



# EPI Surveillance Bulletin

Epidemiologic Week 52: December 19 – 25, 2004



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## Surveillance: Key to disease control

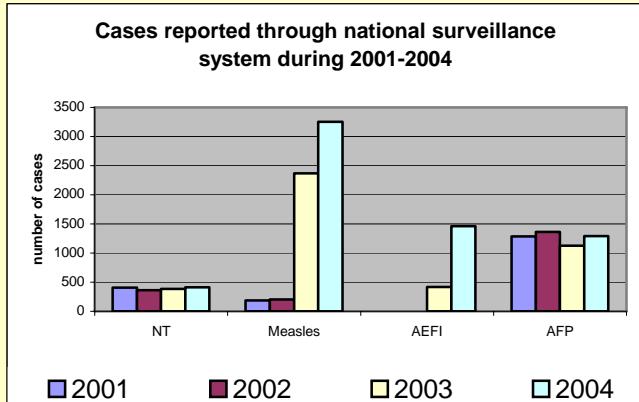
Surveillance is an ongoing process that helps us to interpret the actual situation in the field regarding particular disease epidemiology and give us a basis for planning, implementing and evaluating disease control program. With an urgent need to eradicate polio Government of Bangladesh has introduced AFP surveillance system since 1996. Initially the surveillance performance indicators were not up to the desired standard and Government of Bangladesh, considering the urgency of polio eradication, set up a network of Surveillance Medical Officers (SMO) with the help of WHO. At the same time USAID funded IOCH helped with surveillance in urban areas. After the cessation of IOCH activities, WHO has expanded SMO network to cover urban areas too. With the help of all partners Bangladesh has been able to achieve the international standard of major AFP surveillance indicators since 2001 and has been able to remain polio free since 2000.

Though since very beginning other vaccine preventable diseases like Neonatal Tetanus and Measles were integral part of the AFP surveillance system, only since 2003 surveillance of all vaccine preventable diseases was strengthened. With an aim of improving EPI service quality and reducing dropouts AEFI surveillance was also introduced at the same time.

In spite of international recognition on high performance of our AFP surveillance system, still there is no place for complacency. According to the latest international review recommendation, government ownership of the program needs to be further enhanced. Local Surveillance Officers (LSO) at district and upazila level are not functioning equally well in all places. Active surveillance and monitoring passive surveillance is not considered by some of them as part of their responsibilities. Completeness and timeliness of passive surveillance in many upazilas and districts are still below standard level.

There are signs of improvement of reporting comparatively higher number of cases especially measles and AEFI through passive surveillance from facilities in recent past. Still this is only tip of the iceberg. Considering the TT<sub>2+</sub> coverage (84% in CES 2003) only a

negligible number of total expected cases come into notice. Measles and AEFI cases rarely appear in a health facility unless there are some



serious complications. Service providers are also so overburdened in OPD, they rarely inquire about background illness in detail.

Unless community surveillance for all vaccine preventable diseases (e.g. Measles, NT) and AEFI is introduced, total scenario of the disease burden will never be visualized. We have a very good health infrastructure that has been highly appreciated by various forums; we have skill professionals in health facilities. A little extra effort, motivation and commitment to the well being of the children of Bangladesh can make us establishing an exemplary surveillance system for all vaccine preventable diseases in this region. Good surveillance makes us aware of our achievements and of threats to the program by visualizing the actual disease burden in our country against which we are fighting. Lets make all out efforts to achieve our goals.

## Surveillance Summary for 1998-2004 (through Epidemiologic Week 52, December 19 – 25, 2004)

	1998	1999	2000	2001	2002	2003	2004
Number of AFP cases	475	761	1138	1287	1365	1128	1242
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	2
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	1155
No. of cases pending classification	0	0	0	0	0	0	85
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	2.25 <sup>2</sup>
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%	75%
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%	97% <sup>3</sup>
9. Stool specimens with laboratory results ≤ 28 days after specimen receipt	≥ 80%	16%	58%	94%	99%	100%	100%	99% <sup>4</sup>
10. Stool specimens from which non-polio enterovirus (NPEV) was isolated	≥ 10%	5%	13%	21%	29%	28%	23%	20%

<sup>1</sup> Data as of December 25, 2004; <sup>2</sup> NPAFP rate annualized for cases according to October 23, 2004; <sup>3</sup> among cases occurring up to September 25, 2004; <sup>4</sup> as of November 29, 2004

Please provide your feedback and comments to Dr. Sunil Kumar Das, DPM-EPI or Dr. Md. Lutfor Rahman, Program Manager, Child Health & Limited Curative Care, EPI Bhaban, Mohakhali, Dhaka 1212 Telephone: 9880530 or 9898797

Chief Advisor to the Editorial Board: Dr. Mohd. Mahbubur Rahman, Director PHC & Line Director ESP, DGHS, Mohakhali Dhaka.

District	# Expected non-polio AFP	Total # AFP <sup>1</sup>	Wild polio-virus isolated	# Compatible cases	Non-Polio AFP cases <sup>1</sup>	Pending final classif. <sup>1</sup>	Annualized 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>	% with 60-day follow-up <sup>3</sup>
<b>Dhaka Division</b>												
DCC only	36	46			43	3	1.28	91%	100%	87%	100%	89%
Dhaka (non DCC)	14	35			31	4	2.59	91%	100%	91%	100%	96%
Faridpur	8	30			29	1	4.38	87%	100%	93%	100%	93%
Gazipur	9	13			12	1	1.61	92%	100%	100%	100%	100%
Gopalganj	5	20			19	1	4.35	95%	100%	95%	100%	100%
Jamalpur	9	16			14	2	1.48	88%	100%	88%	100%	91%
Kishoreganj	11	34			33	1	3.19	97%	97%	94%	100%	100%
Madaripur	5	19			18	1	3.63	100%	100%	100%	100%	100%
Manikganj	6	12			11	1	2.02	83%	100%	83%	100%	100%
Munshiganj	6	21			21	0	3.43	91%	100%	91%	100%	94%
Mymensingh	20	27			26	1	1.51	82%	93%	85%	96%	92%
Narayanganj	9	16			16	0	2.02	94%	100%	94%	100%	100%
Narsinghdi	8	14			14	0	1.81	86%	100%	86%	100%	100%
Netrokona	9	21			18	3	2.02	86%	100%	86%	95%	85%
Rajbari	4	15			15	0	4.23	100%	100%	100%	100%	100%
Shariatpur	5	23			22	1	5.08	91%	100%	87%	100%	100%
Sherpur	6	16			15	1	2.62	94%	100%	100%	100%	100%
Tangail	14	29			29	0	2.33	93%	100%	90%	100%	100%
<b>Total-DHAKA</b>	<b>184</b>	<b>407</b>	<b>0</b>	<b>0</b>	<b>386</b>	<b>21</b>	<b>2.31</b>	<b>91%</b>	<b>99%</b>	<b>91%</b>	<b>100%</b>	<b>96%</b>
<b>CTG Division</b>												
CCC only	12	13			11	2	0.91	100%	100%	92%	100%	100%
Chittagong (non CCC)	20	37			34	3	1.81	95%	100%	92%	100%	96%
Bandarban	1	3			2	1	2.42	33%	100%	33%	100%	100%
Brahmanbaria	11	20			19	1	2.09	100%	95%	100%	90%	100%
Chandpur	10	21			19	2	1.93	91%	100%	81%	100%	100%
Comilla	20	41			40	1	2.24	98%	100%	98%	98%	97%
Cox's Bazar	8	18			15	3	2.27	89%	94%	89%	100%	92%
Feni	5	16			15	1	3.14	81%	100%	81%	100%	100%
Khagrachari	2	5			5	0	3.02	100%	100%	100%	100%	100%
Laxmipur	7	28			25	3	4.15	93%	93%	86%	100%	96%
Noakhali	11	26			26	0	2.64	92%	100%	81%	100%	100%
Rangamati	2	10			10	0	6.05	80%	90%	90%	100%	100%
<b>Total-CTG</b>	<b>109</b>	<b>238</b>	<b>0</b>	<b>0</b>	<b>221</b>	<b>17</b>	<b>2.26</b>	<b>92%</b>	<b>98%</b>	<b>89%</b>	<b>99%</b>	<b>98%</b>
<b>Sylhet Division</b>												
SCC	1	1			1	0	1.21	100%	100%	100%	100%	100%
Sylhet (non SCC)	10	17			16	1	1.69	82%	100%	88%	100%	100%
Habiganj	8	11			11	0	1.51	82%	100%	91%	100%	100%
Maulvibazar	7	13			12	1	2.07	92%	92%	77%	100%	100%
Sunamganj	9	19			19	0	2.55	95%	95%	95%	100%	82%
<b>Total-SYL</b>	<b>35</b>	<b>61</b>	<b>0</b>	<b>0</b>	<b>59</b>	<b>2</b>	<b>1.93</b>	<b>89%</b>	<b>97%</b>	<b>89%</b>	<b>100%</b>	<b>94%</b>
<b>Raj Division</b>												
RCC only	2	1			1	0	0.60	100%	100%	100%	100%	100%
Rajshahi (non RCC)	8	8			8	0	1.21	88%	100%	88%	100%	100%
Bogra	13	19			17	2	1.40	90%	100%	100%	100%	100%
Dinajpur	12	26			21	5	1.71	85%	100%	89%	100%	100%
Gaibandha	9	21			20	1	2.42	91%	100%	95%	100%	100%
Joypurhat	4	14			12	2	3.33	100%	100%	100%	100%	100%
Kurigram	8	14			13	1	1.66	71%	93%	86%	100%	80%
Lalmonirhat	5	17			12	5	2.66	88%	100%	88%	100%	100%
Natore	7	11			7	4	1.21	82%	91%	64%	100%	100%
Nilphamari	7	22			21	1	2.42	91%	100%	100%	100%	100%
Noagoan	11	19			17	2	1.65	100%	100%	95%	100%	93%
Nowabganj	6	9			8	1	1.61	78%	100%	78%	100%	100%
Pabna	10	22			20	2	2.42	100%	100%	91%	100%	100%
Panchagarh	4	10			10	0	3.02	100%	100%	100%	100%	100%
Rangpur	11	24			23	1	2.20	100%	96%	100%	100%	100%
Sirajganj	12	26			23	3	2.02	85%	96%	85%	96%	88%
Thakurgaon	5	11			11	0	2.42	100%	100%	100%	100%	100%
<b>Total-RAJ</b>	<b>134</b>	<b>274</b>	<b>0</b>	<b>0</b>	<b>244</b>	<b>30</b>	<b>1.95</b>	<b>91%</b>	<b>99%</b>	<b>92%</b>	<b>100%</b>	<b>97%</b>
<b>Khulna Division</b>												
KCC only	4	7			7	0	1.81	100%	100%	100%	100%	100%
Khulna (non KCC)	7	14			14	0	2.07	93%	93%	100%	100%	92%
Bagerhat	7	13			11	2	1.73	92%	100%	100%	100%	100%
Chuadanga	4	7			7	0	2.12	100%	100%	100%	100%	100%
Jessore	11	23			23	0	2.53	87%	96%	87%	100%	100%
Jhenaidah	7	13			13	0	2.07	92%	100%	85%	100%	100%
Kushtia	7	20			20	0	3.46	90%	100%	90%	100%	100%
Magura	4	6			6	0	1.81	83%	100%	83%	100%	100%
Meherpur	3	5			5	0	2.02	100%	100%	100%	100%	100%
Narail	3	10			1	8	3.22	80%	100%	80%	100%	100%
Satkhira	8	17			1	15	1	2.27	100%	94%	94%	100%
<b>Total-KHU</b>	<b>65</b>	<b>135</b>	<b>0</b>	<b>2</b>	<b>129</b>	<b>4</b>	<b>2.31</b>	<b>92%</b>	<b>98%</b>	<b>92%</b>	<b>100%</b>	<b>99%</b>
<b>Barisal Division</b>												
BCC	1	5			4	1	4.84	100%	100%	100%	100%	75%
Barisal (non BCC)	10	23			22	1	2.54	87%	100%	83%	100%	100%
Barguna	4	12			10	2	2.12	100%	100%	92%	100%	100%
Bhola	7	22			18	4	2.59	91%	91%	91%	100%	100%
Jhalakhati	3	22			20	2	6.05	96%	91%	91%	100%	100%
Patuakhali	6	22			21	1	3.43	96%	100%	96%	100%	94%
Pirojpur	5	21			21	0	4.11	100%	100%	100%	100%	100%
<b>Total_BAR</b>	<b>36</b>	<b>127</b>	<b>0</b>	<b>0</b>	<b>116</b>	<b>11</b>	<b>3.22</b>	<b>95%</b>	<b>97%</b>	<b>92%</b>	<b>100%</b>	<b>98%</b>
<b>National</b>	<b>563</b>	<b>1242</b>	<b>0</b>	<b>2</b>	<b>1155</b>	<b>85</b>	<b>2.25</b>	<b>92%</b>	<b>98%</b>	<b>91%</b>	<b>100%</b>	<b>97%</b>

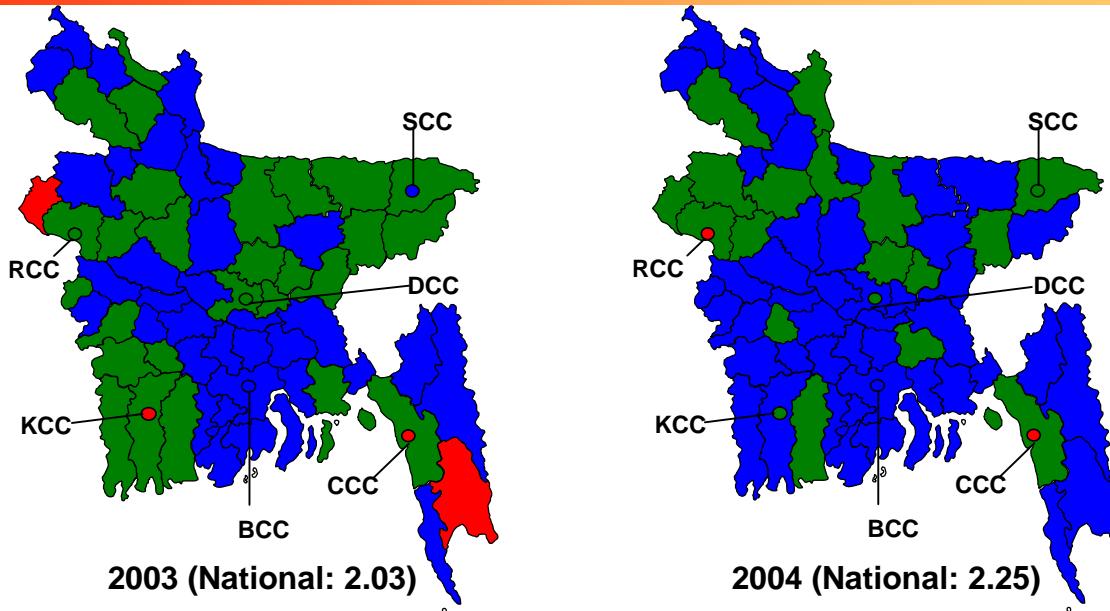
<sup>1</sup>Data as of Epidemiologic Week 52, December 25, 2004; <sup>2</sup> Non-Polio AFP rate is annualized for cases occurring up to October 23, 2004; <sup>3</sup> for cases occurring up to September 25, 2004

## Disease Surveillance - 2004

EPI week 52, 2004

District	Neonatal Tetanus			Measles			AEFI # of case Reported
	# 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 Number of Outbreak (% Investigated)	
<b>Dhaka Division</b>							
DCC only	14	13	16	95	104	3 (100%)	228
Dhaka (non DCC)	7	9	4	8	37	1 (100%)	328
Faridpur	11	8	11	10	52	1 (100%)	27
Gazipur	4	2	1	6	16		9
Gopalganj	8	14	12	8	16		24
Jamalpur	4	4	4	16	21	1 (100%)	71
Kishoreganj	17	25	14	41	225	4 (100%)	230
Madaripur	6	8	7	1	10		5
Manikganj	4	4	4	6	2	2 (100%)	404
Munshiganj	2	1	2	1	15		21
Mymensingh	20	13	12	34	100	3 (100%)	103
Narayanganj	5	5	5	15	17	1 (100%)	51
Narsinghdi	3	6	1	8	10		5
Netrokona	1	8	2	4	104	1 (100%)	137
Rajbari		1		1	40		2
Shariatpur	1	1	1	3	19		41
Sherpur	8	4	9	2	19	1 (100%)	51
Tangail	11	9	7	17	39		18
<b>Total-DHAKA</b>	<b>126</b>	<b>135</b>	<b>112</b>	<b>276</b>	<b>846</b>	<b>18 (100%)</b>	<b>1630</b>
<b>CTG Division</b>							
CCC only	9	11	5	37	40	1 (100%)	15
Chittagong (non CCC)	4	3	1	9	35	1 (100%)	10
Bandarban				11	3	1 (100%)	11
Brahmanbaria	23	28	22	4	18	1 (100%)	11
Chandpur	3	3	5	11	57	10 (100%)	154
Comilla	4	4	5	6	77	3 (100%)	254
Cox's Bazar	10	13	8	32	26		8
Feni	3	2	3		38	1 (100%)	31
Khagrachari	1		1	3	5		6
Laxmipur	8	7	9	3	7	1 (100%)	32
Noakhali	1	3	1	3	29		8
Rangamati				4	18		
<b>Total-CTG</b>	<b>66</b>	<b>74</b>	<b>60</b>	<b>123</b>	<b>353</b>	<b>19 (100%)</b>	<b>518</b>
<b>Sylhet Division</b>							
SCC	4	2	1	83	57		2
Sylhet (non SCC)	9	7	5	98	306	4 (100%)	388
Habiganj	11	14	5	29	109	2 (100%)	126
Maulvibazar	10	12	2	15	93		20
Sunamganj	18	18	6	189	202	3 (100%)	182
<b>Total-SYL</b>	<b>52</b>	<b>53</b>	<b>19</b>	<b>414</b>	<b>767</b>	<b>9 (100%)</b>	<b>696</b>
<b>Raj Division</b>							
RCC only	1	2		2	3		3
Rajshahi (non RCC)	1	2		15	21	1 (100%)	34
Bogra	5	6	4	17	27	1 (100%)	74
Dinajpur	4	5	4	5	40	7 (100%)	537
Gaibandha	1	10	5	4	26	8 (100%)	272
Joypurhat				13	77	2 (100%)	27
Kurigram	1		1	3	1		22
Lalmonirhat		1	1		30		1
Natore	4	6	3	8	31		14
Nilphamari	2	1	1	9	29	3 (100%)	115
Noagoan	4	5	4	7	43	4 (100%)	121
Nowabganj	3	3	2	7	31		10
Pabna	3	6	2	20	74		32
Panchagarh	2	2		2	42		3
Rangpur	8	7	5	16	11	3 (100%)	172
Sirajganj	1	1		11	39	1 (100%)	172
Thakurgaon				7	16		16
<b>Total-RAJ</b>	<b>40</b>	<b>58</b>	<b>32</b>	<b>146</b>	<b>541</b>	<b>30 (100%)</b>	<b>1524</b>
<b>Khulna Division</b>							
KCC only	1		1	4	12		3
Khulna (non KCC)				2	85	1 (100%)	20
Bagerhat	4		4	4	31		4
Chuadanga	1	2	2	4	12	1 (100%)	89
Jessore	9	10	4	5	55		31
Jhenaidah	7	8	4	6	18		23
Kushtia	4	3	4	2	5		13
Magura	2	7	2	9	58	2 (100%)	132
Meherpur			1	4	3		4
Narail	6	8	7	13	16		24
Satkhira	3	3	3		5		18
<b>Total-KHU</b>	<b>37</b>	<b>41</b>	<b>32</b>	<b>53</b>	<b>300</b>	<b>4 (100%)</b>	<b>241</b>
<b>Barisal Division</b>							
BCC							
Barisal (non BCC)	5	10		11	39		2
Barguna	1	2		15	99	2 (100%)	48
Bhola	3	11	3		8	1 (100%)	60
Jhalakathi	2	4	3	4	6		3
Patuakhali	4	4	2	7	71		7
Pirojpur	3	2	3	4	28		25
<b>Total_BAR</b>	<b>18</b>	<b>33</b>	<b>11</b>	<b>41</b>	<b>251</b>	<b>3 (100%)</b>	<b>108</b>
<b>National</b>	<b>339</b>	<b>394</b>	<b>266</b>	<b>1053</b>	<b>3058</b>	<b>83 (100%)</b>	<b>4717</b>
Data as of Epidemiologic Week 52, December 25, 2004							

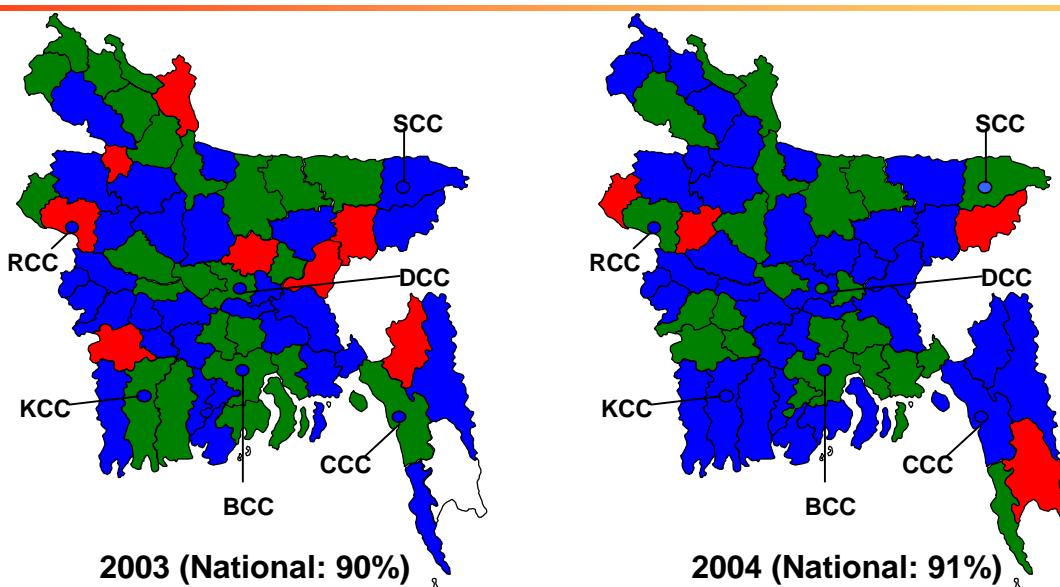
## Annualized Non-Polio AFP Rate, by District, Bangladesh 2003-2004\*



\*NPAFP rate annualized for cases according to October 23, 2004

Rate per 1,00,000 children <15 years		
0.00 – 0.99	1.00 – 1.99	>=2.00

## 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 52, December 25, 2004

<u>Categories</u>			
0% – 79%	80% – 89%	>=90%	No AFP Case