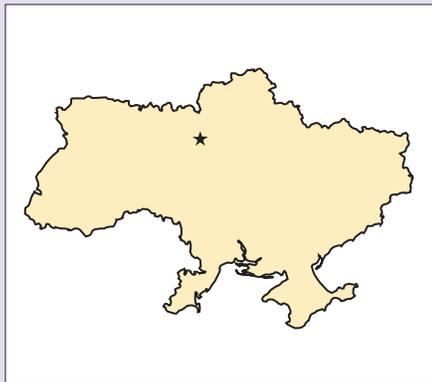


# Ukraine



- **Capital:** Kyiv (Kiev)
- **Area:** 603,550 sq km
- **Population:** 44,854,065 (July 2012 est.)
- **Age Structure:** 0-14 years: 13.7% (male 3,186,606/female 3,014,069); 15-64 years: 70.8% (male 15,282,749/female 16,673,641); 65 years and over: 15.5% (male 2,294,777/female 4,682,865) (2011 est.)
- **Life Expectancy at Birth:** Total population: 68.74 years; male: 63.07 years; female: 74.77 years (2012 est.)
- **Infant Mortality Rate:** Total: 8.38 deaths/1,000 live births; male: 10.5 deaths/1,000 live births; female: 6.12 deaths/1,000 live births (2012 est.)
- **Literacy Rate:** Total population: 99.4%; male: 99.7%; female: 99.2% (2001 census)
- **GDP:** \$329 billion (2011 est.)
- **GDP per Capita:** \$7,200 (2011 est.)

## Highlights

- The sentinel severe acute respiratory infections (SARI) and influenza-like illness (ILI) surveillance system is fully operational in all sites.
- International review of influenza diagnostic capacity at the Ukraine National Influenza Center (NIC) has demonstrated extensive improvements in laboratory facilities, staffing, equipment, quality assurance, biosafety and surveillance, and has identified areas for further assistance.
- Technical support provided by the Program for Appropriate Technology in Health (PATH) has been phased out.
- The Government of Ukraine has assumed responsibility for the continued operation of the system.

## U.S. CDC Direct Country Support

Fiscal Year 2011 was the fifth year of the cooperative agreement *Influenza Surveillance and Pandemic Preparedness in Ukraine*. The U.S. Centers for Disease Control and Prevention (CDC) provided funds to PATH to assist the Ukraine Ministry of Health (MOH) in its efforts to strengthen influenza surveillance and pandemic preparedness.

Activities have been focused in the following areas:

- Improving the quality to ensure gold-standard functioning of sentinel SARI and ILI surveillance in the four sentinel sites.

- Maintaining the ability of the country's influenza laboratory system and the NIC in Kiev to confirm influenza diagnosis and rapidly determine if a suspected human case is caused by influenza A(H1N1)pdm09 (2009 H1N1) or another strain of influenza, and directly report suspected cases of novel influenza in humans to WHO Collaborating Centers (CC) in a timely manner, as mandated by the current International Health Regulations 2005 (IHR).
- Supporting the country influenza preparedness and response efforts focusing on analysis of lessons learned during the 2009 H1N1 pandemic, refining local preparedness plans, and training Sanitary Epidemiological Service (SES) personnel and clinicians throughout the country in proper communication, advocacy for immunization, outbreak investigation and response.
- Designing a comprehensive, phased transition plan that ensures that key reforms and interventions supported by CDC are carried forward through local leadership.

## Surveillance

The MOH and PATH have established a fully functioning sentinel influenza surveillance system in Kiev, Odessa, Dnepropetrovsk and Khmelnytsky and developed a website to support electronic reporting, data analysis and presentation of the system. The sentinel surveillance network includes 18 hospitals and polyclinics. Data findings suggest that in the 2010–2011 season, 16% of ILI and 35% of SARI cases were caused by influenza; influenza A (H1N1) and influenza B were responsible for 99% of the confirmed cases. Information on seasonal and pandemic influenza is routinely submitted to EuroFlu.

### Surveillance Activities

- Reporting timeliness and data quality were improved at all sites.
- The NIC and MOH updated the national guidelines for sentinel surveillance in partnership with WHO and CDC.
- Ownership of the ukinfluenza.com.ua domain was transferred to the NIC.
- New features and analyses have been added to the electronic data system.
- The surveillance system was evaluated to identify the areas for priority attention for the next cooperative agreement. They include national influenza control policy revision, further optimization of the influenza surveillance system to reduce operating cost, developing mechanisms for long-term viability of the surveillance system and plans to phase out U.S. government funding and sustain the system using national funds.

## Laboratory

Funding from the partnership between CDC, PATH and the Ukraine MOH continued to support the NIC in Kiev and four regional virologic laboratories in the sentinel sites with equipment, reagents, consumables and other items to maintain optimal functionality of the laboratories. These laboratories can perform PCR and virus isolation using cell culture. Samples from Ukraine are routinely submitted to the WHO CC in Atlanta and the WHO CC in London.

An international assessment of influenza diagnostic testing capacity at the NIC, Academy of Medical Sciences, in Kiev, Ukraine has been carried out. Objectives included updating information and documenting progress on laboratory capacity with assistance of NIC staff, making recommendations for improvement, assisting with procuring necessary reagents and supplies, and providing technical assistance with the overarching aim of identifying areas that can be enhanced and supported by CDC and other stakeholders to improve influenza laboratory testing capacity at the NIC in Kiev during the next five years.

## Laboratory Activities

- Trained sentinel site virologists in influenza virus isolation and identification and real-time PCR investigation.
- Tested 2,487 SARI and ILI cases in the sentinel sites during the 2010–2011 season: 24% were influenza positive. A total of 348 (58%) tested positive for influenza B, 233 (38%) tested positive for A/H1N1, 7 (1%) for A/H3, and in 16 cases (3%) influenza virus subtype was not identified.
- Demonstrated extensive improvements in laboratory facilities, staffing, equipment, quality assurance, biosafety and surveillance during an international review of influenza diagnostic capacity at the Ukraine NIC.
- Continued support of labs with equipment and consumables.
- Continued participation in the WHO Global Influenza Surveillance and Response System (GISRS).

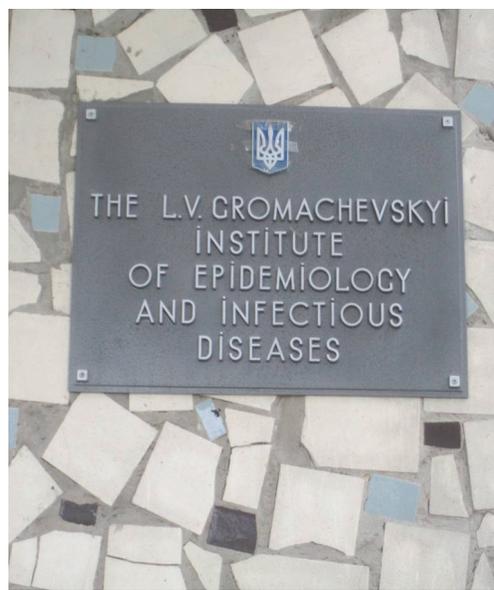
## Preparedness

The partnership on pandemic preparedness between the Ukraine MOH, PATH, CDC and WHO has resulted in the development of the national guidelines for health services of Ukraine that outline planning and organization measures to combat pandemic influenza. The document provides guidance on principles of planning, key capabilities needed for response, stakeholder role and responsibilities, MOH actions by pandemic phase, recommendations for pandemic vaccination, antiviral drug distribution and use, influenza control and prevention in the community, public health communications, clinical management of suspected and confirmed cases, health care planning, infection control, pandemic influenza surveillance, collecting/storing/transporting specimens for influenza diagnostics, hospital preparedness, business preparedness, management of mass fatalities, etc. It included all major WHO recommendations for pandemic preparedness available at the time.

## Preparedness Activities

Project regions developed their own plans tailored to the local specifics and local budgets. Measures taken by one of the project sites (Kiev city) at the end of 2010 based on the preparedness training are listed below:

- Updated the city plan.
- Refined communication channels.
- Created a small stockpile of antivirals.
- Increased the reserve of antibiotics.
- Purchased additional influenza prevention supplies.
- Updated information for the city influenza hotline.
- Trained the city physicians.
- Developed a list of specialists responsible for communication with the media.
- Arranged for rapid mobilization of students in case of emergency with the National Medical University and nursing schools in the city.
- Ensured additional financing as necessary through the city's fund for epidemiological emergencies.



*The L.V. Gromachevskiy Institute of Epidemiology and Infectious Diseases in Kiev is part of the Academy for Medical Sciences of Ukraine and houses the country's National Influenza Center.*

- Lobbied the Deputy Minister of Health to update the legal documentation needed to support pandemic response activities.

## Training

The NIC and PATH continued providing 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 FY 2011, the following trainings were organized in Ukraine:

- Four training workshops for 120 health staff involved in sentinel surveillance work in all four sites.
- Two pandemic preparedness exercises for members of regional committees.
- Four regional SES virologists were trained in influenza virus isolation and identification at the NIC.
- Representatives of the NIC and PATH also participated in the CDC and WHO influenza surveillance and influenza burden of disease meeting in Ljubljana, Slovenia.

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