



ZAMBIA



A clinician taking a respiratory sample at the University Teaching Hospital in Lusaka.

OVERVIEW

The overall goal of Zambia's influenza program is to strengthen influenza surveillance and the surveillance of other communicable diseases by bolstering the public sector laboratory and surveillance capacity for influenza-like illness (ILI) and severe acute respiratory infection (SARI).

SURVEILLANCE

A prospective, sentinel surveillance system for ILI and SARI was established in 2008 and is currently operating in Zambia. This system originally consisted of two SARI and two ILI sites in Lusaka and two SARI and two ILI sites in Ndola, Lusaka and Ndola being the two most populous cities in the country. During 2013, in order to strengthen operations by focusing efforts, the sites were scaled down to two SARI sites and one ILI site in Lusaka, plus one SARI site and one ILI site in Ndola.

Data from ILI surveillance provide information on the burden of influenza and contribute to an understanding of circulating viruses, while the SARI cases contribute to an understanding of circulating viruses and are relevant for estimating the burden of severe morbidity. Virus isolates are shipped to a World Health Organization (WHO) Collaborating Center (CC) for further analysis. Weekly summary data are uploaded to FluNet and emailed to key stakeholders in Zambia as well as to other cooperating partners.

HIGHLIGHTS

- Reviewed the performance of the influenza sentinel surveillance program since inception.
- Organized a stakeholder meeting to discuss sustainability.
- Investigated over 1,600 cases of respiratory disease for influenza virus infection as well as for other respiratory viruses.
- Strengthened virus isolation capacity; and regularly shipped isolates to a WHO CC.

SURVEILLANCE ACTIVITIES

- Investigated over 1,600 cases of respiratory disease from the sentinel sites for influenza virus infection through improved management and closer supervision of the program.
- Conducted regular supervisory and training visits to sentinel sites to support surveillance activities and orient new staff as necessary.
- Initiated collection of denominator data.
- Maintained weekly reporting of SARI/ILI results to stakeholders and to FluNet.
- Organized a standard operating procedures (SOP) writing workshop

LABORATORY

The UTH Virology Laboratory (UTHVL) which has been functioning as Zambia's National Influenza Center (NIC) worked closely with CDC, the National Institute for Communicable Diseases (NICD) in Johannesburg, South Africa and the WHO CC in London to strengthen influenza laboratories. Zambian scientists have now been trained in various procedures including influenza virus typing, subtyping, RT-PCR, real-time RT-PCR, sequencing techniques as well as virus isolation and identification. The establishment of this capacity has led to significant enhancements benefiting both Zambia and the Global Influenza Surveillance and Response System (GISRS).

LABORATORY ACTIVITIES

- Tested 1,615 influenza specimens collected at sentinel sites as part of routine surveillance and from outbreak investigations.

- Increased virus isolation and sent several shipments to a WHO CC following training by NICD scientists.
- Continued to perform very well on both WHO's External Quality Assurance Project (EQAP) and CDC performance panels.

PREPAREDNESS

CDC support has contributed to advanced pandemic influenza preparedness and planning in Zambia. The Ministry of Health (MOH) Directorate of Disease Surveillance, Research and Control, led the development of a health sector response plan under the umbrella of the National Disaster Management Committee. The MOH has established multi-sectoral Epidemic Preparedness Committees down to the district level. In the period under review, the MOH continued training and supporting these committees and, through them, responded to various epidemic threats.

PREPAREDNESS ACTIVITIES

- Held discussions with the main veterinary school in the country, which is conducting animal influenza surveillance nationwide, regarding cooperation in surveillance for zoonotic diseases (including early detection of novel influenza viruses).
- Supported the MOH in various ways in the implementation of the national Ebola virus disease (EVD) Preparedness and Response Plan developed in reaction to the 'public health emergency' posed by the West African EVD outbreak.
- Experienced gain in the establishment of the ISS program is being used by the MOH in the process of creating a National Public Health Institute (NPHI) with an integrated National Public Health Laboratory (NPHL).

TRAINING

The influenza sentinel surveillance program, through CDC and other partners, continues to provide technical assistance and training to ensure the functioning of the sentinel surveillance system, quality of the surveillance data, prompt data analysis, and integration of the information into preparedness and response activities.

During this period, the following training activities took place:

- Annual orientation and training workshops for all health staff involved in ISS activities at all sentinel sites.
- Refresher training for laboratory scientists at the sub-national influenza laboratory at the Tropical Diseases Research Center (TDRC), Ndola.
- Training of one PhD-level virologist in sequencing techniques and influenza virus genotyping at the WHO CC in London.
- Training of one scientist in advanced molecular methods at the Pasteur Institute in Madagascar.
- Participation in several international conferences and workshops provided valuable learning opportunities for staff.

INFLUENZA VACCINE ACTIVITIES

There is a need to strengthen the national policy on influenza vaccination. Influenza vaccines are used on an ad-hoc basis. Seasonal vaccines are used mainly in the private sector, and in the public sector, vaccines have been given to high-risk groups in outbreak settings. Data being collected by the ISS program on influenza disease burden will greatly assist policy formulation.

