



## SUMMARY

- A yellow fever outbreak was detected in Angola late in December 2015 and confirmed by the Institut Pasteur Dakar (IP-D) on 20 January 2016. Subsequently, a rapid increase in the number of cases has been observed.
- As of 19 May 2016, Angola has reported 2420 suspected cases of yellow fever with 298 deaths. Among those cases, 736 have been laboratory confirmed. Despite vaccination campaigns in Luanda, Huambo and Benguela provinces circulation of the virus in some districts persists.
- Three countries have reported confirmed yellow fever cases imported from Angola: Democratic Republic of The Congo (DRC) (42 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 19 May, DRC has reported five probable cases and 44 laboratory confirmed cases: 42 imported from Angola, reported in Kongo central province and Kinshasa and two autochthonous cases in Ndjili, Kinshasa and in Matadi, Kongo Central province. The possibility of locally acquired infections is under investigation for at least eight non-classified cases in both Kinshasa and Kongo central provinces.
- In Uganda, the Ministry of Health notified yellow fever cases in Masaka district on 9 April 2016. As of 19 May, 60 suspect 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. The risk is high also for potential spread to bordering countries especially those classified as low risks for yellow fever disease (i.e. Namibia, Zambia) 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

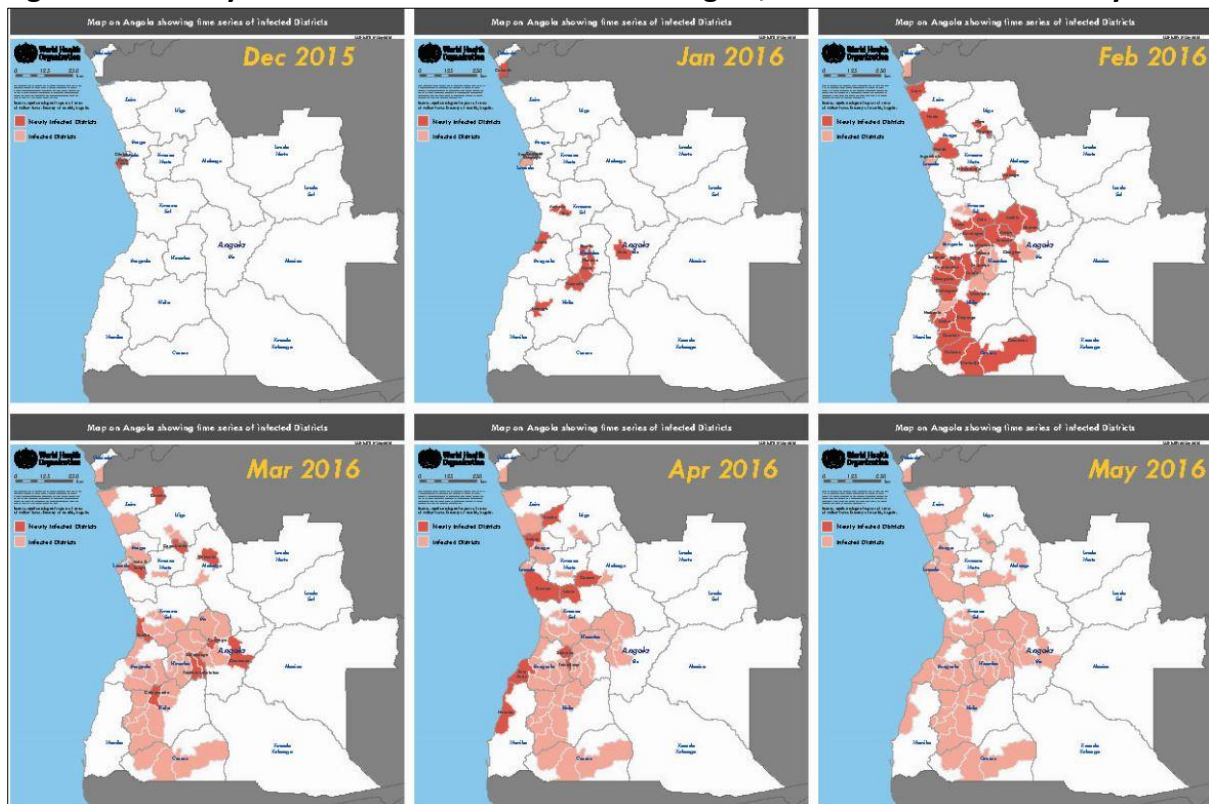
constitute a Public Health Emergency of International Concern (PHEIC). The statement can be found on the WHO website.<sup>1</sup>

## SURVEILLANCE

### Angola

- From 5 December 2015 to 19 May 2016, the Ministry of Health has reported a total of 2420 suspected cases with 298 deaths and 736 laboratory confirmed cases. There are confirmed cases in 14 of the 18 provinces (Fig. 1) and suspect cases are present in all provinces. Local transmission is present in seven provinces, in 20 districts. Seventy percent of these cases are reported in Luanda province (Fig. 2).

**Figure 1. Monthly time line of infected districts in Angola, December 2015 to 19 May 2016**

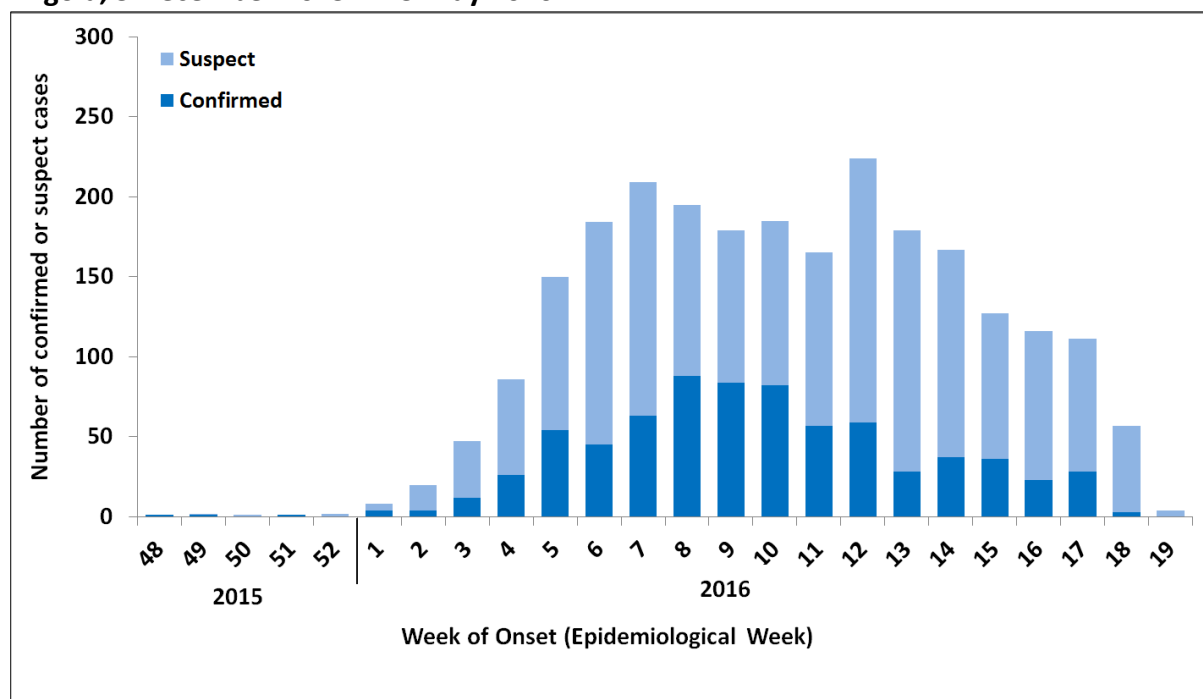


- Despite a decreasing trend (Fig. 3), the outbreak in Angola remains of high concern due to persistent local transmission in Luanda. Although vaccination efforts have reached more than seven million people, local transmission has been reported in six provinces (urban areas and main ports) and there is a high risk of spread to neighbouring countries.
- 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

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



**Figure 3. National weekly number of suspected and confirmed yellow fever cases in Angola, 5 December 2015— 15 May 2016**



Data provided by Angola yellow fever situation report as of 15 May 2016.<sup>2</sup> 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 19 May, DRC has reported 49 Yellow Fever cases linked to Angola, 44 of those are laboratory confirmed cases with 42 imported from Angola, reported in Kongo central and Kinshasa provinces, and two autochthonous cases in Ndjili, Kinshasa and Matadi, Kongo central province.
- The possibility of locally acquired infections is under investigation for at least eight non-classified cases in both Kinshasa and Kongo central provinces. For a further five probable cases results are still pending at IP-D.
- Given the large Angolan community in Kinshasa, combined with the presence and activity of the Aedes mosquito, 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 19 May, 60 suspected cases of yellow fever have been reported in seven districts. Of those, seven cases have been laboratory confirmed (five in Masaka, one in Rukungiri and one in Kalangala).

<sup>2</sup> <http://www.afro.who.int/en/yellow-fever/sitreps/item/8636-situation-report-yellow-fever-outbreak-in-angola-15-may-2016.html>

- 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 bordering Angola

- 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 movements between the three countries will be challenging.
- Three countries have reported confirmed yellow fever cases exported from Angola: DRC (42 cases), 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 reported in seven highly populated provinces including Luanda.
  - The continued extension of the outbreak to new provinces and new districts.
  - High risk of spread to neighbouring countries. Confirmed cases have already travelled from Angola to DRC, Kenya and People's Republic of China. As the borders are porous with substantial crossborder social and economic activities, further transmission cannot be excluded. Viraemic patients travelling 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. 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 YF 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 land 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 are to arrive in DRC by mid-May for conducting an emergency vaccination campaign targeting seven health zones (*zones de santé*) in Kongo central province and N'djili health zones in Kinshasa province.
- 700 000 yellow fever vaccines arrived in Uganda and the vaccination campaign will start on 19 May.
- 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 is being held immediately following the Emergency Committee on yellow fever (19 May).
- Q&As on the current outbreak continue to be updated on the WHO website.<sup>3</sup>
- 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 HQ communications team and Regional communications leadership.

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<sup>3</sup> <http://www.who.int/features/qa/yellow-fever/en/>

Figure 4. Vaccination population coverage in Angola as of 19 May 2016

