

Utah Health Status Update:

Immunizations Across the Lifespan

December 2007

Utah Department of Health

Childhood Vaccination

The National Immunization Survey (NIS) is conducted each year by the Centers for Disease Control and Prevention to provide a consistent data set for evaluation of vaccination efforts at the state level and selected urban/regional areas. Two phases of data collection are used to obtain vaccination information: a random-digit-dialing survey designed to identify households with children 19–35 months of age, followed by the NIS Provider Record Check survey, which obtains provider-reported vaccination histories for these children. These counts are then compared with the number of currently recommended vaccine doses to determine whether the child is up-to-date. The current recommendation for childhood up-to-date status, commonly referred to as the 4:3:1:3:3:1 series includes: 4 doses Diphtheria/Tetanus/Pertussis (DTaP), 3 doses of Polio, 1 dose of Measle/Mumps/Rubella (MMR), 3 doses of Haemophilus influenzae type-B (Hib), 3 doses of Hepatitis B (Hep B), and 1 dose of Varicella vaccine.

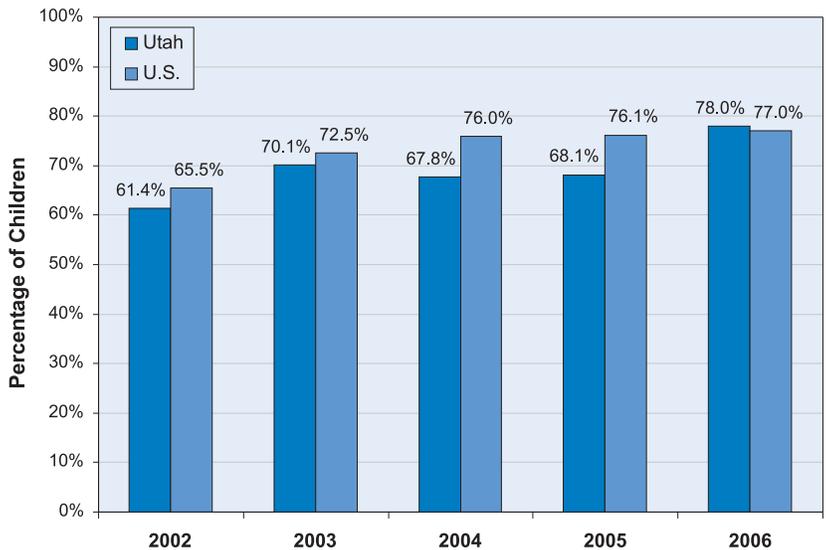
For the first time since the NIS began tracking the full 4:3:1:3:3:1 series, Utah's immunization up-to-date status exceeded the nation's immunization level. Utah's state ranking also improved from 41st in 2005 to 20th in 2006 (68.1% to 78.0%). When looking at completion of individual antigen series for 2006, Utah's immunization percentage ranged from 84.4% for 4 DTaP to 92.4% for 1 MMR. Improvements were seen for all of the series except Hep B. The last five years of 4:3:1:3:3:1 series data for Utah and the U.S. can be found in Figure 1.

Influenza, Pneumonia, and Zoster Vaccines

Each year in the U.S. 5%–20% of the population gets influenza (flu).¹ Between 2002 and 2006 there was an average of 6,893 hospitalizations in Utah for flu or pneumonia (a common complication of flu).² There were 330 deaths in Utah due to flu and pneumonia in 2005.³ Children 6 months to 5 years of age, pregnant women, people age 50 and older, and people who live in nursing homes or other

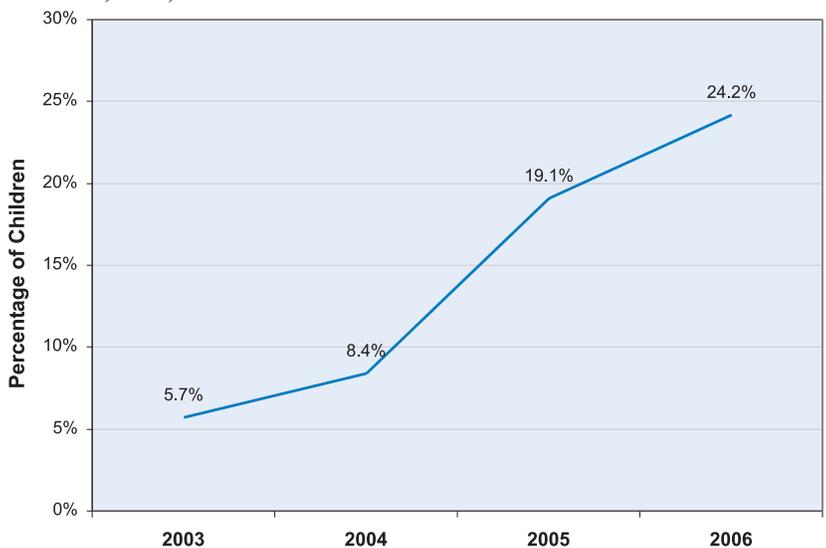
Up-to-date at Age 2

Figure 1. Percentage of children who were up-to-date at age 2 for the 4:3:1:3:3:1 series, Utah and U.S., 2002–2006



Flu Vaccination for Children 6–23 Months

Figure 2. Percentage of children aged 6–23 months who were vaccinated for influenza, Utah, 2003–2006



long-term care facilities are at increased risk for flu complications. The Advisory Committee on Immunization Practices (ACIP) recommends, however, that all persons including school-aged children receive flu vaccinations to reduce the likelihood of getting the flu and to reduce the likelihood of transmitting flu to others.

Flu season typically begins in October or November and can last through May. Based on the past 24 seasons, flu incidence peaks most often in

February, but vaccine can be given throughout the flu season. The ACIP recommends that children from age 6 months to 8 years receive 2 doses of flu vaccine if they have not been immunized for flu previously. The 2006 NIS indicated that only 24.2% of children 6–23 months old were fully immunized against the flu (Figure 2).

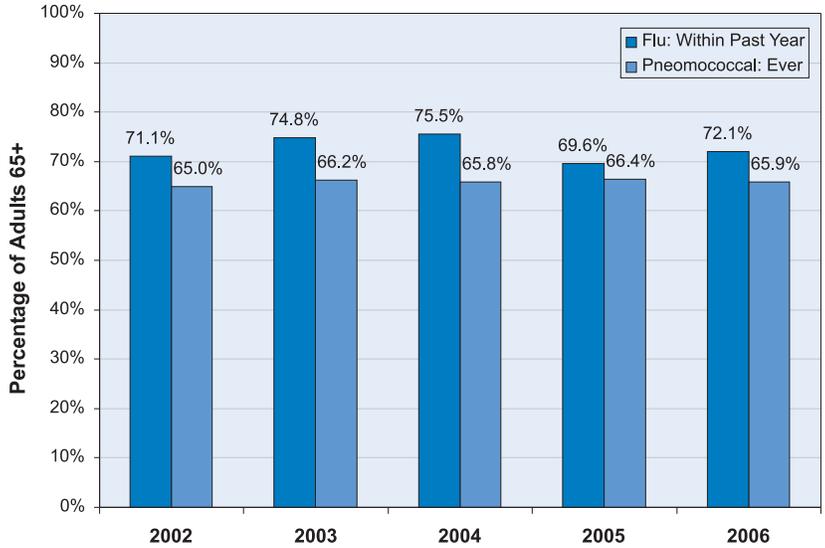
Flu immunization percentages are better for older populations and have been fairly stable over the past five seasons. Influenza and pneumococcal vaccination data are collected and analyzed for non-institutionalized adults >18 years through the Behavioral Risk Factor Surveillance System (BRFSS), a random-digit-dialed telephone survey. The BRFSS evaluates coverage rates in states/territories and compares them to the national average. Typically, rates for persons age 65 years and over are the primary reporting category. According to the BRFSS, 72.1% of Utah adults 65 and older received a flu shot in 2006 (Figure 3).

One of the more serious complications of flu is pneumococcal disease. The most common form of serious pneumococcal disease among adults is pneumonia. It is recommended that adults age 65 and older receive pneumococcal vaccine at least once in their lifetime. If adults received pneumococcal vaccine prior to age 65, they may need a booster dose. According to the BRFSS 65.9% of Utah adults age 65 or older reported receiving a pneumococcal vaccine at some point in their lifetime (Figure 3).

Another common infection among adult populations that is now vaccine-preventable is herpes zoster, or shingles. There are an estimated 500,000–1,000,000 cases of shingles each year in the U.S.⁴ Shingles is the result of a latent varicella (chicken pox) infection and can cause debilitating symptoms such as rash, blisters, extreme pain, fever, chills, headache, and upset stomach. Anyone who has been infected with chicken pox can develop shingles, but it is more common among adults 50 and older. In May 2006 a new vaccine, Zostavax™, was licensed to prevent shingles and reduce the resulting symptoms. Clinical trials demonstrated that shingles was prevented in 51% of the participants and nerve pain was reduced in 67% of participants.¹ Shingles vaccine is recommended by the ACIP for adults 60 years and older.

Adults Aged 65+

Figure 3. Pneumonia deaths and hospitalizations per 100,000 population by month, Utah, 2005–2006



References:

- Centers for Disease Control and Prevention, www.cdc.gov/flu/keyfacts.htm
- IBIS-PH, Utah's Inpatient Hospital Discharge Query Module
- Utah's Vital Statistics, Mortality by Cause, Sex, Age and Autopsy Residents: Utah, 2005
- Vaccine Preventable Disease Surveillance Manual 3rd Edition, 2002

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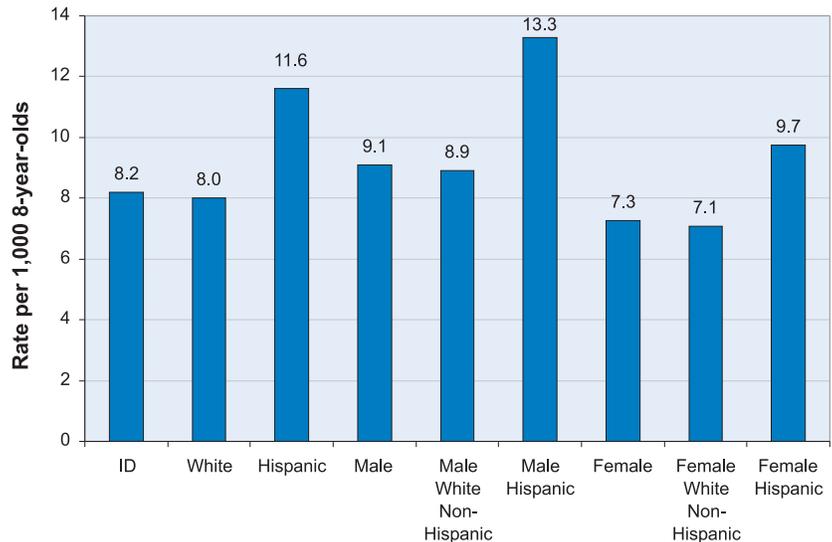
Breaking News, November 2007

The Prevalence of Intellectual Disability Among Utah Children

The Utah Registry of Autism and Developmental Disabilities, in collaboration with the Centers for Disease Control and Prevention (CDC) and the Autism and Developmental Disabilities Monitoring Network, recently finalized a three year study to identify the rates of intellectual disability (ID) among children in Utah. According to the CDC, intellectual disability is defined both by a significantly below-average score on a test of intelligence and by limitations in the ability to function in areas of daily life. Intellectual disability is sometimes referred to as cognitive disability or mental retardation. Children with intellectual disability require special education and treatment services. The CDC estimated the average lifetime cost for one individual to be \$1,014,000 (MMWR 2004; 53:57-9).

This Utah study consisted of record reviews of nearly 5,000 children who were eight years old and residing in Salt Lake, Davis, and Utah counties during 2002. In this study, intellectual disability was defined as an IQ of 70 or below on the most recent cognitive test available. Preliminary results indicate a risk of intellectual disability in Utah children to be 8 per 1,000 eight-year-olds (1 in 122). These Utah rates are lower than the rates estimated in a similar study conducted in Atlanta. In 2000, the prevalence was reported to be 12 per 1,000 eight-year-olds (MMWR 2006; 55:1-9). According to Arc of the United States, as many as 3 out of every 100 people in the country have mental retardation or intellectual disability (The Arc, 2001). For more information, contact Judith Pinborough Zimmerman, Ph.D., at judith.zimmerman@hsc.utah.edu or (801) 585-7576.

Intellectual Disability Prevalence, Utah 8-year-olds in Salt Lake, Davis, and Utah Counties, 2002



Community Health Indicators Spotlight, November 2007

HMO Satisfaction

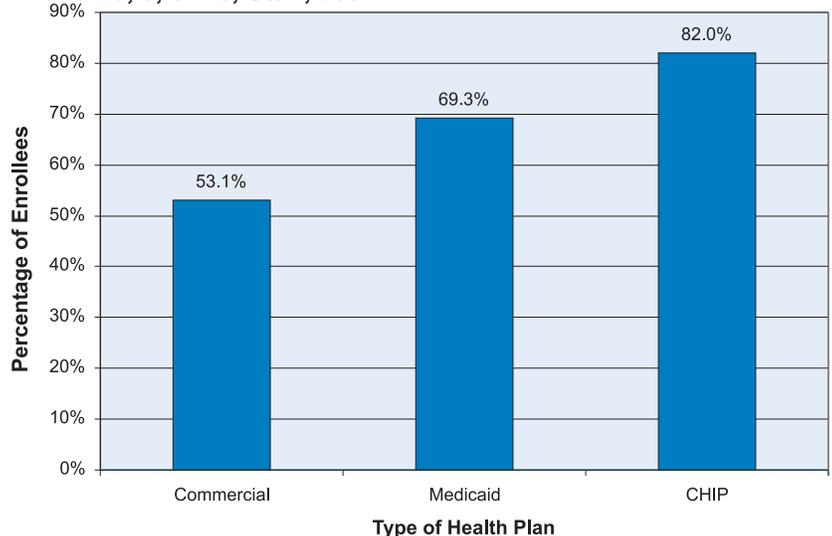
The Utah Health Data Committee has conducted surveys to measure satisfaction with HMO care and service since 1996. The Consumer Assessment of Healthcare Providers and Systems (CAHPS) measures satisfaction with different services, such as HMO customer service, getting needed care, getting care quickly, how well doctors communicate, helpfulness of office staff, and overall ratings of the HMO.

One item on the survey is about the overall satisfaction with the enrollee's health plan. Enrollees rated their health plan on a 10-point scale, where 0 is the lowest rating, and 10 being the highest rating. The data in this update represents the enrollees that scored their health plan with an 8, 9, or 10.

The enrollees in CHIP gave significantly more positive ratings to their health plan, than did those enrollees belonging to either the Medicaid or the commercial plans.

Enrollees in commercial plans were the least satisfied with their health plans. When enrollees were asked why they rated their health plans less than an 8, commercial enrollees were focused on the cost of their healthcare, while CHIP and Medicaid enrollees were focused on their benefits.

Percentage of Enrollees Who Rated Their Health Plan With an 8, 9, or 10, Utah, 2007



Monthly Health Indicators Report

(Data Through October 2007)

Monthly Report of Notifiable Diseases, October 2007	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)	31	27	290	251	1.2
Enterotoxigenic Escherichia coli (E. coli)	20	11	128	89	1.4
Hepatitis A (infectious hepatitis)	1	3	8	29	0.3
Hepatitis B (serum hepatitis)	3	4	13	34	0.4
Influenza [†]	Weekly updates at http://health.utah.gov/epi/diseases/flu				
Measles (Rubeola, Hard Measles)	0	0	0	0	--
Meningococcal Diseases	0	0	11	6	1.9
Norovirus	1	0*	17	13*	1.3
Pertussis (Whooping Cough)	74	35	360	310	1.2
Salmonellosis (Salmonella)	42	26	266	235	1.1
Shigellosis (Shigella)	9	8	33	43	0.8
Varicella (Chickenpox)	73	60*	666	520*	1.3
Viral Meningitis	21	25	122	148	0.8

Notifiable Diseases Reported Quarterly, 3rd Qtr 2007	Current Quarter # Cases	Current Quarter # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
HIV	21	21	65	62	1.0
AIDS	9	14	29	34	0.8
Chlamydia	1,353	1,101	4,030	2,951	1.4
Gonorrhea	187	153	599	414	1.4
Tuberculosis	6	10	28	26	1.1

Program Enrollment for the Month of October 2007	Current Month	Previous Month	% Change ^s From Previous Month	1 Year Ago	% Change ^s From 1 Year Ago
Medicaid	158,696	157,481	+0.8%	165,357	-4.0%
PCN (Primary Care Network)	19,882	19,049	+4.4%	17,372	+14.4%
CHIP (Children's Health Ins. Plan)	29,158	28,142	+3.6%	35,270	-17.3%

Medicaid Expenditures (in Millions) for the Month of October 2007	Current Month	Expected/Budgeted for Month	Fiscal YTD	Budgeted Fiscal YTD	Variance - over (under) budget
Capitated Mental Health	\$ 8.1	\$ 9.0	\$ 33.2	\$ 27.0	\$ 6.2
Inpatient Hospital	\$ 14.1	\$ 16.3	\$ 55.1	\$ 58.4	(\$ 3.3)
Outpatient Hospital	\$ 7.1	\$ 6.7	\$ 23.5	\$ 24.4	(\$ 0.9)
Long Term Care	\$ 15.8	\$ 16.5	\$ 59.3	\$ 63.0	(\$ 3.7)
Pharmacy	\$ 12.6	\$ 10.5	\$ 42.6	\$ 44.6	(\$ 2.0)
Physician/Osteo Services	\$ 5.7	\$ 5.5	\$ 17.5	\$ 19.5	(\$ 2.1)
TOTAL HCF MEDICAID	\$ 126.4	\$ 123.5	\$ 425.8	\$ 445.2	(\$ 19.4)

Health Care System Measures	Number of Events	Rate per 100 Population	% Change ^s From Previous Year	Total Charges in Millions	% Change ^s From Previous Year
Overall Hospitalizations (2006)	272,404	9.9%	-0.9%	\$ 3,874.8	+10.7%
Non-maternity Hospitalizations (2006)	161,398	5.7%	-2.5%	\$ 3,235.3	+11.0%
Emergency Department Encounters (2005)	664,523	25.0%	+3.5%	\$ 553.2	+21.2%
Outpatient Surgery (2005)	308,300	11.7%	-0.5%	\$ 947.7	+12.1%

Annual Community Health Measures	Current Data Year	Population at Risk	Number Affected	Percent/Rate	% Change ^s From Previous Year
Overweight and Obesity (Adults 18+)	2006	1,777,802	976,000	54.9%	+1.3%
Cigarette Smoking (Adults 18+)	2006	1,777,802	174,200	9.8%	-15.0%
Influenza Immunization (Adults 65+)	2006	217,313	156,700	72.1%	+3.4%
Health Insurance Coverage (Uninsured)	2006	2,582,371	306,500	11.9%	+2.5%
Motor Vehicle Crash Injury Deaths	2006	2,582,371	296	11.5 / 100,000	-0.7%
Suicide Deaths	2006	2,582,371	357	13.8 / 100,000	+1.6%
Diabetes Prevalence	2006	2,582,371	105,600	4.1%	-0.7%
Coronary Heart Disease Deaths	2006	2,582,371	1,563	60.5 / 100,000	-2.3%
All Cancer Deaths	2006	2,582,371	2,600	100.7 / 100,000	+1.4%
Births to Adolescents (Ages 15-17)	2006	58,992	981	16.6 / 1,000	+5.9%
Early Prenatal Care	2006	53,475	42,237	79.0%	+0.3%
Infant Mortality	2006	53,475	269	5.0 / 1,000	+12.2%
Childhood Immunization (4:3:1:3:3)	2006	51,016	41,000	80.4%	+8.5%

* Due to limited historical data, the average is based upon 3 years of data for norovirus, varicella, and 4 years of data for West Nile virus infections.

† Active influenza surveillance has started for the 2007-2008 season in Utah. Activity remains low. As of November 29, 2007, 13 influenza-associated hospitalizations have been reported for the current season. More information can be found at <http://health.utah.gov/epi/diseases/flu>.

§ % Change could be due to random variation.

Note: Active surveillance has ended for influenza until the 2007 season.