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Epidemiology Unit
Ministry of Health



1. POLIOMYELITIS

Sixteen (16) Acute Flaccid cases were notified to the Epidemiology Unit during the 2nd quarter 2016. This is lower than the reported AFP cases during the 2nd quarter in 2015, which is 20. Reported number of AFP cases for the quarter is below the expected number of AFP cases per quarter of the annual surveillance target of 2:100,000 under 15 - year age population. The non-polio AFP rate for the second quarter of 2015 was 1.5 :100,000 under 15 year age population.

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 2015. 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 .

Majority of the cases (31.25%) were notified from the sentinel site hospital for AFP in the Western province: All the hospitals reported AFP cases during January to March are given in table 01.

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

The highest numbers of cases were reported from district of Kegalle with 3 cases. The complete list of distribution of AFP cases according to the province, district and MOH area is given in table 2.

Seasonal Distribution of AFP Cases

Majority of cases were reported during the month of June (43.75 %). There is no observable variation of case presentation by month compared to the compatible quarter in the previous year.

Table 01

Notification of AFP cases by sentinel hospitals
2nd Quarter 2015

Hospital	No: of cases reported
LRH	5
TH Karapitiya	2
TH Kalubowila	1
TH Peradeniya	3
SBSCH	2
TH Anuradhapura	2
Asiri Hospital	1
Total	16

Table 02 : Geographical distribution of AFP cases
2nd quarter 2015

Province	District	MOH Area	Number of AFP cases
Western	Gampaha	Seeduwa	1
		Negambo	1
		Panadura	1
Southern	Galle	Elpitiya	1
		MC Galle	1
		Matarara	1
Central	Kandy	Pathadumbara	1
		Bogawanthalawa	1
Sabaragamuwa	Kegalle	Mawanella	1
		Yatiantota	1
		Aranayaka	1
Eastern	Ratnapura	Kuruwita	1
		Ampara	Padiyathalawa
North Central	Anuradhapura	Kahatagasdigiliya	1
Uva	Monaragala	Badalkumbura	1
Northern	Kilinochchi	Kilinochchi	1
Total			16

Age and Sex Distribution of AFP cases

Majority (68.75%) of the cases were males during the 2nd quarter 2016 . Majority (93.75%) of the cases were between 1-9 years during the second quarter this year and the trend was lower compared to the compatible quarter in the previous year.

The table 3 shows the age distribution of reported cases.

Table 03. Distribution of AFP cases by Age 2nd Quarter 2015.

Age Group	Sex		Total
	Male	Female	
<1 year old	0	0	0
1-4 year old	3	7	10
5-9 year old	2	3	5
10-15 year old	0	1	1
Total	5	11	16

Final diagnoses of AFP cases

Majority (93.75%) of the reported AFP cases were finally diagnosed as Guillain Barre Syndrome (GBS). Final diagnoses of all 16 cases of AFP are given in table 04.

Table 04: Final diagnoses of AFP patients reported during 2nd quarter 2015.

Final Diagnoses	Frequency
GBS	15
Transverse Myelitis	1
Total	16

Laboratory exclusion of poliomyelitis in 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 (8-10 g), 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 16 AFP cases, 15 cases (93.75%) had both stool samples collected timely and sent to MRI for polio virology.

2. MEASLES

Five hundred and thirty nine (74) suspected measles patients were reported during the second quarter 2016. This number is lower than the number reported during the first quarter which was 166.

Measles outbreak situation was started during the 1st quarter 2013 and continued after reduction of the peak with supplementary immunization activity conducted for 6-11 month old infants as an outbreak control measure since major proportion of affected were belonged to 6-11 months. But transmission of measles in the country was continuing with varying intensity with overall trend of gradual reduction was seen to date. These clinical cases were field investigated by the respective Medical Officers of the patients residential areas.

Table 05: Number of Measles cases by district: 2nd Quarter 2016

Western Province reported the highest number of measles cases (40) .

Measles vaccination was introduced in 1984 in Sri Lanka at the age of 9 months and the 2nd dose of measles introduced as MR vaccine at the age of 3 years in 2001. With marked reduction of measles transmission in the country, MMR vaccine was introduced with advancing the 1st dose to the 1 year of age and 2nd dose at the age of 3 years in 2011.

Table 5: Measles case reporting according to the districts—2nd quarter 2016

District	cases	District	cases
Colombo	24	Batticaloa	3
Gampaha	11	Ampara	2
Kalutara	5	Trincomalee	0
Kandy	7	Kurunegala	5
Matale	0	Puttalam	3
Nuwara Eliya	0	Ampara	2
Galle	2	Polonnaruwa	0
Hambantota	0	Badulla	4
Matara	2	Moneragala	0
Jaffna	0	Ratnapura	2
Vavuniya	0	Kegalle	2
Mannar	0	Kalmunai	0

As with the outbreak of measles from 2013, a higher proportion of cases detected among 6-11 months aged infants. In 2014, this age category was investigated for measles serum antibody levels and detected lack of maternal antibodies for protection. This evidence leads to the decision of bringing down the age at 1st measles vaccination to 9 months of age from April 2015. Of the total affected 17%(13) were more than 35 years and 24%(18) were less than 1 year.

Of the 74 reported cases 56 were lab tested(75.6%) and out of that 10 were positive for measles.

3. LEPTOSPIROSIS

During the 2nd Quarter 2016, 1094 cases and 13 deaths (CFR 1.19%) due to Leptospirosis were notified to the Epidemiology Unit compared to 1318 cases and 22 deaths in the previous quarter and 897 cases and 17 deaths during corresponding quarter of 2015.

Age and sex distribution of patients, revealed by the special surveillance data is given in Table 06.

Table 06: SELECTED CHARACTERISTICS OF LEPTOSPIROSIS PATIENTS(%)- 1st QUARTER 2015.

Age Group	Sex	
	Male	Female
0 - 9 years	0.16	1.64
10 - 19 years	11.53	6.56
20 - 29years	18.67	2.46
30 - 39years	18.51	21.31
40 - 49years	21.75	19.67
50 - 59 years	18.51	28.69
>60years	10.88	19.67
Total	100.00	100.00

4. HUMAN RABIES

One Human Rabies case was notified to the Epidemiology Unit in the 2nd quarter 2016 compared to 06 cases in the previous quarter and 9 cases in the corresponding quarter of year 2015.

Animal Rabies

During this quarter, 108 dogs were reported positive for rabies, compared to 122 in the previous quarter and 109 positive in the same period in the last year.

Rabies Control Activities

Dog vaccination - A total of 342,318 dogs were immunized during the Quarter under review when compared to 364,389 in the previous quarter and 318,209 in corresponding Quarter of the last year.

Animal Birth control

Chemical- A total of 1,318 female dogs were injected with birth control injections (Progesterone) during the quarter under review. **Surgical.** 31,947 female dogs were subjected to sterilization by surgical method during the quarter under review.

5. VIRAL HEPATITIS

In the 2nd Quarter 2016, a total of 166 cases of Viral Hepatitis were reported to the Epidemiology Unit. This was in comparison to the 282 cases in the previous quarter and 274 cases in the corresponding quarter of 2015. Monaragala district (40 cases) reported the highest number of cases followed by Badulla District(38 cases).

6. ENTERIC FEVER

In the 2nd Quarter 2016, a total of 104 cases of Enteric fever were reported to the Epidemiology Unit, compared to 185 cases in the previous quarter and 163 cases in the corresponding quarter of 2014. The district of Vavuniya (21) reported the highest number of cases, followed by Colombo (09 cases).

7. DYSENTERY

In the 2nd Quarter of 2016, a total of 668 cases of Dysentery were reported to the Epidemiology Unit, in comparison to 552 cases in the previous quarter and 722 cases in the corresponding quarter of 2015. Rathnapura (102 cases) and Kurunegala (69 cases) reported the highest number of cases.

8. MALARIA

There were no indigenous malaria cases reported during the 2nd quarter of 2015.

9. JAPANESE ENCEPHALITIS (JE)

During the 2nd quarter 201, 54 cases of clinically suspected Encephalitis were reported to the Epidemiology Unit through the routine disease notification system. Out of this, 38 cases were clinically confirmed by the Public Health Inspectors during their field investigations. During the 2nd quarter of 2014, MRI has reported 12 lab confirmed JE cases. All suspected JE cases(100%) were investigated by the MOH .

Among them,03 (25%) were over 50 years of age, another 04 (33%) were between 21 -50 years, another 1 (08%) was between 11 - 20 years, another 2 (17%) were 1-10 years while 2 (17%) were less than one year.

The highest number of confirmed JE cases (05) were reported from Gampaha, and Kurunagala(02) districts followed by (01) from Kalutara, Kandy,Puttalam Anuradhapura and Polonnaruwa districts. The majority of confirmed JE cases have not been immunized.

Table 08

SELECTED CHARACTERISTICS OF CONFIRMED CASES OF JE— 2nd Quarter 2016 (N=12)

Sex	Male	08(67%)
	Female	04(33%)
Age group	< 1 y	02 (17%)
	1-10 y	02 (17%)
	11- 20	01 (08%)
	21-50Y	04 (33%)
	> 50 Y	03 (25%)
	District	Colombo
Kurunegala		02 (17%)
Kalutara		01 (08%)
Kandy		01 (25%)
Puttalam		01 (08%)
Anuradhapura		01 (08%)
Polonnaruwa		01 (08%)

Table 07

Results of Blood smear examination for malaria parasites - 1st Quarter 2013

	2nd quarter 2016	1st quarter 2016
No. of blood smears examined	281,524	254,629
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 09

DISTRIBUTION OF NUMBER OF BLOOD SMEARS EXAMINED BY DISTRICT RMO- 2ND QUARTER 2016

RMO	April	May	June	Total
Colombo	6,113	7,548	7,097	20,758
Gampaha	3,032	4,838	3,552	11,422
Kalutara	1,403	1,498	1,339	4,240
Kandy	3,888	4,107	3,680	11,675
Matale	2,202	2,673	2,901	7,776
Nuwara Eliya	404	285	269	658
Galle	1,638	1,639	1,871	5,148
Matara	1,699	1,663	1,196	4,558
Hambantota	1,616	2,376	2,557	6,549
Jaffna	4,873	5,849	5,390	16,112
Kilinochchi	2,535	2,548	3,469	8,552
Vavuniya	1,245	1,943	1,808	4,996
Mannar	3,373	4,563	3,638	11,574
Mullaitivu	1,529	1,634	2,057	5,220
Batticaloa	2,988	2,640	5,330	10,958
Ampara	2,109	2,202	2,155	6,466
Kalmunei	3,312	2,988	3,220	9,520
Trincomalie	2,263	2,595	3,081	7,939
Kurunegala	5,124	6,462	6,254	17,840
Maho	1,794	2,168	2,097	6,059
Puttalam	2,387	2,608	2,885	7,880
Anuradhapura	4,853	5,550	5,655	16,058
Pollonnaruwa	2,940	3,580	4,378	10,898
Badulla	3,178	4,346	4,176	11,700
Monaragala	3,234	3,795	3,574	10,603
Rathnapura	3,593	3,545	3,716	10,854
Kegalle	2,419	3,246	2,651	8,316
TOTAL	75,744	88,889	89,996	254,629

Table 10

MORBIDITY AND MORTALITY DUE TO DF/DHF - 2ND QUARTER 2016

RDHS Division	Cases	Percentage (%)	Deaths	CFR
Colombo	3094	30.99	13	0.42
Gampaha	1052	10.54	2	0.19
Kalutara	904	9.05	3	0.33
Kandy	767	7.68	5	0.65
Matale	139	1.39	1	0.72
N' Eliya	87	0.87	0	0.00
Galle	359	3.60	0	0.00
Hambantota	167	1.67	1	0.60
Matara	210	2.10	0	0.00
Jaffna	231	2.31	1	0.43
Kilinochchi	15	0.15	0	0.00
Mannar	33	0.33	0	0.00
Vavuniya	46	0.46	0	0.00
Mulativu	49	0.49	0	0.00
Batticaloa	94	0.94	0	0.00
Ampara	47	0.47	0	0.00
Trincomalee	85	0.85	0	0.00
Kurunagale	653	6.54	0	0.00
Puttalam	214	2.14	1	0.47
A'pura	119	1.19	0	0.00
Polonnaruwa	84	0.84	0	0.00
Badulla	182	1.82	0	0.00
Moneragala	73	0.73	0	0.00
Ratnapura	873	8.74	0	0.00
Kegalle	339	3.40	0	0.00
Kalmunai	69	0.69	0	0.00
Total	9985	100.0	27	0.27

Table 11

DHF STATISTICS FROM DEPARTMENT OF VIROLOGY, MRI - 2ND QUARTER 2016

Month	Clinically suspected cases of DF/DHF	Serologically Confirmed Cases of DF/DHF
April	87	43 (49.4%)
May	95	27 (28.4%)
June	235	97 (41.2%)
Total	417	167 (40.0%)

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

During the 2nd quarter of 2016; 9,985 cases of DF/DHF were reported from all districts (Table 10) while 27 deaths were reported (CFR =0.27%) when compared to 13,829 cases of DF/DHF and 17 deaths (CFR=0.12%) was reported during the 1s quarter of 2016. Proportion of cases notified in April, May and June were 28.4%,24.3% and 47.4%respectively .

Table 10 shows the distribution of DF/DHF cases and deaths since the 2nd quarter of 2016.

Special surveillance data of confirmed cases were received and analyzed for the 2nd quarter of 2016. Age distribution of reported cases were 4.1%in <4 years age group,9.5% in 5-9years of age group,8.5% in 10-14 years of age, 10.8% in 15-19 years of age, 15.7% in 20-24 years of age, 13.3% in 25-29 years of age,9.5% in 30-34 years of age, 9.0% in 35-39 years of age,4.1% in 40-44 years of age,4.8% in 45-49 years of age,2.8% in 50-54 years of age, 2.8% in 55-59 years of age and 5.2% in >60 years of age.

According to the clinical findings majority of the reported cases were classified as Dengue Fever while 11% were classified as Dengue Haemorrhagic fever.

During the 2nd quarter of 2016, 417 blood samples were tested using IgM capture ELISA test at the Department of Virology , Medical Research Institute (MRI) and 167 (40.0%) samples were confirmed as positive (table 11).

11. RUBELLA AND CONGENITAL RUBELLA SYNDROME (CRS)

There were no cases with Congenital Rubella Syndrome reported during the quarter.

12. CHOLERA

No confirmed cases of cholera were reported to the Epidemiology Unit during the 2nd Quarter 2016. Last case of cholera was reported in the country in January 2003.

13. TETANUS

Two tetanus cases were reported during 2nd quarter 2016. Galaha MOH area of Kandy district and Anuradhapura CNP MOH area of Anuradhapura district reported the tetanus cases during the quarter.

14. SURVEILLANCE REPORT ON AEFI

Surveillance of Adverse Events Following Immunization (AEFI) effectively continued in the 2nd Quarter of 2016, has reached 96.1 % of completeness of reports, while 48.8% reports were received in time at the Epidemiology Unit indicating that compliance for the system by the MOOH yet to be improved. Kandy, Matale, Galle, Jaffna, Mannar, Vavuniya, Batticaloa, Monaragala and Kegalle were able to send all reports. The best timeliness was reported from Jaffna district (86.1%) followed by Kegalle(81.1%), Mullativu (78.6%), and Matara (75.0%) (Table 12).

The highest percentage of nil reports were received from both Ampara (45.0% each) followed by district (40.0%), which are close to two folds of the Sri Lanka average (22.1%) indicating the need for more attention for surveillance reporting form both MOH staff and hospitals. Jaffna district has no Nil returnq followed by Kegalle (6.1%), Kilinochchi (9.1%) and Monaragala (9.1%) indicating the good surveillance system in place. The highest rate (774.0 per 100,000 immunizations) of AEFI was reported from Jaffna district, while Colombo reported the highest number of 264 AEFI cases in the first quarter 2015.

For the first quarter, the highest number of AEFI (n= 1402) was reported against Pentavalent vaccine, whereas the highest rate of AEFI (838.5/100,000 doses administered) reported against DPT vaccine (Table 13). The rate of AEFI for MMR was 804.7 per 100,000 doses administered. High Fever (947), nodule (407) and allergic reaction(401) are the leading AEFI reported. Highest numbers of fever cases reported were following Pentavalent (539 cases: 235.1 per 100,000 doses administered) and DPT (317 cases: 366.6 per 100,000 doses administered) vaccines. For Allergic reactions, it was largely due to MMR (119 cases: 68.5 per 100,000 doses administered), and PVV (119 cases : 51.9 per 100,000 doses administered) and LJE (36 cases:118.9 per 100,000 doses administered).

Table 12
COMPLETENESS AND TIMELINESS OF MONTHLY REPORTING AND RECEIPT OF "NIL" REPORTS OF AEFI BY RDHS DIVISIONS - 2ND QUARTER 2016

DPDHS	% completeness	% Timely returns	% Nil Returns	No. of AEFI	AEFI Rate (100,000 vaccine doses)
Colombo	96.1	55.1	12.2	264	335.7
Gampaha	97.8	68.2	18.2	127	108.7
Kalutara	97.4	44.7	10.5	122	173.9
Kandy	100.0	47.2	22.2	168	179.1
Matale	100.0	56.4	23.1	76	214.3
Nuwara Eliya	89.7	37.1	17.1	95	186.1
Galle	100.0	53.3	26.7	75	119.4
Hambantota	94.4	50.0	17.6	133	309.0
Matara	94.1	75.0	25.0	115	227.2
Jaffna	100.0	86.1	0.0	238	774.0
Kilinochchi	91.7	54.5	9.1	29	317.7
Mannar	100.0	60.0	13.3	37	468.1
Vavuniya	100.0	16.7	25.0	32	279.0
Mullativu	93.3	78.6	14.3	55	681.9
Batticaloa	100.0	21.4	40.5	64	167.3
Ampara	95.2	15.0	45.0	19	111.0
Trincomalee	97.0	31.3	31.3	49	163.9
Kurunegala	95.1	57.1	26.0	206	207.1
Puttalam	91.7	27.3	24.2	53	99.6
Anuradhapura	94.7	29.6	27.8	142	229.4
Polonnaruwa	90.5	15.8	21.1	75	254.0
Badulla	97.9	63.8	25.5	100	170.8
Moneragala	100.0	63.6	9.1	73	212.1
Ratnapura	94.4	27.5	29.4	99	147.4
Kegalle	100.0	81.8	6.1	116	212.1
Kalmunai	94.9	21.6	32.4	63	208.2
Sri Lanka	96.1	48.8	22.1	2625	211.0

Table 13 : Number of Selected Adverse Events by Vaccines – 1st Quarter 2015

	BCG	OPV	PVV ¹	DPT	MMR	LJE	DT	TT	aTd	Total number of AEFI reported
Total Number of AEFI Reported	11	3	1402	778	697	276	55	72	18	2613
AEFI reporting rate/1,000,000 doses administered	14.9	0.8	611.6	838.5	804.7	159.0	181.6	87.0	23.5	
High Fever (>39°C)		1	539	317	64	21	6	20		947
Reporting rate/1,000,000 doses administered		0.3	235.1	366.0	36.9	14.2	19.8	24.2		
Allergic reactions	1		119	92	119	36	18	8	8	401
Reporting rate/1,000,000 doses administered	1.4		51.9	106.2	68.5	118.9	21.8	10.5	6.8	
Severe local reactions			46	33	3		1			83
Reporting rate/1,000,000 doses administered			20.1	38.1	1.7		1.2			
Seizure (Febrile/Afebrile)			23	47	20	1	2			93
Reporting rate/1,000,000 doses administered			10.0	54.3	11.5	3.3	2.4			
Nodules	3		317	69	8		6	2	2	407
Reporting rate/1,000,000 doses administered	4.1		138.3	79.7	4.6		7.3	2.6	2.1	
Injection site abscess	3		162	18	2		5	1	1	192
Reporting rate/1,000,000 doses administered	4.1		70.7	20.8	1.2		6.0	1.3	1.1	
HHE				1						1
Reporting rate/1,000,000 doses administered				0.4						

1-PentaValent Vaccine

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

15. TUBERCULOSIS

A total of 2519 TB patients were notified to the NPTCCD by H816A (TB Notification Form) for the 2nd Quarter 2016, while 2215 patients were registered at chest clinics during the same Quarter according to the Quarterly Report on Case finding (TB 08). Out of this, 2080 TB patients (93.9%) were new TB cases, 134 (6.0%) were Re-treatment Cases and there was no any cases identified for previous treatment history unknown Category. Out of new TB cases, 1051 (50.5%) were bacteriologically confirmed TB, 412 (19.8%) were clinically diagnosed (sputum negative) TB and 617 (29.7%) were New Extra Pulmonary cases. Out of this Re-treatment cases, 83 (3.7%) patients were relapse, 17 (0.7%) patients were treatment after Failure, 27(1.2%) patients were Lost to Follow up and 7 (0.3%) patients were Other Previously Treated.

A total of 1963 TB patients were screened for HIV, out of them two patients were positive for HIV. There were 02 patients with known positive HIV status at the time of TB diagnosis. A total of 04 patients were TB/HIV co infection.

Two Multi Drug Resistant TB patient were detected during the quarter

16. SURVEILLANCE AT SEA PORT

Details of the vaccinations carried out by the Assistant Port Health Office during the 1st quarter 2015, is as follows;

		Total
A.	Yellow fever	989
B.	Meningococcal meningitis	109
C.	Oral polio	225

17. SURVEILLANCE AT AIRPORT

Surveillance activities carried out at the International Airport, Katunayake during the 2nd Quarter 2015 is given below.

Table 14: Work performance report : Airport health office

Emerging and reemerging disease (Ebola/MERS CoV/ SARS.... Etc)		
Ebola		
No. of passengers screened		-
No. of suspected cases transferred		-
Zika		
No. of passengers screened		01
No. of suspected cases transferred		-
Malaria		
No. of passengers visited to Health office		324
No. of passengers drug issued		05
No. of blood films done (R.D.T.)		320
Referred to I.D.H./Other unit		01
Yellow Fever		
No. of yellow fever cards inspected		292
No. invalid/without Yellow Fever cards		05
Referred to I.D.H./Other units		-

18. LEPROSY**QUARTERLY RETURN OF LEPROSY STATISTICS - 2ND QUARTER 2016****Table 15****1. National**

	At the end of the quarter			Cumulative for end of the quarter		
	2nd quarter	2nd quarter	Diff (%)	2016	2015	Diff (%)
New patients detected	438	491	-53(10.7)	861	846	15(1.8)
Children	36	50	-14(28)	77	87	-10(1.2)
Grade 2 Deformities	27	40	-13(32.5)	70	74	-4(5)
Multi-Bacillary	265	278	-13(4.7)	504	437	67(15.3)
Females	166	205	-39(19)	327	346	-19(5.5)

2. Districts

District	New patients	G2-Deformity	Children	MB	Females
Central	20	2	0	12	8
Kandy	7	1	0	4	3
Matale	9	0	0	4	4
NuwaraEliya	4	1	0	4	1
Eastern	43	2	5	34	13
Ampara	13	1	3	9	1
Batticaloa	23	1	2	17	9
Kalmunai	4	0	0	4	2
Trincomalee	3	0	0	4	1
Northern	19	2	1	13	12
Jaffna	10	1	0	7	8
Kilinochchi	2	1	0	1	0
Mannar	1	0	0	0	1
Vavuniya	4	0	1	3	1
Mullaitivu	2	0	0	2	2
North Central	14	2	2	8	2
Anuradhapura	8	2	2	6	0
Pollonnaruwa	6	0	0	2	2
North Western	49	5	0	32	17
Kurunegala	31	3	0	20	9
Puttalam	18	2	0	12	8
Sabaragamuwa	38	3	4	19	14
Kegalle	6	0	0	2	0
Rathnapura	32	3	4	17	14
Southern	59	3	4	32	24
Galle	37	1	4	20	14
Hambanthota	8	1	0	5	7
Matara	14	1	0	7	3
Uva	14	0	2	7	5
Baddulla	5	0	1	4	1
Monaragala	9	0	1	3	4
Western	182	8	18	108	71
Colombo	67	4	7	48	20
CMC	17	0	4	9	10
Gampaha	52	3	4	31	21
Kalutara	46	1	3	20	20
Sri Lanka	438	27	36	265	166

19. SEXUALLY TRANSMITTED DISEASES**Table 16****NEW EPISODES OF STD/HIV/AIDS REPORTED OR TREATED AT STD CLINICS IN SRI LANKA****2ND QUARTER 2016**

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 ¹	42	17	59	95	32	127	
AIDS	15	3	18	23	6	29	
Early Syphilis ²	23	10	33	53	18	71	
Syphilis	Late Syphilis ³	102	72	174	220	141	361
	Congenital Syphilis ⁴	1	1	2	2	2	4
Gonorrhoea ⁵	66	15	81	127	40	167	
Ophthalmia Neonatorum ⁶	0	0	0	0	1	1	
Non specific cervicitis/urethritis	135	350	485	285	740	1025	
Chlamydial infection	0	0	0	0	3	3	
Genital Herpes	310	429	739	669	869	1538	
Genital Warts	272	226	498	535	462	997	
Chancroid	0	0	0	0	0	0	
Trichomoniasis	1	9	10	8	38	46	
Candidiasis	273	378	651	553	744	1297	
Bacterial Vaginosis	0	340	340	0	672	672	
Other sexually transmitted diseases ⁷	97	45	142	181	94	275	
Non STD/ Uncertain	665	476	1141	1390	917	2307	

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

¹ - Includes AIDS cases

² - Diagnosed within 2 years of infection and considered to be infectious

³ - Diagnosed after 2 years of infection and considered to be non-infectious

⁴ - Includes both early and late cases

⁵ - Includes presumptive Gonorrhoea

⁶ - Includes both gonococcal and chlamydial conjunctivitis in neonatal period

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

20. BACTERIOLOGY REPORT, MEDICAL RESEARCH INSTITUTE 2nd QUARTER 2016
Table 17: Bacteriological report, MRI 2nd Quarter 2016.

	Apr	May	June
(A) CHOLERA			
No. of stool specimens Examined	38	79	85
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) SALMONELLA			
Blood. No. Examined	0	0	0
<i>S.typhi</i>	0	0	0
<i>S.paratyphi</i>	0	0	0
Stools- No. examined	100	153	112
<i>S.typhi</i>	0	0	0
<i>S.paratyphi</i>	0	0	0
Others	2	5	4
(C) SHIGELLA			
No. of specimens Examined	100	153	112
<i>Sh.flexneri I</i>	0	0	0
<i>Sh.flexneri II</i>	0	0	0
<i>Sh.flexneri III</i>	0	0	0
<i>Sh.flexneri IV</i>	0	0	0
<i>Sh.flexneri V</i>	0	0	0
<i>Sh.flexneri VI</i>	0	0	0
<i>S.sonnei</i>	3	3	6
<i>S.dysenteriae</i>	0	0	0
(D) ENTEROPATHOGENIC E.COLI			
No.Examined	2	2	0
No.+ve	1	0	0
(E) CAMPYLOBACTER			
No.Examined	62	34	27
No. Positive	1	0	0
(F) SPECIAL			
	20	28	45

21. SURVEILLANCE OF MENINGITIS–2nd quarter 2016

Meningitis is a notifiable disease condition in Sri Lanka since year 2005. During the 2nd quarter 2016, 339 suspected meningitis cases were reported to the Epidemiology Unit through the routine disease notification system .

Out of this, 264 cases were clinically confirmed by the Public Health Inspectors during their field investigations. Highest number of meningitis cases were reported from the Badulla district (40) followed by Ramapura (35) and Kalutara (19) districts.

Forty three percent of the clinically confirmed meningitis cases belonged to the age group less than one year, another 26% belonged to the age group 1-4 years and 14% belonged to age group 5. 14 years. Sixty eight percent of the clinically confirmed cases were males and 40% were females.

Table 18

Summary findings for special investigations carried out for clinically confirmed cases of Meningitis up to 30th June 2016.

CSF Culture Report		
CSF Culture	Number	(%)
CSF results available	125	37%
No growth	121	
Grp.B Streptococci	2	
H. Influenza	1	
Coliform	2	
N. Meningitis	1	
Culture results not known	211	62%
Not done	2	0.5%
Total	338	100%
Final outcome of the patient		
Outcome	Number	(%)
Cured	336	99%
Died	01	0.2%
Information not available	01	0.2%
Total	338	100%
Final Diagnosis (based on clinical and lab findings)		
Diagnosis	Number	(%)
Culture confirmed	06	02%
Probable bacterial meningitis	29	09%
Probable viral meningitis	29	09%
Suspected meningitis	274	81%
Total	338	100%

22. 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 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 Center (NIC), Medical Research Institute (MRI).

Epidemiological Component

ILI Surveillance

In the 2nd quarter of year 2016, seventeen hospitals out of nineteen have reported ILI data with a reporting rate of 89.5%. A total of 28826 ILI cases were reported, accounting for 2.44% of the all OPD visits (n=1181071). The highest number of ILI cases were reported from General Hospital Vavunia (n=15662,54.33%) and the majority of the patients were in the age group 15- 49 years (n=9206,31.93%).

SARI Surveillance

A total of 175 SARI cases were reported for the 2nd quarter of 2016 from three sentinel hospitals (Teaching Hospital Ragama, General Hospital Mataranand Teaching Hospital Peradeniya). Out of 16829 all hospital admissions during the 2nd quarter, 1.03% were due to SARI. The highest number of SARI cases were reported from Teaching Hospital Peradeniya (n=127, 72.57%).

Laboratory Component

ILI Surveillance

A total of 121 ILI respiratory samples were received by the MRI from sentinel hospitals during the 2nd quarter of 2016; 35 samples in April, 40 in May and 46 in June. NHSL (n=30) had sent the highest number of samples followed by General hospital Ratnapura (n=20), Teaching hospital Batticaloa (n=4), IDH (n=3), General hospital Polonnaruwa (n=8), General hospital Nuwara Eliya (n=6), General hospital Badulla (n=17), Teaching Hospital Anuradhapura (n=15), Teaching Hospital Kurunegala (n=15), Teaching Hospital Kalubowila (n=3). All sentinel hospitals except General Hospital Chilaw, Teaching Hospital Karapitiya and Teaching Hospital Jaffna had sent samples within the 2nd quarter. Influenza A was the predominant circulating Influenza viral strain identified.

Table 19 : Monthly performance of sentinel hospitals in the laboratory component of the ILI surveillance for the 2nd quarter of the year 2016

	April	May	June	Total
NHSL	10	10	10	30
TH Kalubowila	0	1	2	3
IDH	0	3	0	3
GH NuwaraEliya	0	3	3	6
TH Karapitiya	0	0	0	0
TH Jaffna	0	0	0	0
TH batticaloa	0	4	0	4
TH Kurunegala	5	5	5	15
GH Chilaw	0	0	0	0
TH Anuradhapura	5	0	10	15
GH Polonnaruwa	0	5	3	8
GH Badulla	5	4	8	17
GH Ratnapura	10	5	5	20
Total	35	40	46	121

(Source: Epidemiology Unit)

Table 20: Monthly performance of sentinel hospitals in the laboratory component of the SARI surveillance for the 2nd quarter of the year 2016

	April	May	June	Total
TH Ragama	0	0	4	4
TH Peradeniya	0	1	3	4
GH Matara	3	5	18	26
LRH	10	4	10	24
Total	13	10	35	58

(Source: Epidemiology Unit)

Table 21: Types of influenza viruses isolated in ILI samples for the 2nd quarter of the year 2016

Month	Total Tested	Influenza A	A(H1N1)	A(H3N2)	Untyped A	Influenza B
April	35	0	0	0	0	0
May	40	0	0	0	0	4
June	46	1	0	0	0	6
Total	121	1	0	0	0	10

(Source: NIC/MRI)

Table 22: Types of Influenza viruses isolated in SARI samples for the 2nd quarter of year 2016

Month	Total	Influenza A	A(H1N1)	A(H3N2)	Untyped A	Influenza B
April	13	0	0	0	0	4
May	10	0	0	0	0	2
June	35	1	0	0	0	11
Total	58	1	0	0	0	17

(Source: NIC/MRI)

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 fecal samples collected from migratory bird hotspots during the two migratory seasons, where fifteen fecal samples are collected from each bird hotspot, pooled in bottles with five samples in each and analyzed at the virology laboratory at Polgolla.

Table 23: Animal samples collected by month and district for the 2nd quarter 2016

Month	Pool Samples for Embryonated Chicken Egg Passage	Districts samples were collected from	Serum Samples for ELISA	Districts samples were collected from
April	1736	Colombo, Gampaha, Puttalam, Rathnapura, Hambantota, Ampara, Kandy, Jaffna, Anuradhapura	565	Colombo, Gampaha, Puttalam, Rathnapura, Kurunegala, Ampara, Kandy
May	1001	Colombo, Gampaha, Kegalle, Kandy, Rathnapura, Trincomalee, Ampara, Hambantota, Galle, Vavuniya	556	Colombo, Gampaha, Kegalle, Kandy, Rathnapura, Trincomalee, Ampara, Moneragala, Hambantota, Galle, Vavuniya
June	1102	Colombo, Gampaha, Anuradhapura, Rathnapura, Trincomalee, Puttalam, Kurunegala, Vavuniya	577	Colombo, Gampaha, Jaffna, Matale, Anuradhapura, Rathnapura, Trincomalee, Puttalam, Kurunegala
Total	3839		1698	

Special Report

AEFI Surveillance –2015

Surveillance of Adverse Events Following Immunization (AEFI) effectively continued in year 2015, has reached 97.8% of completeness of reports, while only 48.7% reports were received in time at the Epidemiology Unit indicating that compliance for the system by the MOOH yet to be improved. Galle, Jaffna, Mannar, Vavuniya, Mullativu, Kegalle and Monaragala were able to send all reports. The best timeliness was reported from Jaffna district(86.1%) followed by Kegalle(73.5 %), Badulla (65.2%), Matale(64.9%),Matara (64.1%),and Monaragala districts(60.6%) (Table 24).

The highest percentage of nil reports were received from Ampara (44.6% each) which is more than two folds of the Sri Lanka average (20.0%). Batticaloa (35.3%), Galle (32.1%),Vavuniya(31.3%), Anuradhapura(30.8%) and Puttalam(30.1%) also reported high percentages of nil returns indicating the need for more attention for surveillance reporting from both MOH staff and hospitals. The lowest percentage of Nil returns was from Jaffna district(0.7%), followed by Kegalle (2.3%), Kilinochchi (9.1%) and Colombo (9.4%) indicating the good surveillance system in place. The highest rate (696.4 per 100,000 immunizations) of AEFI was reported from Mullativu district, and Jaffna (647.7 per 100,000 immunizations) while Colombo district reported the highest number of AEFI cases(1149) in 2015.

During the year 2015, 11,534 AEFI have been reported to the Epidemiology Unit. The highest number of AEFI (n= 1402) was reported against Pentavalent vaccine(6380) followed by DPT vaccine (3219), whereas the highest rate of AEFI (913.5 /100,000 doses administered) reported against DPT vaccine (Table 25) followed by Pentavalent vaccine (648.5/100,000 doses administered). The rate of AEFI for MMR was 122.1 per 100,000 doses administered.

High Fever (4042), nodules (2018) and allergic reaction (1785) are the leading AEFI reported. Highest numbers of fever cases reported were following Pentavalent (2390 cases: 242.9 per 100,000 doses administered) and DPT (1288 cases: 365.5 per 100,000 doses administered) vaccines.

For Allergic reactions, it was largely due to Pentavalent vaccine (577cases: 58.7 per 100,000 doses administered), MMR vaccine (448 cases : 58.8 per 100,000 doses administered) and DPT vaccine (430 cases: 122.0 per 100,000 doses administered).

Out of other AEFI, Sever local reactions were mostly due to Pentavalent vaccine (222 cases : 222.6 per 100,000 doses), Seizures were largely due to DPT ((201 cases : 57.0 per 100,000 doses) and injection site abscess were largely due to Pentavalent vaccine(621 cases: 63.1 per 100,000 doses administered). Out of 11 HHE cases reported during the year 9 were for Pentavalent vaccine.

TABLE 24 : COMPLETENESS AND TIMELINESS OF MONTHLY REPORTING AND RECEIPT OF “NIL” REPORTS OF AEFI BY RDHS DIVISIONS—2015

DPDHS	% completeness	% Timely returns	% Nil Returns	No. of AEFI	AEFI Rate (100,000 vaccine doses)
Colombo	99.5	48.3	9.4	1149	232.7
Gampaha	99.4	49.7	12.8	639	129.1
Kalutara	95.5	43.6	10.7	570	190.2
Kandy	99.3	21.7	18.2	793	189.9
Matale	98.7	64.9	20.1	311	215.0
Nuwara Eliya	93.6	42.5	13.7	423	179.8
Galle	100.0	57.5	32.1	436	162.8
Hambantota	99.3	53.8	12.6	610	332.9
Matara	94.1	64.1	16.1	484	229.5
Jaffna	100.0	86.1	0.7	861	646.7
Kilinochchi	97.9	44.7	21.3	111	327.9
Mannar	100.0	63.3	18.3	170	520.0
Vavuniya	100.0	47.9	31.3	197	420.9
Mullativu	100.0	55.0	16.7	217	696.4
Batticaloa	99.4	37.7	35.3	278	177.0
Ampara	88.1	28.4	44.6	111	149.8
Trincomalee	97.0	54.7	28.1	238	189.6
Kurunegala	96.0	58.5	20.3	751	176.8
Puttalam	94.4	28.7	30.1	289	131.8
Anuradhapura	99.6	32.2	30.8	509	189.9
Polonnaruwa	96.4	16.0	17.3	328	268.9
Badulla	97.4	65.2	18.2	501	202.9
Moneragala	100.0	60.6	11.4	381	254.7
Ratnapura	99.1	34.6	24.3	563	197.1
Kegalle	100.0	73.5	2.3	494	223.1
Kalmunai	96.2	28.7	29.3	258	193.3
Sri Lanka	97.8	48.7	20.0	11672	214.0

Table 25: Number of Selected Adverse Events by Vaccines—2015

	BCG	OPV	PVV ¹	DPT	MMR	LJE	DT	TT	aTd	Total number of AEFI reported
Total Number of AEFI Reported	51	39	6380	3219	930	377	280	76	182	11534
AEFI reporting rate/1,000,000 doses administered	15.7	2.3	648.5	913.5	122.1	96.6	83.5	24.8	57.0	
High Fever (>39°C)	6	12	2390	1288	186	80	63	2	15	4042
Reporting rate/1,000,000 doses administered	1.8	0.7	242.9	365.5	24.4	20.5	18.8	0.7	4.7	
Allergic reactions	2	3	577	430	448	183	81	27	34	1785
Reporting rate/1,000,000 doses administered	0.6	0.2	58.7	122.0	58.8	46.9	24.2	8.8	10.6	
Severe local reactions	2		222	153	16	10	16	6	2	427
Reporting rate/1,000,000 doses administered	0.6		22.6	43.4	2.1	2.6	4.8	2.0	0.6	
Seizure (Febrile/Afebrile)		4	118	201	37	28	4			392
Reporting rate/1,000,000 doses administered		0.2	12.0	57.0	4.9	7.9	1.2			
Nodules	6	6	1567	383	21	3	19	7	6	2018
Reporting rate/1,000,000 doses administered	1.8	0.4	159.3	108.7	2.8	0.8	5.7	2.3	1.9	
Injection site abscess	18	1	621	99	7	4	13	1	2	766
Reporting rate/1,000,000 doses administered	5.5	0.1	63.1	28.1	0.9	1.0	3.9	0.3	0.6	
HHE		1	9	1						11
Reporting rate/1,000,000 doses		0.1	0.9	0.3						

Table 26

24. SUMMARY OF NOTIFIABLE DISEASES - 2nd QUARTER 2016

Health Region	Dysentery	Encephalitis	Enteric Fever	Food Poisoning	Human Rabies	Leptospirosis	Measles	Simple Con. Fe-ver	Tetanus	Typhus Fever	Viral Hepatitis	Whooping Cough	Dengue Fever / DHF	Tuberculosis	Chickenpox	Mumps	Meningitis	Leishmaniasis
Colombo	61	4	19	16	0	86	8	1	0	1	8	2	3094	191	142	7	20	0
Gampaha	51	0	4	16	0	113	15	0	2	6	9	0	1052	197	77	0	10	1
Kalutara	34	2	5	10	0	116	4	2	0	2	7	1	904	109	85	5	20	0
Kandy	71	4	2	11	0	22	3	0	1	26	12	0	767	167	63	7	15	0
Matale	22	0	5	0	1	15	1	1	0	4	2	1	139	42	8	2	13	3
Nuwara-Eliya	37	0	12	7	0	13	1	0	0	26	18	0	87	86	38	2	17	0
Galle	42	5	1	1	0	71	7	8	0	22	2	2	359	130	90	7	7	2
Hambantota	18	0	2	15	0	29	0	1	0	9	7	1	167	35	63	1	7	43
Matara	43	8	1	5	0	62	4	0	0	8	6	2	210	52	36	5	8	41
Jaffna	57	2	13	24	0	1	0	6	0	49	4	0	231	71	22	9	19	0
Kilinochchi	11	0	8	2	0	1	0	1	0	4	0	0	15	11	7	0	3	0
Mannar	9	0	6	5	0	0	1	0	0	4	0	0	33	6	0	0	0	0
Vavuniya	4	3	34	19	0	2	1	0	0	2	3	0	46	15	7	1	5	2
Mullaitivu	11	2	4	32	0	6	0	0	1	0	0	0	49	13	9	1	3	0
Batticaloa	75	0	13	5	0	14	3	1	0	0	5	0	94	39	40	2	2	0
Ampara	16	1	0	7	0	7	0	0	0	0	3	0	47	19	59	5	1	2
Trincomalee	21	1	3	16	0	19	2	1	0	11	4	0	85	41	46	5	3	2
Kurunegala	103	1	0	1	1	47	10	0	0	12	3	1	653	107	92	13	16	22
Puttalam	14	1	1	0	0	11	11	0	0	6	0	0	214	50	17	1	14	2
Anuradhapura	13	0	3	2	0	70	4	0	1	9	3	0	119	68	73	5	9	60
Polonnaruwa	6	0	0	5	0	27	1	0	0	0	0	0	84	28	30	5	4	29
Badulla	45	3	3	17	0	40	3	0	0	27	37	0	182	75	59	8	42	2
Moneragala	21	0	0	10	0	33	1	1	0	38	44	0	73	36	20	5	5	14
Ratnapura	148	10	6	8	0	225	2	2	0	10	28	0	873	137	56	6	49	1
Kegalle	33	7	4	35	0	61	2	0	0	11	7	0	339	94	66	5	15	0
Kalmunai	20	0	1	33	0	3	0	1	0	0	2	0	69	40	29	2	5	0
Total	986	54	150	302	2	1094	84	27	4	288	214	10	9985	1859	1234	109	312	226

No polio cases. (from AFP surveillance system).

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