



EPIDEMIOLOGY BUREAU



Malaria Surveillance Report

January 1-May 6, 2017

Table 1. Quick Facts

| Demographic Data | Week 1 to 18 (2017) | Week 1 to 18 (2016) |
|-----------------------------------|------------------------|------------------------|
| Total Reported Case | 501 | 1,744 |
| Sex | | |
| Male | 53% | 56% |
| Female | 47% | 44% |
| Age Range | | |
| less than 1 y/o | 15 | 13 |
| 1 to 4 y/o | 111 | 459 |
| 5 to 9 y/o | 113 | 369 |
| 10 to 14 y/o | 81 | 282 |
| 15 to 19 y/o | 38 | 155 |
| 20 to 24 y/o | 26 | 105 |
| 25 to 29 y/o | 23 | 73 |
| 30 to 34 y/o | 21 | 50 |
| 35 to 39 y/o | 10 | 54 |
| 40 to 44 y/o | 23 | 38 |
| 45 to 49 y/o | 13 | 48 |
| 50 to 54 y/o | 6 | 38 |
| 55 to 59 y/o | 8 | 22 |
| above 60 y/o | 13 | 35 |
| History of Travel to Endemic Area | | |
| Yes | 11% | 7% |
| No | 89% | 93% |
| Outcome | | |
| Alive | 100% | 99.9% |
| Died | 0% | 0.10% |

Trend in the Philippines

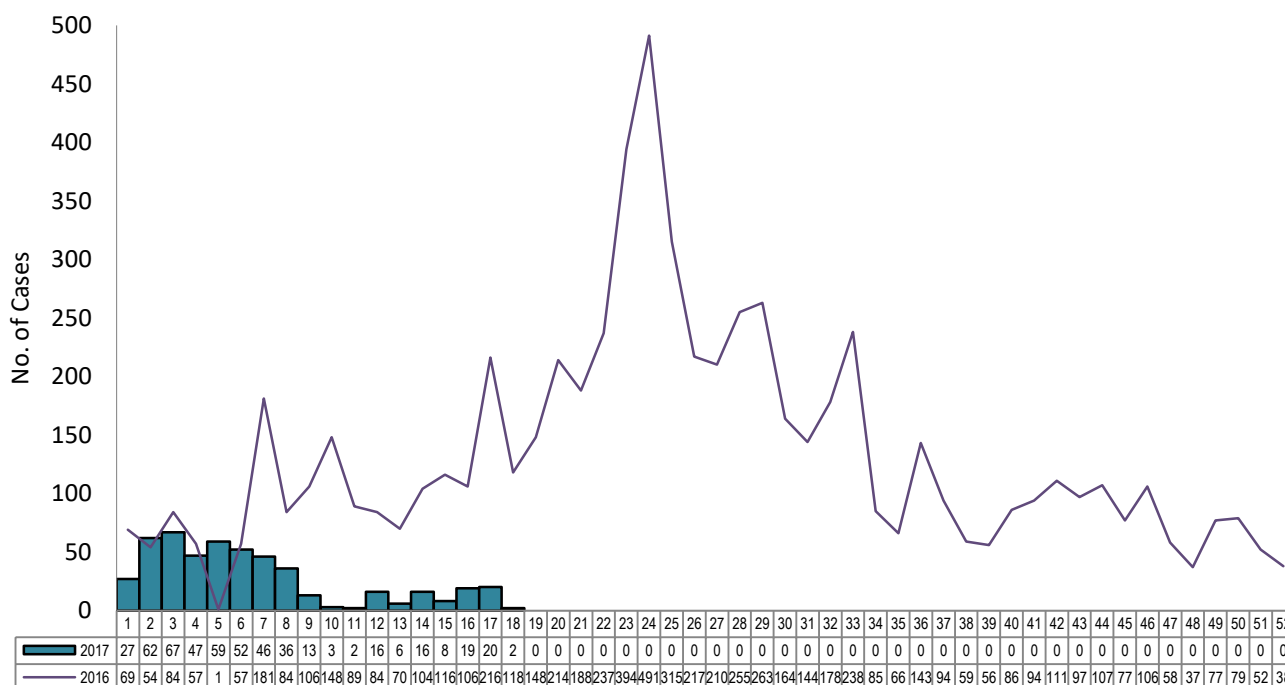
A total of **501** suspect malaria cases were reported nationwide from January 1 to May 6, 2017. This is 71% lower compared to the same period last year (Fig. 1).

As of 2016, there were 32 provinces declared as Malaria free, 41 provinces on Elimination status while the remaining 9 provinces were still malaria endemic (Fig.2).

Geographic Location

Most of the cases (Fig.3) were from the following regions: **Region IV-B** (82%), **Region 11** (7%), **Region 12** (4%), **Region IV-A** (2%) and **ARMM** (2%) while the remaining came from the rest of the regions in the country. Palawan (Table 2) accounted 77 % of the reported cases followed by Davao del Norte (7%) and Sultan Kudarat (6%).

Fig. 1 Reported Malaria Cases by Morbidity Week, Philippines, Jan 1 – May 6, 2017
2017 v.s 2016 (N=501)



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Fig. 2 Malaria Provincial Classification & Reported Cases Jan1 –May 6, 2017, (N=501)

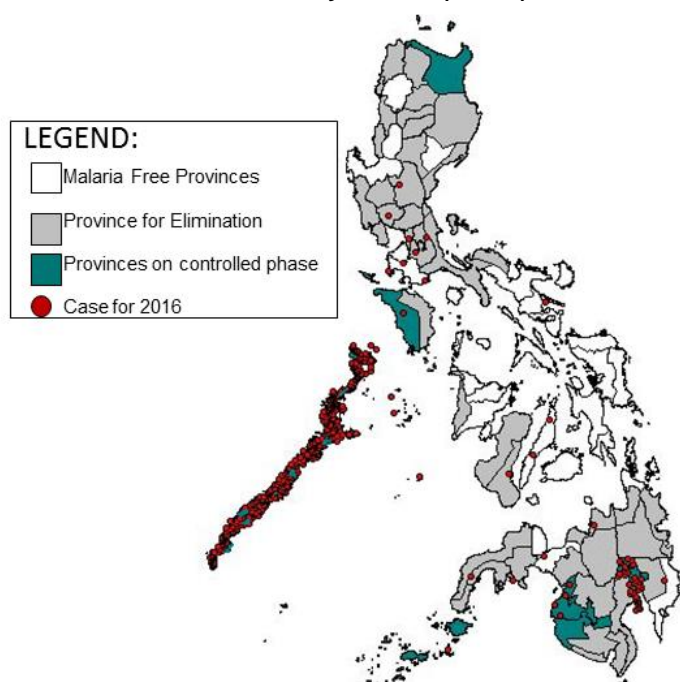


Fig. 3 Reported Malaria Cases by Region, Jan1 –May 6, 2017, (N=501)

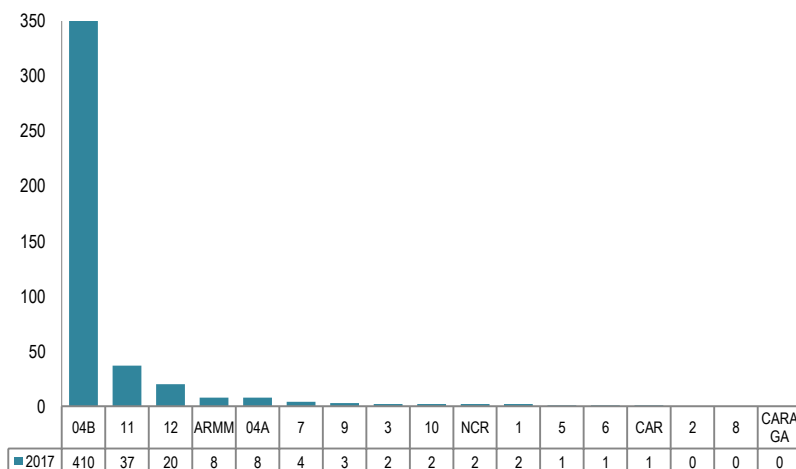


Fig. 4 Reported Malaria Cases by Change Rate, Palawan 2016 vs. 2017

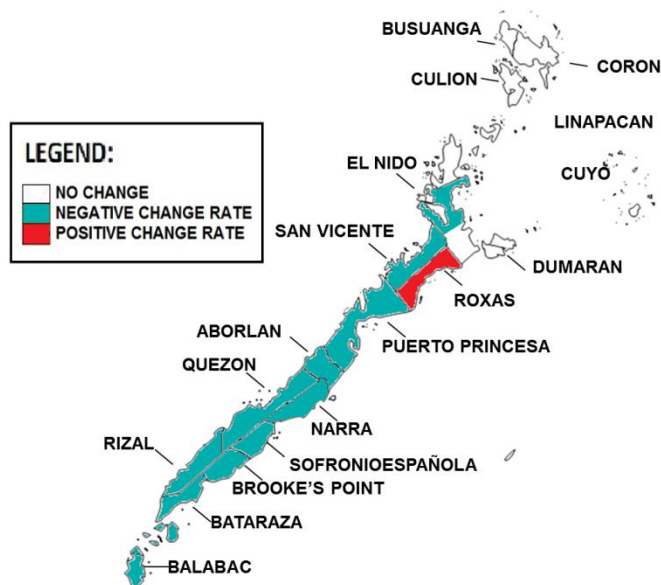


Table. 2 Reported Malaria Cases by Province, Jan1 –May 6, 2017, (N=501)

| PROVINCE | CASES | % |
|--------------------|-------|-------|
| PALAWAN | 409 | 81.6% |
| DAVAO DEL NORTE | 36 | 7.2% |
| SULTAN KUDARAT | 20 | 4.0% |
| BATANGAS | 5 | 1.0% |
| MAGUINDANAO | 5 | 1.0% |
| CEBU | 4 | 0.8% |
| METRO MANILA | 2 | 0.4% |
| PANGASINAN | 2 | 0.4% |
| RIZAL | 2 | 0.4% |
| SULU | 2 | 0.4% |
| ALBAY | 1 | 0.2% |
| BASILAN | 1 | 0.2% |
| BASILAN9 | 1 | 0.2% |
| BENGUET | 1 | 0.2% |
| COMPOSTELA VALLEY | 1 | 0.2% |
| LAGUNA | 1 | 0.2% |
| LANAO DEL NORTE | 1 | 0.2% |
| MISAMIS ORIENTAL | 1 | 0.2% |
| NEGROS OCCIDENTAL | 1 | 0.2% |
| NUEVA ECIJA | 1 | 0.2% |
| OCCIDENTAL MINDORO | 1 | 0.2% |
| PAMPANGA | 1 | 0.2% |
| ZAMBOANGA DEL SUR | 1 | 0.2% |
| ZAMBOANGA SIBUGAY | 1 | 0.2% |
| TOTAL | 501 | |

Palawan reported 73% decreased in cases than last year (1532). Large proportion (35%) of reported cases were from the municipality of Rizal, followed by Bataraza (21%), Brooke's Point (23%), and Balabac (9%) while the remaining 12% came from the other municipalities in Palawan. In terms of change rate, the municipality of Roxas (100%) had more cases than the same period last year while the city of Puerto Princesa, municipalities of Balabac, Bataraza, Brooke's Point Sofronio Española, Quezon, San Vicente Aborlan and Tatay had lower reported cases (Fig 4).



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Profile of Cases

Ages of cases ranged from 0 to 81 years old with median of 10 y/o. Majority of cases were male (54%), most (23%) of the cases belonged to the 5-9 year old age-group (Fig. 5).

Majority (67%) of the reported cases were indigenous people (IP), (Fig. 6) with the IP group of Palaw'an having the largest (66%) proportion of cases followed by Molbog (12%) and Tagbanua (2%). The tendency of IPs to live in mountainous areas in connection to their livelihood put them at higher risk not only of malaria exposure but as well as limited access to health care.

Malaria Parasite Distribution

Out of 501 reported cases, almost all (98%) were confirmed. Majority (73%) of parasite detected were *P. Falciparum* followed by *P. Vivax* (20%) and *P. Malariae* (2%) with only a small proportion of mixed parasites (2%) were seen while the rest (3%) were either negative or unspecified.

The distribution of parasites varied in Palawan and non-Palawan provinces. The predominant Parasite in Palawan is *P. Falciparum* (83%) while *P. Vivax* (48%) in non-Palawan provinces. The predominance of *P. Vivax* especially in province in elimination phase may be attributed to several factors such as difficulty of recognizing the disease due its dormant asymptomatic phase and tendency to cause relapse.

Malaria Screening Test

Majority (61%) of malaria screening test was performed thru the use of Rapid Diagnostic Test (RDT) while a smaller proportion (26%) thru microscopy (Fig. 8). Although microscopy remains a gold standard in diagnosing malaria, the use of RDT was beneficial as an initial test especially among provinces where trained malaria microscopists were no longer available.

Figure 5. Reported Malaria Cases by Age & Sex, Jan 1 – May 6, 2017, Philippines (N=501)

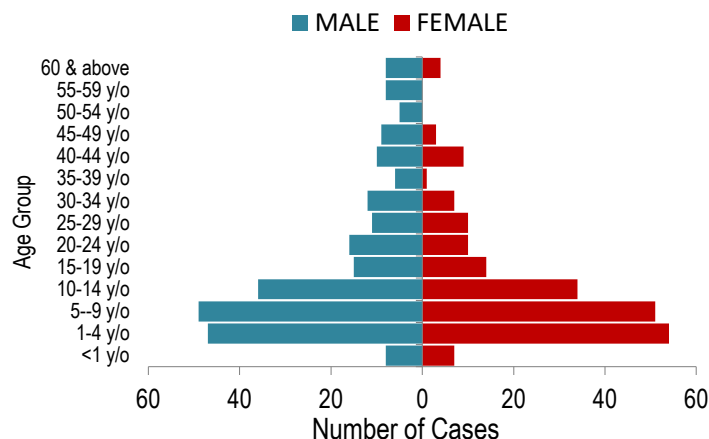


Figure 6. Reported Malaria Cases by Ethnicity, Jan 1 – May 6, 2017, Philippines (N=501)

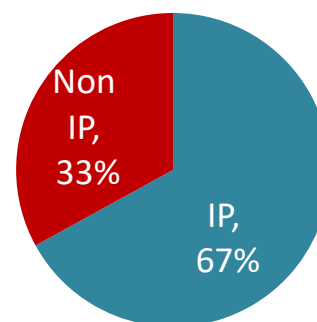
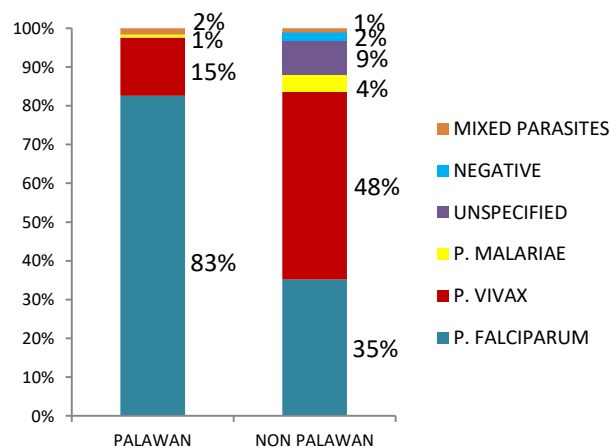


Figure 7. Reported Malaria Cases by Parasite, Jan 1 – May 6, 2017, Palawan vs. Non Palawan Provinces (N=501)





Case Classification

Majority (93%) of case were Confirmed Uncomplicated, a small proportion were Confirmed Severe (4%) while the rest were classified as probable and suspect case (Table 3).

Elimination Status

Out of the 501 reported malaria cases, majority (95%) were from malaria endemic provinces such as Palawan, Davao Del Norte and Sultan Kudarat. while 5% of cases were from provinces in Elimination Phase and provinces declared as Malaria Free. Although 22 cases (Table 4) were reported from non-endemic provinces, 21 had history of travel to malaria endemic areas while a single case with no history of travel had negative malaria test.

Large proportion (43%) of cases with history of travel visited endemic areas in the country such as Palawan while 34% reported history of travel to malaria endemic countries/territories such as Africa, Brazil, Papua New Guinea, Sabah Malaysia and Solomon Island (Fig. 9).

Figure 8. Reported Malaria Cases by Laboratory test , Jan 1 to May 6,2017 , Philippines (N=501)

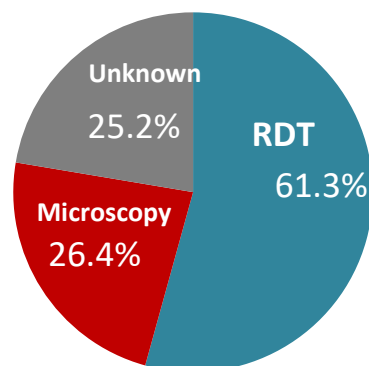


Table 3. Reported Malaria Cases by Case Classification, Jan 1 to May 6,2017 , Philippines (N=501)

| Classification | Number of Cases | % |
|-------------------------|-----------------|--------|
| Confirmed Uncomplicated | 468 | 93.4% |
| Confirmed Severe | 22 | 4.4% |
| Probable Uncomplicated | 10 | 2.0% |
| Suspect | 1 | 0.2% |
| Total | 501 | 100.0% |

Table 4. Reported Cases by Malaria Provincial Classification & History of Travel, Jan 1 to May 6,2017 Philippines (N=501)

| Provincial Classification | Cases | History of Travel |
|---------------------------|-------|-------------------|
| Controlled | 475 | 34 |
| Provinces for Elimination | 14 | 12* |
| Malaria Free Provinces | 12 | 10 |
| Total | 501 | 51 |

*1 Case without history of travel had negative Malaria Test

Figure 9. Reported Malaria Cases by History of Travel to Malaria Endemic Countries/ Territories, Jan 1 to May 6,2017



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