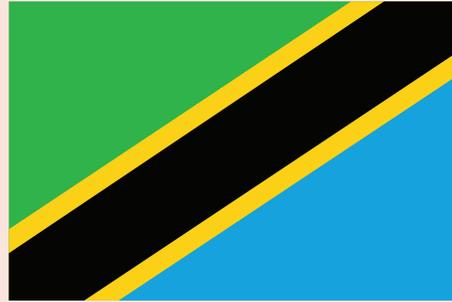
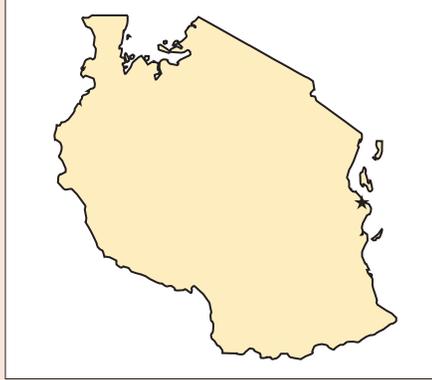


# Tanzania



- **Capital:** Dar es Salaam
- **Area:** 947,300 sq km
- **Population:** 43,601,796 (July 2012 est.)
- **Age Structure:** 0-14 years: 42% (male 9,003,152/female 8,949,061); 15-64 years: 55.1% (male 11,633,721/female 11,913,951); 65 years and over: 2.9% (male 538,290/ female 708,445) (2011 est.)
- **Life Expectancy at Birth:** Total population: 53.14 years; male: 51.62 years; female: 54.7 years (2012 est.)
- **Infant Mortality Rate:** Total: 65.74 deaths/1,000 live births; male: 72.42 deaths/1,000 live births; female: 58.87 deaths/1,000 live births (2012 est.)
- **Literacy Rate:** Total population: 69.4%; male: 77.5%; female: 62.2% (2002 census)
- **GDP:** \$63.44 billion (2011 est.)
- **GDP per Capita:** \$1,500 (2011 est.)

## Highlights

- Increased collaboration between public and private health facilities on public health issues.
- Developed the capacity to detect, diagnose, and manage other emerging and re-emerging diseases.

## U.S. CDC Direct Country Support

Tanzania began avian and pandemic influenza preparedness and response activities in 2006 with creation of a national multi-sectional taskforce and development of a national preparedness and response plan. In 2008, the Ministry of Health and Social Welfare (MOHSW) through the Epidemiology and Diseases Control Section, with the assistance of the U.S. Centers for Disease Control and Prevention (CDC), established the National Influenza Laboratory (NIL) in Dar es Salaam and initiated virologic and epidemiologic influenza sentinel surveillance in five hospitals around the country. This surveillance enhancement contributed to the country's timely response to Rift Valley fever in 2007, the 2009 H1N1 influenza pandemic, and the dengue fever outbreak in 2010.

In the previous cooperative agreement, the Tanzanian government worked closely with CDC to build capacity to prepare, detect and respond to pandemics and other disease outbreaks including avian influenza. This was done under three pillars: preparedness and communication, surveillance and response, and containment.

## Surveillance

The influenza surveillance system in Tanzania uses both the Integrated Disease Surveillance and Response (IDSR) system of suspected cases of severe acute respiratory infection (SARI) from 137 registered districts, and sentinel surveillance of sampled influenza-like illness (ILI) cases and all SARI cases in six sentinel hospitals. The linkages between human and animal surveillance have been established through sharing

of influenza surveillance reports, technical committee meetings, joint trainings and public awareness sessions on regular basis. SARI reports are being sent to the MOHSW through the IDSR system from the sentinel sites, and reports on aggregated data are shared with all stakeholders, including the World Health Organization (WHO) Country Office.

### **Surveillance Activities**

- Conducted influenza surveillance at six sentinel sites; a total of 1,531 samples were sent to the NIL.
- Hosted three biannual meetings with various stakeholders to evaluate achievements and challenges of influenza surveillance and came up with steps to tackle these challenges. Consequently, tremendous improvement has been realized by the sites, including increasing the target of specimen collection by 70%.
- Supported sentinel sites with mentoring and training of new/additional staff.
- Submitted weekly influenza surveillance information and virus isolates to WHO Reference Laboratories.
- Provided communication and coordination capabilities to Program Officers.

### **Laboratory**

The influenza laboratory network consists of six sentinel hospital laboratories that are mainly involved in specimen collection, storage and transportation to the NIL. The NIL is the only laboratory in Tanzania with the capacity to diagnose influenza viruses.



*Dr. Jennifer Faulwetter trains Laboratory Technologist, Ms. Miriam Matonya, in virus isolation at Tanzania's NIC.*

## **Laboratory Activities**

- Conducted PCR testing; preparing to perform virus culture.
- Participated in internal and external quality assurance conducted by WHO.
- Tested all suspect specimens for influenza A (H1) and (H3), influenza B, swine influenza A (H1), and avian influenza A (H5) using real-time RT-PCR.
- Tested a total of 1,531 influenza specimens from five sentinel sites.
- Equipped the laboratory with modern diagnostic equipment including thermocyclers for RT-PCR, liquid nitrogen storage tanks, dry shippers and safety cabinets.
- Increased the capacity of the MOHSW for diagnosis and surveillance of avian influenza and human influenza together with other diseases.

## **Preparedness**

Tanzania's MOHSW continues to work with CDC, the United Nations, and other stakeholders in the implementation of the preparedness and response plan for avian and pandemic influenza.

Following the outbreak of influenza A (H1N1)pdm09 in 2009, the MOHSW, in collaboration with the Ministry of Livestock and Fisheries Development, initiated review of the national avian influenza preparedness and response plan.

### **Preparedness Activities**

- Produced and broadcasted TV and radio spots on seasonal and pandemic influenza awareness.
- Developed communication materials including leaflets, posters, billboards, TV and radio spots in collaboration with other partners such as CDC, WHO, and the United Nations Children's Fund (UNICEF).

## **Training**

Tanzania MOHSW hosted the following training activities:

- Trained and activated 36 district rapid response teams for timely response of influenza.
- Provided refresher and on-the-job training to sentinel surveillance staff during on-site supportive supervision.
- Provided cell culture training to two laboratory technicians in South Africa.

## **Contacts**

Peter Mmbuji, MD, MMed  
Assistant Director of Epidemiology  
Ministry of Health and Social Welfare  
Dar es Salaam, Tanzania  
Email: mmbuji@yahoo.co.uk

Miriam Matonya, ADMLS  
Laboratory Technologist  
Tanzania National Influenza Centre  
Dar es Salaam, Tanzania  
Email: miriammatonya@yahoo.com

Elibariki Mwakapeje, BSc, MSc  
Avian Influenza Surveillance Officer  
Ministry of Health and Social Welfare  
Dar es Salaam, Tanzania  
Email: emwakapeje@yahoo.com

Marcelina Mponela, BSc, MSc  
Public Health Specialist  
Influenza/Emerging Infections  
CDC-Tanzania  
Dar es Salaam, Tanzania  
Email: mponelam@tz.cdc.gov