

Utah Health Status Update:

Utah's 2005–06 Influenza Season

July 2006

Utah Department of Health

Seasonal influenza surveillance in Utah involves multiple components. These include case reports of influenza-associated hospitalizations (IAHs), reports of patient visits for influenza-like illness (ILI) from sentinel clinics, reports of student absences from sentinel schools, and reports of pediatric deaths due to influenza. Collection of these data occurs primarily through local health departments. Data are then sent to the Utah Department of Health (UDOH) for compilation and analysis.

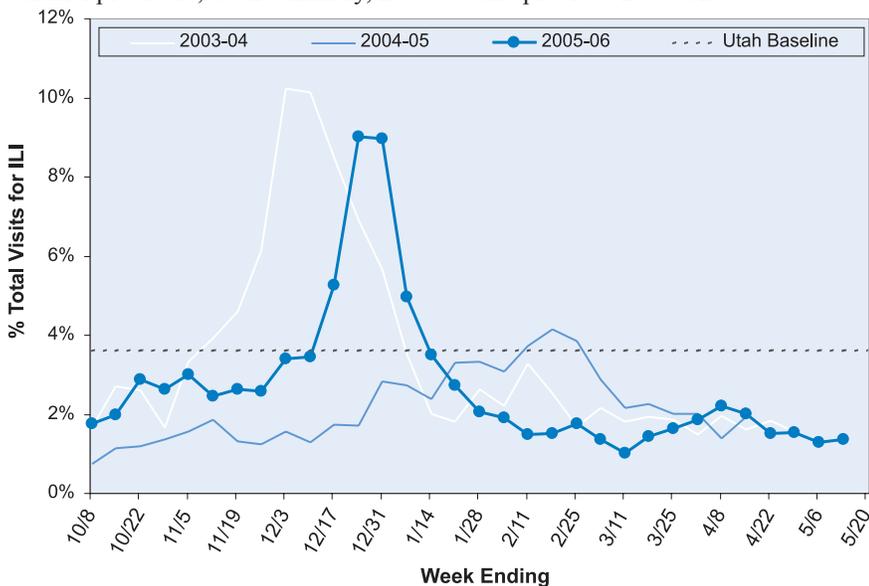
Influenza activity in Utah during the 2005–06 season was moderate compared to past seasons, although activity levels were above those from the mild 2004–05 season. Activity rapidly increased during December, peaking by week 51 (December 18–24). Activity slightly increased during March as influenza B viruses began to circulate, but remained below baseline levels. Although western states such as Utah displayed earlier active circulation, activity in the United States did not peak until early March.

505 total IAHs were reported in Utah for the 2005–06 season as of May 22, 2006. The majority of hospitalizations occurred during the weeks immediately preceding and succeeding the season peak; 67% of all hospitalizations occurred by the end of week 52 (December 25–31). 421 (90%) of the reported 466 IAHs with known influenza type were diagnosed with influenza A viruses. Influenza B viruses were identified primarily during March and among the 0–4 year age group. Influenza A viruses are considered to cause more severe illness than B viruses. Influenza vaccines protect against both A and B viruses.

Hospitalizations are expected to occur in high-risk individuals each season. Individuals can be high-risk due to age (<2 years, ≥ 65 years) and/or comorbidities such as metabolic, cardiovascular, and respiratory diseases. 400 (98%) of the reported 435 IAHs with known risk status were identified as high-risk. In

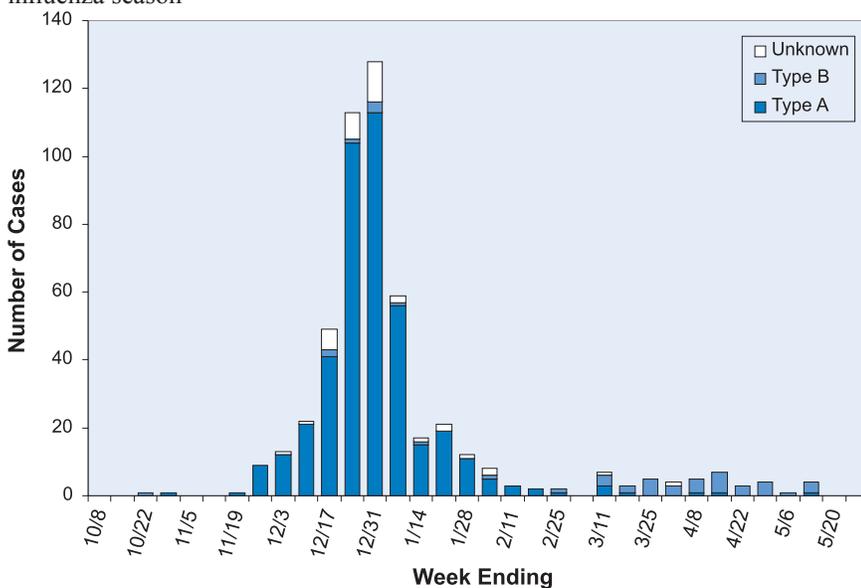
Influenza Activity for Past Three Seasons

Figure 1. Percentage of visits for influenza-like illness (ILI) reported by sentinel providers, Utah summary, 2005–06 and previous 2 seasons



Hospitalizations by Virus Type and Week

Figure 2. Number of laboratory-confirmed, influenza-associated hospitalizations by influenza virus type and week of event, Utah, 2005–06 influenza season



contrast to the 2004–05 season, influenza created significant morbidity in the elderly (≥ 65 years) this season. This age group accounted for 43% of all reported IAHs. 91% of cases in this age group were diagnosed with influenza A viruses.

On average, 14 sentinel clinic sites regularly reported data during the season. Sites are asked to tally and report visits for ILI weekly October through May, classifying counts into specific age groups. ILI is typically defined as the presence of fever (>100° F) and cough or sore throat in the absence of a known cause. Over 7,000 ILI visits were reported during the season (2.0% of all visits). Reports of ILI visits peaked during late December, consistent with other influenza surveillance components.

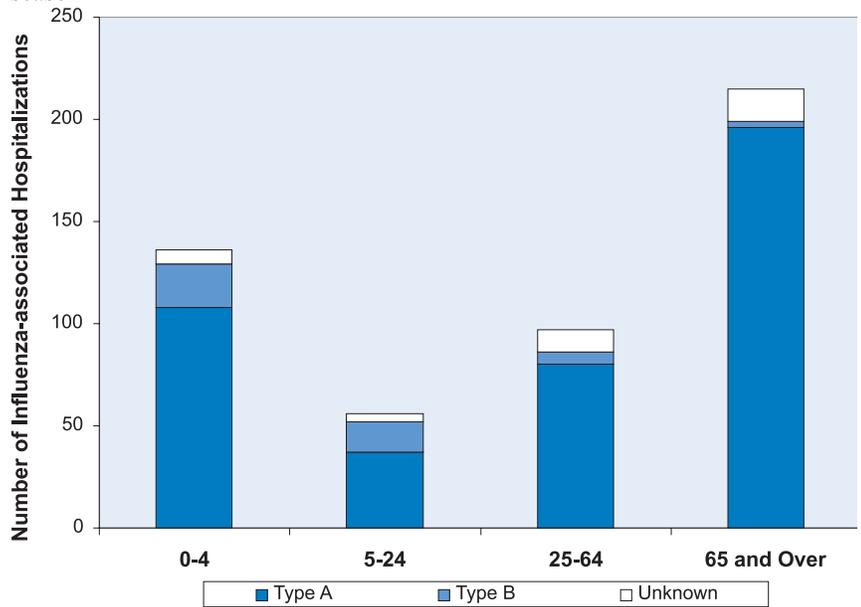
Since influenza often begins circulating among school-aged children, reports of school absenteeism are also collected. Approximately 16 schools regularly reported data during the 2005–06 season. Schools are asked to report total enrollment, number of days in the school week, and total numbers of students absent for any reason on a weekly basis throughout the season. Additionally, select schools also report absences identified due to any illness and/or ILI specifically. Reports of student absences peaked at the end of December, consistent with both the holiday break and also with intense influenza circulation at that time.

In October 2004, influenza-associated pediatric deaths were added to the list of nationally notifiable conditions. An influenza-associated pediatric death is defined as a death occurring in a person aged <18 years resulting from a clinically compatible illness confirmed to be influenza by an appropriate laboratory test. As of May 22, 2006, one confirmed influenza-associated pediatric death was reported to the UDOH for the 2005–06 influenza season. One pediatric death was also reported during the 2004–05 season.

Influenza remains a vaccine-preventable disease. Vaccination prevents not only disease occurrence, but also reduces disease severity. As of the 2005–06 season, high-priority groups for vaccination include those at high-risk for complications due to age and/or comorbidities, pregnant women, residents of long-term care facilities and nursing homes, children on aspirin therapy, health care workers with direct patient care, and those with direct contact with infants <6 months in age. Vaccine was available in Utah throughout the 2005–06 season.

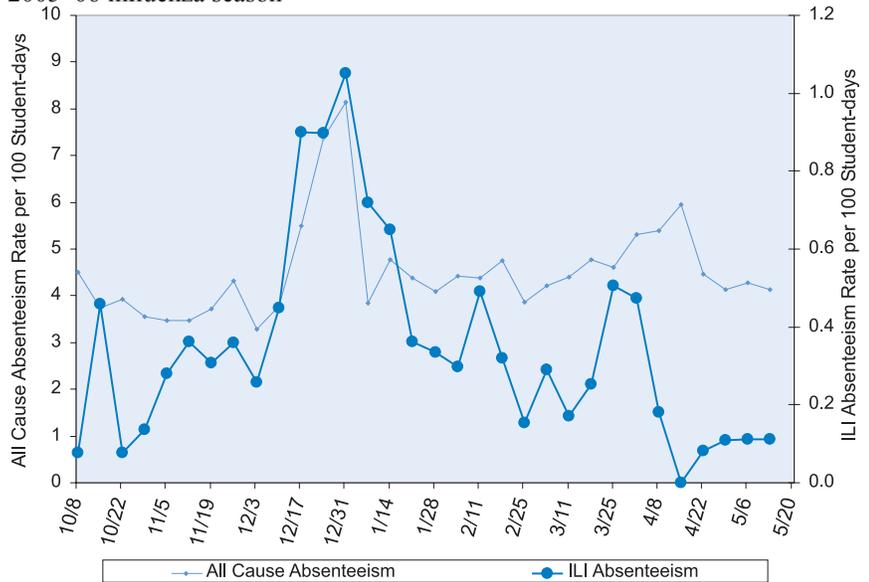
Influenza Virus Type by Age Group

Figure 3. Number of laboratory-confirmed, influenza-associated hospitalizations by influenza virus type and age group, Utah, 2005–06 influenza season



Student Absenteeism by Week

Figure 4. Rates for absences due to all causes and influenza-like illness, Utah, 2005–06 influenza season



July 2006 Utah Health Status Update

For additional information about this topic, contact Lisa Wyman, Bureau of Epidemiology, Utah Department of Health, P.O. Box 142104, Salt Lake City, UT 84114-2104, (801) 538-6191, FAX (801) 538-9923, email: lwyman@utah.gov; or the Office of Public Health Assessment, Utah Department of Health, P.O. Box 142101, Salt Lake City, UT 84114-2101, (801) 538-9947, FAX (801) 538-9346, email: phdata@utah.gov.

Breaking News, June 2006

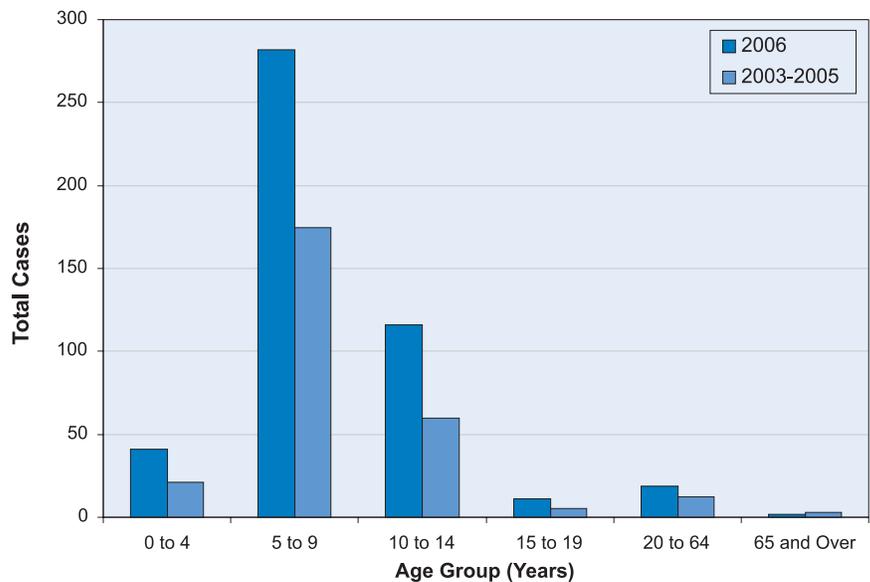
Chickenpox

Chickenpox is a highly contagious disease caused by the varicella-zoster virus. Many people think that chickenpox is a mild childhood illness that does not need to be prevented through vaccination. However, before the varicella vaccine was introduced in 1995, approximately 11,000 hospitalizations and over 100 deaths from chickenpox were reported each year in the United States. Serious health complications from chickenpox can include bacterial infections, pneumonia, bleeding problems, and infection of the brain (encephalitis).

In Utah, the highest case incidence occurs in children 5–9 years of age. This age group has accounted for 60% of all individual cases since the condition became reportable in 2003. As of June 1, 2006, 471 cases have been reported to the UDOH for all age groups. This is compared to an average of 276 cases for the same time period, 2003–2005. The largest increase has occurred in the 5- to 9-year-old age group. The reasons for this increase in cases are unclear, but may include an increase in awareness of reporting requirements or a true increase in the incidence of disease.

Studies have shown that the varicella vaccine is 85% effective in preventing disease. The Advisory Committee on Immunization Practices recommends routine varicella vaccination for all children at 12–18 months of age and catch-up vaccination for all susceptible children older than 19 months of age. Also, healthy adolescents and adults without a reliable history of having chickenpox should receive the varicella vaccine.

Total Reported Chickenpox Cases, Utah, January–June 2006 and Average of January–June, 2003–2005

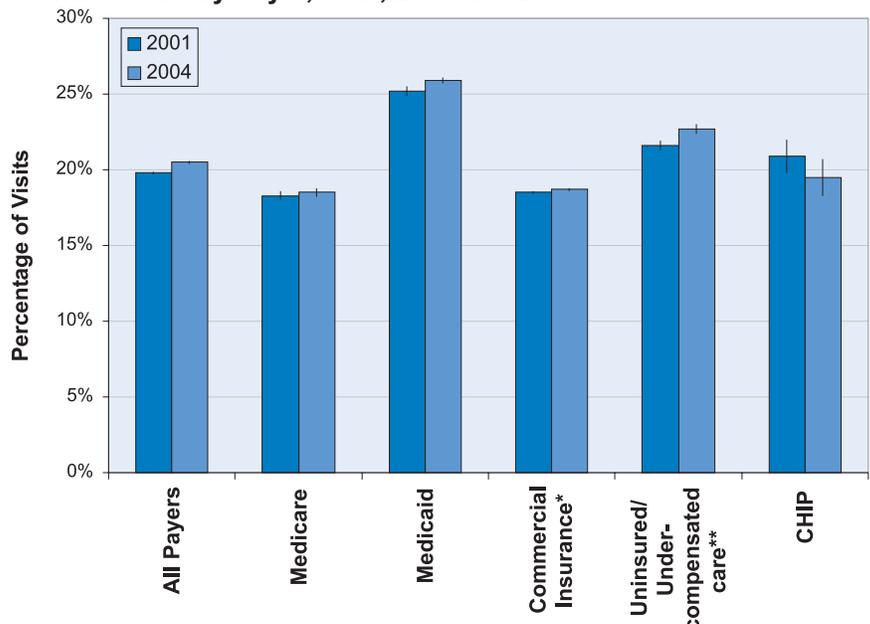


Community Health Indicators Spotlight, June 2006

Non-emergent ED Use

Emergency Department (ED) visits for non-emergent conditions are an indicator for accessibility of primary and preventive care in a community. The figure shows, for all payers and for five payers or payer types, the percentage of visits that were for non-emergent care. An algorithm created by New York University was applied to the Utah ED encounter database. From 2001 to 2004, the percentage of ED visits that were for non-emergent care (all payers) increased from 19.8% to 20.5%. The increases are also observed among Medicaid enrollees (25.2% vs. 25.9%) and patients who were self pay, received charity care, or unclassified/unknown (21.6% vs. 22.7%). The ED utilization patterns for Medicare, commercially-insured, and Children's Health Insurance Program did not change significantly.

Percentage of ED Visits That Were for Non-emergent Care by Patient's Primary Payer, Utah, 2001 and 2004



*Commercial insurance category includes Blue Cross/Blue Shield, other commercial, and managed care.
 **Uninsured/under-compensated care category includes self pay, charity care/unclassified, and unknown.

Monthly Health Indicators Report

(Data Through May 2006)

Monthly Report of Notifiable Diseases, May 2006	Current Month # Cases	Current Month # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
Campylobacteriosis (Campylobacter)	20	21	79	88	0.9
Enterotoxigenic Escherichia coli (E. coli)	5	4	12	15	0.8
Hepatitis A (infectious hepatitis)	3	3	8	19	0.4
Hepatitis B (serum hepatitis)	1	3	10	17	0.6
Measles (Rubeola, Hard Measles)	0	0	0	0	--
Meningococcal Diseases	0	1	3	4	0.8
Norovirus	5	0*	5	6*	0.9
Pertussis (Whooping Cough)	104	15	443	61	7.3
Salmonellosis (Salmonella)	33	36	107	95	1.1
Shigellosis (Shigella)	9	4	21	19	1.1
Varicella (Chickenpox)	100	55*	485	293*	1.7
Viral Meningitis	23	4	72	26	2.8
West Nile (Human cases/Equine cases)	0 / 0	0 / 0	0 / 0	0 / 0	-- / --
Notifiable Diseases Reported Quarterly, 1st Qtr 2006	Current Quarter # Cases	Current Quarter # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
HIV	11	14	11	14	0.8
AIDS	10	13	10	13	0.8
Chlamydia	1,125	618	1,125	617	1.8
Gonorrhea	213	72	213	72	3.0
Tuberculosis	6	6	6	6	1.0
Program Enrollment for the Month of May 2006	Current Month	Previous Month	% Change^s From Previous Month	1 Year Ago	% Change^s From 1 Year Ago
Medicaid	176,737	176,927	-0.1%	178,680	-1.1%
PCN (Primary Care Network)	15,647	15,653	0.0%	19,999	-21.8%
CHIP (Children's Health Ins. Plan)	35,514	35,483	+0.1%	29,646	+19.8%

Medicaid Expenditures (in Millions) for the Month of May 2006	Current Month	Expected/Budgeted for Month	Fiscal YTD	Budgeted Fiscal YTD	Variance - over (under) budget
Capitated Mental Health	\$ 7.8	\$ 8.4	\$ 98.0	\$ 89.7	\$ 8.4
Inpatient Hospital	\$ 10.6	\$ 15.7	\$ 153.4	\$ 160.4	(\$ 6.9)
Outpatient Hospital	\$ 5.9	\$ 5.8	\$ 63.0	\$ 58.8	\$ 4.1
Long Term Care	\$ 15.6	\$ 13.7	\$ 154.9	\$ 150.0	\$ 4.9
Pharmacy	\$ 16.5	\$ 14.5	\$ 168.8	\$ 186.1	(\$ 17.3)
Physician/Osteo Services	\$ 9.8	\$ 5.6	\$ 62.6	\$ 56.8	\$ 5.8
TOTAL HCF MEDICAID	\$ 124.2	\$ 120.5	\$ 1,311.1	\$ 1,304.2	\$ 6.9
Health Care System Measures	Number of Events	Percentage of Utah Population	% Change^s From Previous Year	Total Charges in Millions	% Change^s From Previous Year
Overall Hospitalizations (2004)	266,195	10.1%	-0.3%	\$ 3,225.0	+11.1%
Non-maternity Hospitalizations (2004)	160,302	5.9%	0.0%	\$ 2,692.5	+12.0%
Emergency Department Encounters (2004)	627,078	24.2%	-4.2%	\$ 456.6	+14.7%
Outpatient Surgery (2004)	303,123	11.7%	+6.0%	\$ 845.3	+15.6%
Annual Community Health Measures	Current Data Year	Population at Risk	Number Affected	Percent/Rate	% Change^s From Previous Year
Overweight and Obesity (Adults 18+)	2005	1,740,474	942,900	54.2%	-3.9%
Cigarette Smoking (Adults 18+)	2005	1,740,474	200,600	11.5%	+9.7%
Influenza Immunization (Adults 65+)	2005	212,582	148,300	69.7%	-7.6%
Health Insurance Coverage (Uninsured)	2005	2,528,926	292,800	11.6%	+13.5%
Motor Vehicle Crash Injury Deaths	2004	2,469,230	299	12.1 / 100,000	+4.3%
Suicide Deaths	2004	2,469,230	378	15.3 / 100,000	+10.1%
Diabetes Prevalence	2005	2,528,926	104,200	4.1%	+8.7%
Coronary Heart Disease Deaths	2004	2,469,230	1,603	64.9 / 100,000	-8.1%
All Cancer Deaths	2004	2,469,230	2,442	98.9 / 100,000	-2.0%
Births to Adolescents (Ages 15-17)	2004	57,505	857	14.9 / 1,000	-6.9%
Early Prenatal Care	2004	50,653	39,509	78.0%	0.0%
Infant Mortality	2004	50,653	263	5.2 / 1,000	+4.0%
Childhood Immunization (4:3:1:3:3)	2004	48,619	34,700	71.3%	-9.5%

* Due to limited historical data, the average is based upon 3 years of data for norovirus and varicella infections.
^s % Change could be due to random variation
 Note: Active surveillance has ended for influenza until the 2006 season.