World Health Organization

# SITUATION REPORT

## YELLOW FEVER
## 7 OCTOBER 2016

### KEY UPDATES

- Angola epidemiological update (as of 29 September):
  - The last confirmed case had symptom onset on 23 June.
  - Thirty-two probable cases were reported in the last four weeks.
  - Phase II of the vaccination campaign was postponed due to logistical challenges but was rescheduled to begin the second week of October. The target population consists of two million people in 12 districts in nine provinces.
- Democratic Republic of The Congo (DRC) epidemiological update (as of 5 October):
  - The last confirmed non-sylvatic case had symptom onset on 12 July.
  - Seven cases are under investigation (three in Kinshasa and one case each in Bas Uele, Kwilu, Sud Ubangi and Tshuapa provinces).
  - The reactive vaccination campaign in Feshi and Mushenge Health Zones in Kwango province began on 2 and 6 October, respectively.

### ANALYSIS

- The continuing detection and investigation of suspected and laboratory-positive cases (including the 32 probable cases in Angola) 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 as to their exposure history and yellow fever vaccination status.

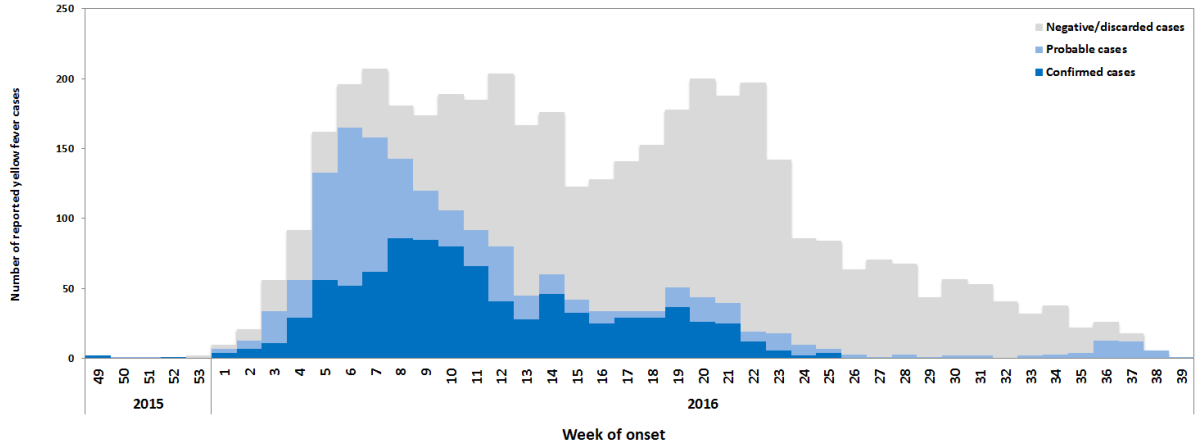
### EPIDEMIOLOGICAL SITUATION

#### Angola

- Thirty-two probable cases were reported in the last four weeks.
- From 5 December 2015 to 29 September 2016 (Fig. 1, Table 1):
  - 4188 suspected cases, with 373 deaths (case fatality rate, CFR: 8.9%);
  - 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.

- Luanda and Huambo provinces have reported the highest number of total cases. As of 29 September, 2097 (50% of all reported cases) cases including 488 confirmed cases have been reported in Luanda and 651 (16% of all reported cases) cases including 128 confirmed cases have been reported in Huambo.

**Figure 1. National weekly number of confirmed, probable and negative yellow fever cases in Angola, 5 December 2015 to 29 September 2016**



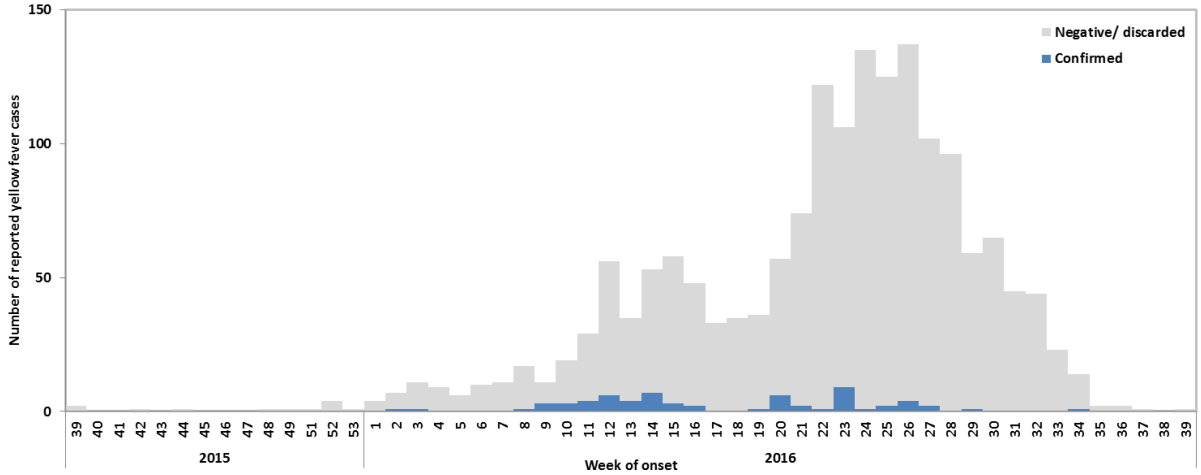

*Data for the past four weeks are subject to revision pending ongoing investigation and reclassification.*

## Democratic Republic of The Congo (DRC)

- From 1 January to 5 October 2016 (Fig. 2, Table 1):
  - 2870 notified cases reported from all 26 provinces;
  - 76 confirmed cases have been identified from 2473 suspected cases that have been laboratory tested, with 16 deaths (CFR: 21%);
  - Of the 76 confirmed cases, reported from eight provinces (Fig. 4), 57 acquired infection in Angola, 13 are autochthonous[1], and six are cases of sylvatic[2] transmission (not related to the outbreak).
- Seven cases are under investigation (three in Kinshasa and one case each in Bas Uele, Kwilu, Sud Ubangi and Tshuapa provinces).

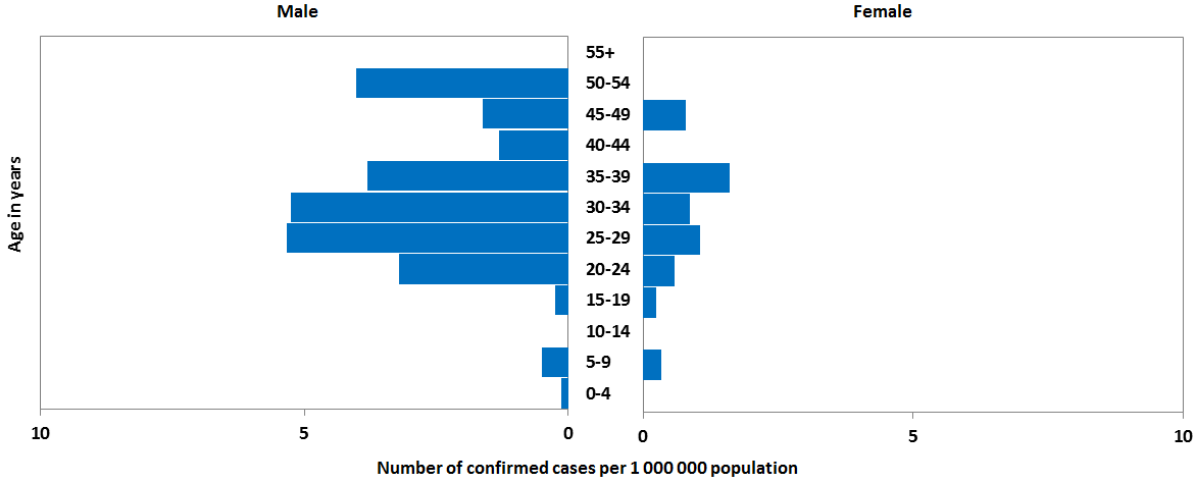
[1] Autochthonous infection is considered to be an infection acquired among patients with no history of travel during the incubation period, excluding cases classified as sylvatic.
[2] http://www.who.int/mediacentre/factsheets/fs100/en/

**Figure 2. National weekly number of confirmed and negative yellow fever cases in DRC, 21 September 2015 to 5 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 DRC as of 5 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 (23 – 29 Sept) | Cumulative (5 Dec – 29 Sept) | Recent week (28 Sept – 5 Oct) | Cumulative (1 Jan – 5 Oct) |
| Confirmed cases | 0 | 884 | 0 | 76* |
| Confirmed deaths | 0 | 121 | 0 | 16 |
| Reported cases | 45 | 4188 | 60 | 2870 |
| Reported deaths | 0 | 373 | 0 | 120 |

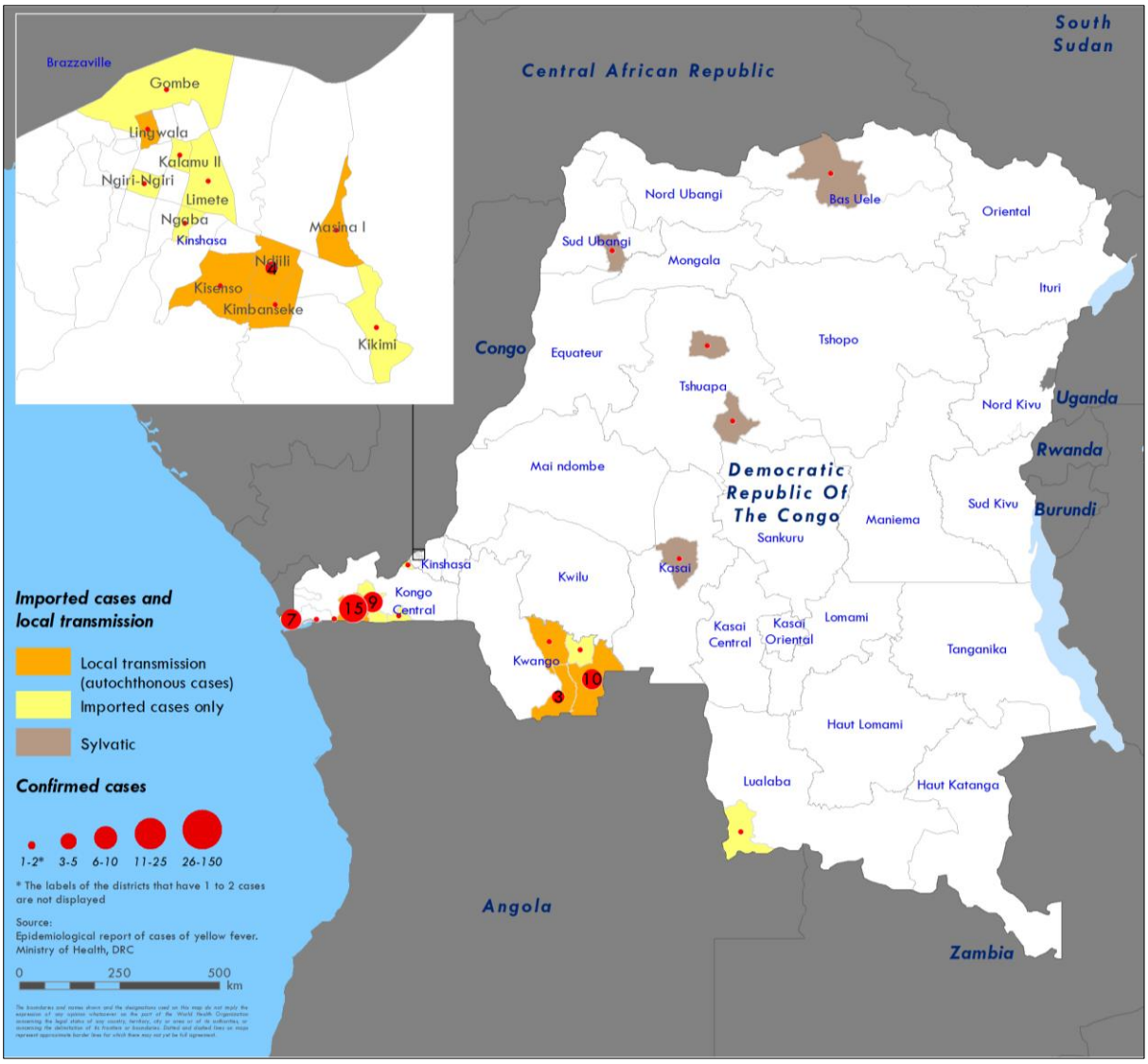
*Cases and deaths include autochthonous, sylvatic and imported cases. Data are as of most recent week for which data are available. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results. *Six cases are sylvatic yellow fever 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 (23 – 29 Sept) | Cumulative (5 Dec – 29 Sept) | Recent week (28 Sept – 5 Oct) | Cumulative (1 Jan – 5 Oct) |
| Districts/ health zones with confirmed cases | 0 | 80 | 0 | 29* |
| Districts/ health zones with documented local transmission (autochthonous and sylvatic) | 0 | 45 | 0 | 15* |
| Provinces with confirmed cases | 0 | 16 | 0 | 8* |
| Provinces with documented local transmission (autochthonous and sylvatic) | 0 | 12 | 0 | 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. Data for the most recent week represent newly affected districts/ health zones or provinces. *Includes sylvatic cases.*

**Figure 4. Distribution of confirmed yellow fever cases in Democratic Republic of The Congo as of 5 October 2016**



## RESPONSE

- Information on the current outbreak continues to be updated on the WHO website[3].
- In DRC, the 10 day reactive vaccination campaign in Feshi and Mushenge Health Zones in Kwango province began on 2 and 6 October, respectively. 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, DRC and Angola through the International Coordinating Group (ICG) global stockpile, with additional vaccine doses from the manufacturer Bio-Manguinhos in Brazil.
- As of 6 October 2016, 20 million vaccine doses have been approved for Angola and 9.4 million doses for DRC (Table 3).
- The number of vaccine doses currently available in the ICG global stockpile for emergency response is 8.8 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 (DRC) as of 6 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 DRC | 3.1 |
| | Namibe (Namibe), Moxico (Lumbala Nguimbo, Luena), Bie (Chinguar, Andulo, Nharea) Cuando Cubango (Cuito Cuanavale), Cuanza Sul (Cela), Lunda Sul (Cacolo) | 1.9 |
| DRC | 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 |

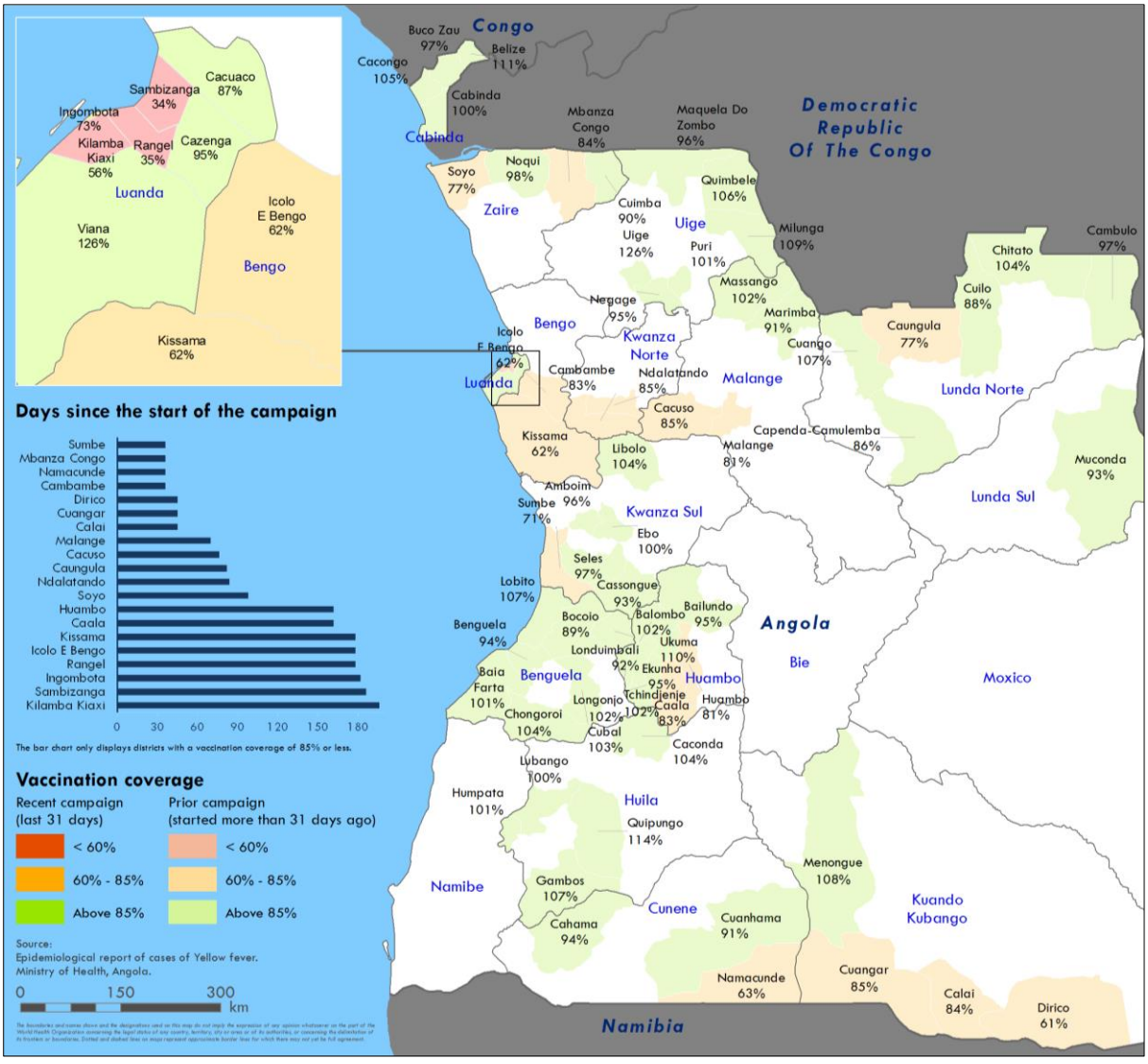
[3] http://www.who.int/features/qa/yellow-fever/en/

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

| Date (as of) | Number of vaccine doses available* |
|---|---|
| 7 October | 8.8 |
| | **Cumulative number of vaccine doses projected°** |
| 31 October | 19.6 |
| 30 November | 25.7 |
| 31 December | 30.5 |

**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 29 September 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.*