PLAGUE OUTBREAK
Madagascar

External Situation Report 06

World Health Organization
REGIONAL OFFICE FOR Africa

Date of issue: 26 October 2017

1. Situation update

Grade	Cases	Deaths	CFR
2	1 309*	93*	7%

WHO continues to support the Ministry of Public Health and other national authorities in Madagascar to monitor and respond to the outbreak of plague. The number of new cases of pulmonary plague has continued to decline in all active areas across the country. In the past two weeks, 12 previously affected districts reported no new confirmed or probable cases of pulmonary plague.

From 1 August to 24 October 2017, a total of 1 309 suspected cases of plague, including 93 deaths (7%), were reported. Of these, 882 (67%) were clinically classified as pulmonary plague, 221 (17%) were bubonic plague, 1 was septicaemic, and 186 were unspecified (further classification of cases is in process). Since the beginning of the outbreak, 71 healthcare workers (with no deaths) have been affected.

Of the 882 clinical cases of pneumonic plague, 235 (27%) were confirmed, 300 (34%) were probable and 347 (39%) remain suspected (additional laboratory results are in process). Fourteen strains of *Yersinia pestis* have been isolated and were sensitive to antibiotics recommended by the National Program for the Control of Plague.

Between 1 August and 24 October 2017, 29 districts have reported confirmed and probable cases of pulmonary plague. The number of districts that reported confirmed and probable cases of pulmonary plague during the last two weeks reduced to 17.

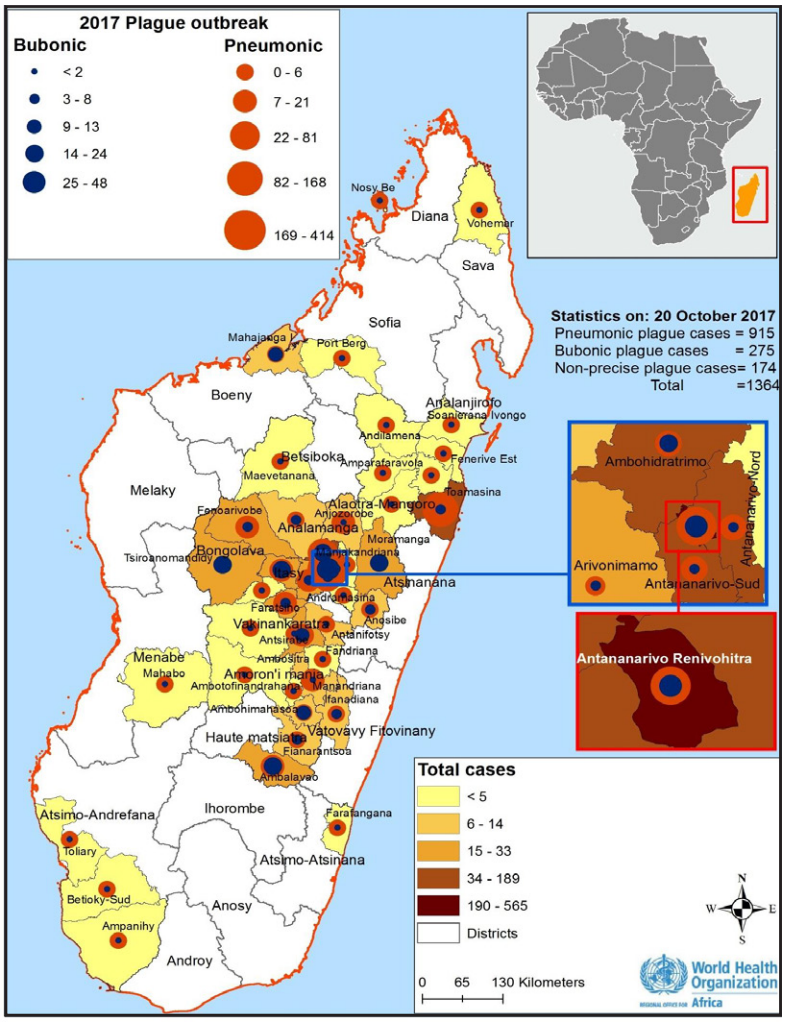
About 70% (3 467) of 4 990 contacts identified have completed their 7-day follow-up and a course of prophylactic antibiotics. A total of seven contacts developed symptoms and became suspected cases. On 24 October 2017, 1 165 out of 1 239 (94%) contacts were followed up and provided with prophylactic antibiotics.

Plague is endemic on the Plateaux of Madagascar, including Ankazobe District, where the current outbreak originated. A seasonal upsurge, predominantly of the bubonic form, usually occurs yearly between September and April. This year, the plague season began earlier and the current outbreak is predominantly pneumonic and is affecting both endemic and non-endemic areas, including major urban centres such as Antananarivo (the capital city) and Toamasina (the port city).

There are three forms of plague, depending on the route of infection: bubonic, septicaemic and pneumonic (for more information, see the link http://www.who.int/mediacentre/factsheets/fs267/en/).

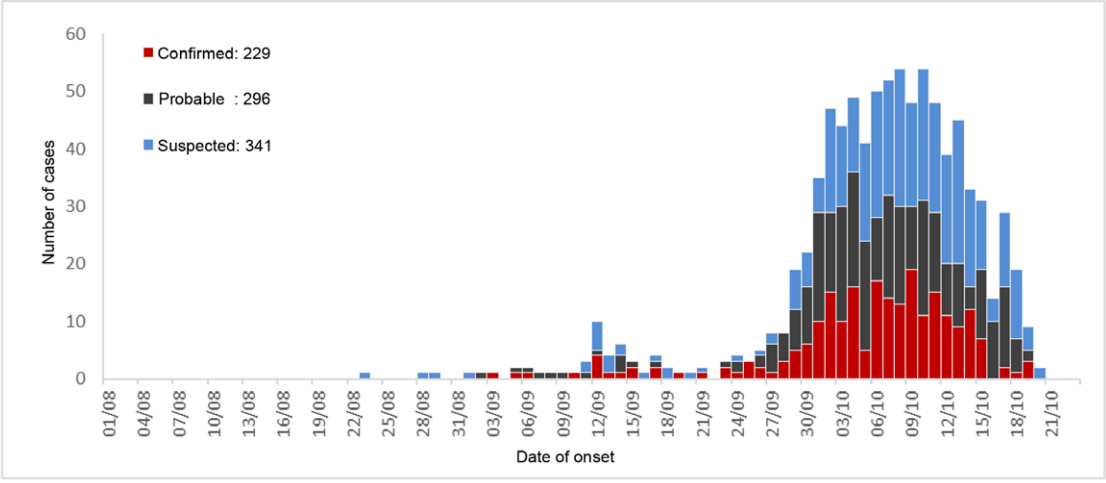
**The figures in this report are based on a rigorous data cleaning, verification and analysis process aimed to give a better understanding of the dynamics of the epidemic.*

Figure 1. Geographical distribution of cases of plague in Madagascar as of 20 October 2017



As this is a rapidly changing situation, the reported number of cases and deaths, contacts being monitored and the laboratory results are subject to change due to enhanced surveillance, contact tracing activities, ongoing laboratory investigations, reclassification, and case, contact and laboratory data consolidation.

Figure 2. Evolution of comfirmed, probable and suspected cases of pulmonary plague in Madagascar, 1 August - 24 October 2017



Current risk assessment

While the current outbreak began with one large epidemiologically linked cluster, cases of pneumonic plague without apparent epidemiologic links have since been detected in regions across Madagascar, including the densely populated cities of Antananarivo in the central highlands and Toamasina on the east coast of Madagascar. Due to the increased risk of further spread and the severe nature of the disease, the overall risk at the national level is considered very high. The risk of regional spread is moderate due to the occurrence of frequent travel by air and sea to neighbouring Indian Ocean islands and other southern and east African countries, and a limited number of cases observed in travellers. This risk of international spread is mitigated by the short incubation period of pneumonic plague, implementation of exit screening measures and advice to travellers to Madagascar, and scaling up of preparedness and operational readiness activities in neighbouring Indian Ocean islands and other southern and east African countries. The overall global risk is considered to be low.

The risk assessment will be re-evaluated by WHO based on the evolution of the situation and the available information.

Strategic approach to the prevention, detection and control of plague

WHO recommends the implementation of proven strategies for the prevention and control of plague. These strategies include (i) coordination of the response, (ii) enhanced surveillance, (iii) laboratory confirmation, (iv) contact identification and follow-up, (v) case management, (vi) infection prevention and control, (vii) safe and dignified burials, (viii) social mobilization and community engagement, (ix) logistics, (x) risk communication, (xi) vector control, (xii) partner engagement, (xiii) research and (xiv) resource mobilization.

2. Actions to date

Coordination of the response

- A high level inter-Ministerial coordination forum, chaired by the Prime Minister, has been established to provide strategic and policy directions to the plague outbreak response. Similarly, the Country Humanitarian Team of the United Nations System established a strategic coordination platform for partners, chaired by the Resident Coordinator.
- The health response is coordinated by the Ministry of Public Health, co-led by WHO and supported by agencies and partners directly involved in the health response. The health sector response is organized into four major committees: (i) surveillance, (ii) community engagement and education, (iii) case management, and (v) communication; with the logistics committee crosscutting all committees.
- Coordination of partners in the Health cluster has been strengthened to ensure effectiveness, avoid duplication in the field and ensure efficient coverage of the affected areas. The Health cluster is having weekly meetings, with some partners participating in the national coordination platforms.
- Cross sectoral non-Health actors (media, transport, defence, education, etc.) are being coordinated by the National Risk and Disaster Management Office (BNGRC).
- Since the declaration of the outbreak, WHO Country Office, Regional Office for Africa (AFRO) and Headquarters (HQ) are providing direct technical and operational support to the country, and collaborating closely with partners, including partners in the Global Outbreak Alert and Response Network (GOARN) to ensure rapid and effective international assistance to this outbreak response.
- WHO has classified the event as a Grade 2 emergency, based on its internal Emergency Response Framework. Accordingly, WHO has established its Incident Management System (IMS), and has repurposed internal resources and mobilized external resources.
- The regional emergency operations centres (EOC) are fully operational in five hotspots areas, including Antananarivo, Tamatave, Mahajunga, Fionarantsoa, and Fenerive. Other sub-national coordination capacities are being assessed, and will be implemented and strengthened based on the epidemiological situation.

Surveillance, contact identification and follow-up

- WHO and Institut Pasteur Madagascar (IPM) continue to support the Epidemic Surveillance Department of the Ministry of Health to conduct data cleaning and analysis of the plague database, aimed to provide a clear picture of the evolution of the outbreak and guide response operations, including mapping, prioritization and allocation of resources.

- A total of 1 800 community health workers in Antananarivo and 2 632 from other affected regions are carrying out contact tracing activities, being supervised by 340 medical doctors and students.

Laboratory

- Diagnostic capacity for plague is provided at the Institut Pasteur de Madagascar (IPM). Since 27 September 2017, IPM distributed 2 074 rapid diagnostic tests (RDTs) to Toamasina (205), the Centers Hospitaliers d'Antananarivo (719) and the Plague Department of Ministry of Public Health (367).

Case management

- Nine plague treatment centres have been established, of which six are in Antananarivo. The treatment centres are supported by IFRC, MSF, MdM, UNICEF, and WHO.
- USAID provided six mobile clinics to transport patients to hospitals within Antananarivo.

Infection prevention and control

- A total of 198 staff comprising of hygienists, guards, launderers, coordinators, and logisticians have been hired in the six treatment centres in Antananarivo and 70 additional staff for treatment centres in Tamatave and Fenerive East.
- WHO engaged the Malagasy Red Cross to take responsibility for dignified and safe burial, based on a protocol that is being validated. Training of trainers for the burial teams is ongoing, targeting 2 660 volunteers for the 22 regions.

Social mobilization, community engagement and risk communications

- UNICEF supported production of field-tested public awareness/education materials (posters, brochures, radio/television spots). A total of 69 000 posters and brochures have been produced and distributed, including to partners in the Ministries of Transport and Tourism, church groups and other key influencers.
- UNICEF supported three special sensitization meetings with the private sector and private sector platforms to ensure that the private sector is aware and supports relevant measures for their staff, and to mobilize private sector support for the response.

Logistics

- UNICEF donated 23 tents, 50 beds, 150 adult body bags, 64 children's mortuary bags, 300 boxes of 100 pairs of gloves, 12 000 surgical masks, 400 masks, and 3 inter-agency emergency health kits.
- A total of 1.2 million doses of antibiotics donated by WHO have been delivered to the national authorities in the country.
- USAID has donated 18 000 respirator masks, 100 000 simple masks and 10 vehicles to support operations of the Department of Public Health.

Resources mobilization

- The joint response plan between the Government of Madagascar and its partners has been adjusted to US$ 9.5 million, in view of the multisectoral response to the urban plague outbreak. As of 19 October 2017, only 26% of the US$ 9.5 million joint response plan budget has been funded.
- To date, WHO has provided US$ 1.5 million, UNICEF US$ 500 000, the International Federation of the Red Cross US$ 250 000, UNDP US$ 300 000, and UNFPA US$ 331 000. In addition, other organizations have provided assistance in kind: China has provided medicines worth US$ 200 000. The funds received to date, have largely been used.
- Contributions from the private sector are increasing: the Oilers Group donated US$ 16 000, Canal+ offered free message broadcasting, DHL offered storage facilities, and Ambatovy, the Orange Solidarity of Madagascar Foundation and the BFV Bank Société Générale have donated personal protective equipment (PPE).

Partnership

- In support of the Ministry of Public Health and the other national authorities, WHO and the GOARN partners deployed emergency response teams. By 24 October 2017, 115 experts (74 from the WHO Country Office in Madagascar, 26 through the WHO Headquarters and 15 from WHO Regional Office for Africa) were deployed to support the response in various fields.
- WHO and GOARN continue to mobilize partners to provide technical, personnel and logistical support to the country, and are working closely with the United Nations Clusters, stakeholders and donors to ensure appropriate support to the outbreak response.

Preparedness/operations readiness

- Nine countries and overseas territories have been identified as priority countries in the African region for plague preparedness and readiness by virtue of having trade and travel links to Madagascar. These countries and overseas territories include Comoros, Ethiopia, Kenya, Mauritius, Mozambique, La Réunion (France), Seychelles, South Africa, and Tanzania.
- The key readiness actions being implemented in each priority country, in coordination and collaboration with major partners (UNICEF, CDC, ECDC, Red Cross/Red Crescent Societies etc.), include:
  - Increasing public awareness on plague and enhancing surveillance for the disease particularly at points of entry, such as air and sea ports;
  - Conducting specific contingency planning with all health sector partners;
  - Prepositioning of equipment and supplies, including PPE, antibiotics, and other equipment required to safely identify and manage potential plague cases.
  - Providing in-country technical assistance in a range of areas, including surveillance, training on case detection, contact tracing, social mobilisation and risk communication.
- WHO has deployed two epidemiologists, and a risk communication officer to support Seychelles to strengthen in-country preparedness and response to potential imported cases.
- WHO is prepositioning equipment and supplies, including PPE, antibiotics and other equipment required to safely identify plague cases, in Comoros, Mauritius, Mozambique, Seychelles, and Tanzania.

IHR Travel measures

- On 3 October 2017, WHO issued advice for international travellers to Madagascar.
- As of 8 October 2017, WHO and Ministry of Public Health of Madagascar initiated measures at points of entry to mitigate international spread of plague. At the International Airport in Antananarivo, these measures include: filling a departure form at the airport (to identify passengers at risk); temperature screening of departing passengers and referring passengers with fever to airport physicians for further consultation; passengers with symptoms compatible with pneumonic plague are immediately isolated at the airport and investigated via rapid diagnostic test, and notified under standard alert protocol