This is the first of two articles on the activities carried-out by the Epidemiology unit during the preceding year. 2017 was a successful and eventful year for the Epidemiology unit.

Disease surveillance

Disease surveillance is the back-bone of the country’s communicable disease control programme and the Epidemiology unit carries out this task successfully for decades with utmost dedication. Timely collection of relevant data, analyzing, interpretation and dissemination of the disease related information to the relevant stakeholders are the key to success of the programme.

To facilitate the smooth functioning of this process regular reviews have been conducted by the Epidemiology unit. In addition to the reviews, field supervisions were carried out in four selected districts namely, Moneragala and Batticaloa to identify grassroot level strengths and weaknesses in the disease surveillance and immunization programme which is helpful in decision making.

At the same time, quality improvement reviews were done in Jaffna, Nuwaraeliya, Anuradhapura and Matara districts to improve the epidemiological activities in the district and divisional level.

e-Surveillance is the web based weekly updating disease surveillance system, which was started in 2015. It was implemented to minimize the errors encountered in the paper based system and now it has become the main source of data in the disease surveillance programme. Currently all 344 Medical Officers of Health (MOH) divisions are sending data through the e-Surveillance with near 100% completeness and 90% timeliness.

In 2017 analysis module and disease information dashboard was successfully implemented within the e-Surveillance and National, district and divisional level notifiable disease information including trends can be generated with the system.

National Immunization Programme

National Immunization Programme (NIP) is one of the major responsibilities upon the Epidemiology unit and 2017 was a remarkable year with the introduction of HPV vaccine into the programme. Currently NIP protects the nation from 12 dreadful communicable diseases and 2 non-communicable disease.

In order to optimize the direction of NIP, annual reviews were conducted covering all MOH divisions in 26 health districts and including MOH areas in the National Institute of Health Science – Kalutara and Colombo MC. Field level implementation and performance was reviewed and It was very helpful to identify the area specific opportunities and challenges for the optimal implementation of NIP. Based on the challenges technical inputs were provided by the central level experts to improve the service provision at grassroot level. At the same time, it was a good forum to provide updates on NIP to district and divisional level health staffs.

HPV introduction to the National Immunization Programme

Human Papillomavirus Vaccine (HPV Vaccine) was introduced into the national immunization programme to prevent cervical cancer in future. In Sri Lanka, cervical cancer is the second commonest cancer among women. Annually, 850-1000 advanced stage cervical cancer cases are admitted to hospitals for treatment. Majority of
advanced cervical cancer cases are ended up with complications or death.

Ninety nine percent of cervical cancers are due to Human Papillomavirus (HPV). HPV infection is asymptomatic until signs and symptoms of cancer are shown. With the course of development of cervical cancer, PAP test is used to identify the early stages of cancer to prevent further development into advanced stages and complications thereof. Vaccination of girls at their young age with HPV vaccine is a method which can prevent cervical cancers due to human papilloma virus types before cancer cells develop.

Human papilloma virus has different genotypes (more than 100 types) in which some of these types can cause cervical cancers. Out of these different types, type 16 and type 18 are the most cancerous types causing 70% of cervical cancers. HPV vaccine gives protection against both type 16 and 18, however, it has been identified that there is a protection for other cervical cancer-causing types by the vaccine.

In Sri Lanka, HPV vaccine is registered for use and available since 2012 and the Ministry of Health has taken the decision to vaccinate girls through the National Immunization Programme aiming at prevention of cervical cancers, in future. Through the National immunization programme all girls in grade 6 (on completion of 10 years) are vaccinated with the HPV vaccine with 2 doses of HPV vaccine at a 6 months interval. Cervical cancer screening in older women will be continued, even though the HPV vaccine is given to girls in Schools.

HPV vaccine is a very safe vaccine and common mild local reactions can be experienced as for any other vaccination. Severe side effects are very rare.

Epidemiology unit was able to successfully launch the HPV vaccination programme in Sri Lanka in October 2017, as a school vaccination programme. Several advocacy programmes were conducted prior to the vaccination programme was launched, including newspaper articles, mass media campaign etc. to educate the public resulting the HPV vaccine having a high user acceptance and high demand from the community. At the end of year 2017, the 1st dose of HPV vaccine has achieved more than 80% coverage throughout the country with 100% in Hambanthota and 98% in Polonnaruwa districts.

Polio Eradication Programme

Global polio eradication initiative is planned to end polio in 2018. On the way to eradication, it was planned to withdraw oral polio vaccine globally in a phased manner and to introduce inactivated polio vaccine (IPV). In par with the global recommendations, IPV was introduced into the National Immunization Programme in July 2015 to maintain population level immunity for polio virus type 2 in changing over from trivalent OPV to bivalent OPV.

Schedule change of IPV has been done due to the global scar-
Table 1: Selected notifiable diseases reported by Medical Officers of Health

<table>
<thead>
<tr>
<th>Week</th>
<th>Diseases Reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>23rd - 29th Dec 2017 (52nd Week)</td>
<td></td>
</tr>
</tbody>
</table>

**Districts**

- Colombo
- Gampaha
- Kelaniya
- Kandy
- Matale
- Nuwara Eliya
- Galle
- Hambantota
- Matara
- Galle
- Matara
- Vavuniya
- Mullaitivu
- Trincomalee
- Puttalam
- Polonnaruwa
- Badulla
- Monaragala
- Kalmunie

**Notifiable Diseases**

- Dysentery
- Enteric Fever
- Typhus Fever
- Leptospirosis
- Viral Hepatitis
- Human Rabies
- Encephalitis
- Meningitis
- Chickenpox
- Dengue Fever
- Food Poisoning
- Leishmaniasis

**Key**

- A: Cases reported during the current week
- B: Cumulative cases for the year
- C: Completeness
- D: Last return to WRCD
- E: Weeks

**Notes**

- Completeness refers to returns received on or before 30th December 2017. Total number of reporting units: 345. Number of reporting units data provided for the current week: 339.

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 2017</th>
<th>Number of cases during same week in 2016</th>
<th>Total number of cases to date in 2017</th>
<th>Total number of cases to date in 2016</th>
<th>Difference between the number of cases to date in 2017 &amp; 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>W</td>
<td>C</td>
<td>S</td>
<td>N</td>
<td>E</td>
<td>NW</td>
</tr>
<tr>
<td>AFP*</td>
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<td>Diphtheria</td>
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</tr>
<tr>
<td>Mumps</td>
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<td>01</td>
<td>00</td>
<td>00</td>
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<td>Measles</td>
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<tr>
<td>Rubella</td>
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<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>CRS**</td>
<td>00</td>
<td>00</td>
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<td>00</td>
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</tr>
<tr>
<td>Tetanus</td>
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<td>00</td>
<td>00</td>
<td>00</td>
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<td>00</td>
</tr>
<tr>
<td>Neonatal Tetanus</td>
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<td>00</td>
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<tr>
<td>Japanese Encephalitis</td>
<td>00</td>
<td>01</td>
<td>00</td>
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<td>00</td>
</tr>
<tr>
<td>Whooping Cough</td>
<td>00</td>
<td>01</td>
<td>00</td>
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<td>00</td>
<td>00</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>57</td>
<td>25</td>
<td>11</td>
<td>05</td>
<td>19</td>
<td>06</td>
</tr>
</tbody>
</table>

Key to Table 1 & 2


Data Sources:

CRS** = Congenital Rubella Syndrome
NA = Not Available

Dengue Prevention and Control Health Messages

Look for plants such as bamboo, bohemia, rampe and banana in your surroundings and maintain them free of water collection.

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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.

ON STATE SERVICE

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