

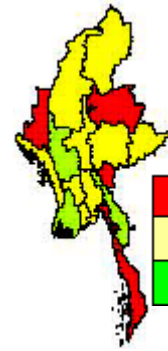


Non-Polio AFP Rates 2004

Myanmar Polio Newsletter

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0 - 0.49
0.50 - 0.99
1 or above

Non-Polio AFP Rates 2005 (annualized)

Table 1: Reported AFP cases against targets by State/Division and classification status of cases with onset in 2004 and 2005 (date as of 15/06/2005)

| State / Division | Population 15 years | 2005 | | | | | | | | 2004 | | | | | | |
|------------------|---------------------|---------------------------|---------------------|--------------------|-----------------|----------------|---------------|-------------------------------|---|---------------------|--------------------|-----------------|----------------|---------------|-------------------------------|---|
| | | Min. non-polio AFP target | AFP | | Polio | | Cases Pending | No. with 2 spec. with 14 days | No. of AFP cases (0 day follow-up done) | AFP | | Polio | | Cases Pending | No. with 2 spec. with 14 days | No. of AFP cases (0 day follow-up done) |
| | | | Non-polio AFP cases | Reported AFP cases | Confirmed Polio | Unk Polio Vtrs | | | | Non-polio AFP cases | Reported AFP cases | Confirmed Polio | Unk Polio Vtrs | | | |
| Ayeyarwady | 2,601,906 | 26 | 10 | 12 | 0 | 0 | 2 | 12 | 4 | 39 | 39 | 0 | 0 | 0 | 33 | 34 |
| Bago East | 1,077,159 | 11 | 3 | 6 | 0 | 0 | 3 | 6 | 3 | 15 | 15 | 0 | 0 | 0 | 14 | 15 |
| Bago West | 875,375 | 9 | 2 | 2 | 0 | 0 | 0 | 1 | 1 | 15 | 15 | 0 | 0 | 0 | 14 | 13 |
| Chin | 184,304 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 2 |
| Kachin | 488,406 | 5 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 6 | 6 | 0 | 0 | 0 | 6 | 6 |
| Kayah | 102,134 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 2 |
| Kayin | 571,724 | 6 | 3 | 4 | 0 | 0 | 1 | 3 | 2 | 7 | 7 | 0 | 0 | 0 | 5 | 7 |
| Magway | 1,746,279 | 17 | 7 | 8 | 0 | 0 | 1 | 7 | 2 | 24 | 24 | 0 | 0 | 0 | 22 | 24 |
| Mandalay | 2,523,193 | 25 | 5 | 5 | 0 | 0 | 0 | 5 | 3 | 37 | 37 | 0 | 0 | 0 | 35 | 36 |
| Mon | 960,683 | 10 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 16 | 16 | 0 | 0 | 0 | 14 | 16 |
| Rakhine | 1,053,603 | 10 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 20 | 20 | 0 | 0 | 0 | 19 | 20 |
| Sagaing | 2,106,207 | 21 | 3 | 4 | 0 | 0 | 1 | 4 | 1 | 34 | 34 | 0 | 0 | 0 | 31 | 33 |
| Shan North | 780,825 | 8 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 8 | 8 | 0 | 0 | 0 | 8 | 8 |
| Shan East | 369,035 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 4 | 5 |
| Shan South | 724,599 | 7 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 7 | 7 | 0 | 0 | 0 | 7 | 7 |
| Tanintharyi | 520,658 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 12 | 0 | 0 | 0 | 10 | 11 |
| Yangon | 2,133,852 | 21 | 5 | 8 | 0 | 0 | 3 | 7 | 2 | 22 | 22 | 0 | 0 | 0 | 20 | 19 |
| Totals | 18,819,943 | 188 | 45 | 56 | 0 | 0 | 11 | 51 | 22 | 271 | 271 | 0 | 0 | 0 | 246 | 258 |

Table 2: Selected Performance Indicators by State/Division for cases with onset in 2004 and 2005 (data as of 15/06/2005)

| State / Division | 2005 | | | | | | | | 2004 | | | | | | | |
|------------------|---------------------|-----------|-----------------------------|---------------------|---------------------------------|------------------------------------|--------------------------------|--|---------------------|-----------|-----------------------------|---------------------|---------------------------------|------------------------------------|--------------------------------|--|
| | Annualized AFP RATE | | Stool Collection | | % AFP Investigated with 48 hrs. | % AFP cases with 60 days Follow-up | % Weekly zero reports received | % Weekly zero reports received on Time | Annualized AFP RATE | | Stool Collection | | % AFP Investigated with 48 hrs. | % AFP cases with 60 days Follow-up | % Weekly zero reports received | % Weekly zero reports received on Time |
| | Total AFP | Non-Polio | % with 2 spec. with 14 days | % with any specimen | | | | | Total AFP | Non-Polio | % with 2 spec. with 14 days | % with any specimen | | | | |
| TARGET | | 1 | 80 | | 80 | 80 | 80 | | 1 | 80 | | 80 | 80 | 80 | 80 | |
| Ayeyarwady | 1.00 | 0.83 | 100 | 100 | 92 | 44 | 100 | 99 | 1.56 | 1.56 | 85 | 100 | 97 | 87 | 100 | 94 |
| Bago East | 1.21 | 0.60 | 100 | 100 | 100 | 100 | 96 | 100 | 1.50 | 1.50 | 80 | 100 | 100 | 100 | 100 | 99 |
| Bago West | 0.50 | 0.50 | 50 | 100 | 100 | 50 | 96 | 100 | 1.88 | 1.88 | 93 | 100 | 93 | 87 | 100 | 100 |
| Chin | 0.00 | 0.00 | 0 | 0 | 0 | 0 | 100 | 100 | 1.00 | 1.00 | 50 | 100 | 50 | 100 | 100 | 86 |
| Kachin | 0.44 | 0.44 | 0 | 100 | 100 | 100 | 96 | 82 | 1.20 | 1.20 | 100 | 100 | 100 | 100 | 98 | 62 |
| Kayah | 0.00 | 0.00 | 0 | 0 | 0 | 0 | 96 | 96 | 2.00 | 2.00 | 100 | 100 | 100 | 100 | 96 | 88 |
| Kayin | 1.52 | 1.14 | 75 | 100 | 100 | 100 | 88 | 92 | 1.40 | 1.40 | 71 | 100 | 100 | 100 | 100 | 100 |
| Magway | 0.99 | 0.87 | 88 | 100 | 100 | 40 | 88 | 87 | 1.50 | 1.50 | 92 | 100 | 96 | 100 | 100 | 95 |
| Mandalay | 0.43 | 0.43 | 100 | 100 | 100 | 75 | 96 | 100 | 1.54 | 1.54 | 92 | 100 | 95 | 97 | 100 | 100 |
| Mon | 0.23 | 0.23 | 100 | 100 | 100 | 0 | 96 | 92 | 1.78 | 1.78 | 88 | 100 | 100 | 100 | 100 | 100 |
| Rakhine | 0.41 | 0.41 | 100 | 100 | 100 | 0 | 83 | 88 | 2.00 | 2.00 | 95 | 100 | 95 | 100 | 100 | 98 |
| Sagaing | 0.41 | 0.31 | 100 | 100 | 100 | 50 | 96 | 86 | 1.70 | 1.65 | 91 | 100 | 97 | 97 | 100 | 87 |
| Shan North | 0.28 | 0.28 | 100 | 100 | 100 | 100 | 97 | 65 | 1.14 | 1.14 | 100 | 80 | 100 | 100 | 97 | 95 |
| Shan East | 0.00 | 0.00 | 0 | 0 | 0 | 0 | 100 | 100 | 1.67 | 1.67 | 80 | 100 | 100 | 100 | 100 | 95 |
| Shan South | 0.60 | 0.60 | 100 | 100 | 100 | 100 | 100 | 88 | 1.00 | 1.00 | 100 | 100 | 86 | 100 | 100 | 73 |
| Tanintharyi | 0.00 | 0.00 | 0 | 0 | 0 | 0 | 100 | 89 | 2.40 | 2.20 | 83 | 100 | 92 | 92 | 100 | 82 |
| Yangon | 0.81 | 0.51 | 88 | 100 | 100 | 67 | 100 | 100 | 1.10 | 1.10 | 95 | 100 | 95 | 86 | 100 | 96 |
| Totals | 0.64 | 0.52 | 91 | 100 | 98 | 61 | 100 | 97 | 1.53 | 1.52 | 90 | 100 | 96 | 95 | 99 | 91 |

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

| State / Division | 2003 Total AFP | 2004 Total AFP | 2004 total AFP Jan-May | 2005 AFP up to date | May-04 | Jun-04 | Jul-04 | Aug-04 | Sep-04 | Oct-04 | Nov-04 | Dec-04 | Jan-05 | Feb-05 | Mar-05 | Apr-05 | May-05 |
|------------------|----------------|----------------|------------------------|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|-----------|
| Ayeyarwady | 34 | 39 | 6 | 12 | 0 | 1 | 6 | 5 | 6 | 3 | 5 | 7 | 5 | 3 | 1 | 1 | 2 |
| Bago East | 16 | 15 | 1 | 6 | 0 | 0 | 2 | 1 | 4 | 2 | 0 | 5 | 1 | 0 | 2 | 0 | 3 |
| Bago West | 13 | 15 | 5 | 2 | 0 | 1 | 0 | 3 | 2 | 0 | 2 | 2 | 0 | 1 | 1 | 0 | 0 |
| Chin | 5 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Kachin | 7 | 6 | 1 | 1 | 0 | 2 | 0 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Kayah | 9 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kayin | 5 | 7 | 0 | 4 | 0 | 0 | 1 | 1 | 2 | 2 | 0 | 1 | 0 | 1 | 1 | 2 | 0 |
| Magway | 24 | 24 | 4 | 8 | 0 | 2 | 4 | 8 | 1 | 1 | 0 | 4 | 3 | 1 | 1 | 2 | 1 |
| Mandalay | 44 | 37 | 12 | 5 | 3 | 3 | 6 | 3 | 3 | 5 | 3 | 2 | 1 | 2 | 1 | 1 | 0 |
| Mon | 11 | 16 | 5 | 1 | 2 | 0 | 1 | 3 | 2 | 1 | 2 | 2 | 0 | 0 | 0 | 1 | 0 |
| Rakhine | 19 | 20 | 8 | 2 | 1 | 2 | 4 | 0 | 3 | 0 | 1 | 2 | 0 | 0 | 2 | 0 | 0 |
| Sagaing | 27 | 34 | 18 | 4 | 5 | 2 | 3 | 1 | 2 | 2 | 3 | 3 | 0 | 1 | 1 | 0 | 2 |
| Shan North | 3 | 8 | 1 | 1 | 1 | 0 | 3 | 2 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| Shan East | 15 | 5 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Shan South | 9 | 7 | 1 | 2 | 1 | 0 | 0 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| Tanintharyi | 12 | 12 | 3 | 0 | 1 | 1 | 3 | 0 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| Yangon | 38 | 22 | 6 | 8 | 1 | 1 | 1 | 2 | 3 | 5 | 2 | 2 | 0 | 3 | 0 | 2 | 3 |
| Totals | 291 | 271 | 74 | 56 | 15 | 16 | 35 | 33 | 34 | 26 | 20 | 33 | 11 | 13 | 13 | 9 | 11 |

Table 4: Stool processing and Laboratory performance indicators for cases with onset in 2004 & 2005, data as of 15/06/05

| | Target | Achievement | |
|--|--------|-------------|------|
| | | 2004 | 2005 |
| % Specimens arriving at the Lab within 3 days after being sent | 80 | 96 | 96 |
| % Specimens arriving in the Lab in good condition | 90 | 100 | 100 |
| % Specimens with a turn-around time of 28 days or less | 80 | 99 | 100 |
| % Specimens for which non-polio enterovirus was isolated | 10 | 16 | 14 |
| % Polio-positive specimens forwarded to Ref Lab within 14 days after isolation | 80 | 100 | 100 |

Table 5: Laboratory Results, as reported by NHL between 09 May 2005 and 15 June 2005

| State/ Division | Township | EPID number | Date Onset | Date Stool sent | Stool Condition | Date Report by NHL | Stool 1 Result | Stool 2 Result |
|-----------------|--------------|--------------|------------|-----------------|-----------------|--------------------|----------------|----------------|
| BAGO | KYA UKTA GA | MMR070405001 | 29/05/2005 | 03/06/2005 | Good | 22/06/2005 | NPEV | NPEV |
| YANGON | KYIMYINDINE | MMR120305001 | 28/05/2005 | 10/06/2005 | Good | 04/07/2005 | NPEV | NPEV |
| YANGON | HLAINGTHAYAR | MMR122505001 | 06/06/2005 | 15/06/2005 | Good | 04/07/2005 | 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 NIH/Bangkok, 2005

| State/ Division | Township | IDCODE | Onset Date | Stool Condition | Stool 1 | Stool 2 |
|-----------------|-----------|--------------|------------|-----------------|---------|-------------|
| BAGO | THANATPIN | MMR072405001 | 15/03/2005 | Good | P1S P2S | P1S P2S P3S |
| MAGWAY | MNEU | MMR081905001 | 30/04/2005 | Good | P2S | P2S |

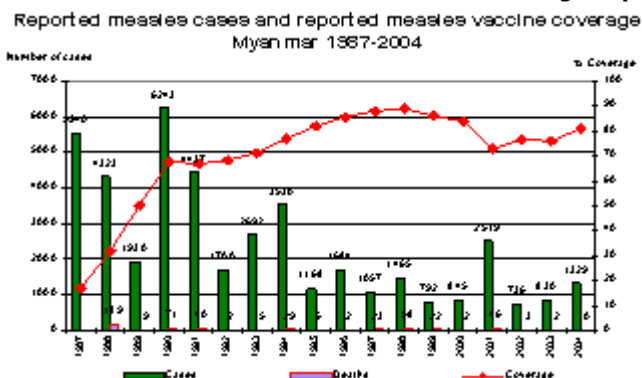
Note: P1, P2, P3 indicates Polio Serotype 1, 2, 3 respectively; "W" indicates "Wild Virus"; "S" indicates "Sabin (=Vaccine) Virus"

Future Measles Strategies for Myanmar

Measles incidence and mortality Background

1. Measles is a notifiable disease, incidence and mortality data have been collected through weekly AFP, Measles, NNT integrated disease surveillance report, DUNS and monthly HMIS report. (see figure 1 or reported cases and immunization coverage). These cases, the resulting complication and deaths are preventable.

Figure (1)



2. Children are vaccinated against measles at 9 month of age, the seroconversion rate is 85%. Some children from each birth cohort remain susceptible to measles. Measles is endemic in Myanmar. Large number of susceptible children accumulated over time periodic outbreak occurs. Timely reporting and systematic outbreak investigation are essential for effective outbreak response. (see figure 2 for measles cases and deaths in outbreak situation) Measles cannot be reliably diagnosed clinically, laboratory result for specific measles IgM antibody is crucial for measles diagnosis.

Figure (2.1)

Measles Cases and Deaths during outbreaks (1999-2005 as of 18th July)

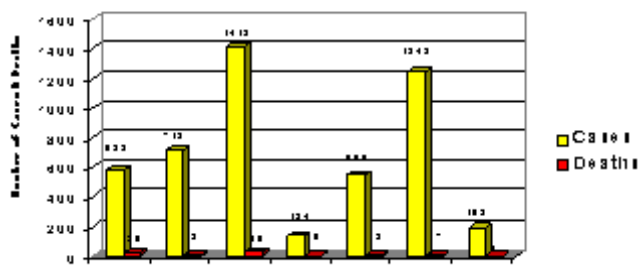
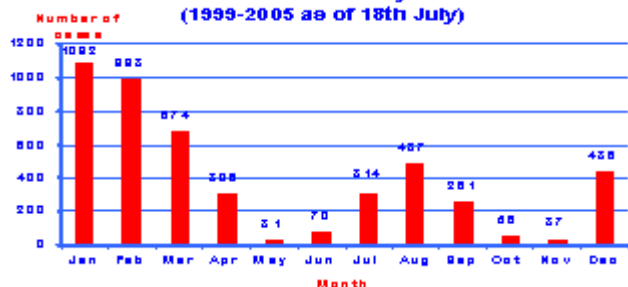


Figure (2.2)

Measles Outbreaks by Month (1999-2005 as of 18th July)

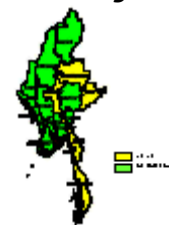


3. Myanmar has offered a second opportunity for measles immunization through MMC (9mths. - 5yrs.) on (3) phases during 2002 to 2004. (see figure 3 for MMC achievement). However, measles morbidity and mortality remained substantially after MMC.

Figure (3)

Mass Measles Campaign Immunization Coverage

| Year | Total Children | No. of Target Age | Coverage (%) |
|------|----------------|-------------------|--------------|
| 2002 | 31 | 2 | 100 |
| 2003 | 18 | 1 | 100 |
| 2004 | 18 | 1 | 100 |
| 2005 | 18 | 1 | 100 |
| 2006 | 18 | 1 | 100 |
| 2007 | 18 | 1 | 100 |
| 2008 | 18 | 1 | 100 |
| 2009 | 18 | 1 | 100 |
| 2010 | 18 | 1 | 100 |
| 2011 | 18 | 1 | 100 |
| 2012 | 18 | 1 | 100 |
| 2013 | 18 | 1 | 100 |
| 2014 | 18 | 1 | 100 |
| 2015 | 18 | 1 | 100 |
| 2016 | 18 | 1 | 100 |
| 2017 | 18 | 1 | 100 |
| 2018 | 18 | 1 | 100 |
| 2019 | 18 | 1 | 100 |
| 2020 | 18 | 1 | 100 |
| 2021 | 18 | 1 | 100 |
| 2022 | 18 | 1 | 100 |
| 2023 | 18 | 1 | 100 |
| 2024 | 18 | 1 | 100 |
| 2025 | 18 | 1 | 100 |
| 2026 | 18 | 1 | 100 |
| 2027 | 18 | 1 | 100 |
| 2028 | 18 | 1 | 100 |
| 2029 | 18 | 1 | 100 |
| 2030 | 18 | 1 | 100 |



4. Myanmar has achieved polio free status for more than 5 years. (Last Wild Polio virus case on 13 February 2000). Now it is the time to add to this achievement and eliminate measles by building on the control efforts to date and by using the strategies for sustainable measles mortality reduction.

Goal (2006-2010)

To achieve the sustainable measles mortality reduction.

Strategies for sustainable measles mortality reduction

- Strong routine immunization of e" 80%. Reaching every district strategy.
- Provide second opportunity for measles immunization.
 - One time only "catch up" campaign (9 mths.- 15 yrs.)
 - School-Based campaign on (3) phases
 - Follow up campaign every 3-5 years (9 mths.- 5 yrs.)
- Surveillance
- Improved case management (Vitamin A, antibiotics)

Why "catch ups " target children 9 mths. to 15 yrs. of age

- Many older children have escaped measles vaccination and infection.
- Older children serve as a source of infection for young children.
- <5 campaigns alone have relatively short duration of impact.
- Provides "indirect" protection to infants and young children.

To achieve the goal

- ✓ We must strengthen high rates of routine measles vaccination coverage.
- ✓ Plan for nation wide catch up Supplementary Immunization Activities to be held in 2006-2007.
- ✓ Improve efficiency of surveillance and reporting.