World Health Day 2016– Beat Diabetes

The world health day falls on 7th of April every year and this year it is focused on Diabetes. This year's theme for the day is "Beat Diabetes".

There are several reasons why this year's World Health Day is focused on diabetes. Most importantly out of all the reasons, the diabetic epidemic is rapidly increasing in many countries especially in law and middle income countries. Another reason is that most of these cases of diabetes are easily preventable with simple lifestyle modifications like eating a healthy diet, engaging in regular physical activities, maintaining normal body weight etc. on the other hand, diabetes can be effectively treated to control disease severity and to prevent complications. Therefore, increasing access to diagnosis, self-management education and affordable treatment are vital components in WHO' s response towards diabetes. Apart from that, prevention and treatment of diabetes is vital to achieve the global sustainable development goal 3 which is aimed at reducing premature mortality from Non Communicable Diseases by one third by 2030.

The main goal of the World Health Day 2016 is to scale up prevention, strengthen care and enhance surveillance.

To mark the celebration of the World Health Day 2016, this week's Weekly Epidemiological Report is focused on Diabetes

Introduction

Diabetes is a major health concern in today's context where in 2014, 9% of adults more than 18 years of age had diabetes. In 2012, it was responsible for 1.5 million deaths.

Diabetes occur either due to Insulin deficiency or Insulin resistance where body cannot use Insulin effectively. Longstanding diabetes has devastating effects on the body especially on nerves and blood vessels.

There are several types of disease entities in Diabetes. Type 1 diabetes occurs due to deficiency of Insulin in the body. This is also known as Insulin Dependent Diabetes, Juvenile or childhood onset. It usually present as polyuria, polydipsia, weight loss, vision changes and fatigue. Type 1 diabetes is not preventable according to current knowledge and it is treated by administration of Insulin.

Type 2 diabetes which is the commoner one , (90% of all cases) occurs due to Insulin resistance and it is usually preventable by lifestyle modifications. It is treated with either oral anti diabetic drugs, Insulin or combination of the two. Although it was commonly seen in adults, now it is frequently occurring in children also.

Gestational diabetes is any blood sugar impairment occurring during pregnancy. If not controlled properly, it can affect both the mother and the foetus. This is diagnosed mostly through screening and women with gestational diabetes are at increased risk of developing type 2 diabetes in the future.

Impaired Glucose Tolerance and Impaired Fasting Glycaemia are intermediate conditions be-

tween normalcy and disease state. Although they are at high risk of developing type 2 diabetes the risk can be reduced with lifestyle modification.

Common consequences of diabetes

Diabetes can affect many systems in the body, mainly heart, blood vessels, nerves, kidneys, eyes etc. Diabetes is a major modifiable risk factor for Ischaemic Heart Disease and stroke. Longstanding diabetes can affect many types of nerves in the body. This neuropathy in the feet can lead to chronic non healing ulcers that can ultimately end up with limb amputations. Long term damage to small blood vessels in the retina can cause retinopathy and it leads to vision impairment. 1% of global diabetes can be attributed to diabetes. Another major complication of diabetes is nephropathy leading to chronic kidney disease.

Prevention

Simple lifestyle modifications like,

- Eating a healthy diet, which has 3 to 5 servings of fruits and vegetables per day
- Reducing sugar and saturated fat intake
- Maintaining healthy body weight
- Being physically active– at least 30 minutes of regular, moderate intensity activity, at least 5 days per week.
- Avoiding tobacco use

can prevent or delay the onset of type 2 diabetes.

Diagnosis and treatment

Diagnosis is established by blood glucose testing

Cost effective interventions in treating diabetes include, moderate blood glucose control, blood pressure control, foot care, screening and treatment for retinopathy, blood lipid control, screening for early signs of diabetes related kidney disease etc.

These measures should be supported by life style modifications like weight reduction, healthy diet, adequate physical activity etc.

WHO response

In order to reduce the burden of diabetes, WHO encourage and support measures for the surveillance, prevention and control of diabetes and its complications especially in law and middle income countries. For this purpose WHO,

- Provides scientific guidelines for diabetes prevention
- Develops norms and standards for diabetes diagnosis and care
- Builds awareness on the global epidemic of diabetes. (celebration of world diabetic day on November 14)
- Conducts surveillance on diabetes and its risk factors

Sources

World Health Day 2016, available at *http://www.who.int/campaigns/world-health-day/2016/event/en/*

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Table 1 : Water Quality Surveillance
Number of microbiological water samples February 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

Table 1: Selected notifiable diseases reported by Medical Officers of Health   12th – 18th March 2016 (12th Week)

RDHS Division	Dengue Fever A	Dengue Fever B	Dysentery A	Dysentery B	Encephalitis A	Encephalitis B	Enteric Fever A	Enteric Fever B	Food Poisoning A	Food Poisoning B	Leptospirosis A	Leptospirosis B	Typhus Fever A	Typhus Fever B	Viral Hepatitis A	Viral Hepatitis B	Human Rabies A	Human Rabies B	Chickenpox A	Chickenpox B	Meningitis A	Meningitis B	Leishmaniasis A	Leishmaniasis B	WRCD T*	WRCD C**
Colombo	186	4213	3	35	0	0	1	15	4	5	7	48	0	2	1	12	0	0	5	124	0	11	0	0	63	94
Gampaha	27	1534	1	13	0	4	0	9	1	2	4	63	0	5	0	13	0	0	2	127	0	17	0	2	47	87
Kalutara	45	753	2	22	0	2	0	12	0	7	15	148	0	4	0	9	0	0	7	75	2	19	0	0	71	100
Kandy	6	595	1	30	0	8	0	8	0	14	2	55	1	22	3	25	0	0	2	36	0	12	0	4	65	91
Matale	2	111	0	9	0	1	0	4	1	2	0	38	1	10	0	8	0	0	0	10	6	25	0	12	38	92
NuwaraEliya	7	81	0	12	0	1	0	16	0	8	1	13	1	13	2	6	0	0	1	40	0	9	0	0	54	85
Galle	16	480	1	17	0	3	0	1	0	2	3	93	0	30	0	4	0	0	2	74	0	17	0	1	60	100
Hambantota	5	212	0	12	0	0	0	0	0	35	4	46	1	29	0	11	0	0	4	73	0	4	5	107	67	100
Matara	12	269	1	17	0	1	1	4	0	30	7	47	0	18	1	11	0	0	3	62	0	2	7	82	94	100
Jaffna	26	1037	4	68	0	1	3	30	0	14	0	7	10	462	0	4	0	0	11	80	1	9	1	1	92	100
Kilinochchi	0	32	0	14	0	0	0	15	0	0	0	7	0	15	0	0	0	0	0	2	0	3	0	0	25	75
Mannar	0	62	1	3	0	4	0	8	0	1	0	8	0	33	0	0	0	0	0	1	0	1	0	0	60	100
Vavuniya	0	100	0	2	0	0	0	5	0	8	0	9	0	6	0	2	0	0	0	9	0	0	0	2	75	100
Mullaitivu	3	59	0	6	0	0	0	11	0	4	0	8	0	4	0	0	0	0	0	1	0	2	0	4	80	80
Batticaloa	4	211	1	78	0	0	0	7	0	83	1	17	0	4	0	4	0	0	0	20	0	3	0	1	29	79
Ampara	0	58	0	4	0	0	0	0	0	2	0	12	0	0	0	4	0	0	0	14	0	0	0	3	0	71
Trincomalee	11	186	0	15	0	0	0	6	0	3	1	3	1	6	1	22	0	1	0	52	0	3	0	1	67	92
Kurunegala	10	467	5	51	0	4	0	1	0	5	0	47	0	6	1	13	0	1	3	81	0	8	0	26	41	86
Puttalam	8	418	3	16	0	0	0	3	0	0	0	21	0	50	0	0	0	0	1	26	0	11	0	0	46	62
Anuradhapura	4	176	0	23	0	1	0	1	0	20	0	127	1	12	0	9	0	0	1	58	0	11	1	57	37	95
Polonnaruwa	4	120	0	9	0	2	0	8	2	5	1	45	0	1	0	2	0	0	3	28	0	5	6	42	71	86
Badulla	9	152	1	25	0	7	0	2	0	2	1	39	1	22	4	38	0	0	2	43	4	62	0	0	41	88
Monaragala	7	104	0	13	0	1	0	2	0	0	4	95	0	35	3	40	0	1	0	19	0	11	1	8	73	100
Ratnapura	30	467	6	62	0	12	0	11	0	14	13	94	0	8	1	52	0	0	3	48	0	39	0	0	67	94
Kegalle	22	399	2	14	0	7	1	14	2	10	2	62	1	6	0	9	0	0	4	108	1	15	0	0	73	100
Kalmune	2	273	0	20	0	2	0	3	0	5	0	5	0	0	0	0	0	4	2	21	0	7	0	0	38	92
SRILANKA	**446**	**12569**	**32**	**590**	**2**	**61**	**6**	**196**	**10**	**281**	**66**	**1157**	**18**	**803**	**17**	**298**	**0**	**7**	**56**	**1232**	**15**	**306**	**21**	**353**	**56**	**91**

Source: **Weekly Returns of Communicable Diseases (WRCD).**

•**T**=Timeliness refers to returns received on or before 18th March, 2016 Total number of reporting units 339 Number of reporting units data provided for the current week: 313 **C****=Completeness

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

Table 2: Vaccine-Preventable Diseases & AFP　　12ᵗʰ ‑ 18ᵗʰ March 2016 (12ᵗʰ 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	00	00	00	03	13	18	-28.1%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Mumps	01	01	00	00	01	00	00	00	00	03	07	96	87	-10.3%
Measles	03	01	03	00	00	02	00	00	02	11	52	181	445	-59.3%
Rubella	00	00	00	00	00	00	00	00	00	00	00	05	04	-25%
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	02	03	-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	02	00	06	-100%
Whooping Cough	00	00	00	00	00	00	00	00	00	00	00	21	23	-9.1%
Tuberculosis	93	40	14	15	13	07	10	11	19	222	327	2118	2305	-8.1%

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

Influenza Surveillance in Sentinel Hospitals - ILI & SARI							
Month	Human					Animal		
	No Received	ILI	SARI	Infl A	Infl B	Pooled samples	Serum Samples	Positives
February	5619	39	30	1	3	1470	570	0

Source: Medical Research Institute & Veterinary Research Institute

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**

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