


**Non-Polio AFP Rates
2005**

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Tel: +95 -1- 380040 (CEU)
Tel: +95 -1- 371790 (EPI)
Tel: + 95 -1- 726994 (WHO)
Fax: + 95 -1 - 379008, 380040



**Non-Polio AFP Rates
2006 (annualized)**

< 1.00
1.00 - 1.99
≥ 2.00

Table 1: Reported AFP cases against targets by State/Division and classification status of cases with onset in 2005 and 2006 (date as of 15/07/2006)

State & Division	Population <15 years	Minimum non-polio AFP target	2006 (Onset)								2005						
			Case Classification								Case Classification						
			AFP		Polio				Pending		AFP		Polio			Pending	
			AFP Cases	Discarded (Non-polio)	Confirmed Polio	Wild Poliovirus	Compatible	VDPV	Total	>90 Days	AFP Cases	Discarded (Non-polio)	Confirmed Polio	Wild Poliovirus	Compatible	Total	>90 Days
Ayeyarwady	2654716	53	19	14	0	0	0	0	5	0	34	34	0	0	0	0	
Bago East	1102191	22	14	12	0	0	0	0	2	0	14	14	0	0	0	0	
Bago West	895691	18	9	8	0	0	0	0	1	0	28	28	0	0	0	0	
Chin	188406	4	2	2	0	0	0	0	0	0	2	2	0	0	0	0	
Kachin	497207	10	1	1	0	0	0	0	0	0	8	8	0	0	0	0	
Kayah	103209	2	2	2	0	0	0	0	0	0	3	3	0	0	0	0	
Kayin	590108	12	7	7	0	0	0	0	0	0	11	11	0	0	0	0	
Magway	1778969	36	9	7	0	0	0	0	2	0	35	35	0	0	0	0	
Mandalay	2652116	53	15	11	0	0	0	1	3	0	42	42	0	0	0	0	
Mon	974316	19	3	3	0	0	0	0	0	0	13	13	0	0	0	0	
Rakhine	1074576	21	9	9	0	0	0	0	0	0	21	21	0	0	0	0	
Sagaing	2066461	41	12	10	0	0	0	0	2	0	43	43	0	0	0	0	
Shan East	298619	6	5	5	0	0	0	0	0	0	3	3	0	0	0	0	
Shan North	863238	17	3	3	0	0	0	0	0	0	10	10	0	0	0	0	
Shan South	736767	15	2	2	0	0	0	0	0	0	8	8	0	0	0	0	
Tanintharyi	528779	11	3	3	0	0	0	0	0	0	8	8	0	0	0	0	
Yangon	2240009	45	32	28	0	0	0	0	4	0	57	57	0	0	0	0	
TOTAL	19245381	385	147	127	0	0	0	1	19	0	340	340	0	0	0	0	

Table 2: Selected Performance Indicators by State/Division for cases with onset in 2005 and 2006 (data as of 15/07/2006)

State & Division	2006 (onset)								2005							
	Surveillance Indicators				Surveillance Indicators				Surveillance Indicators				Surveillance Indicators			
	Annualized AFP Rates		Specimen		AFP Rates		Specimen		AFP Rates		Specimen		AFP Rates		Specimen	
	AFP rate	Non-polio AFP rate	% within 2 spec. within 14 days	% with any specimen	% AFP investigated within 48 hrs.	% AFP cases with 60 days Follow-up	% Weekly zero reports received	% Weekly zero reports received on Time	AFP rate	Non-polio AFP rate	% within 2 spec. within 14 days	% with any specimen	% AFP investigated within 48 hrs.	% AFP cases with 60 days Follow-up	% Weekly zero reports received	% Weekly zero reports received on Time
TARGET	1	1	80	100	80	80	80	80	1	1	80	100	80	80	80	80
Ayeyarwady	1.58	1.05	100	100	95	75	100	97	1.31	1.31	100	100	91	97	100	99
Bago East	2.54	2.18	100	100	100	100	100	99	1.30	1.30	93	100	100	93	100	96
Bago West	2.23	1.79	90	100	100	80	100	100	3.19	3.19	86	100	100	100	100	98
Chin	2.12	2.12	100	100	100	100	100	91	1.08	1.08	100	100	100	100	100	92
Kachin	0.40	0.40	100	100	100	100	100	86	1.64	1.64	100	100	100	88	100	82
Kayah	3.88	3.88	100	100	100	100	100	93	2.97	2.97	67	100	100	100	100	97
Kayin	2.37	2.37	86	100	100	80	100	100	1.90	1.90	91	100	100	100	100	100
Magway	1.01	0.79	100	100	100	100	100	100	2.01	2.01	97	100	100	100	100	98
Mandalay	1.13	0.83	93	100	93	75	100	96	1.62	1.62	95	100	100	95	100	100
Mon	0.62	0.62	100	100	67	67	100	100	1.36	1.36	92	100	100	100	100	100
Rakhine	1.68	1.68	100	100	100	88	100	84	1.99	1.99	95	100	95	95	100	96
Sagaing	1.26	0.97	100	100	100	88	100	93	2.12	2.12	100	100	100	100	100	88
Shan East	3.35	3.35	100	100	100	100	100	97	1.02	1.02	100	100	100	100	100	93
Shan North	0.70	0.70	100	100	100	100	100	100	1.18	1.18	90	100	100	100	100	96
Shan South	0.54	0.54	100	100	100	100	100	100	1.11	1.11	88	100	100	88	100	86
Tanintharyi	1.13	1.13	100	100	100	100	100	83	1.54	1.54	100	100	88	88	100	85
Yangon	2.86	2.50	94	100	94	86	100	100	2.60	2.60	98	100	82	98	100	100
TOTAL	1.57	1.35	97	100	97	87	100	96	1.80	1.80	96	100	96	97	100	95

Table 3: AFP cases by month of paralysis onset, last 13 months

State/Division	2004 Total AFP	2005 Total AFP	2006 AFP to date	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06
Ayeyarwady	39	34	18	2	2	4	7	4	1	2	5	1	6	0	1	5
Bago East	15	14	14	2	0	1	4	1	0	0	0	5	4	0	3	2
Bago West	15	28	9	0	5	2	12	4	2	1	2	2	1	0	2	2
Chin	2	2	2	1	1	0	0	0	0	0	1	0	1	0	0	0
Kachin	6	8	1	1	3	1	1	0	0	1	1	0	0	0	0	0
Kayah	2	3	2	0	0	0	0	1	0	1	1	1	0	0	0	0
Kayin	7	11	7	0	1	3	1	1	1	0	4	1	0	0	2	0
Magway	24	35	9	2	5	6	6	5	3	0	0	1	2	0	4	2
Mandalay	37	42	15	1	3	6	16	5	5	1	1	2	3	2	4	3
Mon	16	13	3	3	2	2	1	3	1	0	1	0	1	1	0	0
Rakhine	20	21	9	0	0	1	7	4	6	1	0	2	4	2	1	0
Sagaing	34	43	12	5	4	12	7	7	4	0	3	3	2	0	2	2
Shan East	5	3	5	1	0	0	1	1	0	0	1	1	1	0	2	0
Shan North	8	10	3	0	1	1	2	1	3	1	1	0	1	0	0	1
Shan South	7	8	2	1	0	2	0	1	1	1	1	0	1	0	0	0
Tanintharyi	12	8	3	0	1	3	2	1	1	0	0	0	1	1	1	0
Yangon	22	57	33	3	1	8	14	7	11	5	8	6	5	4	5	5
Total	271	340	147	22	29	52	81	46	39	14	30	25	33	10	27	22

Table 4: Stool processing and Laboratory performance indicators for cases with onset in 2005 & 2006, data as of 30/06/2006

	Target	Achievement	
		2005	2006
% Specimens arriving at the Lab within 3 days after being sent	80	98	79
% Specimens arriving in the Lab in good condition	90	100	100
% Specimens with a turn-around time of 28 days or less	80	85	99
% Specimens for which non-polio enterovirus was isolated	10	12	18
% Polio-positive specimens forwarded to Ref Lab within 14 days after isolation	80	100	100

Table 5: Laboratory Results, as reported by NHL between 1 April 2006 and 30 June 2006

State/ Division	Township	EPID number	Date Onset	Date Stool sent	Stool Condition	Date Report by NHL	Stool 1 Result	Stool 2 Result
MANDALAY	WUNDWIN	MMR092606001	18/03/2006	30/03/2006	Good	18/04/2006	NPEV	NPEV
TANINTHARYI	BOKEPYIN	MMR060506001	16/04/2006	27/04/2006	Good	17/05/2006	NPEV	NPEV
RAKHINE	SITWAY	MMR110406002	18/04/2006	28/04/2006	Good	17/05/2006	NPEV	NPEV
SHAN(EAST)	MONGKHAT	MMR133006001	08/05/2006	22/05/2006	Good	12/06/2006	NPEV	NPEV
KAYIN	HPA-AN	MMR030506002	30/05/2006	01/06/2006	Good	19/06/2006	NPEV	NPEV
BAGO(EAST)	BAGO	MMR071106003	18/05/2006	01/06/2006	Good	19/06/2006	NPEV	NPEV
BAGO(EAST)	KYAUKTAGA	MMR070406001	21/05/2006	06/06/2006	Good	21/06/2006	NPEV	NEGATIVE
MANDALAY	KYAUKSE	MMR090106001	01/06/2006	06/06/2006	Good	21/06/2006	NPEV	P1HTD
SHAN(EAST)	KENGTUNG	MMR130806004	27/05/2006	08/06/2006	Good	26/06/2006	NPEV	NPEV
BAGO(WEST)	PAUNGDE	MMR071506002	10/06/2006	14/06/2006	Good	03/07/2006	NPEV	NEGATIVE
BAGO(WEST)	LETPADAN	MMR072206001	15/06/2006	27/06/2006	Good	12/07/2006	NPEV	NPEV
YANGON	TAIKKYI	MMR123506005	27/06/2006	28/06/2006	Good	12/07/2006	NPEV	NPEV

N.B. If stool condition is good and laboratory finding is negative, it will not be shown in the table.

Table 6: Results of Intra-Typic Differentiation by NH/Bangkok, 2006

State/ Division	Township	IDCODE	Onset Date	Stool Condition	Stool 1	Stool 2
AYEYARWADY	LABUTTA	MMR142006001	15/01/2006	Good	NEGATIVE	NEGATIVE
MANDALAY	PYIN OOLWIN(MYAYMO)	MMR091906001	09/04/2006	Good	VDPV	VDPV
KAYIN	HLAINGBWE	MMR030606003	12/05/2006	Good	P1(SL)+P3(SL)	NPEV
MANDALAY	KYAUKSE	MMR090106001	01/06/2006	Good	NPEV	P1HTD

Note: P1, P2, P3 indicates Polio Serotype 1, 2, 3 respectively; "W" indicates "Wild Virus"; "S" indicates "Sabin (=Vaccine) Virus"

This year we will start providing feedback on all vaccine preventable diseases. Cases Definitions are below.....

Table 7: Other Vaccine Preventable Diseases & AEFI for the month of April to June 2006

State/ Division	NNT case (death)		NNT case Investigation		Diphtheria Case (deaths)		Pertussis Case (deaths)		Measles						AEFI						
	Old	New	Total	Old	New	Total	Old	New	Total	Outbreaks			Other Cases			Total	O	N	T		
										No. (investigated)	Old	New	Total	Old	New					Total	
Ayeyawaddy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Bago(East)	1(0)	1(0)	2(0)	1	1	2	0	0	0	0	0	0	0	2(0)	2(0)	0	2(0)	0	0		
Bago(West)	0	0	0	0	0	0	0	0	1	5(0)	0	5(0)	0	0	0	5(0)	0	0	0		
Chin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Kachin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Kayah	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Kayin	3(0)	0	3(0)	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0		
Magway	0	0	0	0	0	0	0	0	1	10(0)	0	10(0)	0	0	0	10(0)	0	0	0		
Mandalay	1(1)	4(2)	5(3)	1	4	5	0	0	1	6(0)	77(0)	2(0)	2(0)	0	2(0)	8(0)	69(0)	77(0)	2(2)		
Mon	0	0	0	0	0	0	0	0	1	12(0)	0	12(0)	0	4(0)	26(0)	34(0)	4(0)	38(0)	0		
Rakhine	0	3(3)	3(3)	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0		
Sagaing	0	1(1)	1(1)	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
Shan(East)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Shan(North)	1(0)	0	1(0)	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
Shan(South)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Tanintharyi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Yangon	1(1)	0	1(1)	1	0	1	0	0	2	37(0)	25(0)	62(0)	37(0)	1(0)	7(0)	43(0)	26(0)	69(0)	1(1)		
Total	7(2)	9(6)	16(8)	7	9	16	0	2(2)	2(2)	60(0)	104(0)	164(0)	31(0)	16(0)	47(0)	91(0)	120(0)	211(0)	3(3)	0	3(3)

Remarks: Old ➤ Cumulative cases for the previous months

New ➤ New cases for the current month

CASE DEFINITION

ACUTE FLACCID PARALYSIS: Any child under 15 years old, with flaccid or floppy paralysis of sudden onset

VACCINE DERIVED POLIOVIRUS (VDPV): A live, attenuated strain of the virus contained in the Oral Polio Vaccine which has mutated and reverted to a neurotropic form, capable of causing Vaccine-associated paralytic polio (VAPP). VDPVs differ from the parental Sabin Strains at 1 to 45% of VP1 nucleotides.

MEASLES: Any person in whom a clinician suspects measles infection, or

Any person with fever and maculopapular rash (i.e. non-vesicular) and cough, coryza (i.e. runny nose) or conjunctivitis (i.e. red eyes).

NEONATAL TETANUS

Suspected case: Any neonatal death between 3 and 28 days of age in which the cause of death is unknown; or

Any neonate reported as having suffered from neonatal tetanus between 3 and 28 days of age and not investigated.

Confirmed case: Any neonate with normal ability to suck and during the first 2 days of life and - who, between 3 and 28 days of age, cannot suck normally and - becomes stiff or has spasms (i.e. jerking of the muscles)

DIPHTHERIA: An illness characterized by laryngitis or pharyngitis or tonsillitis, and an adherent membrane of the tonsils, pharynx and/or nose.

PERTUSSIS (Whooping cough): A case diagnosed as pertussis by a physician or a person with a cough lasting at least two weeks with at least one of the following symptoms:

- Paroxysms (i.e. fits) of coughing.
- Inspiratory whooping.
- Post-tussive vomiting (i.e. vomiting immediately after coughing) without other apparent cause.

Collection of Samples for Laboratory Diagnosis of Measles and Rubella

Measles laboratory at the Virology section of National Health Laboratory (NHL) had started testing of Measles & Rubella serology since May, 2001.

The Laboratory was accredited as the National Measles and Rubella Laboratory by WHO in the year 2006.

Laboratory confirmation of Measles and Rubella infection can be done by detection of antibody in the serum and isolation of virus in the cell line.

Collection of Specimen for Serology

The correct timing of sampling with respect to the onset of clinical signs is important for interpreting results.

- ❖ Serum samples for detection of Measles Antibody must be collected between days 4 and 28 after the onset of rash.
- ❖ 5-10 samples should be collected in each outbreak, individual diagnosis is not critical.
- ❖ Blood should be collected by venipuncture in a sterile tube (2-3ml) and allow to clot.
- ❖ The serum should be separated and transferred to a sterile labeled vial with the patient's name, age, sex, date of collection.
- ❖ Case investigation form containing patient's information must be filled completely.
- ❖ Serum should be stored at 4-8°C before shipment and transported in a cold box containing frozen ice packs.

Collection of Specimens for Virus Isolation

1. Nasopharyngeal Specimen

Specimen should be collected as soon as possible after the appearance of the rash, when the virus is present in high concentration.

- ❖ Nasopharyngeal/oropharyngeal swabs can be obtained by firmly rubbing the nasopharyngeal passage and back of the throat with sterile cotton swab to dislodge epithelial cells.
- ❖ The swabs are placed in sterile viral transport medium in labeled screw capped tubes.
- ❖ Nasopharyngeal specimen should be refrigerated and shipped to the laboratory with ice packs to arrive within 48 hours.
- ❖ NHL will provide virocult device for specimen collection (as shown in the figure)

2. Urine Specimen

Specimen should be collected as soon as possible after the onset of rash and at least within 5 days after the onset.

- ❖ It is preferable to obtain early morning first urine.
- ❖ 10-15ml of urine should be collected in the sterile labeled container and held at 4-8°C.
- ❖ Whole urine sample should be shipped within 24 hours at 4°C.
- ❖ If not centrifugation should be performed at 1500 rpm for 5 to 10 minutes preferably at 4°C.
- ❖ The supernatant should be discarded and the sediment resuspended in 2-3ml viral transport medium (VTM).
- ❖ The resuspended pellet may be stored at 4°C shipped within 48 hours to the National Measles and Rubella Laboratory, Virology Section, National Health Laboratory.
- ❖ Specimens are accepted even at weekends and outside the office hours.
- ❖ NHL would like to request advance information for the shipment of samples if possible.

