



SUMMARY

- In Angola, as of 28 July 2016 a total of 3818 suspected cases have been reported, of which 879 are laboratory confirmed. The total number of reported deaths is 369, of which 119 were reported among confirmed cases. Suspected cases have been reported in all 18 provinces and confirmed cases have been reported in 16 of 18 provinces and 80 of 126 reporting districts.
- Mass reactive vaccination campaigns that first began in Luanda have expanded to cover most of the other affected parts of Angola and recently have focused on border areas with the Democratic Republic of The Congo (DRC). The next vaccination phase targeting three million people in 18 districts is expected to start on 16 August.
- The recent technical difficulties at the national laboratory in DRC have been resolved and laboratory analysis of backlog samples is ongoing. As of 27 July, eight patients have tested positive among 700 samples tested and investigations are ongoing to collect additional information. Since the beginning of the outbreak, DRC has reported (as of 27 July) a total of 2051 suspected cases including 76 confirmed cases and 95 reported deaths (Table 1). Cases have been reported in 22 Health Zones in five of 26 provinces. Of the 76 confirmed cases, 67 are reported as imported from Angola, two are sylvatic¹ (not related to the outbreak) and seven are autochthonous². The number of suspect cases is increasing in Kinshasa, Kongo Central, Kwango, Tshuapa and Lualaba provinces in the week ending 16 July.
- In DRC, reactive vaccination campaigns started on 20 July and finished on 29 July in Kisenso Health Zone in Kinshasa province and in Kahemba, Kajiji and Kisandji Health Zones in Kwango province. Preparations are ongoing for the preventive vaccination campaigns planned to begin at end of August in 32 Health Zones in Kinshasa province and 15 Health Zones in border areas with Angola.
- Fractional dosing will be implemented in a pre-emptive mass vaccination campaign in DRC in Kinshasa.

¹ <http://www.who.int/mediacentre/factsheets/fs100/en/>

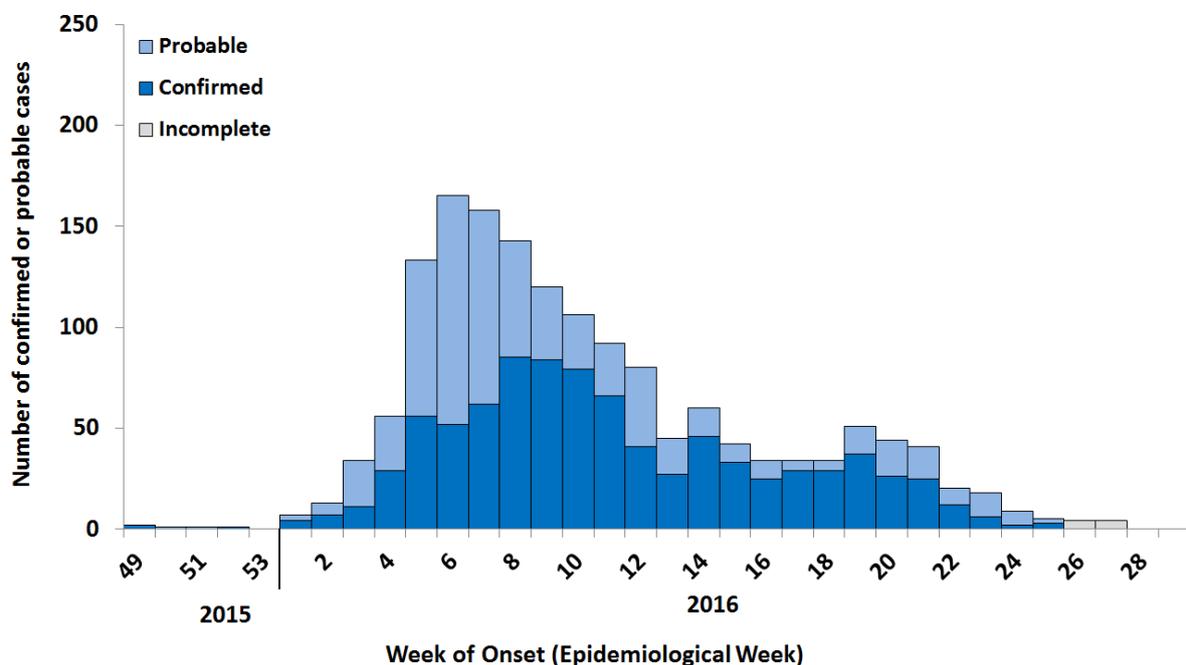
² Autochthonous infection is considered to be an infection acquired in-country, i.e. among patients with no history of travel during the incubation period.

EPIDEMIOLOGICAL SITUATION

Angola

- From 5 December 2015 to 28 July 2016, the Ministry of Health has reported a total of 3818 suspected cases of which 879 are laboratory confirmed (Table 1). The total number of reported deaths is 369, of which 119 have been reported among confirmed cases.
- No confirmed case has been reported in July (as of 28 July).
- Since the start of the outbreak, suspected cases have been reported in all 18 provinces, and confirmed cases have been reported in 80 districts in 16 provinces (Fig.2, Table 2). Local transmission has been documented in 45 districts in 12 provinces.
- The epidemic curve (Fig. 1) shows that the total number of confirmed and probable³ cases increased from early 2016 and peaked in weeks 8 to 9 (22 February to 6 March). From epidemiological week 23 onwards, the number of suspected and confirmed cases has been declining.
- Luanda and Huambo provinces have reported the highest number of laboratory total cases, 2010 cases (including 487 confirmed) and 613 cases (127 confirmed) respectively, as of 28 July. No confirmed cases have been reported in these two provinces since May.
- The most affected group is males aged between nine and 19 years.

Figure 1. National weekly number of probable and confirmed yellow fever cases in Angola, 5 December 2015 to 28 July 2016



Data provided by Angola yellow fever situation report published on 29 July 2016. Data for the last four weeks are incomplete due to ongoing investigations.

³ Case definitions for yellow fever: <http://www.who.int/csr/disease/yellowfev/case-definition/en/>

Figure 2. Monthly timeline of infected districts in Angola, February 2016 to 28 July 2016

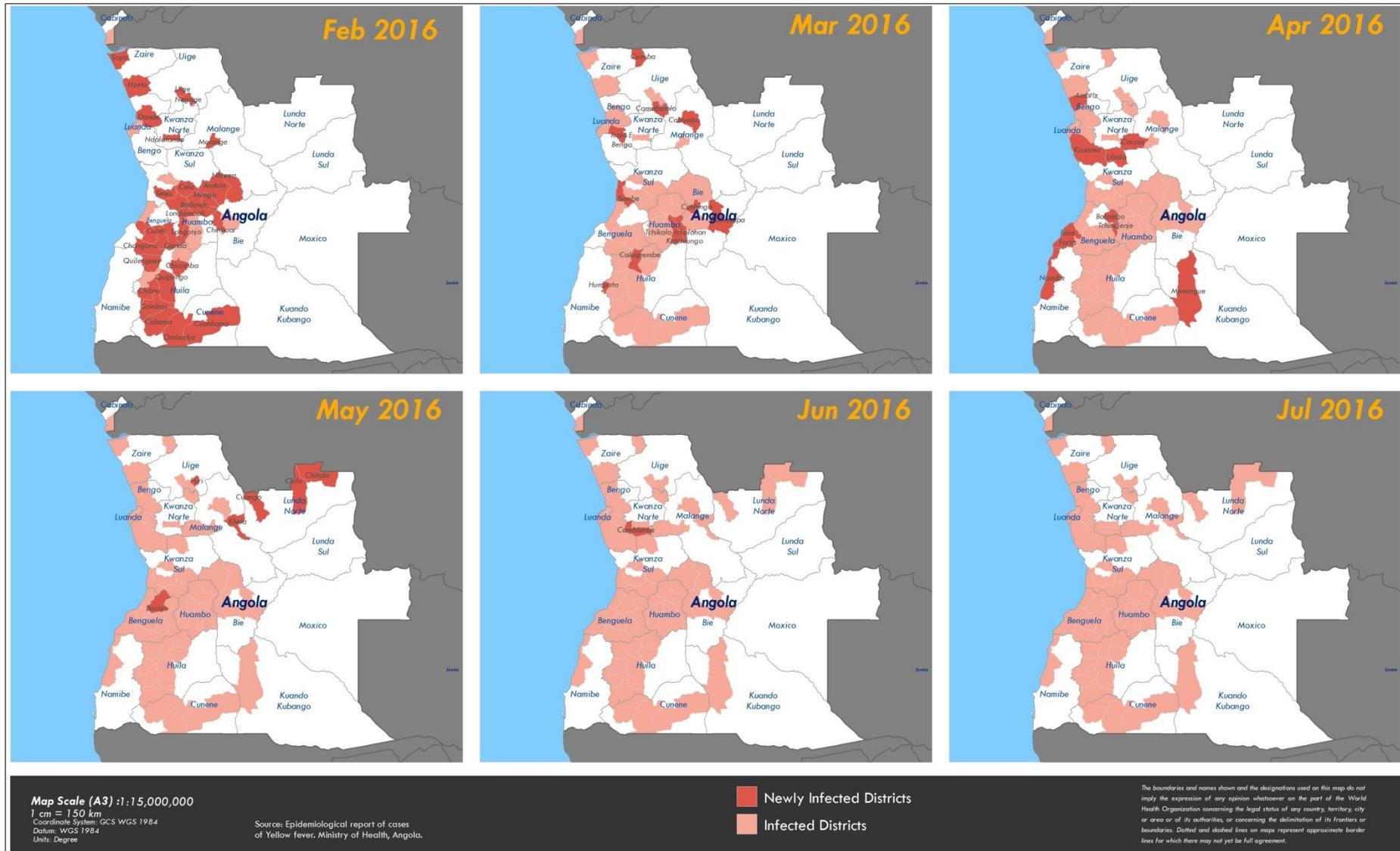
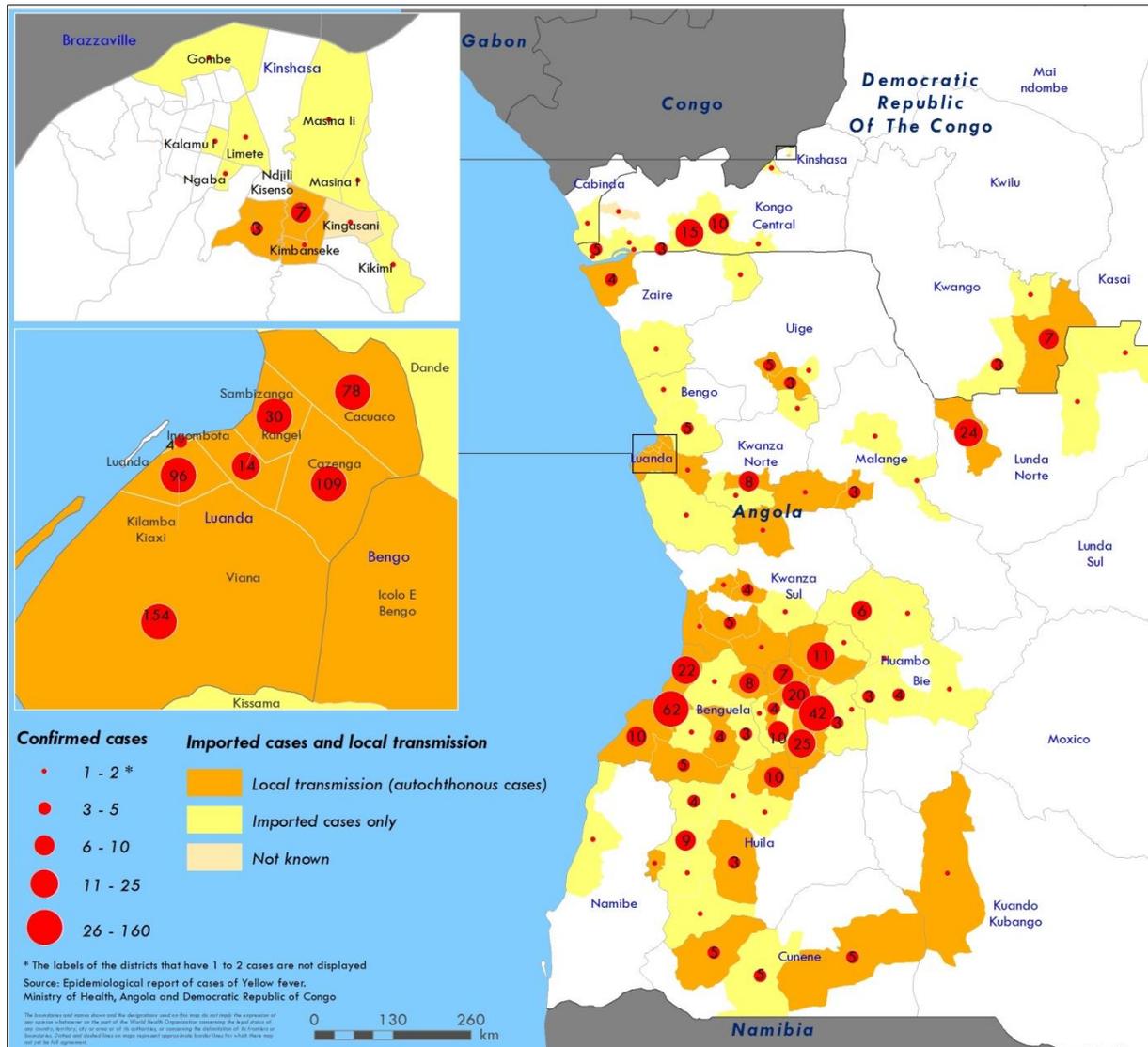


Figure 3. Distribution of confirmed yellow fever cases in Angola and Democratic Republic of The Congo



Data are as of 28 July for Angola and 27 July for Democratic Republic of The Congo.

Democratic Republic of The Congo (DRC)

- Laboratory confirmation of yellow fever in DRC has been resumed after five weeks of interruption. As of 27 July, eight new patients from three provinces have tested positive for yellow fever among 700 samples tested.
- Since the beginning of the outbreak, DRC has reported (as of 27 July) a total of 2051 suspected cases including 76 confirmed cases and 95 reported deaths (Table 1). Cases have been reported in 22 Health Zones in five of 26 provinces. Of the 76 confirmed cases, 67 are reported as imported from Angola, two are sylvatic (not related to the outbreak) and seven are autochthonous.
- The seven autochthonous cases were reported in Ndjili, Kimbanseke and Kisenso districts (Kinshasa province), in Matadi district (Kongo Central province) and in Kahemba district (Kwango province) (Fig. 3).

- In the week to 16 July (week 28), 132 suspect cases were reported (Table 1). The number of suspected cases is increasing in Kinshasa, Kongo Central, Kwango, Tshuapa and Lualaba provinces. In week 28, two new Health Zones reported suspected cases for the first time: one case in Kingasani Health Zone in Kinshasa province and one case in Kangu Health Zone in Kongo Central province which is near Cabinda province in Angola.
- The confirmed case with the most recent date of symptom onset, 20 July, was reported in Masina II district in Kinshasa.
- The most affected age group among males is 15 to 24 years.

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 (22 Jul – 28 Jul)	Cumulative (5 Dec – 28 Jul)	Recent week (10 Jul – 16 Jul)	Cumulative (1 Jan – 16 Jul)
Confirmed cases	0	879	Not available	76*
Confirmed deaths	Not available	119	Not available	Not available
Reported cases	69	3818	132	2051
Reported deaths	5	369	Not available	95

Cases and deaths include both autochthonous 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. *Two cases are sylvatic yellow fever cases not associated with the outbreak in Angola.

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 (22 Jul – 28 Jul)	Cumulative (5 Dec – 28 Jul)	Recent week (10 Jul – 16 Jul)	Cumulative (1 Jan – 16 Jul)
Districts/ health zones with confirmed cases	0	80	Not available	22
Districts/ health zones with documented local transmission	0	45	Not available	7*
Provinces with confirmed cases	0	16	Not available	5*
Provinces with documented local transmission	0	12	Not available	5

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. Data for the most recent week represent newly affected districts/ health zones or provinces. *Includes sylvatic cases.

Risk assessment

- The outbreak in Angola is receding and no confirmed case has been reported in the country during July (as of 28 July). However, a high level of vigilance needs to be maintained throughout the country, and the pre-emptive mass vaccination campaign will be implemented as planned.
- In DRC, there is a need for heightened vigilance as the outbreak has spread to new Health Zones in the three affected provinces. Further cases are expected to be confirmed in the next days or weeks due to the backlog at the national laboratory which stemmed from technical issues that are now resolved. The outbreak might spread to other provinces as more suspected cases have been reported in Lualaba and Kasai provinces. Given the presence and activity of the vector *Aedes* in the country and low immunity of the population, the outbreak might extend to other provinces.
- Transmission of yellow fever in Angola and DRC is mainly concentrated in cities; however, there is a high risk of spread and local transmission to other provinces, especially in DRC where the vaccinated population is much lower.

RESPONSE

- Information on the current outbreak continues to be updated on the WHO website⁴.
- As of 4 August 2016, 21.2 million vaccine doses have been approved for Angola, 11.5 million for DRC and 0.8 million in Uganda (Table 3).
- The number of vaccines currently available for the emergency response is 5.1 million through the ICG and WHO (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, the Democratic Republic of The Congo (DRC) and Uganda as of 4 August 2016

Country	Target areas: Province/Region (District/Health zone)	Doses approved (in millions)	Delivery date (2016)
Angola	Luanda (Viana)	1.8	2 & 4 Feb
	Luanda (all 8 districts)	5.6	8 & 27 Feb, 14 & 25 Mar
	Benguela, Bie, Huambo, Kwanza Sul	4.3	6 Apr, 11 May & 12 May
	Benguela, Bie, Cunene, Huila, Kuando Kubango, Kwanza Norte, Kwanza Sul, Namibe, Uige	6.4	1, 11, 21 & 27 Jun & 2, 4 Aug
	Lubango, Tchindjenje	3.1	9 Aug
DRC	Kinshasa, Kongo Central	4.7	13, 17-19 May, 4,5, 7 August
	Kwango province (3 health zones), Kinshasa (Kisenso)	1.1	2 Jul
	Kinshasa	5.7	8 - 11 Aug
Uganda	Masaka, Rukungiri	0.7	3 May
	Kalangala	0.06	20 May

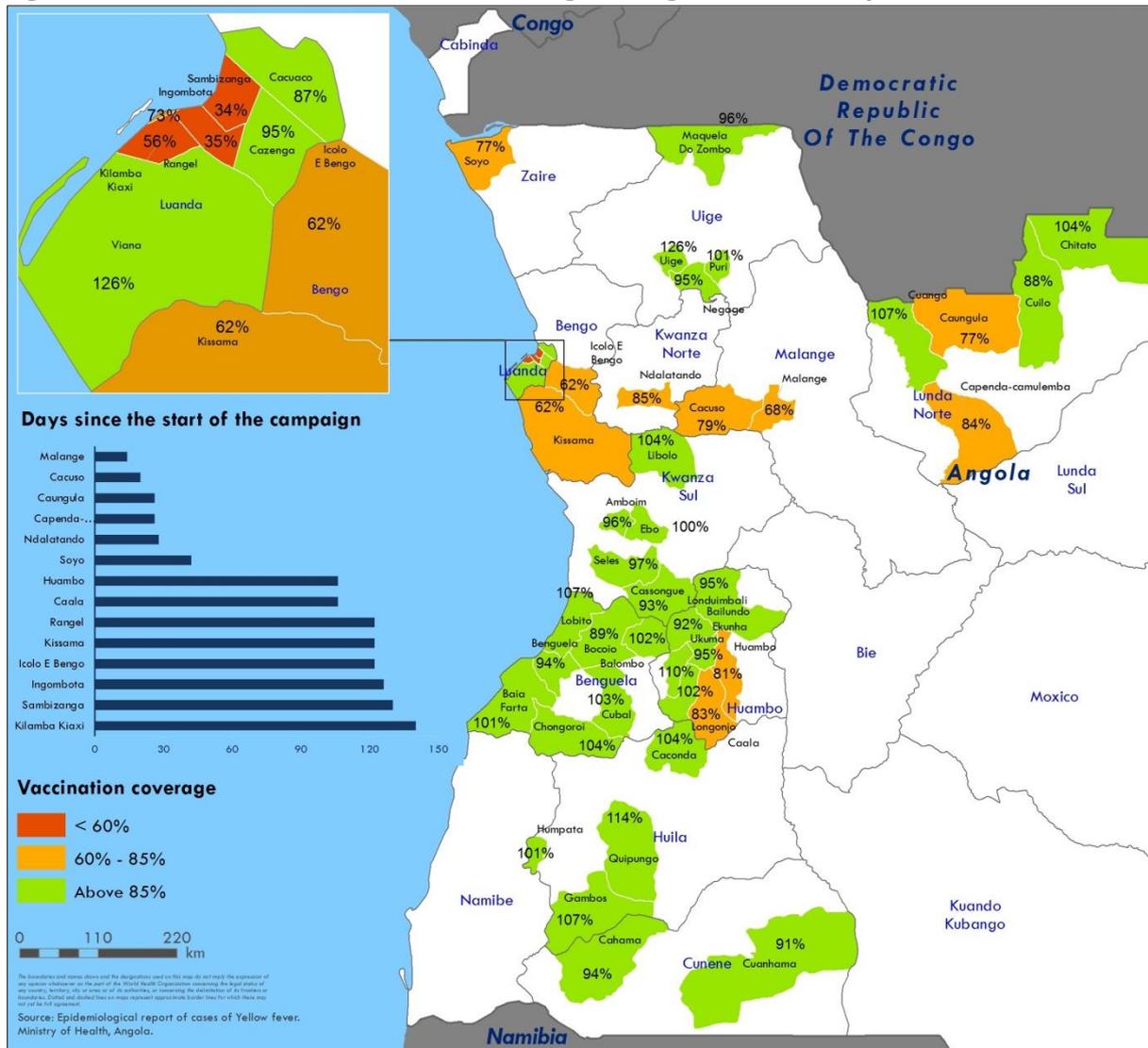
Table 4. Cumulative number of vaccine doses (millions) available and projected for emergency stockpile

Date (as of)	Number of vaccine doses available*
2 August	5.1
Cumulative number of vaccine doses projected°	
28 August	12.8
30 September	21.1
31 October	26.6
30 November	33.4
31 December	35.4

*Number of doses available is the current stock minus number of vaccine doses planned to be distributed for emergency response. °Numbers are projections and are subject to change.

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

Figure 4. Vaccination administrative* coverage in Angola as of 28 July 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.