



SUMMARY

- A yellow fever outbreak was detected in Luanda, Angola late in December 2015. The first cases were confirmed by the National Institute for Communicable Diseases (NICD) in South Africa on 19 January 2016 and by the Institut Pasteur Dakar (IP-D) on 20 January. Subsequently, a rapid increase in the number of cases has been observed.
- As of 25 May 2016, Angola has reported 2536 suspected cases of yellow fever with 301 deaths. Among those cases, 747 have been laboratory confirmed. Despite vaccination campaigns in Luanda, Huambo and Benguela provinces, circulation of the virus persists in some districts. Vaccination campaigns started on 16 May in Cuanza Sul, Huila and Uige provinces. Lunda Norte has reported, for the first time since the beginning of the outbreak, 5 autochthonous laboratory confirmed cases in 2 districts.
- Three countries have reported confirmed yellow fever cases imported from Angola: Democratic Republic of The Congo (DRC) (41 cases), Kenya (two cases) and People's Republic of China (11 cases). This highlights the risk of international spread through non-immunised travellers.
- On 22 March 2016, the Ministry of Health of DRC confirmed cases of yellow fever in connection with Angola. The government officially declared the yellow fever outbreak on 23 April. As of 25 May, DRC has reported three probable cases and 48 laboratory confirmed cases: 41 of those are imported from Angola, reported in Kongo Central, Kinshasa and Kwango (formerly Bandundu) provinces, two are autochthonous cases in Ndjili, Kinshasa and in Matadi, Kongo Central provinces. The possibility of locally acquired infection is under investigation for at least three non-classified cases in both Kongo Central (Muanda district) and Kwango provinces.
- In Uganda, the Ministry of Health notified yellow fever cases in Masaka district on 9 April 2016. As of 25 May, 60 suspected cases, of which seven are laboratory confirmed, have been reported from three districts: Masaka, Rukungiri and Kalangala. According to sequencing results, those clusters are not epidemiologically linked to Angola.
- The virus in Angola and DRC is largely concentrated in main cities. The risk of spread and local transmission to other provinces in Angola, DRC and Uganda remains a serious concern. There is also a high risk of potential spread to bordering countries especially those previously classified as low-risk for yellow fever disease (i.e. Namibia, Zambia) and where the population, travellers and foreign workers are not vaccinated against yellow fever.

- An Emergency Committee (EC) regarding yellow fever was convened by WHO's Director-General under the International Health Regulations (IHR 2005) on 19 May 2016. Following the advice of the EC, the Director-General decided that the urban yellow fever outbreaks in Angola and DRC are serious public health events which warrant intensified national action and enhanced international support. The events do not at this time constitute a Public Health Emergency of International Concern (PHEIC). The statement can be found on the WHO website.¹

SURVEILLANCE

Angola

- From 5 December 2015 to 25 May 2016, the Ministry of Health has reported a total of 2536 suspected cases with 301 deaths and 747 laboratory confirmed cases. There are confirmed cases in 15 of the 18 provinces (Fig. 1) and suspected cases are present in all provinces. Local transmission is present in seven provinces, in 223 districts. Approximately 62% of these cases are reported in Luanda province (Fig. 2).
- Despite a decreasing trend (Fig. 3), the outbreak in Angola remains of high concern due to persistent local transmission in Luanda. Although vaccination efforts have reached about eight million people, local transmission has been reported in seven provinces (urban areas and main ports) and there is a high risk of spread to neighbouring countries.
- For the first time, since the beginning of the outbreak, districts in Lunda Norte province report confirmed cases with local transmission: four cases in the district of Coango and one case was notified in Chitato district. These areas have an intense commercial and transit of people and goods across DRC border due to economic activities, such as diamond mining. The risk of spread to other provinces, such as Lunda Sul (city of Saurimo) and Malanje, is also very high due to these economic activities.
- The risk of establishment of local transmission in other provinces where no autochthonous cases are reported is high. DRC has reported cases imported from two provinces in Angola where no local transmission is currently reported (Cabinda and Zaire). Cabinda is an exclave and province of Angola and is separated from the rest of Angola by a narrow strip of territory belonging to the DRC and bounded on the north by the Republic of the Congo. This poses also a further risk of transmission in DRC and Republic of the Congo.

¹ <http://www.who.int/mediacentre/news/statements/2016/ec-yellow-fever/en/>

Figure 1. Monthly time line of infected districts in Angola, December 2015 to 25 May 2016

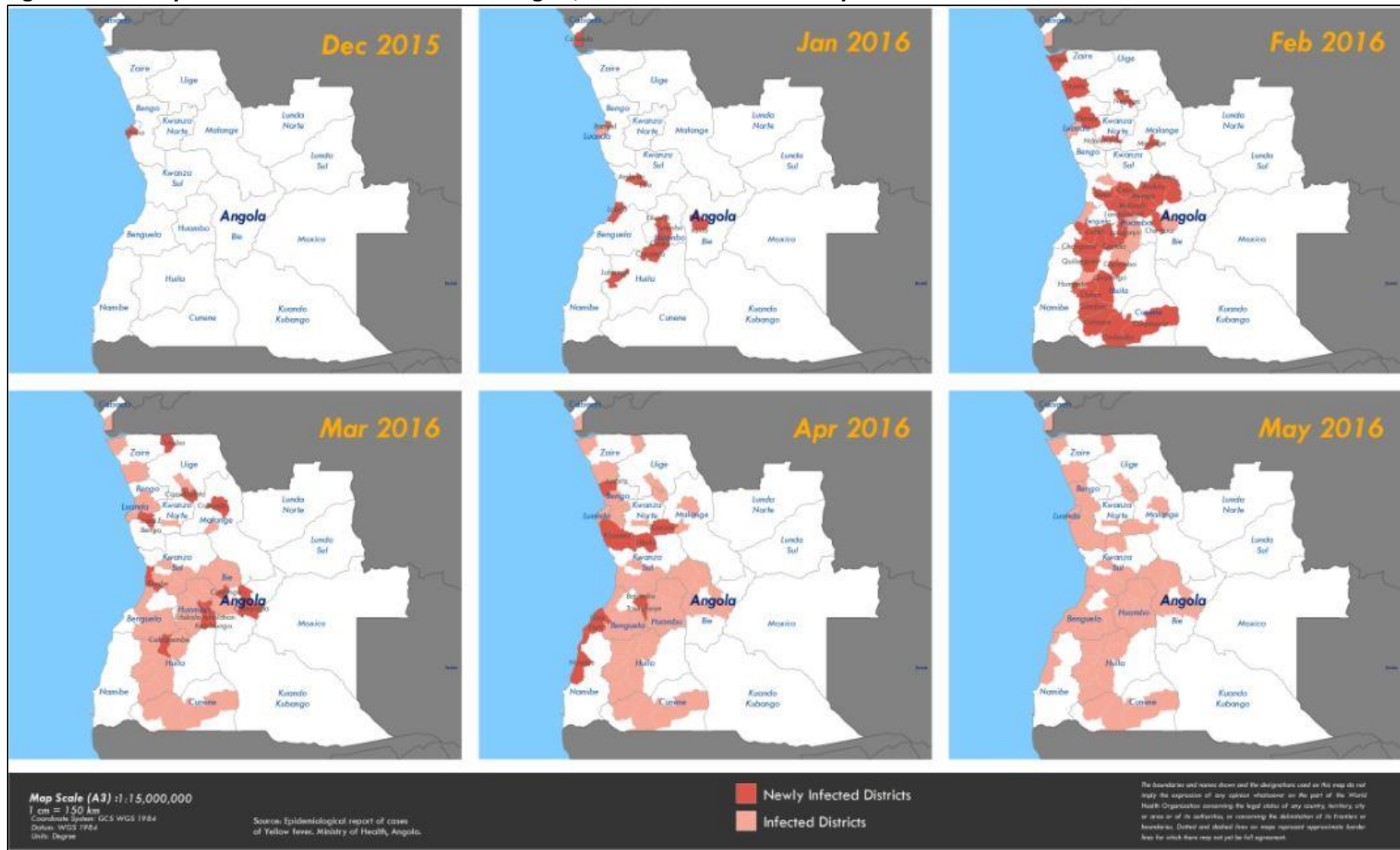


Figure 2. Distribution of yellow fever confirmed cases in Angola and DRC as of 25 May 2016

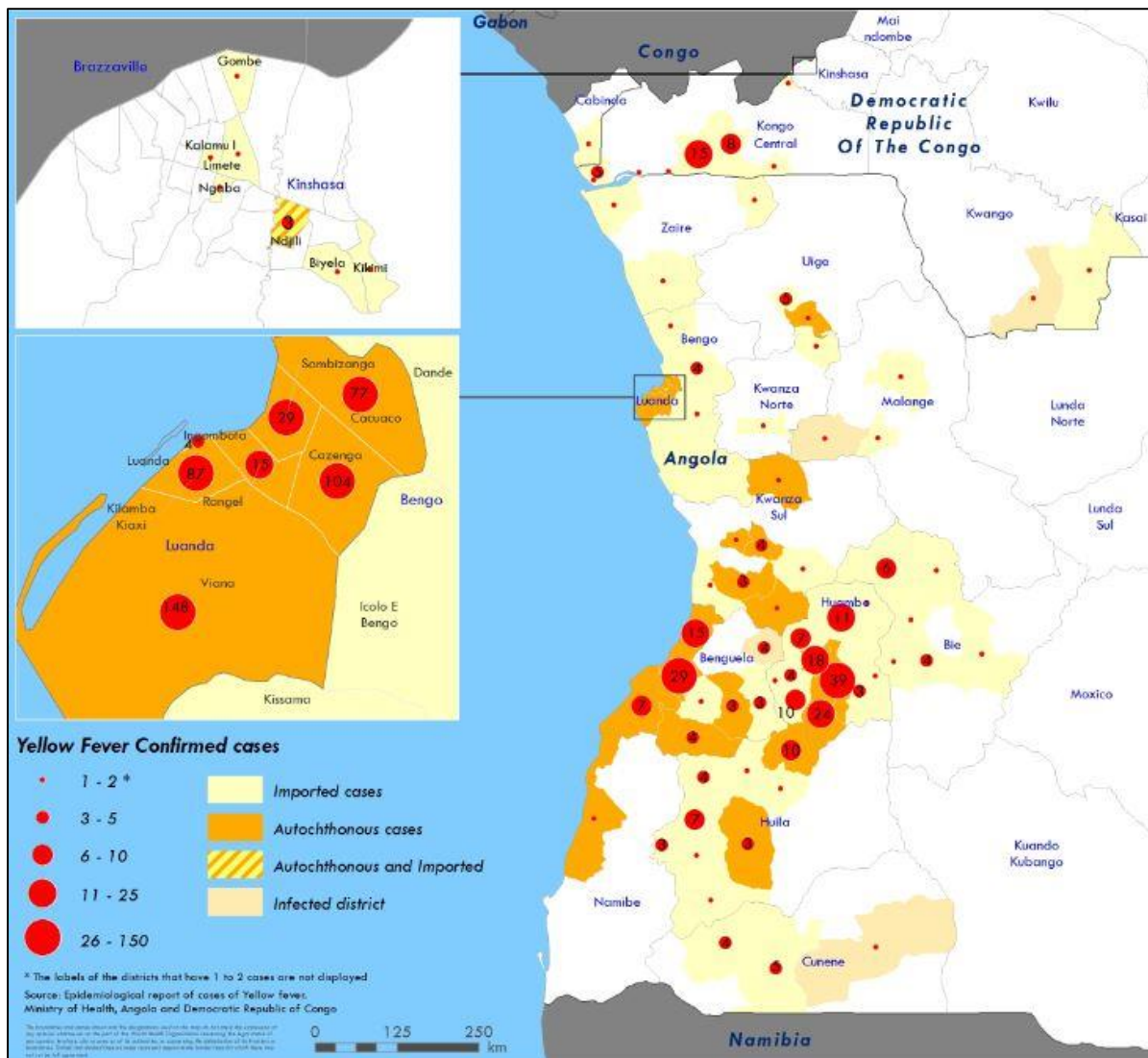
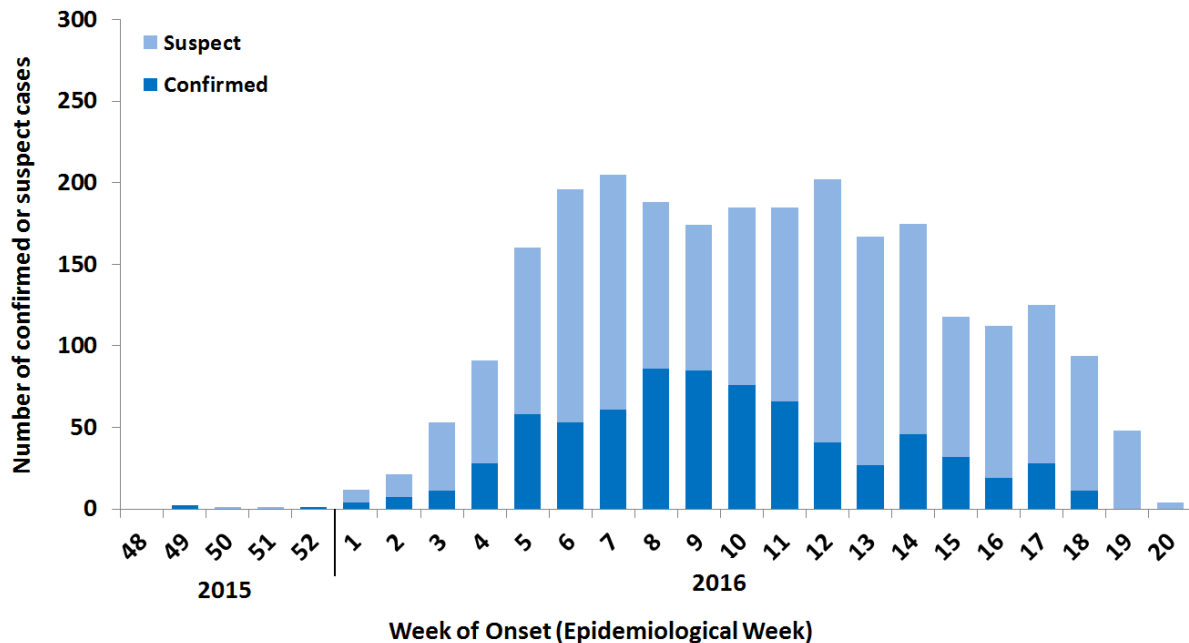


Figure 3. National weekly number of suspected and confirmed yellow fever cases in Angola, 5 December 2015 to 22 May 2016



Data provided by Angola yellow fever situation report as of 22 May 2016.² Data for the last two weeks is incomplete due to lags between onset of symptoms and reporting.

Democratic Republic of The Congo

- On 22 March 2016, the Ministry of Health of DRC, notified human cases of yellow fever in connection with Angola. The yellow fever outbreak was officially declared on 23 April.
- As of 25 May, DRC has reported three probable cases and 48 laboratory confirmed cases: 41 of those are imported from Angola, reported in Kongo Central, Kinshasa and Kwango provinces, two are autochthonous cases in Ndjili, Kinshasa and in Matadi, Kongo Central provinces.
- The possibility of locally acquired infections is under investigation for at least three non-classified cases in both Kongo Central (Muanda district) and Kwango provinces.
- The possibility of locally acquired infections is under investigation for at least three non-classified cases in both Kongo Central and Kwango provinces.
- For three probable cases results are still pending at IP-D.
- Given the large Angolan community in Kinshasa, the presence and activity of the Aedes mosquito and population movements within the country, the potential risk of local transmission in DRC in general and in the whole of Kinshasa in particular, is high. The situation needs to be closely monitored.

Uganda

- On 9 April 2016, Uganda notified WHO of yellow fever cases in the south-western district of Masaka. As of 25 May, 60 suspected cases of yellow fever have been reported in seven

² <http://www.afro.who.int/en/yellow-fever/sitreps/item/8660-situation-report-yellow-fever-outbreak-in-angola-23-may-2016.html>

districts. Of those, seven cases have been laboratory confirmed (five in Masaka, one in Rukungiri and one in Kalangala).

- Uganda is experiencing local transmission of yellow fever outbreak. According to sequencing results, the outbreak is not linked to Angola and indicates high similarities with the virus which caused the outbreak in Uganda in 2010.

Other countries

- No suspected cases of yellow fever have been reported in the Republic of the Congo or Zambia. However, Namibia and Zambia share a long and porous border with Angola and controlling population movement between the three countries will be challenging.
- Confirmed yellow fever cases exported from Angola has also been documented in Kenya (two cases) and People's Republic of China (11 cases). This highlights the risk of international spread through non-immunised travellers.

Risk assessment

- The outbreak in Angola remains of high concern due to:
 - Persistent local transmission in Luanda despite the fact that more than seven million people have been vaccinated.
 - Local transmission has been reported in seven highly populated provinces including Luanda. Luanda Norte is the province that most recently reported yellow fever transmission.
 - The continued extension of the outbreak to new provinces and new districts.
 - High risk of spread to neighbouring countries. As the borders are porous with substantial crossborder social and economic activities, further transmission cannot be excluded. Viraemic travelling patients pose a risk for the establishment of local transmission especially in countries where adequate vectors and susceptible human populations are present.
 - Inadequate surveillance system capable of identifying new foci or areas of cases emerging.
 - High index of suspicion of ongoing transmission in areas hard to reach like Cabinda.
- For DRC, a field investigation conducted in April concluded that there is a high risk of local transmission of yellow fever in the country. The outbreak has already spread to three provinces. Given the limited availability of vaccines, the large Angolan community in Kinshasa, the porous border between Angola and DRC, and the presence and the activity of the vector *Aedes* in the country, the situation needs to be closely monitored.
- The virus in Angola and DRC is largely concentrated in main cities. The risk of spread and local transmission in other provinces in the three countries remains a serious concern. The risk is high also for potential spread to bordering countries especially those classified as low-risk (i.e. Namibia, Zambia) and where the population, travelers and foreign workers are not vaccinated for yellow fever.
- Uganda and some countries in South America (Brazil and Peru) are facing yellow fever outbreaks or sporadic cases of yellow fever. Those events are not related to the Angolan outbreak but there are needs for vaccines in those countries in a context of limited yellow fever vaccines stockpile.

RESPONSE

- An Emergency Committee (EC) regarding yellow fever was convened by WHO's Director-General under the International Health Regulations (IHR 2005) on 19 May 2016. Following advice from the EC, the Director-General decided that the urban yellow fever outbreaks in Angola and DRC are serious public health events which warrant intensified national action and enhanced international support. The events do not at this time constitute a Public Health Emergency of International Concern (PHEIC). The Director-General provided the following advice to Member States;
 - the acceleration of surveillance, mass vaccination, risk communications, community mobilization, vector control and case management measures in Angola and DRC;
 - the assurance of yellow fever vaccination of all travellers, and especially migrant workers, to and from Angola and DRC;
 - the intensification of surveillance and preparedness activities, including verification of yellow fever vaccination in travellers and risk communications, in at-risk countries and countries having borders with the affected countries.
- Vaccinations campaigns started first in Luanda province at the beginning of February, and mid-April in Benguela and Huambo (Fig. 4).
- As of 18 May, 11.7 million doses were shipped to Angola.
- DRC and Uganda are GAVI Alliance eligible countries thus the vaccination campaigns in these countries will be covered by GAVI Alliance.
- 2.2 million vaccines and ancillaries have arrived in DRC. The emergency vaccination campaign targeting seven health zones (*zones de santé*) in Kongo central province and N'djili health zone in Kinshasa province started on 26 May.
- 700 000 yellow fever vaccines arrived in Uganda and the vaccination campaign started on 19 May. The coverage from the reports submitted to date stands at 88% for Masaka and 96.8% for Rukungiri. Kalangala will start vaccination campaigns next week.
- Namibia requested 450 000 doses (10 dose vials) for yellow fever vaccine for travellers and refugees. Zambia has also requested request 50 000 doses for yellow fever vaccine for travellers.
- There has been an increase in media attention on yellow fever, in particular on vaccine supply, travel advice and the convening of the Emergency Committee.
- A press conference was held immediately following the Emergency Committee on yellow fever on 19 May. The statement can be found on the WHO website.³
- Q&As on the current outbreak continue to be updated on the WHO website.⁴
- WHO briefs UN partners on communications issues related to the outbreak on a weekly basis and shares resources for a joint coordinated response.
- Coordination calls are being held twice weekly between the WHO communications team in Geneva and Regional communications leadership.

³ <http://www.who.int/mediacentre/news/statements/2016/ec-yellow-fever/en/>

⁴ <http://www.who.int/features/qa/yellow-fever/en/>

Figure 4. Vaccination population coverage in Angola as of 25 May 2016

