



# WEEKLY EPIDEMIOLOGICAL REPORT

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## Integrating Prevention into Healthcare

Due to public health successes, populations are ageing and increasingly, people are living with one or more chronic conditions for decades. This places new, long-term demands on health care systems. Not only are chronic conditions projected to be the leading cause of disability throughout the world by the year 2020; if not successfully prevented and managed, they will become the most expensive problems faced by our health care systems. People with diabetes, for example, generate health care costs that are two to three times those without the condition, and in Latin America the costs of lost production due to diabetes are estimated to be five times the direct health care costs. In this respect, chronic conditions pose a threat to all countries from a health and economic standpoint.

Many costly and disabling conditions - cardiovascular diseases, cancer, diabetes and chronic respiratory diseases - are linked by common preventable risk factors. Tobacco use, prolonged, unhealthy nutrition, physical inactivity, and excessive alcohol use are major causes and risk factors for these conditions. Trends in tobacco use will increase in the foreseeable future especially in developing countries. The ongoing nutritional transition expressed through increased consumption of high fat and high salt food products will contribute to the rising burden of heart disease, stroke, obesity and diabetes. Changes in activity patterns as a consequence of the rise of motorised transport, sedentary leisure time activities such as television watching will lead to physical inactivity in all but the poorest populations. Many diseases can be prevented, yet health care systems do not make the best use of their available resources to support this process. All too often, health care workers fail to seize patient interactions as opportunities to inform patients about health promotion and disease prevention strategies.

### Current systems of health care

Many diseases can be prevented, yet health care systems do not make the best use of their

available resources to support this process. All too often, health care workers fail to seize patient interactions as opportunities to inform patients about health promotion and disease prevention strategies.

Most current health care systems are based on responding to acute problems, urgent needs of patients, and pressing concerns. Testing, diagnosing, relieving symptoms, and expecting a cure are hallmarks of contemporary health care. While these functions are appropriate for acute and episodic health problems, a notable disparity occurs when applying this model of care to the prevention and management of chronic conditions. Preventive health care is inherently different from health care for acute problems, and in this regard, current health care systems worldwide fall remarkably short.

Given that many conditions are preventable, every health care interaction should include prevention support. When patients are systematically provided with information and skills to reduce health risks, they are more likely to reduce substance use, to stop using tobacco products, to practice safe sex, to eat healthy foods, and to engage in physical activity. These risk reducing behaviours can dramatically reduce the long-term burden and health care demands of chronic conditions. To promote prevention in health care, awareness raising is crucial to promote a change in thinking and to stimulate the commitment and action of patients and families, health care teams, communities, and policy-makers.

A collaborative management approach at the primary health care level with patients, their families and other health care actors is a must to effectively prevent many major contributors to the burden of disease.

### Essential elements for action

- Support a paradigm shift towards integrated, preventive health care
- Promote financing systems and policies

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that support prevention in health care

- Equip patients with needed information, motivation, and skills in prevention and self-management
- Make prevention an element of every health care interaction

To make prevention a formidable option of providing health care, policy makers need information on factors causing diseases. This will help them to plan out strategies to prevent those factors from causing disease. Following account describe the STEP process of WHO for non communicable disease risk factor surveillance.

#### Surveillance of non-communicable disease risk factors

Quality health information is essential for planning and implementing health policy in all countries. Risk factor data are especially important as predictors of future disease or injury. The World Health Report 2002: Reducing risks, promoting healthy life, identifies **five important risk factors for non-communicable disease** in the top ten leading risks to health. These are **raised blood pressure, raised cholesterol, tobacco use, alcohol consumption, and overweight**. The disease burden caused by these leading risk factors is global. In every region of the world, including the poorest, raised blood pressure, cholesterol, and tobacco use are causing serious disease and untimely deaths. The World Health Report estimates are regionally based but emphasize the need for better information on levels and trends of these major risk factors for all countries.

Country-level data is sparse for many of these major non-communicable disease (NCD) risk factors. When data is available, it is not always complete or comparable, especially if it is based on self-reported health assessments or behaviours. A consistent approach to collecting and analyzing NCD risk factor data is needed to promote the usefulness of this data both for country health policy development and also for comparisons across countries and regions. WHO is promoting the use of the STEP wise approach to enable countries to set up surveillance systems for NCD risk factors.

#### Identifying risk factors

Risk factors are defined as any attribute, characteristic or exposure of an individual, which increase the likelihood of developing a disease or injury. Measuring risk factors of non-communicable disease is an attempt to predict the future distribution of NCDs in a population. This type of information is vital to promoting disease prevention and control programmes.

The World Health Report 2002 has identified the risk factors that are most important for predicting future disease burden. These risk factors share common characteristics that include having: the greatest impact on death and illness from a disease/or injury; the ability to be modified through effective primary prevention; measurement protocols which have been validated; and a method of taking measurements that does not violate ethical principles.

In addition to these requirements, it is useful to know the exposure level at which the risk factor leads to disease/or injury and the availability of data on population distribution of risk. The risk factors that cause NCDs have been extensively researched in a number of settings, mostly in developed countries. However, as developing countries now face a **'double burden' of disease**, lingering communicable diseases with an increase in chronic conditions, it is important to have good quality data for on NCD risk factors in these coun-

tries as well. Research on the impact of risk factors in developing countries has shown similar effects on health outcomes as for populations in developed countries. As highlighted in the World Health Report 2002, just a few NCD risk factors account for the majority of non-communicable disease burden. These risk factors, tobacco use, alcohol consumption, raised blood pressure, raised lipid levels, overweight, low fruit/vegetable intake, physical inactivity, and diabetes, are the focus of the STEPs approach to NCD risk factor surveillance.

#### The STEP wise approach to NCD risk factor surveillance

STEPS is a sequential process of gathering comparable and sustainable NCD risk factor information at the country-level. By using the same standardized questions and protocols, all countries can develop surveillance systems containing quality information about NCD risk factors in their unique settings. This information can, in turn, be used to plan for and implement currently available interventions to address the disease patterns caused by these risk factors.

The STEPS approach is based on the concept that NCD surveillance systems need to be simple, focusing on a minimum number of risk factors that predict disease - before placing too much emphasis on costly disease registers which are difficult to sustain long-term.

A tool for surveillance of risk factors, WHO STEPs, has been developed to help low and middle income countries get started. It is based on collection of standardized data from representative populations of specified sample size to ensure comparability over time and across locations.

**Step 1** gathers information on risk factors that can be obtained from the general population by questionnaire. This includes information on socio-demographic features, tobacco use, alcohol consumption, physical inactivity, and fruit/vegetable intake.

**Step 2** includes objective data by simple physical measurements needed to examine risk factors that are physiologic attributes of the human body. These are height, weight, and waist circumference (for obesity) and blood pressure.

**Step 3** carries the objective measurements of physiologic attributes one step further with the inclusion of blood samples for measuring lipid and glucose levels.

Measuring NCD risk factors in this manner provides a flexible system that can be useful in a variety of country settings. Questionnaire-based measurements (Step 1) may be all that is feasible in low resource settings, while physiological measurements (Steps 2 and 3) may provide the impetus for health programme modification in higher resource settings or countries with specific surveillance needs (i.e. high prevalence of diabetes type 2). Countries can determine which additional set of questions are appropriate to their needs and what can be accomplished in the context of an on-going surveillance system.

STEPS is now being planned or implemented in 33 countries in WHO's south east Asian region, western pacific region, African region and eastern Mediterranean region. WHO/HQ is offering technical support in order to ensure quality control and enhance the comparability of data collection. More countries will be added in consultation with regional and country offices of WHO.

Source WHO

**Table 1: Vaccine-preventable Diseases & AFP**

20<sup>th</sup> – 26<sup>th</sup> November 2010(47<sup>th</sup> Week)

Disease	No. of Cases by Province									Number of cases during current week in 2010	Number of cases during same week in 2009	Total number of cases to date in 2010	Total number of cases to date in 2009	Difference between the number of cases to date in 2010 & 2009
	W	C	S	N	E	NW	NC	U	Sab					
Acute Flaccid Paralysis	00	00	01	00	00	00	00	00	00	01	00	77	66	+ 16.6 %
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	-
Measles	00	00	00	00	00	00	00	00	00	00	01	88	165	- 46.7 %
Tetanus	00	00	00	00	00	00	00	01 BD=1	00	01	00	22	27	- 18.5 %
Whooping Cough	00	00	00	00	00	00	00	00	00	00	01	30	61	- 50.8 %
Tuberculosis	200	07	00	18	00	45	00	00	00	270	216	9311	9335	- 0.25 %

**Table 2: Newly Introduced Notifiable Disease**

20<sup>th</sup> – 26<sup>th</sup> November 2010(47<sup>th</sup> Week)

Disease	No. of Cases by Province									Number of cases during current week in 2010	Number of cases during same week in 2009	Total number of cases to date in 2010	Total number of cases to date in 2009	Difference between the number of cases to date in 2010 & 2009
	W	C	S	N	E	NW	NC	U	Sab					
Chickenpox	16	05	09	00	03	05	07	00	11	56	85	3121	13987	- 77.7 %
Meningitis	03 GM=2 KL=1	00	04 GL=1 HB=3	00	00	09 KR=9	02 AP=1 PL=1	00	00	18	28	1460	1503	- 2.9 %
Mumps	02	03	02	00	00	02	00	04	05	18	13	1100	1613	- 31.8 %
Leishmaniasis	01 GM=1	00	00	00	00	00	07 AP=6 PL=1	00	00	08	05	366	629	- 14.8 %

**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.  
**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.

**Data Sources:**

**Weekly Return of Communicable Diseases:** Diphtheria, Measles, Tetanus, Whooping Cough, Chickenpox, Meningitis, Mumps.

**Special Surveillance:** Acute Flaccid Paralysis.

Leishmaniasis is notifiable only after the General Circular No: 02/102/2008 issued on 23 September 2008.

**Dengue Prevention and Control Health Messages**

**To prevent dengue, remove mosquito breeding places in and around your home, workplace or school once a week.**

**Table 4: Selected notifiable diseases reported by Medical Officers of Health**  
20<sup>th</sup> – 26<sup>th</sup> November 2010(47<sup>th</sup> Week)

DPDHS Division	Dengue Fever / DHF*		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Human Rabies		Returns received timely %
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	
Colombo	21	5790	2	295	0	16	5	185	0	49	11	558	1	9	2	68	0	1	<b>77</b>
Gampaha	21	3862	6	176	0	27	3	63	0	21	16	540	1	16	7	125	1	6	<b>87</b>
Kalutara	5	1789	1	243	0	14	1	40	0	76	10	399	0	5	0	41	0	3	<b>50</b>
Kandy	5	1624	2	325	0	6	2	33	0	16	14	167	5	139	8	147	0	1	<b>78</b>
Matale	5	605	1	300	0	8	0	36	1	81	4	106	0	7	0	54	0	1	<b>83</b>
Nuwara Eliya	1	223	4	341	0	1	3	117	0	89	0	33	1	66	0	52	0	0	<b>92</b>
Galle	0	1104	2	248	0	8	1	14	0	59	7	155	0	23	2	22	0	5	<b>68</b>
Hambantota	2	799	2	87	0	7	0	4	1	15	6	98	1	91	0	19	0	0	<b>91</b>
Matara	5	605	1	166	0	8	1	14	0	53	8	365	4	135	0	19	0	0	<b>82</b>
Jaffna	28	2898	6	294	0	7	22	599	1	10	0	1	7	139	6	79	0	2	<b>92</b>
Kilinochc	1	47	2	18	0	0	0	10	0	1	0	3	0	0	0	1	0	1	<b>100</b>
Mannar	4	563	0	48	0	2	0	46	0	10	0	0	0	1	0	17	1	1	<b>33</b>
OVavuniya	0	575	2	58	0	3	0	45	0	13	0	2	0	1	0	13	0	2	<b>50</b>
Mullaitivu	1	20	0	8	0	0	0	3	0	0	0	0	0	0	0	1	0	0	<b>17</b>
Batticaloa	7	1220	6	199	0	4	3	39	0	38	0	13	0	4	0	7	0	4	<b>86</b>
Ampara	0	156	0	116	0	1	0	9	0	65	1	31	0	1	0	14	0	0	<b>14</b>
Trincomalee	4	964	1	156	0	14	0	7	0	14	0	38	1	21	0	15	0	1	<b>82</b>
Kurunegala	7	1400	19	348	0	20	3	55	4	35	14	359	2	59	3	127	0	4	<b>81</b>
Puttalam	2	997	16	220	0	7	1	55	0	125	1	77	3	5	0	23	0	1	<b>67</b>
Anuradhapur	11	1064	5	142	0	11	0	16	0	46	2	94	1	28	0	53	0	4	<b>53</b>
Polonnaruwa	2	395	1	110	0	2	1	8	0	10	10	84	0	2	0	47	0	0	<b>86</b>
Badulla	3	1295	3	212	0	1	5	95	0	29	0	88	1	118	1	111	0	0	<b>60</b>
Monaragala	2	1041	1	181	0	1	0	44	0	7	2	37	1	89	1	97	0	3	<b>45</b>
Ratnapura	8	2764	2	472	1	8	0	23	1	27	0	402	0	62	0	102	0	3	<b>50</b>
Kegalle	6	897	3	155	0	17	2	77	2	29	7	373	0	32	1	130	0	0	<b>82</b>
Kalmunai	2	545	1	307	0	3	0	13	0	9	0	3	0	0	0	12	0	1	<b>54</b>
<b>SRI LANKA</b>	<b>153</b>	<b>33242</b>	<b>89</b>	<b>5225</b>	<b>1</b>	<b>196</b>	<b>53</b>	<b>1650</b>	<b>10</b>	<b>927</b>	<b>113</b>	<b>4026</b>	<b>29</b>	<b>1053</b>	<b>31</b>	<b>1396</b>	<b>2</b>	<b>44</b>	<b>70</b>

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 26<sup>th</sup> November, 2010 Total number of reporting units =320. Number of reporting units data provided for the current week: 226

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

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**ON STATE SERVICE**

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