



#### KEY UPDATES

- Angola epidemiological update (as of 6 October):
  - The last confirmed case had symptom onset on 23 June.
  - Forty-two probable cases were reported in the last four weeks.
  - Phase two of the vaccination campaign launched on 10 October. The target population consists of more than two million people in 12 districts in 10 provinces.
- Democratic Republic of the Congo epidemiological update (as of 12 October):
  - The last confirmed non-sylvatic case had symptom onset on 12 July.
  - A new confirmed, sylvatic case was reported from Lingomo Health Zone in Tshuapa province.
  - Sixteen probable cases are under investigation (four in Kinshasa, eight in Kwango, and one case each in Bas Uele, Kwilu, Lualaba and Sud Ubangi provinces).
  - The reactive vaccination campaigns in Feshi Health Zone in Kwango province is ongoing and will begin shortly in Mushenge Health Zone in Kasai province

#### ANALYSIS

- The continuing detection and investigation of probable (including the 42 probable cases in Angola) and sylvatic cases demonstrate that active surveillance is ongoing. Nevertheless, it is important to note persistent difficulties in surveillance and laboratory confirmation capacities, which may delay case detection. A strong and sustained surveillance effort remains crucial.
- The status of the probable cases in Angola will be reviewed by the Ministry of Health's Final Classification Committee once the investigations are completed on their exposure history and yellow fever vaccination status.

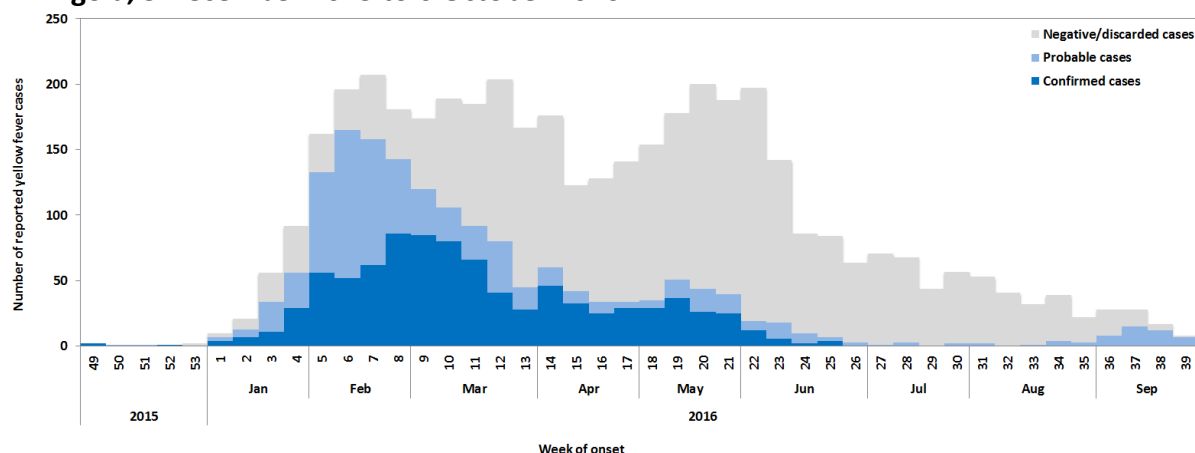
#### EPIDEMIOLOGICAL SITUATION

##### Angola

- Forty-two probable cases were reported in the last four weeks (Fig. 1).
- From 5 December 2015 to 6 October 2016 (Table 1):
  - 4220 suspected cases, with 373 deaths (case fatality rate, CFR: 8.8%);
  - 884 cases have been laboratory confirmed, with 121 deaths (CFR: 13.7%).

- Since the start of the outbreak, suspected cases have been reported from all 18 provinces; confirmed cases have been reported from 80 districts in 16 provinces (Table 2). Autochthonous transmission has been reported from 45 districts in 12 provinces.

**Figure 1. National weekly number of confirmed, probable and negative yellow fever cases in Angola, 5 December 2015 to 6 October 2016**



*Data for the past four weeks are subject to revision pending ongoing investigation and reclassification.*

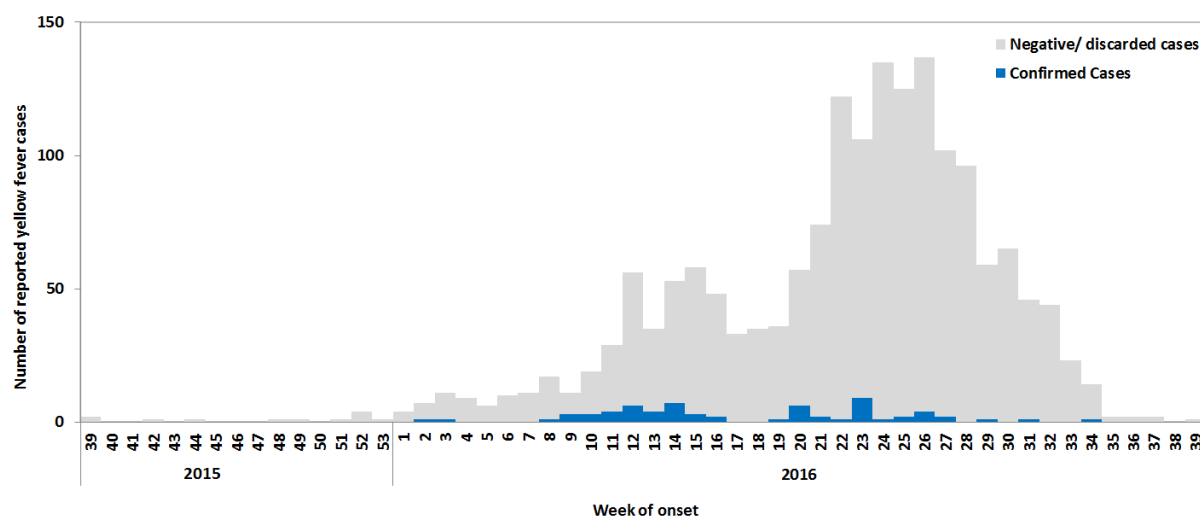
## Democratic Republic of the Congo

- From 1 January to 12 October 2016 (Fig. 2, Table 1):
  - 2916 notified cases reported from all 26 provinces;
  - 77 confirmed cases have been identified from 2800 suspected cases that have been laboratory tested, with 16 deaths (CFR: 21%);
  - Of the 77 confirmed cases, reported from eight provinces (Fig. 4), 57 acquired infection in Angola, 13 are autochthonous<sup>1</sup>, and seven are cases of sylvatic<sup>2</sup> transmission (not related to the outbreak).
- A new confirmed, sylvatic case was reported from Lingomo Health Zone in Tshuapa province. This case was under investigation last week and is reported to have symptom onset on 28 July. Including this new case, there have been four confirmed cases reported in Tshuapa; all four cases were classified as sylvatic.
- Sixteen probable cases are under investigation (four in Kinshasa, eight in Kwango and one case each in Bas Uele, Kwilu, Lualaba and Sud Ubangi provinces).

<sup>1</sup> Autochthonous infection is considered to be an infection acquired among patients with no history of travel during the incubation period, excluding cases classified as sylvatic.

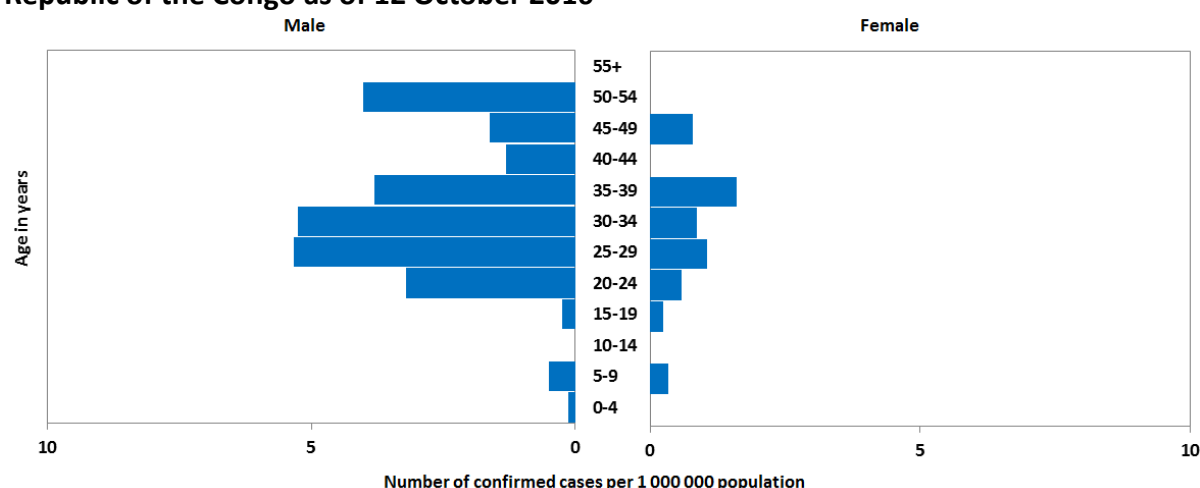
<sup>2</sup> <http://www.who.int/mediacentre/factsheets/fs100/en/>

**Figure 2. National weekly number of confirmed and negative yellow fever cases in Democratic Republic of the Congo, 21 September 2015 to 12 October 2016\***



Data are subject to revision pending ongoing investigation and reclassification. \*Data where date of onset is unknown are not shown.

**Figure 3. Cumulative incidence of confirmed cases by sex and age group in Democratic Republic of the Congo as of 12 October 2016**



Population figures are based on estimates from the United Nations Department of Economic and Social Affairs. Excludes cases for which data on sex or age are not available.

**Table 1: Reported yellow fever cases and deaths in Angola and Democratic Republic of the Congo**

Cases and deaths	Angola		Democratic Republic of the Congo	
	Recent week (30 Sept – 6 Oct)	Cumulative (5 Dec – 6 Oct)	Recent week (6 – 12 Oct)	Cumulative (1 Jan – 12 Oct)
Confirmed cases	0	884	1*	77*
Confirmed deaths	0	121	0	16
Reported cases	32	4188	46	2916
Reported deaths	0	373	0	120

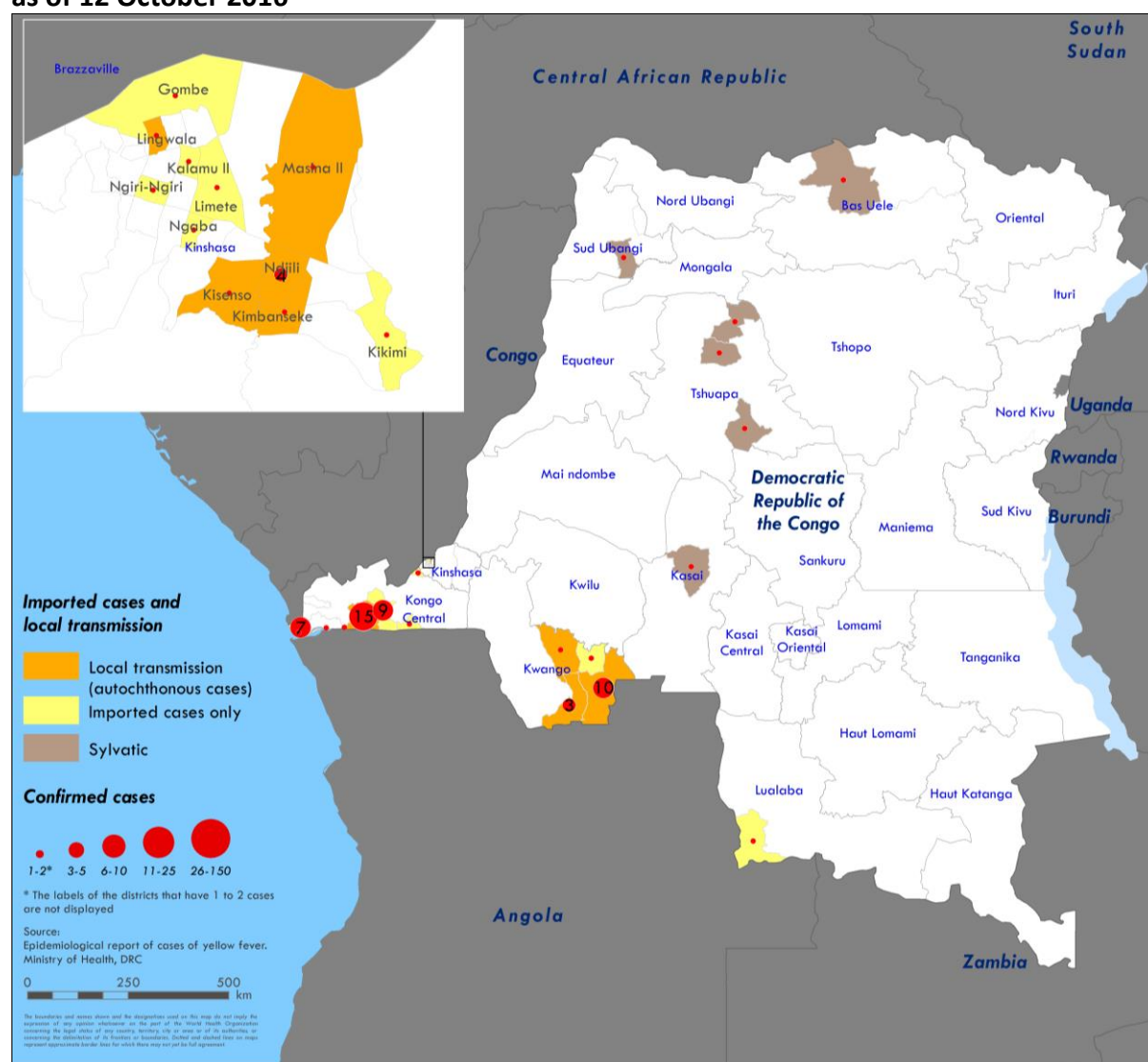
Cases and deaths include autochthonous, sylvatic and imported cases. Data are as of most recent week for which data are available. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results. \*Seven cases are sylvatic yellow fever cases not associated with the outbreak.

**Table 2: Geographical distribution of yellow fever cases in Angola and Democratic Republic of the Congo**

Geographical distribution of cases	Angola		Democratic Republic of the Congo	
	Recent week (30 Sept – 6 Oct)	Cumulative (5 Dec – 6 Oct)	Recent week (6 – 12 Oct)	Cumulative (1 Jan – 12 Oct)
Districts/ health zones with confirmed cases	0	80	1*	30*
Districts/ health zones with documented local transmission (autochthonous and sylvatic)	0	45	1*	16*
Provinces with confirmed cases	0	16	1*	8*
Provinces with documented local transmission (autochthonous and sylvatic)	0	12	1*	7*

Data are as of most recent week for which data are available. Data are subject to revision due to retrospective investigation and availability of laboratory results. \*Includes sylvatic cases.

**Figure 4. Distribution of confirmed yellow fever cases in Democratic Republic of the Congo as of 12 October 2016**



## RESPONSE

- Information on the current outbreak continues to be updated on the WHO website<sup>3</sup>.
- In Angola, a Knowledge Attitude and Practice (KAP) assessment started last week in eight provinces, including Luanda, to provide input for the development of risk communication messaging. Entomologic assessments have been completed in three provinces. Preliminary results suggest the level of infestation of *Aedes aegypti* is high in Bengo, medium in Kwanza Norte and low in Kuando Kubango provinces.
- In Angola, phase two of the vaccination campaign launched on 10 October. The target population consists of more than two million people in 12 districts in 10 provinces.
- In Democratic Republic of the Congo, the 10-day reactive vaccination campaigns in Feshi Health Zone in Kwango province is ongoing and will begin shortly in Mushenge Health Zone in Kasai province. Monitoring continues in the 62 Health Zones where the pre-emptive vaccination campaigns were conducted in August.
- WHO has sent more than 30 million vaccine doses to Angola, Democratic Republic of the Congo and Uganda through the International Coordinating Group (ICG) global stockpile, with additional vaccine doses from the manufacturer Bio-Manguinhos in Brazil.
- As of 14 October 2016, 20 million vaccine doses have been approved for Angola and 9.4 million doses for Democratic Republic of the Congo (Table 3).
- The number of vaccine doses currently available in the ICG global stockpile for emergency response is 5.9 million (Table 4). The amount of doses already allocated to respond to the outbreak is not included in this number.

**Table 3. Vaccination coverage in Angola and Democratic Republic of the Congo as of 14 October 2016**

Country	Target areas: Province/Region (District/Health zone)	Doses approved (in millions)
Angola	Luanda (Viana)	1.8
	Luanda (all 8 districts)	5.6
	Benguela, Bie, Huambo, Kwanza Sul	4.3
	Benguela, Bie, Cunene, Huila, Kuando Kubango, Kwanza Norte, Kwanza Sul, Namibe, Uige	3.3
	Pre-emptive vaccination campaigns in areas which border Democratic Republic of the Congo	3.1
	Namibe (Namibe), Moxico (Lumbala Nguimbo, Luena), Bie (Chinguar, Andulo, Nharea) Cuando Cubango (Cuito Cuanavale), Cuanza Sul (Cela), Lunda Sul (Cacolo)	1.9
Democratic Republic of the Congo	Kinshasa, Kongo Central	2.2
	Kwango province (3 health zones), Kinshasa (Kisenso)	1.1
	Pre-emptive vaccination campaigns in Kinshasa and areas which border Angola	5.8
	Kwango (Feshi), Kasai (Mushenge)	0.3

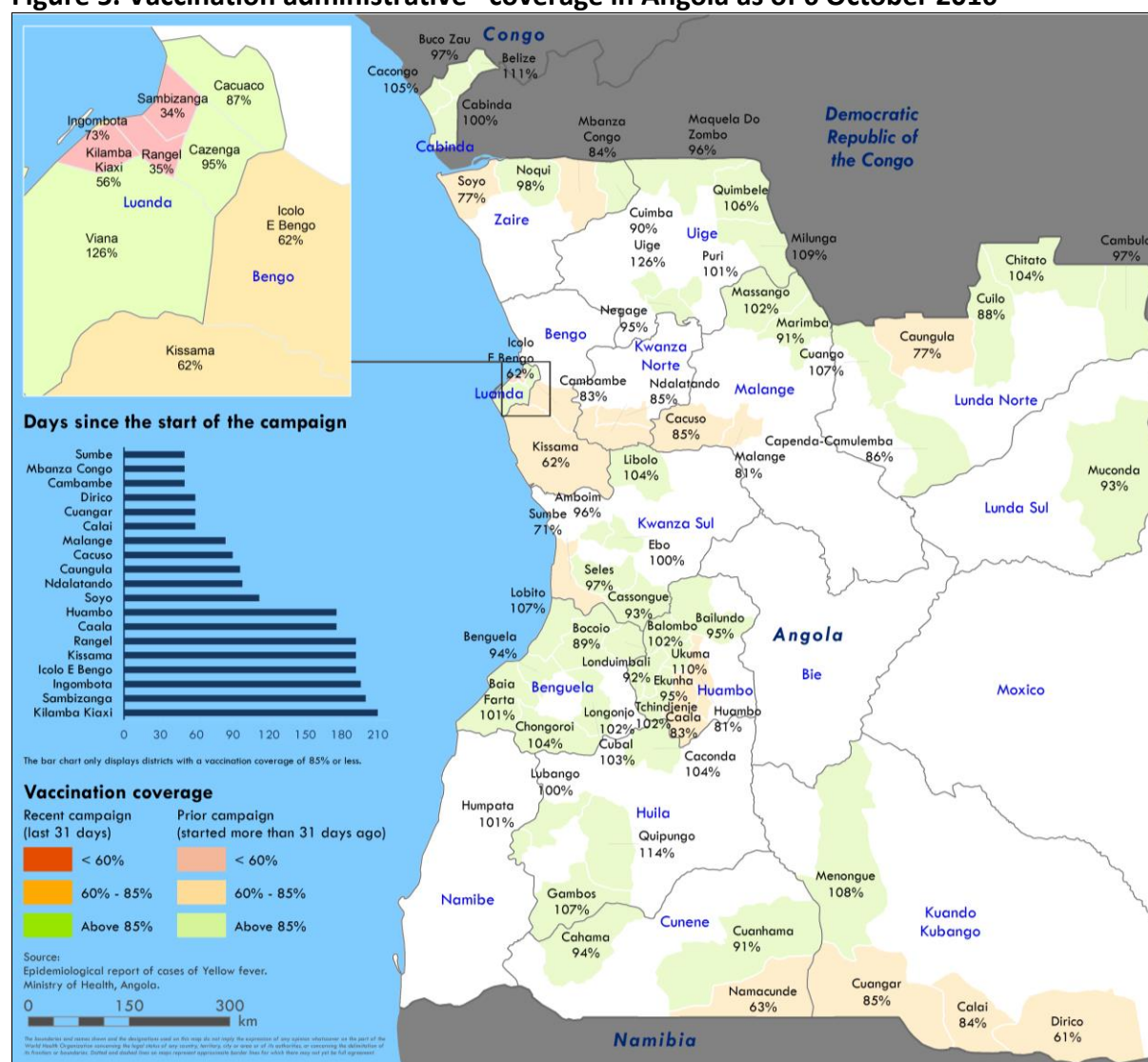
<sup>3</sup> <http://www.who.int/features/ga/yellow-fever/en/>

**Table 4. Cumulative number of vaccine doses (millions) available and projected for emergency stockpile**

Date (as of)	Number of vaccine doses available*
14 October	5.9
Cumulative number of vaccine doses projected°	
31 October	13.1
30 November	23.1
31 December	26.6

\*Number of doses available is the current stock minus number of vaccine doses planned to be distributed for emergency response. °Projections are revised on a regular basis.

**Figure 5. Vaccination administrative\* coverage in Angola as of 6 October 2016**



\*These coverage figures represent number of doses administered, divided by estimated population. As such, figures may not reflect true vaccination coverage due to inaccurate population estimates.