WEEKLY EPIDEMIOLOGICAL REPORT

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Contact tracing in leprosy: Looking beyond the visible (Part I)

This is the first in a series of two articles on contact tracing in leprosy: looking beyond the visible.

The disease and its burden

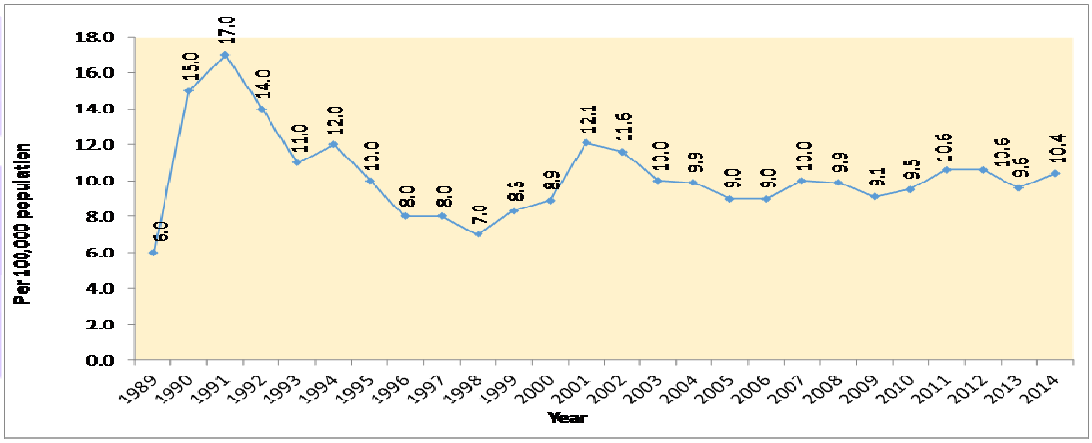
Leprosy is an ancient disease that is old as the human civilization itself. It is an infectious disease transmitted by the infective agent *Mycobacterium leprae*. This organism is an obligatory intracellular pathogen transmitted via the respiratory route. One of the interesting facts about leprosy transmission is that the incubation period is in years compared to many other infective organisms, which is usually in days or weeks. The bacterium produces a board spectrum of illness mainly involving skin, peripheral nerves and nasal mucosa.

Globally there are about 220,000 new cases of leprosy diagnosed every year. The number of new cases diagnosed has remained over 200,000 for the last decade with the availability of free Multi drug therapy (MDT), which is considered as a very successful method of treatment. The South East Asian region contributes nearly 70% to the caseload reported above.

In Sri Lanka, about two thousand new cases were reported every year for the past decade with a new case detection rate for 100,000 population in the range of 9-10 cases (Figure1). The other indictors such as grade-2-disability rate, child rate and, proportion of Multi-bacillary cases among the total cases shows a fluctuating but slight upward trend over the past few years (Figure2). These indicators signify the fact that the disease transmission is still occurring freely, and there is significant number of disabilities due to leprosy.

All these evidence points to the fact that we may need new innovative strategies to control the

Figure 1 – Annual new case detection rate of Sri Lanka for the past 25 years



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transmission of the disease, which has plagued the country for the last few decades.

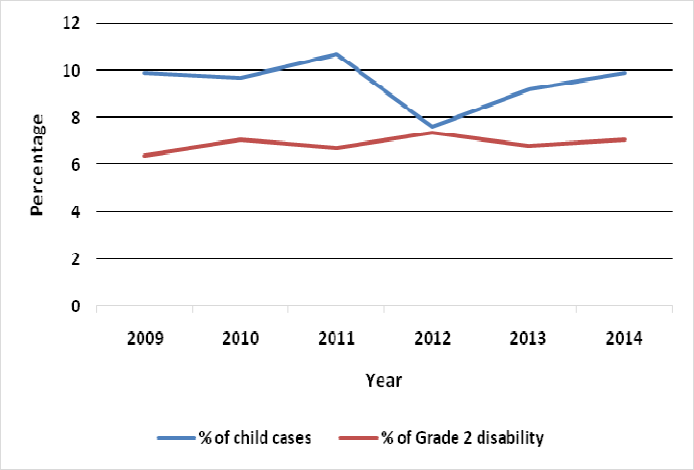

Figure 2 – Percentage of child cases and percentage of grade 2 disability among the new cases in the country

Strategies to control leprosy

Following the adoption of the slogan "eliminate leprosy as a public health problem by the year 2000" by the World Health Assembly, there was an intensified effort to eliminate the disease. However, the elimination target was defined as less than 1 case for a 10,000 population, which at time was thought a figure once achieved would prevent the disease transmission. Although, the elimination target was achieved numerically by many countries the disease transmission continued to occur among populations causing suffering and disability. At that time the key strategies for controlling the disease involved, active case detection through population surveys, free provision of multidrug therapy to all patients, use of simplified and standardized treatment regimens, leprosy control through vertical programmes, and strong support for national governments by the WHO.

Learning from many success and pitfalls of above global strategy, the WHO launched it second global strategy in 2006: "further reduction of disease burden due to leprosy 2006-2015". The key strategies in this global strategy included passive detection of all cases in a community, completion of prescribed treatment using MDT, integration into general health services, sustaining expertise and increase number of skilled leprosy staff, improving participation of leprosy affected persons, and reduce stigma.

With all these strategies, leprosy has become a rare disease in many countries, and following its fully integration into general health services, it has become a neglected tropical disease loosing its priority as well as funding. In light of all these, there is a need of new control strategy to achieve optimal results with limited activity, and minimum resources available.

Complied by

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Table 1 : Water Quality Surveillance
Number of microbiological water samples January 2016

District	MOH areas	No: Expected *	No: Received
Colombo	12	72	75
Gampaha	15	90	79
Kalutara	12	72	80
Kalutara NIHS	2	12	11
Kandy	23	138	NR
Matale	12	72	NR
Nuwara Eliya	13	78	NR
Galle	19	114	NR
Matara	17	102	14
Hambantota	12	72	NR
Jaffna	11	66	8
Kilinochchi	4	24	23
Manner	5	30	17
Vavuniya	4	24	10
Mullatvu	4	24	28
Batticaloa	14	84	23
Ampara	7	42	NR
Trincomalee	11	66	NR
Kurunegala	23	138	98
Puttalam	9	54	45
Anuradhapura	19	114	0
Polonnaruwa	7	42	NR
Badulla	15	90	82
Moneragala	11	66	70
Rathnapura	18	108	108
Kegalle	11	66	26
Kalmunai	13	78	NR

* No of samples expected (6 / MOH area / Month)
NR = Return not received

to be continued....

Table 2: Selected notifiable diseases reported by Medical Officers of Health 13th – 19th Feb 2016 (08th Week)

RDHS Division	Dengue Fever		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Human Rabies		Chickenpox		Meningitis		Leishmaniasis		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	254	3154	1	22	0	0	0	10	0	0	2	22	0	2	1	7	0	0	6	61	0	6	0	0	**69**	**88**
Gampaha	65	1143	0	7	0	4	1	6	0	0	3	31	0	4	0	12	0	0	7	72	3	13	0	2	**47**	**67**
Kalutara	58	541	0	17	1	1	0	6	0	5	10	81	0	3	0	3	0	0	6	47	2	12	0	0	**79**	**100**
Kandy	23	456	3	24	0	7	0	7	1	10	1	50	2	13	1	14	0	0	2	23	1	7	0	4	**74**	**91**
Matale	5	77	0	7	0	1	0	4	0	0	2	30	0	8	0	5	0	0	0	7	2	16	0	10	**62**	**100**
NuwaraEliya	3	59	2	9	0	1	1	9	0	0	0	10	1	9	0	2	0	0	7	28	2	5	0	0	**85**	**92**
Galle	28	380	0	13	0	3	0	1	0	2	7	77	0	22	0	4	0	0	6	45	0	16	0	1	**95**	**100**
Hambantota	13	157	0	10	0	0	0	0	0	0	1	30	3	25	0	9	0	0	9	46	0	1	8	78	**92**	**100**
Matara	31	218	2	12	0	1	0	1	0	26	0	24	1	13	2	8	0	0	3	40	0	0	12	53	**100**	**100**
Jaffna	65	890	4	51	0	1	2	22	0	13	0	7	29	396	0	1	0	0	15	42	0	5	0	0	**83**	**92**
Kilinochchi	4	22	0	7	0	0	0	12	0	0	1	7	1	12	0	0	0	0	0	0	0	3	0	0	**50**	**75**
Mannar	6	58	0	2	0	3	0	6	0	1	0	7	2	26	0	0	0	0	0	1	0	0	0	0	**60**	**80**
Vavuniya	8	87	0	2	0	0	0	5	2	6	0	8	1	4	2	2	0	0	0	2	0	0	0	2	**50**	**75**
Mullaitivu	1	39	0	4	0	0	1	4	0	0	0	8	1	4	0	0	0	0	0	1	0	1	0	3	**80**	**80**
Batticaloa	17	170	5	65	0	0	0	4	0	1	1	10	0	2	1	4	0	0	2	11	0	3	0	1	**79**	**93**
Ampara	1	42	1	4	0	0	0	0	0	0	0	7	0	0	0	2	0	0	2	7	0	0	0	1	**29**	**43**
Trincomalee	14	144	0	13	0	0	2	5	0	0	0	2	0	4	0	20	0	1	10	35	0	2	1	1	**83**	**92**
Kurunegala	35	360	4	37	1	4	0	0	0	5	3	35	0	4	2	5	0	1	8	59	1	8	3	18	**67**	**93**
Puttalam	17	295	2	9	0	0	0	3	0	0	5	16	0	36	0	0	0	0	0	15	2	9	0	0	**62**	**69**
Anuradhapura	3	128	2	18	0	1	0	0	0	18	1	104	1	9	0	7	0	0	1	36	0	7	3	38	**42**	**95**
Polonnaruwa	1	90	0	9	1	1	0	6	2	2	1	38	0	1	0	1	0	0	0	14	1	3	0	28	**57**	**100**
Badulla	12	112	2	20	1	4	0	1	1	2	3	33	4	17	1	25	0	0	2	27	2	36	0	0	**59**	**88**
Monaragala	3	74	0	8	0	1	0	1	0	0	0	70	1	16	2	27	1	1	0	15	1	10	0	5	**64**	**82**
Ratnapura	25	274	3	31	0	8	2	8	3	8	3	53	0	7	1	25	0	0	3	31	2	26	0	0	**56**	**89**
Kegalle	34	300	1	6	2	5	0	11	0	7	2	47	0	3	1	5	0	0	13	75	0	4	0	0	**82**	**91**
Kalmune	14	193	1	18	0	0	0	3	1	4	0	3	0	0	0	0	0	4	0	11	1	5	0	0	**54**	**92**
SRILANKA	**740**	**9463**	**33**	**425**	**6**	**46**	**9**	**135**	**10**	**110**	**46**	**810**	**47**	**640**	**14**	**188**	**1**	**7**	**102**	**751**	**20**	**198**	**27**	**245**	**69**	**89**

Source: Weekly Returns of Communicable Diseases (WRCD).

*T=Timeliness refers to returns received on or before 19th February, 2016 Total number of reporting units 339 Number of reporting units data provided for the current week: 306 C**-Completeness

A = Cases reported during the current week. **B** = Cumulative cases for the year.

Table 3: Vaccine-Preventable Diseases & AFP

13th – 19th Feb 2016 (08th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2016	Number of cases during same week in 2015	Total number of cases to date in 2016	Total number of cases to date in 2015	Difference between the number of cases to date in 20156& 2015
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	00	00	00	00	00	00	01	00	01	01	08	10	-20%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Mumps	01	01	00	01	00	00	00	00	01	04	06	66	59	+12.1%
Measles	01	00	02	00	00	02	01	00	00	06	25	119	225	-0.4%
Rubella	00	00	00	00	00	00	00	00	00	00	01	04	04	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	00	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	00	03	-100%
Whooping Cough	01	00	00	00	00	00	00	00	01	02	02	17	15	+13.3%
Tuberculosis	107	22	22	06	10	16	16	14	15	228	207	1453	1448	+0.3%

Key to Table 2& 3

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

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

Influenza Surveillance in Sentinel Hospitals - ILI & SARI								
Month	Human					Animal		
	No Received	ILI	SARI	Infl A	Infl B	Pooled samples	Serum Samples	Positives
January	5599	38	11	04	0	1221	272	0

Source: Medical Research Institute & Veterinary Research Institute

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