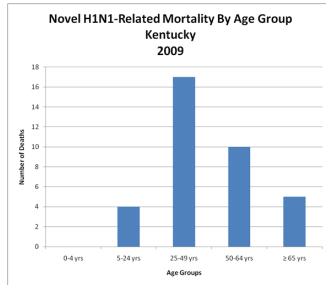


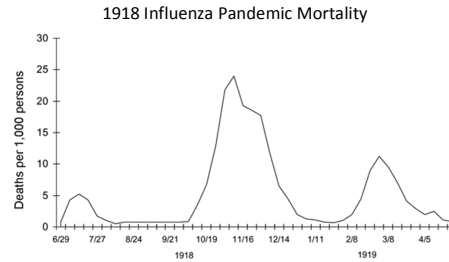
Kentucky Fluview H1N1 Weekly Surveillance Report

This Week

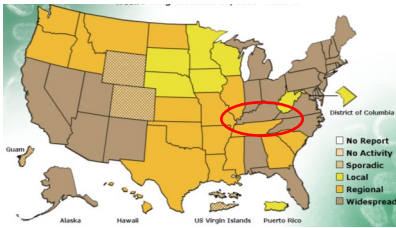
Thirty-six deaths have occurred involving people with confirmed novel H1N1 influenza. Of the thirty-six, thirty had significant underlying medical conditions putting them at higher risk. (page 2) →



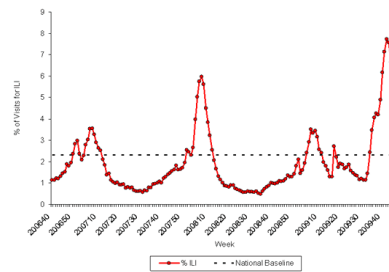
CDC warns that history shows pandemics often occur in waves. (page 3) ↓



Novel H1N1 influenza continues to drop in Kentucky, but it is still **widespread**. ILI activity is unusually high for this time of year due to H1N1. ← (page 4)



(page 5) →
The current wave of H1N1 peaked several weeks ago and continues to decline.

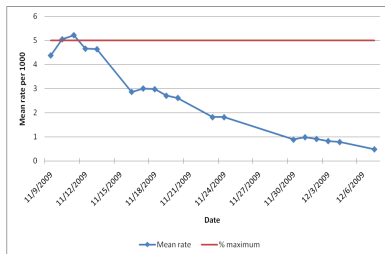


Publication Date
12/11/09
Issue # 6

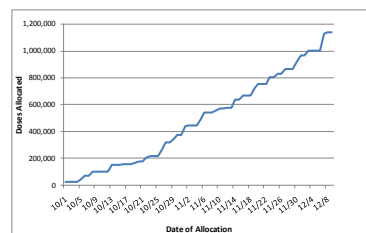
Inside this issue:

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ILI-Attributed School Absenteeism continues to decline. → (page 6)



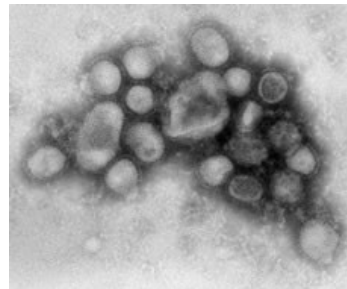
Over 1 million vaccine doses have been allocated to Kentucky. 978,700 have been ordered and 946,200 have been shipped to date. (page 11) ↑



Lake Cumberland District Health Department is working hard this holiday to keep their community healthy- Even Santa's getting his H1N1 vaccine! Three success stories in Kentucky's response to H1N1 influenza, including Lake Cumberland, Louisville, and KDPH's partnership with the Kentucky Pharmacy Association. (page 13) ↑



An image of the newly identified novel H1N1 influenza A virus taken from the CDC Influenza Laboratory. →



Other highlights in this issue:

- How the H1N1 virus kills (page 8)
- Potential rise of pneumococcal disease (page 9)
- Doses Administered in KY by age (page 15)

Check out Kentucky Health Alerts for more H1N1 Influenza information at:
<http://healthalerts.ky.gov>

When was this data updated?

Item	Current as of:
KY Deaths	12/10/09
US deaths	11/28/09

Abbreviations and Acronyms

KDPH—Kentucky Department for Public Health

LHD—local health departments

CDC—Centers for Disease Control and Prevention

MMWR—Mortality and Morbidity Weekly Report published by CDC

ILI—influenza like illness

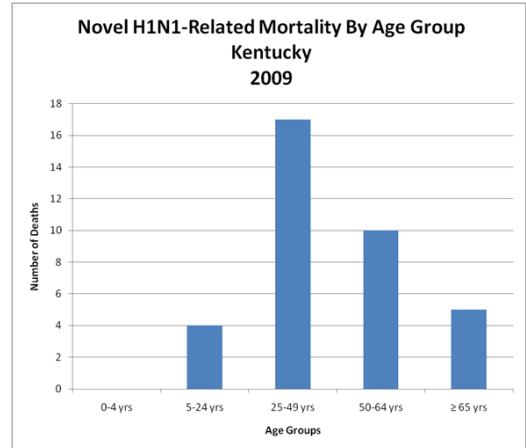
KDE—Kentucky Department of Education

US Pediatric Deaths with Confirmed novel H1N1 influenza

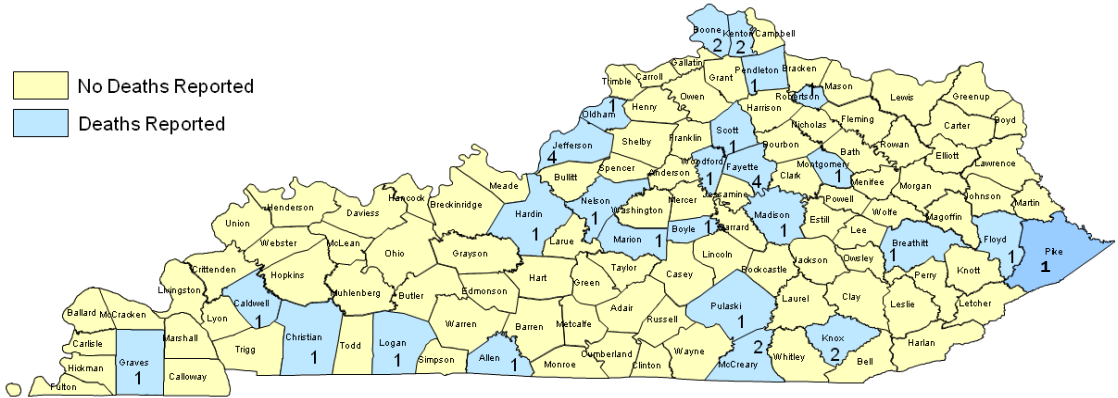
Dates	Deaths
11/21-11/28, 2009	12
Since Aug. 30, 2009	152

Laboratory Confirmed Kentucky Deaths

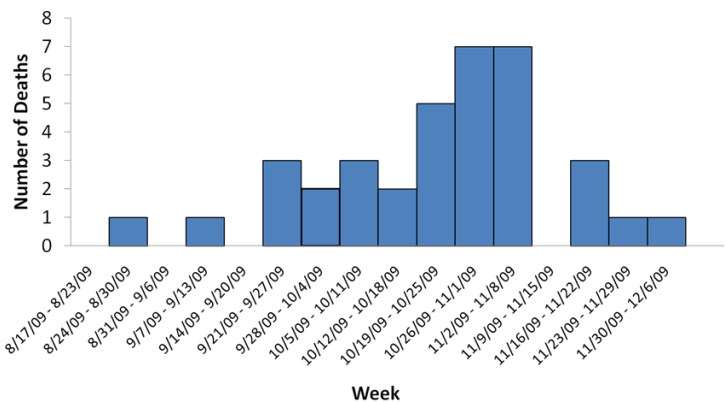
Thirty-six deaths have occurred involving people with confirmed novel H1N1 influenza. Of these, twenty two were female, and fourteen were male. The median age was forty-seven, with a range of nine to eighty years. Of the thirty-six, thirty had underlying medical conditions. Of the thirty-six, eight were not in the vaccine priority groups. The pattern seen in the figure, with the highest number of deaths in the 25-49 year-old age category, has been consistent throughout the pandemic in Kentucky. Although those 65 or older have a very low risk of contracting H1N1 influenza, those who are infected are at higher risk of mortality accounting for several deaths in the elderly.



Number of Deaths Attributed to H1N1 by County, August 1, 2009 – December 10, 2009



Novel H1N1-Related Mortality by Week Kentucky 2009



Mortality due to H1N1 influenza rose from mid-August to a peak during the last week of October and the first week of November in Kentucky, dropping quickly after that. ➔

US Deaths As Reported by Centers for Disease Control

U.S. Influenza Deaths from 8/30 – 11/28/ 2009 Influenza Laboratory Test Confirmed	Hospitalizations 31,320	Deaths 1,336
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This data was posted on www.cdc.gov/h1n1flu/updates/us/

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 4,043 specimens were submitted by providers to the state lab for testing between August 1, 2009 and December 10, 2009. Of those that tested positive for influenza, 99.8% were positive for novel H1N1 influenza. The lab has received specimens from all 120 counties in Kentucky. Out of the specimens submitted, 114 counties have had at least one positive H1N1 case.

The results of tests performed → by the Kentucky State Lab since August 2009 by month are summarized in the table to the right. Note that tests for December do not represent a full month and are current up to 12/10/09.

	Aug.	Sept.	Oct.	Nov.	Dec.*
Specimens Tested	327	769	1594	1106	247
Specimens positive for Flu	116	358	857	430	95
H1N1	114	358	855	430	95
Seasonal Flu sub-type	2	0	2	0	0

*Note tests for December do not represent a full month. Current as of 12/10/09.

When was this data updated?

Item	Current as of:
Lab counts	12/10/09

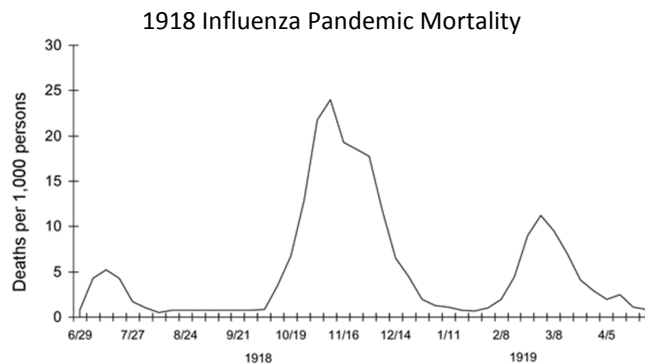
A Hefty Burden for the KY State Lab

The Kentucky State Laboratory has processed 5,542 influenza specimens since April 2009. That is more than the previous five years *combined* which totaled only 5,129 specimens.

CDC Warning: Flu Activity May Occur in "Waves"

Although the incidence of novel H1N1 influenza is dropping in Kentucky and nationally, history has shown us that this may not be the end of the pandemic. CDC warns of that possibility in a recent article. Here are the highlights:

- The timing, spread and severity of influenza viruses is uncertain.
- Outbreaks of influenza may occur in different places at different times. Outbreaks usually occur in waves of about 6-12 week time periods.
- These waves of influenza may occur over a year after the emergence of a new influenza virus.
- The first wave is usually a smaller wave; followed by a larger "peak" wave. Subsequent smaller waves can occur as well.
- The United States experienced its first wave of 2009 H1N1 pandemic activity in the spring of 2009.
- Currently, we are experiencing a second wave of 2009 H1N1 activity.
- Flu activity is widespread in most of the country, which is highly unusual during regular seasonal flu for this time of year, but not unexpected for a pandemic.
- Even after flu activity peaks during the current wave, it is possible that other waves of influenza activity may occur – caused by either 2009 H1N1 viruses or regular seasonal flu viruses.
- Because the timing and spread of influenza viruses are unpredictable, CDC is continuing to recommend vaccination with seasonal influenza vaccine and 2009 H1N1 vaccine.



Left:

As seen in the graph to the left, the 1918 Influenza Pandemic Mortality occurred in three waves. At the present time, the U.S. is experiencing the second wave of the novel H1N1 influenza pandemic. As history shows, pandemics often occur in 'waves' of activity.

Survey to Assess H1N1 Vaccine Availability to Kentuckians

The Kentucky Department for Public Health (KDPH) is asking that Kentucky residents take a new online survey about availability and related issues involving the H1N1 vaccine. The survey is anonymous and will be available through December 19, 2009. It will be used to help measure the extent to which target group populations in Kentucky have been able to access and obtain the H1N1 vaccine and the projected percentage of Kentuckians in the target groups who have received it or wish to receive it. The target groups identified for the survey include: pregnant women; women who gave birth within the past six weeks; people who live with or care for children younger than 6 months; young adults from 18 to 24 years of age; and people with chronic health conditions that include asthma, neurological conditions, chronic lung and heart disease, and disorders of the kidney, liver, endocrine system and blood.

“ We will be using this survey as a tool to measure the saturation of available H1N1 vaccine in communities across the state, specifically for the target groups identified for being at higher risk for developing complications from flu,” said KDPH Commissioner William Hacker. “We especially ask that families, college students, and other young adults, pregnant women and those with chronic health conditions take time to respond to this survey.” A telephone survey is also being conducted simultaneously with the online survey. Funding for the survey is provided through a federal grant from the Centers for Disease Control and Prevention (CDC).

The survey can be accessed at <http://healthalerts.ky.gov/Pages/H1N1AvailabilitySurvey.aspx>

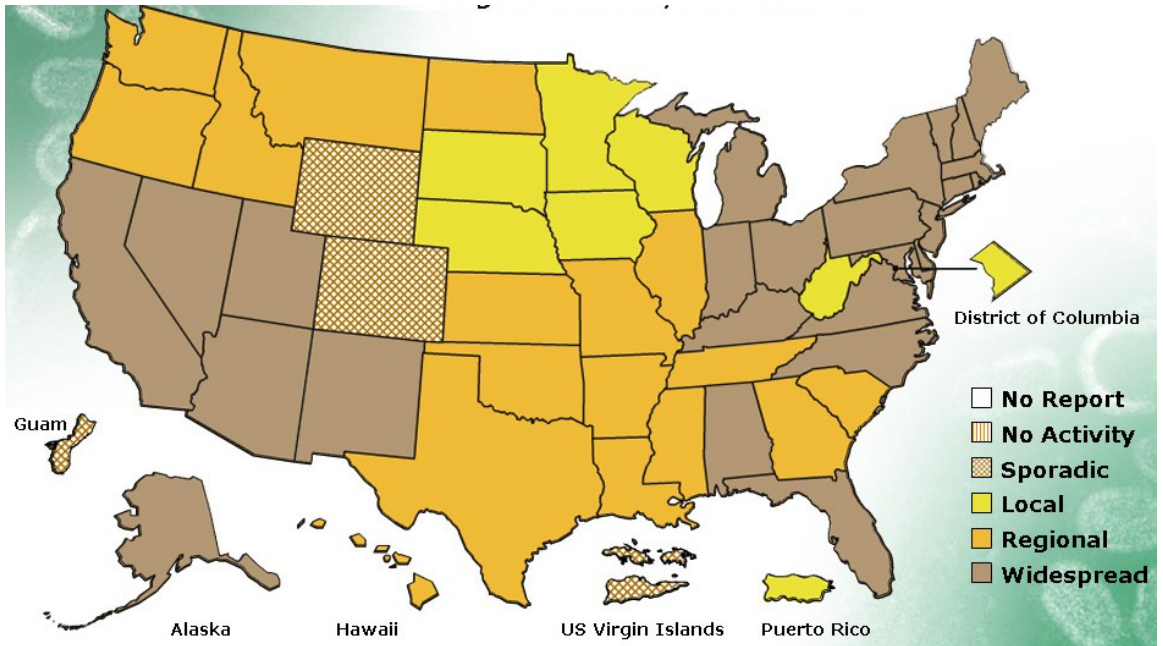
“The only thing predictable about a flu pandemic is how unpredictable it is. And nowhere is that clearer than in the roller-coaster timeline of the Asian flu of 1957. Like this year's H1N1, the Asian flu was a new strain. It struck in the spring, percolated through the summer, picked up steam as schools opened and infected 25% of the U.S. population in the fall. Then, in late November, it appeared to wane. Sound familiar? As it turned out, Asian flu was simply on a holiday break. In January 1958, it came roaring back, infecting millions more and killing as many as 20,000 Americans by the end of March.”

Source:
USA Today
Editorial: “Our view on H1N1 virus: Swine flu shots arrive, just as public loses interest”.

Date: 8 December 2009

Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists*

Week Ending November 28, 2009

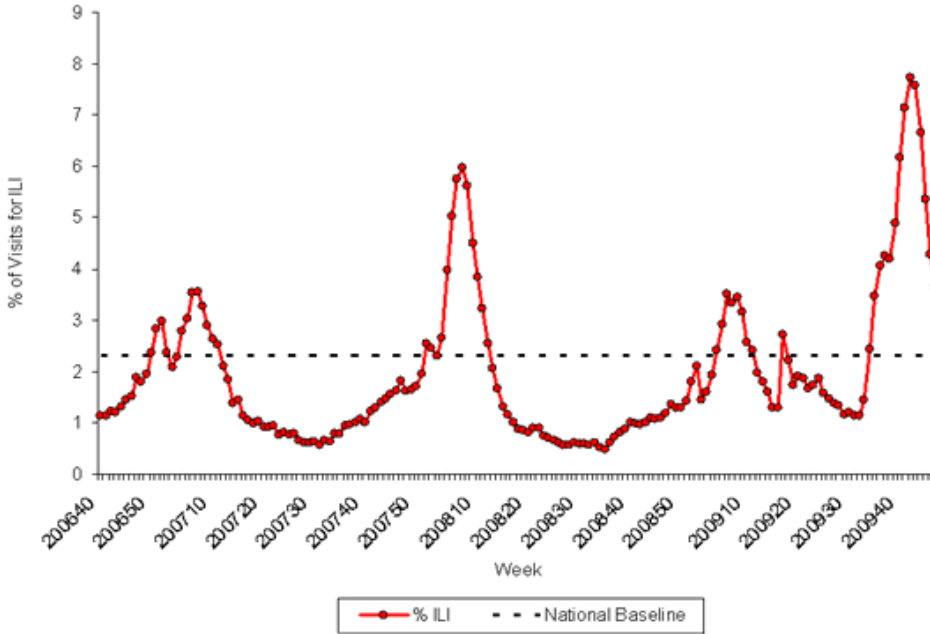


*This map indicates geographic spread and does not measure the severity of influenza activity

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), Weekly National Summary Oct. 1, 2006-Nov. 28, 2009 (Note the steep decline in incidence nationally in recent weeks).



When was this data updated?	
Item	Current as of:
ILI outpatient visits	11/28/09
Closures	12/10/09

School Closure Surveillance

From August 1 to December 10, 302 schools from 54 districts closed one or more days due to influenza like illness. The first reported school closure was on August 18th.

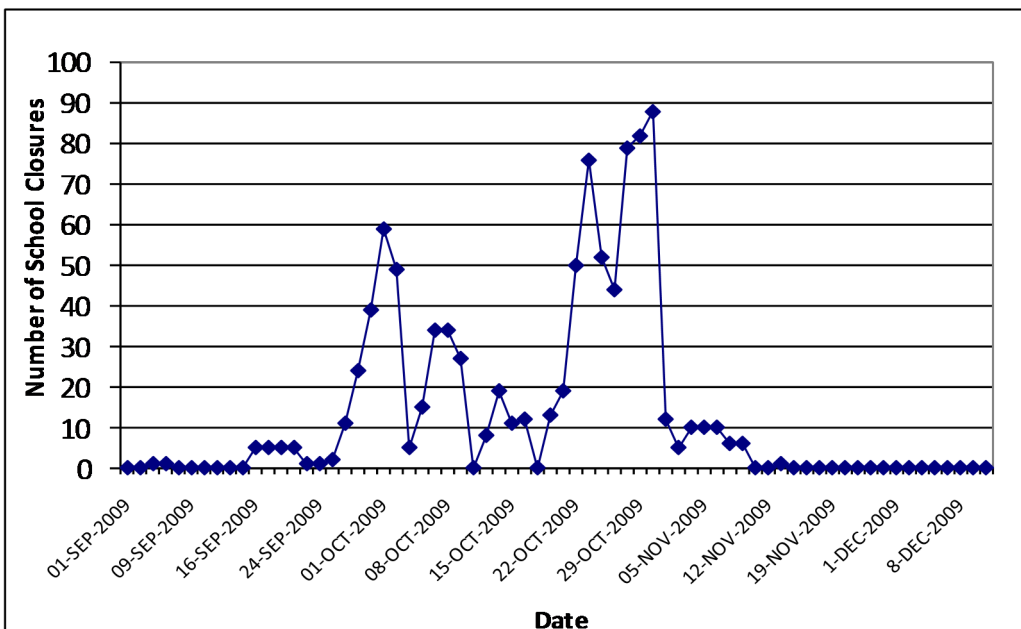
This chart shows three peaks of school closures during the time period.

(Note: these are the number of schools that closed not school districts.)

- October 1: 59 schools
- October 23: 76 schools
- October 30: 88 schools



Number of Public Schools Closed Due to ILI by Date of School Closure August 31 - December 10, 2009



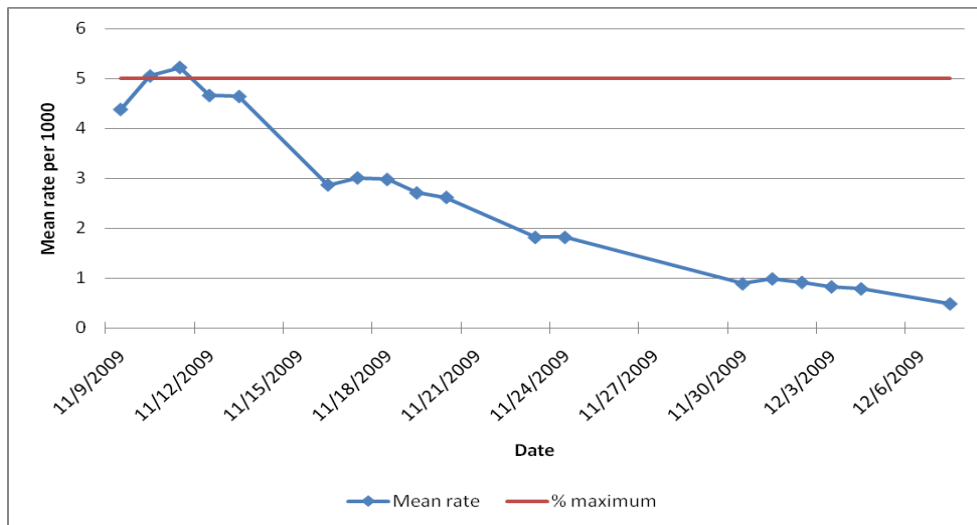
When was this data updated?	
Item	Current as of:
School ILI Absences	12/07/09

School Absenteeism Attributed to ILI

The KDPH, in collaboration with KDE, collects self-report data on school absences and school closures attributed to ILI from Kentucky public schools. School absenteeism data is continuously updated and may change as school census updates are provided.

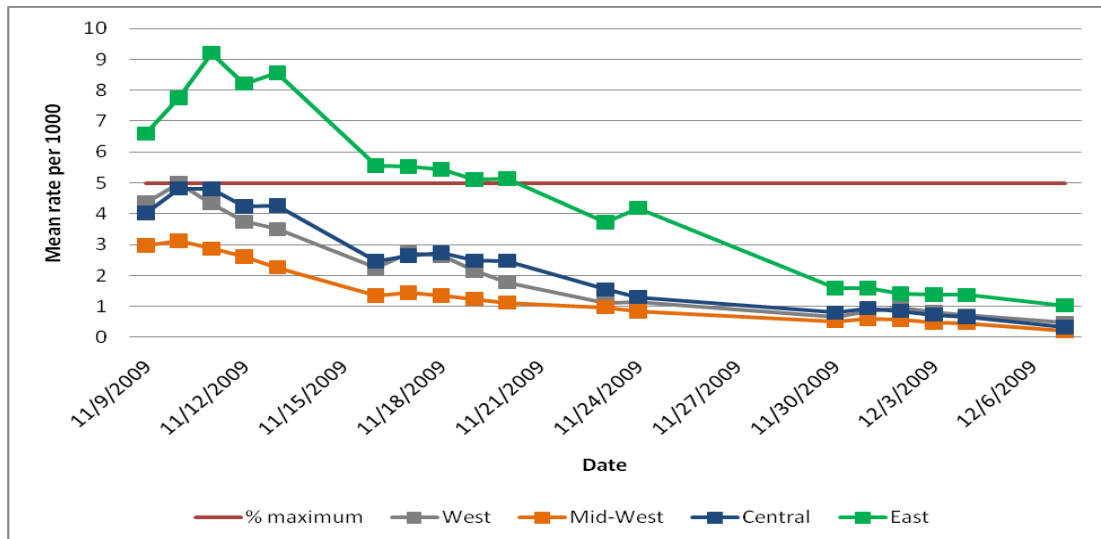
The chart below depicts the trend in mean rate of absences attributed to ILI per 1,000 children enrolled in Kentucky public schools from 11/09/2009 – 12/07/2009. The red line indicates the mean rate corresponding to half of the maximum rate seen statewide since KDPH began collecting absenteeism data on 09/14/2009. The maximum rate of ILI absenteeism that KY experienced in its schools was 10 per 1,000 students. This figure shows that the overall absenteeism rate for schools across KY has fallen far below half of the maximum rate at this point in time.

Mean rate of absences attributed to ILI per 1000 enrolled



The chart below represents the same summary measure of ILI absenteeism as the chart above with the rates stratified by region. The red line is half the maximum rate seen statewide. The maximum rate in each region varied (West-7.74 per 1000; Midwest-3.14 per 1,000; Central-6.06 per 1,000; Eastern-9.46 per 1000). Each region is seeing rates well below half of their respective maximum rates. The east shows the highest rates of absenteeism, but it has also dropped below half the statewide rate as of November 23, 2009.

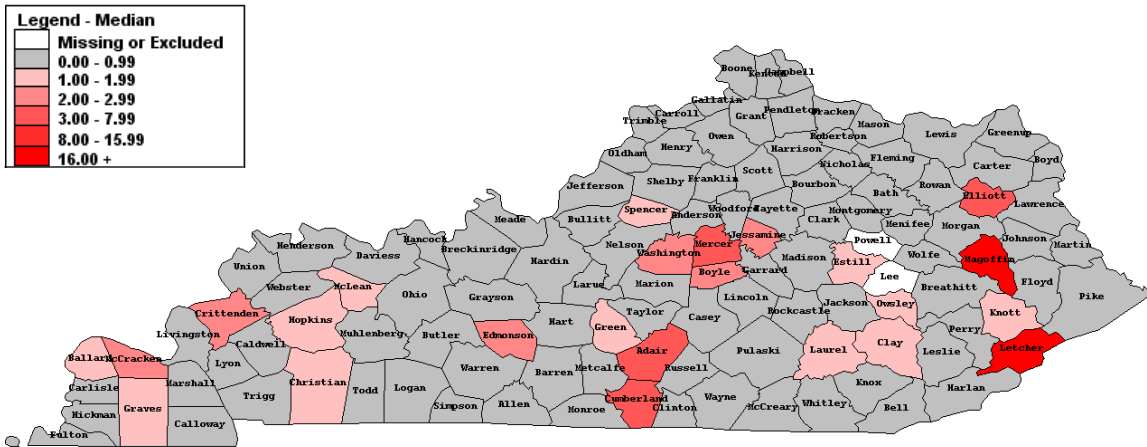
Regional mean rate of absences attributed to ILI per 1,000 enrolled



Current CDC analysis of the severity of the fall-winter 2009 H1N1 wave shows that influenza hospitalization rates remain higher than expected for this time of year. 2009 H1N1 is more severe than seasonal influenza in terms of hospitalizations among younger people and less severe among older people.

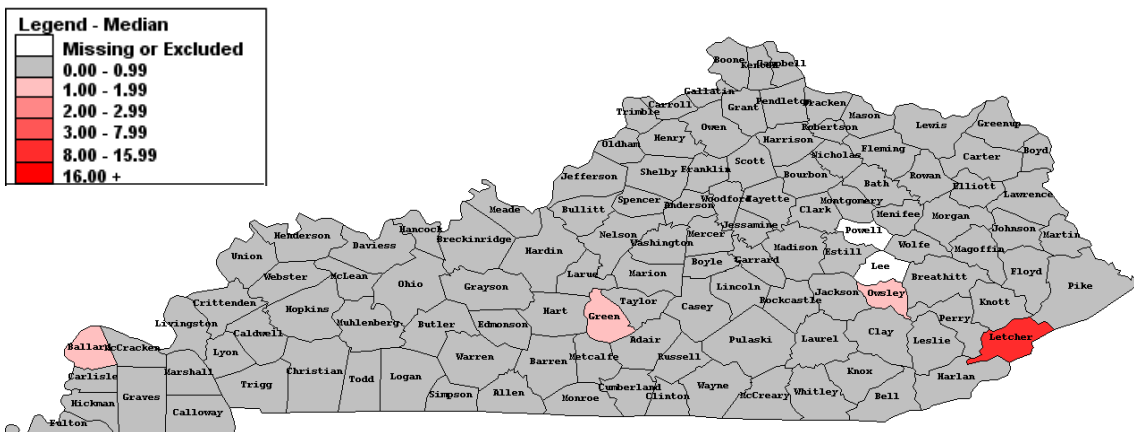
Source: "The severity of pandemic H1N1 influenza in the United States, April – July 2009" by Anne Presanis et al. *PLoS Medicine*. Date: 8 December 2009

Average Rate of Absences Attributed to ILI in Public Schools on 12-7-2009



The map above presents the average rate of absences attributed to ILI. The average, or mean, can be distorted in a county where one school or a few schools have extreme values (for example, one school may have 85 absences per 1,000 students for ILI where most schools have only 15). Another way to present the data that avoids distortion due to extremely high rates for a few schools, is to use the median rate for each county. The median rate represents the midpoint of the various school absenteeism rates in each county (half the schools have a higher rate, and half of the schools have a lower rate); it is not influenced by extreme values in a few schools. The map below shows the median rate of school absences attributed to ILI.

Median Rate of Absences Attributed to ILI in Public Schools on 12-7-2009



The 2009 H1N1 outbreak started during the summer and a second wave of illness and infection has occurred early in the fall, which is earlier than seen for seasonal influenza. It is hard to compare the overall severity of illness because the two influenza strains occur at different times and affect different people. It's still possible that another wave of current H1N1 outbreak could occur. Moreover, seasonal influenza viruses might also circulate, contributing to the overall disease burden seen this 2009-2010 influenza season.

Source: "The severity of pandemic H1N1 influenza in the United States, April - July 2009" by Anne Prentiss et al. *PLoS Medicine*. Date: 8 December 2009

Special Interest Story

New York Autopsies Show 2009 H1N1 Influenza Virus Damages Entire Airway

U.S. Department of Health and Human Services: NIH News

Date: December 7, 2009

In fatal cases of 2009 H1N1 influenza, the virus can damage cells throughout the respiratory airway, much like the viruses that caused the 1918 and 1957 influenza pandemics, report researchers from the National Institutes of Health (NIH) and the New York City Office of Chief Medical Examiner. A microscopic examination of tissues throughout the airways revealed that the virus caused damage primarily to the upper airway — the trachea and bronchial tubes — but tissue damage in the lower airway, including deep in the lungs, was present as well. Evidence of secondary bacterial infection was seen in more than half of the victims.

The team was led by James R. Gill, M.D., of the New York City Office of Chief Medical Examiner and New York University School of Medicine, and Jeffery K. Taubenberger, M.D., Ph.D., of the National Institute of Allergy and Infectious Diseases (NIAID) at NIH. The findings are reported in the Archives of Pathology & Laboratory Medicine, now available online and scheduled to appear in the February 2010 print issue.

"This study provides clinicians with a clear and detailed picture of the disease caused by 2009 H1N1 influenza virus that will help inform patient management," says NIAID Director Anthony S. Fauci, M.D. "In fatal cases of 2009 H1N1 influenza, it appears the novel pandemic influenza virus produces pulmonary damage that looks very much like that seen in earlier influenza pandemics." The new report also underscores the impact 2009 H1N1 influenza is having on younger people. While most deaths from seasonal influenza occur in adults over 65 years old, deaths from 2009 H1N1 influenza occur predominately among younger people. The majority of deaths (62 percent) in the 34 cases studied were among those 25 to 49 years old; two infants were also among the fatal cases.

Ninety-one percent of those autopsied had underlying medical conditions, such as heart disease or respiratory disease, including asthma, before becoming ill with 2009 H1N1 influenza. Seventy-two percent of the adults and adolescents who died were obese. This finding agrees with earlier reports, based on hospital records, linking obesity with an increased risk of death from 2009 H1N1 influenza.

"This pattern of pathology in the airway tissues is similar to that reported in autopsy findings of victims of both the 1918 and 1957 influenza pandemics," notes Dr. Taubenberger.

The researchers also examined 33 of the 34 cases for evidence of pulmonary bacterial infections. Of these cases, 18 (55 percent) were positive for such infections. Not all of those individuals who had bacterial pneumonia along with 2009 H1N1 virus infection had been hospitalized, however, indicating that some had acquired their bacterial infections outside of a health-care setting. This raises the possibility, say the authors, that community-acquired bacterial pneumonia is playing a role in the current pandemic. "Even in an era of widespread and early antibiotic use," write the authors, "bacterial pneumonia remains an important factor for severe or fatal influenza."

Reference: JR Gill et al. Pulmonary pathological findings of fatal 2009 pandemic influenza A/H1N1 viral infections. Archives of Pathology & Laboratory Medicine. Published online Dec. 7, 2009. {Note: Full text of the paper is available at www.archivesofpathology.org}

"Ninety-one percent of those autopsied had underlying medical conditions, such as heart disease or respiratory disease, including asthma, before becoming ill with 2009 H1N1 influenza. Of the adults and adolescents who died, 72 percent were obese. This finding agrees with earlier reports, based on hospital records, linking obesity with an increased risk of death from 2009 H1N1 influenza."

CDC Warns About Rise in Serious Pneumococcal Disease

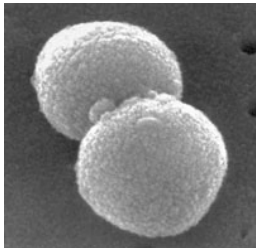
The Director of CDC’s National Center for Immunization and Respiratory Diseases reports that the CDC is seeing an increasing number of invasive pneumococcal disease cases around the country. More pneumococcal disease is expected to be seen when seasonal flu circulates, and it typically affects people who are older than 65. Other high risk groups encouraged to seek pneumococcal vaccination are those without a spleen, infected with HIV/AIDS, having a malignancy, people with asthma, and smokers.

According to the CDC, increases in pneumococcal disease were seen during all three of the flu pandemics that occurred in the twentieth century. A key difference is that now we have two pneumococcal vaccines that may help to prevent these infections.

All children less than 5 years of age should receive the pneumococcal conjugate vaccine (PCV7). The vaccine should be given to all infants younger than 24 months at 2, 4, and 6 months of age, followed by a booster dose at 12-15 months of age. In addition, the 23-valent pneumococcal polysaccharide vaccine (PPSV) should be administered to all persons 2-64 years of age with high risk conditions and everyone 65 years and older.

Special emphasis should be placed on vaccinating adults under 65 years of age who have established high-risk conditions for pneumococcal disease; PPSV coverage among this group is low and this group may be more likely to develop secondary bacterial pneumonia after a flu infection.

Please contact your local health department or healthcare provider to inquire about your need for the vaccine and where the vaccine may be available.



**Left:
Pneumococcal
bacteria**

www.pneumococcal.org/images/main.jpg

Window of Opportunity

We continue to see a decline in disease while the 2009 H1N1 vaccine supply continues to increase, presenting us with a “window of opportunity.” However, there is still a lot of disease across the country and the 2009 H1N1 virus, like any influenza virus, is an unpredictable enemy. Vaccination remains our best protection against the flu. Many people who have waited for the 2009 H1N1 vaccine will no longer need to wait. This window of opportunity is a great time to get vaccinated.

From CDC Key Points

Date: 7 December 2009

Preventable Diseases: Missed Opportunities for Protection

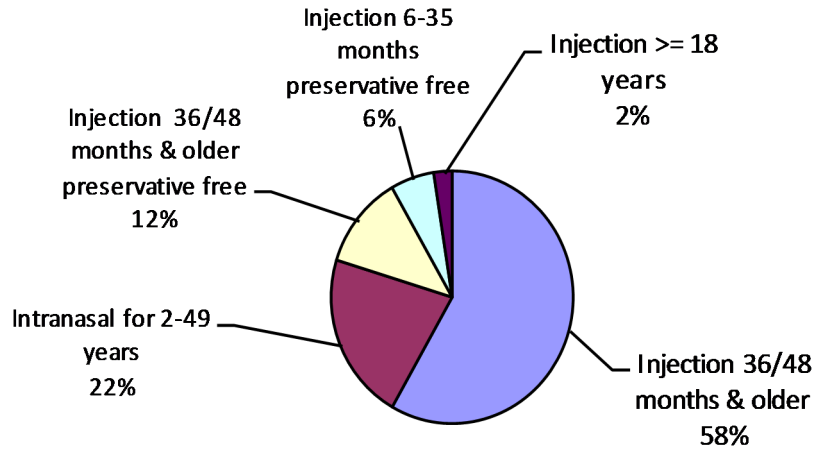
The chart below displays the number of deaths in the U.S. from diseases that can be prevented with vaccination. The vaccine success describes how effective the vaccine is in protecting against the infection. The percentage of vaccine success represents the percentage of people vaccinated that do not become infected with the disease. Annual preventable deaths represents the number of individuals who die each year from one of the diseases that can be prevented with vaccine.

Disease	Annual Deaths	Vaccine Success (%)	Annual preventable deaths
Pneumococcal	40,000	60	21,000
Influenza	20,000	70	10,000
Hepatitis B	5,000	90	4,000
MMR (measles, mumps, rubella)	30	95	30
Tetanus-diphtheria	25	99	15

When was this data updated?

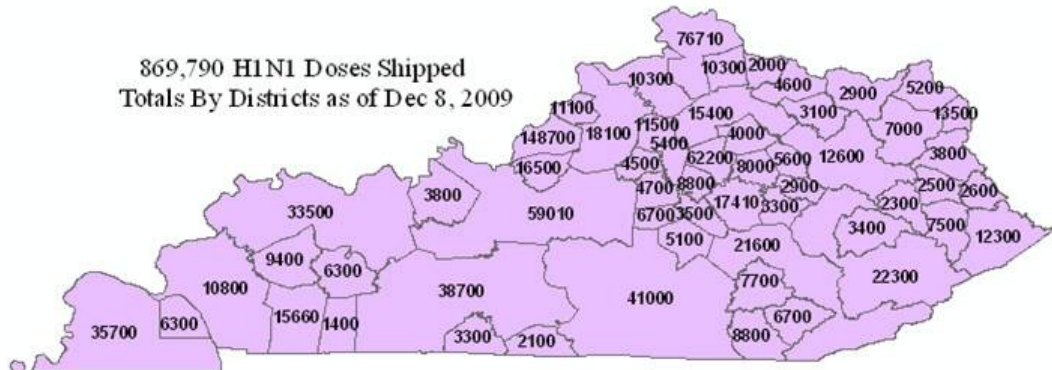
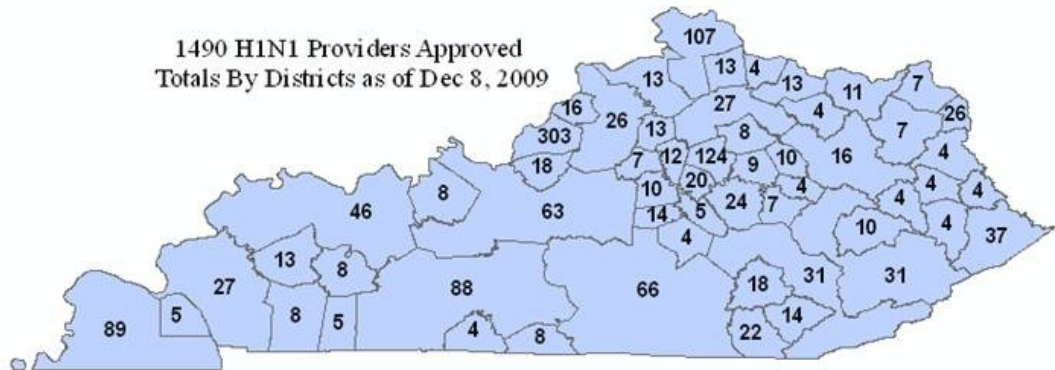
Item	Current as of:
Doses by type	12/09/09
Doses shipped	12/08/09

Doses Shipped by Type



Type of Vaccine	Ordered	Shipped
Injection 36/48 months & older	570,000	530,600
Intranasal for 2-49 years	210,600	211,800
Injection 36/48 months & older preservative free	117,100	117,100
Injection 6-35 months preservative free	57,000	57,000
Injection >= 18 years	24,000	21,200
Total	978,700	946,200

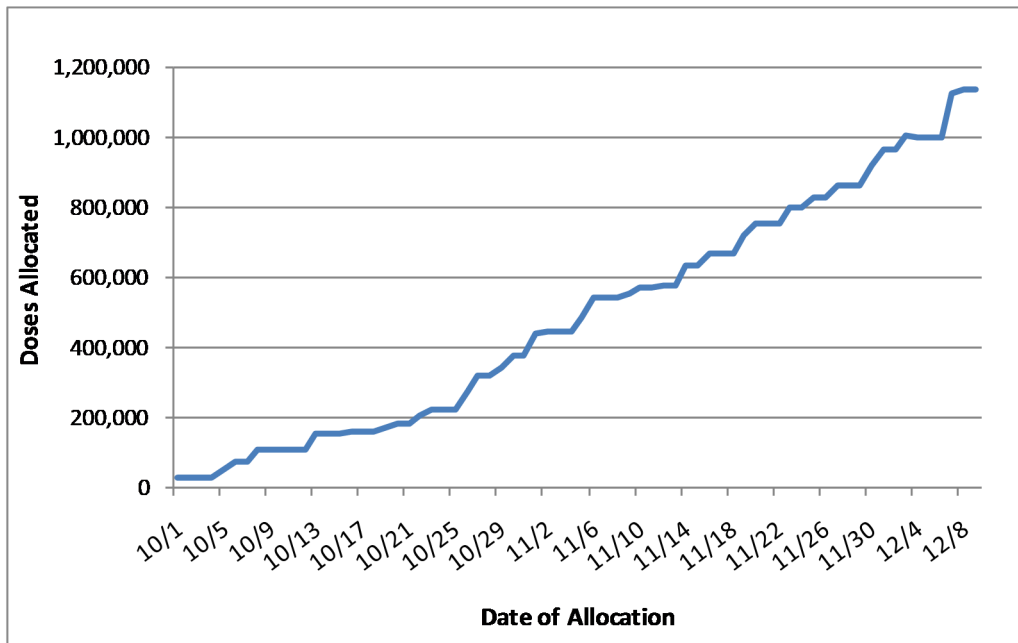
Vaccine Distribution By Health District



Vaccine Allocation

CDC sends states a weekly 2009 H1N1 allocation report which indicates how much of each formulation of 2009 H1N1 influenza vaccine Kentucky can order. CDC allocates vaccine based on the state's population. KDPH then sub-allocates vaccine to counties and health districts by population. CDC's vaccine distribution contractor ships vaccine to hospitals, clinics, doctor's offices, health departments, and other providers three or four times per week. The chart below shows the cumulative doses of vaccine allocated to Kentucky from the CDC. The total allocated to Kentucky to date is 1,140,100 doses.

Cumulative Allocation from CDC by Date



When was this data updated?

Item	Current as of:
Doses allocated	12/09/09

Doses ordered and shipped	12/08/09
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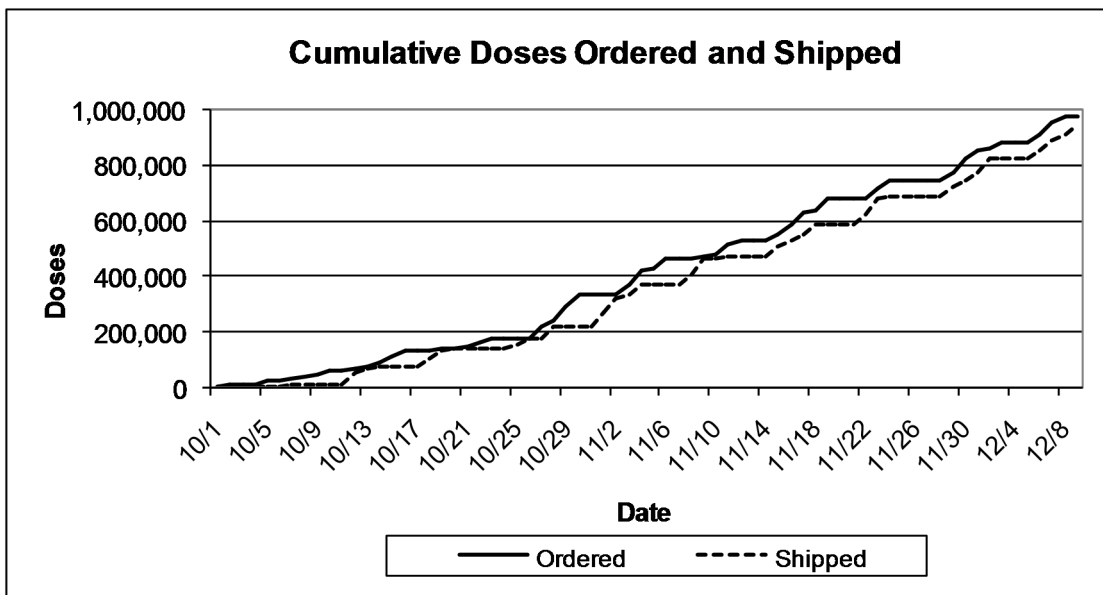
Doses ordered and shipped	12/08/09
---------------------------	----------

Vaccine Safety

The safety record of the 2009 H1N1 flu vaccine is similar to seasonal flu vaccine. CDC and FDA continue to track reports of adverse events following vaccination using multiple systems including the Vaccine Adverse Events Reporting System (VAERS). No new or unusual events or pattern of adverse events have emerged.

See VAERS article on page 16 for more information.

Cumulative Doses Ordered and Shipped



The total number of doses ordered through 12/08/09 was 978,700. The total number of doses shipped through 946,200. For more information about the types of vaccines ordered and shipped see page 10.

Every day the state, district, and local health departments in Kentucky conduct essential services in their efforts to prevent disease, promote health, and protect the citizens of Kentucky. These stories highlight how **public health works** in Kentucky.

Public Health Works

Lake Cumberland District Health Department Uses Window of Opportunity to Vaccinate More Residents – Including Santa!

Vaccination remains our best protection against H1N1, and even though we are seeing a decline in the amount of cases there are still more influenza cases across Kentucky than normal for this time of year. As the H1N1 vaccine supply increases many local health departments have been using this time as a window of opportunity to vaccinate more individuals. The Lake Cumberland District Health Department held a mass vaccination clinic at the Somerset Mall in Pulaski County on December 3rd. They advertised the clinic using traditional forms of media (television and newspaper), but also took advantage of new technology to reach members of their community. The county utilized the reverse 911 calling system, which sent a telephone message to households in Pulaski County informing them about the clinic. In addition, some of the schools also sent a pre-recorded telephone message about the clinic to parents using the one-call system. As a result of the mass communication campaign, 700 additional people were vaccinated, including Santa who was visiting from the North Pole!



In the photo: Santa, LCDHD nurses Greta Mounce and Karen Branscum

Partnership between the Kentucky Department for Public Health and the Kentucky Pharmacists Association Serves Kentucky's Under- and Uninsured Populations

Influenza antiviral drugs (such as Tamiflu) and Relenza are prescription drugs that decrease the ability of flu viruses to reproduce. While getting a flu vaccine each year is the first and most important step in protecting against flu, antiviral drugs are a second line of defense used to treat people after they get sick. For approximately 15% of Kentuckians who have no insurance coverage, the cost of filling a prescription may cause financial hardship because the average cost per prescription is around \$100 for those without insurance (costs vary by location). The Kentucky Department for Public Health (KDPH) partnered with the Kentucky Pharmacists Association (KPhA) to set up a network of 332 pharmacies across Kentucky to provide pre-positioned antiviral medications from the state's stockpile to those without adequate insurance coverage. So far, the program has distributed a total of 3,263 prescriptions to under- and uninsured populations since the program began on November 1 through December 4, 2009. According to Brad Hall, Executive Director, of KPhA, "There are a number of heartwarming stories about how the program has helped people across the state, which is what the program is all about." The partnership between KDPH and KPhA has enabled public health to provide necessary medical services to individuals in need, and took a large burden off the local health department by giving this job to pharmacies who are better equipped to handle this type of operation. This allowed the local health departments to focus their efforts on vaccinating the population, and is an example of how public health works in Kentucky.



Public Health Works

More than 17,000 Vaccinated During First Week of H1N1 Immunizations in Schools *Continuing success story from Louisville Metro News Release*

More than 17,600 students and staff at 65 area schools were vaccinated against the H1N1 virus during the first week of the school immunization campaign lead by the Louisville Metro Department of Public Health and Wellness.

"We are extremely pleased with the response and how smoothly the clinics have flowed," said Public Health and Wellness Director Dr. Adewale Troutman. "It shows that a huge number of parents want their children to be protected from H1N1 and are taking advantage of the school immunization campaign."

"It also is a fine example of community partners coming together to fulfill an urgent need. We couldn't do this without the cooperation and support of administrators and faculty at the schools, PTA volunteers and the nurses provided by Norton Healthcare," said Troutman.

"With few exceptions, the first week has gone very smoothly," said Bonnie Ciarroccki, Coordinator of Health Services for the Jefferson County Public Schools. "Our school staff has been efficient in processing consent forms and in making the immunization experience easy on the students. We greatly appreciate the cooperation of our JCPs staff, parents, and Public Health and Wellness and Norton partners in making this effort such a success."

Norton Healthcare is contributing to the school immunization campaign by providing 25 nurses and 10 support staff each day.

"We're proud to be able to contribute to this monumental public health effort that has gotten off to such a successful start," said Steven T. Hester, M.D., senior vice president and chief medical officer for Norton Healthcare. "In the face of widespread H1N1 concerns, our organization, which includes Kosair Children's Hospital, can think of no better investment in the health of our community than by helping protect our children from H1N1."

The school immunization campaign will last through December 18. This is the most ambitious school immunization effort in Louisville since the Salk Polio Vaccine trial of the 1950s. Immunizations are being given at each of Jefferson County's 90 public elementary schools, 24 middle schools and 21 high schools. Immunizations are also being given at each of the community's 39 Catholic elementary schools and eight Catholic high schools as well as at numerous other private schools. The immunizations are voluntary and free with each student needing a consent form signed by a parent or guardian.

Metro Public Health and Wellness also immunized more than 22,000 children and adults at public H1N1 clinics held in November at Papa John's Cardinal Stadium, at the Urban Government Center and at New Zion Baptist Church. It has also distributed more than 95,000 doses to 282 hospitals and health care providers throughout the community.



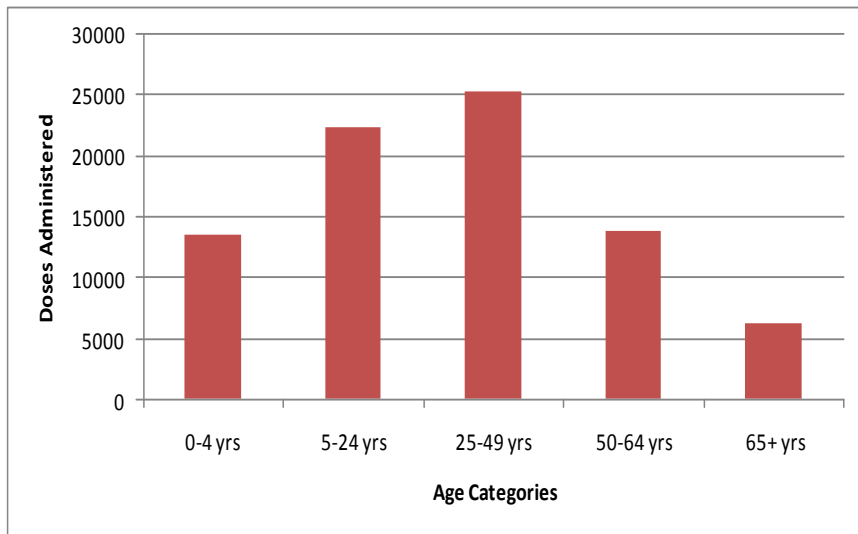
Second-grader winces as he is vaccinated against the H1N1 flu at Fern Creek Elementary. He later commented that it was the best shot he had ever had. (By Michael Clevenger, The Courier-Journal) 12/10/09

Doses Administered by Age Category

The CDC no longer requires doses administered data to be submitted. The KY Department of Public Health is asking LHDs and providers to complete data submission only for doses given before December 1st.

The graph below is a representation of the doses administered by age category. The data was collected by providing a doses administered table on the 'Order and Activity Worksheet' completed by the LHDs and providers at the time they order vaccines. They are asked to indicate the number of doses given to each age group the prior week. When the LHD or provider did not order more vaccine for a particular week, they were still encouraged to fill out the doses administered table and report doses administered for each age group. Because the data is voluntarily submitted, complete accuracy of reporting can not be assured. We encourage all LHD's and providers to continue reporting any doses administered data available prior to December 1, so that we can better assess which age categories were the most and least saturated.

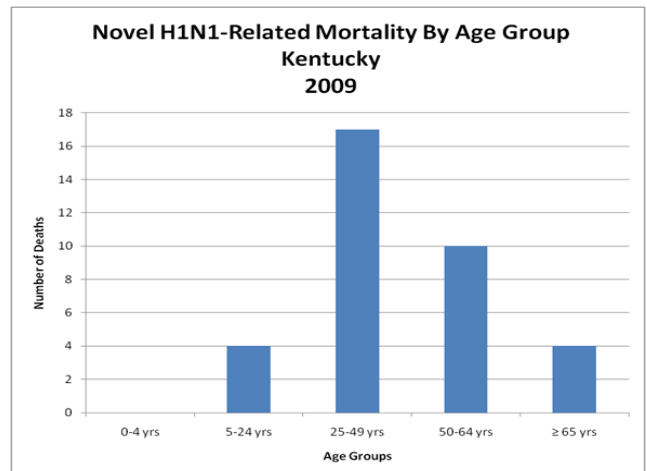
Doses Administered Distribution in Kentucky by Age Category



From the graph above, it appears that the most vaccinated age group in Kentucky includes people aged 25-49, followed by those in the pediatric group aged 5-24 years. The least vaccinated age group appears to be 0-4 years of age. However, please note that the above graph does not demonstrate the *rate* of vaccination, as the population in each of the age categories varies.

Comparing Doses Administered to Mortality by Age Group →

When comparing novel H1N1-related deaths by age group to the doses administered by age group, it is interesting to note that the age group with the highest number of mortalities (25-49 years) is also the age group with the highest number of doses administered. Please note that the age groups do not have equal number of people and do not represent the same number of years. However, it is apparent that individuals ages 25-49 years old are most affected by novel H1N1 in absolute numbers.

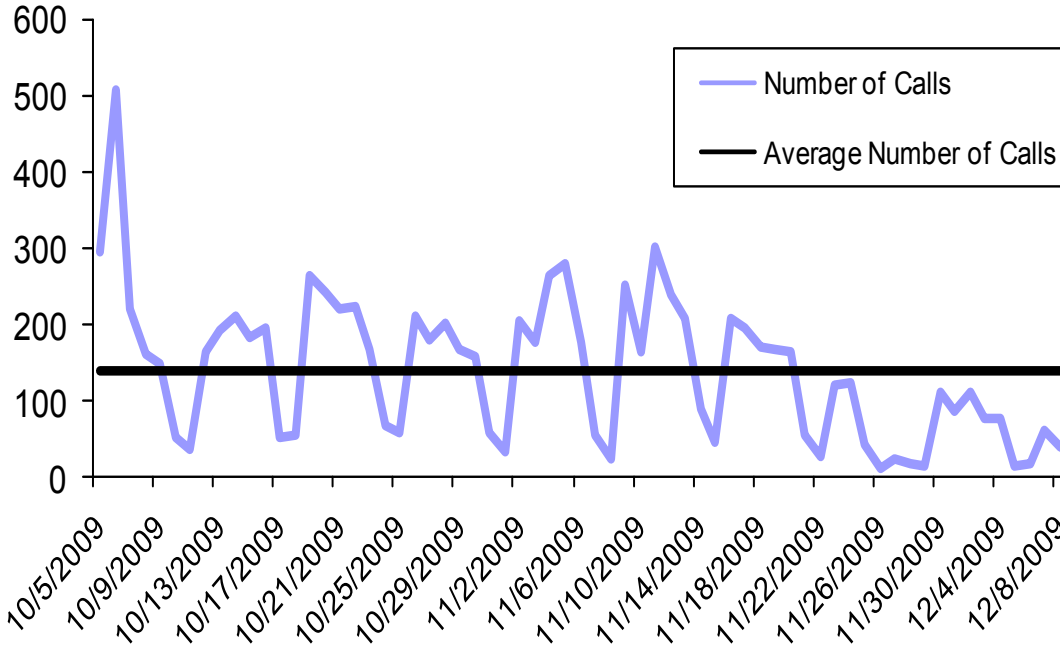


H1N1 Public Telephone Hotline

On October 5, 2009 KDPH established a telephone hotline to answer questions from the public. The hotline averages about 39 calls a day. As of 12/9/2009, it has received 8,832 calls. 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.

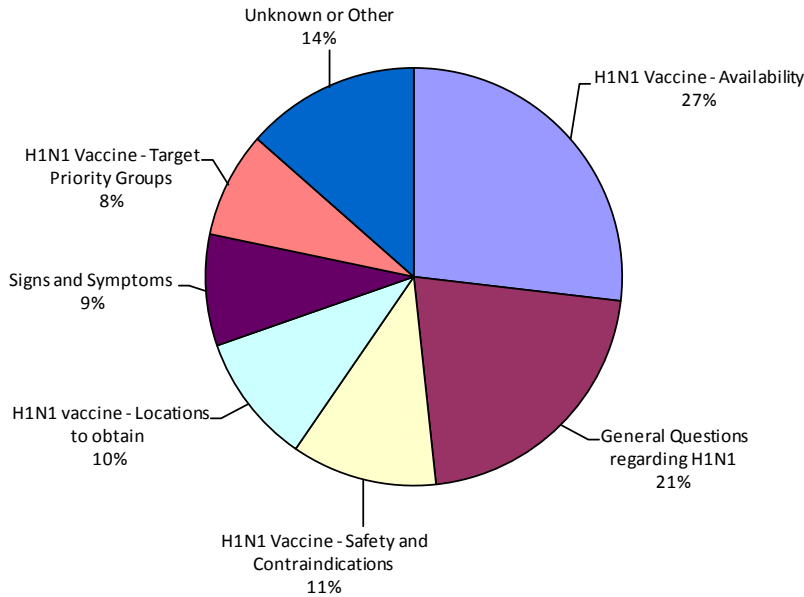
Note: data is updated daily.	
Item	Current as of:
Count	12/9/09
Type of questions	12/9/09

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 Questions Asked



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

275 E. Main St.
HS2GWC
Frankfort, KY 40621

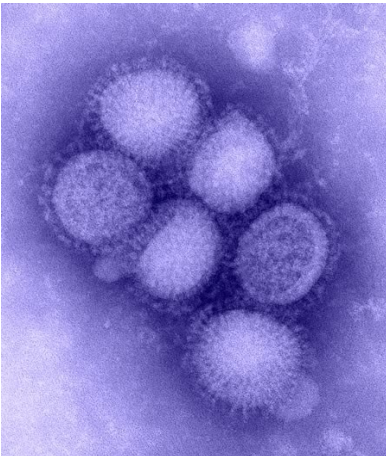
Phone: (502) 564-7243
Fax: (502) 564-0542

Dr. Kraig Humbaugh,
Director

Dr. William Hacker,
Commissioner

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

The H1N1 Virus



For previous issues of KY Fluview, find them on Kentucky Health Alerts:
[http://healthalerts.ky.gov/
Pages/KentuckyFluView.aspx](http://healthalerts.ky.gov/Pages/KentuckyFluView.aspx)

Vaccine Adverse Event Reporting System (VAERS)

As part of our public health surveillance system, healthcare providers help monitor the safety of all licensed vaccines—including the novel H1N1 influenza vaccine—by promptly and accurately reporting any clinically significant adverse events that follow vaccination. Reports of adverse events subsequent to any vaccination are reported to the Vaccine Adverse Event Reporting System (VAERS). VAERS is co-managed by the Centers for Disease Control and Prevention (CDC) and the Food and Drug Administration (FDA) and is the front-line monitoring system for collecting and analyzing voluntary reports of adverse events following vaccination. The CDC and FDA analyze VAERS reports to identify potential vaccine safety concerns that may warrant further study or public health action.

Through November 24, 2009 VAERS received 3,783 reports of adverse events after receipt of H1N1 vaccine, of which 204 were categorized as serious. During October 5–November 20, a total of 46.2 million doses of H1N1 vaccines were distributed to U.S. states and territories. The overall VAERS adverse event reporting rates were 82 per 1 million H1N1 vaccine doses distributed. The serious adverse event reporting rates were 4.4 serious adverse events per 1 million doses distributed for H1N1 vaccines.

Adverse events reported after receipt of influenza A (H1N1) 2009 monovalent vaccines: Vaccine Adverse Event Reporting System (VAERS), United States, July 1– November 24, 2009

	All adverse events reported*
H1N1 Total	3,783
Live, intranasal	1,115
Inactivated injection	2,439
Unknown	229

*An adverse event reported to VAERS might occur by chance after vaccination or might be related causally to vaccine. VAERS generally does not determine whether a vaccine caused an adverse event.

Source: Morbidity and Mortality Weekly Report Vol. 58 www.cdc.gov/mmwr

Professional Guidance

The Kentucky Department for Public Health has prepared clinical guidance for many H1N1 topics. These documents are posted at the Health Alerts Website: <http://healthalerts.ky.gov/Pages/HealthProfessionalsInfo.aspx>

- Vaccine Adverse Events Reporting System (VAERS) Guidelines
- Updated Clinician's Guidance Letter
- Novel H1N1 Influenza Key Points for Clinicians
- Updated Clinician's Guidance for Pediatric Prescription of Oseltamivir (Tamiflu) for H1N1 Treatment
- Novel H1N1 Vaccinator Recruitment Letter
- Recommended Modifications of Existing CDC Recommendations for Infection Control in Healthcare Settings and for Facemask and N95 Respirator Use
- Updated Clinician H1N1 Testing and Treatment Algorithm
- H1N1 Provider Enrollment Packet
- Pharmacy Only - H1N1 Pharmacy Provider Enrollment Form
- Facts About Facemasks Sheet

The page also has links to CDC guidance documents.