

Department of Defense
Armed Forces Health Surveillance Branch
Yellow Fever in Africa Surveillance Summary
(28 JUL 2016)



Approved for Public Release

For questions or comments, please contact:

dha.ncr.health-surv.list.afhs-ib-alert-response@mail.mil



DEPARTMENT OF DEFENSE (AFHSB)

Yellow Fever in Africa Surveillance Summary #3

28 JUL 2016 (next report 11 AUG 2016)



CASE REPORT: On 21 JAN, WHO was notified by the National Directorate of Public Health Angola of a [yellow fever](#) outbreak that began on 5 DEC 2015 in Luanda province. As of **21 JUL, 3,748 (+196)** suspected yellow fever cases with **364 (+9)** deaths have been reported since the beginning of the outbreak, of which **879 (+4)** have been laboratory confirmed. **No confirmed cases were reported between 16 and 21 JUL. Luanda and Huambo, the two most affected provinces, have not recorded laboratory confirmed cases since MAY. Officials have expressed concern regarding insufficient surveillance and significant delays in reporting in Benguela province, which showed an increase in the number of suspected yellow fever hospitalizations this past week.** Local transmission of yellow fever has been confirmed in 12 provinces. Confirmed imported cases of yellow fever from Angola have been reported from the Democratic Republic of the Congo (DRC) (at least 59), China (11), and Kenya (2).

On 23 APR, the Ministry of Health (MOH) of DRC officially declared a yellow fever outbreak, and on 20 JUN, the DRC Health Minister declared “a localized epidemic of yellow fever” in Kinshasa, Kongo Central, and Kwango provinces. As of 24 JUN, 87 yellow fever cases have been laboratory confirmed. Of these, nine were autochthonous cases linked to the current outbreak, and at least 59 cases were imported from Angola with a majority reported from Kinshasa, Kongo Central, and Kwango provinces. Two of the confirmed cases were sylvatic cases reported from Bas-Uele and Tshuapa. According to WHO, between 1 JAN and **11 JUL 2016** a total of **1,798 (+216)** suspected cases of yellow fever, including **85 (+10)** deaths, were reported by the DRC’s national surveillance system. **The national laboratory in DRC has been unable to confirm suspected cases for four weeks due to chemical shipment issues; actions to correct these issues are underway. A mobile laboratory has been sent to DRC from the European Union with WHO’s support “in order to fast track and strengthen diagnosis.”**

According to the [WHO Situation Report on 21 JUL](#), suspected yellow fever cases in Africa have also been reported from the Republic of the Congo (2 suspected cases), Guinea (39 suspected cases), Uganda (91 suspected cases, 7 confirmed) and Ghana (4 suspected cases). Vaccination status and travel history are under investigation for the suspect cases in Guinea. **Investigations revealed both suspected cases from Republic of the Congo were vaccinated.** The suspected cases in Uganda and Ghana are not linked to Angola. On 30 JUN, Ugandan authorities in Masaka district “declared that they have successfully contained the spread of yellow fever.”

In the Western Hemisphere, confirmed and suspected cases have been reported by Peru (37 confirmed, 42 probable), Brazil (**2 (+1)** cases), and Colombia (1 sylvatic case). **The most recently reported case in Brazil, who died on 2 APR, is being investigated for a potential link to Angola.** The other cases in the Western Hemisphere are not related to Angola, DRC, or Uganda.

On 19 MAY, WHO convened an [Emergency Committee](#) and determined that although the urban yellow fever outbreaks in Angola and DRC are serious public health events, they do not constitute a Public Health Emergency of International Concern (PHEIC). On 13 JUN, CDC updated its [Alert Level 2, Practice Enhanced Precautions](#) travel notice for Angola and its Watch Level 1, Practice Usual Precautions travel notices for [DRC](#) and [Uganda](#).

VACCINATION EFFORTS: On 22 JUN, WHO announced that pre-emptive vaccination campaigns will be launched along the Angola-DRC border, particularly in areas of intense trade traffic and high population movement, targeting 15.5 million people. **Additionally, WHO is planning a vaccination campaign in Kinshasa using fractional doses.** As of 5 JUL, vaccination campaigns have reached 15 million people in Angola, 3 million in DRC, and 1.3 million in Uganda.

In Angola, mass vaccination campaigns have been completed in multiple districts across seven provinces, including a mop-up campaign in Luanda. On 12 JUL, health officials announced that the final stage of vaccinations in Luanda province will begin on 15 JUL and target over 400,000 people who were not vaccinated during previous campaigns. Officials have expressed concern regarding the lack of verification of yellow fever immunization cards upon exiting the country.

On 20 JUN, DRC launched a ten day mass vaccination campaign in two provinces; according to a health official quoted in media, all immunizations given were full doses. Health officials expect more vaccine to arrive from Brazil in the next month; this supply of vaccine will be administered as fractional doses. Shortages of the smaller syringes needed for the one-fifth vaccine dosage continue to pose a barrier to vaccination campaigns in both DRC and Angola.

Text updated from the previous report will be printed in red; items in (+xx) represent the change in number from the previous AFHSB summary (14 JUL 2016).

All information has been verified unless noted otherwise. Sources include: Angola Ministry of Health, GIDEON, Reuters, All Africa, and Voice of America.

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VACCINATION EFFORTS cont'd: A sufficient supply of smaller syringes is expected to arrive by AUG. DRC has decided to fraction 3.6 million doses of vaccine it will receive from WHO, using one-fifth of the current dosage, in order to vaccinate approximately 10.5 million people in its affected areas. Approximately 1.4 million people will receive a full dose, and the remaining individuals will receive fractional dosages.

In Uganda, vaccination campaigns were conducted in the affected areas of Masaka, Rukunguri, and Kalangala, resulting in 91%, 97%, and 94% vaccination coverage, respectively. Planning is underway to incorporate the yellow fever vaccine into routine immunization programs in Uganda.

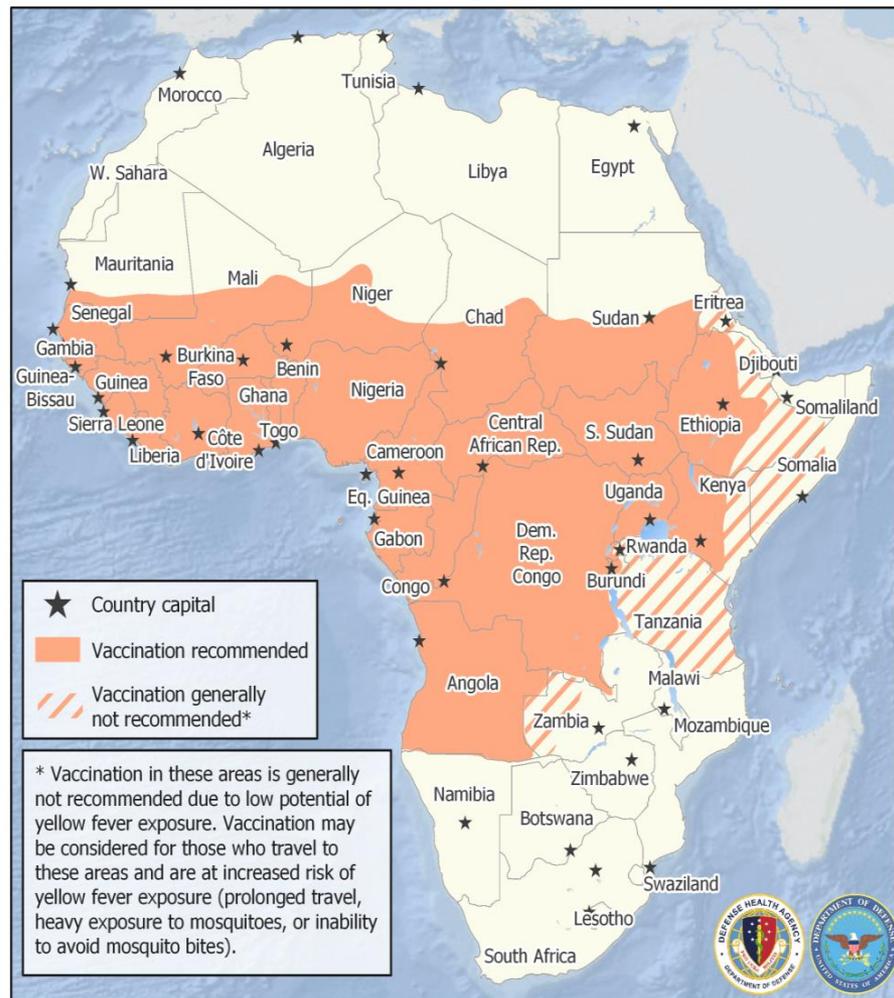
GLOBAL VACCINE POLICY & RESEARCH: On 17 JUN, WHO's Strategic Advisory Group of Experts (SAGE) on Immunization stated that fractional dosing is under consideration as a short term measure in instances of vaccine supply shortage, and that evidence supports the use of one-fifth of the current dosage, which will provide immunity for at least 12 months. It is unknown if this smaller dose would provide sufficient protection to children. Receiving a fractional dose will not qualify for a yellow fever immunization certificate under International Health Regulations (IHR) requirements.

On 17 JUN, Brazil's MOH announced all travelers to and from Angola and DRC, including delegations entering Brazil for the 2016 Olympics and Paralympics, will be required to present a yellow fever immunization certificate.

Effective 11 JUL 2016, an [amendment](#) to Annex 7 of IHR (2005) extends the validity of the certificate of vaccination against yellow fever from ten years, beginning ten days after vaccination, to the life of the vaccinated person. This applies to existing and new certificates; revaccination or boosters cannot be required as a condition of entry, regardless of issue date of the certificate.

On 27 JUL, the National Institute of Allergy and Infectious Diseases (NIAID) announced a multisite Phase I trial investigating an attenuated yellow fever vaccine (MVA-BN-YF) made by Bavarian Nordic. NIAID is also funding a Phase I trial through Saint Louis University's Center for Vaccine Development and University of Iowa. This investigational vaccine, which uses a modified smallpox vaccine, is intended to target vulnerable populations that are not recommended to receive the current yellow fever vaccine (i.e. pregnant women, elderly, immunocompromised).

WHO Yellow Fever Vaccination Recommendations in Africa, 2015

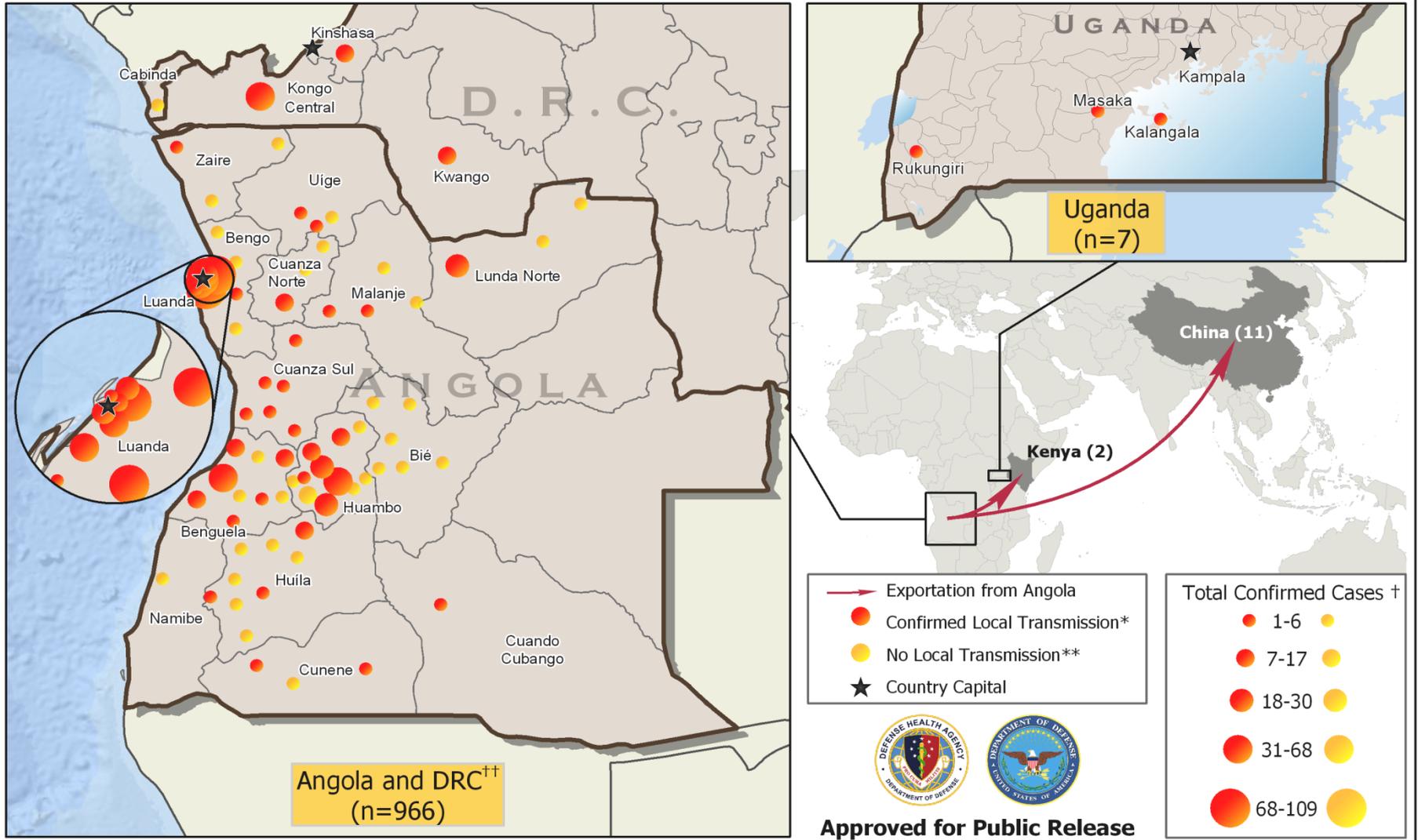


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Confirmed Yellow Fever Cases Associated with the Outbreaks in Angola, Democratic Republic of the Congo (DRC), and Uganda, as of 21 JUL 2016



* Red circles denote areas with confirmed autochthonous transmission of yellow fever. These case counts include both autochthonous and imported cases.

** Yellow circles denote areas with no confirmed autochthonous transmission of yellow fever. These case counts include only imported cases.

† The map reflects confirmed cases in Angola at the district level as of 21 JUL, DRC at the province level as of 23 JUN, and Uganda at the district level as of 08 JUN.

†† As of 24 JUN, DRC has reported 87 confirmed cases, which are included in the total confirmed case count for Angola and DRC. The map depicts 66 of the confirmed cases in DRC related to this outbreak; the distribution of the remaining cases is currently unavailable.

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