



SUMMARY

- In Angola, as of 21 July 2016 a total of 3748 suspected cases have been reported, of which 879 are confirmed. The total number of reported deaths is 364, 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 125 reporting districts.
- Mass reactive vaccination campaigns first began in Luanda and have now expanded to cover most of the other affected parts of Angola. Recently, the campaigns have focused on border areas. All districts continued with house to house immunization campaigns and routine vaccination.
- The recent technical difficulties at the national laboratory in the Democratic Republic of The Congo (DRC) have been resolved and the laboratory confirmation of yellow fever cases in DRC has resumed. According to the preliminary results of tests performed on a backlog samples, seven new patients have tested positive for yellow fever. Additional investigations to determine the definitive status of these cases are ongoing. Until these investigations are completed, the official case count in DRC remains unchanged.
- According to the latest confirmed information, DRC has reported 1907 suspected cases (as of 20 July) and 68 confirmed cases (as of 24 June) including 95 reported deaths (Table 1). Cases have been reported in 22 health zones in five of 26 provinces. Of the 68 confirmed cases, 59 were imported from Angola, two are sylvatic (not related to the outbreak) and seven are autochthonous.
- In DRC, surveillance efforts have increased and vaccination campaigns have centred on affected health zones in Kinshasa and Kongo Central and Kwango. Reactive vaccination campaigns started on 20 July in Kisenso health zone in Kinshasa province and in Kahemba, Kajiji and Kisandji health zones in Kwango province.
- Seven countries (Brazil, Chad, Colombia, Ghana, Guinea, Peru and Uganda) have reported yellow fever outbreaks or sporadic cases not linked to the Angolan outbreak.
- An Emergency Committee (EC) was convened on 19 May 2016. The WHO Director-General accepted the EC's assessment 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 situation does not currently constitute a Public Health Emergency of International Concern.

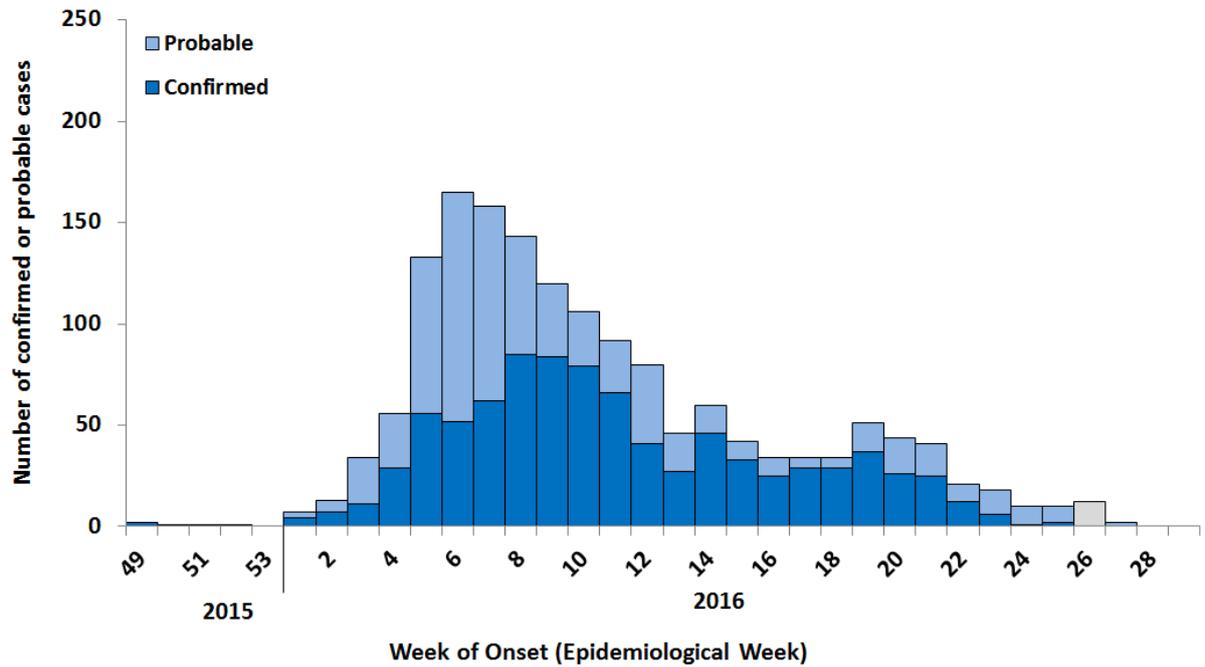
- WHO Strategic Advisory Group of Experts (SAGE) on Immunization reviewed existing evidence that demonstrates that using a fifth of a standard vaccine dose would still provide protection against the disease for at least 12 months and possibly longer. This approach, known as fractional dosing, will be implemented in a pre-emptive mass vaccination campaign in DRC in Kinshasa.

EPIDEMIOLOGICAL SITUATION

Angola

- From 5 December 2015 to 21 July 2016, the Ministry of Health has reported a total of 3748 suspected cases of which 879 are laboratory confirmed (Table 1). The total number of reported deaths is 364, of which 119 have been reported among confirmed cases.
- No confirmed case has been reported in July (as of 21 July) and the confirmed case with the most recent date of symptom onset, 23 June, was reported in Cuanhama district in Cunene province.
- Since the start of the outbreak, suspected cases have been reported in all 18 provinces, and confirmed cases have been reported in 16 provinces in 80 of 125 reporting districts (Fig.2, Table 2).
- The epidemic curve (Fig. 1) shows that the total number of confirmed and probable cases increased from early 2016 and the number of confirmed cases 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 respectively 1984 cases (including 487 confirmed) and 608 cases (127 confirmed) as of 21 July. No confirmed cases have been reported in these two provinces since May.
- Médecins Sans Frontières has reported a recent increase in the number of hospital admissions of suspected cases of yellow fever in Benguela province.
- One case, with symptom onset in June 2016, was retrospectively confirmed. This is the first locally acquired case documented in Cambambe district (Kwanza Norte province). This brings the total number of districts reporting local transmission to 45 in 12 provinces (Fig. 3).
- The majority of cases are among 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 21 July 2016



Data provided by Angola yellow fever situation report published on 21 July 2016. Data for the last four weeks is incomplete due to delays in reporting.

Figure 2. Monthly timeline of infected districts in Angola, February 2016 to 21 July 2016

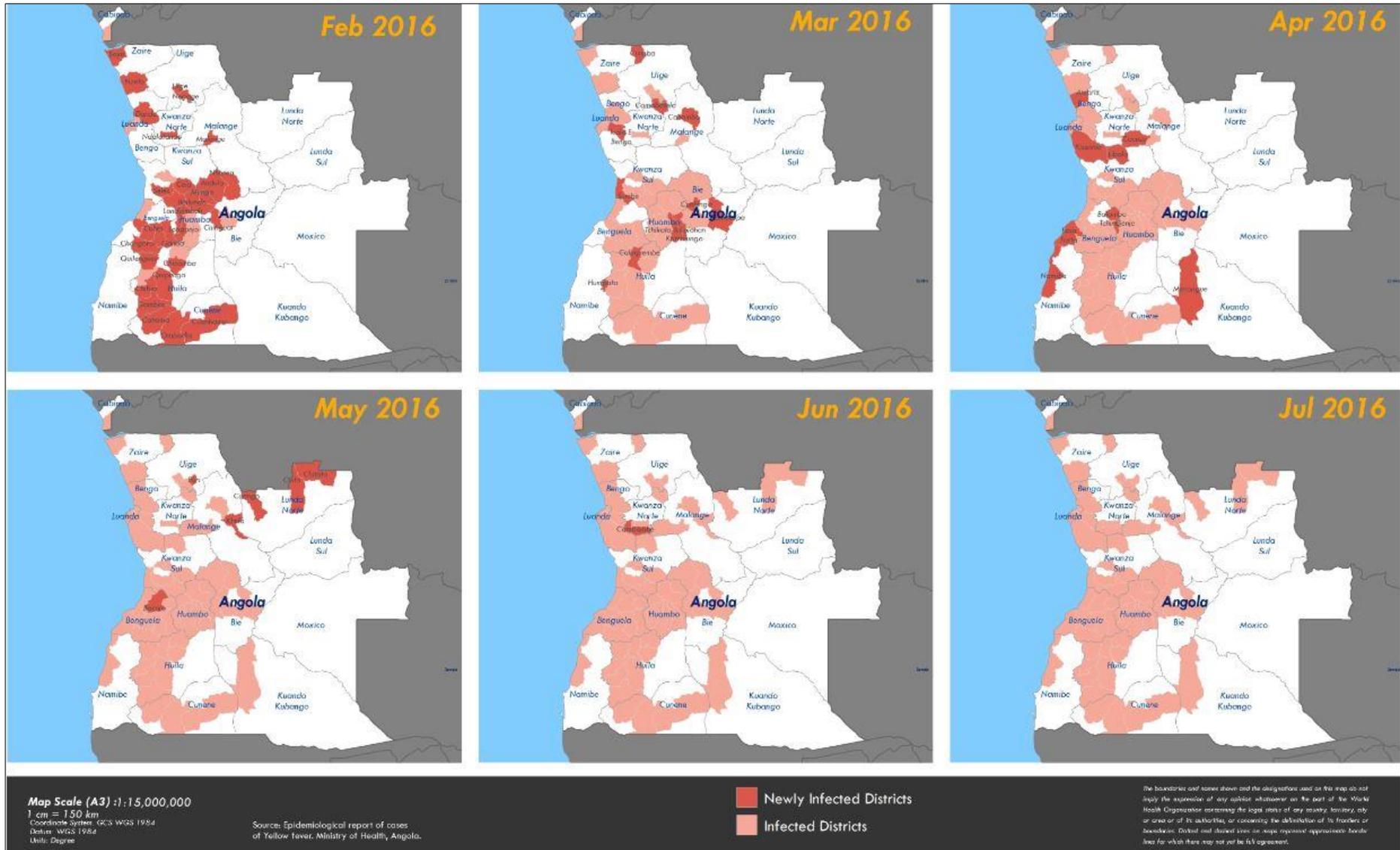
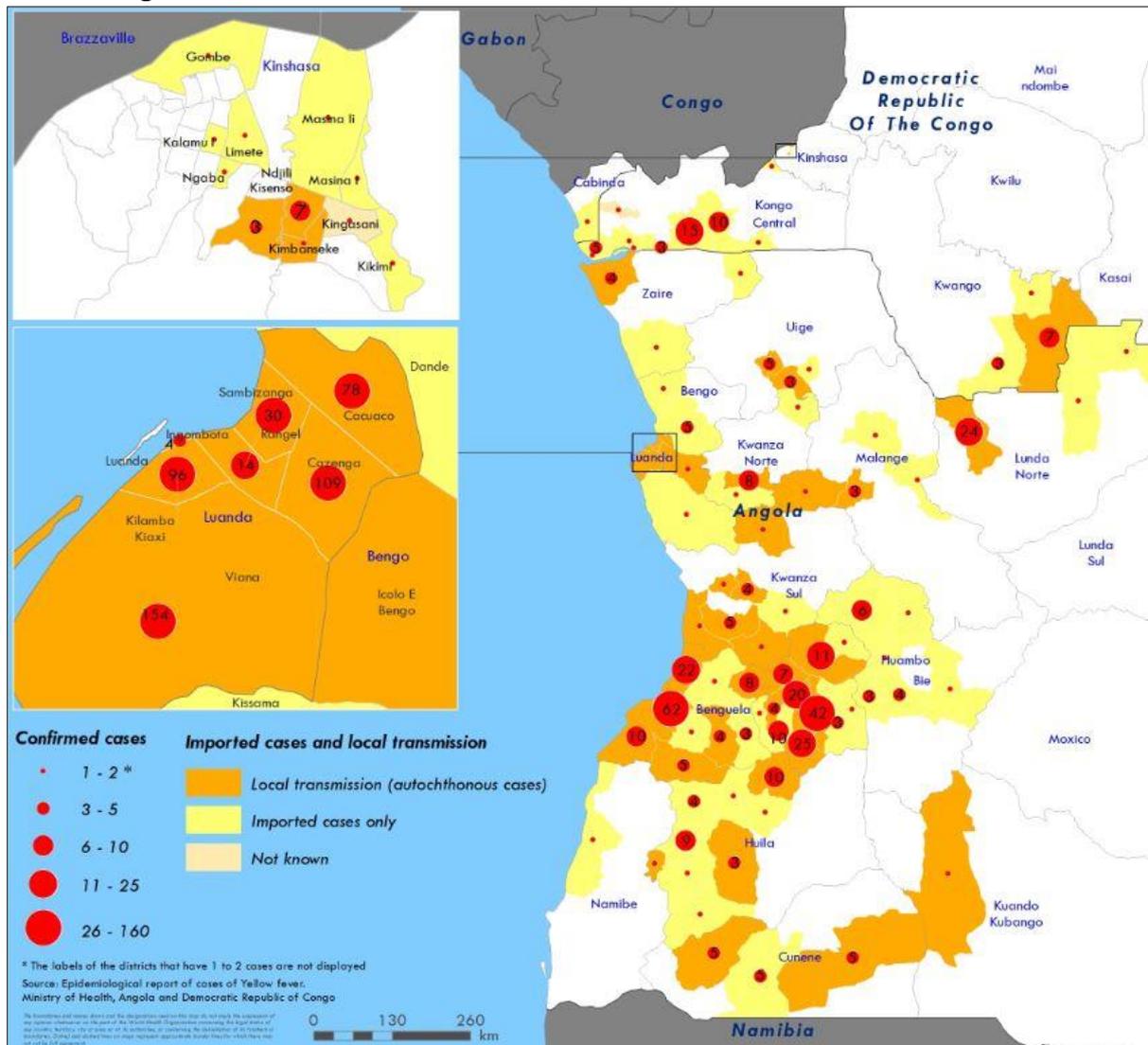


Figure 3. Distribution of yellow fever confirmed cases in Angola and Democratic Republic of The Congo



Data is as of 21 July for Angola and 28 June for Democratic Republic of The Congo.

Democratic Republic of The Congo (DRC)

- On 22 March 2016, the Ministry of Health of DRC notified WHO of suspected yellow fever cases in connection with Angola. The yellow fever outbreak in DRC was officially declared on 23 April.
- The recent technical difficulties at the national laboratory in DRC have been resolved and the laboratory confirmation of cases has been able to resume after almost five weeks of interruption. According to the preliminary results of tests performed on a backlog samples, seven new patients have tested positive for yellow fever. Additional investigations to determine the definitive status of these cases are ongoing. Until these investigations are completed, the official case count in DRC remains unchanged.
- These seven new patients had symptom onset between 20 June and 10 July and were reported from Kinshasa, Kongo Central and Kwango provinces, including a case reported in a non-immunized health zone in Kongo Central.

- In DRC, 1907 suspected cases (as of 20 July) and 68 confirmed cases (as of 24 June) with 95 reported deaths have been reported (Table 1). Of the 68 confirmed cases, 59 were imported from Angola (reported in Kongo Central, Kinshasa and Kwango provinces), two were sylvatic cases in Northern provinces, and seven were autochthonous cases. 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).
- The majority of the cases in DRC are male and they are mainly aged between 20 and 34 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 (16 Jul – 21 Jul)	Cumulative (5 Dec – 21 Jul)	Recent week (17 Jun – 24 Jun)	Cumulative (22 Mar – 24 Jun)
Confirmed cases	0	879	Not available	68
Confirmed deaths	Not available	119	Not available	Not available
Reported cases	66	3748	285	1798
Reported deaths	3	364	Not available	85

Cases and deaths include both autochthonous and imported cases. Data is as of most recent week for which data is available. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results.

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 (16 Jul – 21 Jul)	Cumulative (5 Dec – 21 Jul)	Recent week (17 Jun – 24 Jun)	Cumulative (1 Jan – 24 Jun)
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	9	18	Not available	5*
Provinces with documented local transmission	0	12	Not available	3

Data is as of most recent week for which data is available. These numbers are subject to change due to ongoing reclassification, retrospective investigation and availability of laboratory results. Data for the most recent week represents newly affected districts/ health zones or provinces. *Includes sylvatic cases.

Other countries reporting yellow fever transmission

Brazil

- One confirmed fatal case of jungle yellow fever has been reported in the city of Goiânia in the state of Goiás.

Colombia

- One confirmed fatal case of yellow fever has been reported from the municipality of Carurú in the department of Vaupés.

Chad, Ghana, Guinea, Peru, Republic of Congo and Uganda

- Based on laboratory result and case investigations, the suspected yellow fever cases in both Guinea and Uganda have been discarded.
- The situation in Chad, Ghana, Peru and Republic of Congo remains stable and there are no changes since last week.

Risk assessment

- The outbreak in Angola is receding and no confirmed case has been reported in the country during July (as of 21 July). The confirmed case with the most recent date of symptom onset, 23 June, was reported in Cuanhama district in Cunene province. However, a high level of vigilance needs to be maintained throughout the country.
- In DRC, the situation remains concerning as the outbreak has spread to three provinces. Given the presence and activity of the vector *Aedes* in the country, the outbreak might extend to other provinces, in particular Kasai, Kasai Central and Lualaba.
- 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 in both countries. In addition, the risk of 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.

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. The WHO Director-General accepted the EC's assessment 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 situation does not currently constitute a Public Health Emergency of International Concern.
- Information on the current outbreak continues to be updated on the WHO website¹.
- The WHO Strategic Advisory Group of Experts (SAGE) on Immunization reviewed existing evidence that demonstrates that using a fifth of a standard vaccine dose would provide protection against yellow fever for at least 12 months and possibly much longer². This approach, known as fractional dosing, will be implemented in a pre-emptive mass vaccination campaign in Kinshasa.
- WHO has sent more than 19 million vaccine doses to Angola, DRC and Uganda through the International Coordinating Group global stockpile. This is three times the volume normally needed in one year for outbreak use and is unprecedented. In the past, the global stockpile has never used more than four million doses to control a yellow fever outbreak.

¹ <http://www.who.int/features/qa/yellow-fever/en/>

² <http://www.who.int/mediacentre/news/statements/2016/yellow-fever-vaccine/en/>

- As of 27 July 2016, 18 million vaccine doses have been approved for Angola, 5.8 million for DRC and 1 million in Uganda (Table 3).
- The number of vaccines currently available for the emergency response is 11.4 million through the ICG (Table 4). The amount of doses already allocated to respond to the outbreak is not included in this number.
- WHO is planning pre-emptive vaccination campaigns in Angola and DRC border areas, as well as a vaccination campaign using fractional dose in Kinshasa.
- In DRC, reactive vaccination campaigns started on 20 July, in Kisenso health zone in Kinshasa province and in Kahemba, Kajiji and Kisandji health zones in Kwango province.

Table 3. Vaccination coverage in Angola, the Democratic Republic of The Congo (DRC) and Uganda as of 20 July 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
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
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*
27 July	11.4
Cumulative number of vaccine doses projected°	
28 August	14.8
30 September	18.6
31 October	20.6
30 November	24.5
31 December	26.5

*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.

Figure 4. Vaccination population coverage in Angola as of 21 July 2016

