

Definition: Percentage of children aged 19-35 months who received the recommended vaccines (4 doses of DTaP, 3 polio, 1 MMR, 3 Hib, 3 hepatitis B)

Healthy People 2010 Objective 14-24a: Fully immunized young children - Children 19 to 35 months

- U.S. Target for 2010: 80%
- State-specific Target: 90%

Why Is It Important?

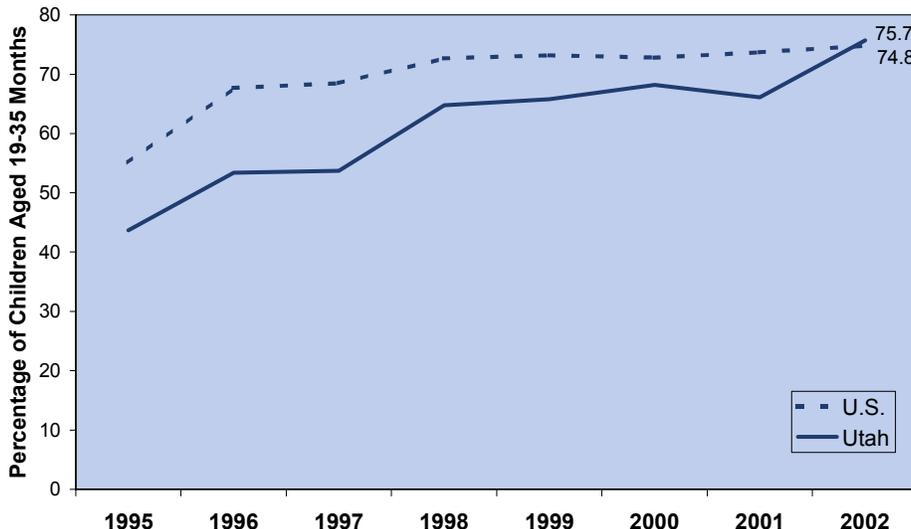
Immunization is the most cost-effective health prevention measure. Vaccination was cited by the U.S. Public Health Service as one of the Ten Great Public Health Achievements in the 20th Century.¹⁵ Vaccines play an essential role in reducing and eliminating disease. By two years of age, it is recommended that all children should have received 4 doses of diphtheria-tetanus-pertussis (DTP), 3 doses of polio, 1 dose of measles-mumps-rubella (MMR), 3 doses of Hepatitis B, and 3 doses of Haemophilis Influenza, type B (Hib) vaccines. This recommendation is referred to in shorthand as “4:3:1:3:3.”

Risk Factors for Lack of Adequate, On Time Childhood Immunization

Children who receive all their vaccinations from the same provider tend to be more up-to-date than others because that provider is able to review the complete immunization record and remind the parent when vaccinations are due. Because children often receive their immunizations from multiple providers, Utah has implemented a Statewide Immunization Information System (USIIS) that stores immunization records for Utah youngsters and reminds parents when vaccinations are due, so that providers don't have to.

4:3:1:3:3 Ranking, 2002	Percent
Massachusetts	86.2%
Rhode Island	84.5%
New Hampshire	83.5%
North Carolina	82.4%
Connecticut	81.9%
Michigan	81.6%
Vermont	80.9%
Maine	80.7%
Georgia	80.4%
Wisconsin	80.3%
South Dakota	79.9%
South Carolina	78.8%
Delaware	78.7%
Hawaii	78.7%
Iowa	78.7%
Maryland	78.7%
Illinois	78.6%
Nebraska	78.2%
Tennessee	78.2%
North Dakota	77.7%
New York	77.5%
West Virginia	76.9%
Alabama	76.8%
Minnesota	76.8%
Nevada	76.4%
New Jersey	76.1%
Indiana	76.0%
Mississippi	75.7%
Utah	75.7%
Alaska	75.3%
Ohio	75.0%
Pennsylvania	74.7%
Florida	74.5%
Wyoming	73.3%
California	73.2%
Missouri	73.0%
Kentucky	72.3%
Virginia	72.0%
Arkansas	71.0%
Oregon	70.0%
Idaho	69.4%
Washington	69.2%
Arizona	67.9%
Texas	67.9%
Kansas	66.8%
Louisiana	66.8%
Montana	66.6%
Oklahoma	65.3%
New Mexico	64.6%
Colorado	62.7%

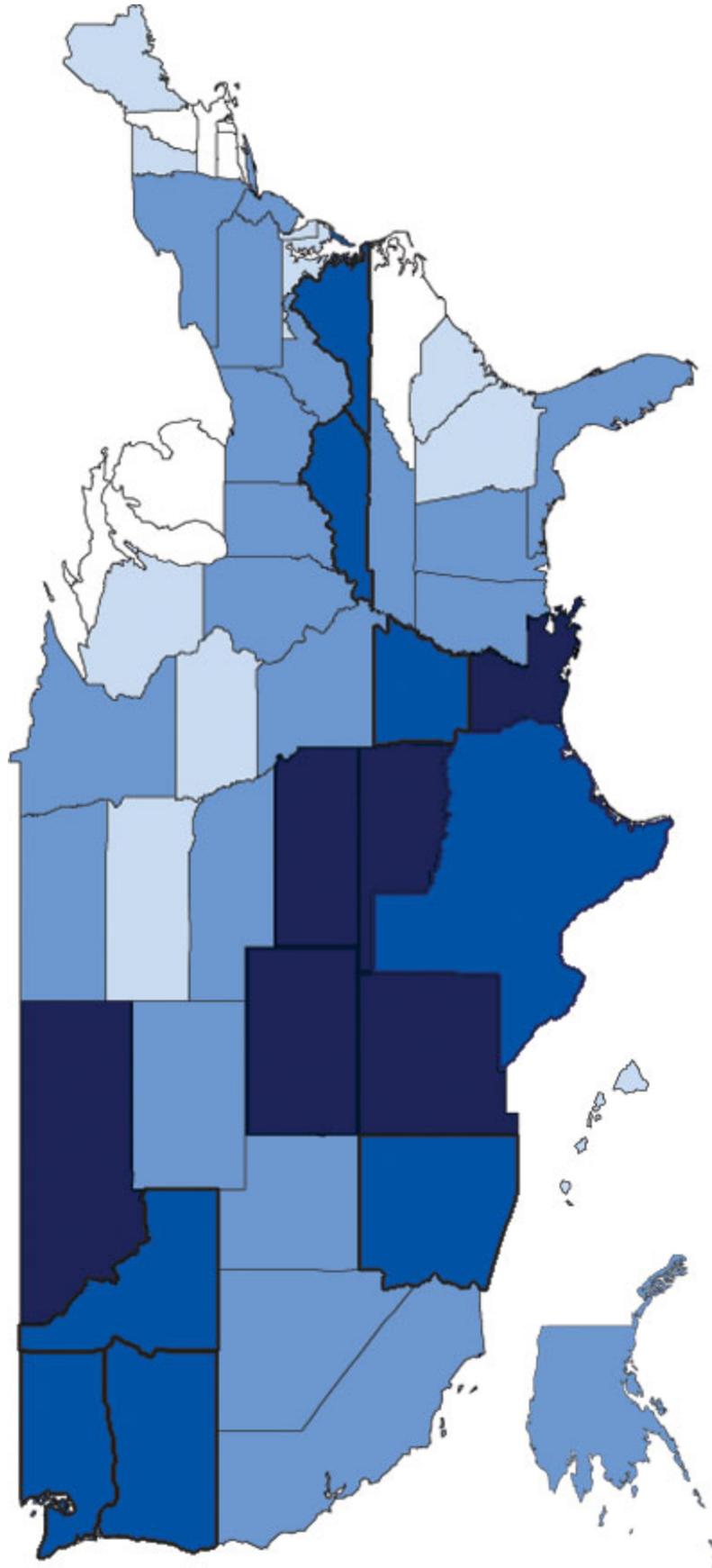
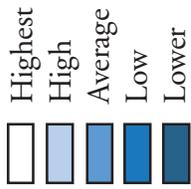
Estimated Vaccine Coverage With 4:3:1:3:3 Among Children 19-35 Months, Utah and U.S., 1995-2002



Source: National Immunization Survey, National Center for Health Statistics, U.S. Centers for Disease Control and Prevention

Childhood Immunization 4:3:1:3:3

Percentage of Children Aged 19-35
Months Receiving 4:3:1:3:3 by State,
United States, 2002



Source: National Immunization Survey, National Center for Health Statistics, U.S. Centers for Disease Control and Prevention

Childhood Immunization 4:3:1:3:3 by State United States Children Ages 19-35 Months, 2002

Rank	Area of Residence	Child Population (Ages 19-35 Months)*	Percentage of Children Ages 19-35 Months Receiving 4:3:1:3:3		
			Number of Children Ages 19-35 Months	Crude Rates	
				95% Confidence Interval	Lower
	U.S. Total	5,373,261	4,019,199	74.8% (73.8% - 75.8%)	
23	Alabama	83,510	64,135	76.8% (71.5% - 82.1%)	
30	Alaska	13,348	10,051	75.3% (69.4% - 81.2%)	
43	Arizona	107,397	72,922	67.9% (63.2% - 72.6%)	
39	Arkansas	51,340	36,451	71.0% (64.9% - 77.1%)	
35	California	692,081	506,603	73.2% (69.4% - 77.0%)	
50	Colorado	83,286	52,220	62.7% (56.1% - 69.3%)	
5	Connecticut	62,174	50,920	81.9% (76.7% - 87.1%)	
13	Delaware	14,545	11,447	78.7% (73.2% - 84.2%)	
33	Florida	265,316	197,660	74.5% (69.8% - 79.2%)	
9	Georgia	167,261	134,478	80.4% (76.2% - 84.6%)	
13	Hawaii	21,865	17,208	78.7% (73.2% - 84.2%)	
41	Idaho	27,332	18,968	69.4% (63.5% - 75.3%)	
17	Illinois	245,674	193,100	78.6% (74.3% - 82.9%)	
27	Indiana	119,136	90,543	76.0% (71.0% - 81.0%)	
13	Iowa	53,108	41,796	78.7% (73.2% - 84.2%)	
45	Kansas	53,175	35,521	66.8% (59.9% - 73.7%)	
37	Kentucky	75,049	54,260	72.3% (65.9% - 78.7%)	
45	Louisiana	89,865	60,030	66.8% (61.2% - 72.4%)	
8	Maine	19,823	15,997	80.7% (75.6% - 85.8%)	
13	Maryland	98,583	77,585	78.7% (73.1% - 84.3%)	
1	Massachusetts	111,906	96,463	86.2% (82.4% - 90.0%)	
6	Michigan	189,432	154,577	81.6% (77.2% - 86.0%)	
23	Minnesota	92,563	71,089	76.8% (70.3% - 83.3%)	
28	Mississippi	57,832	43,779	75.7% (69.2% - 82.2%)	
36	Missouri	104,898	76,575	73.0% (66.5% - 79.5%)	
47	Montana	15,382	10,245	66.6% (59.8% - 73.4%)	
18	Nebraska	32,831	25,674	78.2% (72.6% - 83.8%)	
25	Nevada	40,709	31,102	76.4% (70.3% - 82.5%)	
3	New Hampshire	21,235	17,731	83.5% (78.5% - 88.5%)	
26	New Jersey	157,907	120,167	76.1% (70.7% - 81.5%)	
49	New Mexico	36,614	23,653	64.6% (57.9% - 71.3%)	
21	New York	345,781	267,980	77.5% (73.2% - 81.8%)	
4	North Carolina	152,129	125,354	82.4% (76.9% - 87.9%)	
20	North Dakota	11,174	8,682	77.7% (71.0% - 84.4%)	
31	Ohio	212,567	159,425	75.0% (70.5% - 79.5%)	
48	Oklahoma	67,572	44,125	65.3% (57.9% - 72.7%)	
40	Oregon	62,671	43,870	70.0% (64.1% - 75.9%)	
32	Pennsylvania	203,212	151,799	74.7% (69.2% - 80.2%)	
2	Rhode Island	18,115	15,307	84.5% (78.9% - 90.1%)	
12	South Carolina	74,540	58,738	78.8% (72.3% - 85.3%)	
11	South Dakota	14,235	11,374	79.9% (73.5% - 86.3%)	
18	Tennessee	105,689	82,649	78.2% (74.1% - 82.3%)	
43	Texas	456,855	310,205	67.9% (62.8% - 73.0%)	
28	Utah	59,297	44,888	75.7% (69.8% - 81.6%)	
7	Vermont	9,479	7,668	80.9% (76.2% - 85.6%)	
38	Virginia	129,804	93,459	72.0% (65.8% - 78.2%)	
42	Washington	111,699	77,296	69.2% (64.2% - 74.2%)	
22	West Virginia	28,477	21,899	76.9% (70.6% - 83.2%)	
10	Wisconsin	96,033	77,115	80.3% (76.0% - 84.6%)	
34	Wyoming	8,754	6,416	73.3% (66.9% - 79.7%)	

* Estimate based on U.S. 2000 Census data.

Source: National Immunization Survey, National Center for Health Statistics, U.S. Centers for Disease Control and Prevention

Adult Influenza Immunization

Definition: Percentage of noninstitutionalized adults aged 65+ who report receiving an influenza vaccination in the past 12 months.

Healthy People 2010 Objective 14-29a: Influenza and pneumococcal vaccination of high-risk adults - Noninstitutionalized adults -Influenza vaccine (age-adjusted, ages 65 years and older)

- U.S. Target for 2010: 90%
- State-specific Target: 90%

Why Is It Important?

Influenza is a significant disease in the U.S. with high morbidity and mortality causing an average of 110,000 hospitalizations and 20,000 deaths annually. In 1999 approximately 90 percent of all influenza and pneumonia-related deaths occurred in individuals aged 65 and older. Vaccination is the primary method of preventing influenza and its severe complications, particularly for the elderly. A study conducted by Govaert et al.¹⁶ demonstrated that the influenza vaccine decreased influenza infection by 50% in those over age 65. The cost-effectiveness of influenza vaccination has also been demonstrated in studies conducted in a variety of elderly populations-from nursing home patients to Medicare beneficiaries to individuals living independently in the community.

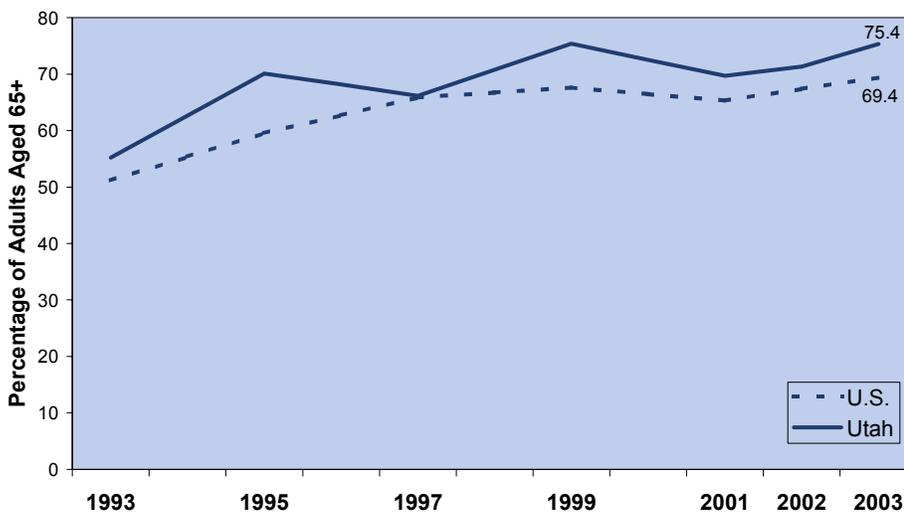
Risk Factors for Lack of Adult Influenza Immunization

Complications of influenza and pneumococcal disease are most common among high-risk groups of individuals, including those who have diabetes, chronic liver disease, chronic renal disease, chronic lung disease, or chronic cardiac disease/failure, have been organ transplant recipients, or are elderly.

Adult Influenza Immunization Ranking, 2001-2003	Percent*
Bear River	77.7%
Tooele	77.4%
Davis	73.7%
Weber-Morgan	72.9%
Salt Lake	72.5%
Summit	71.5%
Southwest	70.7%
Central	69.2%
TriCounty	69.1%
Utah	68.7%
Southeastern	64.8%
Wasatch	64.3%

* Age adjusted percentages.

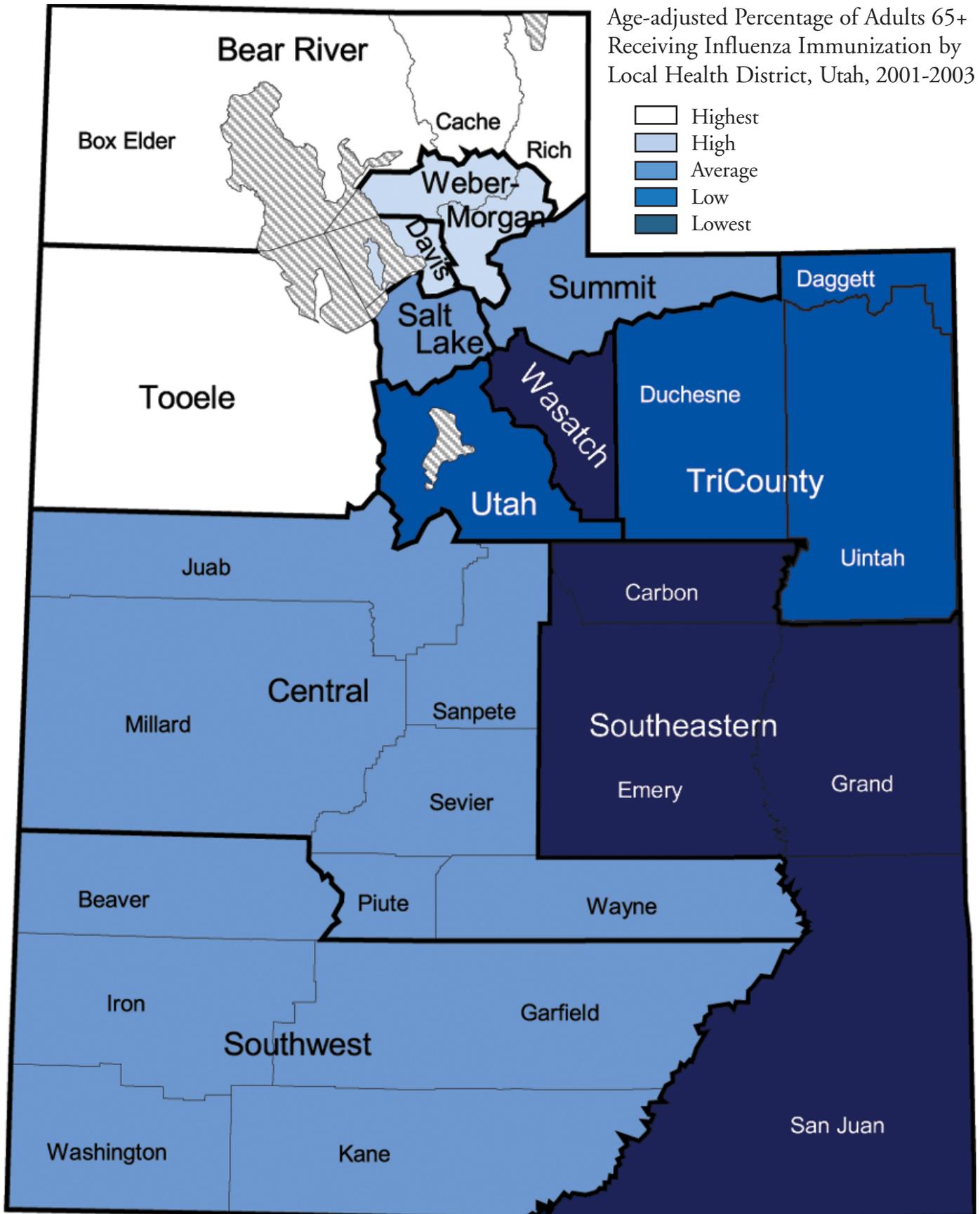
Percentage of Persons Aged 65+ Who Reported Receiving an Influenza Vaccination in the Past 12 Months, Utah and U.S., 1993-2003



Others at risk for complications not because of underlying disease, but because of underimmunization include: minorities, those with a low socioeconomic level, those with a low education level, those living in inner cities, those lacking medical services, and those with a misperception of risk and co-morbid disease.

Sources: Utah Data: Behavioral Risk Factor Surveillance System, Office of Public Health Assessment, Utah Department of Health; U.S. Data: National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (BRFSS)
 Note: Age adjusted to U.S. 2000 standard population. U.S. data are the average for all states and the District of Columbia; they do not include the U.S. territories.

Adult Influenza Immunization



Source: Behavioral Risk Factor Surveillance System

Adult Influenza Immunization

Adult Influenza Immunization by Local Health District Utah Adults Ages 65 and Over, 2001-2003

Rank	Area of Residence	Average Adult Population (Ages 65+)	Percentage of Adults Ages 65+ Who Reported Receiving a Flu Shot in the Past 12 Months			
			Average Annual Number of Adults 65+	Crude Rates	Age Adjusted Rates*	
					Lower	Upper
	State Total	196,256	140,107	71.4%	72.0%	(69.3% - 74.7%)
1	Bear River	11,508	9,040	78.6%	77.7%	(70.4% - 85.1%)
8	Central	8,029	5,375	66.9%	69.2%	(61.9% - 76.4%)
3	Davis	18,636	13,322	71.5%	73.7%	(64.7% - 82.7%)
5	Salt Lake	74,431	53,779	72.3%	72.5%	(67.6% - 77.4%)
11	Southeastern	6,070	3,963	65.3%	64.8%	(56.6% - 73.1%)
7	Southwest	21,461	14,925	69.5%	70.7%	(63.6% - 77.9%)
6	Summit	1,705	1,126	66.0%	71.5%	(60.9% - 82.2%)
2	Tooele	3,291	2,522	76.7%	77.4%	(68.1% - 86.8%)
9	TriCounty	4,214	2,874	68.2%	69.1%	(61.1% - 77.2%)
10	Utah	24,423	17,232	70.6%	68.7%	(60.1% - 77.2%)
12	Wasatch	1,406	859	61.1%	64.3%	(49.1% - 79.6%)
4	Weber-Morgan	21,083	14,996	71.1%	72.9%	(65.0% - 80.9%)

* Percentages have been age adjusted to the U.S. 2000 standard population.

Source: Utah Behavioral Risk Factor Surveillance System