



WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiological Unit,

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Diabetes Care for Everyone

14th November is the World Diabetic Day. World Diabetes Day promotes awareness that every person with diabetes or at risk of diabetes deserves the best possible quality of education, prevention and care available. This year WHO and its partner on this issue, the International Diabetes Federation (IDF), have selected the theme as "Diabetes Care for Everyone". .

Diabetes is a chronic disease that occurs when the pancreas does not produce enough insulin, or when the body cannot effectively use the insulin it produces. Hyperglycaemia, or raised blood sugar, is a common effect of uncontrolled diabetes and over time leads to serious damage to many of the body's systems, especially the nerves and blood vessels.

There are two basic forms of diabetes: **Type 1:** people with this type of diabetes produce very little or no insulin. **Type 2:** people with this type of diabetes cannot use insulin effectively. Most people with diabetes have type 2. A third type of diabetes, gestational diabetes mellitus (GDM), develops during some cases of pregnancy but usually disappears after pregnancy.

People with type 1 diabetes require daily injections of insulin to survive. People with type 2 diabetes can sometimes manage their condition with lifestyle measures alone, but oral drugs are often required, and less frequently insulin, in order to achieve good metabolic control.

Common symptoms of type 1 diabetes include: excessive thirst; constant hunger; excessive urination; weight loss for no reason; rapid, hard breathing; vision changes; drowsiness or exhaustion. These symptoms may occur suddenly.

People with type 2 diabetes may have similar, but less obvious, symptoms. Many have no symptoms and are only diagnosed after many years of onset. As a consequence, almost half of all people with type 2 diabetes are not aware that they have this life-threatening condition.

A rising global burden: A diabetes epidemic is underway. An estimated 30 million people worldwide had diabetes in 1985. A decade later, the global burden of diabetes was estimated to be 135 million. The latest WHO estimate – for the number of people with diabetes, worldwide, in 2000 – is 171 million. This is likely to increase to at least 366 million by 2030. Two major concerns are that much of this increase in diabetes will occur in developing countries, due to population growth, ageing, unhealthy diets, obesity and sedentary lifestyles, and that there is a growing incidence of Type 2 diabetes – which accounts for about 90% of all cases – at a younger age. In developed countries most people with diabetes are above the age of retirement. In developing countries those most frequently affected are in the middle, productive years of their lives, aged between 35 and 64.

The number of deaths attributed annually to diabetes is around 3.2 million. Diabetes has become one of the major causes of premature illness and death in most countries, mainly through the increased risk of cardiovascular disease (CVD). Diabetes causes about 5% of all deaths globally each year. 80% of people with diabetes live in low and middle income countries. Diabetes deaths are likely to increase by more than 50% in the next 10 years if urgent remedial action is not taken.

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WEEKLY
Sri Lanka - 2007

Diabetes - who is at risk?

- People with a strong family history of diabetes
- Adults and children who are overweight or obese and are physically inactive.
- Certain ethnic groups e.g. those of Asian and African origin.
- Women who develop diabetes during pregnancy

Living a full and healthy life with diabetes :

Studies have shown that many complications of diabetes can be prevented or delayed through effective management. This includes lifestyle measures such as a healthy diet, physical activity, the avoidance of overweight and obesity, and not smoking. Preventative care need not involve costly treatment or medication. Education in good foot care as well as regular inspection is a good example of a low cost method of prevention.

Diabetes therapy is not only about lowering glucose, but also about the overall reduction in the risk factors for diabetic complications, which include the control of blood pressure and blood lipids. This requires lifelong care and management.

In order to prevent or delay complications, people with diabetes may have to modify their lifestyle. People with type 2 diabetes often require oral drugs, and sometimes insulin to control their blood glucose levels. People with type 1 diabetes require insulin to survive. Although insulin has been designated an essential drug by the WHO, it is not yet universally accessible to all those who need it in the majority of countries of the world. Continuous access to insulin remains a major problem in many developing countries especially those in sub-Saharan Africa. In some of these countries people with diabetes die because they cannot get the insulin they need to survive.

Obesity and diabetes :

Obesity is increasing rapidly in both developed and developing countries. This reflects declining levels of physical activity and the rising consumption of diets high in sugars and fats. This trend is also obvious among young people. A generation is entering adulthood with unprecedented levels of obesity. According to World Health Report 2002, about 58% of diabetes globally can be attributed to body mass index (BMI) above 21 kg/m².

Obesity and type 2 diabetes are linked. Weight gain leads to insulin resistance through several mechanisms. Insulin resistance places a greater demand on the pancreas to produce insulin. At the same time, physical inactivity, both a cause and consequence of weight gain, also contributes to insulin resistance. Diabetes occurs when the body's need for insulin outstrips the ability of the pancreas to produce it.

The sheer scale of obesity and diabetes epidemics require response at a population level, as well as by individuals. Ap-

proaches based only on personal education to promote behaviour change are unlikely to succeed in an environment where there are plentiful inducements to engage in opposing behaviour. Personal education must be supported by appropriate changes to broader environment, such as transportation, urban design, advertising and food pricing.

Complications associated with diabetes mellitus

•Cardiovascular disease is responsible for between 50% and 80% of deaths in people with diabetes. Risk factors for heart disease in people with diabetes include high blood pressure, high serum cholesterol, obesity and smoking. Recognition and management of these conditions may delay or prevent heart disease in people with diabetes.

•Diabetic neuropathy is probably the most common complication. Studies suggest that up to 50% of people with diabetes are affected to some degree. Major risk factors of this condition are the level and duration of elevated blood glucose. Neuropathy can lead to sensory loss and damage to the limbs. It is also a major cause of impotence in diabetic men.

•Diabetic retinopathy is a leading cause of blindness and visual disability. Research findings suggest that, after 15 years of diabetes, approximately 2% of people become blind, while about 10% develop severe visual handicap.

•Diabetes is among the leading causes of kidney failure, but its frequency varies between populations and is also related to the severity and duration of the disease.

•Diabetic foot disease, due to changes in blood vessels and nerves, often leads to ulceration and subsequent limb amputation. Diabetes is the most common cause of non-traumatic amputation of the lower limb.

How do we prevent and treat diabetes? :

Primary prevention, healthy diet and regular physical activity, protects susceptible individuals. It has an impact by reducing or delaying both the need for diabetes care and the need to treat diabetes complications. It should be emphasized particularly in the poorest regions of the world where resources are severely limited.

Secondary prevention includes early detection and good treatment. The treatment of high blood pressure and raised blood lipids, as well as the control of blood glucose levels, can substantially reduce the risk of developing complications and slow their progression. Large, population-based studies suggest that even moderate reduction in weight and half an hour of walking each day reduced the incidence of diabetes by more than one half in overweight subjects with mild Impaired Glucose Tolerance (IGT).

Source :

Diabetes Action New Booklet –WHO

www.who.int/diabetes/BOOKLET_HTML/en/index9.htm

3rd - 9th November 2007 (45th Week)

Table 1: Vaccine-preventable Diseases & AFP

Disease	No. of Cases by Province								Number of cases during current week in 2007	Number of cases during same week in 2006	Total number of cases to date in 2007	Total number of cases to date in 2006	Difference between the number of cases to date between 2007 & 2006
	W	C	S	NE	NW	NC	U	Sab					
Acute Flaccid Paralysis	00	00	00	01 VA=1	00	00	00	00	01	02	70	111	-36.9%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00.0%
Measles	00	00	00	00	00	01	00	00	01	01	71	38	+86.8%
Tetanus	00	00	00	00	00	00	00	00	00	00	31	42	-26.2%
Whooping Cough	00	00	00	00	00	01	00	01	02	00	42	69	-39.1%
Tuberculosis	44	00	03	01	00	26	00	00	74	155	8538	8452	+1.0%

Table 2: Diseases under Special Surveillance

3rd - 9th November 2007 (45th Week)

Disease	No. of Cases by Province								Number of cases during current week in 2007	Number of cases during same week in 2006	Total number of cases to date in 2007	Total number of cases to date in 2006	Difference between the number of cases to date between 2007 & 2006
	W	C	S	NE	NW	NC	U	Sab					
DF/DHF*	91	07	12	12	21	08	05	20	176	308	5513	9688	-43.1%
Encephalitis	00	00	00	00	00	01 AP=1	00	00	01	02	173	109	+58.7%
Human Rabies	02 GM=2	00	00	00	00	00	00	00	02	01	55	62	-11.3%

Table 3: Newly Introduced Notifiable Diseases

3rd - 9th November 2007 (45th Week)

Disease	No. of Cases by Province								Number of cases during current week in 2007	Total number of cases to date in 2007
	W	C	S	NE	NW	NC	U	Sab		
Chickenpox	17	04	12	03	05	03	02	04	50	2957
Meningitis	05 GM=3 CB=2	01 ML=1	04 MT=2 GL=1 HB=1	02 TR=2	02 KR=2	00	03 MO=1 BD=2	05 KG=4 RP=1	22	620
Mumps	07	03	02	06	03	02	00	05	27	1906

*DF / DHF refers to Dengue Fever / Dengue Haemorrhagic Fever.

NA= Not Available.

Sources:

Weekly Return of Communicable Diseases:

Diphtheria, Measles, Tetanus, Whooping Cough, Human Rabies, Dengue Haemorrhagic Fever, Japanese Encephalitis, Chickenpox, Meningitis, Mumps.

Special Surveillance:

Acute Flaccid Paralysis.

National Control Program for Tuberculosis and Chest Diseases: Tuberculosis.

Details by districts are given in Table 5.

Provinces: W=Western, C=Central, S=Southern, NE=North & East, NC=North Central, NW=North Western, U=Uva, Sab=Sabaragamuwa.
DPDHS 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.

Table 4: Laboratory Surveillance of Dengue Fever 3rd - 9th November 2007 (45th Week)

Samples	Number tested	Number positive *	Serotypes				
			D ₁	D ₂	D ₃	D ₄	Negative
Number for current week	08	02	00	01	01	00	00
Total number to date in 2007	450	51	01	24	16	00	09

Source: Genetech Molecular Diagnostics & School of Gene Technology, Colombo.

* Not all positives are subjected to serotyping.

Table 5: Selected notifiable diseases reported by Medical Officers of Health
3rd - 9th November 2007 (45th Week)

DPDHS Division	Dengue Fever / DHF*		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Returns Received Timely**
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	%
Colombo	44	1445	01	327	00	10	04	79	00	69	01	125	00	04	00	128	85
Gampaha	30	695	03	299	00	24	01	71	04	55	31	228	00	16	04	188	86
Kalutara	17	340	19	429	00	05	02	44	00	43	10	142	00	01	02	59	100
Kandy	06	362	13	269	00	03	00	58	01	14	03	80	00	72	11	1930	86
Matale	01	92	11	212	00	06	02	27	00	13	07	61	00	05	00	131	92
Nuwara Eliya	00	37	02	222	00	02	01	112	00	368	00	12	00	33	10	531	100
Galle	00	83	02	156	00	11	01	22	00	42	02	88	00	27	01	21	94
Hambantota	04	80	05	177	00	06	00	21	00	19	01	43	01	52	00	23	73
Matara	08	181	01	274	00	08	00	40	00	24	05	234	01	196	01	32	88
Jaffna	11	149	00	161	00	02	02	398	01	13	00	00	02	96	00	23	50
Kilinochchi	00	01	00	01	00	00	00	06	00	00	00	00	00	02	00	04	25
Mannar	00	07	00	25	00	00	02	88	00	00	00	02	00	00	02	24	50
Vavuniya	00	29	03	64	00	04	01	21	02	56	01	03	00	00	00	10	50
Mullaitivu	00	00	01	32	00	08	00	20	00	01	00	00	00	00	00	14	60
Batticaloa	00	76	02	459	00	10	00	21	00	10	00	00	00	22	10	1114	82
Ampara	01	04	02	127	00	00	00	04	00	02	00	03	00	01	00	29	57
Trincomalee	00	56	05	250	00	04	02	29	00	23	00	10	01	17	00	110	67
Kurunegala	12	628	06	447	00	07	02	61	00	33	04	59	00	37	04	91	89
Puttalam	09	158	12	153	00	14	00	80	00	05	00	25	00	07	01	79	89
Anuradhapura	07	194	04	132	01	09	00	22	00	17	00	23	00	18	00	40	68
Polonnaruwa	01	60	06	115	00	03	00	13	00	64	00	21	00	00	00	47	100
Badulla	03	64	08	537	00	05	01	85	01	11	00	46	01	157	05	321	67
Monaragala	02	43	05	303	00	02	02	51	01	32	00	43	01	79	00	44	60
Ratnapura	03	363	09	554	00	19	01	67	00	19	03	69	00	24	01	100	75
Kegalle	17	360	07	262	00	08	02	62	00	08	21	172	01	38	13	231	82
Kalmunai	0	06	01	208	00	03	00	08	00	10	00	01	00	02	02	125	85
SRI LANKA	176	5513	128	6195	01	173	26	1510	10	951	89	1490	08	906	67	5449	79

Source: Weekly Returns of Communicable Diseases (WRCD).

*Dengue Fever / DHF refers to Dengue Fever / Dengue Haemorrhagic Fever.

**Timely refers to returns received on or before 17 November, 2007. Total number of reporting units =290. Number of reporting units data provided for the current week:

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