WEEKLY EPIDEMIOLOGICAL REPORT

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

231, de Saram Place, Colombo 01000, Sri Lanka
Tele: + 94 11 2695112, Fax: +94 11 2696583, E mail: epidunit@sltnet.lk
Epidemiologist: +94 11 2681548, E mail: chepid@sltnet.lk
Web: http://www.epid.gov.lk

Vol. 44 No. 19 **06th– 12th May 2017**

VER SRI LANKA 2017

Can we Afford to be ill ?

. **Catastrophic expenditure and its associated factors**

Health is a prime need of a population and any government is bound to provide optimal and equal health care to all the citizens in the country. Further, the cost of accessing health care should not be an unbearable burden to the households.

High household cost does not necessarily means that it is a burden to the household. When a household must reduce its basic expenditure over time to cope up with health cost, it is considered a burden to that particular household and termed as the catastrophic expenditure. Various studies used cutoffs ranging from 5% to 20% of expenditure on health out of the total income as catastrophic health expenditure. Some of the researchers have defined catastrophic expenditure based on the household's capacity to pay as well. Further, need for borrowing money or selling possessions to spend for health care too have been used as indirect measures of financial burden due to health care.

Out-of-pocket cost of treatment is significant issue face by people of many countries and studies have shown that, even the patients who have insurance coverage are liable for financial distress. A large scale multi country analysis across 59 countries revealed that catastrophic health expenditure is not rare. The study defined catastrophic health expenditure as spending of more than 40% of the income remaining after subsistence needs have been met on health and it was found that catastrophic health expenditure ranged between 0.01% to 10.5% across different countries.

Financial burden compel patients to borrow money, deplete savings and the worst is it leads to non adherence to prescribed treatments. Protecting people from out-of-pocket expenditure has been identified as one main objective of any health system, for which understanding the population level characteristics which make people more vulnerable to catastrophic health expenditure is essential.

Several studies have found out different associated factors for experiencing catastrophic expenditure. For example two studies done in United Stated of America have shown that households which are headed by older people, people with disabilities, the unemployed, poor people and those who lacks insurance coverage were more likely to experience catastrophic expenditure. Another study in Thailand has found that poor people were more vulnerable to catastrophic health expenditure and one contributory factor for it was lack of health care insurance.
In contrast to above individual or household level factors associated with catastrophic health expenditure, high Out-of-Pocket Expenditure along with the low capacity to pay (poverty) and lack

Contents	*Page*

of pre-payment or health insurance have been identified as key preconditions for catastrophic health expenditure in country level. Even though these factors could be used to understand the prevalence of catastrophic expenditure in a country, the role of the insurance coverage has to be interpreted with caution in Sri Lankan setting where we enjoy free health services by the network of government hospitals.

Sri Lankan situation

Poverty head count index and percentage of poor household are two indicators commonly used to quantify the poverty in a country. Poverty head count index is the percentage of population below the poverty line (Real total expenditure of Rs. 1,423 per person per month is considered as the Official Poverty Line for Sri Lanka) and the percentage of poor households is the percentage households which consist with members whose per capita expenditure is lower than the value of official poverty line out of total households.

According to the latest household income and expenditure survey (2012/2013) poverty head count index was 6.7% and percentage of poor households was 5.3% in Sri Lanka. Further, the poverty head count index and percentage of poor households were 10.9% and 8.8% respectively in estate sector of Sri Lanka. Remarkable inter-district disparities were observable in relation to both above indices. Mullativu district showed the highest poverty head count index (28.8%) and percentage of poor households (24.7%) in contrast to Colombo district where the poverty head count index and percentage of poor households were 1.4% and 1.1% respectively.

Other than poverty which determines the household's capacity to pay, the total cost incurred by the household (Total household cost) is the other most important risk factor for experiencing a catastrophic health expenditure. Total household cost includes direct cost and indirect cost incurred by the households. Indirect cost is due to the missed opportunities as a result of the disease. It includes both, loss of income as the patient can not involve in income generation and the loss of income of the other household members due to care giving.

Social cost includes both the total household cost and the cost borne by the provider. Under the free health system, the provider is the government and in situations where the cost was borne by the insurance companies, it is considered as the provider. According to an assessment of economic burden of four common diseases in Sri Lanka, it has been revealed that a significant share of the social cost was borne by the receiver as the household cost (ranged between 49% to 98%) creating a favorable situation for catastrophic expenditure.

Though recent data are lacking, the above mentioned multi-country analysis which was based on data from the household income and expenditure survey (1995/1996) reveled that 1.25%(1.13%-1.37%) experience catastrophic health expenditure in Sri Lanka. Further, the prevalence of catastrophic expenditure among patients with different diseases were much higher. For example the prevalence of catastrophic expenditure was 65.5%(95% CI=50.0%- 74.0%) among breast cancer patients in the initial treatment year. Above findings suggest that more targeted interventions needed to be taken to prevent catastrophic health expenditure and subsequent impoverishment in Sri Lanka.

References

Bestvina, C. M., Zullig, L. L., & Yousuf Zafar, S. (2014). The implications of out-of-pocket cost of cancer treatment in the USA: a critical appraisal of the literature. *Future Oncology*, *10*(14), 2189–2199. http://doi.org/10.2217/fon.14.130

Department of Census and Statistics of Sri Lanka. (2015). *Household Income and Expenditure Survey 2012/13 Final Report*. Retrieved from http://www.statistics.gov.lk/HIES/HIES201213BuletinEng.pdf

Department of Census and Statistics. (2009). Sri Lanka Demographic and Health Survey . Colombo, Sri Lanka.

De Silva,A.,Samarage,S.M.,Somanathan,A.(2007). *Review of costing studies conducted in Sri Lanka 1990-2004*.The National Commission on Microeconomics and Health, Ministry of Health Care and Nutrition.Colombo. ISBN 955-9093-20-7

Xu, K., Evans, D. B., Kawabata, K., Zeramdini, R., Klavus, J., & Murray, C. J. L. (2003). Household catastrophic health expenditure : a multicountry analysis, *362*, 111–117.

Complied by :

Dr. P.J.Arumapperuma

Senior Registrar in Community Medicine

Epidemiology Unit

Ministry of Health

Table 1: Selected notifiable diseases reported by Medical Officers of Health 29th – 05th May 2017 (18th Week)

RDHS Division	Dengue Fever		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Human Rabies		Chickenpox		Meningitis		Leishmani-asis		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	777	10448	0	36	0	1	0	16	0	6	1	38	0	1	0	6	0	0	2	158	1	14	0	1	**56**	**88**
Gampaha	953	7617	0	15	0	11	0	12	0	8	0	26	0	8	0	7	0	1	0	129	0	15	0	4	**7**	**40**
Kalutara	242	2846	1	22	0	3	0	4	0	18	1	107	0	3	0	2	0	0	1	243	1	58	0	0	**29**	**100**
Kandy	162	1432	3	37	0	4	0	4	0	0	1	20	2	62	0	8	0	1	6	129	0	17	2	6	**65**	**96**
Matale	15	512	0	8	0	0	0	0	0	0	0	20	1	2	0	4	0	0	0	18	0	24	0	2	**31**	**85**
NuwaraEliya	7	168	0	11	0	2	0	10	0	0	0	17	1	82	0	7	0	0	2	95	0	19	0	0	**38**	**77**
Galle	88	2216	1	20	0	5	0	5	0	9	1	84	0	21	0	0	0	1	6	144	3	27	0	0	**45**	**80**
Hambantota	65	1263	0	14	0	5	0	7	0	15	0	19	0	23	0	6	0	1	2	101	0	10	0	143	**33**	**100**
Matara	104	1608	1	17	0	6	0	0	0	2	2	41	0	12	0	3	0	1	5	86	0	4	1	49	**76**	**94**
Jaffna	79	2544	3	104	1	9	0	19	1	37	0	22	0	342	0	4	0	0	3	143	1	21	0	0	**93**	**100**
Kilinochchi	6	226	0	8	0	0	0	4	0	0	0	2	0	9	0	2	0	0	0	0	0	2	0	3	**25**	**50**
Mannar	22	415	0	4	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0	6	0	0	0	0	**40**	**80**
Vavuniya	18	378	1	8	0	0	0	12	0	2	0	15	0	5	0	1	0	0	0	17	0	0	0	7	**25**	**75**
Mullaitivu	8	114	0	5	0	0	0	3	0	1	0	8	1	4	0	1	0	1	1	7	0	5	0	2	**60**	**100**
Batticaloa	229	2921	1	54	0	8	0	10	1	7	0	10	0	0	0	4	0	0	1	87	0	15	0	1	**21**	**79**
Ampara	19	252	0	9	0	2	0	1	0	0	0	7	0	1	0	3	0	0	1	80	1	14	0	2	**43**	**71**
Trincomalee	54	4152	0	8	0	1	0	3	0	3	0	8	0	7	0	13	0	0	3	61	0	15	0	1	**38**	**69**
Kurunegala	240	2158	0	25	0	2	0	0	0	2	0	35	0	20	1	11	0	1	4	265	0	19	1	51	**34**	**90**
Puttalam	143	1001	1	20	0	2	0	2	0	0	0	6	0	10	0	1	0	0	0	85	1	16	0	2	**21**	**71**
Anuradhapur	67	828	1	15	0	1	0	1	0	5	1	31	0	10	0	7	0	0	4	177	0	21	0	116	**21**	**68**
Polonnaruwa	43	1486	1	9	0	4	0	5	0	0	1	20	0	3	0	3	0	0	2	108	0	7	4	54	**57**	**71**
Badulla	54	442	0	39	0	5	0	6	0	1	1	36	1	30	2	23	0	1	10	137	0	69	0	9	**47**	**88**
Monaragala	63	725	0	22	0	3	0	0	0	2	0	47	1	62	0	11	0	0	5	43	1	21	0	4	**73**	**91**
Ratnapura	26	458	1	79	3	54	0	4	0	4	10	200	0	16	2	30	0	0	5	159	6	91	0	0	**44**	**89**
Kegalle	190	2015	0	24	0	5	0	3	0	14	0	21	0	38	0	8	0	0	1	107	0	35	0	4	**45**	**91**
Kalmune	133	1282	0	20	0	4	0	1	0	275	0	4	0	0	0	0	0	0	2	98	0	7	0	0	**23**	**69**
SRILANKA	**3825**	**49507**	**15**	**633**	**4**	**137**	**0**	**133**	**2**	**411**	**19**	**844**	**7**	**773**	**5**	**165**	**0**	**8**	**66**	**2683**	**15**	**546**	**8**	**461**	**43**	**83**

Source: Weekly Returns of Communicable Diseases (WRCD).

•**T=**Timeliness refers to returns received on or before 05th May , 2017 Total number of reporting units 337 Number of reporting units data provided for the current week: 288**C****-Completeness

Table 2: Vaccine-Preventable Diseases & AFP

29th – 05th May 2017 (18th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2017	Number of cases during same week in 2016	Total number of cases to date in 2017	Total number of cases to date in 2016	Difference between the number of cases to date in 2017 & 2016
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	01	00	00	00	01	00	00	00	02	02	31	19	63.1%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Mumps	00	00	01	01	00	00	00	00	00	02	11	112	150	- 25.3%
Measles	00	01	00	00	00	00	00	00	00	01	08	109	243	- 55.1%
Rubella	00	00	00	00	00	00	00	00	00	00	00	06	06	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	08	03	166.6%
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	21	00	0%
Whooping Cough	00	00	00	00	00	00	00	00	00	00	02	05	27	- 81.5%
Tuberculosis	61	26	17	04	05	11	00	02	00	126	204	2741	3175	- 13.7%

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

Dengue Prevention and Control Health Messages

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

PRINTING OF THIS PUBLICATION IS FUNDED BY THE WORLD HEALTH ORGANIZATION (WHO).

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

Dr. P. PALIHAWADANA
CHIEF EPIDEMIOLOGIST
EPIDEMIOLOGY UNIT
231, DE SARAM PLACE
COLOMBO 10