Polio Eradication and Endgame Strategic Plan 2013-2018 has four objectives. One of them is strengthen immunization systems and withdraw oral polio vaccine in the long term. This will eliminate the rare risks of vaccine-associated paralytic polio (VAPP) and circulating vaccine-derived poliovirus (cVDPV).

OPV is made with attenuated (weakened) polioviruses. On extremely rare occasions, the vaccine can cause cases of vaccine-associated paralytic polio (VAPP) and circulating vaccine-derived polioviruses (cVDPVs). To prevent cVDPVs and VAPP, OPV must be withdrawn as soon as possible after the end of wild poliovirus (WPV) transmission.

tOPV contains all three poliovirus serotypes (1, 2 and 3), and the use of this vaccine has led to the successful eradication of wild poliovirus type 2 (WPV2), with the last case occurring in 1999. Today, over 90% of cVDPV cases, and approximately 40% of VAPP cases are due to the type 2 component of tOPV.

Polio Eradication Initiative is working on the withdrawal of Polio Virus type 2 (PV 2) globally in a phasic manner and IPV single dose has been introduced already as an initial phase to maintain population level immunity to PV 2.

As the next phase, trivalent Oral Polio Vaccine (tOPV) which contains Sabin Virus (polio virus) types 1, 2 & 3 will be changed over to bivalent Oral Polio Vaccine (bOPV) which contains only Sabin virus types 1 and 3. This procedure is called “Polio Switch” in the Polio Endgame Strategic plan. This should be a globally synchronized procedure and all OPV using countries will Switch over from tOPV to bOPV and each country has to select a Switch date.

Rationale for switching from trivalent OPV to bivalent OPV

Since 1999, type 2 wild poliovirus has not been detected

- The type 2 component of tOPV:
  - Causes more than 90% of vaccine-derived polio viruses (VDPVs)
  - Causes approx. 40% of vaccine-associated paralytic polio (VAPP) cases
  - Interferes with the immune response to poliovirus types 1 and 3 in tOPV
- IPV introduction will help to:
  - Reduce risks associated with the withdrawal of OPV type 2
  - Facilitate interruption of transmission with the use of monovalent OPV type 2 in the case of outbreaks
- Hasten eradication by boosting immunity to poliovirus types 1 and 3

Sri Lankan Situation - Polio Switch

Introduction of injectable Inactivated Polio Vaccine (IPV) into the National EPI schedule

One dose of IPV should be given to infants from 1st of July 2015, on completion of 4 months of age, together with the 2nd dose of Pentavalent vaccine and OPV vaccine.

Replacing trivalent OPV with bivalent OPV

As the next step of polio eradication procedure, Sri Lanka will switch over from trivalent OPV (tOPV) to bivalent OPV (bOPV), removing the type 2 component (OPV2) from immunization programme. The Switch date for Sri Lanka is 30th April 2016 and in fact the country has to use only bOPV from 30th April 2016 and any of the vaccination providing centers in the country should not use tOPV on or after 30th April 2016.

Polio vaccine Switch procedure: Sri Lanka

1. Polio vaccine switch procedure should be planned at district level to change over from tOPV to bOPV and the responsible district level officers should be considered as the District Switch Coordination Committee. Provincial level officers also should assist the District Switch Coordination Committee.

2. Epidemiology Unit will take measures to distribute bOPV stocks at earliest on receiving orders and bOPV distribution should be done based on exchange procedure for the remaining tOPV stocks at each institution (MOH office / Hospital).

3. Distribution/ handing over of bOPV stocks required and collection of remaining tOPV stocks should be done within a short time period - during the dates of 28th – 29th April 2016 with minimum disturbance to routine Immunization clinics and without causing stock-outs and without leaving out children from OPV vaccination.

4. Remaining tOPV should be collected on the same day when bOPV is handed over and collected tOPV should be labeled as “Remaining tOPV to be returned to Epidemiology Unit” and to the Epidemiology Unit immediately before 7th May 2016.

5. After the Switch date, from 1st May 2016, a validation procedure on certifying that tOPV is no more used in the country will be started. Each district and provincial validation teams should visit all main vaccine storage cold rooms in districts and randomly selected vaccine storage centres (MOH offices and hospitals) from 1st – 14th May 2016 and should assure that only bOPV is used in the country and tOPV will not be stored in any of the vaccine storage institutions or in immunization service providing centres including private health sector institutions.

6. Provincial and district validation reports should be sent to the Epidemiology Unit latest by 14th May 2016 and National Validation should be finalized on 16th May 2016.

Key points to remember

- The tOPV-bOPV switch is a globally synchronized event. Every country using OPV must work together to protect the world’s children against polio.

- bOPV simply replaces tOPV. bOPV is exactly the same as tOPV, but does not contain the type 2 component. bOPV follows the same immunization schedule and route of administration as tOPV.

- Adding IPV to routine schedules will further protect infants against paralytic polio from all 3 types.

- All health facilities in every country must stop using tOPV on one day within the 2-week switch period from 18 April to 1 May. Any remaining tOPV stock must be collected and destroyed according to national guidelines.

Sources


Compiled by Dr. T. N. Yapa of the Epidemiology Unit
| Week | 20 April | 27 April | 04 May | 11 May | 18 May | 25 May | 01 June | 08 June | 15 June | 22 June | 29 June | 06 July | 13 July | 20 July | 27 July | 03 August | 10 August | 17 August | 24 August | 31 August |
|------|----------|----------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total | 4589 | 5377 | 54 | 71 | 2 | 2 | 8 | 320 | 61 | 1349 | 23 | 861 | 15 | 357 | 7 | 1473 | 22 | 377 | 102 | 4 |
### Table 2: Vaccine-Preventable Diseases & AFP

<table>
<thead>
<tr>
<th>Disease</th>
<th>No. of Cases by Province</th>
<th>Number of cases during current week in 2016</th>
<th>Number of cases during same week in 2015</th>
<th>Total number of cases to date in 2016</th>
<th>Total number of cases to date in 2015</th>
<th>Difference between the number of cases to date in 2015 &amp; 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFP*</td>
<td>00 00 00 00 00 00 00 00 00</td>
<td>00 00 16</td>
<td>20</td>
<td>-20%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diphtheria</td>
<td>00 00 00 00 00 00 00 00 00</td>
<td>00 00 00 00 00 00 00 00 00</td>
<td>00 00 00 00 00 00 00 00 00</td>
<td>00 00 00 00 00 00 00 00 00</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Mumps</td>
<td>02 01 00 03 00 02 00 00 00</td>
<td>00 08 08 119 103</td>
<td>+15.5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measles</td>
<td>03 00 00 00 00 02 00 00 00</td>
<td>00 05 37 210 350</td>
<td>-40%</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Rubella</td>
<td>00 00 00 00 00 00 00 00 00</td>
<td>00 00 05 04</td>
<td>+25%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRS**</td>
<td>00 00 00 00 00 00 00 00 00</td>
<td>00 00 00 00 00</td>
<td>00 00 00 00 00</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetanus</td>
<td>00 00 00 00 00 00 00 00 00</td>
<td>00 00 01 02 04</td>
<td>-50%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neonatal Tetanus</td>
<td>00 00 00 00 00 00 00 00 00</td>
<td>00 00 00 00 00</td>
<td>00 00 00 00 00</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japanese Encephalitis</td>
<td>00 00 00 00 00 00 00 00 00</td>
<td>00 00 00 00 00</td>
<td>00 06</td>
<td>-100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whooping Cough</td>
<td>00 00 00 00 00 00 00 00 00</td>
<td>00 00 00 00 00</td>
<td>00 22 27</td>
<td>-18.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>74 09 19 00 05 04 00 01 02</td>
<td>114 164 2388 2591</td>
<td>-8.1%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Key to Table 1 & 2**


CRS** = Congenital Rubella Syndrome

AFP and all clinically confirmed Vaccine Preventable Diseases except Tuberculosis and Mumps should be investigated by the MOH

### Dengue Prevention and Control Health Messages

Look for plants such as bamboo, bohemia, rampe and banana in your surroundings and maintain them

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**Notes:**

Comments and contributions for publication in the WER Sri Lanka are welcome. However, the editor reserves the right to accept or reject items for publication. All correspondence should be mailed to The Editor, WER Sri Lanka, Epidemiological Unit, P.O. Box 1567, Colombo or sent by E-mail to chepid@sltnet.lk. Prior approval should be obtained from the Epidemiology Unit before publishing data in this publication.

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