B prevalence is measured in 5-year-old children because new HBV infections among young children occur as a result of close contact household transmission, in addition to MTCT. Since the time period for assessment of HIV and syphilis is shorter, this presents a challenge for alignment. At the latest ERP meeting, it was agreed that an interim seroprevalence target should be set (probably 0.5% by 2025) although consensus on this is forthcoming.

At the regional level, the regional validation team for HIV and syphilis assesses whether countries have met criteria for validation for dual EMTCT and the ERP/STAC verifies countries for control of hepatitis B. Synergies and linkages between these committees and with the Asia-Pacific United Nations PMTCT Task Force should be assessed with a view to aligning tasks. There is also a need at the country level to strengthen and coordinate between various programmes such as MNCH, EPI, HIV, hepatitis and STI as well as between data specialists and laboratory networks. Mechanisms will be required to assess the quality of data generated by countries and streamline data collection using health or electronic information systems. In the global guidance for EMTCT of HIV and syphilis, the validation process includes countries’ attention to human rights, gender equality and community engagement, and this will need to be applied to hepatitis as well. The *Global Guidance on Criteria and Processes for Validation: Elimination of Mother-to-Child Transmission of HIV and Syphilis* should be updated to include hepatitis B.\(^{12}\)

\(^{11}\) Classification surveys would require a smaller sample size and fewer clusters. This is a method promoted in the revised WHO reference manual for vaccination coverage cluster surveys; 2015 Jul (http://www.who.int/immunization/monitoring_surveillance/Vaccination_coverage_cluster_survey_with_annexes.pdf?ua=1).

3. CONCLUSIONS AND RECOMMENDATIONS

3.1 Conclusions

The expert consultation group unanimously endorsed the concept of triple elimination of MTCT of HIV, hepatitis B and syphilis and the development of a regional framework for 2018–2030, which proposes an integrated and coordinated approach towards triple elimination building upon the MNCH platform. Grouping these disease-specific elimination efforts within the MNCH platform would contribute not only to better health of women, children and their families and progress towards triple elimination, but also to the strengthening of more efficient, equitable and sustainable health systems.

3.2 Recommendations

3.2.1 Recommendations for Member States

The expert consultation group made the following recommendations:

1. Member States are encouraged to establish or ensure high-level political commitment for triple elimination to ensure the development of an integrated or coordinated policy and plan along with appropriate resource allocation for implementation, including sustainable domestic financing, and, where appropriate, financial protection to ensure equitable access.

2. Member States are encouraged discuss triple elimination in the context of overall strengthening of MNCH services and the benefit from the synergies of a coordinated approach. An increased financial investment and human resource allocation and technical support for MNCH programmes need to be considered based on a review of the current status of the MNCH platform and its capacity and bottlenecks.

3. Member States are encouraged to include interventions aiming at triple elimination in essential health services packages in countries and ensure access to services and financial protection including consideration for key and vulnerable groups such as marginalized, hard-to-reach and migrant populations.

4. Member States are encouraged to clarify potentially overlapping or distinct roles and responsibilities of MNCH, HIV, STI, EPI and hepatitis programmes at national and subnational levels for better coordination and integration.

5. Member States are encouraged to improve the quality of epidemiological and programme data, as well as national and subnational data analyses in support of high-level commitment and policy development and to provide a solid foundation for monitoring progress. An interrelated, comprehensive health information system, including data from private health facilities, is required to plan, implement and monitor triple elimination.

6. Member States are encouraged to explore preferences of women and their families for improving access to and utilization of MNCH services, and opportunities for triple elimination to improve the quantity and quality of core MNCH services should be sought. Creating demand for early and regular ANC visits, health facility delivery and PNC visits through the disease-specific programmes should be further explored and management of women who do not access facility-based MNCH services need to be addressed.

7. Member States are encouraged to strengthen screening of pregnant women and partners and linkages to prevention and treatment of HIV and syphilis. Support for disclosure, coordinated follow-up of infected women and exposed infants within the MNCH platform, and financial support for the services need to be ensured.

8. Member States are encouraged to continue to strengthen and scale up hepatitis B vaccination including timely administration of birth dose within 24 hours after birth as a priority intervention.
9. Member States are encouraged to apply an incremental/tiered approach for the introduction of additional interventions for EMTCT of hepatitis B including screening of pregnant women, use of HBIG and antiviral therapy, and follow-up of exposed infants with due consideration to the capacities of health systems and MNCH programmes and in view of current and upcoming WHO recommendations. For example, where appropriate and feasible, HBsAg screening should be integrated with HIV and syphilis testing during ANC with linkage to care and treatment. The decision to introduce screening should be informed by the level of vaccination coverage, epidemiological data, and availability of care and treatment services for chronic hepatitis in countries.

3.2.2 Recommendations for WHO

WHO and partners are requested to:

1. develop and update guidelines and tools including a set of essential indicators for triple elimination;
2. distribute copies of *A Guide for Introducing and Strengthening Hepatitis B Birth Dose Vaccination* (published by WHO in 2015) to all national/country-level MNCH and EPI programme managers and conduct training;
3. review and map the level of coordination and integration between/among current programmes in countries and assess gaps and opportunities for strengthening coordination and synergies;
4. assist countries in developing communication strategies to promote triple elimination within the MNCH platform;
5. assist countries with the provision of quality laboratory services including the use of rapid point-of-care tests and introduction of dual rapid tests for HIV and syphilis supported by sound quality assurance systems;
6. provide standardized data collection tools with a minimum set of essential indicators for triple elimination;
7. provide technical and financial support for triple elimination, including integrated services across programmes;
8. conduct a decision tree analysis of additional interventions for hepatitis B including its cost-effectiveness to inform country decisions; map existing policies, practices and interventions for testing and treatment of hepatitis B in the Region; and share lessons from the countries already implementing these interventions;
9. develop clear guidance on the introduction of additional interventions for EMTCT of hepatitis B through continued discussion including the next ERP and STAC meetings by inviting MNCH and HIV/STI programmes involved in triple elimination;
10. review and update the progress towards EMTCT in the region annually; and
11. continue to facilitate stronger participation of civil society in the drive towards elimination of parent-to-child transmission of HIV, hepatitis B and syphilis.

3.3 Next steps

The following suggestions were made to move forward with the draft regional framework:

1. Revise the draft framework based on inputs and comments from the group.
2. Organize consultations with Member States and stakeholders on the revised draft framework.
3. Submit the final draft of the regional framework for consideration by the WHO regional committees for the Western Pacific and South-East Asia in 2017.
### ANNEX 1. AGENDA

**Day 1 – Monday, 20 February 2017 – Meeting Room 210 WPRO**

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Presenter</th>
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<tr>
<td>08:00–08:30</td>
<td><strong>Registration</strong></td>
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<tr>
<td>08:30–08:50</td>
<td><strong>Opening session</strong>&lt;br&gt;Opening remarks&lt;br&gt;Objectives of the meeting&lt;br&gt;Introduction of participants</td>
<td>Takeshi Kasai, Director Programme Management, WHO Regional Office for the Western Pacific&lt;br&gt;Shirley Mark Prabhu (UNICEF)</td>
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<td>08:50–09:20</td>
<td><strong>Overview</strong>&lt;br&gt;Global and regional updates on maternal, newborn and child health care (15 min)&lt;br&gt;Global progress and updates on elimination of mother-to-child transmission (EMTCT) (15 min)</td>
<td>Chairpersons (Day 1)&lt;br&gt;Wang Ailing / Benjamin Cowie&lt;br&gt;Howard Sobel&lt;br&gt;Kyoko Shimamoto&lt;br&gt;Karen Hennessey/Marc Bulterys</td>
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<td>09:20–9:45</td>
<td><strong>Group photo</strong>&lt;br&gt;Coffee/tea break</td>
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<td>09:45–10:15</td>
<td><strong>EMTCT of HIV, hepatitis B and syphilis in the Region</strong>&lt;br&gt;Asia and the Pacific (15 min)&lt;br&gt;Latin America and the Caribbean (15 min)</td>
<td>Ying-Ru Lo, Sergey Diorditsa&lt;br&gt;Razia Pendse&lt;br&gt;Massimo Ghidinelli</td>
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<td>10:15–12:30</td>
<td><strong>Coordination and integration of services during antenatal, labour and postnatal period</strong>&lt;br&gt;Country examples – challenges and opportunities&lt;br&gt;(poster session – participants will be divided into 4 groups)</td>
<td>Ailing Wang&lt;br&gt;Bolormaa Narantuya&lt;br&gt;Hiromi Obara&lt;br&gt;Dinh Anh Tuan</td>
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<td>12:30–13:30</td>
<td><strong>Lunch break</strong></td>
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<td>13:30–13:50</td>
<td>Feedback/recap from poster session on country examples</td>
<td>Ailing Wang&lt;br&gt;Bolormaa Narantuya&lt;br&gt;Hiromi Obara&lt;br&gt;Dinh Anh Tuan</td>
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<td>13:50–14:10</td>
<td><strong>Introduction of draft integrated regional framework for triple elimination</strong>&lt;br&gt;Brief introduction and summary of comments from 1st consultation</td>
<td>Mari Nagai / Joseph Woodring / Naoko Ishikawa</td>
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<td>14:10–15:30</td>
<td><strong>Key issues</strong>&lt;br&gt;(group discussion with 2-4 key questions – 2)</td>
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<td>- Testing of pregnant women and linkages to treatment (30min)</td>
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<td>- Increasing hepatitis B vaccine birth dose coverage (30min)</td>
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<td>Feedback (20min)</td>
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<td>15:30–15:40</td>
<td>Coffee/tea break</td>
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<td>15:40–17:00</td>
<td><strong>Key issues (cont’d)</strong></td>
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<td>- Mother-to-child transmission of syphilis (30min)</td>
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<td>- Strengthening MNCH service coverage through integrated approach to triple elimination (30min)</td>
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<td>Feedback (20min)</td>
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<td>17:00–17:30</td>
<td>Secretariat meeting</td>
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<td>18:00–</td>
<td>Reception</td>
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| 08:30–10:00| **Mother-to-child transmission of hepatitis B: control to elimination** | Chairpersons (Day 2)
|            |                                                                       | Hiromi Obara/Nathan Shaffer                                               |
|            |                                                                       | Marc Bulterys                                                            |
|            | New interventions for EMTCT of hepatitis B (screening of pregnant     | Fuqiang Cui                                                              |
|            | women, use of HBIG and antivirals and monitoring of exposed infants)  |                                                                         |
|            | (15 min)                                                              |                                                                         |
|            | Country example – China (10 min)                                       |                                                                         |
|            | Group discussion (3-4 key questions in 2 groups)                       |                                                                         |
| 10:00–10:30| Coffee/tea break                                                      |                                                                         |
| 10:30–12:00| **Monitoring and validation of EMTCT**                                |                                                                         |
|            | Group discussion (3-4 key questions in 2 groups)                      |                                                                         |
|            | - Key indicators for the integrated framework for triple elimination  |                                                                         |
|            | (30 min)                                                              |                                                                         |
|            | - EMTCT of hepatitis B – criteria, indicators and coordination with   |                                                                         |
|            | existing criteria and mechanisms (30 min)                            |                                                                         |
|            | Feedback (30 min)                                                     |                                                                         |
| 12:00–13:00| Lunch break                                                           |                                                                         |
| 13:00–15:00| **Review of draft framework for triple elimination**                 |                                                                         |
|            | Group discussion on each area                                         |                                                                         |
|            | - Coordinated national policy and strategy (30min)                    |                                                                         |
|            | - Seamless quality care for women, children and their families (30min)|                                                                         |
|            | - Monitoring and validation of elimination (30 min)                  |                                                                         |
|            | Feedback (30 min)                                                     |                                                                         |
| 15:00–15:30| Coffee/tea break                                                      |                                                                         |
| 15:30–16:20| **Summary and conclusion**                                           |                                                                         |
|            | Key recommendations and next steps                                    |                                                                         |
| 16:20–16:30| **Closing session**                                                  | WPRO                                                                     |
|            | Closing remarks                                                       |                                                                         |
| 16:30–17:00| **WHO secretariat meeting**                                          |                                                                         |
ANNEX 2. LIST OF PARTICIPANTS

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