Rwanda



Infant Mortality Rate: 61.03/1,000 live births Population: 12,012,589 (July 2013 est.)

Overview

Influenza activities are carried out through a CDC cooperative agreement with the Center for Treatment and Research on AIDS, Malaria, Tuberculosis and Other Epidemics (TRACPlus) within the Rwanda MOH. CDC supports TRACPlus in preparedness and communication, surveillance and disease detection, and response and containment to improve Rwanda's capacity to identify and manage outbreaks of avian and pandemic influenza. The influenza surveillance network in Rwanda is currently composed of six (6) sentinel surveillance sites (i.e. 2 referral hospitals and 4 district hospitals), the Rwanda Biomedical Center/National Reference Laboratory Division (RBC/NRL) as the National Influenza Testing Centre and the Rwanda Biomedical Center/Epidemic Infectious Diseases Division (RBC/EID) as the support coordination institution.

Highlights

- Revised Influenza Surveillance Standard Operations Procedures (SOP) to include new WHO case definitions for severe acute respiratory illness (SARI) and influenza-like illness (ILI), enhanced SARI surveillance data collection form and performance indicators.
- Launched an enhanced SARI surveillance data collection tool at each sentinel site to include risk factors and outcomes of severe disease.
- Conducted a laboratory assessment in August 2013.
- Developed an Influenza National Sustainability Plan to phase out CDC funding by July 2016.

Surveillance

In July 2008, the Ministry of Health (MoH) has established influenza sentinel surveillance (ISS) network to describe the epidemiology and seasonality of influenza in the country. The network is currently composed of six (6) sentinel surveillance sites (i.e. 2 referral hospitals and 4 district hospitals), the National Reference Laboratory (NRL) as the national influenza testing center and the Rwanda Biomedical Center/Other Epidemic and Infectious Diseases Division (RBC/EID) as the support/coordination center. Each site has a full time surveillance officer who conducts most of the influenza work at the site. The surveillance officer is assisted by a clinician. The clinician provides oversight and helps engage other clinicians and nurses in the hospital to identify cases with symptoms that fit the Standard WHO case definitions for ILI and SARI. Each sentinel site has inpatient pediatric, adult, maternity, and emergency wards and an outpatient department that participate in the ISS.

Surveillance Activities

- Developed and validated influenza surveillance performance indicators.
- Collected a total of 1,207 questionnaires and entered into the central database.
- Developed a protocol for evaluation of the attributes of influenza surveillance system.
- Resumed weekly reporting to WHO FluID after more than six months of discontinuation.

Laboratory

The National Reference Laboratory (NRL) is the National Influenza Testing Centre since 2008. It is a Biosafety Level II (BSL-2) with some enhanced BSL-3 procedures. It has supported the ISS network with PCR assays for detection of seasonal human (A/H1, A/H3, A/H1N1pdm09, B), avian (A/H5N1; A/H7N9) and pandemic influenza (A/H1N1pdm09) strains and subtypes using CDC primers/probes and protocols. Over 1,139 respiratory specimens have been tested and the positivity rate of 14.0% (160/1,139) detected. The laboratory has successfully participated on the WHO External Quality Assessment Project (EQAP) for influenza PCR assays since 2009 to date. Currently, there is no virus culture performed by the NRL due to lack of adequate space. There is ongoing plan to procure a BSL-2 Containment Virology Laboratory to accommodate viral isolation on cell culture. The identification of viral isolates will help the NRL to acquire capabilities for WHO accreditation as National Influenza Center (NIC).

Laboratory Activities

- Tested a total of 1,207 respiratory samples with positivity rate of 12.8% (154/1,207).
- Tested 40 respiratory samples negative to Influenza by RT PCR using Multiplex PCR to validate protocol.
- Conducted four supervisory site visits and provided logistical support to sentinel sites.
- Registered to CDC's Influenza Reagents Resource (IRR).

Preparedness

Since the notification of human infection with avian influenza A(H7N9) virus by the Chinese Government to the World Health Organization on March 31, 2013, the Government of Rwanda has closely monitored the situation by implementing preparedness and response activities and information sharing.

Preparedness Activities

- Hosted regular meetings in the last two years between Ministry of Health and Ministry of Agriculture to discuss the collaboration regarding information sharing, public awareness, surveillance, and rapid response team readiness.
- Produced and disseminated TV/Radio spots on avian influenza A(H7N9) to raise public awareness.
- Updated health care providers on key facts regarding avian influenza A(H7N9).
- Alerted influenza surveillance sentinel sites and other health facilities to report any unusual clusters of pneumonia occurring within 7 to 10 days of each other with family or social connections.
- Forecasted needs regarding specimen collection kits, personal protective equipment (PPE), and antivirals.

Training

- Conducted refresher trainings on influenza epidemiology, data and specimen collection as well as new trainings on enhanced SARI data collection.
- Attended the Data Management and Basic Epidemiologic Analysis for Influenza Training Course in Johannesburg, South Africa, November 2011.
- Attended the 3rd Annual African Network for Influenza Surveillance and Epidemiology (ANISE) Meeting in Nairobi, Kenya, February 2012.



Didactic training on how to conduct influenza sentinel surveillance at Gihundwe District Hospital.