

Ukraine



Capital: Kyiv (Kiev)

Infant Mortality Rate: 8.24/1,000 live births

Population: 44,573,205 (July 2013 est.)



Overview

Ukraine has had a routine surveillance system since 1968. Beginning in 2006, CDC provided funding to the Program for Appropriate Technology in Health (PATH) to help the Ukraine Ministry of Health (MOH) in its efforts to strengthen influenza and pandemic preparedness. PATH facilitated the National Influenza Center's (NIC) efforts to develop national guidelines for health services in Ukraine to plan and organize measures to combat pandemic influenza. Technical support provided by PATH has since been phased out and the Government of Ukraine and the L.V. Gromashevsky Institute of Epidemiology and Infectious Diseases National Academy of Medical Science— in partnership with CDC— have assumed responsibility for the continued operation of the system. The sentinel surveillance network includes 18 hospitals and polyclinics. Funding from CDC continues 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 labs. These laboratories can perform PCR and virus isolation on cell culture. Samples from Ukraine are routinely submitted to the WHO CC Atlanta and the WHO CC London.

Highlights

- Prepared a draft sustainability plan.
- Received Certificate of Conformity for participating in WHO's External Quality Assessment Project.
- Published joint bulletin with State Sanitary Epidemiological Service of Ukraine.

Surveillance

A fully functioning sentinel influenza surveillance system has been established in Kiev, Odessa, Dnepropetrovsk and Khmelnytsky. Epidemiological, clinical and virological data are reported regularly to the website, which provides analysis and presentation of the information. Data findings from the 2012–2013 season for influenza-like illness (ILI) are as follows: 491 ILI cases tested (10% of the total number that met the case definition of ILI); 44 (9%) confirmed influenza viruses with 27 A viruses and 17 B viruses (related B/Ymagata lineage). Data findings for severe acute respiratory infection (SARI) are as follows: 1,099 SARI cases tested (29% of the total number that met the SARI case definition); 245 (22%) confirmed influenza viruses with 176 A viruses and 69 B viruses (related B/Ymagata lineage). All subtyped A viruses were determined as A(H3N2). Both A(H1N1–64%) and A(H3N2–36%) viruses circulated in this season. Epidemiological and virological data are submitted to EuroFlu on a weekly basis.

In FY 2013, Ukraine received emergency supplemental funding from CDC to enhance SARI surveillance for H7N9. Funding will be used to establish two new SARI sentinel sites in Simpheropol and Kharkiv, two cities which have large migration flows and are not currently represented in the sentinel system. Funding will also be used to increase the number of specimens collected from patients meeting the SARI case definition and to improve capacity of the virological laboratories to conduct testing for potential cases of H7N9.

Surveillance Activities

- Improved reporting timeliness and data quality at all sites.
- Prepared a new influenza decree which is under consideration by the Ministry of Health.
- Conducted supervisory visits to influenza sentinel sites in three cities (Dnepropetrovsk, Odessa and Khmelnytsky).
- Improved web site www.ukrinfluenza.com.ua, which provides cumulative weekly reports online for submission to EuroFlu.

Laboratory

Funding from CDC 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 labs. These laboratories can perform PCR and virus isolation on cell culture. Samples from Ukraine are routinely submitted to the WHO CC Atlanta and the WHO CC London. International experts from WHO and CDC carried out an assessment of the existing influenza surveillance system and an assessment of pandemic preparedness in August 2012. In line with recommendations from the assessments, the NIC improved laboratory documentation and procured necessary reagents and supplies.

Laboratory Activities

- Trained sentinel site virologists in influenza virus isolation and identification, and real-time PCR investigation.
- Tested 2,135 SARI and ILI cases in the sentinel sites during the 2012–2013 season: 16% were influenza positive: 102 (31%) tested positive for influenza B, 229 (69%) tested positive for influenza A, 60 of them (26%) related to A(H3N2), 95 (42%) related to A(H1N1) pdm and in 74 cases (32%) influenza virus subtype was not identified.
- Confirmed that all influenza B viruses were genetically related to B/Yamagata lineage.
- Continued supporting labs with equipment and consumables.
- Continued participation in the WHO GISRS.

Preparedness

Improvements were made to the national guidelines for health services of Ukraine, which outlines planning and organization measures to combat pandemic influenza. Together with international experts from CDC and WHO, Ukraine carried out an assessment of core capabilities for pandemic preparedness in Ukraine.

Preparedness Activities

- Established new relationships and links with Sanitary-Epidemiological Service (SES), in accordance with the altered structure.
- Improved the material and technical equipment of virologic laboratories (equipment and test-systems) and trained personnel, contributing to overall improved pandemic preparedness.
- Performed high quality SARI surveillance, as illustrated by the total correlation between the number of hospitalized SARI cases and the level of influenza positive samples. The abovementioned provides an opportunity to respond to changes in the epidemiological situation in a timely manner.
- Prepared a draft order aimed at surveillance improvement, which is currently under consideration by the Ministry of Health.

Training

The NIC continued providing technical assistance and training to ensure optimal functioning of the sentinel surveillance system, quality of the surveillance data, prompt data analysis, and integration of the information into preparedness and response activities.

In 2011–2012, the following trainings were organized in Ukraine:

- Conducted a training workshop for 50 health staff involved in sentinel surveillance working at all four sites.
- Conducted training for six regional Sanitary Epidemiological Service virologists in influenza virus isolation and identification at the NIC.
- Participated in the Data Management and Analysis Training Course held in Nijmegen, Netherlands (May 2013).
- Participated in the Annual WHO Regional Office for Europe Sub-regional Influenza Surveillance Meeting in Istanbul, Turkey.
- Participated in the International Symposium “Options for the Control of Influenza VIII” in Cape Town, South Africa and presented two posters (September 2013).

Publications

Leibenko LV, Polischuk VP, Radchenko LV, Mironenko AP. Phylogenetic analysis of human influenza viruses A (H3N2), isolated in Ukraine during 2011–2012 season. *Microbiology and biotechnology*. 2013. #1.

Mironenko AP, Holubka OS, Onushchenko OV et al. Monitoring results influenza viruses sensitivity, which circulate in Ukraine to antiviral drugs. *Ukrainian Medical Journal*, 2013. 1(93): 85–86.