



**Non-Polio AFP Rates
2007 (annualized)**

Myanmar Polio Newsletter

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**Percentage of Adequate
stool collection 2007**

Table 1: Reported AFP cases against targets by State/Division and classification status of cases with onset in 2006 and 2007 (date as of 15/07/2007)

State & Division	Population <15 years	Minimum non-polio AFP target	2007 (Onset)								2006							
			Case Classification								Case Classification							
			AFP		Polio			Pending			AFP		Polio			Pending		
			AFP Cases	Discarded (Non-polio AFP)	Confirmed Polio	Wild Poliovirus Cases	Compatible	VDPV	Total	>90 Days	AFP Cases	Discarded (Non-polio AFP)	Confirmed Polio	Wild Poliovirus Cases	Compatible	VDPV	Total	>90 Days
Ayeyarwady	2708341	54	14	13	0	0	0	1	0	53	53	0	0	0	0	0	0	
Bago East	1124456	22	6	4	0	0	0	2	0	21	21	0	0	0	0	0	0	
Bago West	913784	18	3	2	0	0	0	1	0	17	17	0	0	0	0	0	0	
Chin	192212	4	1	1	0	0	0	0	0	5	5	0	0	0	0	0	0	
Kachin	515712	10	5	4	0	0	0	1	0	6	6	0	0	0	0	0	0	
Kayah	105294	2	1	1	0	0	0	0	0	3	3	0	0	0	0	0	0	
Kayin	602029	12	4	3	1	0	0	1	0	13	13	0	0	0	0	0	0	
Magway	1814904	36	8	6	0	0	0	2	0	26	26	0	0	0	0	0	0	
Mandalay	2705689	54	10	10	0	0	0	0	0	49	48	0	0	0	1	0	0	
Mon	993998	20	13	7	0	0	0	6	0	23	23	0	0	0	0	0	0	
Rakhine	1096283	22	28	8	11	11	8	1	0	28	28	0	0	0	0	0	0	
Sagaing	2108204	42	12	12	0	0	0	0	0	47	47	0	0	0	0	0	0	
Shan East	304651	6	2	2	0	0	0	0	0	8	8	0	0	0	0	0	0	
Shan North	879540	18	9	9	0	0	0	0	0	22	22	0	0	0	0	0	0	
Shan South	751650	15	5	5	0	0	0	0	0	14	14	0	0	0	0	0	0	
Tanintharyi	539460	11	1	1	0	0	0	0	0	13	13	0	0	0	0	0	0	
Yangon	2285257	46	11	9	1	0	0	1	1	62	62	0	0	0	0	0	0	
TOTAL	19641463	393	133	97	13	11	8	2	15	0	410	409	0	0	0	1	0	

Table 2: Selected Performance Indicators by State/Division for cases with onset in 2006 and 2007 (data as of 15/07/2007)

State & Division	2007 (onset)								2006							
	Surveillance Indicators				Surveillance Indicators				Surveillance Indicators				Surveillance Indicators			
	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		2	80		80	80	80		2	80		80	80	80	80	
Ayeyarwady	1.03	0.96	100	100	100	100	96	92	2.00	1.96	92	100	94	92	100	96
Bago East	1.07	0.71	100	100	100	100	96	96	1.91	1.91	100	100	100	88	100	95
Bago West	0.66	0.44	100	100	100	50	92	89	1.90	1.90	88	100	100	87	100	97
Chin	1.04	1.04	100	100	100	100	48	42	2.65	2.65	100	100	100	100	100	83
Kachin	1.94	1.55	80	100	100		91	76	1.19	0.99	100	100	100	100	100	85
Kayah	1.90	1.90	100	100	100	100	88	78	2.91	2.91	100	100	100	100	100	90
Kayin	1.33	1.00	75	100	100	100	92	92	2.03	1.86	83	100	100	91	100	100
Magway	0.88	0.66	100	100	100	67	93	93	1.46	1.41	96	100	100	89	100	100
Mandalay	0.74	0.74	100	100	100	100	81	81	1.85	1.70	96	100	98	88	100	97
Mon	2.62	1.41	92	100	100	75	100	100	2.36	2.36	100	100	91	87	100	98
Rakhine	5.11	1.46	57	100	86	67	77	71	2.61	2.33	89	100	96	81	100	75
Sagaing	1.14	1.14	100	100	100	100	100	97	2.27	2.18	100	100	98	68	100	83
Shan East	1.31	1.31	100	100	100		92	92	2.68	2.68	100	100	100	88	100	98
Shan North	2.05	2.05	89	100	100	67	82	76	2.55	2.32	100	100	100	100	100	100
Shan South	1.33	1.33	100	100	100	100	96	94	1.90	1.90	100	100	100	71	100	87
Tanintharyi	0.37	0.37	100	100	100		96	81	2.46	2.46	100	100	100	100	100	79
Yangon	0.96	0.79	100	100	100	100	100	98	2.77	2.72	90	100	94	92	100	100
TOTAL	1.35	0.99	88	100	97	84	91	88	2.12	2.04	95	100	97	88	100	93

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

State/Division	2005 Total AFP	2006 Total AFP	2007 AFP to date	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07
Ayeyarwady	34	52	14	5	5	5	4	14	1	5	3	3	3	0	1	4
Bago East	14	21	6	2	2	0	0	1	3	1	1	1	1	0	0	2
Bago West	28	17	3	2	2	3	1	0	2	0	1	1	0	0	0	1
Chin	2	5	1	0	0	2	0	0	0	1	0	1	0	0	0	0
Kachin	8	6	5	0	0	3	0	1	0	1	0	0	0	0	2	2
Kayah	3	4	1	0	1	0	0	0	0	1	1	0	0	0	0	0
Kayin	11	12	4	0	1	0	1	2	1	0	0	0	1	1	0	2
Magway	35	26	8	2	3	3	0	3	6	2	1	0	1	1	2	3
Mandalay	42	49	10	3	4	3	3	8	6	10	2	3	1	1	1	2
Mon	13	23	13	0	3	4	1	3	5	4	2	2	0	0	2	7
Rakhine	21	28	28	0	4	2	1	5	3	4	4	2	9	6	4	3
Sagaing	43	47	12	2	3	5	3	8	6	10	1	2	2	1	3	3
Shan East	3	8	2	1	0	0	1	1	0	0	0	0	0	0	1	2
Shan North	10	22	9	1	0	4	4	6	1	4	3	0	1	2	1	2
Shan South	8	14	5	0	1	0	1	3	6	1	1	2	0	0	0	2
Tanintharyi	8	13	1	0	1	1	1	1	3	3	0	0	0	0	0	1
Yangon	57	63	11	7	3	6	8	6	5	0	4	1	0	3	0	4
Total	340	410	133	25	33	41	29	62	48	47	24	18	19	15	17	40

Table 4: Stool processing and Laboratory performance indicators for cases with onset in 2006 & 2007, data as of 15/07/2007

	Target	Achievement	
		2006	2007
% Specimens arriving at the Lab within 3 days after being sent	80	97	96
% Specimens arriving in the Lab in good condition	90	100	100
% Specimens with a turn-around time of 28 days or less	80	100	100
% Specimens for which non-polio enterovirus was isolated	10	15	17
% Polio-positive specimens forwarded to Ref Lab within 14 days after isolation	80	100	100

Table 5: Results of Intra-Typic Differentiation by NIH/Bangkok, 2007

State/ Division	Township	IDCODE	Onset Date	Stool Condition	Stool 1	Stool 2
SAGAING	WUNTHO	MMR053507001	02/02/2007	Good	P1(SL)	P1(SL)
MANDALAY	LEWAY	MMR092507001	08/02/2007	Good	P1(SL)P2(SL)P3(SL)	P1(SL)P2(SL)P3(SL)
RAKHINE	MAUNGDAW	MMR111307018	23/02/2007	Good	P2(SL)	P2(SL)
AYEYARWADY	PATHEIN	MMR141107002	06/03/2007	Good	P1(SL)	NEGATIVE
RAKHINE	MAUNGDAW	MMR111307002	09/03/2007	Good	P1 WILD	NEGATIVE
RAKHINE	MAUNGDAW	MMR111307012	15/03/2007	Good	P1 WILD	NPEV
RAKHINE	MAUNGDAW	MMR111307007	19/03/2007	Good	P2(SL)	P2(SL)
RAKHINE	MAUNGDAW	MMR111307003	26/03/2007	Good	P1 WILD	P1 WILD
RAKHINE	MAUNGDAW	MMR111307009	04/04/2007	Good	P2(SL)	P2(SL)
RAKHINE	MAUNGDAW	MMR111307014	10/04/2007	Good	P1 WILD	P1 WILD
RAKHINE	MAUNGDAW	MMR111307006	13/04/2007	Good	P1 WILD	P1 WILD
RAKHINE	MAUNGDAW	MMR111307005	19/04/2007	Good	P1 WILD	P1 WILD
YANGON	KAYAN	MMR123407001	30/04/2007	Good	VDPV	VDPV
RAKHINE	MAUNGDAW	MMR111307013	30/04/2007	Good	P1 WILD	NPEV
RAKHINE	MAUNGDAW	MMR111307019	03/05/2007	Good	P1 WILD	P1 WILD
RAKHINE	MAUNGDAW	MMR111307020	12/05/2007	Good	P1 WILD	P1W+NPEV
RAKHINE	BUTHIDAUNG	MMR110807002	28/05/2007	Good	P1 WILD	P1 WILD
KAYIN	HPA-AN	MMR030507002	11/06/2007	Good	VDPV	VDPV
AYEYARWADY	PANTANAW	MMR141007002	14/06/2007	Good	P1(SL)	P1(SL)

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

Specimen tested at DHAKA and CDC

State/ Division	Township	IDCODE	Onset Date	Stool Condition	Stool 1	Stool 2
RAKHINE	MAUNGDAW	MMR111307008	16/03/2007	Good	P1 WILD	P1 WILD

Table 6: Other Vaccine Preventable Diseases & AEFI for the month of April to June 2007

State/ Division	NNT case (death)			NNT case Investigation			Diphtheria Case (deaths)			Pertussis Case (deaths)			Measles						AEFI											
	New		Total	Old		Total	New		Total	Old		Total	Outbreaks			Other Cases			Total	Total Cases										
	Old	New		Old	New		Old	New		Old	New		No. (investigated)			Cases			Old	New	Total	Old	New	Total						
Ayeyarwaddy	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	19(0)	0	19(0)	0	0	0	22(0)	13(1)	35(1)	41(0)	13(1)	54(1)	0	0	0
Bago(East)	0	1(0)	1(0)	0	1	1	0	0	0	0	0	0	0	1	1	0	23	23(0)	0	0	53(0)	34(0)	87(0)	53(0)	57(0)	110(0)	0	0	0	
Bago(West)	0	0	0	0	0	0	0	0	0	0	0	6	1	7	87(3)	6(2)	93(5)	0	0	0	12(1)	0	12(0)	99(4)	6(2)	105(6)	0	0	0	
Chin	0	0	0	0	0	0	0	0	0	0	0	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	3(0)	3(0)	0	0	0	1(0)	1(0)	2(0)	1(0)	1(0)	2(0)	0	0	0
Kayah	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kayin	0	0	0	0	0	0	0	0	0	0	0	2	2	4	51(0)	17(0)	68(0)	47(0)	1(0)	48(0)	0	1(0)	49(0)	98(0)	18(0)	116(0)	0	0	0	
Magway	0	0	0	0	0	0	0	0	0	0	0	3	1	4	33(0)	16(0)	49(0)	0	2(0)	2(0)	0	2(0)	2(0)	33(0)	18(0)	51(0)	0	0	0	
Mandalay	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	6(0)	6(0)	0	19(0)	22(0)	3(0)	19(0)	22(0)	3(0)	25(0)	28(0)	0	0	0	
Mon	0	1(0)	1(0)	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4(0)	16(0)	20(0)	4(0)	16(0)	20(0)	0	0	0	
Rakhine	0	1(0)	1(0)	0	1	1	0	0	0	0	0	1	2	3	84(0)	76(0)	160(0)	0	1(0)	1(0)	0	1(0)	1(0)	84(0)	77(0)	161(0)	0	0	0	
Sagaing	0	0	0	0	0	0	0	0	0	0	0	1	0	1	48(0)	0	48(0)	0	48(0)	0	0	0	1(0)	48(0)	1(0)	49(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	0	0	0	0	0	0	0	0	0	0	0
Shan(North)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shan(South)	1(0)	1(0)	2(0)	1	1	2	0	0	0	0	0	0	1	1	1	0	24(0)	24(0)	0	0	0	0	0	0	0	24(0)	24(0)	0	0	0
Tanintharyi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7(0)	7(0)	0	7(0)	7(0)	0	0	0
Yangon	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	71(2)	16(0)	87(2)	71(2)	16(0)	87(2)	0	0	0	
Total	1(0)	4(0)	5(0)	1	4	5	0	0	0	0	0	3(0)	3(0)	14	9	23	322(3)	168(2)	490(5)	213(3)	111(1)	324(4)	535(6)	279(3)	814(9)	0	0	0	0	

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 paralytic polio. VDPVs differ from the parental Sabin Strains from 1 to 15% at 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).

MEASLES OUTBREAK: Occurrence of more than 5 cases of measles in a village (a ward in a municipal area) within a period of one week.

AEFI: A medical incident that takes place after an immunization, causes concern, and is believed to be caused by immunization.

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.

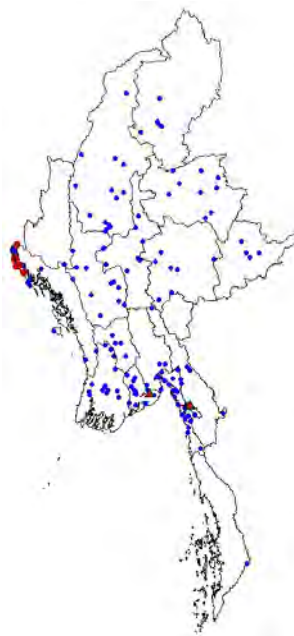
PERTUSSIS

(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.

POLIO SITUATION IN MYANMAR

Myanmar has suffered polio outbreak in 2007 after re-introduction of wild poliovirus from bordering areas of Bangladesh. As on July 26, 2007 eleven cases of wild polio virus have been reported from Rakhine State indicating intense transmission going on in northern part of Rakhine. All these WPV cases are in 1-3 years of age group and nine out of eleven are having received <3 doses of OPV before the paralysis onset. These cases are clustered in four villages of Maungdaw and Buthidaung townships of Rakhine State. Two cases of circulating Vaccine Derived Polio Virus (cVDPV) have been reported from Yangon and Kayin states in the month of April and June. Genetic sequencing is closely related to the VDPV circulating in Mandalay Division in 2006, suggesting silent transmission going on in low OPV coverage areas in Myanmar.



2007
 Total AFP Cases = 176
 Non-Polio AFP Rate = 0.92
 Adequate Stool Rate = 91%

- P1 WPV cases
Rakhine = 11
- ▲ P1 VDPV cases
Yangon = 1
Kayin = 1

Data as of 26 July 2007

SIA conducted in Myanmar (May-July 2007)



State and Divisions	Townships	Estimated target (13% of tot. Pop)	May Round Coverage	June Round Coverage	July Round Coverage
Rakhine	17	403045	117%	119%	121%
Chin	1	70666	97%	101%	99%
Ayeyarwady	26	995714	--	96%	97%
Magway	14	335950	--	98%	99%
Bago West	25	667244	--	99%	99%
Total	83	2472619	--	--	--

In response to polio outbreak in Northern Rakhine state, Ministry of Health, Government of Union of Myanmar has conducted three rounds of polio vaccination in all the townships of Rakhine and in Paletwa township of Chin in the months of May, June and July. To improve the immunity status of the children in adjoining states, two rounds of polio vaccination have been conducted in Magway, Bago West and Ayeyarwady states in June and July months. The coverage has been >95% in all the states and divisions. mOPV1 has been used in all these campaigns.

Proposed SIAs Plans August to December 2007 in Myanmar

Considering the circulation of VDPV cases in Yangon and Kayin, and potential wild polio virus spread to other areas, WHO and UNICEF has jointly requested the Government of Union of Myanmar to conduct the Supplementary Immunization Campaign in all townships of Yangon (45) and Kayin (7) and in high risk townships of Rakhine (4), Bago East (3) and Mon (4) during 26-28 August, and two rounds National Immunization Days (NIDs) during 7-9 October and 4-6 November in 2007. As it is polio type 1 circulating in the country, it is also requested to use mOPV1 to immunize all the target children.

	State/Division	No. of Townships	< 5yrs. children	mOPV1 doses	
SNIDs (One Round) 26-28 Aug 2007	Rakhine	4	Buthedaung Maungdaw Rathedaung Kyauktaw	143398	172078
	Yangon	45	All Townships	840168	1008202
	Bago (East)	3	Bago Kawa Thanatpin	121430	145716
	Kayin	7	All Townships	221334	265601
	Mon	4	Bilin Mawlamyine Paung Thaton	173843	208612
		63	Townships	1500173	1.8 Million
NIDs (Two Rounds) 1st Round 7-9 Oct 2007 2nd Round 4-6 Nov 2007	All State and Division	324	7.5 Million	18 Million	



- P1 WPV cases
Rakhine = 11
- ▲ P1 VDPV cases
Yangon = 1
Kayin = 1