



## Epidemiologic Notes & Reports

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### Kentucky Influenza: Surveillance & Recommendations for Prevention

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#### Kentucky Influenza Surveillance 2002-2003

Prior to the 2002-2003 season, Influenza Type B had not been prevalent since the late 1970s and early 1980s. During this past season, as in those years, children were the largest age group affected. Ten percent of the culture confirmed cases were Type A; 90% were Type B. Seventy-five percent of the Type B cases were in children less than 1 year of age through 18 years of age and 20% were in adults. In 5% of the cases, ages were unknown.

Figure 1 shows influenza reported in Kentucky, by type and age, during the 2002-2003 season.

Figure 1. Kentucky influenza by Type and Age, 2002-2003

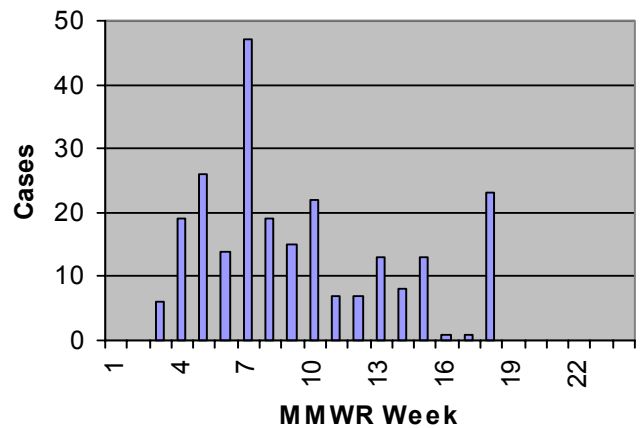
Age	Influenza A	Influenza B
<1 Year	0	14
1-3 Years	3	16~
4-7 Years	8	33~
8-10 Years	1*	27~
11-12 Years	1*	30~
13-18 Years	1*	41~
19-93 Years	6* *	35~
Unknown		8~
TOTAL	20	182

+ = A:H3N2 Panama-Like/1    \* = A:H1N1 New Caledonia-Like/17  
~ = Hong Kong-Like/139

In addition, the Division of Laboratory Services reported the following information from cultures submitted: one adenoviruses, one Herpes type 1, and two parainfluenza.

During the 2002-2003 season, 45 counties submitted 242 confirmed isolates/cultures to laboratories. See Figure 3 (Kentucky counties map), page 5.

Figure 2. Kentucky Influenza Cases by MMWR Week  
2002-2003 Season  
(All Cases Occurred in Calendar Year 2003.)



#### Surveillance 2003-2004

Surveillance reporting for the upcoming influenza season will officially begin the first week of October. Surveillance will actually start the last week in September.

The Kentucky influenza surveillance network has four essential components that allow for collecting information and reporting it to the Centers for Disease Control (CDC). These include:

#### CDC's 122 Cities Mortality Reporting System

Information is obtained from death certificates filed during the year which indicate influenza/pneumonia as the cause of death. Lexington was one of the 122 cities that reported this data to the CDC during the October 2002-May 2003 season. (Lexington reported 193 deaths from pneumonia and none from influenza during that season.)

#### Sentinel Physicians

Sentinel physicians report directly to the CDC with information pertaining to the number of patients (age-grouped) who have been seen for each week with Influenza-Like Illnesses (ILIs).

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### State Epidemiologist's Report

Sentinel local health departments that have agreed to participate in Kentucky's influenza network report ILIs information obtained from a nursing home for one week and absenteeism records from a school district for a specified day each week. In addition, local health departments in the surveillance network located in larger populated areas of the state obtain information on ILIs from a doctor's office and/or a hospital.

### Laboratories

Laboratories report isolate/culture confirmed influenza cases weekly to the Kentucky Department for Public Health's Division of Epidemiology and Health Planning. The Division of Laboratory Services then reports weekly the total number of respiratory specimens tested and the number positive for influenza types A and B to the World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) Collaborating Laboratories. Some positive isolates are sent to the CDC.

Information from sentinel local health departments and laboratories is reported to the State Influenza Surveillance Coordinator. It is used to determine weekly influenza activity statewide, which is reported to the CDC. In addition, all long-term care facilities in the state are required by law to report outbreaks of ILIs to the Department for Public Health. (An outbreak is defined

### **CDC's Definitions for Influenza Activity & ILIs**

No activity—no ILIs or culture confirmed cases

Sporadic activity—ILIs or culture confirmed cases with no outbreaks

Regional activity—an outbreak of either ILIs or culture confirmed cases in less than 50% of the state's population

Widespread activity—an outbreak of either ILIs or culture confirmed cases in greater than 50% of the state's population

ILI—Fever greater than 100 degrees Fahrenheit and cough or sore throat with no other known cause

### Recommendations for Influenza Vaccine-- Primary Changes and Updates

The 2003 recommendations include five principal changes or updates:

1) The optimal time to receive influenza vaccine continues to be October and November. However, because of vaccine distribution delays during 2000-2002, the Advisory Committee on Immunization Practices (ACIP) recommends that vaccination efforts in October focus on persons aged  $\geq 50$  years and those aged 6-23 months, persons aged 2-49 years with certain medical conditions that place them at increased risk for influenza-related complications, children aged  $< 9$  years receiving influenza vaccine for the first time, health care workers, and household contacts of persons at high risk. According to ACIP, vaccination of other groups should begin in November.

2) Because young, otherwise healthy children are at increased risk for influenza-related hospitalization, influenza vaccination of healthy children aged 6-23 months continues to be encouraged when feasible. Vaccination of children aged  $\geq 6$  months who have certain medical conditions continues to be strongly recommended.

3) The 2003-2004 trivalent inactivated vaccine virus strains manufactured for use in the U.S. are A/New Caledonia/20/99 (H1N1)-like, A/Panama/2007/99 (H3N2) virus, and either B/Hong Kong/330/2001 or the antigenically equivalent, B/Hong Kong/1434/2002).

4) A limited amount of influenza vaccine with reduced thimerosal content, including 0.25-mL single-dose syringe preparations for children aged 6-35 months, should be available for the 2003--04 influenza season.

5) Influenza vaccine for the U.S. market will be available from two manufacturers in 2003-04, compared with three manufacturers in 2002-03.

### Influenza Resources

"April 2003 Recommendations for the Prevention and Control of Influenza" may be viewed in its entirety at [www.cdc.gov](http://www.cdc.gov), Morbidity and Mortality Weekly Report Recommendations and Reports, April 25, 2003/Vol.52/No.RR-8:

Information regarding influenza vaccine may be obtained at <http://www.cdc.gov/nip/flu>. Information regarding national influenza surveillance, prevention,

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**Standing Orders...****A Proven Strategy to Increase Influenza Vaccination Rates**

Steve Salt, Kentucky Immunization Program

Influenza epidemics were responsible for an average of approximately 36,000 deaths per year in the United States during the period 1990 to 1999. Influenza mortality is a major concern for persons with chronic diseases. This mortality increase is most marked in persons 65 years of age or older, with more than 90% of the deaths attributed to pneumonia and influenza occurring in persons in this age group.<sup>1</sup>

The 65 years of age or older cohort in Kentucky numbered in excess of 500,000 in 2000. In 2005, the number of elderly will have increased to an estimated 527,000. By 2020, this group is projected to swell to over 750,000, an increase of 50% in two decades. Phrased differently, one in six Kentuckians will be 65 years of age or older by 2020.<sup>2</sup>

As the proportion of elderly persons in Kentucky increases, age and its associated chronic illnesses can increase the severity of influenza illness. Unless we take positive action, the number of deaths from influenza and its complications is expected to rise.

Immunization of high-risk persons could prevent up to half of these deaths.<sup>3</sup> A recent study of almost 300,000 subjects showed the positive results of influenza vaccination, which include a 19% reduction in the risk of hospitalization for cardiac disease, a 16% reduction in the risk of hospitalization for cerebrovascular disease, and a 29% reduction in the risk of hospitalization for pneumonia and influenza.<sup>3</sup>

Vaccines, both influenza and pneumococcal, have been associated with improved patient outcomes. Yet, according to the most recent Behavioral Risk Factor Surveillance Survey (interviews conducted in 2001), only 60.9% of Kentuckians age 65 and older received their annual influenza vaccination.<sup>4</sup> Strategies to improve this percentage must be vigorously pursued.

One proven strategy to improve adult vaccination against influenza and pneumococcal disease is to implement standing order programs.<sup>5</sup> Standing order programs authorize licensed practitioners, where allowed by state law, to administer vaccinations, after assessment for contraindications, according to a physician-approved facility or agency policy.<sup>1</sup>

On October 2, 2002, the Department of Health and Human Services issued a regulation that revised

hospital, long-term care facility, and home health agency "Conditions of Participation" (requirements that must be met in order to participate in the Medicare and Medicaid programs). The regulation removed the requirement for a physician to order influenza and pneumococcal polysaccharide vaccines on a patient-by-patient basis. The language (42 CFR. 482.23 © (2)) was revised to read, "All orders for drugs and biologicals must be in writing and signed by the practitioner or practitioners responsible for the care of the patient as specified...with the exception of influenza and pneumococcal polysaccharide vaccine, which may be administered per physician approved hospital (long term care facility, home health agency) policy after an assessment for contraindications."<sup>1</sup>

In developing a facility or agency policy for immunizing patients, there must be input from the medical director or a physician. Other core aspects of the policy or Standing Orders Protocol under the direction of the medical director or physician might include assessment of possible contraindications and specification that vaccines be administered by health care professionals trained to (a) screen patients for contraindications to vaccination, (b) administer vaccines, and (c) monitor patients for adverse events, in accordance with state and local regulations.<sup>1</sup>

*(Continued on Page 4)*

**Kentucky Influenza Surveillance & Prevention**

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detection, and control is available at <http://www.cdc.gov/ncidod/diseases/flu/fluivirus.htm>.

For information regarding ordering, distribution, information statements, and recommendations for Vaccines for Children Program (VFC) influenza vaccine, contact the state Immunization Program at 502/564-4478.

Information requests regarding state surveillance, consultation and reporting of outbreaks of ILIs in LTCFs, statistics, recommendations for vaccine for adults, and antiviral drug use may be directed to Peggy Dixon, Influenza Coordinator, Communicable Disease Branch, 502/564-3261, extension 3583.

To request influenza collection kits, please contact Diane Young, Division of Laboratory Services, 502/564-4446, extension 4483.

## Strategy to Increase Vaccination Rates

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The administration of influenza and pneumococcal polysaccharide vaccines per standing orders, governed by physician approved policies and procedures of the facility or agency, after assessments for contraindications, is the most consistently effective method for increasing adult vaccination rates and the least burdensome to implement<sup>1</sup>.

### References

1. Department of Health and Human Services. Centers for Medicare and Medicaid Services. Medicare and Medicaid Programs: Conditions of Participation: Immunization Standards for Hospitals, Long-Term Care Facilities, and Home Health Agencies. Federal Register Vol. 67, No 191. pp 61808-61814. October 2, 2002
2. Kentucky Population Research, Urban Studies Institute, University of Louisville. Released 6/06/2003
3. Nichol KL, Nordin J, Mullooly J, et al. Influenza Vaccination and Reduction in Hospitalizations for Cardiac Disease and Stroke Among the Elderly. *N. England J. Med.* 2003; 348: 1322-1332
4. Centers for Disease Control and Prevention. Influenza and Pneumococcal Vaccination Levels Among Persons Aged > 65 Years—United States 2001. *MMWR Morb Mortal Weekly Report.* 2002; 51(45); 1019-1024.
5. Medicare Quality Improvement Community. Adult Immunization Project Description

### Attention Local Health Departments!

#### Influenza Viral Culture Kits

In preparation for the beginning of influenza surveillance in October, please obtain viral culture kits now and distribute to local physicians during September.

Strains of influenza can only be determined from cultures. Strain identification is necessary to detect epidemic or pandemic strains of influenza, to make informed decisions regarding the components of the next season's vaccine, and to determine whether strains of influenza are similar in all areas of the state.

Physicians are requested to keep the kits on hand and collect specimens on patients with influenza-like illnesses (ILIs). This season, prepaid postage labels will be sent with the kits for mailing the specimens back to the state laboratory. Therefore, there will be no cost for collecting, submitting, and testing specimens for culture. It is hoped that this new service will lead to an increase in numbers of specimens submitted..

To request viral collection kits, contact Diane Young, Division of Laboratory Services, at 502/564-4446, extension 4483.

—Peggy Dixon, RN, CIC

Now You Can Help With...

## Influenza Sentinel Provider Surveillance

...In Only a Few Minutes a Week!

**What is an influenza sentinel provider?** An influenza sentinel provider conducts surveillance for influenza-like illness (ILI) in collaboration with the state health department and the Centers for Disease Control and Prevention. Data reported by sentinel providers, in combination with other influenza surveillance data, provide a national picture of influenza virus and ILI activity in the U.S. Approximately 1,400 providers in 47 states were enrolled in this network during the 2001-02 influenza season.

**What data do sentinel providers collect? How and to whom are data reported?** Sentinel providers report the total number of patient visits each week and number of patient visits for ILIs by age group (0-4 years, 5-24 years, 25-64 years, ≥65 years). These data are transmitted once a week via the Internet, a touch-tone telephone, or fax to a central data repository at CDC. Most providers report that it takes them less than 30 minutes a week to compile and report their data. In addition, sentinel providers can submit specimens from a subset of patients for virus isolation free of charge.

**Who can be an influenza sentinel provider?** Providers of any specialty (e.g., family practice, internal medicine, pediatrics, infectious diseases) in any type of practice (e.g., private practice, public health clinic, urgent care center, emergency room, university student health center) are eligible to be sentinel providers.

**Why Volunteer?** Influenza viruses are constantly evolving and cause substantial morbidity and mortality almost every winter. Data from sentinel providers are critical for monitoring the impact of influenza. In combination with other influenza surveillance data, this information can be used to guide prevention and control activities, vaccine strain selection, patient care, and detection of new pathogenic organisms, i.e., the A:H5N1 Avian strain and Sudden Acute Respiratory Syndrome (SARS). Sentinel providers receive feedback on the data submitted, summaries of regional and national influenza data, and a free subscription to CDC's *Morbidity and Mortality Weekly Report* and *Emerging Infectious Diseases* journal. The most important consideration is that the data provided are critical for protecting the public's health.

For more information on influenza sentinel provider surveillance, contact Peggy Dixon, Coordinator. Call toll free 888-973-7678, fax 502-564-0542, or email [peggy.dixon@mail.state.ky.us](mailto:peggy.dixon@mail.state.ky.us).

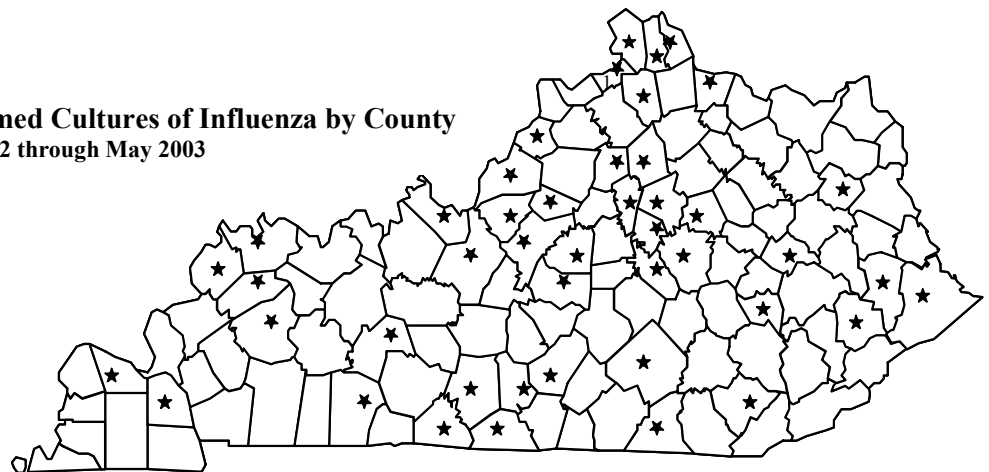
**Cases of Selected Reportable Diseases in Kentucky**  
(YTD Through June for Each Year)

Disease	2003	2002	5 year median
AIDS	80	146	146
Chlamydia	4103	4277	4103
Gonorrhea	1718	1688	1677
Syphilis (Prim. and Sec.)	21	48	48
Group A Streptococcus	30	11	18
Meningococcal Infections	8	9	15
<i>Haemophilus influenzae</i> , invasive	2	3	3
Hepatitis A	15	35	35
Hepatitis B	40	30	30
E. coli O157H7	10	13	13
Salmonella	155	149	155
Shigella	58	66	109
Tuberculosis	59	68	61
Animal Rabies	20	14	14
Motor Vehicle Injury Deaths	424	379	368

Vaccine Preventable	2003 YTD	Total in 2002
Diphtheria	0	0
Measles	0	0
Mumps	0	3
Pertussis	15	103
Polio	0	0
Rubella	0	0
<i>Streptococcus pneumoniae</i>	11	19
Tetanus	0	0

Vector-Borne	2003 Year to Date	2002 Total
Rocky Mountain Spotted Fever	0	5
Lyme Disease	5	25
Ehrlichiosis	0	2
Tularemia	0	2
Arboviral Encephalitis	0	44
Malaria	1	8

**Number of Laboratory Confirmed Cultures of Influenza by County**  
October 2002 through May 2003



Adair-5	Clark-1	Hardin-1	Madison-16	Nelson-24	Washington-5
Allen-7	Elliott-1	Henderson-27	Marion-2	Oldham-1	Webster-6
Barren-10	Fayette-15	Hopkins-1	Marshall-1	Owsley-9	Wolfe-1
Boone-15	Floyd-3	Jefferson-23	McCracken-1	Pike-1	Woodford-3
Bracken-1	Franklin-6	Jessamine-2	McCreary-5	Pulaski-1	
Bullitt-1	Gallatin-1	Kenton-8	Meade-1	Scott-2	
Butler-1	Garrard-1	Knott-1	Metcalfe-3	Spencer-1	
Campbell-17	Grant-1	Logan-3	Monroe-2	Union-5	



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**RETURN SERVICE REQUESTED**

## Extreme Heat



From 1979 to 1999, excessive heat exposure caused 8,015 deaths in the United States.

During those 20 years, more people in this country died from extreme heat than from hurricanes, lightning, tornadoes, floods, and earthquakes combined.

By knowing who is at risk and what prevention measures to take, heat-related illness and death can be prevented. The elderly, the very young, and people with mental illness and chronic diseases are at

highest risk. However, young and healthy individuals can succumb to heat if they participate in strenuous physical activities during hot weather. Other conditions related to risk include obesity, fever, dehydration, heart disease, poor circulation, sunburn, and prescription drug and alcohol use.

For additional information about excessive heat exposure and heat-related illness, including prevention and management recommendations, visit the National Center for Environmental Health at <http://www.cdc.gov/nceh/hsb/extremeheat/default.htm>.

—National Center for Environmental Health

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