



KEY UPDATES

- Angola epidemiological update (as of 1 September):
 - There have been no new confirmed cases since 23 June.
- Phase I of the preventive vaccination campaign in Angola was completed and, as of 1 September, 2 807 628 people had been vaccinated. Phase II of the campaign is being prepared and will target more than three million people in 12 provinces.
- Democratic Republic of The Congo (DRC) epidemiological update (as of 8 September):
 - There have been no confirmed cases related to the current outbreak since 12 July.
 - The first notified case reported in Bominenge Health Zone in Sud Ubangi province is still under investigation. A second case was notified from Budjala Health Zone, a different zone within Sud Ubangui province, in the week to 8 September and is being investigated.
- The pre-emptive vaccination campaign in DRC has concluded. The preliminary results indicate that the administrative immunization coverage reached 103.1% in Kinshasa, 101% in Kasai Central, 98.3% in Kongo Central, 101% in Kasai, 101% in Kwango, and 100.8% in Lualaba. Independent monitoring assessed that vaccination coverage is 98.2% in Kinshasa.
- Uganda declared the end of their yellow fever outbreak on 6 September 2016. This outbreak was not linked to the outbreak in Angola and DRC.

ANALYSIS

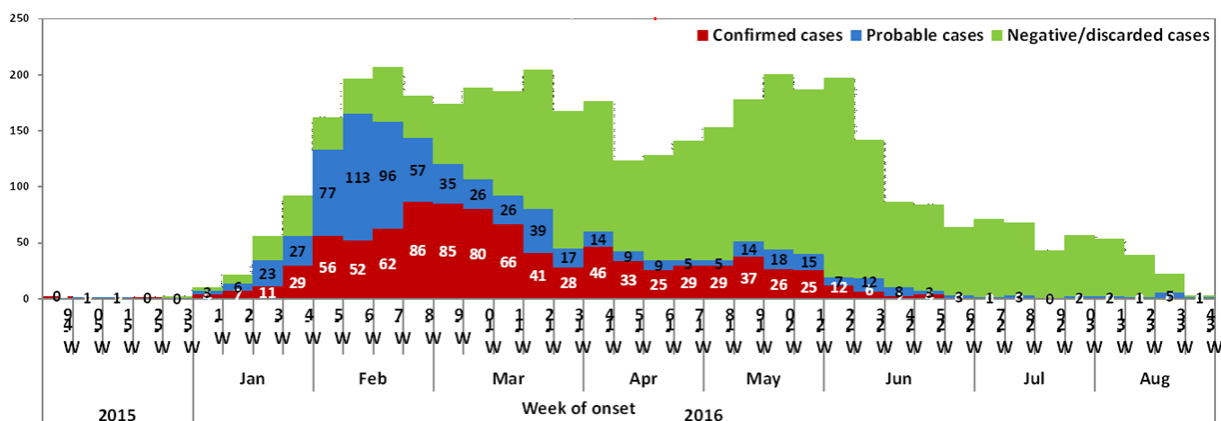
- The overall risk assessment remains unchanged.
- There have been no confirmed cases linked to the current outbreak in DRC since July. This week there have been no new Health Zones reporting suspected cases. Nevertheless, it is important to note the inherent difficulties in surveillance and laboratory confirmation capacities.
- Independent monitoring of vaccination efforts in Kinshasa have demonstrated excellent coverage, providing a high level of population immunity against yellow fever in this area.
- Global vaccine stocks are adequate to complete all planned vaccination campaigns and to respond to new cases and/or outbreaks in other countries, should they arise.

EPIDEMIOLOGICAL SITUATION

Angola

- There has been no confirmed case since 23 June. The situation remains stable, with a low number of suspected cases reported over the past month (Fig. 1 & 2).
- From 5 December 2015 to 1 September 2016 (Table 1):
 - 4065 suspected cases, with 372 deaths (case fatality rate, CFR: 9.2%);
 - 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 (Fig. 2, 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 1 September, 2063 cases (including 488 confirmed) were reported in Luanda and 636 cases (128 confirmed) were reported in Huambo.

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



Data source: Angola yellow fever situation report 8 September 2016. Data for the past four weeks are subject to revision pending ongoing investigation and reclassification. In last week's situation report, the Angola epidemic curve was produced with "suspected" and "confirmed" cases. This epidemic curve takes into consideration the case definition and case classification in Angola after final classification which comprise of "probable", "confirmed," and "negative/discarded" cases.

Democratic Republic of The Congo (DRC)

- From 1 January to 8 September 2016 (Table 1):
 - 2603 suspected cases reported from all 26 provinces;
 - 75 confirmed cases have been identified from 2253 suspected cases that have been laboratory tested, with 16 deaths (CFR: 21.33%);
 - Of the 75 confirmed cases, reported from seven provinces (Fig. 3), 57 acquired infection in Angola, 13 are autochthonous¹, and five are cases of sylvatic² transmission (not related to the outbreak).
- Sud Ubangu province, which borders the Republic of the Congo and Central African Republic, reported a notified case in Bominenge Health Zone for the first time in the week

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/>

to 25 August. The investigation is still ongoing to confirm or discard the case, identify whether it is imported or autochthonous, and determine whether it is related to the current outbreak or is a sylvatic case. A second notified case was reported in the week to 8 September in Budjala Health Zone which is also in Sud Ubangui province, and is also under investigation.

- The investigation of the two sylvatic cases reported in the week to 25 August in the Yalifafu Health Zone in Tshuapa province has concluded and found that these are isolated cases.
- The 13 autochthonous cases were reported from 10 Health Zones in three provinces: Kinshasa (six cases), Kongo Central (two cases) and Kwango (five cases).
- The date of onset of the most recent confirmed case in Kinshasa is 22 June. The date of onset of the most recent confirmed case in DRC is 12 July in the Kahemba Health Zone in Kwango province.

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 (26 Aug – 1 Sept)	Cumulative (5 Dec – 1 Sept)	Recent week (2 – 8 Sept)	Cumulative (1 Jan – 8 Sept)
Confirmed cases	0	884	0	75*
Confirmed deaths	0	121	0	16
Reported cases	24	4065	90	2603
Reported deaths	1	372	0	107

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. *Five 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 (26 Aug – 1 Sept)	Cumulative (5 Dec – 1 Sept)	Recent week (2 – 8 Sept)	Cumulative (1 Jan – 8 Sept)
Districts/ health zones with confirmed cases	0	80	0	28
Districts/ health zones with documented autochthonous transmission	0	45	0	14*
Provinces with confirmed cases	0	16	0	7*
Provinces with documented local transmission	0	12	0	6*

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 2. Geographical distribution of confirmed cases in Angola by district through time, March 2016 to 1 September 2016

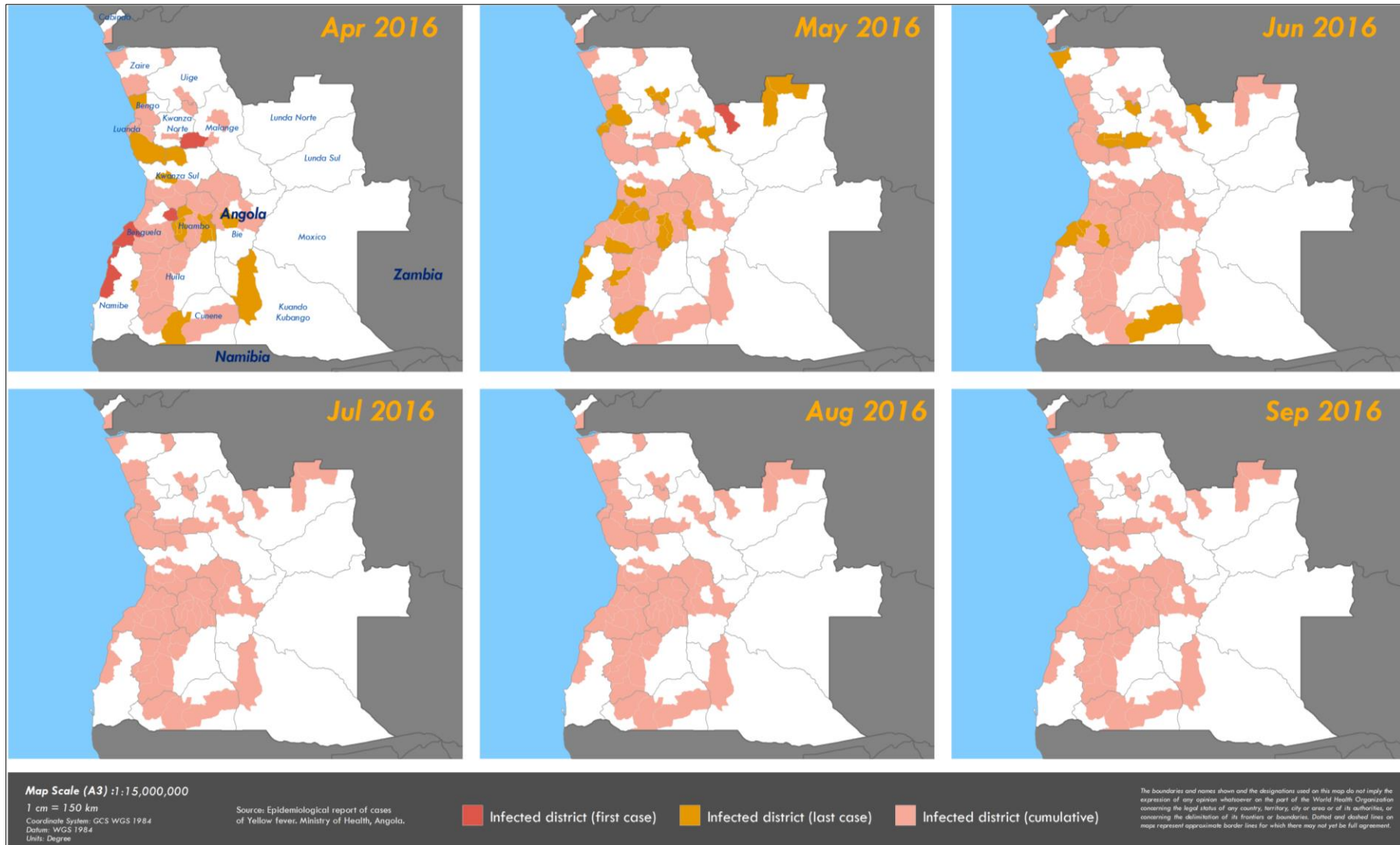
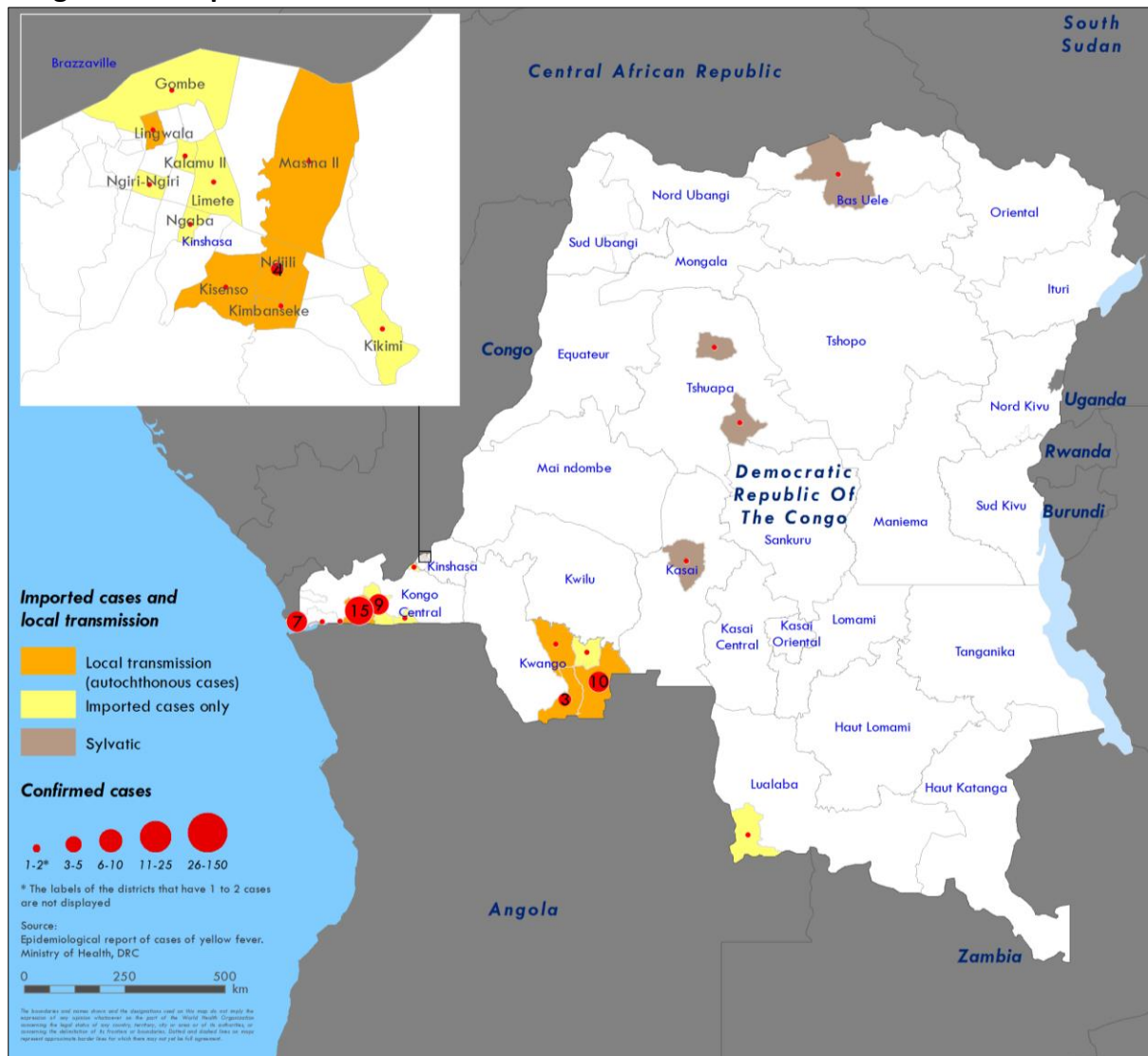


Figure 3. Distribution of confirmed yellow fever cases in Democratic Republic of The Congo as of 8 September 2016



RESPONSE

- Information on the current outbreak continues to be updated on the WHO website³.
- Vaccination campaigns have been completed in 73 municipalities in Angola and 15 962 052 (65% of Angola’s population) has been vaccinated (Fig. 4). A pre-emptive vaccination campaign was launched on 15 August. Phase I of the campaign was completed and, as of 1 September, 2 807 628 people had been vaccinated. This represents 94% of the target population. 15 of 22 districts targeted in Phase I achieved at least 90% administrative vaccination coverage. Supplementary vaccination activities are ongoing in the three districts (Dirico, Namacunde and Sumbe) where vaccination coverage has not reached 80%. Phase II of the campaign is being prepared and will target more than three million people in 21 districts in 12 provinces.

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

- The pre-emptive vaccination campaign in DRC has concluded. The preliminary results indicate that administrative immunization coverage reached 103.1% in Kinshasa, 101% in Kasai Central, 98.3% in Kongo Central, 101% in Kasai, 101% in Kwango, and 100.8% in Lualaba. Independent monitoring assessed that vaccination coverage is now 98.2% in Kinshasa. As of 8 September, more than ten million people were vaccinated for Health Zones that reported. A reactive vaccination campaign is being planned in Feshi Health Zone (Kwango province) and Mushenge Health Zone (Kwango province).
- WHO has sent nearly 27 million vaccine doses to Angola and DRC through the International Coordinating Group (ICG) global stockpile and with additional vaccines from Bio-Manguinhos in Brazil.
- As of 7 September 2016, 18.1 million vaccine doses have been approved for Angola and 9.4 million doses for DRC (Table 3).
- The number of vaccines currently available for the emergency response is 4.0 million through the ICG (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 7 September 2016

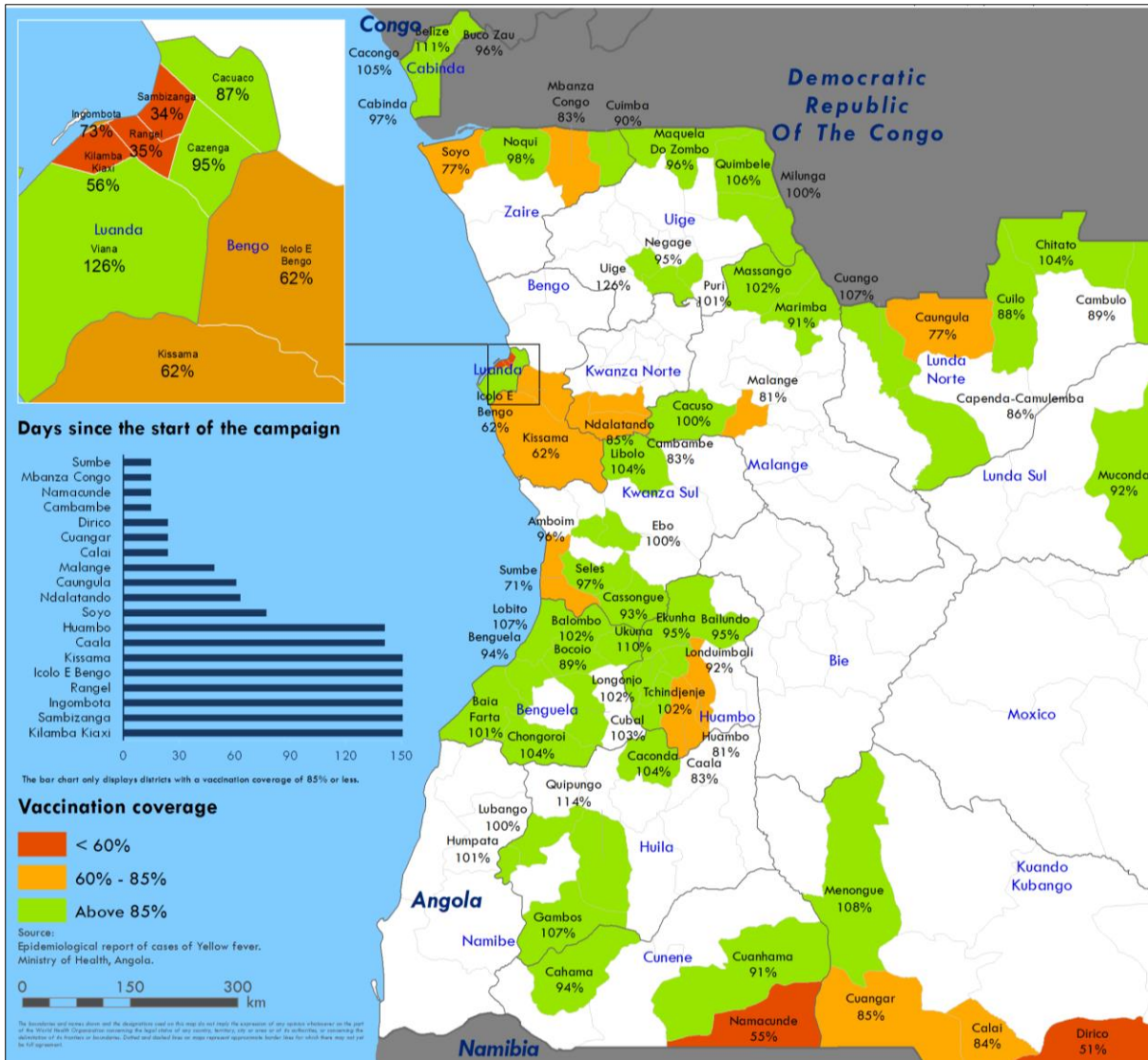
Country	Target areas: Province/Region (District/Health zone)	Doses approved (in millions)
Angola	Luanda (Viana)	1.8
	Luanda (all 8 districts)	5.6
	Benguela, Bie, Huambo, Kwanza Sul	4.3
	Benguela, Bie, Cunene, Huila, Kuando Kubango, Kwanza Norte, Kwanza Sul, Namibe, Uige	3.3
	Preventive vaccination campaigns in areas which border DRC	3.1
DRC	Kinshasa, Kongo Central	2.2
	Kwango province (3 health zones), Kinshasa (Kisenso)	1.1
	Preventive vaccination campaigns in Kinshasa and areas which border Angola	5.8
	Kwango (Feshi), Kasai (Mushenge)	0.3

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

Date (as of)	Number of vaccine doses available*
7 September	4.0
Cumulative number of vaccine doses projected°	
30 September	19.7
31 October	21.0
30 November	27.7
31 December	24.7

*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 4. Vaccination administrative* coverage in Angola as of 1 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.