



WEEKLY EPIDEMIOLOGICAL REPORT

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Ministry of Healthcare and Nutrition

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>

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Global Polio Eradication Initiative (Part 1)

Polio and its symptoms

Polio is a highly infectious disease caused by a virus. It invades the nervous system, and can cause total paralysis in a matter of hours. The virus enters the body through the mouth and multiplies in the intestine. Initial symptoms are fever, fatigue, headache, vomiting, stiffness in the neck and pain in the limbs. One in 200 infections leads to irreversible paralysis (usually in the legs). Among those paralysed, 5% to 10% die when their breathing muscles become immobilized.

People most at risk

Polio mainly affects children under five years of age.

Prevention

There is no cure for polio, it can only be prevented. Polio vaccine, given multiple times, can protect a child for life.

Global caseload

Polio cases have decreased by over 99% since 1988, from an estimated 350 000 cases in more than 125 endemic countries then, to 1604 reported cases in 2009. In 2010, only parts of four countries in the world remain endemic for the disease - the smallest geographic area in history.

The Global Polio Eradication Initiative

Launch

In 1988, the forty-first World Health Assembly, consisting then of delegates from 166 Member States, adopted a resolution for the worldwide eradication of polio. It marked the launch of the Global Polio Eradication Initiative, spearheaded by the World Health Organization (WHO), Rotary International, the US Centers for Disease Control and Prevention (CDC) and UNICEF. This followed the certification of the eradication of smallpox in 1980, progress during the 1980s towards elimination of the poliovirus in the Americas, and Rotary International's commitment to raise funds to protect all children from the disease.

Progress

Overall, since the Global Polio Eradication Initiative was launched, the number of cases has fallen by over 99%. In 2010, only four countries in the world remain polio-endemic. Persistent pockets of polio transmission in northern India, northern Nigeria

and the border between Afghanistan and Pakistan are key epidemiological challenges.

In 1994, the World Health Organization (WHO) Region of the Americas (36 countries) was certified polio-free, followed by the WHO Western Pacific Region (37 countries and areas including China) in 2000 and the WHO European Region (51 countries) in June 2002. In 2010, the European Region suffered its first importation of polio after certification.

In 2009, more than 361 million children were immunized in 40 countries during 273 supplementary immunization activities (SIAs). Globally, polio surveillance is at historical highs, as represented by the timely detection of cases of acute flaccid paralysis.

Objectives

The objectives of the Global Polio Eradication Initiative are:

- To interrupt transmission of the wild poliovirus as soon as possible;
- To achieve certification of global polio eradication;
- To contribute to health systems development and strengthening routine immunization and surveillance for communicable diseases in a systematic way.

Strategies

There are four core strategies to stop transmission of the wild poliovirus in areas that are affected by the disease or considered at high risk of re-infection:

- High infant immunization coverage with four doses of oral poliovirus vaccine (OPV) in the first year of life;
- Supplementary doses of OPV to all children under five years of age during SIAs;
- Surveillance for wild poliovirus through reporting and laboratory testing of all acute flaccid paralysis (AFP) cases among children under fifteen years of age;
- Targeted "mop-up" campaigns once wild poliovirus transmission is limited to a specific focal area.

Before a WHO region can be certified polio-free, three conditions must be satisfied:

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- There are at least three years of zero polio cases due to wild poliovirus;
- Disease surveillance efforts in countries meet international standards; and
- Each country must illustrate the capacity to detect, report and respond to “imported” polio cases.

Laboratory stocks must be contained and safe management of the wild virus in inactivated polio vaccine (IPV) manufacturing sites must be assured before the world can be certified polio-free.

The Independent Monitoring Board (IMB) will evaluate on a quarterly basis the progress towards each of the major milestones of the Global Polio Eradication Initiative *Strategic Plan 2010-2012*, determine the impact of any ‘mid-course corrections’ that are deemed necessary, and advise on additional measures when appropriate.

Coalition

The Global Polio Eradication Initiative (GPEI) is spearheaded by WHO, Rotary International, the US Centers for Disease Control and Prevention (CDC) and the United Nations Children’s Fund (UNICEF). The eradication of polio is about equity in health and the moral imperative of reaching every child with an available health intervention.

The polio eradication coalition includes governments of countries affected by polio; private sector foundations (e.g. United Nations Foundation, Bill & Melinda Gates Foundation); development banks (e.g. the World Bank); donor governments, the European Commission; humanitarian and nongovernmental organizations (e.g. the International Red Cross and Red Crescent societies) and corporate partners (e.g. Sanofi Pasteur and Wyeth). Volunteers in developing countries also play a key role: 20 million people have participated in mass immunization campaigns.

Priorities for polio eradication

As long as a single child remains infected with polio, children in all countries are at risk of contracting the disease.

To stop transmission of the wild poliovirus and optimize the benefits of polio eradication, the global priorities are:

Closing the funding gap. Substantial external financial resources are required to support the efforts of endemic countries to eradicate polio. Economic modelling has demonstrated the financial and humanitarian benefits of polio eradication. Success in carrying out the necessary vaccination campaigns and surveillance hinges on sufficient funds being made available by the financial stakeholders.

Stopping wild poliovirus transmission in endemic countries. Polio today is more geographically restricted than ever before. The highest priority is reaching all children during SIAs in the four remaining endemic countries. To succeed, high levels of political commitment must be maintained at national, state/provincial and district levels. In 2010, a new strategic plan was launched, based on lessons learned in the past years and an independent evaluation of the major barriers to stopping polio transmission. This strategic plan is based on district-specific planning to address the unique challenges of each of the infected areas, fully exploiting new tools such as bivalent oral polio vaccine and strengthening health systems.

Impact of the initiative

More than five million people who would otherwise have been paralysed are walking today because they have been immunized against polio since the initiative began in 1988.

By preventing a debilitating disease, the Global Polio Eradication Initiative is helping to reduce poverty, and is giving children and their families a greater chance of leading healthy and productive lives.

By establishing the capacity to access children everywhere, more

than two billion children worldwide have been immunized during SIAs, demonstrating that well-planned health interventions can reach even the most remote, conflict-affected or poorest areas.

Planning for SIAs provides key demographic data – “finding” children in remote villages and households for the first time, and “mapping” their location for future health services.

In most countries, the Global Polio Eradication Initiative has expanded the capacity to tackle other infectious diseases, such as avian influenza or Ebola, by building effective disease-reporting and surveillance systems, training local epidemiologists and establishing a global laboratory network. This capacity has also been deployed in post-disaster health emergencies such as the aftermath of the 2004 tsunami in south-east Asia and the 2010 floods in Pakistan.

Routine immunization services have been strengthened by bolstering the cold chain, transport and communications systems for immunization. Improving these services helped to lay the groundwork for highly successful measles vaccination campaigns that have saved millions of young lives.

Vitamin A is often administered during polio SIAs. Since 1988, more than 1.2 million childhood deaths have been prevented through provision of vitamin A during polio SIAs.

On average, one in every 250 people in a country has been involved in polio immunization campaigns. More than 20 million health workers and volunteers have been trained to deliver OPV and vitamin A, fostering a culture of disease prevention.

Through the synchronization of SIAs, many countries have established a new mechanism for coordinating major cross-border health initiatives aimed at reaching all people – a model for regional and international cooperation for health.

Future benefits of polio eradication

Once polio is eradicated, the world can celebrate the delivery of a major global public good – something that will equally benefit all people, no matter where they live. Economic modelling has established that significant financial benefits will also accrue from eradication.

Polio eradication sits at a critical juncture

Across Africa, 10 of the 15 previously polio-free countries re-infected in 2009 have successfully stopped their outbreaks¹. Key endemic countries are witnessing historic gains against the disease. Nowhere is progress more evident than Nigeria, where case numbers have plummeted by more than 99% – from 312 cases at this time last year, to three in 2010. In India, for the first time ever, the remaining endemic states of Bihar and Uttar Pradesh have not reported any wild poliovirus type 1 cases concurrently for more than six months.

Time to build upon gains already made in 2010

This meeting in Geneva is being held to build on the gains already made in 2010 and to galvanize new action on polio eradication. Last month, the World Health Assembly welcomed the new plan while expressing deep concern about the US\$ 1.3 billion funding shortfall (out of a budget of US\$ 2.6 billion) over the next three years. This financing shortfall is a serious risk to the eradication of polio – activities are already being cut back or postponed due to a lack of funds.

Plan builds on major lessons learnt

The new plan builds on major lessons learnt to date, including findings from a major independent evaluation examining the remaining barriers to eradication. It introduces district- and area-specific strategies to target the ever-shrinking remaining reservoirs of poliovirus, exploits the game-changing bivalent oral polio vaccine to increase the impact of immunizations, and tackles health system weaknesses. The success of this plan now hinges on implementation of activities at field level and the provision of adequate financing.

Table 1: Vaccine-preventable Diseases & AFP

30th October – 05th November 2010(44th 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	00	00	00	00	00	00	00	00	04	72	61	+ 18.0 %
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	86	158	- 45.6 %
Tetanus	00	00	01	00	00	00	00	00	00	01	00	21	23	- 08.7 %
Whooping Cough	00	00	00	00	00	00	00	00	00	00	00	29	57	- 49.1 %
Tuberculosis	114	03	09	21	10	14	00	12	12	195	218	8662	8760	-02.1 %

Table 2: Newly Introduced Notifiable Disease

30th October – 05th November 2010(44th 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	11	03	08	00	07	07	03	02	07	48	62	2935	13713	- 78.6 %
Meningitis	07 CB=1 KL=3 GM=3	00	02 GL=1 MT=1	01 JF=1	01 BT=1	01 KR=1	02 AP=2	02 BD=1 MO=1	02 RP=2	18	50	1395	1249	+ 11.7 %
Mumps	02	01	02	02	00	04	01	02	02	16	13	1024	1562	- 34.4 %
Leishmaniasis	01 CB=1	00	13 HB=13	00	00	00	05 AP=5	00	00	19	13	347	594	- 41.6%

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

Reduce, Reuse or Recycle the plastic and polythene collected in your home and help to minimize dengue mosquito breeding.

Table 4: Selected notifiable diseases reported by Medical Officers of Health
30th October - 05th November 2010(44th 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	22	5713	4	291	0	15	3	170	1	44	6	527	0	8	0	62	0	1	92
Gampaha	17	3809	8	165	0	26	0	56	0	21	22	492	0	15	4	108	1	5	100
Kalutara	2	1772	2	235	0	14	2	35	1	76	5	364	0	4	0	41	0	3	67
Kandy	9	1601	2	310	0	6	0	30	0	16	5	129	1	129	5	136	0	1	96
Matale	7	592	2	289	0	8	0	36	0	77	2	96	0	7	0	53	0	1	92
Nuwara	1	218	4	331	0	1	0	110	0	84	0	29	0	59	4	50	0	0	92
Galle	4	1098	1	242	0	8	0	12	0	59	0	144	0	19	0	18	0	5	79
Hambantot	1	790	13	82	0	7	0	4	0	14	1	88	1	90	0	19	0	0	82
Matara	5	590	2	165	0	8	0	12	1	53	9	341	1	128	0	19	0	0	88
Jaffna	4	2824	5	275	0	7	8	532	0	8	0	1	1	125	2	69	0	2	75
Kilinochc	1	41	0	14	0	0	0	10	0	1	0	3	0	0	0	1	1	1	100
Mannar	3	552	2	48	0	2	1	45	0	10	0	0	0	1	0	17	0	0	50
OVavuniya	1	573	4	52	0	3	0	44	1	13	0	2	0	1	0	13	1	2	100
Mullaitivu	0	22	2	9	0	0	0	3	0	0	0	0	0	2	0	1	0	0	33
Batticaloa	1	1185	4	179	0	4	1	35	0	38	0	13	0	3	0	5	0	3	93
Ampara	0	148	0	109	0	1	0	8	0	65	0	30	0	1	0	14	0	0	86
Trincomale	2	954	2	154	0	14	0	7	0	11	3	31	0	19	0	14	0	1	73
Kurunegala	1	1372	12	300	1	20	3	46	3	27	19	327	1	55	3	119	0	4	100
Puttalam	4	978	5	150	0	7	0	49	0	125	1	73	1	2	0	22	0	1	44
Anuradhap	2	1044	7	113	0	11	1	15	0	46	2	87	0	26	0	50	0	4	84
Polonnaru	1	387	1	104	0	1	0	7	0	8	0	62	0	2	1	44	0	0	71
Badulla	9	1274	1	198	0	1	2	84	0	27	2	82	5	110	1	106	0	0	80
Monaragala	9	1014	3	177	0	1	1	43	0	7	0	33	1	85	0	88	0	3	73
Ratnapura	5	2721	7	462	0	5	0	20	0	26	7	383	0	60	6	99	0	3	61
Kegalle	3	878	2	144	0	17	1	69	0	27	3	322	0	29	4	123	0	0	64
Kalmunai	0	516	1	280	0	3	0	10	0	9	0	3	0	0	0	12	0	1	54
SRI LANKA	114	32666	96	4878	1	190	23	1492	7	892	87	3662	12	980	30	1303	3	41	80

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 05th November, 2010 Total number of reporting units =311. Number of reporting units data provided for the current week: 259

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

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ON STATE SERVICE

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