



Kentucky Fluview H1N1 Weekly Surveillance Report

Synopsis

- Over 99% of influenza A viruses tested by DPH laboratory since August 2009 were 2009 novel influenza A (H1N1) viruses.
- A total of fourteen influenza-associated deaths that have occurred in Kentucky residents this season have been reported and confirmed. All of these deaths were associated with 2009 influenza A (H1N1) virus infection and none were associated with seasonal influenza virus subtypes.
- Kentucky has been allocated over 300,000 doses of H1N1 influenza vaccine to date. New allocations come in several times a week. These doses are being distributed to local health departments and other health care providers. Over 220,000 doses have been shipped to local providers and local health departments.
- DPH has established a public telephone hotline (877-843-7727) to provide information about H1N1 and seasonal flu. About 200 calls come in each day and over 3,000 calls have been received since the hotline was established. Most calls concern general H1N1 questions, vaccine availability, and signs and symptoms of flu.
- Twenty nine clinics have agreed to provide sentinel influenza like illnesses surveillance data to KDH.

Overview of Flu Surveillance in Kentucky

The Kentucky Department for Public Health (KDPH) maintains and coordinates a statewide influenza surveillance system that identifies circulating influenza viruses and monitors influenza activity. While the majority of influenza surveillance is conducted October through May each year, recent enhancements to influenza surveillance include performing virologic testing and gathering influenza-like illness reporting from selected sites year round. The state surveillance system is comprised of the following components:

- Laboratory reports to determine what viruses are in circulation
- Influenza-associated mortality
- Influenza-associated pediatric mortality
- School absenteeism rates and school closures
- Influenza-like illness from a sentinel provider network
- Pregnant women and women up to six weeks postpartum who are hospitalized due to influenza—this system is under development

Information Current as
of October 28, 2009

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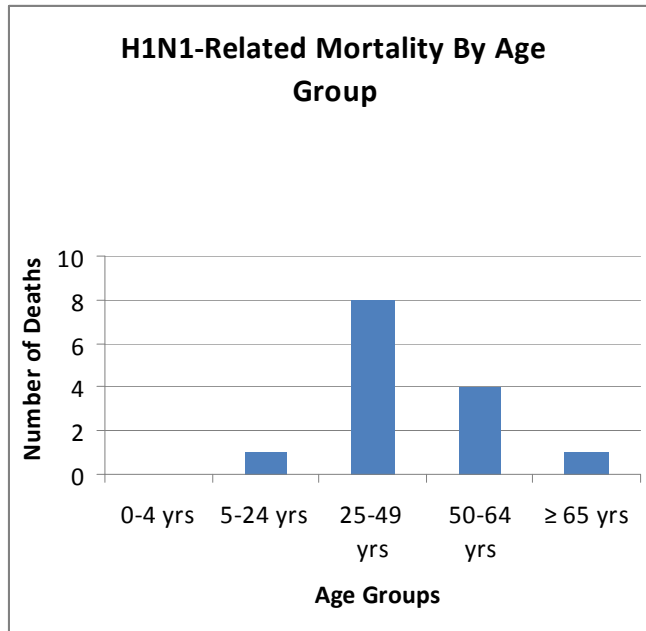
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Laboratory Confirmed Kentucky Deaths

A total of fourteen deaths have occurred involving people with confirmed H1N1 influenza. Of these eight were female, and six were male.

Month	County
August 2009	Fayette—1 death
September 2009	Jefferson—1 death Caldwell—1 death Knox—1 death
October 2009	Christian—1 death Fayette—2 deaths Hardin—1 death Knox—1 death Scott—1 death Madison—1 death McCreary—1 death Oldham—1 death Pulaski—1 death

The incubation period for influenza is one to four days, with an average of two days.



US Deaths As Reported by Centers for Disease Control

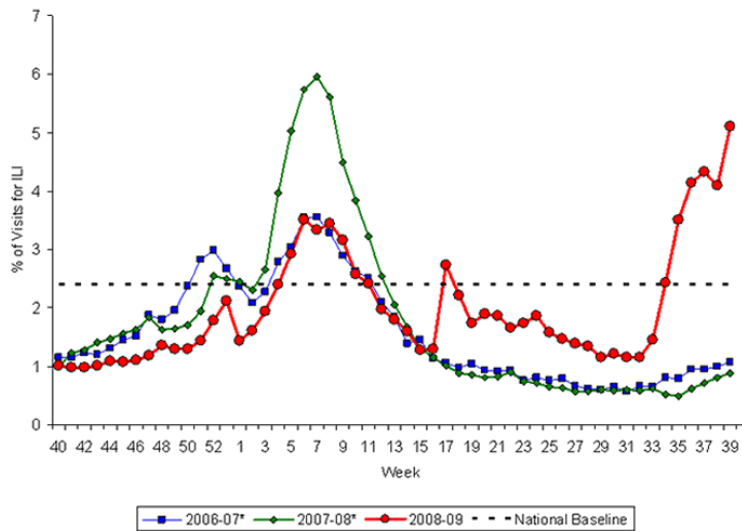
U.S. Influenza and Pneumonia-Associated Hospitalizations and Deaths from August 30 – October 20, 2009	Hospitalizations	Deaths
Influenza and Pneumonia Syndrome	21,823	2,416
Influenza Laboratory Test Confirmed	8,204	411

This data was posted on www.cdc.gov/h1n1flu/updates/us/

Flu Like Illness Trends

Influenza-like illness (ILI) is a medical diagnosis of possible influenza or other illness causing a set of common symptoms. Symptoms commonly include fever, shivering, chills, malaise, dry cough, loss of appetite, body aches and nausea, typically in connection with a sudden onset of illness. The Centers for Disease Control and Prevention (CDC) tracks ILI and reports ILI by week of the year.

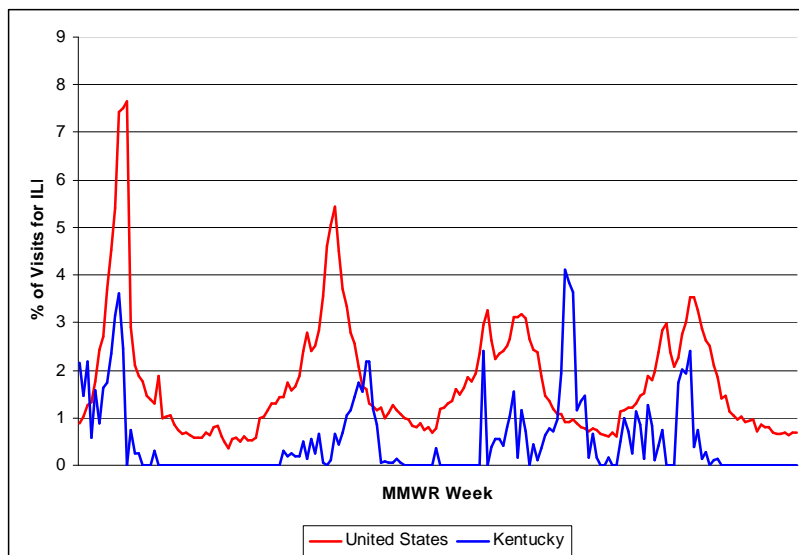
Percentage of Visits for Influenza-like Illness (ILI) Reported by the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), National Summary 2008-2009 and Previous Two Seasons (Posted October 9, 2009, 4:00 PM ET, for Week Ending October 3, 2009)



*There was no week 53 during the 2006-07 and 2007-08 seasons, therefore the week 53 data point for those seasons is an average of weeks 52 and 1.

Kentucky health care providers report to an outpatient Influenza-like Illness (ILI) surveillance system. This chart summarizes weekly reports of ILI encounters by age category and the total number of patients. This data reflects the trend in the U.S. percentage of outpatient encounters designated as having ILI. This chart shows data from 2003 to 2009.

Percentage of Visits for ILI Reported by U.S. Outpatient ILI and Kentucky Outpatient ILI Network from 2003 (MMWR week 40) to 2007 (MMWR week 32)



The influenza virus appears to be contagious beginning one day before symptoms emerge and lasting at least seven days after symptoms appear. It is most contagious during the first five days.

Surveillance of Virus Subtypes

KDPH works in partnership with clinicians, local health departments, and the federal Centers for Disease Control and Prevention to conduct surveillance for influenza-like illness.

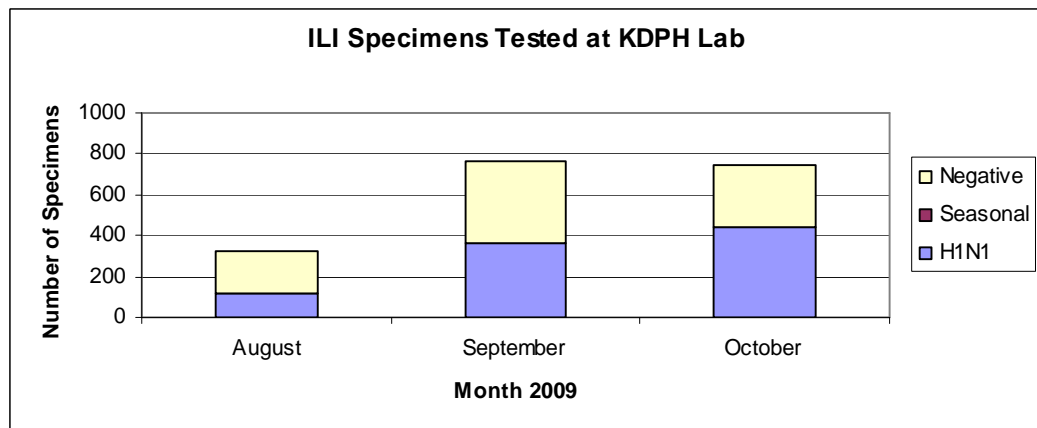
The information collected by Kentucky sentinel providers is combined with other influenza surveillance data on influenza-related hospitalizations, antiviral usage, severe pediatric influenza cases and positive laboratory detections from collaborating hospital, academic and public health laboratories throughout the state to monitor the timing, location, and impact of influenza viruses year-round.

A total of 1844 specimens were submitted by providers to the state lab for testing between August 1, 2009 and October 15, 2009. Of those that tested positive for influenza, 99.6% were positive for H1N1.

The results of tests performed during the current month are summarized in the table below. Please note that the October data is not for a full month.

	August	September	October*	November
Specimens Tested	327	769	748	
Specimens positive for Flu	116	358	441	
H1N1	114	358	439	
Seasonal Flu subtype	2	0	2	
*partial month, through 10/15/2009				

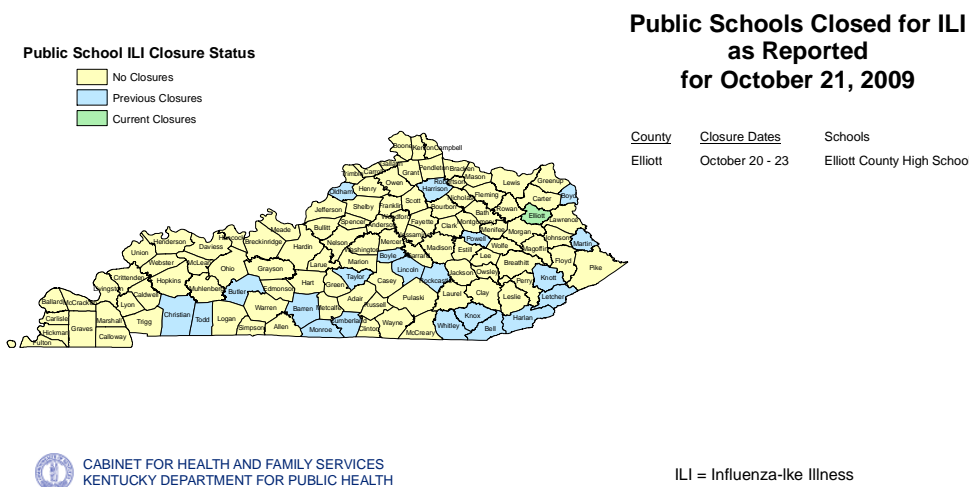
The KDPH lab uses polymerase chain reaction to detect other viruses and antiviral resistance testing. The most important information obtained from virus sub-type testing is strain identification, which is used to judge the match between circulating influenza virus strains and those covered by the current vaccine, and assist the CDC and World Health Organization in determining strains for inclusion in next year's vaccine.



School Absentee and School Closures

The Kentucky Department for Public Health, with the cooperation of the Kentucky Department for Education, collects self-report data on school absences attributed to ILI from Kentucky public schools. School districts report to the Kentucky Department for Education on school closures due to ILI.

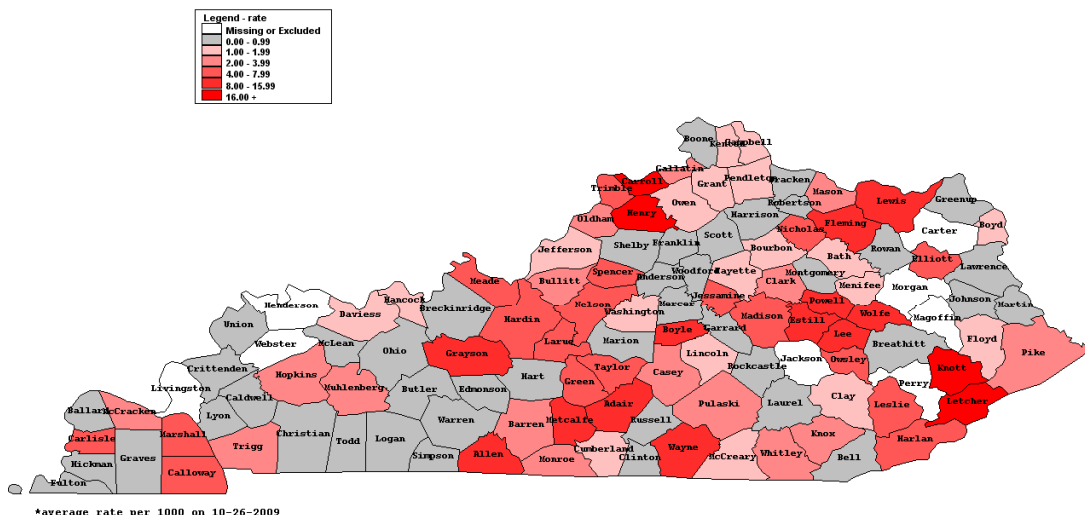
Novel H1N1 (Swine Influenza) ILI Closure Status by County for Public Schools in Kentucky August 1 - October 21, 2009 9:00am



CABINET FOR HEALTH AND FAMILY SERVICES
KENTUCKY DEPARTMENT FOR PUBLIC HEALTH

School ILI Rates of Absence Per 1,000 Students Showing Primary Distribution of Novel H1N1 Influenza In Kentucky Schools For Week of 10/26/09

*Absences Attributed to ILI in Public Schools



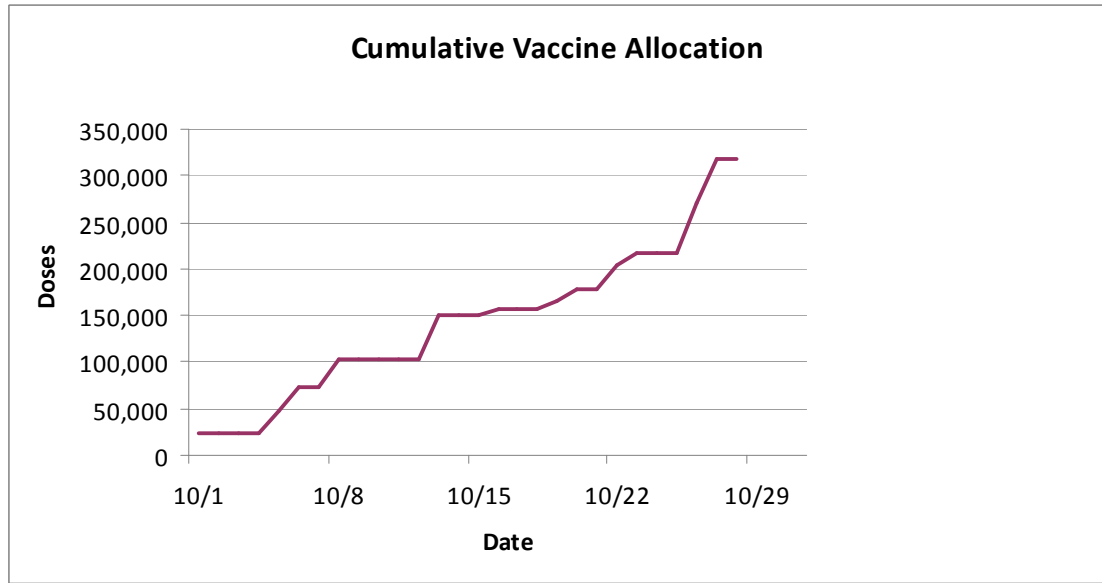
Influenza surveillance by health departments provides information about the presence of the virus in the community and identifies the predominant circulating strains.

Virus typing surveillance assesses the epidemiological features of the disease and clinical impact of new variants.

Surveillance is critical in preventing epidemics.

Vaccine Allocation

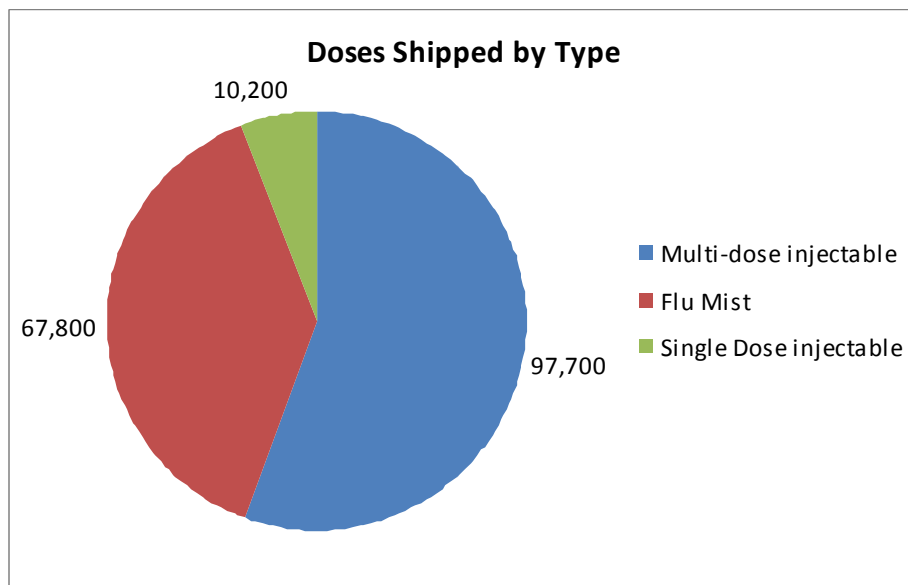
CDC sends states a weekly 2009 H1N1 allocation report which indicates how much of each formulation of 2009 H1N1 vaccine Kentucky can order. CDC allocates vaccine based on the state's population. KDPH then allocates vaccine to counties and health districts by population. CDC's distribution contractor ships vaccine to hospitals, clinics, doctor's offices, health departments, and other providers of vaccines. The chart below shows the cumulative doses of vaccine allocated to Kentucky from the CDC.



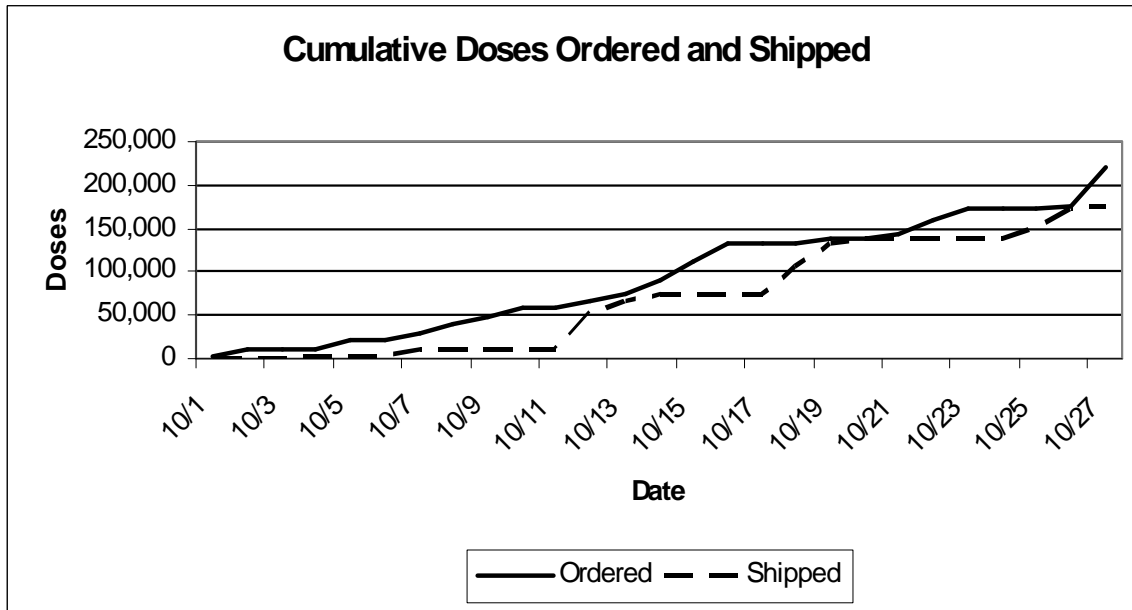
Each year 30,000 to 50,000 adults die because of influenza in the United States.

Vaccine Orders and Shipment by Type As Of 10/28/2009

	Multi Vial Injectable	Intra-nasal	Single dose pre-servative free	Total
Ordered	124,200	79,300	17,600	221,100
Shipped	97,700	67,800	10,200	175,700



Doses Ordered and Shipped



The vaccine distribution system requires health care providers to sign a provider agreement with their local health department. The health care provider enrollment process collects information needed to ensure rapid shipment of vaccine and maintenance of the cold chain. Some vaccine goes to local health departments and some goes directly to health care providers at a direct ship site at the discretion of the local health department.

As of October 19, 2009	
Provider agreements signed	1,178
Provider enrollment	1,144
Direct ship sites	195

Influenza results in 3.1 million patient hospital days each year. Direct medical costs for influenza average \$10.4 billion annually. Projected lost earnings due to sickness and death are an estimated \$16.4 billion annually.

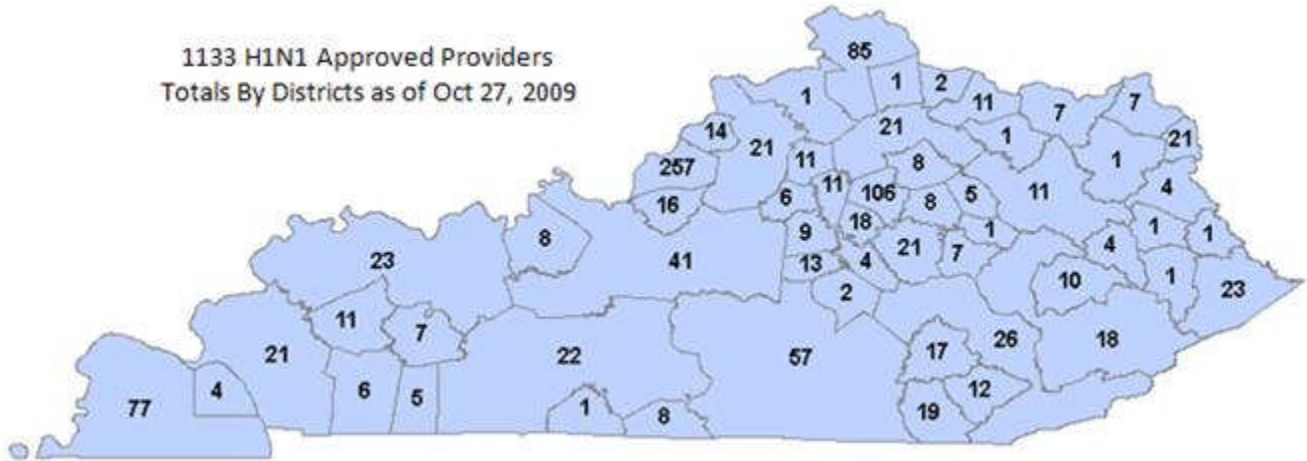
Surveillance of Pregnant Women Hospitalized with H1N1

KDPH has begun collecting information on women who are pregnant (up to 6 weeks post-partum) and hospitalized with any confirmed type of influenza. We will be collecting this information prospectively as well as going back and gathering the same information on this group of cases since August 2009. This effort is in response to a request by the CDC aimed at a high risk group of women, those receiving care in a hospital, in order to work toward finding ways to prevent serious outcomes for pregnant women and their babies.

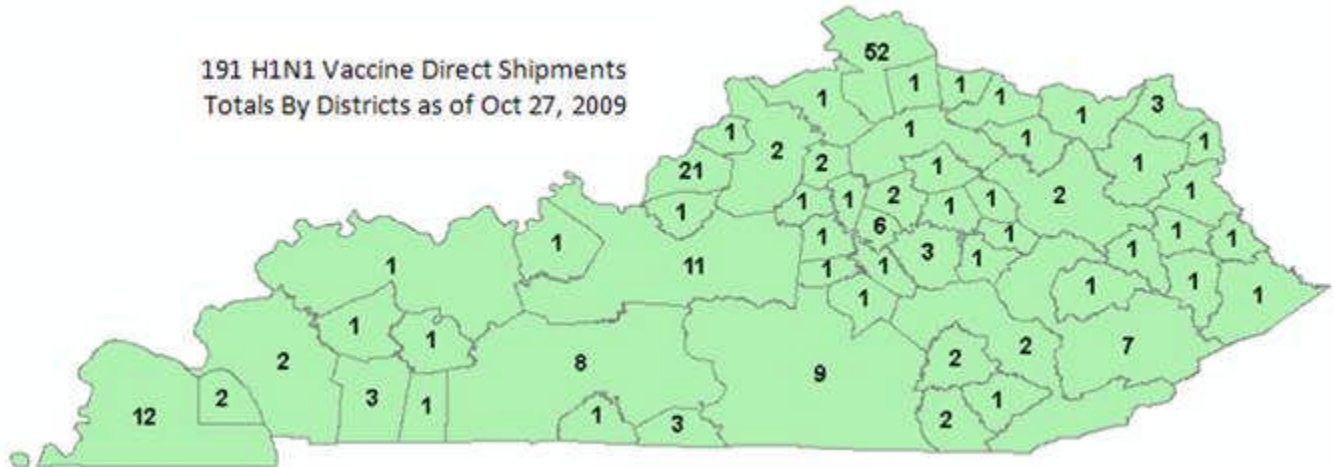
Clinicians are encouraged to report any pregnant woman or a women up to six weeks postpartum who is hospitalized with influenza in Kentucky by calling our H1N1 Call Center at 877-826-7697. For additional support or questions about clinical treatment or CDC guidance and recommendations, clinicians can also call CDC's pregnancy support line at 404-368-2133.

Vaccine Distribution By Health District

Number of providers by health district approved to administer H1N1 vaccinations.



Number of sites enrolled to receive direct shipments of vaccine from distributor*.



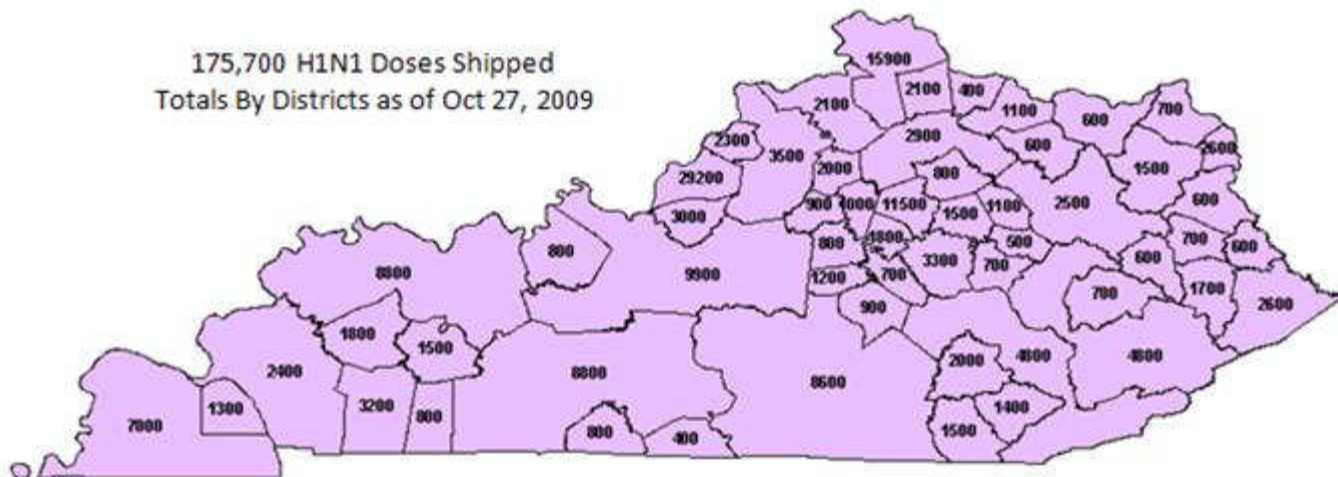
*Providers must receive greater than 100 doses of a specific formulation to qualify for direct shipping. This is at the discretion of the local health department.

Vaccine Distribution by Health District

Number of doses ordered by each health district.



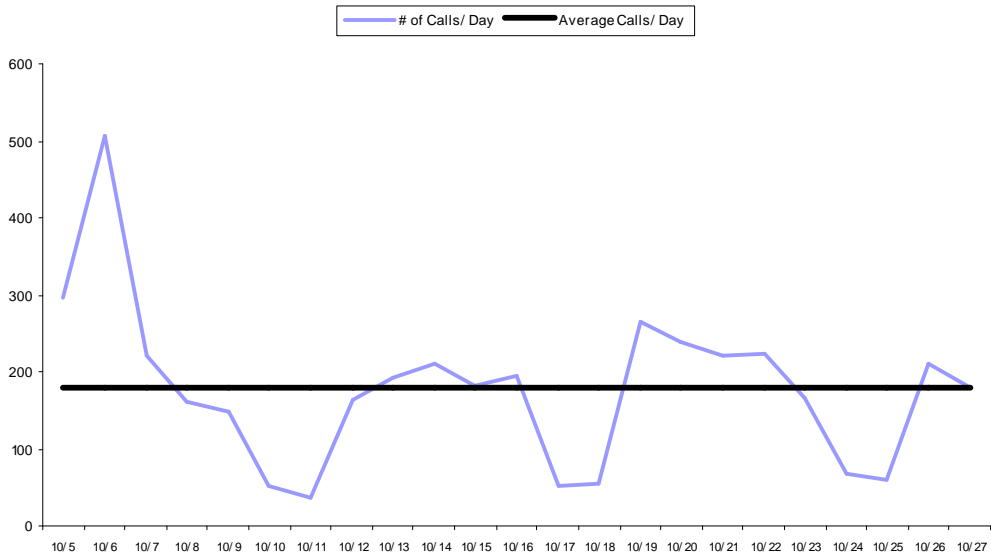
Number of doses shipped by vaccine distributor to each health district.



H1N1 Public Telephone Hotline

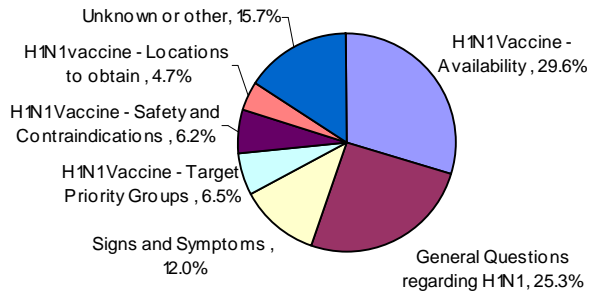
On October 5, 2009 KDPH established a telephone hotline to answer questions from the public. The hotline averages about 160 calls a day. The most common questions are noted in the chart below. The flu hotline is staffed by nurses and administered by Kosair Children’s Hospital, a part of Norton Healthcare. The flu hotline will be active through at least the end of December.

Count of Calls per Day



The hotline number is 1 (877) 843-7727. It is available from 8 a.m.-10 p.m. daily

Frequency of Question Asked



**Commonwealth of Kentucky
Cabinet for Health and Family
Services
Department of Public Health
Division of Epidemiology and
Health Planning**

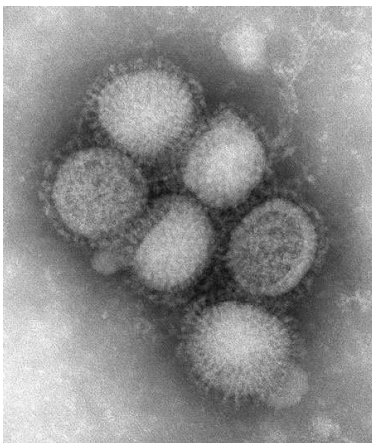
275 E. Main St.
HS2GWC
Frankfort, KY 40621

Phone: (502) 564-7243
Fax: (502) 564-0542

Dr. Kraig Humbaugh, Director

FOR THE LATEST UPDATES
ON H1N1, GO TO:
[HTTP://
HEALTHALERTS.KY.GOV](http://healthalerts.ky.gov)

The H1N1 Virus



Announcements and News

The Kentucky Department for Public Health has developed clinical guidance on several H1N1 topics:

- KDPH Updated Clinician's Guidance Letter (Oct. 13, 2009)
- KDPH Novel H1N1 Influenza Key Points for Clinicians (Oct. 13, 2009)
- KDPH Updated Clinician's Guidance for Pediatric Prescription of Osetamivir (Tamiflu) for H1N1 Treatment (Sept. 28, 2009)
- KDPH Novel H1N1 Vaccinator Recruitment Letter (Aug. 28, 2009)
- KDPH Recommended Modifications of Existing CDC Recommendations for Infection Control in Healthcare Settings and for Facemask and N95 Respirator Use (Sept. 21, 2009)
- KDPH Updated Clinician H1N1 Algorithm (Aug. 26, 2009)
- KDPH H1N1 Provider Enrollment Packet (Sept. 24, 2009)
- Pharmacy Only - H1N1 Pharmacy Provider Enrollment Form (Sept. 30, 2009)
- KDPH Facts About Facemasks Sheet (Oct. 22, 2009)
- Download an audio file of the KDPH Conference Call for Clinicians (Oct. 22, 2009)

These guidance documents are posted at: <http://healthalerts.ky.gov/Pages/HealthProfessionalsInfo.aspx>

Providers Supporting Influenza Surveillance

Weekly, Kentucky health care providers volunteer their time to contribute to the state's influenza surveillance program and do so without any expectation of reimbursement and little recognition. Their volunteer work is an important contribution to the Commonwealth's influenza monitoring efforts. To recognize this contribution the Kentucky Department for Public Health is pleased to give a special thanks to the following contributors.

Names in bold participated in the 2008 sentinel surveillance network.

Beverly May, CFNP, MSN

Martha Gulley, RN

Carol Amey, RN-C, BA

Melissa Todd, RN

Carolyn Cunningham, ARNP

Mia Howard, RN

Jeffery Potter, MD

Cathy Wade, LPN

Patti Bingham

Dawn Weihe

Pradeep Bose, MD

Ginger Gayle, LPN

Rhonda Buttleman, MD

Hillary Colon, LPN

Terri Telle, MD

Sally Morrow

Diane Thomas, MD

Jeri Ilene Clarkson, LPN

Sandra Nickell, RN

Joni Pruitt, RN

Keith Applegate, MD

Shannon Riddell, CMA

Katherine Miller, MD

John Patterson, MD

Sharla Dawes, CMA

Kathy Herle, RN

Jamie Varney, MD

Tammy Sizemore, LPN

Kenitha King, RN

Phillip Bressoud, MD

Trish Cooper, RN, BA

Lana Bush

Wynetta Fletcher, ARNP

Laura Lanning, MD

Rice Leach, MD

Andrew Waters