



# EPI Surveillance Bulletin

Epidemiologic Week 48: November 24 – 30, 2002



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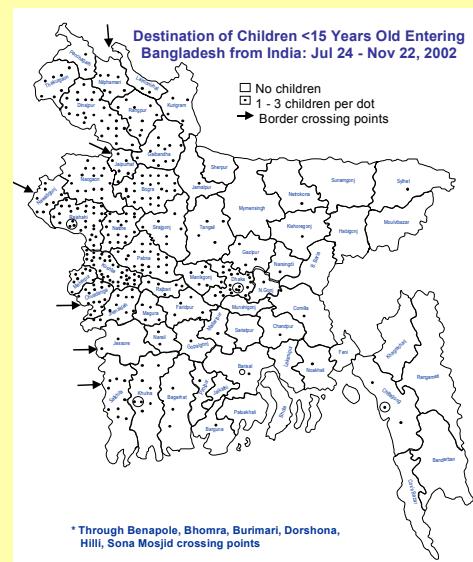
December 2002

## Poliovirus Border Alert; Strengthening of Routine EPI

Bangladesh is approaching the New Year of 2003 with cautious optimism: no polio case has been identified since August 2000. In India, however, the situation is worsening: 1211 laboratory confirmed polio cases have been identified in 2002 as of December 3.



An increasing number of these cases are located immediately across the border of Chapai-Nawabganj, Dinajpur, Thakurgaon and Panchagar, increasing the threat of importation into Bangladesh. According to data available through 3 December, 33 cases have been identified in West Bengal alone, of which 28 cases are from Murshidabad, 4 from Birbhum and 1 from Maldah districts. In addition, cases have occurred close to the Bangladesh border in Bihar and Jharkhand States. However, the risk from importation of wild poliovirus is not limited to the districts bordering these areas. A review of the migration patterns of children entering Bangladesh from India reveals that all of Bangladesh may be at risk. Bangladesh will continue to provide OPV to all children <5 years old crossing the border; moreover, all must remain alert to identify any child <15 years old with AFP, encourage high routine EPI coverage, and participate in the upcoming NIDs.



EPI headquarters in Dhaka is undertaking several new initiatives to strengthen routine EPI throughout the country. These include strengthening AFP & EPI Disease surveillance by increasing the frequency of passive reporting from monthly to weekly, and involving district level managers more extensively in the management and use of surveillance data. Adverse events following immunization (AEFIs) will be incorporated into the surveillance system. A Plan of Action for Injection Safety and Sharps Waste Management has been developed and will be implemented soon. Vaccine Supply & Quality initiatives are being implemented. Additional human resources to support EPI field operations are being recruited. EPI Refresher Orientation has already begun with Training of Trainers (TOT) in several districts. Comprehensive EPI communication strategies are being developed. Preparation for Hepatitis B vaccine implementation is nearly complete as new forms and materials have been printed, training in the phase 1 districts is nearly complete, and advocacy meetings are being planned to coincide with the inauguration of Hepatitis B vaccine into EPI.

**Shishu Shishu Proti Shishu Khuje Fero Proti Shishu!**

### Surveillance Summary for 1998-2002 (through Epidemiologic Week 48, November 24 - 30, 2002)

	1998	1999	2000	2001	2002 <sup>1</sup>
Number of AFP cases	475	761	1138	1288	1268
No. of clinically confirmed polio cases	298	322	197	NA	NA
No. of compatible cases according to virologic classification system	NA	NA	NA	36	0
No. of cases with isolation of wild poliovirus	10	29	1	0	0
No. of discarded polio cases (i.e., non-polio AFP)	165	439	941	1252	1190
No. of cases pending classification	0	0	0	0	78
Expected annual number of non-polio AFP cases (1/100,000 children <15 yr)	495	505	515	533	549

### AFP Surveillance Performance Indicators:

Indicator	Target	1998	1999	2000	2001	2002
1. Annual Non-Polio AFP rate in children < 15 years old	≥ 1/100,000	0.33	0.87	1.82	2.35	2.59 <sup>2</sup>
2. Completeness of active reporting from hospitals	≥ 90%	46%	73%	95%	100%	100%
3. Timeliness of active reporting from hospitals	≥ 80%	15%	44%	72%	88%	100%
4. Suspected AFP cases investigated within 48 hours of notification	≥ 80%	89%	83%	93%	96%	96%
5. Confirmed AFP cases with 2 stool specimens collected ≤ 14 days after paralysis onset	≥ 80%	59%	49%	68%	80%	89%
6. Stool specimens arriving at laboratory ≤ 3 days after collection	≥ 80%	88%	81%	92%	97%	98%
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 1/2 thumb) 3. No evidence of leakage 4. No evidence of desiccation (drying)	≥ 90%	92%	97%	100%	100%	99%
8. Confirmed AFP cases receiving a follow-up exam at least 60 days after paralysis onset	≥ 80%	80%	97%	95%	93% <sup>3</sup>	98% <sup>3</sup>
9. Stool specimens with laboratory results ≤ 28 days after specimen receipt	≥ 80%	16%	58%	94%	99%	100% <sup>4</sup>
10. Stool specimens from which non-polio enterovirus (NPEV) was isolated	≥ 10%	5%	13%	21%	29%	29%

<sup>1</sup> Data as of November 30, 2002; <sup>2</sup> NPAFP rate annualized for cases according to September 30, 2002; <sup>3</sup> among cases with inadequate stools occurring up to August 22, 2002; <sup>4</sup> as of November 2, 2002

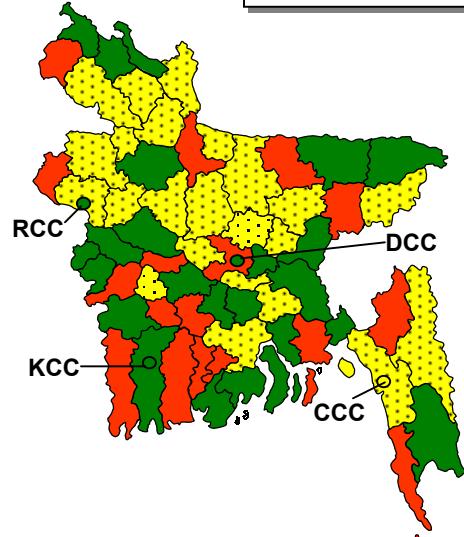
District	# Expected non-polio AFP	Total # AFP1	Wild polio-virus isolated	# Compatible cases	Non-Polio AFP cases <sup>1</sup>	Pending final classif. <sup>1</sup>	Anualized Non-polio AFP Rate <sup>2</sup> (/1,00,000)	Notification within 10 d after paralysis onset <sup>1</sup>	Investigation within 48 h after notification <sup>1</sup>	% with 2 stools within 14 days <sup>1</sup>	Stool sample arriving to lab within 72 hrs <sup>1</sup>	# eligible for 60-day follow-up <sup>3</sup>	% with 60-day follow-up <sup>3</sup>	
Dhaka Division														
DCC only	29	60			56	4	2.34	93%	100%	97%	100%	2	100%	
Dhaka (non DCC)	12	26			24	2	2.67	100%	96%	100%	89%	0	NA	
Faridpur	7	14			13	1	2.10	86%	92%	93%	100%	1	100%	
Gazipur	8	7			7	0	1.00	86%	100%	86%	100%	1	100%	
Gopalganj	5	13			7	6	1.60	50%	92%	54%	92%	4	75%	
Jamalpur	9	19			19	0	2.81	90%	95%	90%	90%	3	100%	
Kishoreganj	12	47			45	2	4.11	89%	96%	85%	98%	6	100%	
Madaripur	5	11			10	1	2.40	82%	91%	82%	91%	2	50%	
Manikganj	6	9			9	0	2.00	100%	100%	89%	100%	1	100%	
Munshiganj	6	13			11	2	2.44	92%	92%	92%	100%	1	100%	
Mymensingh	20	34			31	3	2.00	77%	94%	71%	100%	8	100%	
Narayanganj	9	18			17	1	2.22	83%	100%	83%	100%	4	100%	
Narsingdi	8	26			25	1	4.17	96%	96%	96%	96%	1	100%	
Netrokona	9	18			17	1	2.52	94%	100%	89%	100%	1	100%	
Rajbari	4	13			13	0	4.33	100%	92%	100%	100%	0	NA	
Shariatpur	5	9			9	0	1.87	100%	100%	100%	100%	0	NA	
Sherpur	6	9			9	0	2.00	100%	100%	100%	100%	0	NA	
Tangail	15	27			25	2	2.13	78%	96%	89%	100%	3	100%	
<b>Total-DHAKA</b>	<b>175</b>	<b>373</b>	<b>0</b>	<b>0</b>	<b>347</b>	<b>26</b>	<b>2.46</b>	<b>89%</b>	<b>97%</b>	<b>89%</b>	<b>98%</b>	<b>38</b>	<b>95%</b>	
CTG Division														
CCC only	9	11			11	0	1.33	100%	100%	100%	100%	0	NA	
Chittagong (non CCC)	19	50			43	7	2.74	96%	98%	90%	96%	3	100%	
Bandarban	1	3			3	0	4.00	100%	100%	100%	100%	0	NA	
Brahmanbaria	11	21			21	0	2.42	81%	95%	81%	91%	4	100%	
Chandpur	10	21			20	1	2.13	85%	95%	86%	100%	3	100%	
Comilla	21	96			89	7	5.14	94%	96%	94%	96%	4	100%	
Cox's Bazar	7	14			13	1	2.48	93%	100%	93%	100%	1	100%	
Feni	6	22			21	1	4.22	100%	96%	100%	96%	0	NA	
Khagrachari	2	9			9	0	6.00	100%	78%	100%	89%	0	NA	
Laxmipur	7	13			13	0	2.10	77%	92%	85%	100%	1	100%	
Noakhali	11	24			24	0	2.91	88%	96%	88%	100%	3	100%	
Rangamati	2	7			7	0	4.67	43%	86%	57%	86%	2	100%	
<b>Total-CTG</b>	<b>106</b>	<b>291</b>	<b>0</b>	<b>0</b>	<b>274</b>	<b>17</b>	<b>3.16</b>	<b>91%</b>	<b>96%</b>	<b>91%</b>	<b>96%</b>	<b>21</b>	<b>100%</b>	
Sylhet Division														
Sylhet	11	15			15	0	1.45	87%	100%	87%	100%	2	100%	
Habiganj	8	10			9	1	1.17	70%	100%	70%	100%	3	100%	
Maulvibazar	7	20			19	1	3.62	90%	95%	85%	100%	2	100%	
Sunamganj	9	17			14	3	1.78	82%	100%	88%	100%	1	100%	
<b>Total-SYL</b>	<b>35</b>	<b>62</b>	<b>0</b>	<b>0</b>	<b>57</b>	<b>5</b>	<b>1.90</b>	<b>84%</b>	<b>98%</b>	<b>84%</b>	<b>100%</b>	<b>8</b>	<b>100%</b>	
Raj Division														
RCC only	1	6			6	0	6.67	100%	100%	83%	100%	1	100%	
Rajshahi (non RCC)	9	15			14	1	1.93	80%	100%	93%	100%	0	NA	
Bogra	14	33			31	2	2.86	94%	85%	88%	91%	3	100%	
Dinajpur	11	15			14	1	1.33	67%	100%	73%	100%	5	100%	
Gaibandha	10	18			17	1	2.00	83%	89%	67%	100%	4	100%	
Joypurhat	4	10			10	0	2.33	100%	100%	100%	100%	0	NA	
Kurigram	8	19			18	1	2.50	94%	95%	84%	100%	3	100%	
Lalmonirhat	5	10			10	0	2.67	70%	100%	80%	100%	2	100%	
Naogaon	11	22			21	1	2.42	91%	86%	86%	100%	2	100%	
Natore	7	7			7	0	1.14	83%	100%	86%	100%	1	100%	
Nawabganj	6	12			11	1	2.22	83%	92%	83%	100%	2	100%	
Nilphamari	7	8			8	0	1.33	100%	100%	88%	100%	1	100%	
Fabna	10	23			22	1	2.67	91%	87%	91%	100%	2	100%	
Panchagarh	3	11			9	2	3.56	91%	82%	91%	100%	0	NA	
Rangpur	11	25			22	3	1.70	79%	96%	84%	100%	4	100%	
Sirajganj	11	27			27	0	3.15	85%	100%	89%	96%	3	100%	
Thakurgaon	5	13			12	1	2.40	85%	100%	92%	100%	1	100%	
<b>Total-RAJ</b>	<b>133</b>	<b>274</b>	<b>0</b>	<b>0</b>	<b>259</b>	<b>15</b>	<b>2.27</b>	<b>87%</b>	<b>93%</b>	<b>86%</b>	<b>99%</b>	<b>34</b>	<b>100%</b>	
Khulna Division														
KCC only	3	16			16	0	5.78	100%	100%	94%	93%	1	100%	
Khulna (non KCC)	7	21			20	1	3.24	90%	95%	91%	100%	2	100%	
Bagerhat	7	7			7	0	1.33	86%	100%	86%	86%	2	100%	
Chuadanga	4	7			7	0	2.33	86%	100%	100%	100%	0	NA	
Jessore	11	15			14	1	1.58	100%	100%	87%	100%	2	100%	
Jhenaidah	7	11			10	1	1.33	91%	91%	100%	100%	0	NA	
Kushtia	8	14			13	1	1.83	93%	100%	100%	100%	0	NA	
Magura	4	6			6	0	2.00	83%	100%	83%	100%	1	100%	
Meherpur	2	4			4	0	2.67	100%	100%	100%	100%	0	NA	
Narail	3	6			6	0	2.67	83%	83%	83%	83%	1	100%	
Satkhira	8	16			15	1	2.17	94%	94%	94%	94%	1	100%	
<b>Total-KHU</b>	<b>64</b>	<b>123</b>	<b>0</b>	<b>0</b>	<b>118</b>	<b>5</b>	<b>2.17</b>	<b>93%</b>	<b>97%</b>	<b>93%</b>	<b>97%</b>	<b>10</b>	<b>100%</b>	
Barisal Division														
Barisal	11	27			26	1	2.42	78%	96%	89%	100%	3	100%	
Barguna	4	26			25	1	8.00	96%	92%	96%	100%	0	NA	
Bhola	7	15			12	3	1.90	100%	100%	100%	93%	0	NA	
Jhalakhati	3	27			25	2	8.89	100%	93%	100%	100%	1	100%	
Patuakhali	6	15			15	0	3.11	93%	100%	93%	93%	1	100%	
Pirojpur	5	35			32	3	6.93	97%	97%	94%	100%	1	100%	
<b>Total_BAR</b>	<b>36</b>	<b>145</b>	<b>0</b>	<b>0</b>	<b>135</b>	<b>10</b>	<b>4.22</b>	<b>94%</b>	<b>96%</b>	<b>95%</b>	<b>99%</b>	<b>6</b>	<b>100%</b>	
<b>National</b>	<b>549</b>	<b>1268</b>	<b>0</b>	<b>0</b>	<b>1190</b>	<b>78</b>	<b>2.59</b>	<b>90%</b>	<b>96%</b>	<b>89%</b>	<b>98%</b>	<b>117</b>	<b>98%</b>	

<sup>1</sup> Data as of Epidemiologic Week 48, November 30, 2002<sup>2</sup> Non-polio AFP rate is annualized for cases occurring up to September 30, 2002<sup>3</sup> 60-day follow-up among cases without 2 adequate stool samples occurring up to August 22, 2002

# Non-Polio AFP Rate, by District, Bangladesh 1999-2002\*

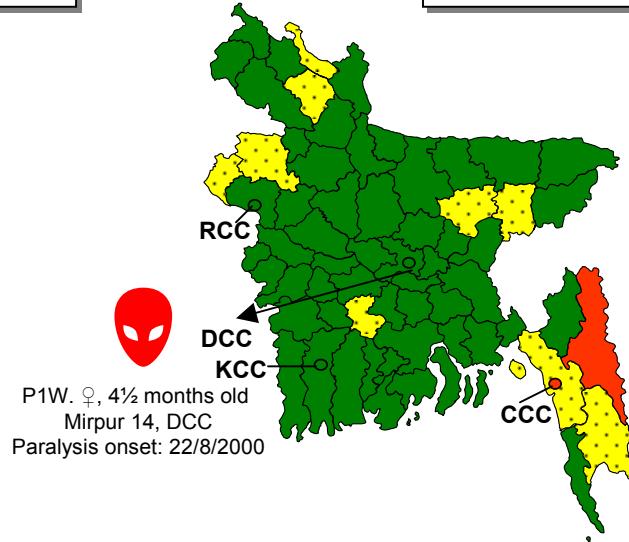
1999 (National: 0.87)

24 of 64 Districts (38%)  
+ 3 CC reached target.



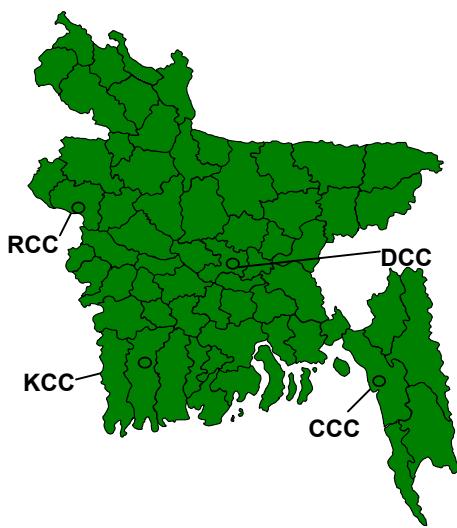
2000 (National: 1.82)

54 of 64 Districts (84%)  
+ 3 CC reached target.



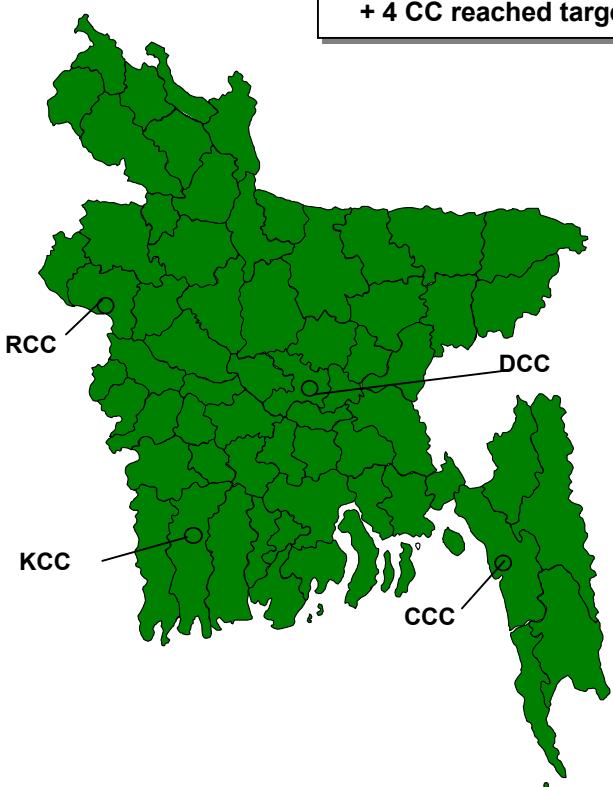
2001 (National: 2.35)

64 of 64 Districts (100%)  
+ 4 CC reached target.



2002 (National: 2.59\*)

64 of 64 Districts (100%)  
+ 4 CC reached target.



Rate per 1,00,000 children <15 years

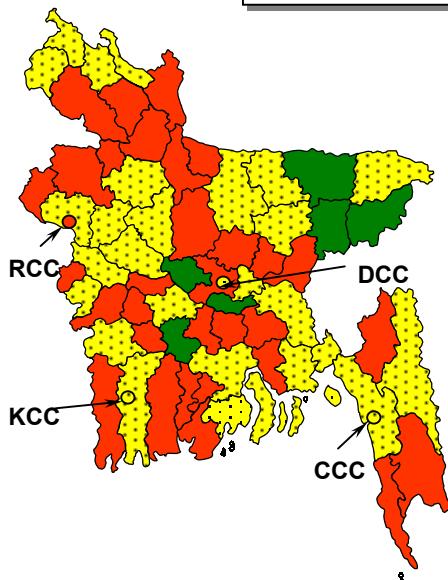
- 0.00 – 0.49
- 0.50 – 0.99
- >=1.00 (Target)

\*Non-Polio AFP rate annualized for cases occurring up to September 30, 2002

# Percent of AFP Cases with Two Stool Samples Collected within 14 days of Paralysis Onset, by District, Bangladesh 1999-2002\*

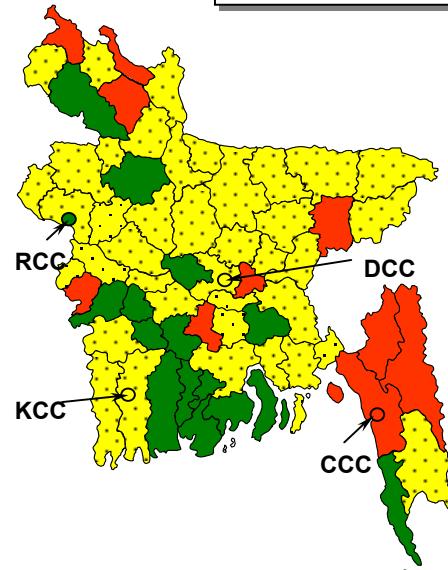
1999 (National: 49%)

6 of 64 Districts (9%) reached target.



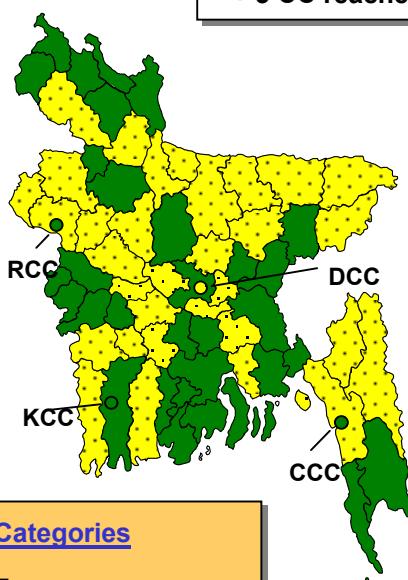
2000 (National: 68%)

15 of 64 Districts (23%) + 1 CC reached target.



2001 (National: 80%)

32 of 64 Districts (50%) + 3 CC reached target.

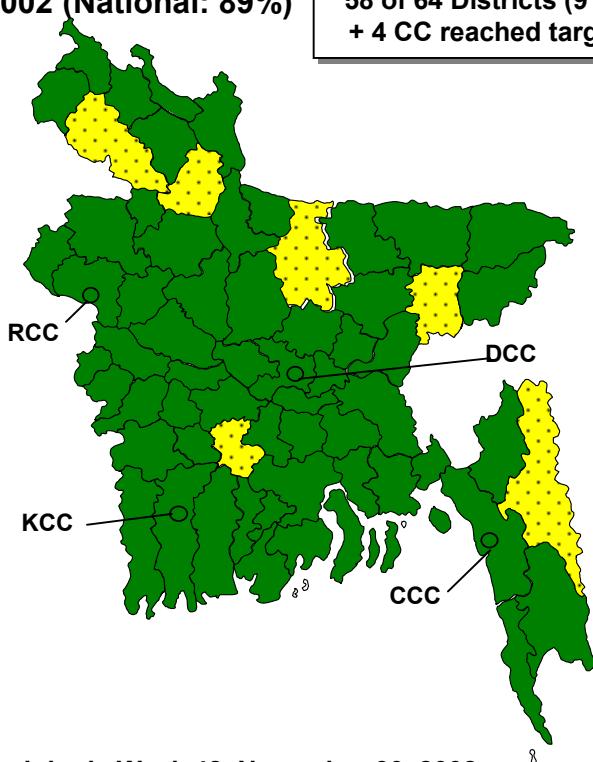


## Categories

- █ 0% - 49%
- █ 50% - 79%
- █ >=80% (Target)

2002 (National: 89%)

58 of 64 Districts (91%) + 4 CC reached target.



\*Data as of Epidemiologic Week 48, November 30, 2002