



WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
Ministry of Health, Nutrition & Indigenous Medicine

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Influenza Part III

This is the last of a series of 3 articles.

Influenza vaccine is most effective when circulating viruses are well-matched with viruses contained in vaccines. Due to the constantly evolving nature of influenza viruses, the WHO Global Influenza Surveillance and Response System (GISRS) – a system of National Influenza Centres and World Health Organization Collaborating Centres around the world – continuously monitor the influenza viruses circulating in humans and updates the composition of influenza vaccines twice a year. There are two types of influenza vaccines, trivalent and quadrivalent. Several inactivated influenza vaccines and recombinant influenza vaccines are available in injectable form. Live attenuated influenza vaccine is available as a nasal spray.

Surveillance

National Technical Committee

This Committee is responsible for monitoring the global Avian Influenza situation and for identifying high-risk areas and populations in the country. It has recommended strategies to prevent the entry of disease into the country, has initiated an evaluation of ongoing animal and human surveillance activities and has facilitated the implementation of the National Influenza Pandemic Preparedness Plan.

The institutions and individuals responsible for Influenza surveillance convene quarterly during the National Technical Committee on Avian/ Pandemic Influenza. During this forum, each shareholder presents information to the other parties and pertinent decisions are reached with expert consensus. The meeting is chaired by the Director General of Health Services, while the Chief

Epidemiologist acts as the secretary. The objectives of the National Influenza Surveillance are to;

- Detect unusual or unexpected viral respiratory outbreaks
- Determine the epidemiologic characteristics of influenza and other viral respiratory diseases
- Monitor influenza viruses and make recommendations for global annual vaccine composition
- Estimate the burden of Influenza-like illness (ILI) and Severe acute respiratory illness (SARI)
- Guide the development of policies and guidelines for influenza prevention and control

National Surveillance

This includes both epidemiological and virological surveillance among humans and animals.

Epidemiological Surveillance

The human National Influenza Surveillance is carried out by the Epidemiology Unit of The Ministry of Health Sri Lanka. It is carried out as sentinel surveillance and has two components; Influenza-like illness (ILI) surveillance (19 sentinel sites) and Severe Acute Respiratory Infections (SARI) surveillance (4 sentinel sites). The ILI case definition is the presence of an “acute respiratory infection with measured fever $\geq 38^{\circ}\text{C}$ and cough with the onset of illness within the last 10 days”. The SARI case definition is the presence of an “acute respiratory infection with measured fever $\geq 38^{\circ}\text{C}$ and cough with the onset of illness within the last 10 days which requires hospitalization”.

Patients visiting the out-patient department of a sentinel hospital are monitored for ILI

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surveillance with the denominator for ILI being the total number attending the OPD/obtained through OPD registration data while those meeting the case definition make up the numerator.

In-ward patients of the sentinel hospitals are monitored for the SARI surveillance with the denominator being the total number admitted to selected (Medical and Paediatric) wards/ obtained through ward midnight statistics and the numerator made up of those meeting the SARI case definition.

These data are entered weekly into a web-based system (FluSys) from the sentinel hospitals and analyzed in a central database at the Epidemiology Unit

Animal influenza surveillance is done by the Department of Animal Production and Health, Peradeniya, Sri Lanka, through testing carcasses and faecal samples of migratory birds as well as serum samples of farmed animals for influenza.

Virological Surveillance

The Medical Research Institute, Borella, functions as the National influenza centre carrying out virological surveillance for influenza among humans. The virology laboratories established in TH Kandy, TH Karapitiya and TH Anuradhapura are also capable of and carry out virological surveillance in the respective regions.

Selected virological samples from Sri Lanka are forwarded to the WHO Collaborative Centre in Melbourne which is one of the seven collaborative centres in the world as part of the WHO GISRS. They accept the samples, analyze the virological information and shared it to explore the viral antigenic characteristics. By this method, the GISRS obtains information on the common circulating influenza virus strains, recommends seasonal influenza vaccine compositions to prepare the influenza vaccines twice a year for the Northern and Southern hemisphere influenza seasons, and supports member states to develop prevention and control strategies and to recognize possible outbreaks and/or pandemics early.

Using the GISRS system, the WHO works to strengthen national, regional and global influenza response capacities including diagnostics, antiviral susceptibility monitoring, disease surveillance and outbreak responses, and to increase vaccine coverage among high-risk groups and prepare for the next influenza pandemic.

Virological Influenza Surveillance among animals is done by the Veterinary Research Institute in Polgolla. They screen the faecal and carcass samples received for influenza to explore the circulating influenza types and for early identification of possible influenza outbreaks among animals.

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Researchgate

Table 1: Selected notifiable diseases reported by Medical Officers of Health 30th- 06th May 2022 (18th Week)

RDHS	Dengue Fever		Dysentery		Encephaliti		Enteric Fever		Food Poi-		Leptospirosis		Typhus		Viral Hep-		Human		Chickenpox		Meningitis		Leishmania-		WRCD		
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	T*	C**	
Colombo	12	2769	0	2	0	2	0	0	0	5	3	39	0	0	0	0	2	0	0	0	12	0	3	0	1	10	99
Gampaha	79	2235	0	4	0	0	0	0	6	1	39	0	0	0	0	3	0	1	0	10	1	7	0	7	5	72	
Kalutara	93	1090	0	4	1	1	0	1	6	8	113	0	2	0	1	1	2	0	0	25	0	10	0	0	3	100	
Kandy	60	716	0	4	0	0	0	0	4	2	28	0	11	1	5	0	0	0	1	22	0	2	0	4	7	96	
Matale	14	169	0	0	0	0	0	0	0	0	1	24	0	2	0	1	0	0	0	8	0	1	0	145	17	100	
NuwareEliya	0	61	1	9	0	0	0	0	0	0	0	19	1	8	0	0	0	0	0	9	0	0	0	0	10	100	
Galle	73	1008	0	3	0	0	0	0	0	0	8	143	1	8	1	2	0	0	1	26	0	9	0	0	8	100	
Hambantota	26	319	0	23	0	0	0	0	0	2	63	0	16	1	2	0	0	0	0	14	1	5	4	182	13	100	
Matara	35	372	0	6	0	0	0	0	0	0	6	64	0	5	0	1	0	0	3	14	1	4	6	113	21	100	
Jaiffna	85	1409	2	12	0	2	0	38	2	19	0	18	6	355	0	4	0	3	5	56	0	4	0	0	54	88	
Kilinochchi	3	58	0	4	0	0	0	0	2	13	1	3	0	7	0	0	0	0	0	3	0	0	0	1	32	100	
Mannar	0	146	0	1	0	0	0	0	0	0	0	11	0	2	0	1	0	0	0	3	0	15	0	0	23	81	
Vavuniya	1	44	0	0	0	1	0	2	0	0	10	0	1	0	0	0	0	0	0	5	0	0	1	1	2	78	
Mullaitivu	0	30	0	2	0	0	0	2	0	3	1	13	0	4	0	0	0	0	0	3	0	0	0	1	23	100	
Batticaloa	49	536	2	41	0	5	0	0	17	0	15	0	0	0	1	0	0	0	5	0	17	0	1	1	31	100	
Ampara	5	61	0	6	0	1	0	0	0	0	3	37	0	1	0	1	0	0	1	26	1	8	1	8	9	100	
Trincomalee	89	686	0	20	0	0	0	1	0	2	0	10	0	3	0	4	0	0	0	11	0	3	0	0	18	92	
Kurunegala	22	1097	0	6	0	1	0	0	1	3	36	0	13	0	0	0	0	0	1	30	1	14	14	193	6	100	
Puttalam	30	905	0	2	0	0	0	0	0	0	7	0	3	0	0	0	0	0	0	3	0	10	0	4	12	92	
Anuradhapur	4	156	1	8	0	0	0	1	0	5	2	85	0	14	0	2	0	1	1	21	1	16	3	189	6	91	
Polonnaruwa	1	48	0	3	0	0	0	0	1	0	46	0	0	0	0	0	0	0	1	5	0	2	3	147	12	88	
Badulla	7	396	0	5	0	0	0	0	5	7	91	1	19	0	48	0	0	0	2	22	0	7	0	7	8	100	
Monaragala	6	126	0	5	0	0	0	4	0	2	6	131	0	11	0	20	0	0	2	25	3	16	12	61	6	100	
Ratnapura	40	820	2	21	0	5	1	2	0	16	20	266	1	8	0	11	0	0	2	30	3	16	7	91	9	95	
Kegalle	43	526	1	5	0	2	0	1	0	4	12	161	0	7	0	2	0	0	2	36	0	15	1	11	6	100	
Kalmune	20	341	0	19	0	0	0	0	0	4	0	7	0	1	0	0	0	0	1	18	0	13	0	0	26	100	
SRI LANKA	90	16124	9	215	1	20	1	52	4	113	86	1479	10	501	3	11	1	7	23	442	12	197	52	1167	13	95	

Source: Weekly Returns of Communicable Diseases (esurveillance.epid.gov.lk). T=Timeliness refers to returns received on or before 06th May, 2022 Total number of reporting units 361 Number of reporting units data provided for the current week: 339 C**=Completeness

Table 2: Vaccine-Preventable Diseases & AFP

30th – 06th May 2022 (18th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2022	Number of cases during same week in 2021	Total number of cases to date in 2022	Total number of cases to date in 2021	Difference between the number of cases to date in 2022 & 2021
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	01	00	00	00	00	00	00	00	00	01	00	32	19	68.4 %
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Mumps	00	00	00	00	00	01	00	00	00	01	01	15	38	- 60.5 %
Measles	00	01	00	00	00	00	00	00	00	01	00	11	08	37.5 %
Rubella	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
CRS**	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Tetanus	00	00	00	00	00	00	00	00	00	00	00	04	02	100 %
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Japanese Encephalitis	00	00	00	00	00	00	00	00	00	00	00	01	00	0 %
Whooping Cough	00	00	00	00	00	00	00	00	00	00	01	01	01	0 %
Tuberculosis	00	09	24	02	02	26	00	05	20	88	130	2534	2260	12.1 %

Key to Table 1 & 2

Provinces: W: Western, C: Central, S: Southern, N: North, E: East, NC: North Central, NW: North Western, U: Uva, Sab: Sabaragamuwa.
RDHS Divisions: CB: Colombo, GM: Gampaha, KL: Kalutara, KD: Kandy, ML: Matale, NE: Nuwara Eliya, GL: Galle, HB: Hambantota, MT: Matara, JF: Jaffna, KN: Killinochchi, MN: Mannar, VA: Vavuniya, MU: Mullaitivu, BT: Batticaloa, AM: Ampara, TR: Trincomalee, KM: Kalmunai, KR: Kurunegala, PU: Puttalam, AP: Anuradhapura, PO: Polonnaruwa, BD: Badulla, MO: Moneragala, RP: Ratnapura, KG: Kegalle.
Data Sources: Weekly Return of Communicable Diseases: Diphtheria, Measles, Tetanus, Neonatal Tetanus, Whooping Cough, Chickenpox, Meningitis, Mumps., Rubella, CRS, Special Surveillance: AFP* (Acute Flaccid Paralysis), Japanese Encephalitis
CRS** =Congenital Rubella Syndrome
NA = Not Available

Covid-19 Prevention & Control

For everyone's health & safety, maintain physical distance, often wash hands, wear a face mask and stay home.

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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