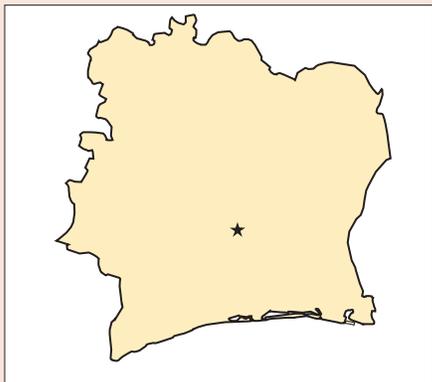


Republic of Côte d'Ivoire



- **Capital:** Yamoussoukro
- **Area:** 322,463 sq km
- **Population:** 21,952,093 (July 2012 est.)
- **Age Structure:** 0-14 years: 39.8% (male 4,312,133/female 4,240,500); 15-64 years: 57.2% (male 6,262,802/female 6,039,458); 65 years and over: 3% (male 320,396/female 328,873) (2011 est.)
- **Life Expectancy at Birth:** Total population: 57.25 years; male: 56.21 years; female: 58.33 years (2012 est.)
- **Infant Mortality Rate:** Total: 63.2 deaths/1,000 live births; male: 69.77 deaths/1,000 live births; female: 56.42 deaths/1,000 live births (2012 est.)
- **Literacy Rate:** Total population: 48.7%; male: 60.8%; female: 38.6% (2000 est.)
- **GDP:** \$35.6 billion (2011 est.)
- **GDP per Capita:** \$1,600 (2011 est.)

Highlights

- Reactivated sentinel sites after the post-electoral crisis.
- Increased laboratory staff and strengthened diagnostic capacity at Pasteur Institute of Côte d'Ivoire (IPCI), the National Influenza Center (NIC).

U.S. CDC Direct Country Support

The Ministry of Health and Public Hygiene (MSHP) of Côte d'Ivoire has obtained financial and technical support from the U.S. Centers for Disease Control and Prevention (CDC) for pandemic preparedness and reinforcement of influenza surveillance. The National Institute for Public Hygiene (INHP) is the technical beneficiary at the MSHP for *Developing Influenza Surveillance Networks*, a cooperative agreement that began in 2006; FY 2011 is the fifth year of the cooperative agreement.

During the 2010–2011 budget period, all planned operational activities were not implemented. However, implemented activities led to a number of results and achievements, namely the reinforcement of laboratory diagnostic and epidemiologic capacities. Quick access to information and results has been improved by providing sentinel sites with surveillance and communication software such as internet (using USB modems) and phone cards (for mobile phones).

Surveillance

Distribution of reporting tools, influenza surveillance standard operational procedures (SOP) and policies to sentinel sites has become routine and effective. Sample collection and transportation to NIC is operational.

To ensure timely information and availability of laboratory results, eight sentinel sites were provided with internet connection. In addition to internet access, INHP, the NIC located at IPCI and five sentinel sites received information technology equipment (i.e. desktop computer, uninterruptable power supply, scanner, printer, and fax).

Surveillance Activities

With regard to capacity building of health care providers in the framework of influenza surveillance and response to influenza epidemics and pandemics, the following activities were implemented:

- Conducted nationwide vaccinations against influenza A(H1N1)pdm09 in September 2010. The targeted populations were pregnant women, people with underlying chronic diseases, health care providers, children aged 0–6 months and staff in strategic sectors of the government (water/electricity, bank, police, army, etc.).
- Revitalized the influenza surveillance system after the post-electoral crisis with a workshop in July 2011.

Laboratory

The NIC was provided with reagents and laboratory consumables through the cooperative agreement in order to fulfill its role as a NIC and reinforce its operational capacity. The laboratory was able to analyze 517 influenza samples in the fourth quarter of 2010 and approximately 275 samples in first three quarters of 2011. (The post-electoral crisis drastically impacted the health system in the country in 2011.)



A laboratory technician at the INHP.

Preparedness Activities

- Organized a workshop to evaluate the response against the 2009 H1M1 pandemic with the seaports (Abidjan and San Pedro), airports and land border offices in July 2011.
- Conducted a series of campaigns at military barracks in 12 cities to sensitize them to influenza transmission, prevention and control measures. During these campaigns, leaflets and brochures that explained influenza infection, pandemic flu, and preventive measures, were distributed to the militaries and their families.

Training

- Participated in the Second Annual African Network for Influenza Surveillance and Epidemiology (ANISE) Meeting that was held in Accra, Ghana in January 2011.
- Participated in a regional training workshop in Accra, Ghana in June 2011.
- Trained 33 laboratory technicians from all sentinel sites at IPCI on sample collection, packaging, storage and transportation, as well as sample analysis (i.e., PCR), and cell culture.
- Provided information about detection and the care and treatment of pandemic influenza cases to health care providers of sentinel sites in Abidjan.

- Supervised and reviewed records for the identification of suspected influenza cases at reference hospitals in Abidjan, Agnibilékrou, Abengourou, Akoupé, Adzopé, Agboville and Aboisso. At the sentinel sites, daily constraints (high workload, time-consuming registration of flu cases), communication challenges (internet connection issues) concerning health care providers were assessed. These site visits allowed INHP to address health care providers' concerns and suggest solutions to enable them to operate more efficiently and improve their working skills and conditions.

Contacts

Paul Odehouri-Koudoum, MD
 Director
 National Institute for Public Hygiene
 Ministry of Health
 Abidjan, Côte d'Ivoire
 Email: odehourik@yahoo.fr

Daouda Coulibaly, MD
 Disease Surveillance Chief
 National Institute for Public Hygiene
 Ministry of Health
 Abidjan, Côte d'Ivoire
 Email: daocoul@yahoo.fr

Hervé Kadjo-Adje, MD
 NIC Coordinator
 Laboratory of Respiratory Viruses
 Pasteur Institute of Côte d'Ivoire
 Abidjan, Côte d'Ivoire
 Email: rvkdjo@yahoo.fr



Group photo from Côte d'Ivoire's Fourth Annual Sentinel Surveillance Meeting.