



WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
Ministry of Health

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

Vol. 40 No.20

11th – 17th May 2013

Progress in introduction of Pneumococcal vaccine 2000–2012

Pneumococcal conjugate vaccines (PCV) are safe and effective in reducing pneumonia illness and deaths caused by *Streptococcus pneumoniae*. Recommendations for their use from WHO and funding from the GAVI Alliance – a consortium of public and private partners providing financial support for vaccines in the lowest-income countries – have resulted in an increase in PCV introductions into national immunization programmes, especially in lower-income countries. Additionally, new formulations have become available, covering more of the serotypes which commonly cause disease in lower and middle-income countries. This report describes global progress in PCV introduction using WHO data from 2000 to 2012, stratified by country disease burden characteristics and World Bank country income groups, to evaluate patterns in PCV introduction.

As of December 2012, 86 WHO Member States have added PCV to the routine infant immunization schedule of their national immunization programmes; 23 Member States have introduced PCV with GAVI support. In the WHO Regions, PCV introduction was most common in Member States in the Americas (21 of 35, 60%), followed by those in the Eastern Mediterranean (11 of 22, 50%), European (26 of 53, 49%), African (19 of 46, 41%) and Western Pacific Regions (9 of 27, 33%); none of the 11 Member States in the South East Asia Region has introduced PCV. Proportions of low- and middle-income countries which have introduced PCV were similar. The proportion of the world's birth cohort living in countries which have included PCV in their national immunization programmes increased from 1% in 2000 to 31% in 2012. These findings suggest that efforts to increase PCV introduction and use globally are succeeding.

Globally, an estimated 14.5 million episodes of serious pneumococcal disease (including pneu-

monia, meningitis and sepsis) occur each year in children aged <5 years, resulting in close to 500 000 deaths, almost all of which occur in low- and middle-income countries. Pneumococcal conjugate vaccine was first licensed in 2000 as a formulation that provided protection against 7 of the most common pneumococcal serotypes. In 2006, WHO recommended that PCV be included in all routine immunization programmes, especially in countries with high pneumococcal disease burden, defined as >10% deaths in children aged <5 years attributed to pneumonia or pneumonia mortality rate of >50 deaths per 1000 live births among children aged <5 years. Beginning in 2010, new PCV formulations protecting against 10 and 13 serotypes became available, offering better coverage for serotypes commonly causing disease in low and middle income countries.

To assess the status of global PCV introduction, a WHO database tracking vaccine introductions was used to identify countries that included PCV in routine infant immunization schedules as of December 2012. PCV introductions were characterized by WHO Region, GAVI eligibility, World Bank income classification and pneumonia disease burden. The proportion of the global birth cohort living in countries that had introduced PCV was calculated using United Nations 2010 birth cohort estimates. For countries that introduced PCV between 2000 and 2009, the WHO–UNICEF estimated coverage for the full 3-dose series of PCV was obtained, if available. Operational issues related to PCV introduction were identified through WHO post-introduction evaluations (Please refer table 1 for more details).

Reports from 11 post-introduction evaluations conducted during 2010–2012 in low and middle income African countries described programmatic issues related to PCV introductions:

WEB SRI LANKA - 2013

Contents

Page

1. <i>Leading Article – Progress in introduction of Pneumococcal vaccine 2000–2012</i>	1
2. <i>Surveillance of vaccine preventable diseases & AFP (03rd – 10th May 2013)</i>	3
3. <i>Summary of newly introduced notifiable diseases (03rd – 10th May 2013)</i>	3
4. <i>Summary of selected notifiable diseases reported (03rd – 10th May 2013)</i>	4

- Programmes need accurate data to define target populations, accompanied by clear messages to health workers and the community to prioritize those target populations. In several countries, children outside the target infant age group presented for vaccination and, in most cases they were vaccinated, creating shortages of PCV for the target age group.
- Health worker knowledge that PCV provides protection against only one cause of pneumonia was crucial to ensure that they educated caretakers on other options for prevention and treatment of pneumonia.
- Weaknesses in the underlying capacity of the immunization systems included needs for innovative training approaches to address the complexity of messages relating to use of new vaccines; improvement of supportive supervision; and further enhancement of injection safety, injection waste management and monitoring of adverse events following immunization

for GAVI-supported PCV introduction. However, important gaps in PCV introduction remain, notably in the WHO South-East Asia Region and in countries with large birth cohorts. The lack of PCV introduction in several large countries reflected in the gap between the proportion of countries having introduced PCV (44%) and the proportion of the world's birth cohort living in countries that have introduced PCV (31%). Low- and middle-income countries lagged behind high-income countries, with all low-income introductions attributed to GAVI support. Middle-income countries like Sri Lanka are not eligible for GAVI support. In addition, there is only one manufacturer of each PCV formulation and insufficient supply has also led to delays in planned introductions in some countries.

Source

Progress in introduction of pneumococcal conjugate vaccine worldwide, 2000–2012-

available from <http://www.who.int/wer/2013/wer8817.pdf>

Compiled by Dr. Madhava Gunasekera of the Epidemiology Unit

Note-A critical factor enabling vaccine introductions in low income countries has been support from the GAVI Alliance. As of first quarter 2013, 24 countries have introduced PCV with GAVI support; an additional 27 countries have been approved

Table 1-Numbers of countries which introduced PCV and PCV coverage as of end of 2012 (Source-WHO)

	High-income (n=50)	Upper-middle income (n=53)	Lower-middle income (n=52)	Low-income (n=36)	No income status (n=3)	Total (n=194)
No. (%) of countries with PCV introductions						
No. of countries that added PCV to the routine infant immunization schedule	36 (73%)	18 (34%)	18(35%)	13 (37%)	1(33%)	86 (44%)
No. of countries offering PCV for high-risk populations only	3 (6%)	2 (4%)	0	0	0	5 (3%)
No. of countries with no PCV introduction to date	11 (22%)	33 (62%)	34 (65%)	23 (64%)	2 (67%)	103 (53%)
No. (%) of countries with PCV introductions among countries with high burden of pneumococcal disease						
No. of phase II GAVI-eligible countries	0	3 (6%)	33 (63%)	36 (100%)	0	72 (38%)
No. of country PCV introductions with GAVI Alliance support	N/A	0	10 (30%)	13 (36%)	N/A	23 (32%)
No. of countries with mortality >50 per 1000 live births among children <5 years (i.e. high child mortality rate)	1 (2%)	4 (8%)	22 (42%)	32 (89%)	0	59 (31%)
No. of country PCV introductions in high child mortality rate countries	0	1 (25%)	7 (32%)	13 (41%)	N/A	21 (36%)
No. of countries with >10% deaths attributed to pneumonia, among children <5 years	2 (4%)	20 (38%)	43 (83%)	35 (97%)	2 (67%)	102 (53%)
No. of PCV introductions in countries with high rates of child pneumonia deaths	1 (50%)	7(35%)	16 (37%)	13 (37%)	1 (50%)	38 (37%)
PCV coverage						
No. of countries reporting 2011 coverage for 3 doses of PCV	n=21	n=12	n=4	n=2	n=1	n=40
Median coverage for 3 doses of PCV in 2011 (range)	92% (1–99)	76% (46–98)	44% (23–67)	95% (93–97)	99%	90% (1–99)

Table 1: Vaccine-preventable Diseases & AFP

03rd - 10th May 2013 (19th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2013	Number of cases during same week in 2012	Total number of cases to date in 2013	Total number of cases to date in 2012	Difference between the number of cases to date in 2013 & 2012
	W	C	S	N	E	NW	NC	U	Sab					
Acute Flaccid Paralysis	00	00	01	00	00	00	00	01	01	03	03	27	32	- 15.6 %
Diphtheria	00	00	00	00	00	00	00	00	00	-	-	-	-	-
Measles	20	11	06	00	00	01	05	00	04	47	00	341	20	+ 1605.0 %
Tetanus	00	00	00	00	00	00	00	00	00	00	00	07	04	+ 75.0 %
Whooping Cough	00	00	00	00	00	01	00	00	00	01	00	31	32	- 03.1 %
Tuberculosis	09	05	00	02	00	01	27	00	20	64	66	2880	3196	+ 01.6 %

Table 2: Newly Introduced Notifiable Disease

03rd - 10th May 2013 (19th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2013	Number of cases during same week in 2012	Total number of cases to date in 2013	Total number of cases to date in 2012	Difference between the number of cases to date in 2013 & 2012
	W	C	S	N	E	NW	NC	U	Sab					
Chickenpox	12	04	14	05	01	9	6	4	16	71	10	1774	1943	- 08.7 %
Meningitis	03 KL=1 GM=2	01 ML=1	03 MT=3	01 VU=1	01 TR=1	05 KR=5	03 AP=3	00	07 RP=1 KG=7	25	04	447	235	+ 90.2 %
Mumps	02	00	01	03	07	00	03	01	07	24	25	624	1883	- 68.7 %
Leishmaniasis	00	00	03 MT=3	00	02 TR=2	00	13 AP=1 PO=2	00	00	18	00	412	235	+ 75.3 %

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

Look for plants such as bamboo, bohemia, rampe and banana in your surroundings and maintain them free of water collection.

Table 4: Selected notifiable diseases reported by Medical Officers of Health
03rd - 10th May 2013 (19th Week)

DPDHS Division	Dengue Fever / DHF*		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Human Rabies		Returns Received
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	%
Colombo	72	3233	1	62	0	10	2	48	1	14	4	113	0	5	0	32	0	0	77
Gampaha	43	1390	2	50	0	7	0	15	1	11	7	133	1	8	3	91	0	0	47
Kalutara	24	646	2	54	0	10	0	35	0	9	0	180	0	1	1	7	0	0	69
Kandy	33	679	3	42	0	6	1	8	1	7	3	33	3	55	3	51	0	0	91
Matale	13	183	2	35	0	1	0	3	0	0	2	23	1	2	3	19	0	0	62
NuwaraEliya	4	98	15	70	0	2	0	4	0	2	0	11	1	35	4	11	0	0	85
Galle	18	296	0	35	0	8	1	2	0	4	0	108	0	22	0	6	0	1	79
Hambantota	4	142	0	22	0	2	0	7	0	9	5	117	0	35	1	61	0	0	92
Matara	10	227	1	24	0	8	1	9	22	27	1	95	1	35	6	96	0	1	94
Jaffna	15	401	3	79	0	4	10	204	0	7	0	4	5	294	0	9	0	0	75
Kilinochchi	0	24	0	12	0	0	0	5	0	1	0	9	0	14	0	0	0	0	25
Mannar	1	47	4	21	0	1	2	46	0	11	0	9	0	13	0	0	0	0	40
Vavuniya	3	38	2	22	0	10	1	5	0	8	2	36	0	2	0	0	0	1	75
Mullaitivu	8	63	1	6	0	1	0	4	1	3	1	11	1	5	0	0	0	2	60
Batticaloa	14	311	6	78	0	3	0	0	0	5	1	21	0	2	1	8	0	0	86
Ampara	0	58	0	39	0	0	0	4	0	0	0	7	0	0	0	1	0	0	57
Trincomalee	0	128	2	27	0	1	0	2	0	1	0	46	0	4	1	3	0	1	67
Kurunegala	29	1707	0	82	1	21	0	23	0	3	5	147	0	15	2	28	0	1	77
Puttalam	9	523	0	24	0	4	1	8	0	34	0	12	0	9	0	1	0	0	62
Anuradhapu	7	298	1	31	0	12	0	2	0	2	5	228	1	15	0	12	0	0	74
Polonnaruw	9	176	0	37	0	0	1	9	0	0	2	100	0	2	0	17	0	1	71
Badulla	7	192	1	51	0	1	1	7	0	1	0	16	2	29	1	22	0	0	65
Monaragala	1	108	3	38	0	3	1	7	0	18	6	159	0	23	3	36	0	1	82
Ratnapura	57	807	9	173	0	77	4	21	0	12	6	188	0	15	4	116	0	1	78
Kegalle	29	470	2	25	0	10	0	6	0	3	5	60	4	43	4	107	0	0	91
Kalmune	5	427	2	40	0	1	0	3	0	17	0	4	0	2	0	4	0	0	38
SRI LANKA	415	12672	62	1179	01	203	26	487	26	207	55	1870	20	685	37	738	00	10	73

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 10th May, 2013 Total number of reporting units 336. Number of reporting units data provided for the current week: 246

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

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@slt.net.lk.

ON STATE SERVICE

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