Twelfth Meeting of the SEAR Technical Consultative Group for Polio Eradication and Vaccine-preventable Diseases

12-13 July 2007, New Delhi, India
# Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Introduction</td>
<td>1</td>
</tr>
<tr>
<td>2. Background</td>
<td>1</td>
</tr>
<tr>
<td>3. Strengthening routine immunization</td>
<td>2</td>
</tr>
<tr>
<td>4. Surveillance for Vaccine Preventable Diseases</td>
<td>5</td>
</tr>
<tr>
<td>5. Polio eradication – progress towards certification</td>
<td>8</td>
</tr>
<tr>
<td>5.1 Current Status</td>
<td>8</td>
</tr>
<tr>
<td>5.2 Immunization</td>
<td>9</td>
</tr>
<tr>
<td>5.3 AFP surveillance</td>
<td>11</td>
</tr>
<tr>
<td>5.4 Recommendations</td>
<td>13</td>
</tr>
<tr>
<td>5.5 Post-eradication Activities</td>
<td>16</td>
</tr>
<tr>
<td>6. Accelerated measles and rubella control</td>
<td>16</td>
</tr>
<tr>
<td>6.1 Current status</td>
<td>16</td>
</tr>
<tr>
<td>6.2 Surveillance</td>
<td>18</td>
</tr>
<tr>
<td>6.3 Sustainable measles mortality reduction:</td>
<td>19</td>
</tr>
<tr>
<td>6.4 Regional Strategic Plan 2007-2010</td>
<td>20</td>
</tr>
<tr>
<td>7. Japanese encephalitis control</td>
<td>21</td>
</tr>
<tr>
<td>8. Maternal and neonatal tetanus elimination</td>
<td>22</td>
</tr>
<tr>
<td>9. Introduction of new and under-utilized vaccines</td>
<td>23</td>
</tr>
<tr>
<td>9.1 Preparing for pandemic influenza</td>
<td>24</td>
</tr>
<tr>
<td>9.2 Supporting national committees on immunization practices</td>
<td>25</td>
</tr>
<tr>
<td>9.3 Recommendations</td>
<td>26</td>
</tr>
<tr>
<td>10. International health regulations 2005</td>
<td>26</td>
</tr>
<tr>
<td>Annexes</td>
<td></td>
</tr>
<tr>
<td>1. List of participants</td>
<td>28</td>
</tr>
<tr>
<td>2. Programme</td>
<td>40</td>
</tr>
</tbody>
</table>
1. Introduction

The twelfth meeting of the SEAR Technical Consultative Group (TCG) for Polio Eradication and Vaccine Preventable Diseases was held in New Delhi, India, 12-13 July 2007. The terms of reference of the meeting were:

(1) To provide policy guidance on technical issues in polio eradication, accelerated measles and rubella control, maternal and neonatal tetanus elimination, strengthening routine immunization, surveillance for vaccine preventable diseases, control of Japanese encephalitis, introduction of new vaccines into the national EPI programmes of Member States in the SEA Region and vaccine supply and quality in the Region; and

(2) To provide a forum to discuss future immunization goals/strategies for the Region, and ways to accelerate efforts to achieve immunization-related Millennium Development Goals.

The meeting was opened by Dr Poonam Khetrapal Singh, Deputy Regional Director, WHO South-East Asia Region.

The TCG members present were: Professor Lalitha Mendis, Chairperson; Dr R.N. Basu, Vice-Chairperson; Dr Walter Dowdle, Rapporteur; Dr Isao Arita, Dr Stephen Cochi, and Dr T. Jacob John.

2. Background

In 2005, the SEA Region developed a regional Immunization and Vaccine Development (IVD) Strategic Plan for 2006-2009 in keeping with the WHO/UNICEF Global Immunization Vision and Strategy (GIVS) that confirmed the global commitment to immunization as a tool for achieving the Millennium Development Goals (MDG). The Plan set specific regional goals and described relevant regional strategies that reflect the immunization challenges, progress and aspirations of Member States. At its meeting in 2005, the TCG endorsed the Plan and made recommendations for achieving its goals and for completing polio eradication in the Region.

At its twelfth meeting in 2007, the TCG reviewed the current progress towards regional goals and provided comments and recommendations to
facilitate continued immunization progress. This report further highlights the need for action in the polio eradication initiative and makes recommendations for its urgent completion.

3. **Strengthening routine immunization**

The TCG noted that in 2006, eight Member States (Bangladesh, Bhutan, DPR Korea, Maldives, Myanmar, Nepal, Sri Lanka, and Thailand) achieved >80% DTP3 coverage, one country (Indonesia) achieved 70%, while two were below 70% coverage (India 64% and Timor-Leste 67%). Of the estimated 28 million unimmunized children worldwide, more than 11.6 million children are in the SEA Region (Table 1). Of these, 80% live in India, 12.3% in Indonesia and, 4.2% in Bangladesh. These three countries account for over 96% of the unreached children. Although Timor-Leste may have significant proportion of unimmunized children, the absolute numbers are small.

<table>
<thead>
<tr>
<th>Country</th>
<th>Live births</th>
<th>WHO/UNICEF preliminary best estimate of DTP3 coverage</th>
<th>Total unreached children &lt;1 year of age (DTP3)</th>
<th>Percentage of unreached children in SEA Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>4,062,594</td>
<td>88.0</td>
<td>487,511</td>
<td>4.2</td>
</tr>
<tr>
<td>Bhutan</td>
<td>14,641</td>
<td>95.0</td>
<td>732</td>
<td>0.0</td>
</tr>
<tr>
<td>DPR Korea</td>
<td>409,965</td>
<td>89.0</td>
<td>45,096</td>
<td>0.4</td>
</tr>
<tr>
<td>India</td>
<td>25,982,125</td>
<td>64.0</td>
<td>9,353,565</td>
<td>80.0</td>
</tr>
<tr>
<td>Indonesia</td>
<td>4,786,675</td>
<td>70.0</td>
<td>1,436,003</td>
<td>12.3</td>
</tr>
<tr>
<td>Maldives</td>
<td>5,826</td>
<td>98.0</td>
<td>117</td>
<td>0.0</td>
</tr>
<tr>
<td>Myanmar</td>
<td>1,415,711</td>
<td>82.0</td>
<td>254,828</td>
<td>2.2</td>
</tr>
<tr>
<td>Nepal</td>
<td>742,164</td>
<td>89.0</td>
<td>81,638</td>
<td>0.7</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>367,657</td>
<td>99.0</td>
<td>3,677</td>
<td>0.0</td>
</tr>
<tr>
<td>Thailand</td>
<td>809,485</td>
<td>98.0</td>
<td>16,190</td>
<td>0.1</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>41,099</td>
<td>67.0</td>
<td>13,563</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>38,637,942</strong></td>
<td><strong>11,692,918</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1: DTP3 coverage and unreached children in the SEA Region, 2006\(^a\)

\(^a\) Data from 2006 Joint Reporting Form (JRF); for India, 2005 estimated DTP3 coverage used.
Children who do not receive routine immunization often live in geographically inaccessible communities, compounded by extreme poverty, socially disadvantaged communities, or in areas of poor health infrastructure. Poor immunization performance is often symptomatic of a more general and pervasive malaise in the health care system.

Low levels of investments at national and local levels, particularly in federated or highly decentralized countries are consistent with a breakdown of existing infrastructure and the failure to meet current needs. An assessment in 2004 of routine immunization programmes in the poorest performing states in India (Bihar, Uttar Pradesh, Madhya Pradesh, Orissa and Rajasthan) found “the basic infrastructure for immunization to reach every child is in place, but the system is largely failing to deliver” because of common barriers impeding progress (see Box). In addition, some countries lack good quality, sub-national level immunization coverage data to inform decisions for intervention and planning.

<table>
<thead>
<tr>
<th>Some common barriers impeding immunization coverage achievement, six states assessment, India, 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Barrier</strong></td>
</tr>
</tbody>
</table>
| State | • Inadequate staff level  
• Poor quality of staff  
• Lack of finances  
• Poor coordination  
• No analysis/use of data | • Though elements in place, need improved management, training and use of partners at local level  
• Morale is low and work conditions poor |
| District | • Lack of staff, lack of staff supervision  
• Poor fund utilization  
• Poor vaccine management practices | • Management strengthening needed  
• Training  
• Better data management |
| Urban | • Underserved slums/mobile population  
• Poor quality of services  
• Poor partner coordination | • Lack of health infrastructure to address needs of urban slums  
• No efforts to reach the hard to reach population  
• Immunization low priority |
| PHC | • Lack of service or staff  
• Inaccurate data  
• Absent or poor microplans | • Lack of training  
• Lack of monitoring  
• Lack of IEC efforts or IEC materials |

Regional Immunization Goals and Objectives

The TCG was pleased to learn that in accordance with its 2005 recommendations all countries in the Region had developed plans around the Region Strategic Plan and GIVS, 2006-2015, which envisions achieving, by 2010, the goal of “90% national DTP3 vaccination coverage and at least 80% coverage in every district or equivalent administrative unit”. The SEA Region aims to achieve that goal by 2009. In further response to the recommendations of the 2005 report, the TCG found that all countries, eligible for support from the Global Alliance for Vaccines and Immunization (GAVI) except Timor-Leste and India, had developed country multi-year plans (cMYP), and India had costed plans within its Rural Child Health (RCH) programme. Nevertheless, TCG remains concerned that eligible countries in the Region are not taking full advantage of available GAVI funds.

As discussed earlier, of the estimated 28 million or more infants that do not receive routine immunization, more than 11 million are in four countries (India, Indonesia, Bangladesh, and Myanmar) that collectively account for more than 98% of the missed children. The TCG was pleased to learn that countries with large numbers of unimmunized children (CLUC) are likely to receive additional support from GAVI. Of the seven countries thus categorized globally, three are in the SEA Region (India, Indonesia and Bangladesh). It is important for the CLUC countries to quickly develop plans of action and timelines to scale up routine immunization and work closely with partners to access such support and implement plans accordingly.

Recommendations

(1) All countries in which the immunization programme does not achieve optimal coverage and disease reduction should develop detailed plans of action to strengthen routine immunization in accordance with the strategic directions of GIVS. Such plans should be an integral component of cMYPs and set milestones for programme implementation, including an independent system of monitoring to assess progress.

(2) Countries with large numbers of unimmunized children (CLUC) are urged to develop clear plans of actions to scale up routine immunization and to implement them with support from GAVI.
The CLUC countries (India, Indonesia, Bangladesh) should collaborate closely with partners to facilitate national efforts to effectively utilize GAVI support to increase routine immunization coverage. Independent reviews of progress toward milestones should be available for the next TCG meeting.

(3) All countries in the Region should conduct ongoing evaluation of routine immunization and provide evidence that underserved communities, refugee camps, camps for internally displaced persons (IDPs), urban and peri-urban centres, and mobile populations have not been missed. A report on successful strategies to reach the underserved populations should be highlighted and presented at the next TCG meeting.

(4) Countries should review lessons learned from successful polio eradication communication strategies deployed by UNICEF, non-governmental organizations (NGOs), and other agencies and adapt applicable strategies to enhance the demand for routine immunization and address similar issues with other vaccine preventable diseases.

4. Surveillance for Vaccine Preventable Diseases

The TCG endorsed the regional concept that the polio eradication programme is the model for effective use of data to support control of other vaccine preventable diseases (VPDs). The core components of complete and timely reporting, case investigations, laboratory confirmation, timely data analyses and dissemination, and use of data for informed programme decision-making are applicable to all VPDs. Further, the extensive polio Surveillance Medical Officer (SMO) network in four countries (BAN-43, IND-305, MMR-17, NEP-11) and the Surveillance Officer (SO) structure in Indonesia (37) has proven to be an essential component of effective AFP surveillance for polio eradication and has untapped potential for extension into other areas of VPD and other communicable disease surveillance. Many countries have used these networks to strengthen routine immunization, introduce new or underutilized vaccines, enhance surveillance for other VPDs, and monitor and evaluate EPI programmes.

The TCG noted that substantial progress had been made since 2005 in accelerating and integrating surveillance of priority VPDs (measles, rubella,
neonatal tetanus, acute encephalitis syndrome/Japanese encephalitis,) and adverse events following immunization (AEFI) with existing AFP surveillance systems (Table 2). Monthly reporting of VPDs to the Regional office appears to have greatly improved, with all but one country (India) reporting aggregate case counts consistently for the priority VPDs. However, there is room for improvement as the data reported monthly by countries for 2006 are, in some cases, not consistent with the data reported through the annual Joint Reporting Form (JRF) for priority VPDs. Three countries (Nepal, Bangladesh, and Myanmar) with WHO supported SMO networks and data management staff, submit case-based VPD data monthly.

WHO’s Global Framework for Immunization Monitoring and Surveillance (GFIMS) provides the principles and guidance for expanding VPD surveillance by building on the polio infrastructure. This Framework can be used as a blueprint by countries and the Regional office to strengthen and expand the VPD surveillance and immunization programme monitoring infrastructure, including introduction of new vaccines. The TCG envisions an integrated VPD surveillance system as a first step towards a comprehensive national infectious disease surveillance system, which is a crucial element in all disease control programmes.

In 2007, all Member states submitted the annual WHO/UNICEF Joint Reporting Form (JRF) and the Annual EPI Reporting Form (AERF). These forms are the primary tools for collecting annual VPD and immunization coverage data which are used extensively at the global and regional levels for programme planning, resource mobilization, and evaluating programme activities. Although the quality may vary by country, sub-national level immunization coverage data are now available for all countries except Thailand.

The TCG commended the Regional office (IVD) for continued improvement of the regional and country-specific “EPI Fact Sheets” and for adding in 2006 a new disease-specific Fact Sheet for measles and rubella. Further, the TCG noted that standardization, monitoring, and regular feedback had enhanced surveillance data quality, timeliness, and completeness.

---

1 See copy of the Member Country EPI Fact Sheet for aggregate disease counts reported through the annual WHO/UNICEF JRF, available at: http://www.searo.who.int/en/Section1226/Section1635/Section1657.htm
Table 2: Vaccine-Preventable Diseases reported through monthly reporting system to the Regional office 2005 - 2006.

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of cases</th>
<th>Number of outbreaks</th>
<th>Number of Measles Deaths</th>
<th>Measles Routine Cases</th>
<th>Number of Measles Outbreaks</th>
<th>Number of NT Diphtheria Cases</th>
<th>Number of Pertussis Cases</th>
<th>Number of Rubella Cases</th>
<th>Number of Encephalitis Cases</th>
<th>Number of AEFI4</th>
<th>Number of Measles Deaths2</th>
<th>Number of NT Diphtheria Cases</th>
<th>Number of Pertussis Cases</th>
<th>Number of Rubella Cases</th>
<th>Number of Encephalitis Cases</th>
<th>Number of AEFI4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>6925</td>
<td>203</td>
<td>10000</td>
<td>58</td>
<td>341</td>
<td>125</td>
<td>125</td>
<td>9220</td>
<td>0</td>
<td>1920</td>
<td>220</td>
<td>51</td>
<td>3944</td>
<td>45</td>
<td>296</td>
<td>35</td>
</tr>
<tr>
<td>Bhutan</td>
<td>11</td>
<td>4</td>
<td>149</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>DPR Korea</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>India</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>13653</td>
<td>97</td>
<td>5822</td>
<td>22</td>
<td>822</td>
<td>419</td>
<td>448</td>
<td>4</td>
<td>0</td>
<td>23422</td>
<td>66</td>
<td>1584</td>
<td>11</td>
<td>116</td>
<td>146</td>
<td>231</td>
</tr>
<tr>
<td>Maldives</td>
<td>1395</td>
<td>2</td>
<td>67</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>22</td>
<td>47</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>Myanmar</td>
<td>51</td>
<td>11</td>
<td>264</td>
<td>1</td>
<td>35</td>
<td>4</td>
<td>6</td>
<td>46</td>
<td>0</td>
<td>301</td>
<td>23</td>
<td>459</td>
<td>4</td>
<td>45</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Nepal</td>
<td>886</td>
<td>3</td>
<td>960</td>
<td>6</td>
<td>19</td>
<td>-</td>
<td>-</td>
<td>2844</td>
<td>-</td>
<td>412</td>
<td>3</td>
<td>636</td>
<td>0</td>
<td>15</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>46</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>35</td>
<td>2146</td>
<td>41</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>07</td>
</tr>
<tr>
<td>Thailand</td>
<td>3105</td>
<td>3</td>
<td>122</td>
<td>0</td>
<td>5</td>
<td>4</td>
<td>20</td>
<td>319</td>
<td>263</td>
<td>88</td>
<td>7</td>
<td>587</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>98</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>3</td>
<td>2</td>
<td>50</td>
<td>9</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>143</td>
<td>0</td>
<td>24</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>28292</td>
<td>23814</td>
<td>96</td>
<td>859</td>
<td>622</td>
<td>4889</td>
<td>9588</td>
<td>3355</td>
<td>4188</td>
<td>22952</td>
<td>7213</td>
<td>61</td>
<td>451</td>
<td>187</td>
<td>265</td>
<td>356</td>
</tr>
</tbody>
</table>

1 During the ninth TCG meeting 2003, SEAR member countries agreed to monthly VPD reporting to SEARO/IVD.
2 In Bangladesh & Nepal, measles outbreaks include some rubella and mixed measles and rubella outbreaks also.
3 Includes routine and outbreak reporting.        4 Adverse Events Following Immunization.
4 Adverse Events Following Immunization.
Recommendations

(1) India should join the other countries in reporting priority VPDs to the Regional Office. Because of its large size, India should consider reporting VPDs on a state-wise basis.

(2) WHO’s Global Framework for Immunization Monitoring and Surveillance (GFIMS) should be widely disseminated to all disease surveillance and immunization programme staff at the country and regional levels as the basis for developing expanded surveillance plans of action.

(3) Large countries such as India and Indonesia should consider establishing VPD surveillance centres of excellence in provinces or districts to serve as models for expansion into other parts of the country.

(4) Member states should evaluate and document their surveillance systems at all levels (including community-level surveillance) for timeliness, completeness, sensitivity, data management, and other common attributes of disease surveillance systems. GAVI-eligible countries should consider applying for Immunization System Support (ISS) or Health System Support (HSS) funding to meet additional surveillance and monitoring resource needs.

(5) All countries with a SMO/SO network should have a plan for using human and infrastructure resources of the network for expanding and strengthening VPD surveillance. Similarly, GAVI-eligible countries planning expansion should pursue application for ISS or HSS funding.

(6) All GAVI applications should request support for VPD surveillance (both old and new vaccines) and include an in-built system for surveillance audits.

5. Polio eradication – progress towards certification

5.1 Current Status

Polio continues in the Region with 111 new cases reported to date (9 July) in 2007, 100 from India, and 11 from Myanmar. Poliovirus type 1 (39
cases) in India has declined significantly in Western Uttar Pradesh attributed to the use of monovalent OPV1 (mOPV1). Although there is an upsurge of poliovirus type 3 cases (69) in 2007, the virus circulation appears to be localized to western Uttar Pradesh. This increase in P3 cases is not unexpected and is consistent with the recommended immunization strategies that have given primacy to termination of type 1 poliovirus transmission. Given the changing epidemiology of polio in India with an expected further increase in type 3 poliovirus spread in the ensuing high transmission season, sufficient supplies of both mOPV3 and mOPV1 must be available to ensure tactical administration of both monovalent vaccines.

The TCG noted with concern that the Indian states of Uttar Pradesh and Bihar remain endemic and that two countries in the Region exported poliovirus in the past 12 months (India to Nepal and Angola, and Bangladesh to Myanmar). Myanmar is particularly vulnerable because of declining AFP surveillance quality and falling coverage in the routine immunization programme, as currently evidenced by the reports of wild polio cases and circulating vaccine derived polioviruses (cVDPV). Continued transmission of polio in Myanmar greatly increases the risk for neighboring countries, particularly Thailand, Bangladesh, and the WHO Western Pacific Region (China and Laos). Bangladesh and Nepal, as well as all areas of the region with low routine immunization coverage continue to be at high risk for poliovirus importation and spread. Indonesia remains a concern with low OPV3 coverage in some populations, silent or underperforming areas of surveillance, and no planned supplemental immunization activities (SIAs) for 2008. Maintaining high routine immunization throughout the Region is crucial to ensure that the risk of importation is minimized and that even if importation occurs, it can be rapidly contained.

5.2 Immunization

Based on past SIAs and current AFP surveillance performance (Table 3), the TCG endorsed the proposed SIA priorities for 2007 (Table 4).

The TCG supported the plan put forward by the India Expert Advisory Group (IEAG), the Communication Technical Advisory Group and endorsed by the Government of India (GoI) and partners for stopping transmission in the last endemic areas of Uttar Pradesh and Bihar, by employing intensified SIAs with monovalent vaccines, focusing primarily on type 1 while keeping measured control over wild type 3 virus through periodic use of mOPV3.
Table 3: Status of OPV Supplemental Immunization Activities (Data as of 9 July 2007) and surveillance quality indicators in 2006.

<table>
<thead>
<tr>
<th>Country</th>
<th>Year of 1st NID</th>
<th>Total NIDs rounds</th>
<th>Last NID round</th>
<th>SNIDs in 2006</th>
<th>Last case of polio</th>
<th>Non-polio AFP rate/100,000 &lt;15 yrs (2006)</th>
<th>% 2 stools collection w/in 14 days of onset (2006)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>1995</td>
<td>34^a</td>
<td>Apr-07</td>
<td>No</td>
<td>22-Nov-06</td>
<td>2.87</td>
<td>93</td>
</tr>
<tr>
<td>Bhutan</td>
<td>1995</td>
<td>2</td>
<td>Feb-95</td>
<td>Yes</td>
<td>1986</td>
<td>2.38</td>
<td>33</td>
</tr>
<tr>
<td>DPR Korea</td>
<td>1997</td>
<td>12</td>
<td>Nov-02</td>
<td>No</td>
<td>1996</td>
<td>1.47</td>
<td>100</td>
</tr>
<tr>
<td>India</td>
<td>1995</td>
<td>29^a</td>
<td>Feb-07</td>
<td>Yes</td>
<td>24-May-07</td>
<td>7.35</td>
<td>82</td>
</tr>
<tr>
<td>Indonesia</td>
<td>1995</td>
<td>13</td>
<td>Apr-06</td>
<td>Yes</td>
<td>20-Feb-06</td>
<td>2.45</td>
<td>83</td>
</tr>
<tr>
<td>Maldives</td>
<td>1996</td>
<td>8</td>
<td>Jan-01</td>
<td>No</td>
<td>1994</td>
<td>0.99</td>
<td>0</td>
</tr>
<tr>
<td>Myanmar</td>
<td>1996</td>
<td>16</td>
<td>Jan-03</td>
<td>Yes</td>
<td>12-May-07</td>
<td>2.12</td>
<td>95</td>
</tr>
<tr>
<td>Nepal</td>
<td>1996</td>
<td>19^a</td>
<td>Dec-06</td>
<td>Yes</td>
<td>22-Dec-06</td>
<td>3.50</td>
<td>86</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>1995</td>
<td>8</td>
<td>Dec-00</td>
<td>No</td>
<td>Nov-93</td>
<td>2.36</td>
<td>78</td>
</tr>
<tr>
<td>Thailand</td>
<td>1994</td>
<td>10</td>
<td>Jan-00</td>
<td>Yes</td>
<td>Apr-97</td>
<td>2.26</td>
<td>81</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>1995</td>
<td>12^b</td>
<td>Sep-05</td>
<td>No</td>
<td>NA</td>
<td>0.00</td>
<td>0</td>
</tr>
</tbody>
</table>

^a Includes intensified (booth day + house-to-house).
^b Timor-Leste SIA conducted with Indonesia.

Note: In Indonesia, last two rounds of SNID in 2006 and the two rounds of 2007 are coupled with measles catch-up campaign.

The TCG appreciated the extraordinary effort being made by the Government of India to eradicate polio but is concerned about the lack of progress on key IEAG recommendations including the use of high titre mOPV1 and the need for research. The TCG noted the absence of a foundation of high routine immunization coverage so important in facilitating eradication in other states within India and elsewhere in the Region (e.g. Bangladesh). Taking advantage of the national rural health framework, increased routine immunization coverage rates in high-risk areas would increase protection against polio as well as the additional benefit of protection against other VPDs.
Table 4: Status of Supplemental Immunization Activities in the SEA Region

<table>
<thead>
<tr>
<th>Country</th>
<th>Bangladesh</th>
<th>Bhutan</th>
<th>DPR Korea</th>
<th>India</th>
<th>Indonesia</th>
<th>Maldives</th>
<th>Myanmar</th>
<th>Nepal</th>
<th>Sri Lanka</th>
<th>Thailand</th>
<th>Timor-Leste</th>
</tr>
</thead>
</table>

- NiDs
- SNIDs @ > 40%+
- SNIDs @ < 40%
- Proposed NiDs/SNIDs
- 2 rounds of SNIDs @ < 40%

5.3 AFP surveillance

The TCG noted that six of the 11 member SEAR countries in 2006 met both of the two primary certification level AFP surveillance indicators\(^2\). Bhutan, DPR Korea, Maldives, Sri Lanka, and Timor-Lesté did not (Table 3 for 2006 and the latest weekly bulletin for indicators for 2007). The surveillance quality indicator for non-polio AFP rates changed after the TCG in 2005 to 2 non-polio AFP cases per 100 000 population under age 15. AFP reporting in Timor-Lesté continues to be inadequate with only one case reported in 2006 and one to date in 2007.

In 2005 and 2006, all countries reported at least one AFP case and 94% of all AFP cases in the Region were investigated within 48 hours of notification (31 530 and 36 649 respectively). All countries met the target of >80% timely investigation. In both years, 7 of 11 countries were able to achieve the minimum goal of 80% for collecting two adequate stool specimens, 24 hours apart, and within 14 days of onset of paralysis (Table 3). Seven of the 11 countries also met the 80% target goal of stool specimens arriving at a WHO-accredited laboratory within three days of being sent, specimens arriving in “good” condition, and primary isolation results available within 28 days of receipt. Only the small population countries (Bhutan, Maldives, Timor-Lesté) and DPR Korea did not meet these surveillance quality indicator targets.

---

\(^2\) Primary surveillance quality indicators in the SEA Region include (1) a non-polio AFP rate of 2 per 100 000 children under age 15 years, and (2) two stools collected 24 hours apart and within 14 days onset of paralysis.
The TCG noted that in response to its 2005 recommendations, all countries except India and Thailand were able to provide a final diagnosis for the majority of discarded AFP cases, with Guillain-Barré Syndrome remaining the most common diagnosis (~30%).

The TCG commended the Regional office for conducting four Joint National/International AFP Surveillance Reviews (Bhutan 2005, Myanmar 2005, Nepal 2006, Indonesia 2006) and one EPI Review (Maldives 2006). Follow-ups undertaken in three of the four countries were encouraging (Table 5). The TCG urged Myanmar to implement the recommendations from the review, particularly in view of the decline in its surveillance performance in 2007 with many silent districts and despite the outbreak of vaccine-derived polio virus (VDPV) in 2006 and wild poliovirus in 2007.

Table 5: Summary of Joint National/International Surveillance Reviews, by country.

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of reviews completed</th>
<th>Year</th>
<th>Follow-up of recommendations</th>
<th>Planned Joint International / National AFP Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh²</td>
<td>3</td>
<td>1997, 2001 &amp; 2004</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bhutan</td>
<td>1</td>
<td>Oct-05</td>
<td>Planned November 2007</td>
<td></td>
</tr>
<tr>
<td>DPR Korea</td>
<td>1</td>
<td>2001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>India²</td>
<td>2 + select states and districts</td>
<td>1997 &amp; 2001; internal reviews ongoing 2003 - 2007</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maldives</td>
<td>0</td>
<td>As per of EPI Review, December 2006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nepal*</td>
<td>2</td>
<td>2001 &amp; Apr/Aug 2006</td>
<td>Completed in April 2007</td>
<td></td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>1</td>
<td>Nov-03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>1</td>
<td>Aug-04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>0</td>
<td>--</td>
<td></td>
<td>2007 or 2008</td>
</tr>
</tbody>
</table>

²Countries with WHO supported surveillance medical officers (SMOs)
Tracking AFP cases crossing international borders has greatly improved since 2005, particularly between India, Nepal and Bangladesh, where the national polio eradication programme and responsible SMOs for that geographic area are notified at the same time. The Regional office (IVD) database of all “cross-border” cases assures follow-up notification of stool results and maps of routes of travel.

The TCG reviewed the report of the 16th Meeting of Virologists from the SEA Regional Polio Laboratory Network (9-10 July 2007) and commended the laboratories on their continued remarkable performance. The laboratories tested more than 75 000 stool samples in 2006, nearly double the number in 2004. All 16 laboratories met the key timeliness indicators in 2006 despite challenges from a major increase in workload, and all are fully accredited. Fifteen laboratories (except DPR Korea) have implemented the new virus isolation algorithm designed to shorten the testing process. In the further interest of timeliness, the number of laboratories performing intratypic differentiation (ITD) tests has been increased from 6 to 9. The newly-developed Polio Lab Information for Action version 4 (PLIFA4) reporting software is undergoing field testing in the Indian laboratories.

Despite past successes, network laboratories presently face the challenge of maintaining testing accuracy and reporting timeliness in the face of an increasing workload and concurrent implementation of the new test algorithm. The TCG concurs with the recommendations of the meeting to further advance network performance by redistribution of samples and adding a new virus isolation laboratory in India, increasing the number of national laboratories with ITD test capacity, and strengthening sequencing capacity.

The TCG urged the Government of India and partners to finish the job as outlined by IEAG, and requested the donors to sustain the support needed to complete eradication as outlined in the WHO Director General’s “Case for Completing Polio Eradication”.

5.4 Recommendations

(1) SEARO should closely monitor the progress of each infected country of the Region towards polio eradication against the milestones specified in the WHO Director General’s new “Case
for Completing Polio Eradication”. The Regional office should report directly to the Ministers of Health on a quarterly basis on the status of the milestones.

(2) India should rapidly implement the full recommendations of India Expert Advisory Group (IEAG) and Communication TAG to stop polio in Western Uttar Pradesh and Bihar. High titre mOPV1 should be used in traditional reservoirs, appropriate research conducted to guide further programme decisions, and the capacity of the federal government immunization team enhanced immediately. The TCG concurred with the strategic decision, endorsed by the Government of India and its partners, to focus primarily on type 1 using mOPV while keeping measured control over wild type 3 virus through periodic use of mOPV3. India should consider the unique advantage of the intense polio immunization efforts and the national rural health framework to establish a culture of high routine immunization coverage in these high-risk states.

(3) Myanmar should rapidly stop poliovirus transmission through large rounds of SIAs every 4-6 weeks (minimum two nationwide rounds in 2007, in addition to SNIDs in areas of ongoing transmission) with mOPV1, strengthened surveillance and enhanced routine immunization coverage. A house-to-house strategy should be employed during SIAs to ensure at least 95% coverage of the target (0-59 month age-group) population consistently in each round, as evidenced through evaluation by independent monitors in accordance with World Health Assembly resolution (WHA) 59.1 and the recommendations of the Global Advisory Committee on Polio Eradication (ACPE).

(4) Bangladesh should continue to be considered polio infected given the recent exportation to Myanmar. Highest priority should be given to ensure the use of mOPV1 in upcoming SIAs to stop any residual, undetected type 1 transmission and minimize the risk of a re-importation from Myanmar. At an absolute minimum, mOPV1 should be used in Chittagong and Sylhet as long as transmission is ongoing in neighbouring Myanmar.

(5) Nepal should conduct appropriate risk assessments, employ SIAs (at least two rounds per year) using type-specific mOPV in sufficiently large areas until the risk of new importations is
minimized either through the Region reaching “0” case status or reaching a high level of Routine Immunization coverage of 90% in at least 90% of the sub-districts). The SIA rounds should be synchronized with India to maximize coverage.

(6) Indonesia is commended for interrupting poliovirus transmission in 2006. However, the country remains vulnerable to poliovirus importation and should enhance surveillance at the sub-national level as well as plan NIDs in 2008 to protect its polio-free status.

(7) The Regional office should monitor outbreak response activities in the Region against recommendations outlined in resolution WHA 59.1 to ensure rapid response within four weeks, use of appropriate mOPV, sustained campaigns until confirmation of virus interruption, and maintenance of subnational non-polio AFP rates greater than 2 per100 000 children less than 15 years of age for at least 12 months after the last case. Recognizing the international importance of rapidly stopping new polio outbreaks, consideration should be given to communicating with the highest level of government when the response is sub-optimal and potentially puts other Member States at risk.

(8) All countries, including polio-free countries, should conduct an analysis of their risk of wild virus circulation, cVDPV emergence and/or new importation and, if indicated, conduct SIAs in the high to medium risk areas to boost immunity and prevent poliovirus transmission, especially in populations with low immunization coverage.

(9) Member States should review national policies on polio immunization and (a) advise all travellers to infected areas on the need to be protected against polio (in accordance with the WHO Travel and Health document), and (b) consider whether immunization of travellers from infected areas could reduce the risk of importations. The Regional office and WHO should assist as required.

(10) Recognizing the limited international resources available for priority eradication activities in 2007-2008, all countries should re-establish or re-invigorate their inter-agency coordinating committees to systematically review the financial resources required to achieve the new international milestones outlined in
the Director General’s “Case for Completing Polio Eradication”, and mobilize domestic and local donor resources for the necessary SIAs and/or surveillance activities.

(11) The laboratory network should proceed with the proposal to explore redistribution of samples in India to optimize the load in Chennai and Lucknow, adding a new virus isolation laboratory in India, increasing the number of national laboratories with capacity to perform ITD tests, and strengthening sequencing capacity in the Region.

(12) The regional polio network laboratories should provide workload estimates and budget implications for programme planning to ensure mobilization of resources commensurate with demands and to avoid disruptions in services.

(13) During implementation of the new polio testing algorithm, communication and coordination between the polio laboratories and surveillance programmes should be reinforced to ensure accuracy, consistency and timeliness of reports.

5.5 Post-eradication Activities

The TCG noted that nine of the eleven countries of the Region had completed Phase 1 containment activities in accordance with the Global Action Plan (GAP 2). All the reports were accepted by the International Certification Committee for Polio Eradication (ICCPE) in September 2006, which recommended that Bangladesh, Indonesia, Myanmar and Nepal should revise their Phase 1 activities because of recent outbreaks in those countries. Timor-Leste will be assisted by the Regional office in initiating containment activities and will report to ICCPE.

6. Accelerated measles and rubella control

6.1 Current status

WHO estimates that 14 million cases and 174 000 measles deaths occurred in the SEA Region in 2005 (2006 estimates are not yet available), almost 50% of the global disease burden. While measles control efforts in the
countries of the Region reduced the estimated annual number of measles deaths by 27 % between 1999 and 2005 and while WHO/UNICEF estimates that measles routine immunization coverage in the Region increased from 59% in 1999 to 65 % in 2005, 12.6 million children born in 2005 have not received measles vaccine. Of the two largest countries with the largest number of unimmunized children, Indonesia will complete the last phase of its nationwide measles catch-up campaign in August 2007; India embarked on a stepwise mortality reduction programme in 2005. The TCG noted that the Government of India has established a national technical advisory group to advise it on appropriate strategies for accelerating measles mortality reduction. The TCG looked forward to receiving the outcome of the first meeting of this group in early September 2007.

Four countries (Bhutan, DPR Korea, Maldives, Sri Lanka) are currently implementing measles elimination strategies.

The TCG noted that five countries (Bangladesh, Indonesia, Myanmar, Nepal, Timor-Leste) have developed and implemented plans for sustainable measles mortality reduction. In 2005, five countries (Bangladesh, Bhutan, DPR Korea, Maldives, Sri Lanka) achieved the regional objective of more than 80% coverage with routine measles vaccination nationally and in at least 80% of the districts. Thailand achieved a very high national coverage, but district-level data are not available. Three countries (Indonesia, Nepal, Myanmar) have a national coverage of more than 70%, and among these countries two (Indonesia, Nepal) report that 70% of the districts have achieved coverage of more than 80%. Less than half of the districts in Myanmar have reached 80% coverage and the national coverage of India and Timor-Leste are well below 80%.

The TCG commended Bangladesh, Bhutan, DPR Korea and Maldives for conducting successful measles catch-up campaigns during the period 2005-07. Indonesia will be completing catch-up campaigns in August 2007. Myanmar conducted a follow-up campaign in 2007. Maldives and Bhutan have started providing measles second opportunity through routine immunization. Accordingly, all countries except India have provided second opportunity through SIAs or are providing second opportunity through routine immunization. Since 2005, both Maldives and DPR Korea have responded to measles outbreaks with timely catch-up campaigns. The TCG commended Indonesia for integrating other public health
interventions such as OPV, Vitamin A, insecticide-treated bed-nets (ITN) and micronutrients with measles catch-up campaigns.

6.2 Surveillance

As a result of improved surveillance, the reported number of suspected measles cases in the Region rose from 77,729 in 1999 to 94,576 in 2006, despite a marked reduction in the number of cases in Bangladesh in 2006 and in Nepal since 2005 following successful catch-up immunization campaigns. Indonesia, Maldives and Nepal reported high incidence in most of the years from 1999-2006, with fluctuations in the reported incidence in Bhutan, Indonesia, Maldives, Nepal, Sri Lanka and Thailand because of periodic outbreaks. The reported incidence in India has increased in 2006.

The TCG commended the regional laboratories for the rapid progress in performance of measles serology. Fifteen of the 16 accredited measles laboratories in the Region are reporting serology results monthly. The proportion of measles IgM-positive results decreased from 54% in 2006 to 49.5% in 2007, possibly due to expanded SIA activities in those countries or improved surveillance. Some individual laboratories, however, have reported an increase in the proportion of positive samples in 2007. In response to the TCG recommendations, India has four accredited laboratories with plans to enlist more as the programme expands. Capacity building and strengthening of the measles and JE laboratory networks should continue as deemed appropriate for programme needs, with close collaboration between regional surveillance and laboratory personnel to determine workload estimates for planning and resource mobilization.

Four countries (Bangladesh, Myanmar, Maldives, Nepal), as well as three states of India (Tamil Nadu, Karnataka, Andhra Pradesh) where measles surveillance was started in 2005, have investigated more than 80% of suspected measles outbreaks. Bhutan investigated two sporadic outbreaks and Maldives conducted a comprehensive investigation of a nationwide outbreak. A nationwide measles outbreak with 4,314 cases was reported in DPR Korea between November 2006 and April 2007. The highest incidence was in the 10–14 year age-group. The government took rapid action by immunizing 16 million people between the age of 6 months and 45 years. Serological confirmation of clinically suspected measles outbreaks has helped to uncover previously unrecognized rubella disease burden in all countries. Suspected measles outbreaks in many countries
were identified as rubella, which was particularly evident in Bangladesh and Nepal after successful completion of measles catch-up campaigns.

6.3 Sustainable measles mortality reduction: Regional Strategic Plan 2007-2010

The TCG commended the Region for developing a measles strategic plan for the period 2007-2010 and endorsed the regional goal of reducing estimated measles mortality by 90% in 2010 compared to 2000 estimates. The objectives of the plan are:

1. To achieve at least 90% national Measles Containing Vaccine (MCV1) coverage and at least 80% MCV1 coverage in all districts in Member States by 2010.

2. To conduct case-based measles surveillance within an integrated vaccine preventable disease surveillance system in countries that have already conducted a national measles catch-up campaign.

3. To achieve full investigation and appropriate clinical case management of all reported measles outbreaks by all countries by 2009.

4. To provide a second opportunity for measles immunization to eligible children in all Member States by 2010 while ensuring more than 90% coverage.

The commendable regional progress in measles mortality reduction has been achieved by building on the experience and infrastructure for polio eradication. The implementation of the measles strategic plan in the Region should continue to benefit from the microplans, trained human resources, field and laboratory surveillance networks and partnerships developed for polio eradication.

In keeping with the TCG recommendations of 2005, the Reaching Every District (RED) approach and GIVS provide the strategic framework for achieving high universal immunization coverage for MCV1 in the Member States. The planned measles SIAs present opportunities to improve routine immunization services, with lessons learned during SIA micro-planning incorporated into similar planning for improving routine immunization services. Member States will be encouraged to link measles surveillance
with rubella surveillance. Where possible, countries need to continue to build on the well-established polio eradication networks that will remain operational until at least 2010. Surveillance data can be used for evidenced-based decision-making to develop and refine both routine and supplemental measles immunization activities.

### 6.4 Recommendations

1. The TCG endorses the objectives of the Regional Plan to implement appropriate strategies to achieve the goal of reducing estimated measles mortality by 90% in 2010 compared to 2000 estimates.

2. Measles second opportunity should be provided for measles mortality reduction. The second opportunity may be provided through a catch-up campaign or through a second routine dose of measles vaccine for countries with high routine coverage. Countries that have not yet provided a second opportunity through a national catch-up campaign should plan to do so.

3. As India accounts for most measles deaths in the Region, the TCG is pleased that the Government of India is implementing its measles plan of action, expanding measles surveillance to more states, and convening an expert advisory group. India should implement a second opportunity through measles catch-up campaigns during 2008-2010 in states that account for most of the measles deaths.

4. Countries that have conducted a national measles catch-up campaign should plan for follow-up campaigns targeting the appropriate age-group. This includes the proposed measles follow-up campaign for children 9 months-5 years of age in Nepal in 2008 and in Bangladesh in 2010. Indonesia, Myanmar and Timor-Leste should review routine and SIA coverage and plan measles follow-up campaigns as indicated. DPR Korea should provide a second opportunity through routine immunization to prevent occurrence of future outbreaks.

5. Bangladesh, Nepal, Indonesia, Myanmar, and the southern states of India where measles surveillance has identified rubella virus
circulation, should identify CRS disease burden and plan appropriate immunization strategies based on the findings.

(6) Member States should explore the potential for integrating other public health interventions and measles SIAs.

(7) All countries and states/provinces of large countries that have completed measles catch-up campaigns should initiate measles case-based surveillance with laboratory confirmation and fully investigate all detected/reported cases. Countries should monitor the progress of measles mortality reduction using indicators described in the Regional Strategic Plan 2007-2010.

(8) Measles laboratories in the Region should assess their data management needs, identify gaps in reporting, and improve coordination and communication of laboratory results to the EPI programme.

7. **Japanese encephalitis control**

Interest in acute encephalitis/meningitis syndrome (AES), including Japanese encephalitis (JE) surveillance, in the Region continues to increase. JE is the most important form of viral encephalitis in Asia. JE virus is estimated to cause at least 50,000 cases of clinical disease each year, mostly among children < 10 years of age, resulting in 10,000 deaths and 15,000 cases of long-term, neuropsychiatric sequelae.

Thailand, Sri Lanka, Nepal and India report JE regularly to the Communicable Diseases Surveillance Department. Nepal and India have initiated the introduction of the SA-14-14-2 live attenuated Japanese encephalitis vaccine into endemic regions and states. Thailand and Sri Lanka have had a JE control programme for many years.

In 2004, Nepal integrated JE surveillance into the existing AFP and Measles Surveillance system. Beginning in 2006, through support from the U.S. Centers for Disease Control and Prevention (CDC), AES/JE surveillance was expanded in India and Bangladesh. The surveillance programmes and laboratories in these countries are working together to strengthen AES and JE surveillance. In the remaining countries, JE is reported only anecdotally with no standardized surveillance system.
The TCG was pleased to note the success of the regional response to its recommendations of 2005 to establish an accredited meningitis/encephalitis regional laboratory network. A network of 11 accredited JE surveillance laboratories is now operational with six in India and one each in Bangladesh, Indonesia, Myanmar, Nepal, and Sri Lanka. Expansion of laboratory capabilities is underway to assess the burden of bacterial (meningococci, Hib, and pneumococci) pathogens as major causes of meningitis preventable by vaccines.

**Recommendation**

With increasing availability of efficacious, safe and affordable vaccines, countries where JE constitutes a public health problem should integrate JE immunization into the EPI programmes and the routine immunization schedule.

**8. Maternal and neonatal tetanus elimination**

In response to the 2005 TCG recommendations, Bangladesh, Indonesia, and Myanmar have reviewed national and district-level data to identify maternal and neonatal tetanus (MNT) risk status and have implemented appropriate immunization strategies based on that risk. India has completed a similar exercise in 19 states and union territories. Indonesia has not yet completed its review. All countries except India have integrated neonatal tetanus (NT) with AFP surveillance and Nepal has completed validation of MNT elimination status.

The TCG noted that since its last meeting, MNT has been declared eliminated in Nepal and six states of India (Haryana, Tamil Nadu, Karnataka, West Bengal, Maharashtra and Kerala) based on the standard WHO process of validating MNT elimination. This brings the Regions total to six countries (Bhutan, DPR Korea, Maldives, Nepal, Sri Lanka, and Thailand) and seven out of 33 states/union territories of India that have validated MNT elimination.

Bangladesh has completed SIAs in the high-risk areas and plans to conduct Lot Quality Assessment/Cluster Survey (LQA/CS) to validate MNT in the last quarter of 2007. Myanmar will complete SIAs in high-risk areas by 2008. India has reviewed data from 13 more states and LQA/CS are
planned in five. Sri Lanka, Thailand, and Indonesia are providing TT immunization as part of school immunization programmes. Nepal will soon initiate a pilot school immunization project.

Recommendations

(1) Timor Lesté, Indonesia and states of India that have not eliminated MNT should review national and district-level data to identify MNT risk status and plan and implement appropriate immunization strategies based on risk.

(2) SEARO and UNICEF should provide assistance to Bangladesh and Myanmar for effective implementation of SIAs and to evaluate MNT elimination status.

(3) Countries could consider school immunization to bridge routine immunization during infancy and adult immunization to prevent MNT; however, school immunization does not replace the need for adult immunization.

9. Introduction of new and under-utilized vaccines

About 1.6 million deaths are caused by pneumococcal disease annually, including 700 000 to 1.0 million deaths in children less than 5 years of age. *Haemophilus influenzae* type b (Hib) is estimated to cause at least 3 million cases of serious disease every year as well as approximately 386 000 deaths. Rotavirus (RV) infection is estimated to result in over 2.0 million hospitalizations and about 600 000 deaths of which about 85% occur in low-income countries. The pneumococcal conjugate vaccine, the Hib vaccine and rotavirus vaccine are underutilized in the Region but are capable, along with measles immunization, of contributing substantially towards achieving the 4th Millennium Development Goal of reducing under 5-year mortality in the Region. According to the UNICEF estimates, the under-5 year mortality rate in the Region ranged from 14 to 105 per 1000 live births. (Bangladesh 73; Bhutan 75; DPR Korea 55; India 74; Indonesia 36; Maldives 42; Myanmar 105; Nepal 74; Sri Lanka 14; Thailand 21; and Timor-Leste 61). In comparison, in industrialized countries, under-5 mortality is less than 10 per 1000 live births.
The TCG noted that all countries have integrated hepatitis B vaccine into routine immunization except Timor-Leste and India. Hepatitis B introduction in Timor-Leste is planned to begin in October 2007. Bangladesh and Bhutan have received conditional approval from the Global Alliance for Vaccines and Immunization (GAVI) for support of the introduction of *Haemophilus influenzae* type b (Hib) vaccine. Sri Lanka was given approval with clarification and is well on the way to introducing Hib as the pentavalent formulation (DTP-HepB+Hib) in January 2008.

India, after a pilot project in 33 districts and 15 cities, successfully applied and received US $ 100 million support from the GAVI Alliance for expansion of hepatitis B to 11 states; this activity is yet to materialize. UNICEF provided the vaccine supplies for these states at the end of 2006 and it is regrettable that this stock of vaccine still remains in stores as government continues to sort out administrative formalities. There is a risk that substantial hepatitis B vaccine could expire and thus go to waste unless the Government takes urgent action to initiate the introduction into the 11 states as agreed.

9.1 Preparing for pandemic influenza

The TCG commended the Regional office for developing the Regional Influenza Pandemic Preparedness Plan (2006-2008). The Plan relies on health infrastructure preparedness, personal protection measures, and stockpiling of antivirals to blunt the pandemic and brings into sharp focus the need for an effective pandemic influenza vaccine. Immunization will likely play only a small role in pandemic prevention, given the history of little or no routine immunization against seasonal influenza in the region and the predicted global shortage of pandemic vaccines. To ensure some vaccine access, WHO has proposed stockpiling pre-pandemic vaccines for developing countries and has provided technical and financial support to at least three manufacturers in the Region to initiate production of such vaccines.

The TCG endorsed the recommendations of the June 2006 Pharmaceutical Consultation on Seasonal Influenza Vaccines that Member States should enhance research on the epidemiology of seasonal influenza to determine its health and economic impact to inform national policy and to assess the contribution of seasonal immunization to improve pandemic preparedness. The TCG commended the Regional office on its current
efforts to involve EPI Managers\textsuperscript{3} and national immunization programmes in preparedness planning and urges full National Immunization Programme participation, whether in planning for vaccine administration or antiviral distribution. National immunization programmes have the infrastructure and expertise for surveillance and for reaching remote areas, an existing network spanning the ministry to the community, experience in organizing and conducting large campaigns, logistics capabilities, and expertise in microplanning, community mobilization, and emergency response.

The TCG offered to assist the Regional office in integrating national immunization programmes into the pandemic planning process and to assure all regional and national resources are brought to bear on this potential catastrophic event.

9.2 Supporting national committees on immunization practices

Global initiatives such as GAVI, offer an opportunity for additional needed resources as well as the opportunity to restore immunization on the development agenda. GAVI has made it possible for many countries to introduce new or underutilized vaccines such as *Haemophilus influenzae* type b (Hib) and hepatitis B vaccines. Other new vaccines are already in the market against diseases such as rotavirus, pneumococcus, human papillomavirus, Japanese encephalitis and typhoid. GAVI Phase II includes pneumococcal conjugate and rotavirus as second and third vaccines available for countries under co-financing. The introduction of new vaccines and technologies are national decisions to be based on well-informed national priorities and capacities. India, Thailand, and Sri Lanka have formally constituted national advisory bodies to guide immunization policies. Indonesia and Nepal are currently working towards the establishment of such bodies. The remaining countries do not have bodies that might serve as a national committee for immunization practices (NCIP). The TCG commended the Regional office on developing the NCIP model for use by Member States to establish such bodies to provide guidance on issues of vaccine quality and safety, immunization choices and strategies, new vaccines and new delivery technologies.

\textsuperscript{3} During the Sixth Meeting of SEAR EPI Programme Managers Meeting (10-11 July 2007), discussions on influenza vaccine and pandemic preparedness were held. All participants agreed to support pandemic preparedness efforts as required.
9.3 Recommendations

(1) Member States without or with inadequately constituted immunization advisory bodies should establish such bodies within the framework described in the regional guidelines for a National Committee for Immunization Practices (NCIP).

(2) All countries should have in place an effective surveillance system to measure adverse events following immunization (AEFI) and impact on disease burden; this becomes especially critical for countries introducing new or underutilized vaccines.

(3) India is recognized for successfully implementing the pilot project for hepatitis B vaccine introduction. The TCG urges Government of India to expedite the administrative process of approval to ensure that the vaccine is used as planned.

(4) Countries introducing hepatitis B vaccine should conduct specific studies to assess the burden of vertical transmission to make-evidence-based decisions on birth dose and its relevance, vaccine freezing issues, and serosurveys to measure the impact of vaccine introduction.

10. International health regulations 2005

The International Health Regulations 2005 was adopted by the Fifty-eighth World Health Assembly and came into effect on 15 June 2007. IHR 2005 addresses a wide variety of diseases/events considered to constitute a public health emergency of international concern (PHEIC), including those with new or unknown causes, irrespective of origin or source, that present significant risk to humans. Even a single case of wild poliovirus detection requires international notification. IHR 2005 also provides a framework for mobilizing support from governments and donors in response to an epidemic. Successful implementation of IHR will depend heavily on the existing AFP/VPD surveillance networks to provide human resources, technical expertise and laboratory base.

Recommendations

(1) Member States should ensure that the national IHR focal person and SEAR IHR contact point are immediately informed as
circulating poliovirus (wild or VDPV) are detected and reported to WHO as per standard operating procedures of the Global Polio Eradication Initiative.

(2) Member States should utilize the infrastructure, expertise and the experience of existing Polio/VPD surveillance network to facilitate implementation of IHR as outlined in the Global Framework for Immunization Monitoring and Surveillance (GFIMS).
Annex 1

List of participants

Member Countries

**Bangladesh**

Deputy Programme Manager
Expanded Programme on Immunization
Ministry of Health
Dhaka
Tel: 88 02 9139983
Fax: 88 02 8821914

Dr Md Shamsuzzaman
Medical Officer
Expanded Programme on Immunization
Ministry of Health
Dhaka
Tel: 88 02 9139734
Fax: 88 02 8821914
E-mail: zaman1712@yahoo.com

**Bhutan**

Dr Ugen Dophu
Director
Department of Public Health
Expanded Programme on Immunization
Ministry of Health
Thimphu
Tel: 975 2 326038
Fax: 975-2-326454
E-mail: drugendophu@health.gov.bt

Ms Karma Tshering
Senior Programme Manager
Department of Public Health
Expanded Programme on Immunization
Ministry of Health
Thimphu
Tel: 975-2-322602
Fax: 975-2-326038
E-mail: karmatshering@health.gov.bt

**DPR Korea**

Dr Ro Nam Chol
Medical Officer of Central hygiene and anti epidemic Institute
Ministry of Health
Central Hygiene and Anti epidemic Institute
Sochang Dong, Central District
Pyongyang

Dr Han Yong Sik
Senior Officer of State Hygiene Inspection Board
Ministry of Public Health
Sochang Dong, Central District
Pyongyang

**India**

Dr Padmalochan Biswal
Assistant Commissioner (Immunization)
Ministry of Health and Family Welfare
Government of India
106- D Wing, Nirman Bhawan
New Delhi 110023
Tel: 91 11 23370804
Fax: 91 11 23019728
E-mail: pbiswal@hub.nic.in

Dr Naresh Goel
Assistant Commissioner
(Universal Immunization)
Ministry of Health and Family Welfare
Government of India
106- D Wing, Nirman Bhawan
New Delhi 110023
Tel: 91 11 23370804
Fax: 91 11 23019728

Ms Aradhana Johri
Joint Secretary
Ministry of Health and Family Welfare
Government of India
106- D Wing, Nirman Bhawan
New Delhi 110023
Tel: 91 11 23370804
Fax: 91 11 23019728
Dr Vikram Singh  
Director (Universal Immunization)  
Ministry of Health and Family Welfare  
Government of India  
106- D Wing, Nirman Bhawan  
New Delhi 110023  
Tel: 91 11 2337084  
Fax: 91 11 23019728

Indonesia  
Mr Rizal Kosim  
SKM-Staff  
Sub-Directorate of Surveillance  
Directorate of Epidemiology and Surveillance  
Ministry of Health, D/G of DC and EH  
Jakarta  
Tel: 021 4265974  
Fax: 021 428226  
E-mail: kosim_ar@yahoo.com

Dr Prima Yosephine  
Chief, Section of Monitoring and Evaluation  
Sub-Directorate of Immunization  
Directorate of EPI  
Ministry of Health, D/G of DC and EH  
Jakarta  
Tel: 62 21 4249024  
Fax: 62 21 4257044  
E-mail: primayosephine@yahoo.com

Maldives  
Mr Mohamed Areef  
Manager  
Department of Public Health  
Ministry of Health  
H Dh Kulhudhuffushi Regional Hospital  
Male  
Tel: + 960 325193; 960 758476  
Fax: + 960 314635  
E-mail: moh@divehinet.net.mv;  
filec727@hotmail.com

Mr Mohamed Shaheed  
Director  
Department of Public Health  
Ministry of Health  
Ameenee Magu, Republic of Maldives  
Male  
Tel: + 960 325193; 960 758476  
Fax: + 960 314635  
E-mail: moh@divehinet.net.mv;  
shaheed@dph.gov.mv

Myanmar  
Dr Than Tun Aung  
Assistant Director (EPI)  
EPI Programme Manager  
Government of Union of Myanmar  
Department of Health  
Naypyitaw  
Tel: 95-1-229299  
Fax: 95-1-210652

Nepal  
Dr Yasho Vardhan Pradhan  
Director  
DHS  
Child Health Division  
Ministry of Health & Population  
Ramshah Path  
Kathmandu  
Tel: +977-01-4261660  
Fax: +977-01-4262263  
E-mail: epi@ntc.net.np

Dr Shyam Raj Upreti  
Chief, EPI Section  
Ministry of Health & Population  
Child Health Division, DHS  
Ramshah Path, Kathmandu  
Tel: +977 1 4262263  
Fax: +977 1 4262263  
E-mail: drshyam@hotmail.com

Mr Narayan Dhakal  
Senior Pharmacist  
Immunization Section  
Ministry of Health & Population  
Logistic Management Division, DHS  
Ramshah Path, Kathmandu  
Tel: +977 1 4262862  
Fax: +977 1 4262238

Sri Lanka  
Dr M R N Abeysinghe  
National EPI Manager  
Epidemiological Unit  
Ministry of Healthcare and Nutrition  
231 De Saram Place  
Colombo 10  
Tel: 94 11 2695112  
Fax: 94 11 2696583
Dr Ananda Amarasinghe  
Assistant Epidemiologist  
Epidemiological Unit  
Ministry of Healthcare and Nutrition  
231 De Saram Place  
Colombo 10  
Tel: 94 11 2695112  
Fax: 94 11 2696583  

Dr D S V Mallawarachchi  
Vaccine Procurement Focal Point  
Epidemiological Unit  
Ministry of Healthcare and Nutrition  
231 De Saram Place  
Colombo 10  
Tel: 94 11 2695112  
Fax: 94 11 2696583  
E-mail: virginiemal@yahoo.co.uk  

Thailand  
Mr Somsak Puengsaitdee  
Senior Pharmacist  
Bureau of General Communicable Diseases  
Ministry of Public Health  
Department of Disease Control  
Tivanond Road  
Nonthaburi 11000  
Tel: +66 2590 3196  
Fax: +66 2590 8425  
E-mail: pryanit@health.moph.go.th  

Mr Somjate Tungcharoensilp  
Senior Medical Officer  
Bureau of General Communicable Diseases  
Ministry of Public Health  
Department of Disease Control  
Tivanond Road  
Nonthaburi 11000  
Tel: +66 2590 3196  
Fax: +66 2590 8425  
E-mail: pryanit@health.moph.go.th  

Timor-Leste  
Mr Francisco Abel Viana  
National Surveillance Officer VPD  
Democratic Republic of Timor-Leste  
Ministry of Health  
Dili  
Fax: +670 7255001  
E-mail: maubi-2005@yahoo.com  

Mr Mateus Cunha  
National EPI Officer  
Democratic Republic of Timor-Leste  
Ministry of Health  
RVA, CAI-COLI  
Dili  
Tel: +670 3331176  
Fax: +670 7269219  
E-mail: cunha_2001@yahoo.com  

Member Countries-Virologist  

DPR Korea  
Dr Kim Chol Su  
Virologist  
National Polio Laboratory  
Central Hygienic & Anti Epidemic Station  
Minhung Tong  
Moran District  
Pyongyang  

India  
Dr R N Basu  
TCG Member  
A-73, Yojana Vihar  
New Delhi 110092  
Tel: 22150730  
E-mail: r_n_basu@hotmail.com  

Dr Jacob John  
TCG Member  
439 Civil Supplies Godown Lane  
Kamalakshipuram  
Vellore  
Fax: 416 2232035  
E-mail: vfr_tijohn@sancharnet.in
Japan

Dr Isao Arita
Chairman
Agency for Cooperation in
International Health
4-11-1 Higashi-machi, Kumamoto City
Kumamoto 8629091
Tel: 81 96 3678899
Fax: 81-96-3679001
E-mail: arita@acihi.com; info@acihi.com

Sri Lanka

Prof Lalitha Mendis
Ementus Professor & Consultant
Medical Education
Faculty of Medicine
University of Colombo
Kynsey Road
Colombo 7
Tel: 94 11 2695300/ 0777323716
Fax: 94 11 2697757
E-mail: pgim_dir@sltnet.lk

USA

Dr Stephen Cochi
Senior Advisor
Global Immunization Division
Centres for Disease Control and Prevention
1600 Clifton Road
Atlanta GA 30333
Tel: 1 404 639 8723/ 0770 3316643
Fax: 1 404 639626/6398753
E-mail: scochi@cdc.gov

Dr Walter R Dowdle
Director of Programmes
The Task Force for Child Survival
& Development
750 Commerce Drive Suite 400
Decatur GA 30030
Tel: 404 371 0466; 404 687 5608
Fax: 404 371 1087
E-mail: w dowdle@taskforce.org

Partners

Bangladesh

Dr Jucy Merina Adhikari
Associate Project Officer
UNICEF
BSL Office Complex
1 Minto Road
Dhaka 1000
Tel: +880 2 9336701 -10 extn : 449
Fax: +880 2 9335641
E-mail: jmadhikari@unicef.org

Denmark

Dr Meredith Shirey
Contracts Officer, Immunization Team
Supply Division
UNICEF
2100,
Copenhagen
Tel: +45 3527 3033
Fax: +45 3525 0285
E-mail: mshirey@unicef.org

IND

Dr Saumya Anand
SMNet Coordinator
UNICEF
1/4, Gomti Nagar
Lucknow
Tel: 9919003212
E-mail: sanand@unicef.org

India

Ms Roma Solomon
In-charge Polio
CORE
N-2/26 DLF Phase II
Gurgaon
Haryana
Tel: 95124256562
Fax: 951245101017
E-mail: corepolio@vsnl.net
Dr Jim Catamponge
Regional PHC/TA/EHC delegate
IFRC
C-1/35, First Floor
Safdarjung Development Area
New Delhi
Tel: 26858671 / 26568775
Fax: # :26857567
Dr M Vijaya Kiran
Country Representative
ImmunizationBasics
G -2, 2nd Floor
Green Park Extension
New Delhi 110016
Tel: 11 46082393/94/ 9971394500
Fax: 11 46082266
E-mail: vijay@immbasics.org
Dr Rajshankar Ghosh
Director, Immunization India
JE Project
PATH
53 Lodi Estate
New Delhi 110 003
Tel: 24656062
Fax: 24631240
E-mail: drshghosh@gmail.com
Dr Marzio Babille
Chief of Health
UNICEF
73 -74 Lodi Estate
New Delhi
Tel: 24690401
Fax: 24627521
E-mail: mbabille@unicef.org
Dr Satish Gupta
Immunization Specialist
UNICEF
UNICEF House
73-74, Lodi Estate
New Delhi 110003
Tel: 91 11 24690401
Fax: 91 11 24627521
E-mail: sgupta@unicef.org

Dr Rajiv Tandon
Senior Advisor Child Survival
Office of Population, Health & Nutrition
USAID
American Embassy
Shantipath, Chanakyapuri
New Delhi 110102
Tel: 2419 8586
Fax: Fax #:2419 8612
E-mail: rtandon@usaid.gov
Ms Tasnim Partapuri
Technical Officer
USAID Immunization Basics
G-2, Green Park Extension
New Delhi – 110006
Tel: 91 11 46082393
Fax: 91 11 46082286
E-mail: tasnim@immabsics.org

Indonesia
Mr Keith Feldon
Project Officer – EPI
UNICEF
Jakarta
E-mail: kfeldon@unicef.org
Dr Kenny Peetosutan
Project Officer – EPI
UNICEF
Jakarta
Tel: 62 21 570 5816
Fax: 62 21 571 0544
E-mail: kpeetosutan@unicef.org

Nepal
Mr Prabhat Bangdel
Programme Officer, Immunization
UNICEF
Kathmandu
Tel: 977 1 5523200 Ext: 1109
Fax: 977 1 5527280
E-mail: pbangdel@unicef.org
Dr Pankaj Mehta
Immunization Adviser
Regional Office for South-Asia (ROSA)
UNICEF
P.O.Box 5815
Lekhnath Marg
Kathmandu
Tel: 977 1 441 7082
Fax: 977 1 4419479
E-mail: pmehta@unicef.org

Switzerland
Dr Craig Burgess
Senior Programme Officer
Health Systems Strengthening
GAVI Alliance
C/o UNICEF, Palais des Nations
CH-1211
Geneva 10
Tel: +41 22 909 6513
Fax: +41 22 909 6550
E-mail: cburgess@gavialliance.org

Timor-Leste
Dr Yin Yin Aung
Project Officer – EPI
C/o UNICEF, EAPRO
UNICEF
UN House, UNICEF PO Box 212
Caicoli Street
Dili
Tel: 670 331 3532
Fax: 670 331 3532
E-mail: yyaung@unicef.org

US
Dr Sharmila Shetty
Epidemiologist
Hib Initiative
Johns Hopkins University
615 N.Wolfe St. # E 8532
Baltimore MD 21202
Tel: 1 410 502 8995
Fax: 1 4106141419
E-mail: sshetty@jhsph.edu

Dr Ranjana Kumar
Senior Programme Officer
Health Systems Strengthening
GAVI Alliance
C/o UNICEF, Palais des Nations
CH-1211
Geneva 10
Tel: +41 22 909 6513
Fax: +41 22 909 6550
E-mail: rkumar@gavialliance.org

USA
Dr Kathleen M Neuzil
Interim Director, Japanese Encephalitis Project
Acting Director, Japanese Encephalitis Project
PATH
1455 NW Leary Way
Seattle, WA 98107
Tel: +1 206 285 3500
Fax: +1 206 390 4413
E-mail: neuzil@path.org

Dr Bjorg Sandkjaer
Programme Communication Officer
Advocacy and Public Policy
GAVI Alliance Secretariat
C/o UNICEF
Palais des Nations
Geneva 10
Tel: 41 22 9096527
Fax: 41 22 9096553
E-mail: bsandkjaer@gavialliance.org

Dr Francois Gasse
Senior Project Officer
Division of Health
UNICEF New York HQ
3 UN Plaza
New York 10017
Tel: 1-212 326 7335
Fax: 1-212 824 6460
E-mail: fgasse@unicef.org
Ms Ellyn Ogden  
Polio Eradication Coordinator  
USAID  
T300 Pennysylvania Avenue  
Washington DC  
Tel: 1 202 216 3702  
Fax: 1 202 712 5891  
E-mail: eogden@usaid.gov

**WHO-HQ**

**Switzerland**

Dr Esther De Gourville  
Global Polio Laboratory Network Coordinator  
IVB  
WHO Headquarters  
20 avenue appia, 1211 Geneva 27  
Geneva  
Tel: 41-22-791-2654  
Fax: 41-22-791-4210  
E-mail: degourvilee@who.int

Dr Bruce Aylward  
Director  
Polio  
World Health Organization  
20 Avenue Appia  
Geneva 27 CH 1211  
Tel: 41 22 791 4419  
E-mail: aylwardb@who.int

Dr Thomas Cherian  
Coordinator  
Department of Immunization, Vaccines and Biologicals  
World Health Organization  
20 Avenue Appia  
Geneva 27 CH 1211  
Tel: 41 22 791 4460  
Fax: 41 22 791 4193  
E-mail: cheriant@who.int

Mr Patrick Zuber  
Focal point for New Vaccines  
Department of Immunization, Vaccines and Biologicals  
World Health Organization  
20 Avenue Appia  
Geneva 27 CH 1211  
Tel: 41 22 791 1521  
Fax: 41 22 791 4193  
E-mail: zuberp@who.int

**WHO – Other Regions**

Dr Irtaza Ahmad Chaudhari  
Technical Officer  
WHO-EMRO

---

**Washington**

Ms Ellen Coates  
Director  
CORE

**Temporary Advisers**

**India**

Dr Jagdish Deshpande  
Director / Chief Virologist  
Enterovirus Research Centre  
Halifkine Institute Compound  
Acharya Donde Marg, Parel  
Mumbai 400012  
Tel: 91-022-2412-5309  
Fax: 91-22-2415-6484  
E-mail: erc@bom3.vsnl.net.in

**Nepal**

Dr N K Shah  
Member, ICCPE  
Keshary Sadan  
Kali Mati, Ward 13  
Kathmandu  
Fax: 977 1 4272160

**USA**

Dr Mark Pallansch  
Chief  
Enterovirus Section  
Centers for Disease Control (CDC)  
1600, Clifton Road, NE MS-G17  
Atlanta GA 30333  
Tel: 1-404-639-1453  
Fax: 1-404-639-4011  
E-mail: map1@cdc.gov
Philippines
Dr Yang Baoping
Regional Adviser of Expanded Program on Immun.
Regional Office for Western Pacific
World Health Organization
PO Box 2932
Manila 1000
Tel: 632 5289748/ 639189219782
Fax: 632 5211036
E-mail: yangb@wpro.who.int

Dr Momoe Takeuchi
Technical Officer
Immunization and Vaccine Development
World Health Organization
Progress Tower, House # 1,
Road # 23
Gulshan 1
Dhaka 1212
Tel: 880 2 9899540
Fax: 880 2 8813936
E-mail: takeuchim@searo.who.int

Thailand
Dr Stephen Atwood
Regional Advisor - Health & Nutrition
UNICEF East Asia Pacific Regional Office
19 Phra Atit Road, Chanasongkram
Phranakorn
Bangkok 10200
Tel: 66 2 3569499
Fax: 66 2 280 3563
E-mail: satwood@unicef.org

India
Dr Vibha Alag
National Polio Surveillance Project (NPSP)
R K Khanna Tennis Stadium
Africa Avenue,
Safdarjung Enclave
New Delhi 110029
Tel: 26191865 / 26191879
Fax: 26169727

WHO – Country Offices

Bangladesh
Dr Serguei Diorditsa
Medical Officer – EPI
House NO. 12, Road No. 7
World Health Organization
Dhanmondi, Residential Area 1205
Dhaka G P O Box 250
Tel: 880 2 0809540
Fax: 880 2 8613247
E-mail: diorditsas@searo.who.int

Dr Akhter Hamid
National Professional Officer (Immunization)
World Health Organization
Progress Tower, Level - 1,
House No. 1, Road No.
Gulshan – 1
Dhaka
Tel: + 88 02 9899540
Fax: +88 02 8813936
E-mail: ahamid@searo.who.int

Dr Sunil Bahl
Deputy Project Manager
National Polio Surveillance Project (NPSP)
R K Khanna Tennis Stadium
Africa Avenue
Safdarjung Enclave
New Delhi 110029
Tel: 26191865 / 26191879
Fax: 26169727

Dr Pankaj Bhatnagar
National Polio Surveillance Project (NPSP)
R K Khanna Tennis Stadium
Africa Avenue
Safdarjung Enclave
New Delhi 110029
Tel: 26191865 / 26191879
Fax: 26169727

Dr Anindya Sekhar Bose
National Polio Surveillance Project (NPSP)
R K Khanna Tennis Stadium
Africa Avenue
Safdarjung Enclave
New Delhi 110029
Tel: 26191865 / 26191879
Fax: 26169727

Page 35
Ms Sunita Durrani  
National Polio Surveillance Project (NPSP)  
R K Khanna Tennis Stadium  
Africa Avenue, Safdarjung Enclave  
New Delhi 110029  
Tel: 26191865 / 26191879  
Fax: 26169727

Dr Rajeev Gera  
National Polio Surveillance Project (NPSP)  
R K Khanna Tennis Stadium  
Africa Avenue, Safdarjung Enclave  
New Delhi 110029  
Tel: 26191865 / 26191879  
Fax: 26169727

Dr Hamid Jafari  
Project Manager  
National Polio Surveillance Project (NPSP)  
R K Khanna Tennis Stadium  
Africa Avenue, Safdarjung Enclave  
New Delhi 110029  
Tel: 26191865 / 26191879  
Fax: 26169727  
E-mail: jafariha@npsuindia.org

Dr Renu Paruthi  
National Polio Surveillance Project (NPSP)  
R K Khanna Tennis Stadium  
Africa Avenue, Safdarjung Enclave  
New Delhi 110029  
Tel: 26191865 / 26191879  
Fax: 26169727

Mr Tim Petersen  
Deputy Project Manager  
National Polio Surveillance Project (NPSP)  
R K Khanna Tennis Stadium  
Africa Avenue, Safdarjung Enclave  
New Delhi 110029  
Tel: 26191865 / 26191879  
Fax: 26169727

Dr Madhav Ram  
National Polio Surveillance Project (NPSP)  
R K Khanna Tennis Stadium  
Africa Avenue, Safdarjung Enclave  
New Delhi 110029  
Tel: 26191865 / 26191879  
Fax: 26169727

Dr Bidyut Sarkar  
Dy Coordinator  
National Polio Surveillance Project (NPSP)  
R K Khanna Tennis Stadium  
Africa Avenue  
Safdarjung Enclave  
New Delhi 110029  
Tel: 26191865 / 26191879  
Fax: 26169727  
E-mail: sarkarbi@npsuindia.org

Dr Balwinder Singh  
National Polio Surveillance Project (NPSP)  
R K Khanna Tennis Stadium  
Africa Avenue  
Safdarjung Enclave  
New Delhi 110029  
Tel: 26191865 / 26191879  
Fax: 26169727

Dr Arun Thapa  
Coordinator – IVD  
National Polio Surveillance Project (NPSP)  
R K Khanna Tennis Stadium  
Africa Avenue  
Safdarjung Enclave  
New Delhi 110029  
Tel: 26191865 / 26191879  
Fax: 26169727

Dr Harish Verma  
National Polio Surveillance Project (NPSP)  
R K Khanna Tennis Stadium  
Africa Avenue, Safdarjung Enclave  
New Delhi 110029  
Tel: 26191865 / 26191879  
Fax: 26169727

Indonesia

Mr Muhammad Asif  
Technical Officer  
World Health Organization  
9th Floor, Bina Mulia 1 Building,  
Jl H R Rasuna Said, Kav 10, Kuningan  
Jakarta  
Tel: 62 21 5204349; 62 811926805  
Fax: 62 21 5201164  
E-mail: asifm@who.or.id
Ms Niprida Mardin  
SSA – EPI  
World Health Organization  
9th Floor, Bina Mulia 1 Building,  
Jl H R Rasuna Said, Kav 10, Kuningan  
Jakarta  
Tel: 62 21 5204349; 62 811977120  
Fax: 62 21 5201164  
E-mail: mardinn@who.or.id

Dr Bardan Jung Rana  
Medical Officer  
World Health Organization  
9th Floor, Bina Mulia 1 Building,  
Jl H R Rasuna Said, Kav 10, Kuningan  
Jakarta  
Tel: 62 21 5204349; 62 811881292  
Fax: 62 21 5201164  
E-mail: ranab@who.or.id

Myanmar  
Dr Nihal Singh  
Medical Officer – EPI  
World Health Organization  
Yangon

Nepal  
Dr Rajendra Bohara  
National Professional Officer  
World Health Organization  
GPO Box No 108  
UN House, Pulchowk  
Kathmandu  
Tel: 977 - 1 - 523200/5531831  
Fax: 977 - 1 – 527756  
E-mail: boharar@searo.who.int

Dr Jeffrey Partridge  
Epidemiologist  
World Health Organization  
GPO Box No 108  
UN House, Pulchowk  
Kathmandu  
Tel: 977 - 1 – 523200  
Fax: 977 - 1 – 527756  
E-mail: partridgej@searo.who.int

Timor-Leste  
Dr Yuwono Sidharta  
Epidemiologist  
World Health Organization  
UN House  
Caicoli Street  
Dili  
Tel: 670 331 3562  
Fax: 670 331 2476  
E-mail: yuwono.whodili@undp.org

WHO-Regional Office for South East Asia  
India  
Ms Uttara Aggarwal  
Administrative Officer  
Immunization and Vaccine Development  
World Health Organization  
Indraprastha Estate  
Mahatma Gandhi Marg  
New Delhi 110002  
Tel: 91 11 23370804  
Fax: 91 11 23370106  
E-mail: aggarwalu@searo.who.int

Dr Ranjith Batuwanthudawe  
Medical Officer  
Immunization and Vaccine Development  
World Health Organization  
Indraprastha Estate  
Mahatma Gandhi Marg  
New Delhi 201301  
Tel: 23370804  
Fax: 23370106  
E-mail: batus@searo.who.int

Dr Stephane Guichard  
Technical Officer  
Immunization and Vaccine Development  
World Health Organization  
Indraprastha Estate  
Mahatma Gandhi Marg  
New Delhi 201301  
Tel: 23370804  
Fax: 23370106  
E-mail: guichards@whosea.org
Annex 2

Programme

Thursday, 12 July 2007

08:00–08:30    Registration of participants
08:30–09:00    Welcome/Opening Remarks (Dr Poonam Khetrapal Singh – DRD)
9:30 –09:45    Status of action taken on recommendations of 11th TCG Meeting (Namgyal)

09:45–11:00    Rapidly scaling up routine immunization efforts in the Region
                 ✓ Global efforts to reach the un-reached in CLUC countries [Cherian]
                 ✓ Regional plan of action to rapidly scale up routine immunization with focus on CLUC countries [Namgyal]
                 ✓ Discussions

11:00–13:00    Polio eradication- finishing the job
                 ✓ Global Polio Eradication – current situation [Aylward]
                 ✓ Polio Eradication – current situation in India [Thapa]
                 ✓ Tracking the spread of polioviruses [Deshpande]
                 ✓ Discussion on polio eradication

14:00–15:30    Polio surveillance – Response to Importation of wild poliovirus
                 ✓ Nepal
                 ✓ Myanmar
                 ✓ Indonesia

16:00–16:15    IHR and Polio Eradication – implications for countries [Khan]
16:15–16:45    Regional VPD Surveillance update; Cross Border Vigilance, Subnational Risk Assessments and status of surveillance Review [Hymbaugh]
16:45–17:15    Discussion
17:30          Closed door meeting of the TCG
Friday, 13 July 2007

08:30–10:30  Scaling up efforts to control other VPDs
  ➢ Global update on measles mortality reduction [Cherian]
  ➢ Regional update on measles and rubella control [Liyanage]
  ➢ Bangladesh Measles campaign monitoring & impact assessment
  ➢ Building other VPDs lab surveillance on polio laboratory network framework – examples of measles and JE lab networks [Ramamurty]
  ➢ MNTE- status of elimination and future activities [Mehta]

10:30–10:45  National Committee for Immunization Practices (NCIP) – a practical guide [Namgyal]

11:00–11:45  Laboratory and surveillance to support polio eradication
  ➢ Report from the laboratory meeting and enhancing diagnostic efficiency through introduction of a new algorithm for rapid diagnosis of polio [Ramamurty]
  ➢ VDPVs and the need to strengthen surveillance [Pallansch]

11:45–12:15  Communication for polio eradication [UNICEF]

12:15–12:45  Progress in the introduction of HepB in India [Goel]

12:45–13:00  Regional review of hepatitis B – a brief report [Wibisono]

13:00  Closed door session for TCG members

14:30–14:55  Hib Disease Burden in SEA Region – recent WHO released estimates for countries [Cherian]

14:55–16:10  Update on the introduction of JE vaccine
  ➢ PATH JE Programme – future directions [Neuzel]
  ➢ JE vaccine introduction in India – a brief update [Biswal]
  ➢ JE vaccine introduction in Nepal – brief update [Jeff]

16:30–17:00  Conclusions & Recommendations

17:00–17:30  Partner Statements and Closure