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# EPIDEMIOLOGICAL BULLETIN

## SRI LANKA

*Fourth Quarter*  
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## EPIDEMIOLOGY UNIT

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### 1. POLIOMYELITIS

Twenty (20) Acute Flaccid cases were notified to the Epidemiology Unit during the 4<sup>th</sup> quarter 2017. This is almost above the reported AFP cases of 16 during the 4<sup>th</sup> quarter 2016. Reported number of AFP cases for the quarter was below the expected number of AFP cases per quarter of the annual surveillance target of 2:100,000 under 15 - year age population, which was 24 according to the current census survey population. The non-polio AFP rate for the fourth quarter of 2016 was 1.3:100,000 under 15 populations.

#### Notification of AFP Cases from Hospitals

All hospitals where Consultant Paediatricians are available are considered as sentinel sites for AFP surveillance. A total of 71 sentinel sites are currently functioning and last updated in 2016. All sentinel sites are expected to report immediately on AFP case admissions to the Epidemiology Unit and to the Regional Epidemiologist of the respective area of patient's residence.

Major hospital reporting AFP cases of (35%) is Lady Ridgeway Children's Hospital (LRH). All hospitals reporting AFP cases are given in table 01.

#### Distribution of AFP Cases according to Provinces, Districts & MOH Areas

The highest number of cases was reported from Kandy district 4 cases. The complete list of distribution of AFP cases according to the province, district and MOH area is given in table 02.

#### Seasonal Distribution of AFP Cases

Majority of AFP cases were reported during October (55%). This is the compatible quarter in 2016 which reported the similar proportion in October.

**TABLE 01  
NOTIFICATION OF AFP CASES BY SENTINEL  
HOSPITALS 4TH QUARTER 2017**

Hospital	No: of cases reported
LRH	7
SBSCH	3
TH Peradeniya	3
GH Badulla	1
TH Kandy	2
TH Karapitiya	2
TH Jaffna	1
TH Batticaloa	1
<b>Total</b>	<b>20</b>

**TABLE 02: GEOGRAPHICAL DISTRIBUTION OF  
AFP CASES 4TH QUARTER 2017**

Province	District	MOH Area	Number of AFP cases
Western	Colombo	Maharagama	1
	Kalutara	Milleniya	1
Southern	Galle	Elpitiya	1
		Hikkaduwa	1
Central	Kandy	MC Kandy	2
		Bambaradeniya	1
		Ganga Ihala	1
		Rikillagaskada	1
	Nuwaraeliya	Ambagamuwa	1
Sabaragamuwa	Rathnapura	Ayagama	1
	Kegalle	Warakapola	1
North Western	Puttalam	Chilaw	1
Eastern	Ampara	Uhana	1
	Batticaloa	Batticaloa	1
Uva	Monaragala	Wellawaya	1
		Meadagama	2
		Uva Paranagama	1
Nothern	Mannar	Mannar	1
<b>Total</b>			<b>20</b>

#### Age and Sex Distribution of AFP cases

Majority of the cases were boys during the 4<sup>th</sup> quarter 2017 and this was similar when compared to the trend reported during the 4<sup>th</sup> quarter 2016 in which majority was (55%) boys in the reported AFP cases.

Majority (80%) of the cases was between 1-9 years during the 4<sup>th</sup> quarter this year and the trend was lower compared to the compatible quarter in the previous year.

The table below shows the age distribution in the 4<sup>th</sup> quarter 2017.

**TABLE 03. DISTRIBUTION OF AFP CASES BY AGE  
4TH QUARTER 2017.**

Age Group	Sex		Total
	Male	Female	
<1 year old	0	0	0
1-4 year old	2	0	2
5-9 year old	7	7	14
10-15 year old	2	2	4
<b>Total</b>	11	9	20

#### Final diagnoses of AFP cases

Majority (80%) of the reported AFP cases was finally diagnosed as Guillain Barre Syndrome (GBS). Final diagnoses of all 20 cases of AFP are given in table 3. The GBS rate was 0.9/100,000 under 15 population.

**TABLE 04: FINAL DIAGNOSES OF AFP PATIENTS  
REPORTED DURING THE 4TH QUARTER 2017.**

Final Diagnoses	Frequency
GBS	16
Transverse Myelitis	01
Acute Cerebellitis	01
ADEM	01
Facial nerve palsy	01
<b>Total</b>	<b>20</b>

#### LABORATORY SURVEILLANCE OF AFP CASES

Two stool samples collected within 14 days of onset of paralysis are required at the Virology laboratory (Medical Research Institute, WHO regional reference laboratory) for exclusion of polio virus. According to WHO criteria these samples should be of 'good condition' as well as timely. Being of correct quantity (8-10g), being sent in a leak proof container with no evidence of spillage or leakage and presence of ice in the container on receipt are the criteria to be completed to make the samples of 'good condition'.

Out of all cases 17 AFP cases (85.0%) had both stool samples collected timely and sent to MRI for polio virology.

## 2. MEASLES

Outbreak situation experienced in the country has come down during the 4<sup>th</sup> quarter 2017 with declining tendency. 40 cases were suspected of possible measles during the 4<sup>th</sup> quarter 2017 but only 38 cases were identified as compatible with clinical case definition of "fever and maculopapular rash with one of the signs of cough, coryza or conjunctivitis". Other suspected cases were discarded as non measles cases. These clinical cases were field investigated (20%) by the respective Medical Officers of Health (MOH) of the patients' residential areas and special field investigation reports have been sent to the Epidemiology Unit.

Of the cases compatible with clinical case definition of Measles 27% were below 9 month of age whose measles vaccination is not indicated. Western province (32%) and North Central province (15%) reported majority of measles cases..

Laboratory investigations of suspected measles or rubella patients (01) from October to December who were with fever and maculopapular rash with one of cough, coryza or conjunctivitis were investigated in the WHO accredited virology laboratory at the Medical Research Institute (MRI) and identified 0 cases were serology positive for Measles IgM antibodies. Outbreak of measles was considered as continuing at declining tendency during the fourth quarter.

## 3. LEPTOSPIROSIS

During the 4<sup>th</sup> Quarter 2017, 1437 cases and 23 deaths (CFR 1.6 %) due to Leptospirosis were notified to the Epidemiology Unit compared to 767 cases and 11 deaths in the previous quarter and 783 cases and 18 deaths during the corresponding quarter of 2016.

Age and sex distribution of patients, revealed by the special surveillance data is given in table 05.

**TABLE 05: SELECTED CHARACTERISTICS OF LEPTOSPIRO-SIS PATIENTS (%) - 4TH QUARTER 2017**

Age Group	Sex	
	Male	Female
0 - 9 years	1.2	0.0
10 - 19 years	6.5	5.0
20 - 29years	14.2	11.0
30 - 39years	18.6	7.0
40 - 49years	21.7	26.0
50 - 59 years	22.0	31.0
>60years	15.8	20.0
<b>Total</b>	<b>100.00</b>	<b>100.00</b>

#### 4. HUMAN RABIES

Eight cases of Human Rabies were notified to the Epidemiology Unit in the 4th quarter 2017 compared to 04 cases in the previous quarter and 07 cases in the corresponding quarter of year 2016. The 08 notified Human Rabies cases have been confirmed.

#### ANIMAL RABIES

During this quarter, 32 dogs were reported positive for rabies, compared to 39 in the previous quarter and 114 positive in the same period in the last year.

#### ANIMAL BIRTH CONTROL

**Chemical-** A total of 2886 female dogs were injected with birth control injections (Progesterone) during the quarter under review. **Surgical-** 48465 female dogs were subjected to sterilization by surgical method during the quarter under review.

#### RABIES CONTROL ACTIVITIES

**Dog vaccination** - A total of 388701 dogs were vaccinated during the Quarter under review when compared to 361269 in the previous quarter and 375931 in corresponding Quarter of the last year.

#### 5. VIRAL HEPATITIS

In the 4<sup>th</sup> Quarter 2017, a total of 102 cases of Viral Hepatitis were reported to the Epidemiology Unit. This was in comparison to the 90 cases in the previous quarter and 301 cases in the corresponding quarter of 2016. Kaluthara district (15 cases) reported the highest number of cases followed by Rathnapura District (12 cases).

#### 6. ENTERIC FEVER

In the 4<sup>th</sup> Quarter 2017, a total of 129 cases of Enteric fever were reported to the Epidemiology Unit, compared to 118 cases in the previous quarter and 134 cases in the corresponding quarter of 2016. The district of Vavuniya (36 cases) reported the highest number of cases, followed by Jaffna (20 cases).

#### 7. DYSENTERY

In the 4<sup>th</sup> Quarter 2017, a total of 775 cases of Dysentery were reported to the Epidemiology Unit, in comparison to 559 cases in the previous quarter and 983 cases in the corresponding quarter of 2016. Jaffna district (156 cases) and Batticaloa (88 cases) reported the highest numbers of cases.

#### 8. MALARIA

There were no indigenous malaria cases reported during the 4th quarter of 2017.

**Table 07**  
**SELECTED CHARACTERISTICS OF CONFIRMED**  
**CASES OF JE—up to 4th quarter 2017 (N= 20)**

Sex	Male	16 (64%)
	Female	09 (36%)
Age group	< 1 y	00(00%)
	1-10 y	03 (12%)
	11- 20 y	00 (00%)
	21-50Y	12 (48%)
	> 50 Y	10 (40%)
District	Ratnapura	08( 32%)
	Galle	03(12%)
	Gampaha	03(12%)
	Matara	02 (08%)
	Colombo	02 (08%)
	Kalutara	02 (08%)
	Matale	01 (04%)
	Hambantota	01 (04%)
	Badulla	01(04%)
Anuradapura	01(04%)	

## 9. JAPANESE ENCEPHALITIS (JE)

During the 3<sup>rd</sup> quarter of 2017, 56 cases of clinically suspected Encephalitis cases were reported to the Epidemiology Unit through the routine disease notification system. Out of this, 37 cases were clinically confirmed by the Public Health Inspectors during their field investigations.

During the 3<sup>rd</sup> quarter of 2017, MRI has reported 3 lab confirmed JE cases. Out of these 2 confirmed JE cases, all (100%) were investigated by the MOH. Up to 3<sup>rd</sup> Quarter (Jan –Sep) 2017, MRI has reported altogether 25 lab confirmed JE cases

Among them, 10 (40%) were over 50 years of age, another 12 (48%) were between 21 -50 years, none was between 11 - 20 years, another 3 (12%) were 1-10 years while none were less than one year.

The highest number of confirmed JE cases (07) were reported from Ratnapura, and Galle (3), Gampaha (3), Kalutara (2), Colombo (2), Matara (2) districts followed by (01) from Hambantota, Badulla, Matale and Anuradapura districts. The majority of the confirmed JE cases have not been immunized

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**Table 06**  
**RESULTS OF BLOOD SMEAR EXAMINATION FOR MALARIA PARASITES - 4TH QUARTER 2017**

	4th quarter 2016	4th quarter 2017
No. of blood smears examined	271,014	273,822
No. of positives	0	0
No. of <i>P. vivax</i>	0	0
No. of <i>P. falciparum</i>	0	0
No. of mixed infections	0	0
No. of infant positives	0	0
Slide positivity rate (S.P.R.)	0.00	0.00
P.v. : P.f. ratio	0	0
Percentage of infant positives	0%	0

Table 08

**DISTRIBUTION OF NUMBER OF BLOOD SMEARS  
EXAMINED BY DISTRICT RMO- 4TH QUARTER 2017**

RMO	Oct	Nov	Dec	Total
Colombo	5999	5601	6770	18370
Gampaha	4669	6088	44345	15102
Kalutara	2,128	1861	1741	5730
Kandy	4876	4291	5002	14169
Matale	2804	2717	3021	8542
Nuwara - eliya	285	420	330	1035
Galle	2115	1838	2413	6366
Matara	1804	2053	1932	5789
Hambantota	2021	1966	1141	5128
Jaffna	5112	6616	7393	19121
Kilinochchi	2018	3017	3007	8042
Vavuniya	1977	3237	2048	7262
Mannar	3524	3844	3815	11183
Mullaitivu	1777	1734	2146	5657
Batticaloa	5690	5119	5715	16524
Ampara	2566	2438	1818	6822
Kalmunai	4391	3559	3898	11848
Trincomalee	3176	2850	3545	9,834
Kurunegala	6473	6543	6239	19255
Maho	1866	1251	1644	4761
Puttalam	2560	2804	2612	7976
Anuradhapura	4095	4743	4520	13358
Pollonnaruwa	3499	4440	3559	11498
Badulla	3710	3480	3489	10679
Monaragala	3715	3174	3927	10816
Rathnapura	4049	4326	3692	12067
Kegalle	2694	2685	1772	7151
<b>TOTAL</b>	<b>89593</b>	<b>92695</b>	<b>91534</b>	<b>273822</b>

Table 09

**MORBIDITY AND MORTALITY DUE TO  
DF/DHF - 4TH QUARTER 2017**

RDHS Division	Cases	Percentage (%)	Deaths	CFR
Colombo	3556	13.55	2	0.06
Gampaha	3076	11.72	5	0.16
Kalutara	1411	5.38	1	0.07
Kandy	2662	10.15	4	0.15
Matale	606	2.31	1	0.17
N' Eliya	88	0.34	0	0.00
Galle	802	3.06	1	0.12
Hambantota	599	2.28	0	0.00
Matara	537	2.05	0	0.00
Jaffna	2014	7.68	2	0.10
Kilinochchi	77	0.29	0	0.00
Mannar	36	0.14	0	0.00
Vavuniya	288	1.10	1	0.35
Mulativu	80	0.30	0	0.00
Batticaloa	967	3.69	1	0.10
Ampara	134	0.51	0	0.00
Trincomalee	295	1.12	0	0.00
Kurunagale	1677	6.39	2	0.12
Puttalam	2673	10.19	10	0.37
A'pura	423	1.61	1	0.24
Polonnaruwa	194	0.74	1	0.52
Badulla	511	1.95	0	0.00
Moneragala	982	3.74	0	0.00
Ratnapura	826	3.15	0	0.00
Kegalle	783	2.98	3	0.38
Kalmunai	938	3.58	2	0.21
<b>Total</b>	<b>26235</b>	<b>100.00</b>	<b>37</b>	<b>0.14</b>

**Table 10****DHF STATISTICS FROM DEPARTMENT OF VIROLOGY, MRI - 4TH QUARTER 2017**

Month	Clinically suspected cases of DF/DHF	Serologically Confirmed Cases of DF/DHF
October	168	31 (18%)
November	142	26 (18%)
December	189	29 (15%)
<b>Total</b>	<b>643</b>	<b>257 (39%)</b>

### 10. DENGUE FEVER (D.F.)/ DENGUE HAEMORRHAGIC FEVER (D.H.F.)

During the 4<sup>th</sup> quarter of 2017; 26,235 cases of DF/DHF were reported from all districts (Table 09) while 37 deaths were reported (CFR 0.14%) when compared to 72,920 cases of DF/DHF reported with 144 deaths (CFR 0.2%) during the 3<sup>rd</sup> quarter of 2017. Proportion of cases notified in October, November and December were 25.21%, 33.8% and 40.99% respectively.

Table 09 shows the distribution of DF/DHF cases and deaths in the 4<sup>th</sup> quarter of 2017.

Special surveillance data of confirmed cases were received and analyzed for the 4<sup>th</sup> quarter of 2017. Age distribution of reported cases were 5.6% in <4 years age group, 10.5% in 5-9 years of age group, 7.2% in 10-14 years of age, 8.7% in 15–19 years of age, 12.9% in 20-24 years of age, 113.5% in 25-29 years of age, 7.2% in 30-34 years of age, 8.2% in 35-39 years of age, 7.0% in 40-44 years of age, 5.4% in 45-49 years of age, 2.6% in 50–54 years of age, 5.6% in 55-59 years of age and 5.6% in >60 years of age.

According to the Special surveillance data on clinical findings majority of the reported cases 85.2% were classified as dengue fever (DF) while 14.2% were classified as dengue Haemorrhagic fever (DHF).

During the 4<sup>th</sup> quarter of 2017, 643 blood samples were tested using IgM capture ELISA test at the Department of Virology, Medical Research Institute (MRI) and 257 (39%) samples were confirmed as positive (Table 10).

### 11. RUBELLA AND CONGENITAL RUBELLA SYNDROME (CRS)

During the whole quarter all suspected fever and maculopapular rash Patients tested measles were also tested rubella IGM antibodies and none of them were positive for rubella Igm. In fact no rubella cases for the quarter.

No CRS cases were reported during the quarter and not detected at the laboratory during investigations of babies for TORCH screen.

### 12. CHOLERA

No confirmed cases of cholera were reported to the Epidemiology Unit during the 4th Quarter 2016. Last case of cholera has been reported in the country in January 2003.

### 13. TETANUS

Two clinically confirmed tetanus cases were reported during the 4th quarter 2017. Sooriyawewa MOH area of the Hambanthota and Nattandiya MOH area in the Puttalam district were the MOH area which reported two tetanus cases during the quarter.

#### 14. SURVEILLANCE REPORT ON AEFI

Surveillance of Adverse Events Following Immunization (AEFI) effectively continued in the 4<sup>th</sup> Quarter of 2017 has reached 98.8% of completeness of reports, while 54.2% reports were received in time at the Epidemiology Unit indicating good compliance for the system by the MOOH. Colombo, Gampaha, Kalutara, Kandy, Matale, Nuwara-eliya, Hambantota, Matara, Jaffna, Killinochchi, Mannar, Vavuniya, Mullaitivu, Batticaloa, Ampara, Trincomalee, Kurunegala, Puttalam, Anuradhapura, Polonnaruwa, Badulla, Moneragala, Ratnapura, Kegalle and Kalmunai districts were able to send all reports. The best timeliness was reported from the Killinochchi district (100%) followed by Jaffna (95%), Mannar (87%) and Moneragala (73%). (Table 11)

The highest percentage of nil reports were received from Ampara (52%) followed by Trincomalee district (36%), which were near two fold of the Sri Lanka average (19%) indicating the need for more attention for AEFI surveillance. Jaffna district has no 'Nil returns', followed by Badulla (2.1%) and Vavuniya (3.0%) districts, indicating the good surveillance system in place. The highest rate (715.0 per 100,000 immunizations) of AEFI was reported from Mullaitivu district, while Jaffna reported the highest number of AEFI cases (224) in the fourth quarter 2017.

For the fourth quarter, the highest number of AEFI (n=1437) was reported against Pentavalent vaccine, whereas the highest rate of AEFI (1146.8/100,000 doses administered) was reported against DTP vaccine. The rate of AEFI for Pentavalent (01<sup>st</sup>, 02<sup>nd</sup> & 03<sup>rd</sup> dose) is 617.5 per 100,000 doses administered. High Fever (865), Allergic Reaction (350), Nodule (601) are the leading AEFI reported. Highest numbers of fever cases reported were following Pentavalent (490 cases: 210.5 per 100,000 doses administered) and DPT (323 cases: 430.2 per 100,000 doses administered) vaccines. For Allergic reactions, it was largely due to DPT (129 cases: 171.8 per 100,000 doses administered) and PVV (124 cases: 53.3 per 100,000 doses administered). It is important to note, that there were 2 cases of HHE following PVV (n=1 cases) and MMR (n=1 cases) vaccines. However, this is a known reaction following these vaccines as they are within the expected rates of the adverse reaction reported in medical literature.

Table 11

#### COMPLETENESS AND TIMELINESS OF MONTHLY REPORTING AND RECEIPT OF "NIL" REPORTS OF AEFI BY RDHS DIVISIONS - 4TH QUARTER 2017

DPDHS	% completeness	% Timely returns	% Nil Returns	No. of AEFI	AEFI Rate (100,000 vaccine doses)
Colombo	100.0	51.0	9.8	200	191.7
Gampaha	100.0	48.9	8.9	193	137.2
Kalutara	100.0	57.1	7.1	136	161.5
Kandy	100.0	50.0	18.1	192	175.9
Matale	100.0	71.8	28.2	82	213.0
Nuwara-eliya	100.0	48.7	28.2	61	110.8
Galle	80.0	52.1	20.8	89	113.6
Hambantota	100.0	63.9	5.6	165	303.9
Matara	100.0	60.8	3.9	125	231.6
Jaffna	100.0	95.2	0.0	224	604.1
Killinochchi	100.0	100.0	33.3	19	188.7
Mannar	100.0	86.7	26.7	29	303.8
Vavuniya	100.0	75.0	3.0	37	345.2
Mullaitivu	100.0	72.2	16.7	51	715.0
Batticaloa	100.0	57.1	28.6	102	202.9
Ampara	100.0	33.3	52.4	23	106.0
Trincomalee	100.0	52.8	36.1	65	183.8
Kurunegala	100.0	47.6	32.1	115	279.8
Puttalam	100.0	38.5	12.8	84	76.1
Anuradhapura	100.0	26.3	28.1	115	175.4
Polonnaruwa	100.0	33.3	4.8	71	87.8
Badulla	100.0	64.6	2.1	116	363.1
Moneragala	100.0	72.7	21.2	63	97.5
Ratnapura	100.0	46.3	18.5	135	327.3
Kegalle	100.0	54.5	9.1	84	114.7
Kalmunai	100.0	28.2	28.2	84	142.9
<b>Sri Lanka</b>	<b>98.8</b>	<b>54.2</b>	<b>18.5</b>	<b>2660</b>	<b>181.2</b>



**TABLE 12: NUMBER OF SELECTED ADVERSE EVENTS BY VACCINES – 4TH QUARTER 2017**

	BCG	OPV	PVV <sup>1</sup>	DPT	MMR	LJE	DT	TT	aTd	Total number of AEFI reported
<b>Total Number of AEFI Reported</b>	2	5	1437	861	102	52	74	9	36	<b>2578</b>
<b>AEFI reporting rate/1,000,000 doses administered</b>	2.7	1.3	617.5	1146.8	68.6	64.9	87.7	6.9	43.4	
<b>High Fever (&gt;39°C)</b>	1		490	323	17	15	14		5	<b>865</b>
<b>Reporting rate/1,000,000 doses administered</b>	1.4		210.5	430.2	11.4	18.7	16.6		6.0	
<b>Allergic reactions</b>		1	124	129	49	20	17	3	7	<b>350</b>
<b>Reporting rate/1,000,000 doses administered</b>		0.3	53.3	171.8	33.0	24.9	20.2	2.3	8.4	
<b>Severe local reactions</b>			18	20	2		3	1	1	<b>45</b>
<b>Reporting rate/1,000,000 doses administered</b>			7.7	26.6	1.3		3.6	0.8	1.2	
<b>Seizure (Febrile/Afebrile)</b>			23	68	1	7	2			<b>101</b>
<b>Reporting rate/1,000,000 doses administered</b>			9.9	90.6	0.7	8.7	2.4			
<b>Nodules</b>	1		449	130	3	2	14	1	1	<b>601</b>
<b>Reporting rate/1,000,000 doses administered</b>	1.4		192.9	173.1	2.0	2.5	16.6	0.8	1.2	
<b>Injection site abscess</b>			128	12		1				<b>141</b>
<b>Reporting rate/1,000,000 doses administered</b>			55.0	16.0		1.2				
<b>HHE</b>			1		1					<b>2</b>
<b>Reporting rate/1,000,000 doses administered</b>			0.4		0.7					

1-PentaValent Vaccine

Note: Total given only for nine vaccines listed in the table

## 15. TUBERCULOSIS

A total of 2177 TB patients were notified to the NPTCCD by H 816A (TB notification form) for the 4th quarter 2017 while 2173 patients were registered at chest clinics during the same quarter according to the quarterly report on case finding.

Out of this total, 2045 (94.0%) TB patients were new cases, 124 (5.7%) were Re-treatment cases and 04 cases are in the previous treatment history unknown category.

**Table 13: TUBERCULOSIS SITUATION 4T H QUARTER 2017**

RDHS DIVISION	New				Retreat-ment & previous history unknown	Total
	Bacteriologically confirmed	Clinically diagnosed	EPTB	Total		
Colombo	260	102	143	505	38	543
Gampaha	121	86	54	261	20	281
Kalutara	66	32	40	138	10	148
Kandy	69	27	30	126	5	131
Matale	18	9	14	41	0	41
Nuwara-eliya	20	23	29	72	3	75
Galle	50	19	30	99	6	105
Matara	21	13	20	54	6	60
Hambantota	11	10	16	37	1	38
Jaffna	16	16	12	44	5	49
Vavuniya	7	2	2	11	0	11
Batticaloa	14	5	8	27	0	27
Ampara	6	14	3	23	2	25
Kalmunai	20	27	3	50	4	54
Trincomalee	14	0	10	24	1	25
Kurunegala	50	17	31	98	4	102
Puttalam	7	12	13	32	1	33
Anuradhapura	37	12	20	69	3	72
Polonnaruwa	21	4	6	31	2	33
Badulla	33	6	19	58	2	60
Monaragala	8	6	7	21	4	25
Rathnapura	67	12	47	126	6	132
Kegalle	38	12	27	77	4	81
Mannar	6	1	0	7	0	7
Mulathivu	2	1	2	5	0	5
Kilinochchi	5	0	4	9	1	10
<b>Total</b>	<b>987</b>	<b>468</b>	<b>590</b>	<b>2045</b>	<b>128</b>	<b>2173</b>

PTB-Pulmonary Tuberculosis

EPTB- Extra Pulmonary Tuberculosis

SP + ve - Sputum Positive

SP - ve - Sputum Negative

Data from Central TB Register

Source - National TB Register

Out of new TB cases, 987 (48.3%) were bacteriologically confirmed TB, 468 (22.9%) were clinically diagnosed (sputum negative) TB and 590 (28.8%) were Extra Pulmonary TB cases. Out of re-treatment cases 76 (61.3%) patients were relapse, 19 (15.3%) patients were treatment after failure, 26 (20.9 %) patients were loss to follow up and 3 (2.4%) patients were other previously treated. A total of 2044 TB patients were screened for HIV; out of them 04 were detected positive for HIV. There were 4 patients with TB/ HIV co infection. Eight Multi Drug Resistant TB patients were detected during this quarter.

## 16. SURVEILLANCE AT SEA PORT

Details of the vaccinations carried out by the Assistant Port Health Office during the 4th quarter 2017, is as follows;

**TABLE14: SURVEILLANCE AT SEA PORT – 4<sup>TH</sup> QUARTER 2017**

		Total
A.	Yellow fever	991
B.	Meningococcal meningitis	632
C.	Oral polio	252

## 17. SURVEILLANCE AT AIRPORT

Particularly of surveillance activities carried out at the International Airport, Katunayake during the 4th quarter 2017 is given below.

**TABLE 15: SURVEILLANCE AT AIRPORT- 4T H QUARTER 2017**

Emerging and reemerging disease (Ebola/MERS CoV/ SARS.... Etc)	
<b>Ebola</b>	
No. Of passengers screened	-
<b>No. Of suspected cases transferred</b>	-
<b>Zika</b>	
No. Of passengers screened	-
<b>No. Of suspected cases transferred</b>	-
<b>Malaria</b>	
No. of passengers visited to Health office	578
No. of passengers drug issued	03
No. of blood films done (R.D.T.)	323
Referred to I.D.H./Other unit	-
<b>Yellow Fever</b>	
No. of yellow fever cards inspected	1599
No. Invalid/without Yellow Fever cards	117
Referred to I.D.H./Other units	-

## 18. LEPROSY

## QUARTERLY RETURN OF LEPROSY STATISTICS - 4TH QUARTER 2017

Tables 16

## 1. National

	At the end of the quarter			Cumulative for end of the quarter		
	4th quarter 2017	4th quarter 2016	Diff (%)	2017	2016	Diff (%)
New patients detected	453	460	(-)1.52%	1877	1832	2.45%
Children	50	36	38.89%	195	158	23.42%
Grade 2 Deformities	41	36	13.89%	138	138	0%
Multi-Bacillary	259	245	5.71%	1088	980	11.02%
Females	173	174	(-)0.57%	747	708	5.51%

## 2. Districts

District	New patients	G2-Deformity	Children	MB	Females
<b>Central</b>	20	2	1	9	6
Kandy	12	2	0	7	4
Matale	4	0	0	1	1
Nuwar-eliya	4	0	1	1	1
<b>Eastern</b>	<b>64</b>	<b>4</b>	<b>12</b>	<b>31</b>	<b>26</b>
Ampara	12	0	2	5	1
Batticaloa	38	3	8	16	21
Kalmunai	11	0	2	7	3
Trincomalee	3	1	0	3	1
<b>Northern</b>	<b>11</b>	<b>0</b>	<b>1</b>	<b>8</b>	<b>4</b>
Jaffna	8	0	0	8	3
Kilinochchi	0	0	0	0	0
Mannar	2	0	1	0	1
Vavuniya	1	0	0	0	0
Mullaitivu	0	0	0	0	0
<b>North Central</b>	<b>28</b>	<b>2</b>	<b>2</b>	<b>19</b>	<b>6</b>
Anuradhapura	21	0	1	14	5
Pollonnaruwa	07	2	1	5	1
<b>North Western</b>	<b>28</b>	<b>8</b>	<b>0</b>	<b>22</b>	<b>15</b>
Kurunegala	19	6	0	17	9
Puttalam	9	2	0	5	6
<b>Sabaragamuwa</b>	<b>33</b>	<b>4</b>	<b>1</b>	<b>16</b>	<b>9</b>
Kegalle	9	2	0	3	2
Ratnapura	24	2	1	13	7
<b>Southern</b>	<b>69</b>	<b>2</b>	<b>7</b>	<b>39</b>	<b>22</b>
Galle	28	1	5	15	9
Hambantota	21	1	1	16	6
Matara	20	0	1	8	7
<b>Uva</b>	<b>14</b>	<b>2</b>	<b>0</b>	<b>8</b>	<b>6</b>
Baddulla	7	0	0	5	2
Monaragala	7	2	0	3	4
<b>Western</b>	<b>186</b>	<b>17</b>	<b>26</b>	<b>107</b>	<b>79</b>
Colombo	59	4	11	30	24
CMC	23	0	4	11	10
Gampaha	46	7	7	29	18
Kalutara	58	6	6	37	27
<b>Sri Lanka</b>	<b>453</b>	<b>41</b>	<b>50</b>	<b>259</b>	<b>173</b>

## 19. SEXUALLY TRANSMITTED DISEASES

Table 17

NEW EPISODES OF STD/HIV/AIDS REPORTED OR TREATED AT STD CLINICS IN SRI LANKA  
4TH QUARTER 2017

Disease	New cases or new disease episodes during the quarter			Total new cases or new episodes for the calendar year up to end of the quarter **			
	Male	Female	Total	Male	Female	Total	
HIV positives <sup>1</sup>	56	20	76	223	62	285	
AIDS	12	5	17	40	11	51	
	Early Syphilis <sup>2</sup>	13	3	16	59	13	72
Syphilis	Late Syphilis <sup>3</sup>	106	50	156	449	240	689
	Congenital Syphilis <sup>4</sup>	0	0	0	2	5	7
Gonorrhoea <sup>5</sup>	40	9	49	190	47	237	
Ophthalmia Neonatorum <sup>6</sup>	0	0	0	2	9	11	
Non specific cervicitis/urethritis	188	455	643	669	1792	2461	
Chlamydial infection	0	0	0	2	9	11	
Genital Herpes	310	459	769	1149	1744	2893	
Genital Warts	333	243	576	1221	932	2153	
Pelvic Inflammatory disease	-	24	24	-	77	77	
Trichomoniasis	7	13	20	11	67	78	
Candidiasis	284	480	764	1044	1662	2706	
Bacterial Vaginosis	-	325	325	-	1353	1353	
Other sexually transmitted diseases <sup>7</sup>	98	46	144	347	159	506	
Non venereal <sup>8</sup>	756	419	1175	2748	1898	4646	

**Source: NSACP**

(Includes cases diagnosed and reported to the Central STD clinic Colombo and Peripheral STD clinics of National STD/AIDS Control Programme of Sri Lanka)

\*\* - Includes adjustments for revised diagnosis, reporting delays or any other amendments

<sup>1</sup> - Includes AIDS cases

<sup>2</sup> - Diagnosed within 2 years of infection and considered to be infectious

<sup>3</sup> - Diagnosed after 2 years of infection and considered to be non-infectious

<sup>4</sup> - Includes both early and late cases

<sup>5</sup> - Includes presumptive Gonorrhoea

<sup>6</sup> - Includes both gonococcal and chlamydial conjunctivitis in neonatal period

<sup>7</sup> - Includes Lymphogranuloma venereum, Granuloma inguinale, Molluscum contagiosum, Scabies, Tinea, Hepatitis B etc.

<sup>8</sup> - Number of STD clinic attendees who were not having sexually transmitted diseases.

## 20. BACTERIOLOGY REPORT, MEDICAL RESEARCH INSTITUTE 4TH QUARTER 2017

**Table 18: BACTERIOLOGICAL REPORT, MRI 4TH  
QUARTER 2017.**

	Oct	Nov	Dec
<b>(A) CHOLERA</b>			
No. of stool specimens Examined	32	32	37
No. of positive El. Tor <i>Cholera</i>	0	0	0
<i>Ogawa</i>	0	0	0
<i>Inaba</i>	0	0	0
<i>Cholera o139</i>	0	0	0
<b>(B) SALMONELLA</b>			
Blood— No. Examined	0	0	0
<i>S.typhi</i>	0	0	0
<i>S.paratyphi</i>	0	0	0
Stools—No. examined	26	36	72
<i>S.typhi</i>	0	0	0
<i>S.paratyphi</i>	0	0	0
Others	05	04	02
<b>(C) SHIGELLA</b>			
No. Examined	25	31	31
<i>Sh.flexneri</i> I	0	0	0
<i>Sh.flexneri</i> II	0	0	0
<i>Sh.flexneri</i> III	0	0	0
<i>Sh.flexneri</i> IV	0	0	0
<i>Sh.flexneri</i> V	0	0	0
<i>Sh.flexneri</i> VI	0	0	0
<i>S.sonnei</i>	1	1	0
<i>S.dysenteriae</i>	0	0	0
<b>(D) ENTEROPATHOGENIC E.COLI</b>			
No.Examined	6	1	1
No.+ve	3	0	0
<b>(E) CAMPYLOBACTER</b>			
No.Examined	30	42	60
No. Positive	0	2	2
<b>(F) SPECIAL</b>			
	173	187	130

## 21. SURVEILLANCE OF MENINGITIS

Meningitis is a notifiable disease condition in Sri Lanka since year 2005. During the 4<sup>th</sup> quarter 2017, 277 cases of suspected meningitis cases were reported to the Epidemiology Unit through the routine disease notification system.

Out of this 228 cases were clinically confirmed by the Public Health Inspectors during their field investigations. Highest number of meningitis cases were reported from the Badulla district (42 ) followed by Kalutara (22 ) and Kurunagala (15) districts.

Forty percent of the clinically confirmed meningitis cases belonged to the age group less than one year, another 23% belonged to the age group 1-5 years and 21% belonged to age group 6 – 14 years. Sixty two percent of the clinically confirmed cases were males and 38% were females.

### MENINGITIS– 4<sup>TH</sup> QUARTER 2017

**TABLE 19: SUMMARY FINDINGS FOR SPECIAL  
INVESTIGATIONS CARRIED OUT FOR CLINICALLY  
CONFIRMED CASES OF MENINGITIS UP TO 31  
DECEMBER 2017**

CSF Culture Report		
CSF Culture	Number	(%)
CSF results available	412	46%
No Growth 100%	407	
Coliform	03	
Strep.Pneumonia	01	
Pseudomonas	02	
Culture results not known	453	50%
Not done	33	04%
Total	903	100%
Final outcome of the patient		
Outcome	Number	(%)
Cured	865	96%
Died	09	01%
Information not available	29	03%
Total	903	100%
Final Diagnosis (based on clinical and lab findings)		
Diagnosis	Number	(%)
Culture confirmed	05	01
Probable bacterial meningitis	58	06
Probable viral meningitis	89	10
Suspected Meningitis	740	82
Total	632	100

## 22. INFLUENZA SURVEILLANCE- 4<sup>TH</sup> QUARTER 2017

### Human Influenza surveillance

Surveillance of human influenza is carried out under two main components; Influenza like illness (ILI) surveillance and Severe Acute Respiratory Infections (SARI) surveillance. As for the ILI surveillance, epidemiological data are collected from **19** sentinel hospitals throughout the country, out of which **13** sentinel hospitals were selected for the laboratory surveillance where respiratory samples are collected. Under SARI surveillance more detailed epidemiological data and respiratory samples are collected from **four** sentinel hospitals. These respiratory samples are tested and analyzed at the National Influenza Centre (NIC), Medical Research Institute (MRI).

### Epidemiological Component

#### ILI Surveillance

In the 4<sup>th</sup> quarter of year 2017, all sentinel sites (19 hospitals) have reported ILI data with a reporting rate of 100%. A total of 22812 ILI cases were reported, accounting for 1.8 % of all OPD visits (n=1205435). The highest number of ILI cases were reported from Provincial General Hospital, Kurunegala (n=3749, 3.0%) and the majority of the patients were in the age group 15 — 49 years (n=1473, 3.7 %) whereas the higher proportion of cases were reported from the infants. It was 6.1%.

#### SARI Surveillance

A total of **284** SARI cases were reported for the 4th quarter of 2017 from **three** sentinel hospitals (**Teaching Hospital Ragama, General Hospital Matara and Teaching Hospital Peradeniya**). Out of **26538** of admissions during the 4th quarter, to the medical and paediatrics wards in the relevant hospitals **1.0 %** were due to SARI. The highest number of SARI cases were reported from **Teaching Hospital Peradeniya (n=193, 3.3 %)**.

### Laboratory Component

#### ILI Surveillance

A total of 189 ILI respiratory samples were received at the MRI from sentinel hospitals during the 4th quarter of 2017; 66 samples in October, 69 in November and in 54 in December. Out of all samples, 13 were positive for influenza A and 24 were positive for Influenza B. Therefore influenza A and B were the predominant circulating Influenza viral strains identified.

#### SARI Surveillance

A total of **137** respiratory samples were sent to the MRI during the 4th quarter of year 2017, by **three** SARI sentinel hospitals. **General Hospital Matara, Lady Ridgeway Hospital, Teaching Hospital Ragama. Influenza A and B were the predominant circulating Influenza viral strain identified.**

### Bird Influenza Surveillance

Sri Lanka has been recognized as carrying a high risk for Avian Influenza (AI) making bird influenza surveillance an important component of the influenza surveillance system. This high risk is mainly due to its location in the South East Asian Region. The country's poultry industry with a significant proportion of people engaged in backyard poultry and the commercial level poultry industry add to this risk. Also the country being a hotspot for migratory birds, attracting over two hundred species of migratory birds annually in two migratory seasons, is another risk factor that makes bird influenza surveillance necessary. Bird surveillance is conducted by the Department of Animal Production and Health (DAPH) with serum samples collected from poultry farms on a monthly basis and faecal samples collected from migratory bird hotspots during the two migratory seasons, where fifteen faecal samples are collected from each bird hotspot, pooled in bottles with five samples in each and analyzed at the virology laboratory at Polgolla.

**TABLE 20: MONTHLY PERFORMANCE OF SENTINEL HOSPITALS IN THE LABORATORY COMPONENT OF THE SARI SURVEILLANCE FOR THE 4<sup>TH</sup> QUARTER OF THE YEAR 2017**

Month	Total Tested	Influenza A	A(H1N1)	A(H3N2)	Untyped A	Not typed	Influenza B
October	32	6	0	0	0	6	0
November	54	5	0	0	0	5	14
December	51	4	0	1	0	3	9
<b>Total</b>	<b>137</b>	<b>15</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>14</b>	<b>20</b>

Total positive rate for influenza A and B was 25.5%. Influenza A and B were the predominant strains identified for the 4<sup>th</sup> quarter of 2017.

**Table 21: Types of influenza viruses isolated in ILI samples for the 4th quarter of the year 2017**

Month	Total Tested	Influenza A	A(H1N1)	A(H3N2)	Untyped A	Not typed	Influenza B
October	66	7	0	1	0	3	6
November	69	4	0	4	0	2	16
December	54	2	0	2	0	2	2
<b>Total</b>	<b>189</b>	<b>13</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>7</b>	<b>24</b>

*(Source: NIC/MRI)*

Influenza A and B were the predominant circulating Influenza viral strain identified

**TABLE 22: ANIMAL SAMPLES COLLECTED BY MONTH AND DISTRICT FOR THE 4TH QUARTER OF THE YEAR 2017**

Month	Pool samples for embryonated chicken egg passage	District samples collected from	Serum Samples for ELISA	District samples collected from
October	1449	Colombo, Gampaha, Hambantota, Kegalle, Polonnaruwa, Batticaloe, Vavuniya, Trincomalee, Puttalam, Anuradhapura, Rathnapura	1000	Colombo, Gampaha, Kegalle, Galle, Polonnaruwa, Batticaloe, Trincomalee, Puttalam, Anuradhapura,
November	1854	Colombo, Gampaha, Vavuniya, Puttalam, Ampara, Kegalle, Galle, Monaragala, Matale, Kilinocchi, Kurunegala, Kalutara, Rathnapura, Jaffna, Trincomalee	998	Gampaha, Puttalam, Vavuniya, Kilinocchi, Jaffna, Ampara, Galle, Kalutara, Rathnapura, Trincomalee
December	1036	Colombo, Gampaha, Vavuniya, Puttalam, Ampara, Kegalle, Badulla, Monaragala, Kilinocchi, Matara, Kandy, Kurunegala, Polonnaruwa, Kalutara, Rathnapura, Nuwara Eliya	454	Gampaha, Kegalla, Monaragala, Kilinocchi, Jaffna, Kandy, Matara, Polonnaruwa, Kurunegala, Kalutara, Nuwara Eliya, Vavuniya
Total	4,339		2,452	



## 23. SPECIAL REPORT

### SURVEILLANCE OF CHICKENPOX

Out of 1260 notified Chickenpox cases, 1172 (93.0%) were confirmed for the 4<sup>th</sup> quarter. Highest district reported was Gampaha (162) followed by Kegalle (99), Kurunegala (91), Colombo (81), Kalutata (65) and Ampara (63). December was the highest month reporting (485) in the 4<sup>th</sup> quarter. According to case based investigation, maximum presentation of cases were 21 - 40 years of age (48.3%) and male (53.9%). Majority (73%) was found as no complications.

### SURVEILLANCE OF MUMPS

Out of 59 notified Mumps cases, 49 (83.0%) were confirmed for the 3<sup>rd</sup> quarter. Highest district reporting was Jaffna (6) followed by Colombo (5) and Anuradhapura (5). October (20) and December (20) were the highest months reported in 4<sup>th</sup> quarter. According to case based investigation, maximum presentation of cases were 21 - 40 years of age (43.5%) and female (52.1%). Majority (91.3%) was found as no complications.

### SURVEILLANCE OF FOOD AND WATER-BORNE DISEASES

Food and water-borne diseases have been an important problem from the beginning of civilization. Types of diseases and the consequences of the diseases vary widely from country to country and with time, and there are wide variations in the types of foodborne diseases within the same country too. In addition the morbidity and mortality of the diseases are having a direct impact on the health sector of the country, it has a bearing on the economy of the country too by affecting the number of the working day either due to their diarrhoeal illness or their children being ill by the diarrhoeal diseases. Further, the incidence of food and water-borne diseases in a country greatly affects industries like tourism.

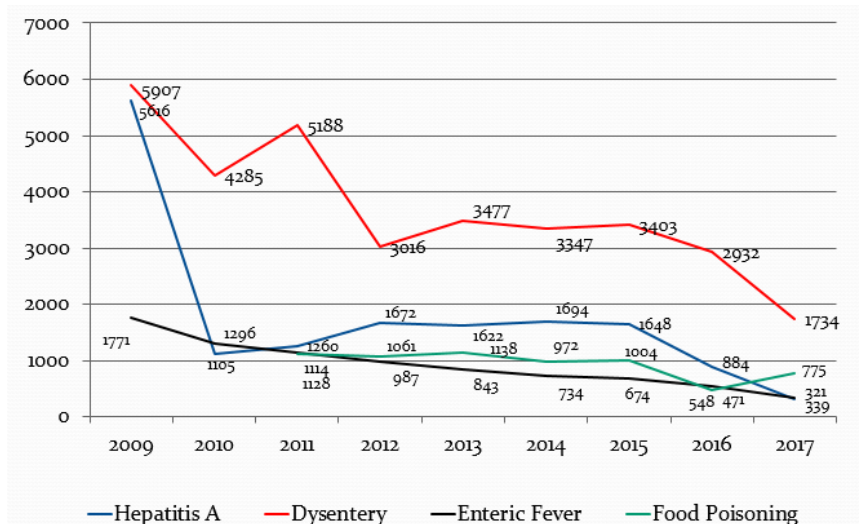
Many food and water-borne diseases are notifiable in Sri Lanka (e.g. enteric fever, dysentery, viral hepatitis A and food poisoning) and data on these diseases are compiled by the Epidemiology Unit of the Ministry of Health in Sri Lanka routinely. Public Health Inspectors (PHI), with the guidance of the Consultant Community Physicians (CCP), Regional Epidemiologists (REE) and Medical Officers of Health (MOOH), carry out field investigations including outbreak investigations and implement disease control measures.

Food and Drug Inspectors (F&DI) also play an important role in the prevention of foodborne diseases. Public health personnel mentioned above work as a team and receive technical advice and training from the Epidemiology Unit of the Ministry of Health.

### TRENDS IN FOOD AND WATER-BORNE DISEASES IN THE COUNTRY

All food and water-borne disease are showing a downward trend over time (Fig 1) except for a slight increase in the number of food poisoning cases in the country in the year 2017.

**Figure 1 – TREND IN FOOD AND WATER-BORNE DISEASES IN THE COUNTRY**



Source – Epidemiology Unit

The downward trend could be attributed mainly to the overall improvement of the socio-economic status of the country. In addition, continuous health education, monitoring and surveillance on food and water-borne diseases by the central and provincial health authorities also have contributed to this reduction.

**SURVEILLANCE OF FOOD AND WATER-BORNE DISEASES**

Individual case based field investigations of notified cases helps to identify possible geographical clustering of the disease which would help to perform the specific preventive measures. In addition to the routine surveillance by the PHII, Viral Hepatitis and Typhoid has special investigation forms to be filled by them. These contain a large amount of data which enables better control and prevention.

**DISTRIBUTION OF CONFIRMED FOOD AND WATER-BORNE DISEASES IN 2017**

**TABLE 23. DISTRICT WITH THE HIGHEST NUMBER OF CASES REPORTED IN THE YEAR 2017**

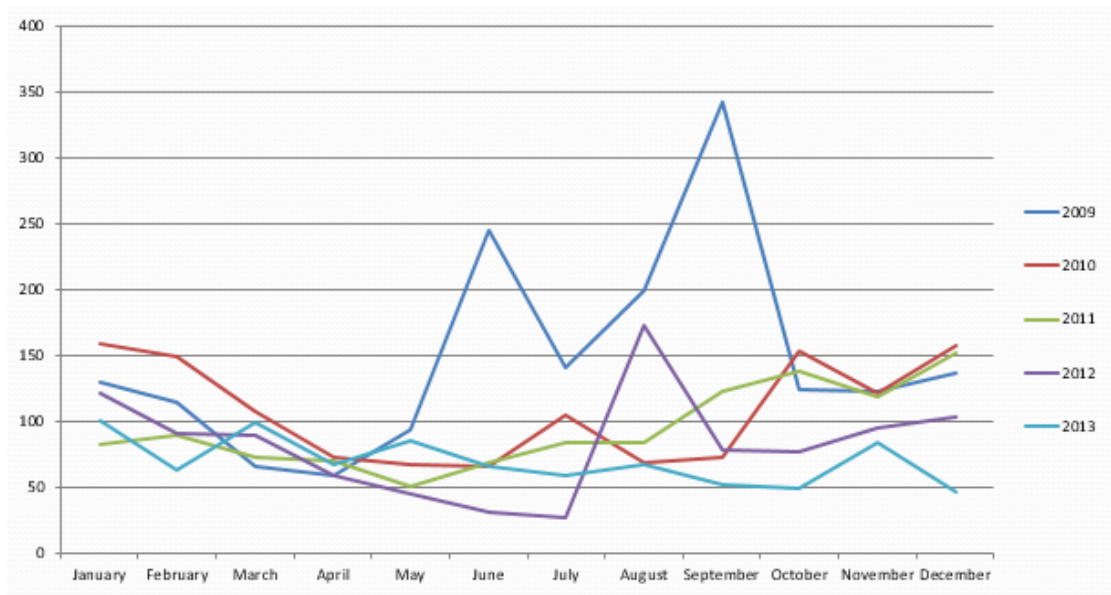
Enteric Fever	Food Poisoning	Dysentery	Hepatitis A
Jaffna	Batticaloa	Rathnapura	Rathnapura
Vavuniya	Hambanthota	Kurunegala	Monaragala
Nuwara Eliya	Jaffna	Batticaloa	Badulla
Kegalle	Kalmunae	Jaffna	Hambanthota
Colombo	Kegalle	Colombo	Trincomalee

There are 13 districts with the highest number of food and water-borne diseases in the country. (Table 1) Within each district, few MOH areas are responsible for control of food and water-borne diseases. Further within each MOH area, few PHI areas are responsible for the food and water-borne diseases. This fact has been observed in many districts and needs special attention.

**Seasonal pattern of Food and water-borne diseases in Sri Lanka**

There is a clear increase in the incidence observed with the monsoonal rain pattern and the food and water-borne diseases in the country. (Fig. 2) However, food poisoning is more common with religious and cultural festivals.

**FIGURE 2: SEASONALITY OF FOOD AND WATER-BORNE DISEASE IN SRI LANKA**



Source: Epidemiology Unit

**24. SUMMARY OF NOTIFIABLE DISEASES - 4th QUARTER 2017****TABLE 24: SUMMARY OF NOTIFIABLE DISEASES**

Region	Dysentery	Encephalitis	Fever Enteric	Poisoning Food	Rabies Human	Leptospirosis	Measles	Fever. Con Simple	Tetanus	Fever Typhus	Hepatitis Viral	Cough Whooping	DHF / Fever Dengue	Tuberculosis	Chickenpox	Mumps	Meningitis	Leishmaniasis
Colombo	23	0	8	13	0	88	2	0	0	1	7	1	3556	636	81	5	6	0
Gampaha	16	3	7	11	0	68	0	0	0	3	5	0	3076	236	162	4	7	5
Kalutara	17	1	6	7	0	169	0	0	0	4	15	0	1295	84	65	1	27	0
Kandy	12	1	1	11	2	21	2	0	0	20	4	1	2662	143	50	3	5	6
Matale	52	0	0	2	1	8	3	0	0	1	5	0	606	39	14	1	11	6
Nuwara-Eliya	14	1	6	1	0	8	1	0	0	27	4	0	88	53	59	1	11	0
Galle	6	1	7	0	0	254	1	0	0	15	1	0	802	92	52	1	10	1
ambantota	7	0	2	7	0	27	1	1	0	11	1	0	599	32	57	3	0	197
Matara	17	0	3	6	0	114	1	0	0	17	11	0	537	60	48	2	9	77
Jaffna	156	7	20	4	0	10	0	10	0	144	1	3	2014	54	52	6	5	0
Kilinochchi	24	0	1	0	0	2	0	0	0	4	0	0	77	4	0	0	2	0
Mannar	19	0	1	2	0	1	0	1	0	2	1	0	36	4	1	2	0	0
Vavuniya	7	0	36	2	0	7	0	0	0	2	2	0	288	11	8	2	1	2
Mullaitivu	11	1	7	0	0	11	0	0	0	0	1	0	80	1	1	0	0	4
Batticaloa	88	3	1	70	0	13	3	3	0	1	2	0	967	28	21	1	8	0
Ampara	19	1	1	3	0	12	1	0	0	1	2	0	134	17	63	2	13	3
Trincomalee	29	0	2	0	0	20	6	0	0	5	2	0	295	21	30	2	3	4
Kurunegala	39	3	5	8	2	62	0	0	0	9	3	1	1677	100	91	2	18	51
Puttalam	22	0	0	9	0	4	0	0	0	0	1	0	2673	27	39	4	10	1
Anuradhapura	18	4	1	5	1	69	4	0	0	7	5	0	423	72	62	5	13	79
Polonnaruwa	19	2	0	0	1	50	1	0	0	0	1	0	194	34	36	1	10	52
Badulla	37	6	9	1	0	52	1	2	0	27	9	0	511	53	59	4	60	1
Moneragala	36	0	1	10	0	92	0	1	0	12	4	0	982	28	32	1	10	18
Ratnapura	59	8	1	2	0	115	0	1	0	11	12	0	826	132	49	3	12	1
Kegalle	8	5	3	44	0	159	0	1	0	20	3	0	783	93	99	2	15	2
Kalmunai	20	1	0	8	0	1	0	1	0	0	0	0	938	44	29	1	9	0
<b>Total</b>	<b>775</b>	<b>48</b>	<b>129</b>	<b>226</b>	<b>7</b>	<b>1437</b>	<b>27</b>	<b>21</b>	<b>0</b>	<b>344</b>	<b>102</b>	<b>6</b>	<b>26119</b>	<b>2098</b>	<b>1260</b>	<b>59</b>	<b>276</b>	<b>510</b>

No polio cases. (from AFP surveillance system).

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Figures given may be subject to revision.

The editor welcomes accounts of interesting cases, outbreaks or other public health problems of current interest to health officials.

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