WEEKLY EPIDEMIOLOGICAL REPORT

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WER SRI LANKA - 2015

Maternal Death Surveillance and Response (MDSR) – Outcomes of 2014 (Part 1)

This is the first in a series of three articles on Maternal Death Surveillance and Response.

Sri Lanka achieved remarkable success in reducing maternal mortality over the years.

When the country gained independence in 1948, nearly 1700 women per 100,000 live births died due to a cause related to pregnancy.

Various interventions, both health and non-health, have reduced this number to 32.03 per 100,000 live births in 2014. Factors such as socio-economic development, free education and related high literacy rate of population, free health services, better transport, control of communicable diseases, well organized primary health care systems etc have been attributed to this success.

Currently, Sri Lanka is on par with high-income countries with low levels of maternal deaths and the contribution made by the National Family Health Programme in this regard is substantial. Following graphs demonstrate the gradual reduction of maternal mortality ratio (MMR) over the years, based on data from Registrar General's Department (1911-1995), when there was no organized surveillance system (Figure 1) and from Family Health Bureau (FHB) data (1995—2014) after the systematic maternal death surveillance system was established (Figure 2). The national MMR for the year 2014 was 32.03 per 100,000 live births. The denominator is the live births reported from the Registrar General's Department.

Figure 1 : Maternal Mortality Ratios 1911 —1995

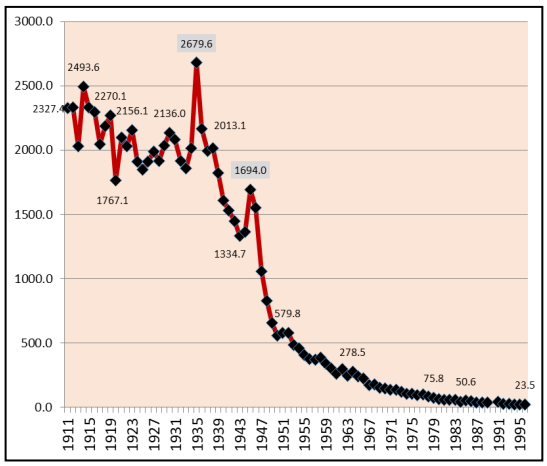
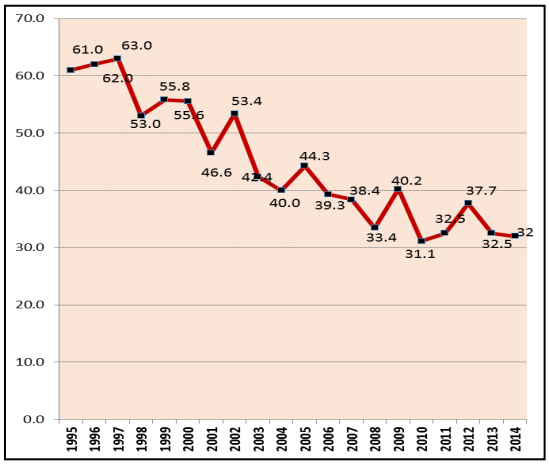


Figure 2 : Maternal Mortality Ratio 1995 - 2014



Maternal deaths were reported directly to the FHB since 1985, and by 1995 a methodical process was established to capture all maternal deaths in the country. FHB has been recognized

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as the official source of maternal mortality statistics thereafter.

The present surveillance system identifies almost all maternal deaths in the country. Each and every probable maternal death occurring throughout the country is notified to the Family Health Bureau within 24 hours of occurrence which is reviewed at field, institutional, district and national levels subsequently. At the National Maternal Mortality Reviews conducted at district level by Family Health Bureau in collaboration with technical experts from the Sri Lanka College of Obstetricians and Gynaecologists and other relevant professional bodies, the cause of death is confirmed and the associated factors that may have contributed to the death are discussed to prevent such deaths in the future. This provides a platform to learn lessons from the mistakes and translate the findings into action both at national and sub-national levels.

The system is continuously reshaped to maintain the timeliness, data quality and coverage. FHB received 99% of field (H 677a) and institutional (H 677) maternal death investigation reports in 2014. Data quality of reports improved gradually with the introduction of a mechanism to obtain data gaps in a structured format to MOOH and hospital heads.

Figure 3:
Maternal Death Surveillance and Response (MDSR) system

Conducting post-mortems on maternal deaths was made mandatory with the issue the circular by Secretary to the Ministry of Justice and Law Reforms to all coroners in 2009. The process was further streamlined in the health sector by instructions given by Director (Maternal and Child Health) in 2010. The dissemination of the above circular to all relevant personnel and close follow up by FHB, improved the coverage of conducting of post- mortems on maternal deaths from 94% (2011) to 95% in the year 2014. The national maternal mortality review meetings were restructured with presentation of case scenarios by FHB to initiate the discussion on the index maternal death leading to more in-depth discussion. A maternal death case scenario is a comprehensive account on maternal death developed for each and every notified death based on field (H 677a) and institutional (H 677) maternal death investigation reports, bed head tickets, other clinical records, pregnancy records, family planning and other field records and post-mortem reports.

The figure 3 outlines the present MDSR system of Sri Lanka.

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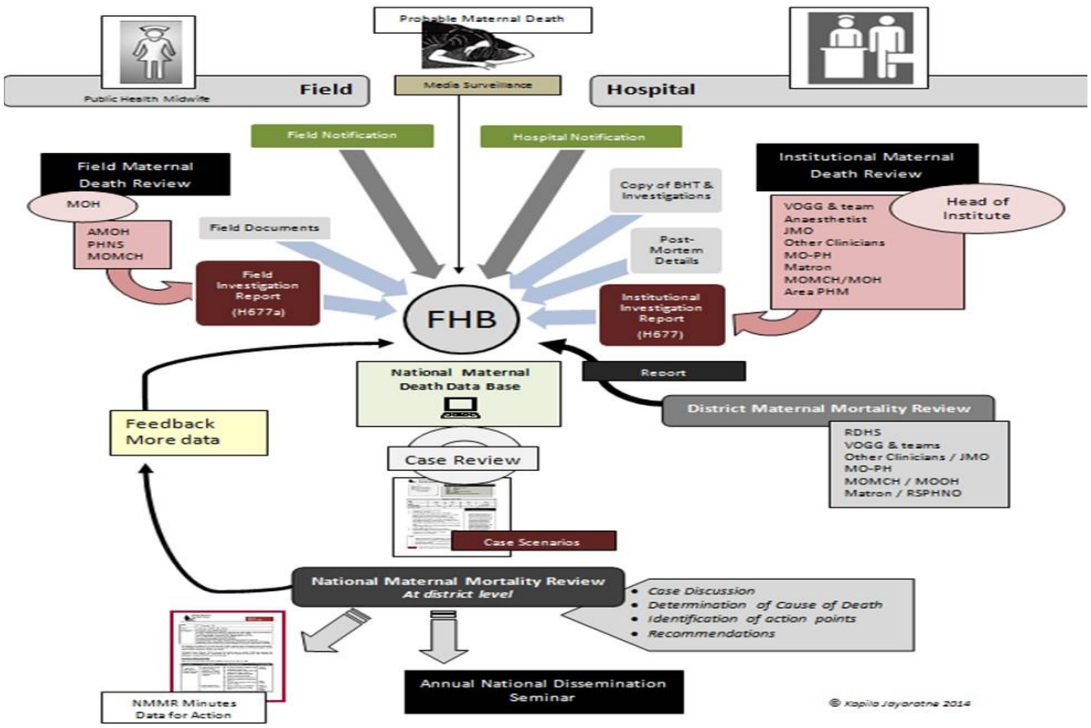

To be continued....

Table 1: Selected notifiable diseases reported by Medical Officers of Health 31st – 06th Nov 2015 (45th 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	178	7704	0	168	0	14	1	92	1	117	4	277	0	10	0	39	0	4	3	423	1	41	0	0	**56**	**44**
Gampaha	70	3304	2	80	0	12	1	31	5	32	17	375	0	10	3	128	0	0	10	268	2	30	0	2	**80**	**20**
Kalutara	32	1215	8	100	0	8	3	53	0	152	9	339	0	5	2	35	0	3	4	257	1	54	0	0	**69**	**31**
Kandy	25	1059	7	128	0	6	1	30	0	51	3	107	1	66	1	131	0	0	1	209	1	23	1	16	**78**	**22**
Matale	2	361	0	37	0	1	1	10	0	5	0	53	0	8	0	29	0	0	0	27	3	31	1	19	**31**	**69**
NuwaraEliya	1	138	19	303	0	3	0	29	0	10	1	38	1	69	2	60	0	0	1	119	0	50	0	2	**85**	**15**
Galle	14	761	2	78	0	3	0	9	0	25	6	238	2	98	0	11	0	0	3	240	3	54	0	2	**45**	**55**
Hambantota	9	300	6	48	0	2	0	8	0	31	7	110	4	57	0	42	0	0	7	110	1	12	4	278	**75**	**25**
Matara	8	382	1	62	0	6	0	4	1	45	6	234	1	44	0	47	1	1	3	219	1	18	2	136	**100**	**0**
Jaffna	32	1395	36	922	0	9	0	165	1	87	0	15	4	567	0	13	0	2	6	201	2	19	0	0	**92**	**8**
Kilinochchi	0	75	1	91	0	1	0	17	0	31	0	1	0	26	0	0	0	1	0	19	0	1	0	0	**50**	**50**
Mannar	3	84	0	16	0	1	0	5	0	3	0	8	0	21	0	0	0	0	0	7	0	1	0	1	**60**	**40**
Vavuniya	2	124	1	22	0	6	1	74	1	28	0	17	0	13	0	2	0	2	0	40	0	18	0	7	**75**	**25**
Mullaitivu	0	117	1	31	0	2	0	14	0	16	0	6	0	9	0	4	0	1	0	5	0	4	1	7	**60**	**40**
Batticaloa	1	1358	1	295	0	7	0	26	0	181	1	14	0	4	0	12	0	1	1	57	0	17	0	0	**43**	**57**
Ampara	0	49	0	41	0	1	0	2	0	16	0	13	0	2	0	11	0	0	0	185	0	5	0	3	**0**	**100**
Trincomalee	3	527	1	110	0	0	1	34	12	48	0	15	0	26	1	61	0	1	3	94	0	9	1	6	**83**	**17**
Kurunegala	9	1055	7	178	0	7	0	7	0	27	6	236	0	29	1	42	0	6	8	371	0	35	0	126	**56**	**44**
Puttalam	3	585	0	87	0	5	0	9	0	9	0	41	0	19	0	3	0	0	2	57	0	29	0	3	**23**	**77**
Anuradhapura	3	332	6	139	0	5	0	4	0	66	2	198	0	21	1	21	0	1	0	168	0	31	0	317	**42**	**58**
Polonnaruwa	4	201	2	49	0	4	0	14	0	12	2	77	0	1	2	12	0	0	2	126	0	24	1	113	**43**	**57**
Badulla	2	465	1	215	0	10	0	9	0	27	4	70	0	129	0	206	0	3	0	190	1	84	0	7	**47**	**53**
Monaragala	2	172	2	111	0	4	0	16	0	5	0	140	1	82	6	442	0	1	1	93	0	30	0	37	**55**	**45**
Ratnapura	4	864	0	263	1	17	0	42	0	8	3	337	0	65	3	277	0	1	1	172	0	51	0	17	**33**	**67**
Kegalle	10	541	2	64	0	12	4	81	0	18	4	290	0	51	1	80	0	0	2	214	1	56	0	0	**64**	**36**
Kalmunei	0	462	2	117	0	1	0	1	1	57	0	8	0	0	0	7	0	0	0	104	0	9	0	0	**23**	**77**
SRILANKA	**417**	**23630**	**108**	**3755**	**1**	**147**	**13**	**786**	**22**	**1107**	**75**	**3247**	**14**	**1432**	**23**	**1715**	**1**	**28**	**58**	**3975**	**17**	**736**	**11**	**1099**	**57**	**43**

Source: Weekly Returns of Communicable Diseases (WRCD).

*T=Timeliness refers to returns received on or before 06th November , 2015 Total number of reporting units 337 Number of reporting units data provided for the current week: 195 **C****-Completeness

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

Table 2: Vaccine-Preventable Diseases & AFP

31st – 06th Nov 2015 (45th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2015	Number of cases during same week in 2014	Total number of cases to date in 2015	Total number of cases to date in 2014	Difference between the number of cases to date in 2014& 2015
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	01	00	00	00	00	00	01	00	00	02	00	63	72	-13.1%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Mumps	01	00	00	00	00	00	00	00	00	01	06	334	593	-44.1%
Measles	08	02	01	00	02	00	00	01	01	15	28	2426	2932	-17.2%
Rubella	00	00	00	00	00	00	00	00	00	00	00	08	17	-53.1%
CRS**	00	00	00	00	00	00	00	00	00	00	00	00	04	-100%
Tetanus	00	01	00	00	00	00	00	00	00	01	00	16	12	+33.3%
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	10	22	-55.1%
Whooping Cough	00	00	00	00	00	00	00	00	00	00	02	92	69	+33.3%
Tuberculosis	69	18	25	19	12	00	15	00	05	163	217	8502	8516	-0.1%

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

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

Dengue Prevention and Control Health Messages

Look for plants such as bamboo, bohemia, rampe and banana in your surroundings and maintain them

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Comments and contributions for publication in the WER Sri Lanka are welcome. However, the editor reserves the right to accept or reject items for publication. All correspondence should be mailed to The Editor, WER Sri Lanka, Epidemiological Unit, P.O. Box 1567, Colombo or sent by E-mail to **chepid@sltnet.lk. Prior approval should be obtained from the Epidemiology Unit before publishing data in this publication**

ON STATE SERVICE

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