

Bangladesh Plan for Measles Control 2004-2010

Measles is a killer disease. It is estimated that more than 1 million cases and about 20,000 deaths following measles occur annually in Bangladesh. It is inappropriate that such a large number of children should suffer from this disease or die from it when there is a potent and safe vaccine available to prevent it. Government of Bangladesh has endorsed measles mortality reduction goal set at the UN special session in May 2002 and at the World Health Assembly in 2003, which was presided over by our Honorable Minister Dr. Khandaker Mosharraf Hossain. The country reaffirmed its commitment through endorsing the recommendations of WHO/SEAR regional TCG meeting in June 2003 and Cape Town declaration on measles in October 2003. Accordingly EPI has prepared a National Measles Control Plan for reducing measles related deaths and morbidity for the years 2004-2010, which has been endorsed by the Inter Agency Coordination Committee (ICC).

Three main strategies of this plan are:

1. Provision of Measles Vaccine to at least 90% of the children in all districts by the year 2005 through **Strengthening Routine Immunization Coverage**;
2. Detecting and investigating all measles outbreaks with provision of appropriate case management through **Intensification of Measles Surveillance**;
3. Provision of second opportunity of immunization against measles through **Supplementary Immunization Activities (SIA)**.

Strategically measles control is different from polio eradication in different aspects, especially in terms of routine coverage. Sustained high routine coverage of more than 90% in every upazila is crucial to achieve measles control. That is why EPI is giving emphasis on proper micro-planning and resource management using RED strategy.

Intensification of measles surveillance is important to determine the epidemiology of the disease. Measles surveillance has been strengthened since 2003. Though case reporting from facilities as well as outbreak identification and investigation has increased in 2004 in comparison to 2003, still many cases and outbreaks are missed by surveillance network. Community surveillance improvement is needed to improve the situation. Detection of outbreaks is also crucial in reducing measles related deaths through provision of vitamin-A and proper case management.

It is recognized that 85% of the children are protected against measles after receiving the single dose of measles vaccine. To provide adequate population immunity for measles control provision of a second dose is necessary. Bangladesh is going to provide this second opportunity through Measles SIA.

Initial measles SIA known as measles "Catch-up Campaign" is a onetime only nationwide campaign, which will target all children 9 months to 9 years of age with one dose of measles vaccine irrespective of their previous vaccination status. A "Follow up Campaign" will take place 3-4 years after the initial Catch-up Campaign targeting children born after this campaign.

Bangladesh has planned for a Measles Catch-up campaign to be held in the month of February 2006. The total target of children of the campaign will be around 35 million. Prior to this huge countrywide campaign Bangladesh is planning a piloting in two districts and a city corporation in September 2005 and use the experience gained in these pilot areas for the nation-wide campaign. The planned campaign is huge task in front of the nation that needs participation of different ministries, governmental and non-governmental organizations, and political and social leaders and as a whole of the people from all parts of the society.

Surveillance Summary for 1998-2004 (through Epidemiologic Week 49, 28 November – 4 December, 2004)

	1998	1999	2000	2001	2002	2003	2004 ¹
Number of AFP cases	475	761	1138	1287	1365	1128	1173
No. of clinically confirmed polio cases	298	322	197	NA	NA	NA	NA
No. of compatible cases according to virologic classification system	NA	NA	NA	36	0	0	1
No. of cases with isolation of wild poliovirus	10	29	1	0	0	0	0
No. of discarded polio cases (i.e., non-polio AFP)	165	439	941	1251	1365	1128	1072
No. of cases pending classification	0	0	0	0	0	0	100
Expected annual number of non-polio AFP cases (1/100,000 children <15 yr)	495	505	515	533	549	556	563

AFP Surveillance Performance Indicators:

Indicator	Target	1998	1999	2000	2001	2002	2003	2004
1. Annual Non-Polio AFP rate in children < 15 years old	≥ 1/100,000	0.33	0.87	1.82	2.34	2.49	2.03	2.23 ²
2. Completeness of passive reporting from facilities	≥ 90%	34%	66%	83%	65%	62%	67%	82%
3. Timeliness of passive reporting from facilities	≥ 80%	15%	30%	58%	38%	36%	62%	74%
4. Suspected AFP cases investigated within 48 hours of notification	≥ 80%	89%	83%	93%	96%	96%	98%	98%
5. Confirmed AFP cases with 2 stool specimens collected ≤ 14 days after paralysis onset	≥ 80%	59%	49%	68%	80%	89%	90%	91%
6. Stool specimens arriving at laboratory ≤ 3 days after collection	≥ 80%	88%	81%	92%	97%	98%	99%	100%
7. Stool specimens arriving at laboratory in "good" condition "good" = 1. Presence of unmelted ice or temperature <8°C 2. Adequate volume (≥ 8 grams or size of ½ thumb) 3. No evidence of leakage 4. No evidence of desiccation (drying)	≥ 90%	92%	97%	100%	100%	99%	100%	100%
8. Confirmed AFP cases receiving a follow-up exam at least 60 days after paralysis onset	≥ 80%	80%	97%	95%	93%	99%	100%	98% ³
9. Stool specimens with laboratory results ≤ 28 days after specimen receipt	≥ 80%	16%	58%	94%	99%	100%	100%	99% ⁴
10. Stool specimens from which non-polio enterovirus (NPEV) was isolated	≥ 10%	5%	13%	21%	29%	28%	23%	20%

¹ Data as of December 4, 2004; ² NPAFP rate annualized for cases according to October 2, 2004; ³ among cases occurring up to September 4, 2004; ⁴ as of November 8, 2004

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AFP Surveillance Performance Indicators -- 2004

Epiweek 49, 2004

District	# Expected non-polio AFP	Total # AFP ¹	Wild polio virus isolated	Compatible cases	Non-Polio AFP cases ¹	Pending final classif. ¹	Annualized Non-polio AFP Rate ² (/1,00,000)	Notification within 10 d after paralysis onset ¹	Investigation within 48 h after notification ¹	% with 2 stools within 14 days ¹	Stool sample arriving to lab within 72 hrs ¹	% with 60-day follow-up ³
Dhaka Division												
DCC only	36	44			37	7	1.26	91%	100%	86%	100%	91%
Dhaka (non DCC)	14	31			31	0	2.51	90%	100%	94%	100%	96%
Faridpur	8	30			29	1	4.71	87%	100%	93%	100%	93%
Gazipur	9	12			12	0	1.59	92%	100%	100%	100%	100%
Gopalganj	5	19			19	0	4.68	95%	100%	95%	100%	100%
Jamalpur	9	16			12	4	1.44	88%	100%	88%	100%	100%
Kishoreganj	11	34			30	4	3.19	97%	97%	94%	100%	100%
Madaripur	5	18			16	2	3.64	100%	100%	100%	100%	100%
Manikganj	6	12			11	1	2.17	83%	100%	83%	100%	100%
Munshiganj	6	21			20	1	3.47	91%	100%	91%	100%	93%
Mymensingh	20	26			26	0	1.63	81%	96%	85%	96%	96%
Narayanganj	9	16			15	1	2.17	94%	100%	94%	100%	100%
Narsingdhi	8	14			13	1	1.95	86%	100%	86%	100%	100%
Netrokona	9	19			17	2	1.73	84%	100%	84%	95%	92%
Rajbari	4	15			14	1	4.55	100%	100%	100%	100%	100%
Shariatpur	5	22			21	1	5.20	91%	100%	86%	100%	100%
Sherpur	6	15			13	2	2.82	93%	100%	100%	100%	100%
Tangail	14	29			26	3	2.32	93%	100%	90%	100%	100%
Total-DHAKA	184	393	0	0	362	31	2.35	91%	100%	91%	100%	97%
CTG Division												
CCC only	12	12			9	3	0.98	100%	100%	92%	100%	100%
Chittagong (non CCC)	20	35			33	2	1.82	94%	100%	91%	100%	96%
Bandarban	1	3			2	1	2.60	33%	100%	33%	100%	100%
Brahmanbaria	11	19			18	1	2.13	100%	95%	100%	90%	100%
Chandpur	10	20			14	6	1.43	95%	100%	85%	100%	100%
Comilla	20	40			39	1	1.95	98%	100%	98%	98%	96%
Cox's Bazar	8	17			15	2	2.11	88%	94%	88%	100%	100%
Feni	5	15			12	3	2.86	80%	100%	80%	100%	100%
Khagrachari	2	5			5	0	3.25	100%	100%	100%	100%	100%
Laxmipur	7	27			23	4	4.27	93%	93%	85%	100%	95%
Noakhali	11	26			26	0	2.48	92%	100%	81%	100%	100%
Rangamati	2	10			10	0	6.50	80%	90%	90%	100%	100%
Total-CTG	109	229	0	0	206	23	2.16	93%	98%	89%	99%	98%
Sylhet Division												
SCC	1	1			1	0	1.30	100%	100%	100%	100%	100%
Sylhet (non SCC)	10	16			15	1	1.69	81%	100%	88%	100%	100%
Habiganj	8	11			10	1	1.63	82%	100%	91%	100%	100%
Maulvibazar	7	12			12	0	2.04	92%	92%	75%	100%	100%
Sunamganj	9	19			18	1	2.46	95%	95%	95%	100%	81%
Total-SYL	35	59	0	0	56	3	1.93	88%	97%	88%	100%	94%
Raj Division												
RCC only	2	1			1	0	0.65	100%	100%	100%	100%	100%
Rajshahi (non RCC)	8	8			7	1	1.14	88%	100%	88%	100%	100%
Bogra	13	17			15	2	1.30	88%	100%	100%	100%	100%
Dinajpur	12	22			19	3	1.19	86%	100%	91%	100%	100%
Gaibandha	9	20			18	2	2.17	90%	100%	95%	100%	100%
Joypurhat	4	12			12	0	2.93	100%	100%	100%	100%	100%
Kurigram	8	13			11	2	1.79	69%	92%	85%	100%	89%
Lalmonirhat	5	13			12	1	2.86	85%	100%	92%	100%	100%
Natore	7	9			6	3	0.93	78%	89%	56%	100%	100%
Nilphamari	7	21			18	3	2.23	91%	100%	100%	100%	100%
Noagoan	11	17			14	3	1.65	100%	100%	100%	100%	100%
Nowabganj	6	8			7	1	1.52	75%	100%	75%	100%	100%
Pabna	10	20			20	0	2.47	100%	100%	90%	100%	100%
Panchagarh	4	10			10	0	3.25	100%	100%	100%	100%	100%
Rangpur	11	23			21	2	2.13	10%	96%	100%	100%	100%
Sirajganj	12	23			19	4	1.73	82%	96%	83%	96%	86%
Thakurgaon	5	11			11	0	2.60	100%	100%	100%	100%	100%
Total-RAJ	134	248	0	0	221	27	1.83	90%	98%	92%	100%	98%
Khulna Division												
KCC only	4	7			7	0	1.95	100%	100%	100%	100%	100%
Khulna (non KCC)	7	14			12	2	2.23	93%	93%	100%	100%	92%
Bagerhat	7	11			10	1	1.86	91%	100%	100%	100%	100%
Chuadanga	4	7			7	0	2.28	100%	100%	100%	100%	100%
Jessore	11	23			23	0	2.72	87%	96%	87%	100%	100%
Jhenaidah	7	13			13	0	2.23	92%	100%	85%	100%	100%
Kushtia	7	20			19	1	3.34	90%	100%	90%	100%	100%
Magura	4	6			6	0	1.95	83%	100%	83%	100%	100%
Meherpur	3	5			5	0	2.17	100%	100%	100%	100%	100%
Narail	3	9		1	7	1	3.03	78%	100%	78%	100%	100%
Satkhira	8	16			15	1	2.28	100%	94%	94%	100%	100%
Total-KHU	65	131	0	1	124	6	2.40	92%	98%	92%	100%	99%
Barisal Division												
BCC	1	4			4	0	5.20	100%	100%	100%	100%	75%
Barisal (non BCC)	10	22			21	1	2.73	86%	100%	82%	100%	100%
Barguna	4	10			9	1	1.95	100%	100%	100%	100%	100%
Bhola	7	18			16	2	2.04	89%	89%	89%	100%	100%
Jhalakhati	3	18			15	3	6.50	94%	89%	89%	100%	100%
Patuakhali	6	20			19	1	3.68	95%	100%	95%	100%	93%
Pirojpur	5	21			19	2	3.90	100%	100%	100%	100%	100%
Total BAR	36	113	0	0	103	10	3.21	94%	97%	92%	100%	98%
National	563	1173	0	1	1072	100	2.23	91%	98%	91%	100%	98%

¹Data as of Epidemiologic Week 49, December 4, 2004; ² Non-Polio AFP rate is annualized for cases occurring up to October 2, 2004; ³ for cases occurring up to September 4, 2004

Disease Surveillance - 2004

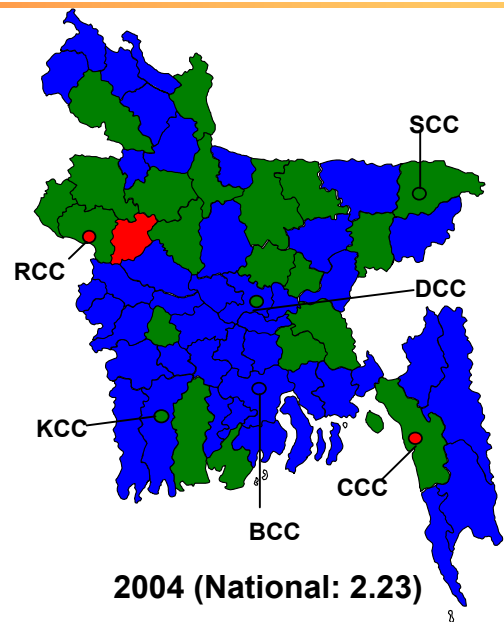
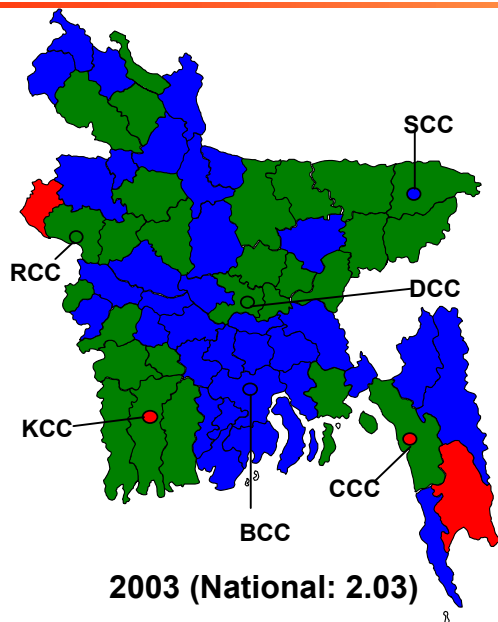
EPI week 49, 2004

District	Neonatal Tetanus			Measles				AEFI
	# of case reported by Active Surveillance	# of case reported by Passive Surveillance	# of case Investigated	# of case reported by Active Surveillance	# of case reported by Passive Surveillance	Outbreak		# of case Reported
						Number of Outbreak (% Investigated)	# of cases	
Dhaka Division								
DCC only	12	12	14	94	102	3 (100%)	228	31
Dhaka (non DCC)	7	9	4	8	36	1 (100%)	328	21
Faridpur	11	8	11	10	52	1 (100%)	27	17
Gazipur	4	1	1	6	16			9
Gopalganj	7	12	11	8	14			20
Jamalpur	4	4	4	16	20	1 (100%)	71	22
Kishoreganj	16	23	12	38	225	4 (100%)	230	39
Madaripur	6	7	7	1	10			4
Manikganj	4	4	4	6	2	2 (100%)	404	11
Munshiganj	1	1	1	1	15			20
Mymensingh	18	12	10	33	96	3 (100%)	103	25
Narayanganj	5	5	5	15	17	1 (100%)	51	17
Narsingdhi	3	6	1	8	10			5
Netrokona	1	8	2	4	104	1 (100%)	137	31
Rajbari		1		1	40			2
Shariatpur	1	1	1	3	13			33
Sherpur	8	4	9	2	19	1 (100%)	51	21
Tangail	11	9	7	16	39			18
Total-DHAKA	119	127	104	270	830	18 (100%)	1630	346
CTG Division								
CCC only	8	10	5	37	40	1 (100%)	15	6
Chittagong (non CCC)	3	3	1	9	35	1 (100%)	10	8
Bandarban				11	3	1 (100%)	11	3
Brahmanbaria	23	26	22	4	18	1 (100%)	11	6
Chandpur	2	2	3	11	57	10 (100%)	154	33
Comilla	4	4	5	5	77	3 (100%)	254	5
Cox's Bazar	8	10	7	32	26			8
Feni	3	2	3		37	1 (100%)	31	13
Khagrachari	1		1	3	5			6
Laxmipur	8	7	9	3	7	1 (100%)	32	30
Noakhali	1	3	1	3	29			6
Rangamati				4	17			
Total-CTG	61	67	57	122	351	19 (100%)	518	124
Sylhet Division								
SCC	4	2	1	73	56			2
Sylhet (non SCC)	9	7	5	98	303	4 (100%)	388	43
Habiganj	10	13	5	28	95	2 (100%)	126	38
Maulvibazar	10	12	2	15	91			20
Sunamganj	18	18	6	168	174	3 (100%)	182	17
Total-SYL	51	52	19	382	719	9 (100%)	696	120
Raj Division								
RCC only		1		2	3			3
Rajshahi (non RCC)	1	2		15	21	1 (100%)	34	4
Bogra	5	5	4	16	25	1 (100%)	74	33
Dinajpur	3	5	4	5	38	7 (100%)	537	45
Gaibandha	1	9	5	4	24	8 (100%)	272	60
Joypurhat				13	77	2 (100%)	27	12
Kurigram	1			3	1			19
Lalmonirhat		1	1		30			
Natore	4	6	3	8	25			14
Nilphamari	2	1	1	9	29	3 (100%)	115	28
Noagoan	4	5	4	7	38	2 (100%)	35	21
Nowabganj	3	3	2	7	31			9
Pabna	3	6	2	20	72			29
Panchagarh	2	2		2	41			3
Rangpur	7	7	5	16	11	3 (100%)	172	41
Sirajganj	1	1		11	39	1 (100%)	172	26
Thakurgaon		1		7	16			13
Total-RAJ	37	55	31	145	521	28 (100%)	1438	360
Khulna Division								
KCC only	1		1	4	11			3
Khulna (non KCC)				2	78	1 (100%)	20	45
Bagerhat	4		4	3	22			4
Chuadanga	1	2	2	3	11	1 (100%)	89	18
Jessore	9	10	4	5	53			26
Jhenaidah	7	8	4	6	17			19
Kustia	4	3	4	2	5			13
Magura	2	5		9	57	2 (100%)	132	25
Meherpur			1	4	3			4
Narail	6	7	6	13	16			20
Satkhira	3	3	3		5			15
Total-KHU	37	38	29	51	278	4 (100%)	241	192
Barisal Division								
BCC								
Barisal (non BCC)	5	10		11	39			2
Barguna	1	2		15	94	2 (100%)	48	8
Bhola	3	11	3		8	1 (100%)	60	63
Jhalakhati	2	3	3	3	5			2
Patuakhali	3	4	2	7	69			7
Pirojpur	3	2	3	4	25			24
Total_BAR	17	32	11	40	240	3 (100%)	108	106
National	322	371	251	1010	2939	81 (100%)	4631	1248

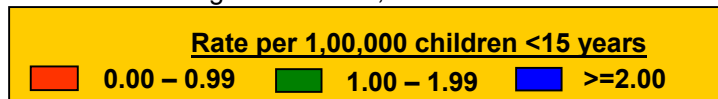
Data as of Epidemiologic Week 49, December 4, 2004

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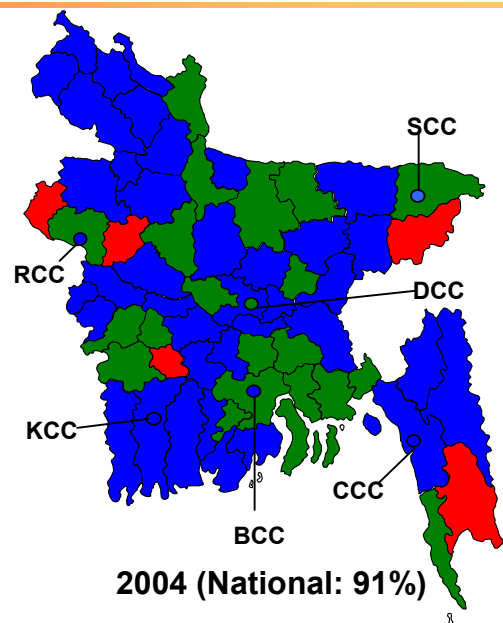
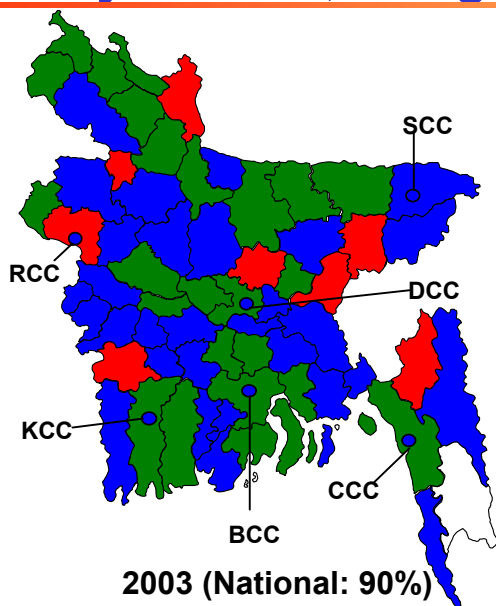
Annualized Non-Polio AFP Rate, by District, Bangladesh 2003-2004*



*NPAFP rate annualized for cases according to October 2, 2004



Percent of AFP Cases with Two Stool Samples Collected within 14 days of Paralysis Onset, by District, Bangladesh 2003-2004*



*Data as of Epidemiologic Week 49, December 4, 2004

