

Immunization Coverage Report

State of Utah: 2010



Utah Department of Health
**IMMUNIZATION
PROGRAM**

Immunize for healthy lives

Immunization Coverage Report

State of Utah: 2010

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The *Immunization Coverage Report, State of Utah 2010*, supports the mission and goal of state and local immunization programs:

....to improve the health of Utah's citizens through vaccination to reduce illness, disability, and death from vaccine-preventable infections.

This annual *Immunization Coverage Report* provides an overview of immunization information about Utah residents across the lifespan. Particularly, the immunization coverage status for Utah children and adults is highlighted. Although the report is not comprehensive, it is an attempt to gather immunization data from multiple, pertinent sources and present them in a simple, concise format. Information is added and updated each year according to recommendations by various stakeholders at state and local levels. Such updates enable easy access to the most current immunization data and assist local immunization programs in evaluating coverage areas and identifying gaps in services.

An ongoing major focus of immunization coverage remains the infant and early childhood population. According to the 2009 National Immunization Survey (NIS), Utah ranked 28th in the nation for the number of two-year-olds who were fully immunized. The NIS measures the number of children 19-35 months of age who have completed the 4:3:1:4:3:1:4 (4 DTaP, 3 Polio, 1 MMR, 4 Hib, 3 Hepatitis B, 1 Varicella, and 4 Pneumococcal) series by 24 months of age. New to this NIS is the 4 pneumococcal requirement. Beginning this year the NIS will now only consider a child in compliance with Hib if they received 4 or more doses of any brand type of Hib, or 2 doses of Merck types followed by 1 dose of any type of Hib. Utah's current coverage rate of 41.2% lags behind the national rate of 44.3%. These rates indicate that much work remains to achieve the *Healthy People 2010* objective of 80% coverage level for two-year-olds. Because in the most recent survey, Utah rates were lower than previous years, the focus of work continues to identify areas of weakness where efforts can be concentrated to effect significant improvements.

Ongoing efforts to increase childhood immunization levels include a variety of interventions, such as: ensuring that health care providers have current information on immunization best practices; implementation of a coordination project with the Intermountain Pediatric Society; and enrolling diverse providers in the Utah Statewide Immunization Information System (USIIS). All these combined efforts can help ensure Utah's children are protected from vaccine-preventable infections now and in the future.

We value your opinion and welcome your feedback about this report.

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The 12 local health districts (LHDs) have been utilized in this report as the geographic boundaries of reporting service areas. Statewide information is also presented. For each service area, the information is divided into three broad categories: *Demographic and Socioeconomic Factors*; *Early Childhood Immunization*; and *Child and Adult Immunization*. There are detailed descriptions of data contained within each of these categories on the following introduction pages.

Although limited comments may follow a graph or chart, the detailed endnotes may be found in the *Reference Notes* listed on page 90. Explanatory footnotes are available on most pages and are intended to provide information pertaining to data sources, programs and limitations on data interpretation (e.g., across provider groups for CoCASA; Head Start reporting groups). Where applicable, county-specific information is presented.

This year's report contains a new appendices highlighting the Utah Immunization Program (UIP) evaluation project and includes updates on the National Immunization Report—teen data, new USIIS query data, and school validation report for kindergarten and 7th grade. Information appearing in these sections varies from that reported in the body of the report in that the data are not always reported by LHD's. When reviewing the disease trends of reportable diseases, it is important to remember that reporting varies among the different service areas.

Demographic information is vital to understanding the current health and socioeconomic situations of Utah residents. A factor, such as whether a family lives in a rural or urban area of the state, can have a significant impact on access to health care. The age distribution of a population will affect which immunizations and how many doses are required to adequately vaccinate that population.

Demographic information is provided for each of Utah's health districts pertaining to the following categories:

Population, Poverty Rate, Race/Ethnicity, and Health Insurance Status

The changing nature of Utah's population requires state immunization staff, public health officials, providers, and other public health workers to be increasingly familiar with the state's shifting demographic situation.

The health of a family is often affected by socioeconomic factors. Poverty can be an indirect contributor to disease and illness, including delayed immunizations. A clear understanding of socioeconomic factors is necessary to identify, analyze, and move forward with appropriate targeted goals for immunizations across the lifespan.

Race and ethnicity data are reported for the LHD. As seen in Appendix D, according to Utah Statewide Immunization Information System (USIIS) data there is some variability in immunization coverage based on race and ethnicity.

Insurance status has a profound effect on access to adequate health care across the lifespan. The 2007-2008 Utah Healthcare Access Survey³ showed that 11.7% of Utah residents (0-64) had no health insurance. Eligibility guidelines for families to qualify for Medicaid, Children's Health Insurance Program (CHIP), and Women, Infants and Children (WIC) assistance are based on federal poverty levels and age. Medicare eligibility is based on age.

The most current data available are included in this report. The year during which the data were taken for each demographic or socioeconomic factor does not always match across categories. Population data are from calendar year 2009. Medicaid data are from fiscal year 2009. Poverty Rate and Health Insurance Status data come from a pooling of 2007-2008 calendar years. The estimates are calculated by multiplying the 2009 population by the proportion in each category (*Poverty, Health Insurance Status*) for 2007-2008. Because these are estimates, the figures are rounded to the nearest 100 persons. Race and ethnicity data are for the 2008 calendar year.

The Advisory Committee on Immunization Practices (ACIP) at the Centers for Disease Control and Prevention (CDC) has established a standard of comparison for immunization status. Up-to-Date at age two (UTD) is the percentage of children age two years (24 months) who have received all doses of the recommended vaccines at the recommended age. This standard is used across the United States by state immunization programs and provider sites to evaluate their effectiveness in protecting patients from vaccine preventable diseases.

Coverage based on the National Immunization Survey (NIS) for children was reported differently in 2010 compared to previous years in large part due to the Haemophilus influenza type b (Hib) shortage. Because of the new presentation of data it is difficult to compare coverage levels of combination of vaccines (e.g. 4:3:1:3:3:1 series) to previous years. The new measures consider the type of Hib vaccine administered, the addition of 4 Pneumococcal doses, and in one case the removal of Hib from consideration entirely. Utah state-level data is compared to the national average, and rankings for individual vaccines are also reported to give the reader an idea of how well we stack up to other states for the traditional vaccines included in the NIS.

For each of the 12 service areas UTD data are presented based on the previous standards. The new standards were released to the public so close to the print date of this report and this approach maintains the continuity from previous reports. These data are reported for local health departments (LHD), private provider offices, and Federally Qualified Health Centers (FQHC). Health care provider data are provided for facilities where families might access primary health care, including immunizations.

Comprehensive Clinic Assessment Software Application (CoCASA): Private Providers and LHDs

The vaccine series used as a standard established by ACIP consists of 4 doses of Diphtheria, Tetanus, Pertussis (DTaP); 3 doses of Polio (IPV); 1 dose of Measles, Mumps, Rubella (MMR); 3 doses of Hib; 3 doses of Hepatitis B and 1 dose of Varicella vaccine. This series is typically written as **4:3:1:3:3:1**.

CoCASA, a computer software program, is used to assess immunization rates in provider offices. Only Vaccine for Children (VFC) providers are assessed. While CoCASA assessment procedures are standardized, all private providers may not be evaluated on an annual basis. Some private clinics are randomly selected for assessment while the remaining private clinics are selected because they were below a certain threshold compliance level. All LHDs are assessed annually.

LHDs may contain multiple counties within their service area. Some counties had very few patients and provided inadequate information for analysis. Consequently, coverage will be reported only by health district in this report.

Health Care Facilities and Personnel

The geographic distribution of health care providers (i.e., hospitals, community health center clinics, private providers) correlates strongly with families' ability to access and receive immunizations and primary health care in a medical home. Counts of VFC providers, public medical clinics, hospital long-term care facilities, and local health district offices are reported by LHD.

Specific coverage information relating to the CoCASA assessment is located on the *Early Childhood Immunization* pages. The first two charts (three charts if the service area had an assessment at a Federally Qualified Health Center (FQHC)) on these pages illustrate the type of up-to-date (UTD) statuses which include: *UTD at age two*; *Late UTD*; *UTD one more visit*; and *Too late for UTD*. Information on missed opportunities to vaccinate is also presented graphically. The second set of charts illustrates the number and type of USIIS providers and UTD status according to USIIS records.

Type of Immunization UTD Status

The Utah *UTD at age two* rate is below our goal, but progress in a few basic areas may increase childhood immunization coverage. There is a large segment of the population that is *Late UTD* and an even larger population that can be brought *UTD with one more visit*. It is hoped that future targeted efforts toward children who can be brought *UTD with one more visit* can protect many more children, decreasing the number who are *Late UTD*, and improve our statewide immunization rates at age two. *Late UTD* indicates that the child was immunized at the time of the assessment, but was not *UTD at age two*. *Too Late for UTD* does not indicate that the child can't receive immunizations, but that the child was not immunized by the assessment date and cannot be brought *UTD at age two*. These data come exclusively from CoCASA assessments and do not necessarily represent the entire population.

Utah Statewide Immunization Information System (USIIS)

USIIS records are vital in assisting parents and medical providers in monitoring and ensuring their children and patients are UTD on all immunizations. These electronic records help track patients as they move geographically, change insurance, or change their medical home. Reporting UTD status according to USIIS records consolidates the reports from local health departments, community health clinics, and various private providers.

For this report, USIIS UTD status was organized by geographical area according to ZIP code and is reported by service area. UTD percentages are for 2007-2009 and correspond with the same time frame as the National Immunization Survey (NIS). The data set includes all children in the database with at least two electronic immunization records. As of May 31, 2010, 66.1% of all Utah children under the age of six have at least two records in USIIS. Data limitations include the following factors: not all providers participate in USIIS, it is possible that even among USIIS providers not all vaccinations are entered; patient records may be incomplete; and patients may receive vaccinations in several different counties over the course of their record.

The “2010 Economic Report to the Governor” indicates that, nationally, Utah has the youngest population (median age 28.7) among the 50 states.* According to the Indicator-Based Information System for Public Health (IBIS-PH) in 2009, 9.6% of the total Utah population was 0-4 years of age and 21.2% of the total population was 5-17 years of age.

Exposure to groups of people of any age increases the risk of infectious disease. More than two-thirds of children younger than six years and nearly all children older than six years spend significant time in child care and school settings outside of the home. The Utah Immunization Rule for Students (R396-100) went into effect in 1975 to implement consistent requirements to protect children attending school.

School Entry (Kindergarten & 7th Grade) & Second Dose MMR (K – 12)

Required Kindergarten Entry Immunizations are: DTaP, Polio, MMR, Hepatitis B, Hepatitis A, and Varicella. Beginning May 2007, children entering 7th grade must have: Hepatitis B, Varicella and Tdap. Children grades K-12 are required to have two doses of MMR vaccine.

Utah statute requires that all schools report student immunization information to the Utah Immunization Program (UIP) by November 30. This report is sent electronically and, beginning in 2008, has been validated through audits conducted by the UIP (see *Appendix F*). By collaborative agreement with UDOH, school district immunization reports are provided to the Utah State Office of Education (USOE).

WIC, Child Care, and Head Start Enrollments/Coverage

Children attending child care facilities, preschools, and school settings have increased chances for exposure to illness. Required early childhood immunizations as of July 1, 2008 were: DTaP, Polio, MMR, Hib, Hepatitis B, Hepatitis A, pneumococcal (PCV7), and Varicella.

Child care facilities, preschools, and Head Start programs report immunization information in the same manner as school districts to the Utah State Office of Education (USOE). The number of clinics/facilities reported here include only those that submitted the electronic immunization reports.

The 12 Utah Head Start (HS) programs serve children through federal grants for Head Start, Early Head Start, Migrant Head Start, and American Indian Head Start. HS program areas do not correspond to LHD geographic service areas. Wasatch County HS data are reported in the Utah County Health District service area and Morgan County HS data are reported in the Davis County Health District service area.

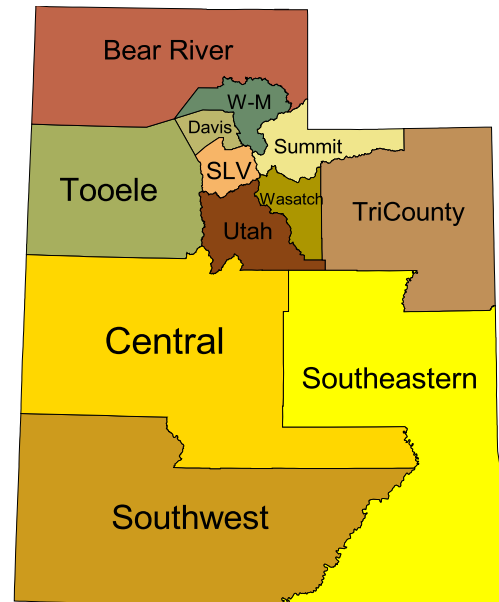
WIC clinics provide unique opportunities among high risk populations to educate families about recommended vaccines. Therefore, facility and enrollment figures are reported.

Influenza and Pneumococcal

The incidence of childhood vaccine-preventable diseases has declined dramatically, but similar success among adults has not been achieved. Adults suffer the vast majority of vaccine-preventable disease in the U.S.

The 2009 Behavioral Risk Factor Surveillance System (BRFSS) survey results on influenza and pneumococcal immunization data have been included. *Appendix C* includes 2009 long-term care and assisted living facility immunization information.

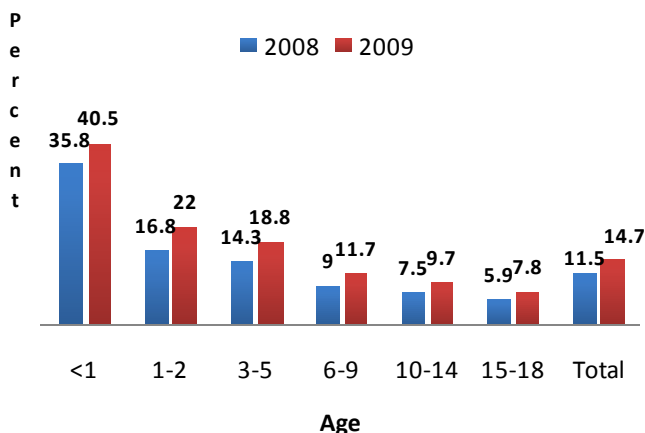
Population 2009 ¹	Number	% of Total
Total Population	2,800,089	
17 and Under	860,368	30.7%
18 to 34	791,916	28.3%
35 to 49	502,866	18.0%
50 to 64	391,345	14.0%
65 and Over	253,594	9.1%
Poverty	Estimated Number 2009 ¹	% of Total 2007-2008 ²
Total 0-100% Poverty	263,200	9.4%
17 and Under	105,000	12.2%
18 to 34	77,600	9.8%
35 to 49	40,700	8.1%
50 to 64	24,700	6.3%
65 and Over	12,400	4.9%
Total 101-200% Poverty	616,000	22.0%
17 and Under	235,700	27.4%
18 to 34	187,700	23.7%
35 to 49	103,100	20.5%
50 to 64	37,200	9.5%
65 and Over	45,900	18.1%



Population 2009 ¹	Number	% of Total
Total 0-18	905,764	
<1	54,310	6.0%
1-2	109,321	12.1%
3-5	156,309	17.3%
6-9	198,980	22.0%
10-14	217,695	24.0%
15-18	169,149	18.7%

Uninsured	Estimated Number 2009 ¹	% of Total 2007-2008 ³
Total Uninsured (0-64)	297,700	11.7%
17 and Under	75,300	8.8%
18 to 34	139,300	17.6%
35 to 49	56,700	11.3%
50 to 64	25,800	6.6%
Selected Insurance Type 2008 ⁴	Number	% of Total Insured
Medicare	298,400	12.0%
CHIP*	40,800	4.5%

Average Monthly Medicaid Eligible, 2008 & 2009⁵



*Children's Health Insurance Program, Ages 0 to 18

State CoCasa: Up-to-Date at Age Two by Antigen 2009⁶

	4 DTaP	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3:1	95% Confidence Interval
All Providers	62.5%	82.3%	80.1%	80.3%	80.9%	77.9%	53.9%	53.1%, 54.7%

Up-to-Date at Age Two (4:3:1:3:3:1)⁶

Provider Type	2009		2008
	Point Estimate	95% Confidence Interval	95% Confidence Interval
Private VFC Providers	50.9%	49.8%, 52.0%	47.8%, 51.5%
FQHC/RHC	49.3%	45.0%, 53.6%	26.0%, 44.1%
Local Health Departments	58.3%	57.1%, 59.5%	63.5%, 67.9%

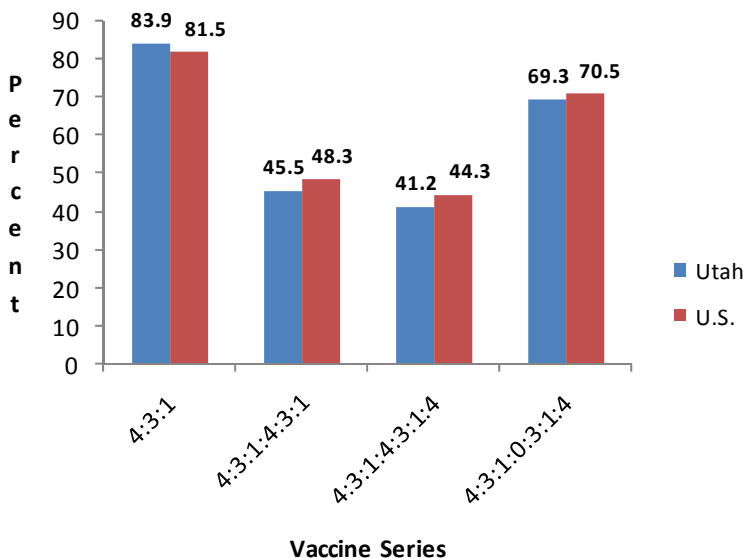
Health Care 2009

Providers/Facilities	Number
Private VFC Providers ⁶	240
Public Medical Clinics ⁶	96
Hospitals ⁷	66
Long-term Care and Assisted Living Centers ⁸	282
Local Health District Offices ⁶	39

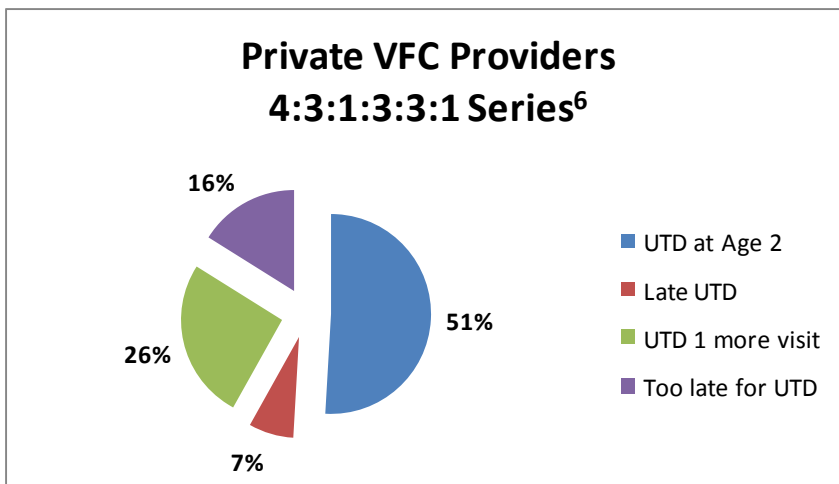
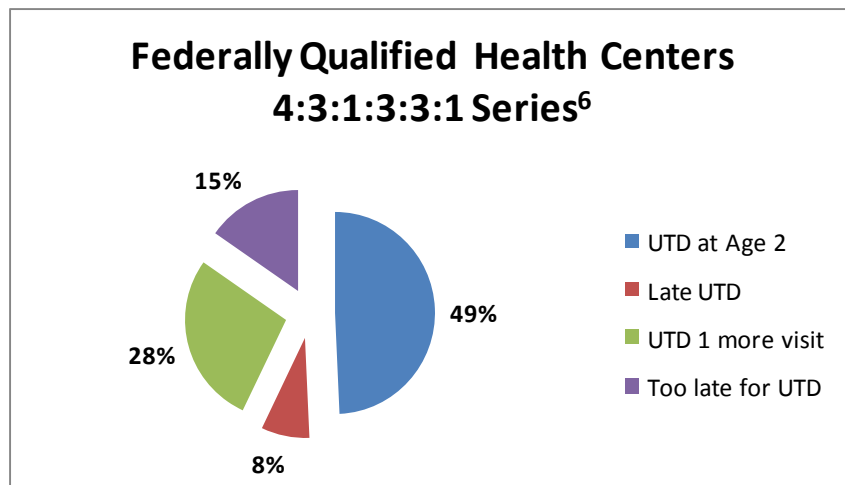
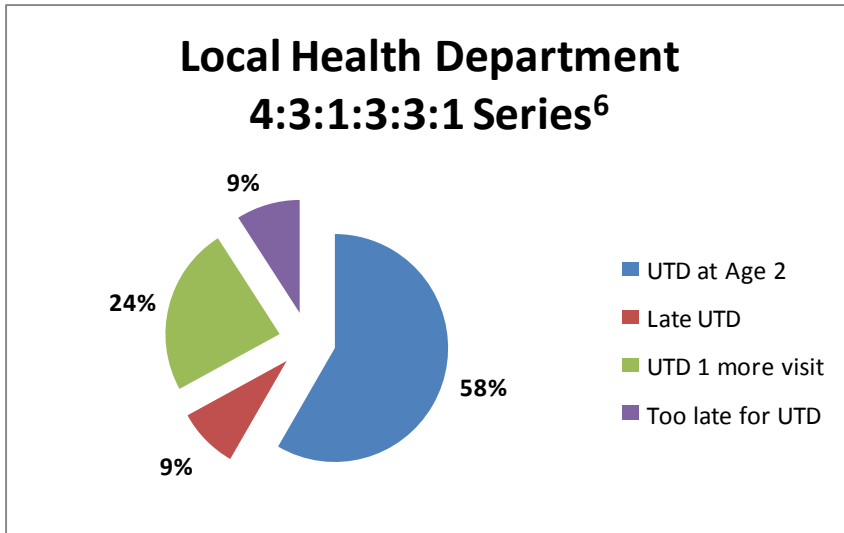
Utah NIS Rank⁹

Vaccine	Utah 2010	Utah 2009
4 DTaP	14	30
3 Polio	40	47
1 MMR	19	35
4 Hib	25	NA
3 Hep B	35	40
1 Varicella	41	10
4 Pneumo	35	37
4:3:1	12	NA
4:3:1:4:3:1	26	NA
4:3:1:4:3:1:4	28	NA
4:3:1:0:3:1:4	30	NA

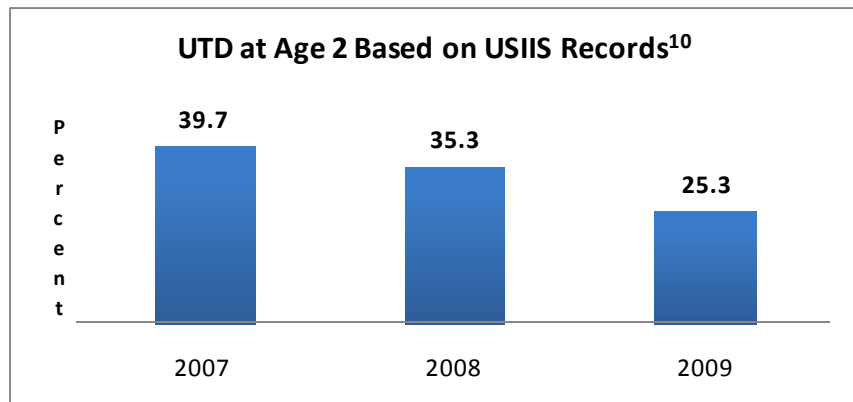
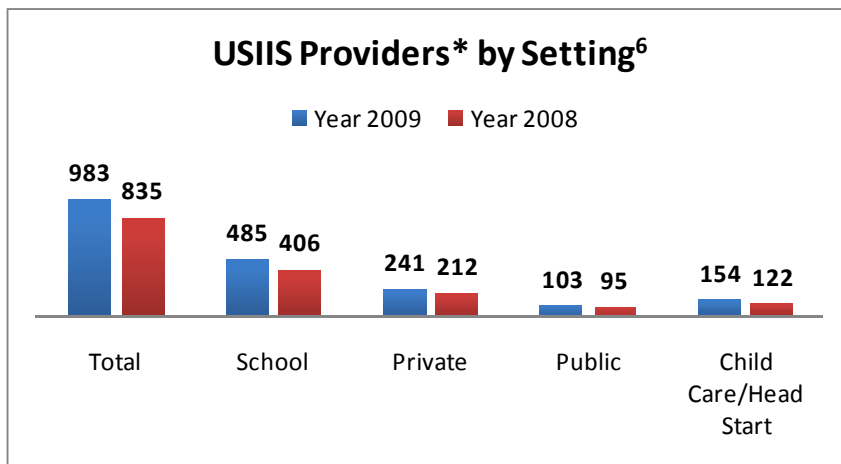
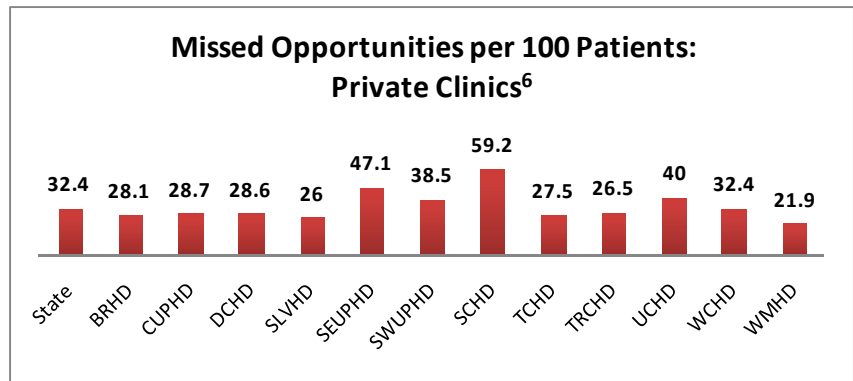
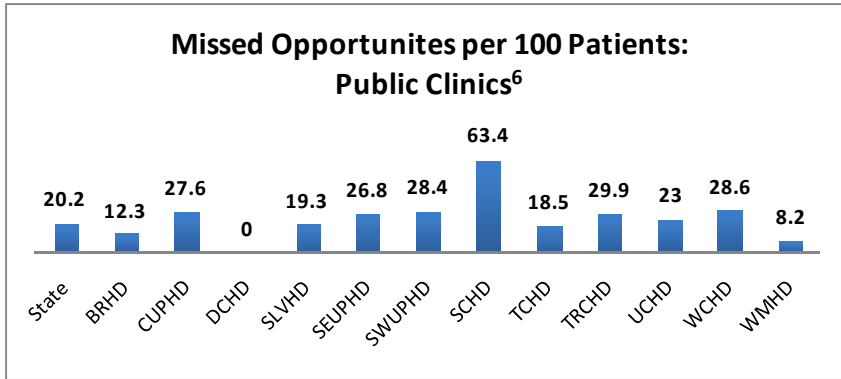
NIS⁹ Coverage Status 2010



Due to the recent Hib shortage and introduction of a new vaccine, Pneumococcal, we are presenting a new baseline for vaccine series. The 4:3:1 series includes 4 DTaP, 3 Polio, and 1 MMR. The 4:3:1:4:3:1 includes the 4:3:1 series plus 3/4 Hib based on brand, 3 Hep B, and 1 Varicella. The 4:3:1:4:3:1:4 series includes all from 4:3:1:4:3:1 plus 4 pneumococcal. The 4:3:1:0:3:1:4 series is the same as the previous but without Hib.



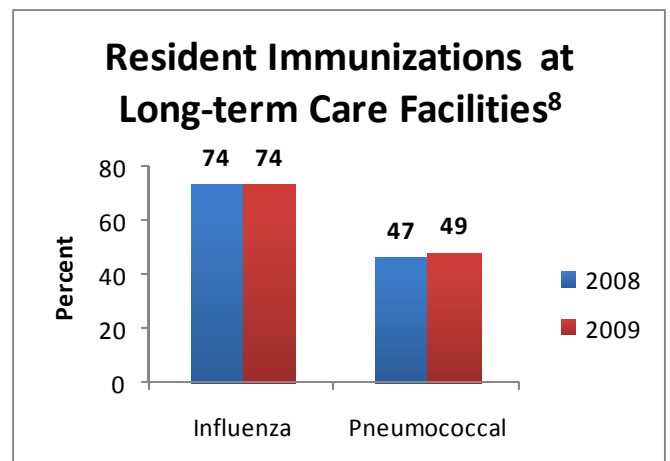
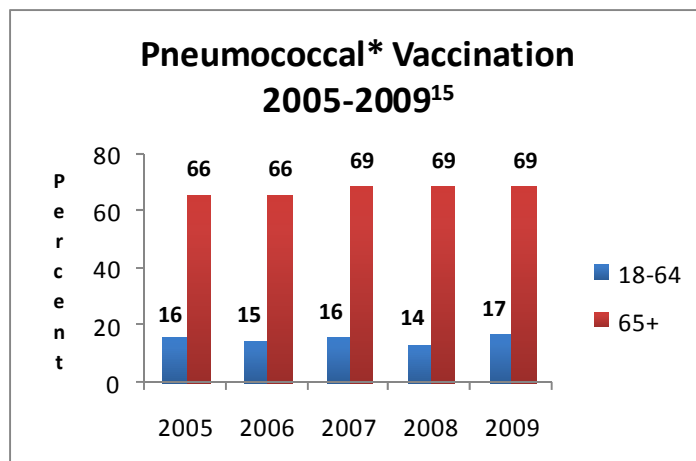
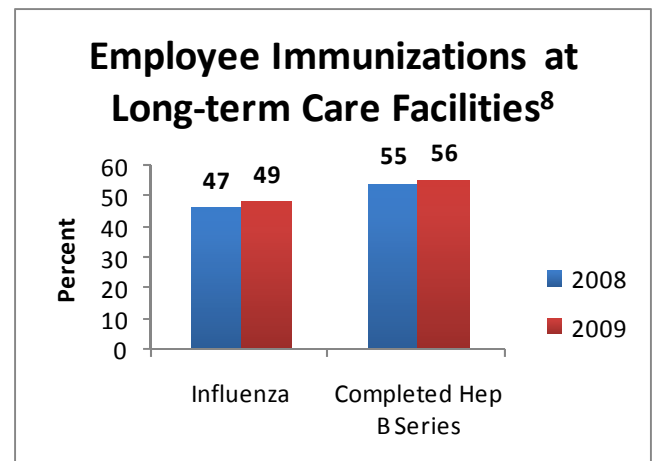
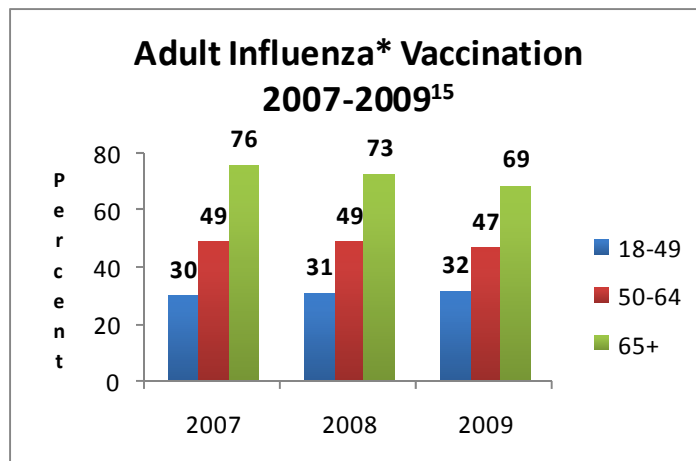
*Providers as of 12/31/09



*Providers as of 12/31/09

Child and School Health 2009			
Child and School Health	Clinics/ Facilities	Enrollment	
WIC Women ¹¹	48	18,974	
WIC Infants ¹¹	48	18,545	
WIC Children ¹¹	48	36,309	
Child Care ¹²	184	12,686	
Head Start ¹³	63	5,460	
Public/Charter Schools ¹⁴	978	545,597	
Private Schools ¹⁴	143	12,906	

Immunized for School 2009 ⁶		
	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	90.9%	1.6%
Head Start Centers	93.0%	1.5%
Kindergarten School Entry	87.9%	3.3%
Second-Dose Measles (K-12)	96.5%	2.8%
7th Grade Entry	91.5%	3.8%



*Influenza=within past 12 months, pneumococcal=ever had

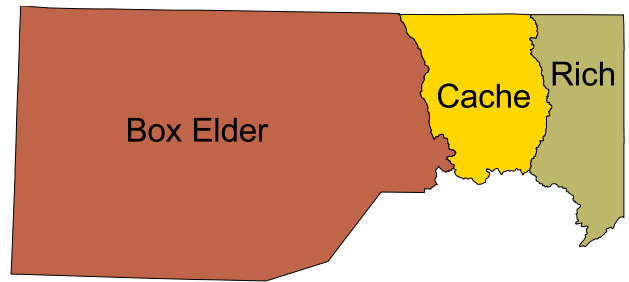
#Influenza is for all employees and completed Hep B is for employees with direct patient care

Bear River Demographic and Socioeconomic Factors

BRHD
2010

Population 2009 ¹	Number	% of Total
Total Population	166,026	
17 and Under	52,923	31.9%
18 to 34	53,144	32.0%
35 to 49	24,983	15.0%
50 to 64	20,487	12.3%
65 and Over	14,489	8.7%

Poverty	Estimated Number 2009 ¹	% of Total 2007-2008 ²
Total 0-100% Poverty	14,400	8.7%*
17 and Under	4,000	7.5%*
18 to 34	6,300	11.8%*
35 to 49	3,100	12.4%*
50 to 64	600	3.0%*
65 and Over	**	**
Total 101-200% Poverty	44,200	26.5%
17 and Under	18,400	34.8%
18 to 34	15,300	28.8%
35 to 49	5,600	22.4%
50 to 64	1,100	5.4%*
65 and Over	3,200	22.0%



Population 2009 ¹	Number	% of Total
Total 0-18	55,858	
<1	3,468	6.2%
1-2	6,753	12.1%
3-5	10,101	18.1%
6-9	12,406	22.2%
10-14	13,062	23.4%
15-18	10,068	18.0%

Population 2009 ¹	Number	% of Total
Box Elder	49,421	29.8%
Cache	114,276	68.8%
Rich	2,329	1.4%

Race/Ethnicity ¹	2000	2004	2008
White	97.00%	96.84%	96.66%
Black	0.35%	0.47%	0.61%
American Indian/Alaska Native	0.71%	0.75%	0.79%
Asian	1.79%	1.77%	1.76%
Native Hawaiian & Other Pacific Islander	0.17%	0.18%	0.19%
Hispanic	6.35%	7.40%	8.68%

Uninsured	Estimated Number 2009 ¹	% of Total 2007-2008 ³
Total Uninsured (0-64)	16,800	11.1%
17 and Under	3,700	6.9%*
18 to 34	9,100	17.1%
35 to 49	2,600	10.2%
50 to 64	1,600	7.7%*

Selected Insurance Type 2008 ⁴	Number	% of Total
Medicare	15,500	10.2%
CHIP*	3,200	5.7%

*Children's Health Insurance Program, Ages 0 to 18

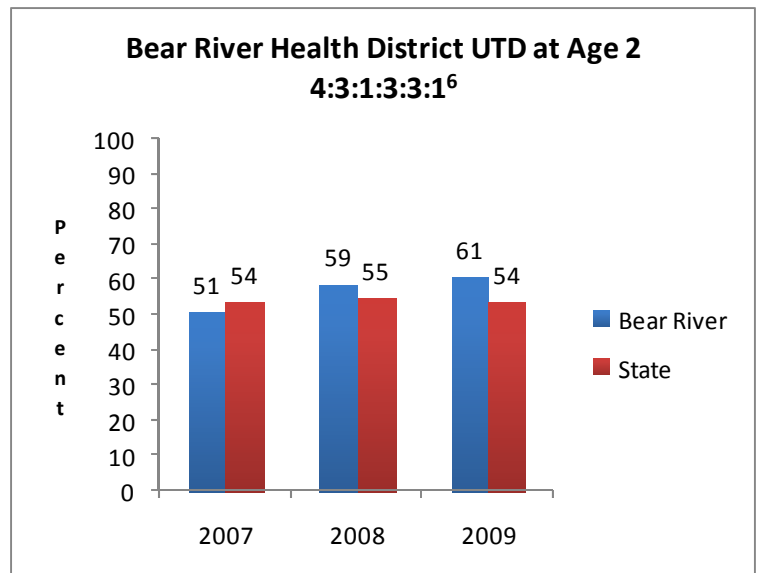
*Use caution in interpreting, the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability

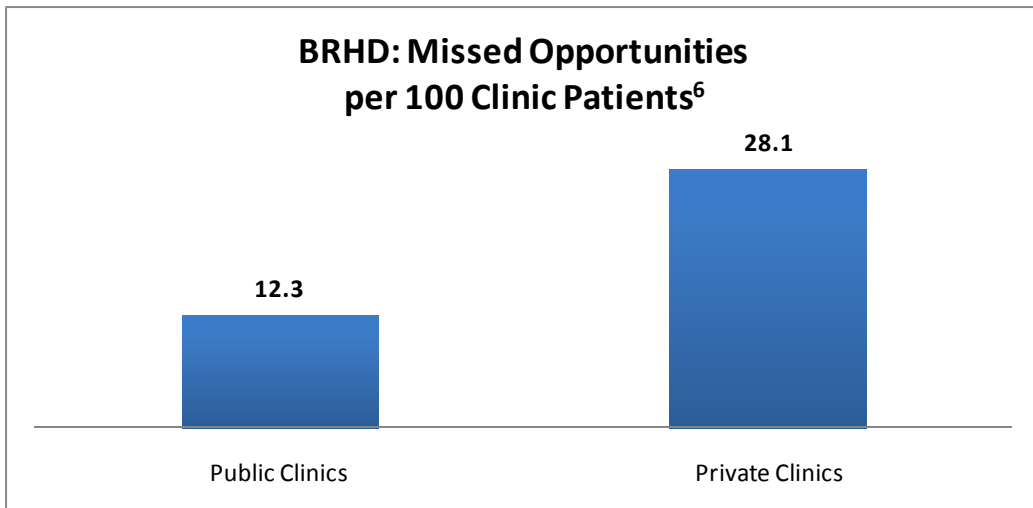
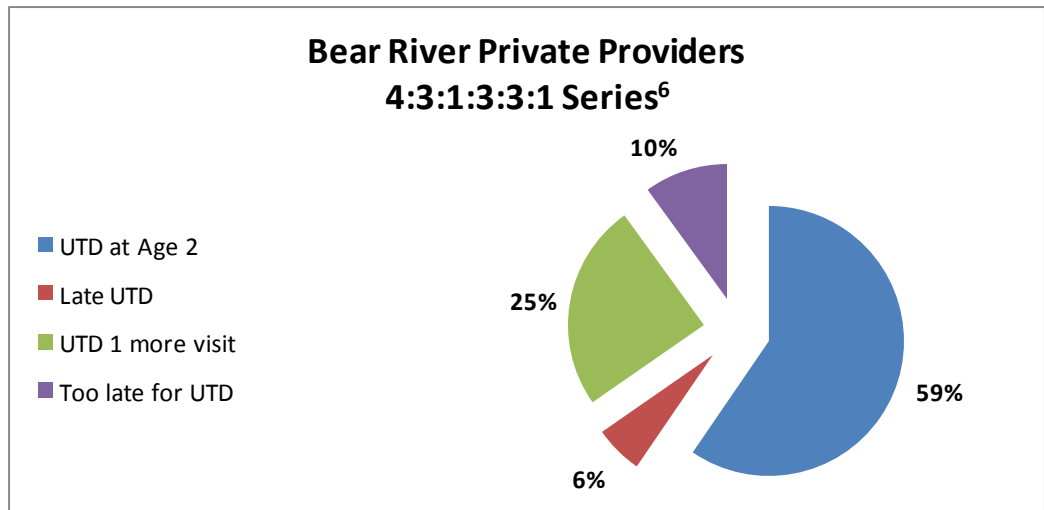
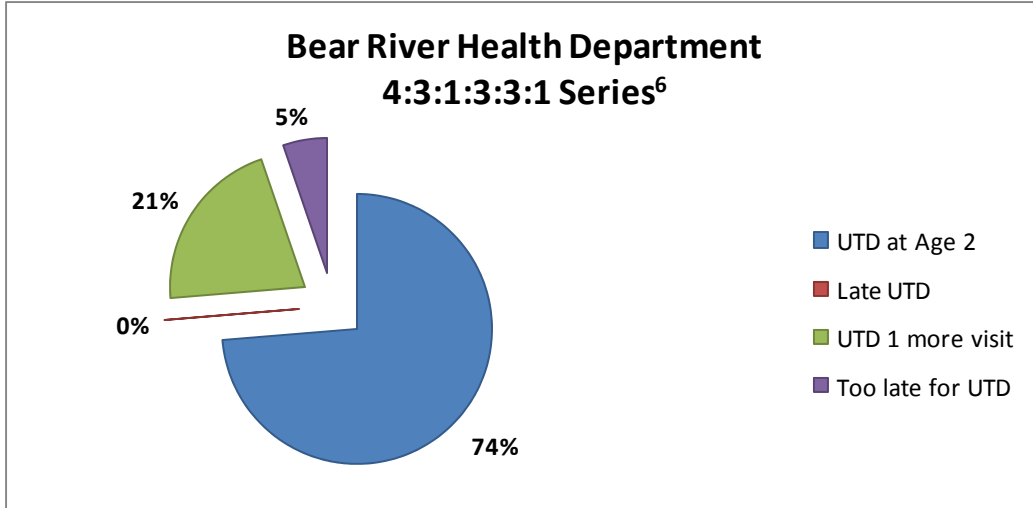
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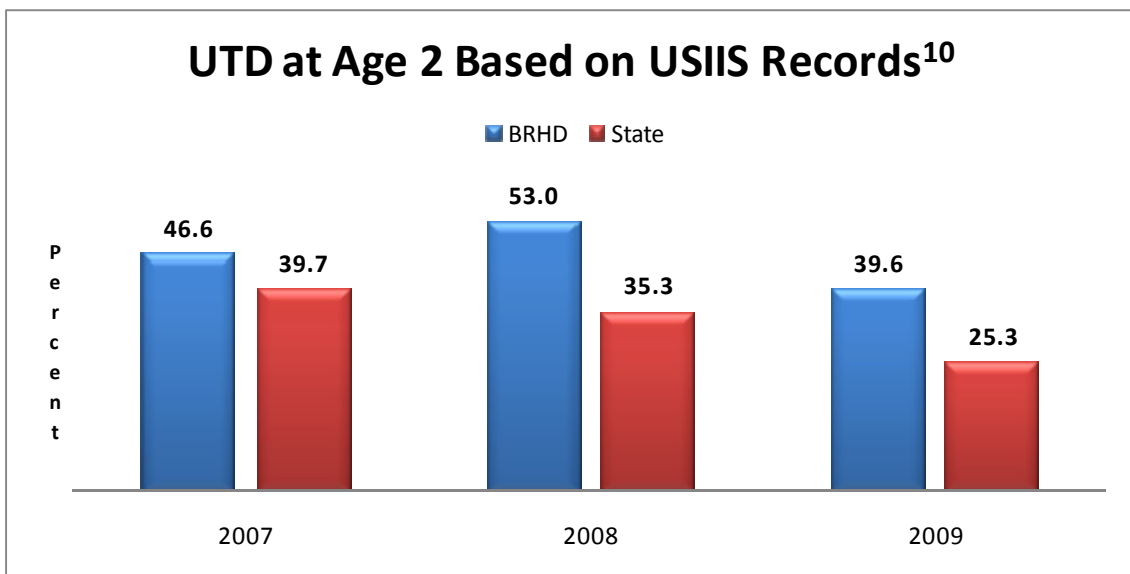
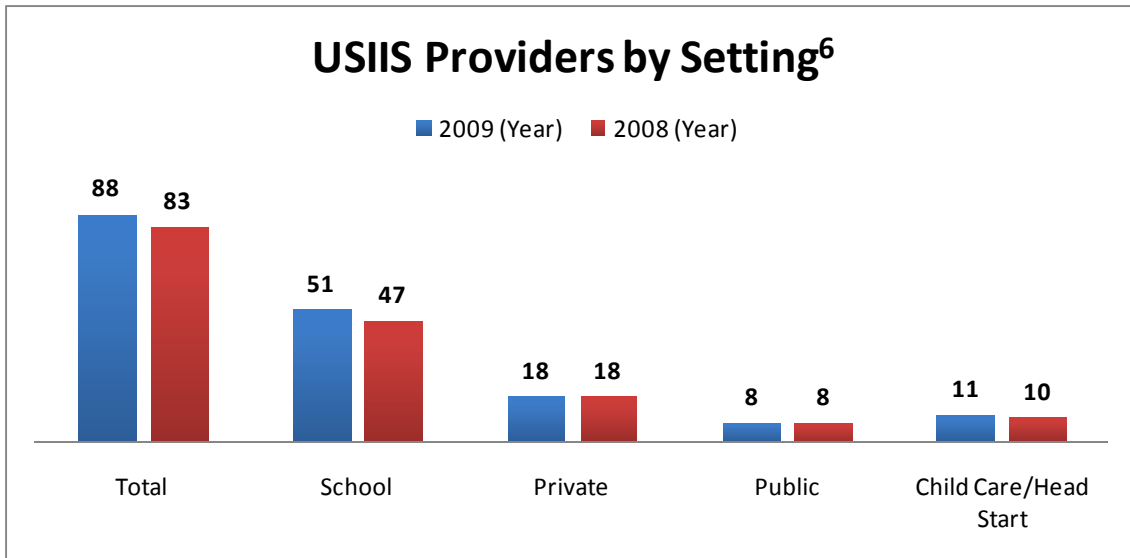
CoCASA: Up-to-Date at Age Two by Antigen 2009 ⁶								
	4 DTaP	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3:1	95% Confidence Interval
All Providers	70.5%	84.8%	88.2%	85.7%	83.5%	86.4%	61.0%	56.9%, 65.1%

Up-to-Date at Age Two (4:3:1:3:3:1) 2009 ⁶			
	2009		2008
Provider Type	Point Estimate	95% Confidence Interval	95% Confidence Interval
All VFC Private Providers	59.6%	55.2%, 64.0%	47.5%, 62.7%
FQHC/RHC	NA	NA	NA
Local Health Departments	73.7%	62.3%, 85.1%	65.1%, 96.1%

Health Care 2009	
Providers/Facilities	Number
Private VFC Providers ⁶	15
Public Medical Clinics ⁶	8
Hospitals ⁷	5
Long-term Care and Assisted Living Centers ⁸	17
Local Health District Offices ⁶	2





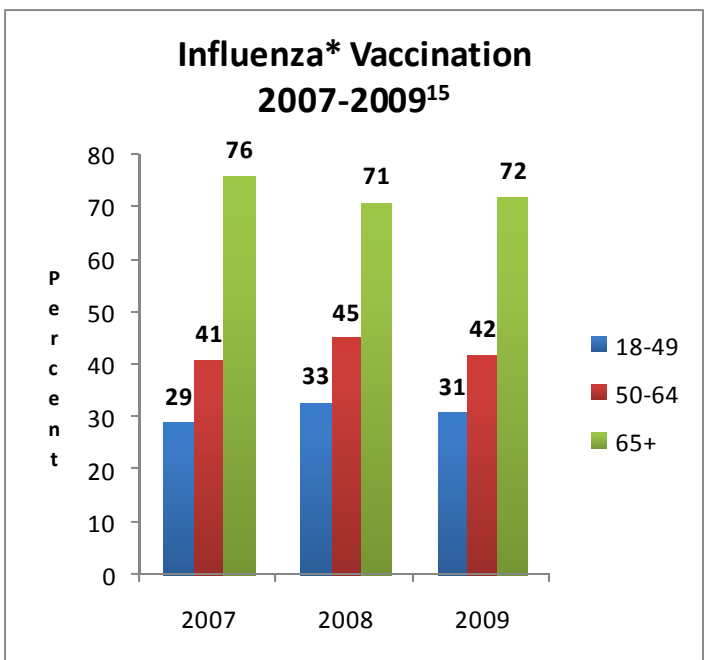


Adequately Immunized by School District 2009⁶

	Box Elder		Cache		Logan City		Rich	
Bear River	Adequate Immune	Total Exmp	Adequate Immune	Total Exmp	Adequate Immune	Total Exmp	Adequate Immune	Total Exmp
Kindergarten School Entry	92.4%	2.6%	88.5%	4.7%	91.5%	2.8%	92.7%	0.0%
Second-Dose Measles (K-12)	97.8%	0.1%	96.7%	3.2%	97.8%	1.2%	98.7%	1.3%
7th Grade Entry	95.4%	4.3%	95.5%	4.2%	99.2%	0.9%	97.9%	2.1%

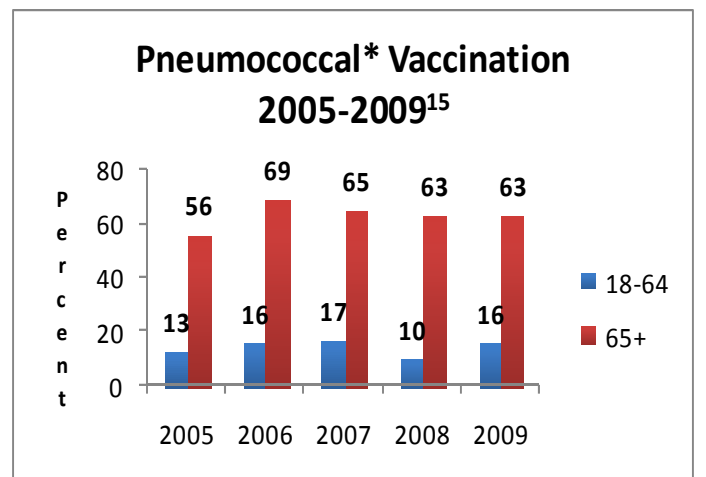
Child and School Health 2009

Child and School Health	Clinics/Facilities	Enrollment
WIC Women ¹¹	3	1,381
WIC Infants ¹¹	3	1,248
WIC Children ¹¹	3	2,629
Child Care ¹²	4	287
Head Start ¹³	4	445
Public/Charter Schools ¹⁴	69	34,380
Private Schools ¹⁴	0	0



Immunized for Child Care 2009⁶

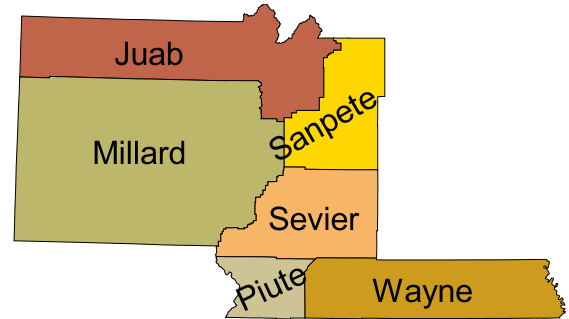
Bear River	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	98.3%	0.7%
Head Start Centers	92.4%	0.7%



*Influenza=within past 12 months, pneumococcal=ever had

Population 2009 ¹	Number	% of Total
Total Population	76,483	
17 and Under	22,021	28.8%
18 to 34	22,231	29.1%
35 to 49	11,749	15.4%
50 to 64	11,311	14.8%
65 and Over	9,171	12.0%
Poverty	Estimated Number 2009 ¹	% of Total 2007-2008 ²
Total 0-100% Poverty	11,200	14.6%
17 and Under	4,200	19.1%
18 to 34	3,500	15.7%
35 to 49	1,400	12.1%*
50 to 64	700	6.5%*
65 and Over	1,200	12.9%
Total 101-200% Poverty	22,600	29.6%
17 and Under	7,100	32.3%
18 to 34	8,200	37.0%
35 to 49	2,700	23.0%
50 to 64	1,500	13.1%
65 and Over	3,000	33.2%

Race/Ethnicity ¹	2000	2004	2008
White	97.72%	97.52%	97.25%
Black	0.25%	0.31%	0.40%
American Indian/Alaska Native	1.39%	1.44%	1.51%
Asian	0.40%	0.45%	0.53%
Native Hawaiian & Other Pacific Islander	0.24%	0.28%	0.30%
Hispanic	4.83%	6.00%	7.20%



Population 2009 ¹	Number	% of Total
Total 0-18	23,654	
<1	1,232	5.2%
1-2	2,465	10.4%
3-5	3,622	15.3%
6-9	4,743	20.1%
10-14	6,126	25.9%
15-18	5,466	23.1%

Population 2009 ¹	Number	% of Total
Juab	10,191	13.3%
Millard	13,702	17.9%
Piute	1,479	1.9%
Sanpete	27,646	36.1%
Sevier	20,773	27.2%
Wayne	2,692	3.5%

Uninsured	Estimated Number 2009 ¹	% of Total 2007-2008 ³
Total Uninsured (0-64)	11,600	17.2%
17 and Under	1,800	8.2%*
18 to 34	5,400	24.3%
35 to 49	2,600	22.1%
50 to 64	1,800	15.7%

Selected Insurance Type 2008 ⁴	Number	% of Total
Medicare	10,000	15.8%
CHIP*	2,300	9.9%

*Children's Health Insurance Program, Ages 0 to 18

*Use caution in interpreting, the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability

CoCASA: Up-to-Date at Age Two by Antigen 2009⁶

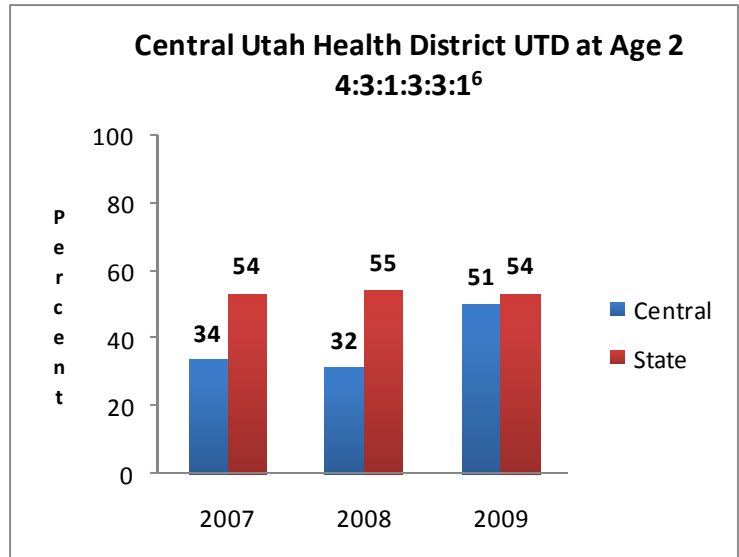
	4 DTaP	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3:1	95% Confidence Interval
All Providers	61.0%	84.7%	80.3%	82.3%	84.7%	71.1%	50.5%	46.2%, 54.8%

Up-to-Date at Age Two (4:3:1:3:3:1) 2009⁶

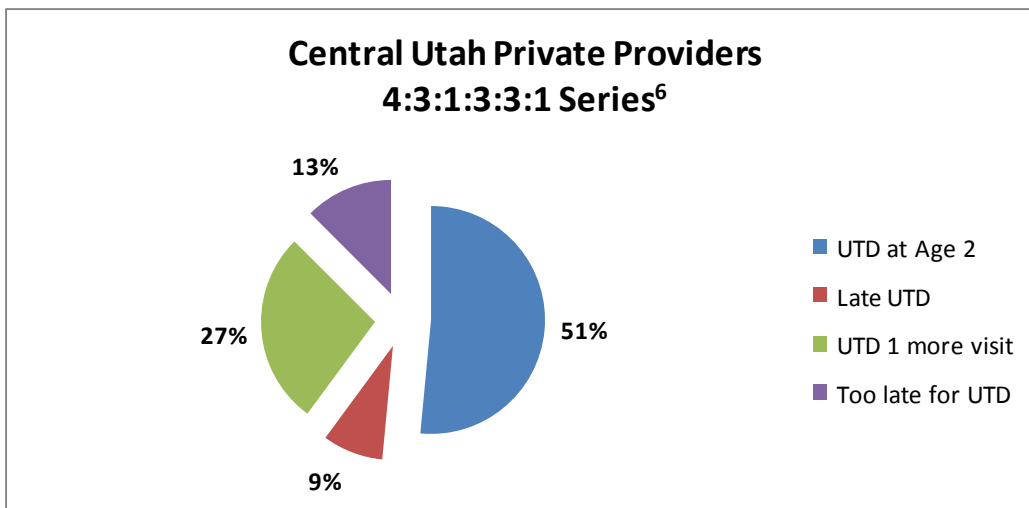
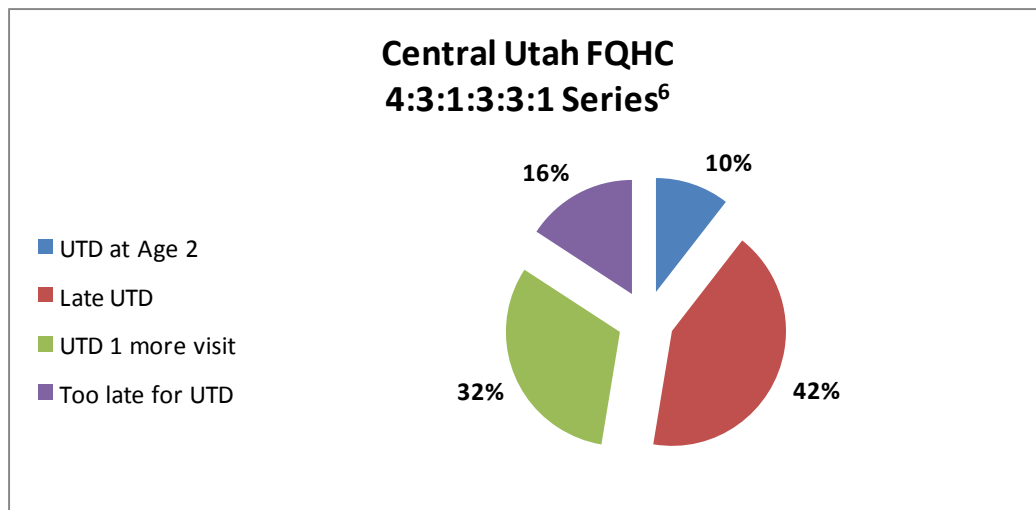
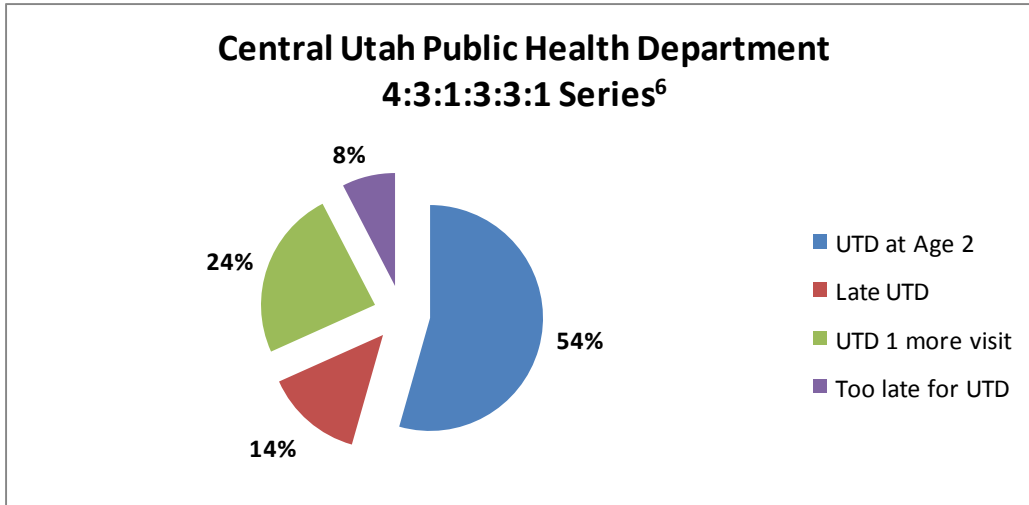
Provider Type	2009		2008
	Point Estimate	95% Confidence Interval	95% Confidence Interval
All VFC Private Providers	51.5%	46.8%, 56.2%	34.4%, 45.4%
FQHC/RHC	10.5%	2.9%, 31.5%	1.6%, 37.7%
Local Health Departments	54.4%	42.8%, 66.0%	10.7%, 23.3%

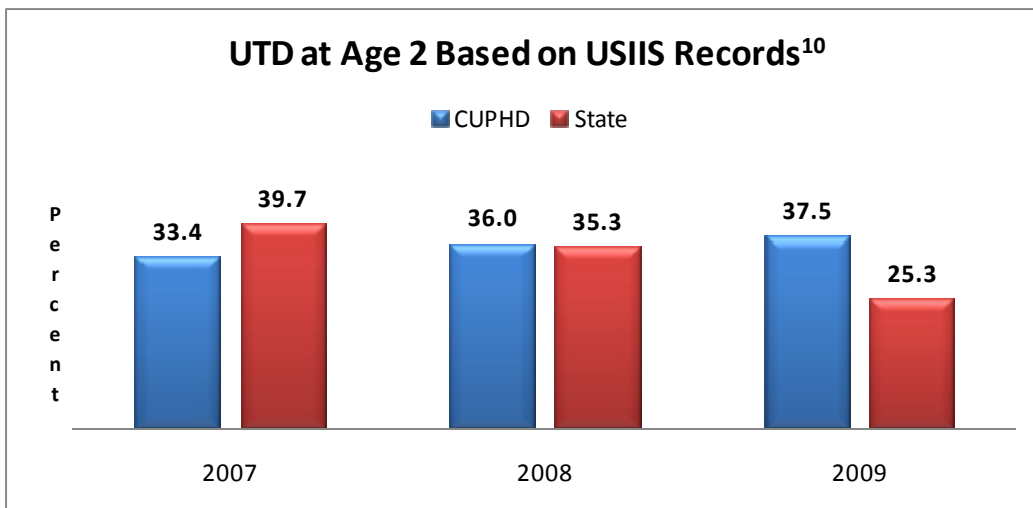
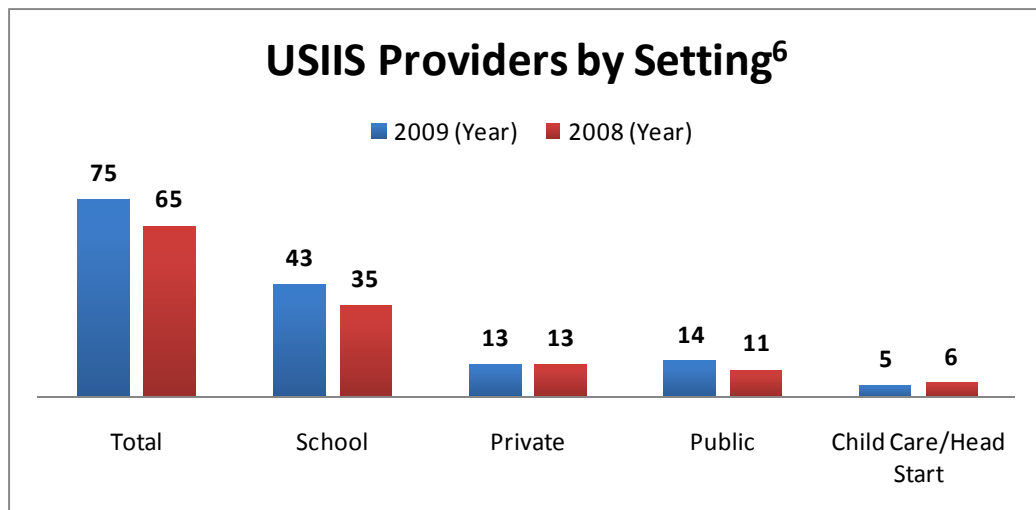
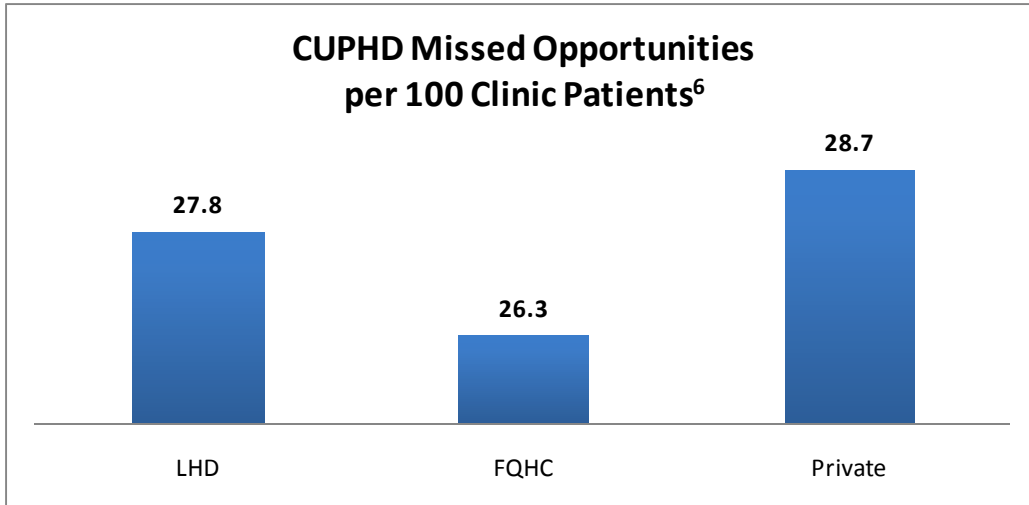
Health Care 2009

Providers/Facilities	Number
Private VFC Providers ⁶	15
Public Medical Clinics ⁶	10
Hospitals ^{7,*}	7
Long-term Care and Assisted Living Centers ⁸	17
Local Health District Offices ⁶	8



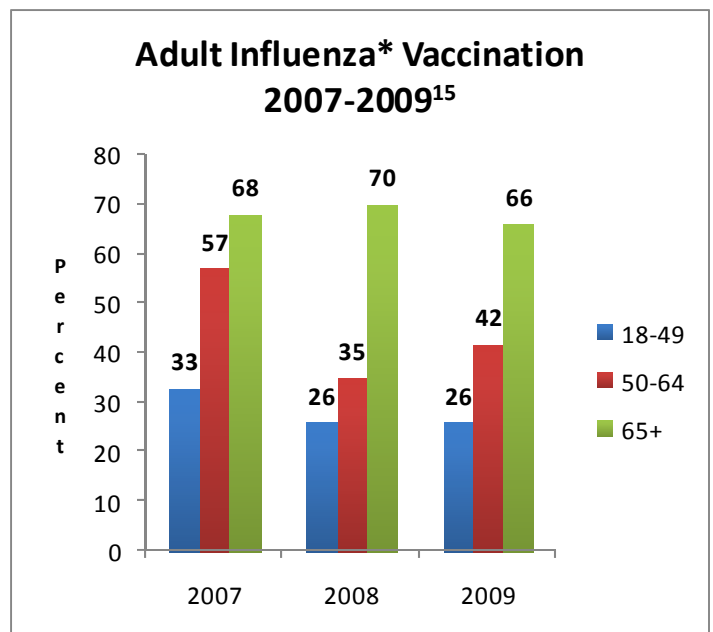
*Central Valley Medical Center & Gunnison Hospital NOT offering birth dose Hepatitis B vaccine.



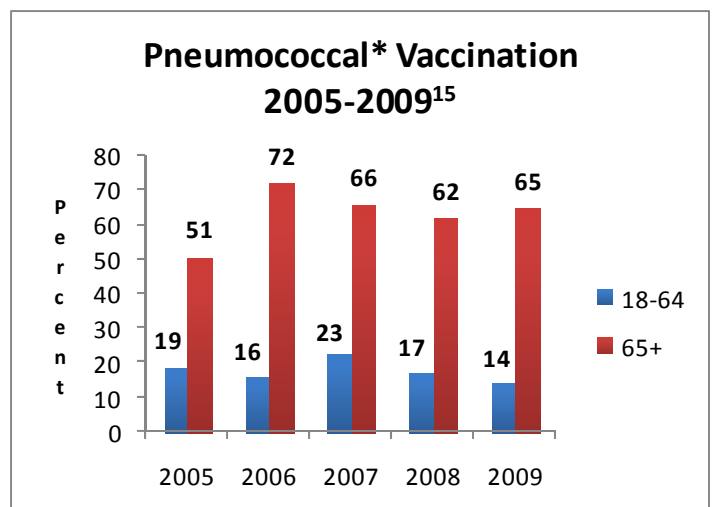


Adequately Immunized by School District 2009 ⁶																
Central	Juab		Millard		N Sanpete		Piute		Sevier		S Sanpete		Tintic		Wayne	
	Adeq Imm	Total Exmp	Adeq Imm	Total Exmp	Adeq Imm	Total Exmp	Adeq Imm	Total Exmp	Adeq Imm	Total Exmp	Adeq Imm	Total Exmp	Adeq Imm	Total Exmp	Adeq Imm	Total Exmp
Kindergarten School Entry	75.3%	12.7%	95.4%	2.8%	76.2%	9.3%	85.0%	0%	81.5%	5.0%	90.8%	2.4%	100%	0%	98.2%	1.8%
Second-Dose Measles (K-12)	91.8%	7.7%	97.0%	3.0%	93.1%	6.0%	99.4%	0.6%	93.7%	6.0%	96.5%	3.5%	99.5%	0.5%	94.9%	5.0%
7th Grade Entry	79.9%	8.3%	96.7%	3.3%	87.6%	8.0%	90.9%	0%	91.6%	6.6%	93.2%	4.7%	100%	0%	100%	0%

Child and School Health 2009		
Group	Clinics/Facilities	Enrollment
WIC Women ¹¹	10	580
WIC Infants ¹¹	10	575
WIC Children ¹¹	10	1,282
Child Care ¹²	7	303
Head Start ¹³	6	128
Public/Charter Schools ¹⁴	55	15,910
Private Schools ¹⁴	7	364



Immunized for Child Care 2009 ⁶		
Central	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	89.1%	1.0%
Head Start Centers	88.3%	3.1%



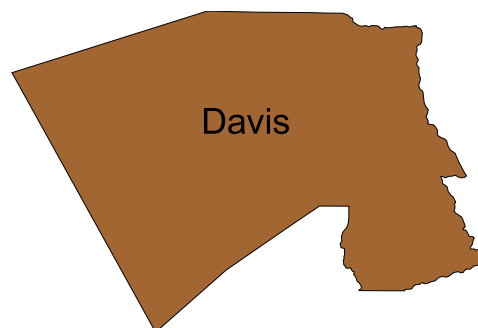
*Influenza=within past 12 months, pneumococcal=ever had

Population 2009 ¹	Number	% of Total
Total Population	307,656	
17 and Under	96,460	31.4%
18 to 34	85,008	27.6%
35 to 49	56,813	18.5%
50 to 64	43,828	14.2%
65 and Over	25,547	8.3%

Poverty	Estimated Number 2009 ¹	% of Total 2007-2008 ²
Total 0-100% Poverty	22,500	7.3%
17 and Under	8,000	8.3%
18 to 34	6,700	7.9%*
35 to 49	4,700	8.2%*
50 to 64	1,100	2.6%*
65 and Over	1,700	6.8%*

Total 101-200% Poverty	54,100	17.6%
17 and Under	21,800	22.6%
18 to 34	16,700	19.6%
35 to 49	8,400	14.7%
50 to 64	3,100	7.1%*
65 and Over	3,900	15.4%

Race/Ethnicity ¹	2000	2004	2008
White	96.31%	96.01%	95.65%
Black	1.16%	1.32%	1.49%
American Indian/Alaska Native	0.62%	0.62%	0.64%
Asian	1.63%	1.70%	1.81%
Native Hawaiian & Other Pacific Islander	0.28%	0.35%	0.41%
Hispanic	5.40%	6.45%	7.65%



Population 2009 ¹	Number	% of Total
Total 0-18	101,098	
<1	6,115	6.0%
1-2	12,171	12.0%
3-5	17,445	17.3%
6-9	21,110	20.9%
10-14	24,994	24.7%
15-18	19,263	19.1%

Uninsured	Estimated Number 2009 ¹	% of Total 2007-2008 ³
Total Uninsured (0-64)	21,100	7.5%
17 and Under	3,500	3.7%*
18 to 34	11,500	13.5%
35 to 49	3,500	6.1%*
50 to 64	2,700	6.2%*

Selected Insurance Type 2008 ⁴	Number	% of Total
Medicare	26,900	9.5%
CHIP*	5,100	5.0%

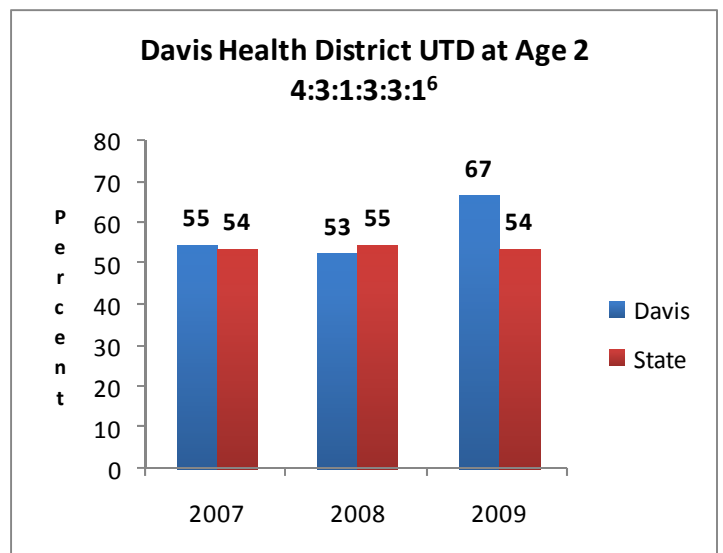
*Children's Health Insurance Program, Ages 0 to 18

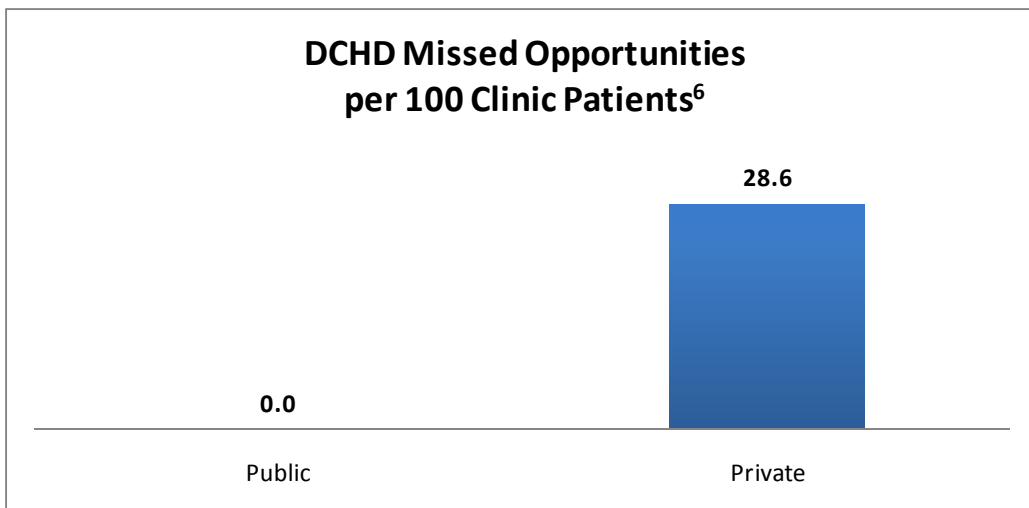
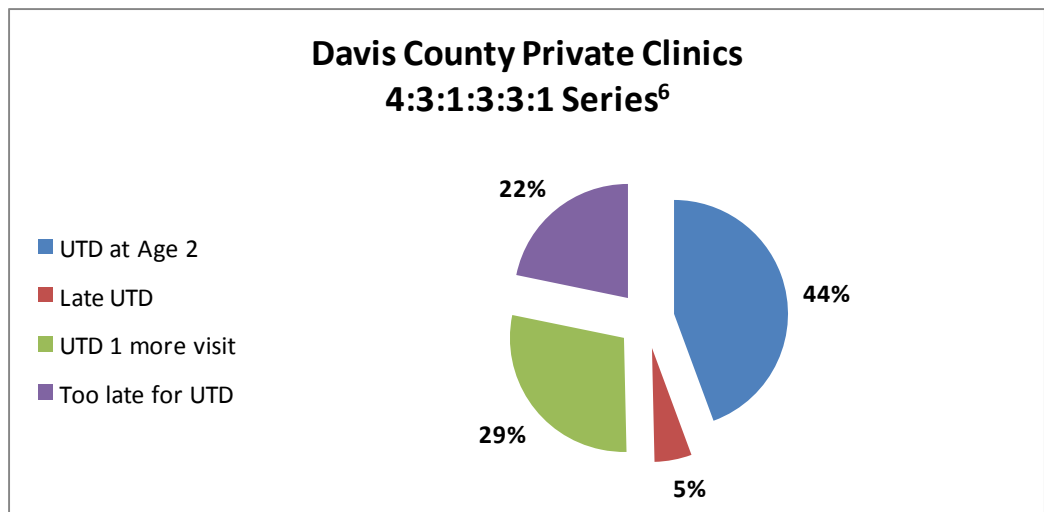
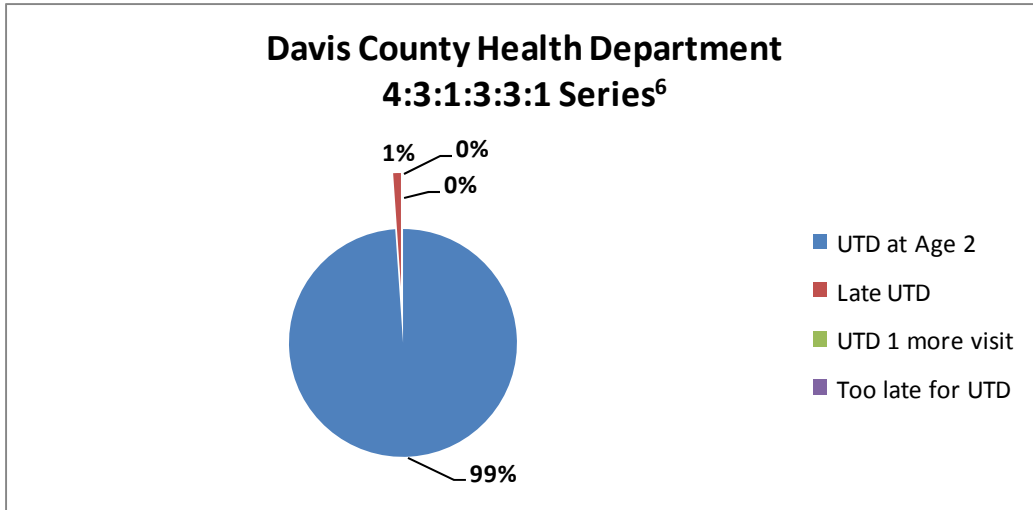
*Use caution in interpreting, the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability

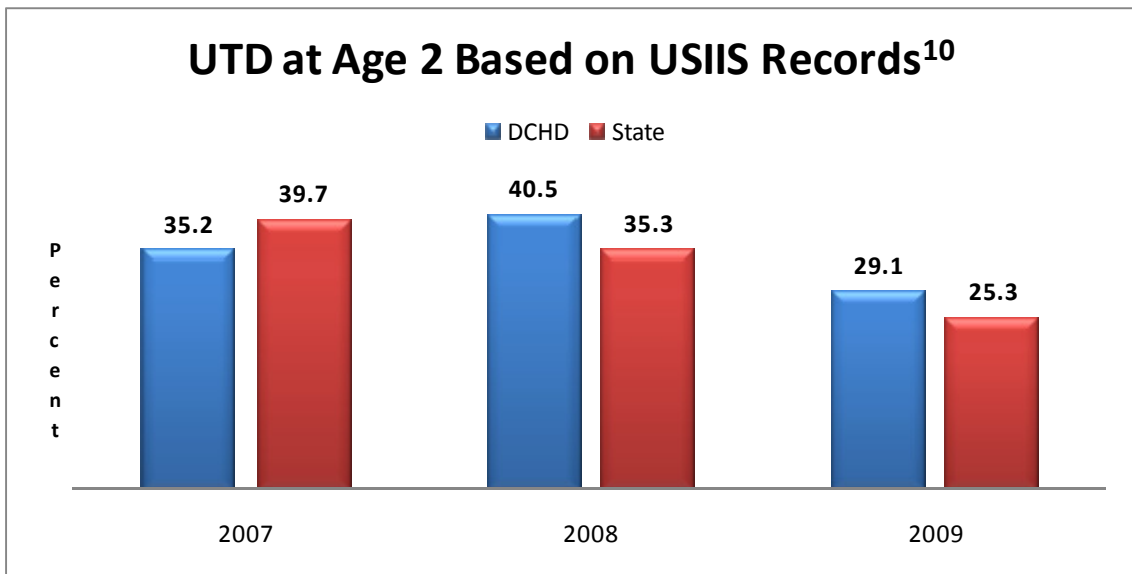
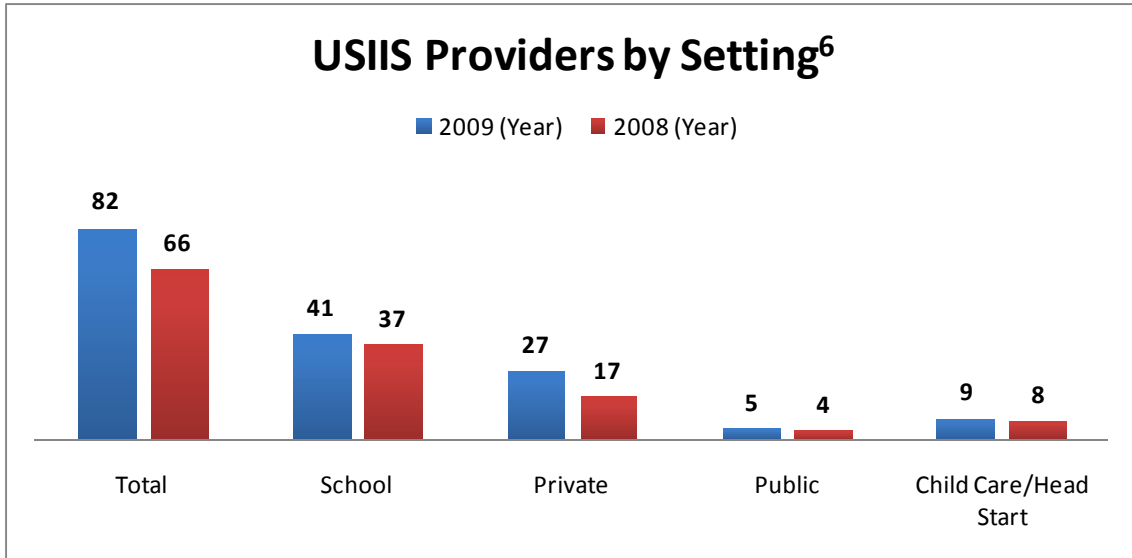
CoCASA: Up-to-Date at Age Two by Antigen 2009 ⁶							
	4 DTaP	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3:1 95% Confidence Interval
All Providers	72.0%	84.9%	84.9%	84.0%	80.9%	83.1%	66.7% 60.3%, 73.1%

Up-to-Date at Age Two (4:3:1:3:3:1) 2009 ⁶			
	2009		2008
Provider Type	Point Estimate	95% Confidence Interval	95% Confidence Interval
All VFC Private Providers	44.4%	35.6%, 53.2%	32.3%, 47.1%
FQHC/RHC	NA	NA	NA
Local Health Departments	98.9%	94.1%, 99.8%	71.8%, 89.0%

Health Care 2009	
Providers/Facilities	Number
Private VFC Providers ⁶	24
Public Medical Clinics ⁶	3
Hospitals ⁷	5
Long-term Care and Assisted Living Centers ⁸	27
Local Health District Offices ⁶	2





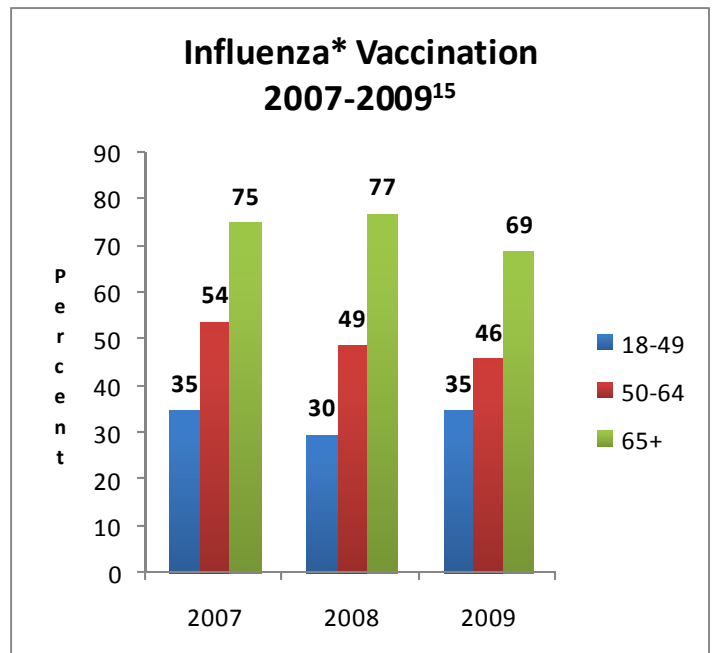


Adequately Immunized by School District 2009⁶

Davis	Davis School District	
	Adequately Immunized	Total Exemptions
Kindergarten School Entry	89.6%	2.7%
Second-Dose Measles (K-12)	97.2%	2.2%
7th Grade Entry	85.5%	3.5%

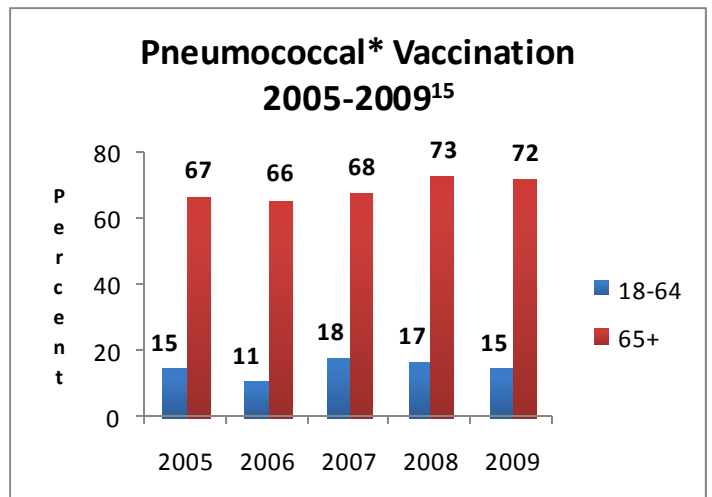
Child & School Health 2009

Group	Clinics/ Facilities	Enrollment
WIC Women ¹¹	3	1,419
WIC Infants ¹¹	3	1,511
WIC Children ¹¹	3	2,835
Child Care ¹²	17	998
Head Start ^{+, 13}	2	549
Public/Charter Schools ¹⁴	97	65,977
Private Schools ¹⁴	8	602



Immunized for Child Care 2009⁶

Davis	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	92.4%	0.7%
Head Start Centers ⁺	97.5%	0.6%



⁺ Head Start data for Morgan County are included with DCHD.

*Influenza=within past 12 months, pneumococcal=ever had

Population 2009 ¹	Number	% of Total
Total Population	1,042,125	
17 and Under	310,502	29.8%
18 to 34	271,566	26.1%
35 to 49	209,813	20.1%
50 to 64	159,285	15.3%
65 and Over	90,959	8.7%
Poverty	Estimated Number 2009 ¹	% of Total 2007-2008 ²
Total 0-100% Poverty	98,000	9.4%
17 and Under	42,800	13.8%
18 to 34	26,100	9.6%
35 to 49	13,800	6.6%
50 to 64	10,500	6.6%
65 and Over	3,300	3.6%*
Total 101-200% Poverty	202,200	19.4%
17 and Under	77,300	24.9%
18 to 34	55,700	20.5%
35 to 49	39,700	18.9%
50 to 64	11,100	7.0%
65 and Over	15,600	17.1%



Population 2009 ¹	Number	% of Total
Total 0-18	325,628	
<1	18,987	5.8%
1-2	38,743	11.9%
3-5	55,665	17.1%
6-9	72,845	22.4%
10-14	79,389	24.4%
15-18	59,999	18.4%

Race/Ethnicity ¹	2000	2004	2008
White	93.79%	93.13%	92.32%
Black	1.19%	1.52%	1.93%
American Indian/Alaska Native	0.99%	1.01%	1.10%
Asian	2.71%	2.97%	3.22%
Native Hawaiian & Other Pacific Islander	1.33%	1.36%	1.43%
Hispanic	12.00%	13.93%	16.23%

Uninsured	Estimated Number 2009 ¹	% of Total 2007-2008 ³
Total Uninsured (0-64)	119,000	12.5%
17 and Under	33,500	10.8%
18 to 34	50,800	18.7%
35 to 49	25,300	12.1%
50 to 64	8,100	5.1%
Selected Insurance Type 2008 ⁴	Number	% of Total
Medicare	111,100	12.3%
CHIP*	5,200	1.6%

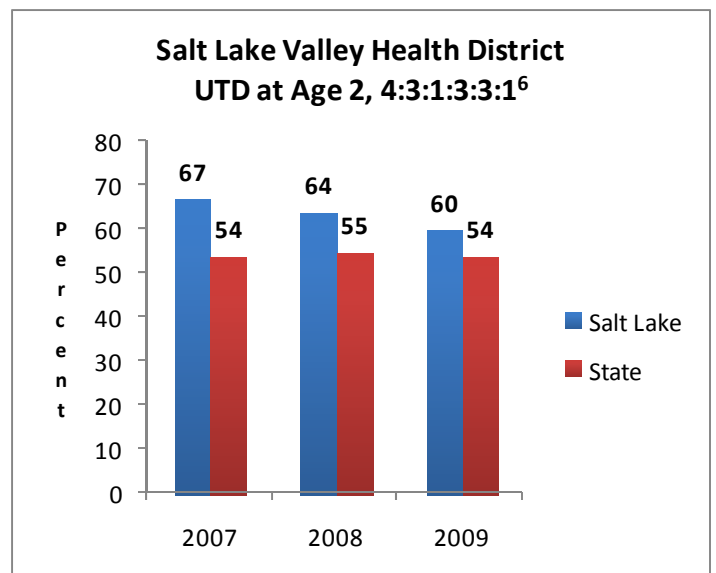
*Children's Health Insurance Program, Ages 0 to 18

*Use caution in interpreting, the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability

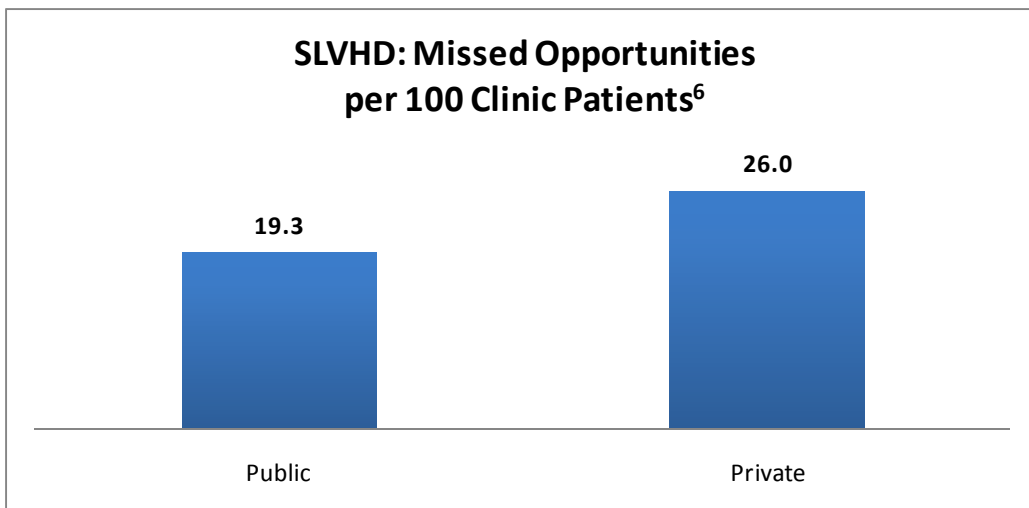
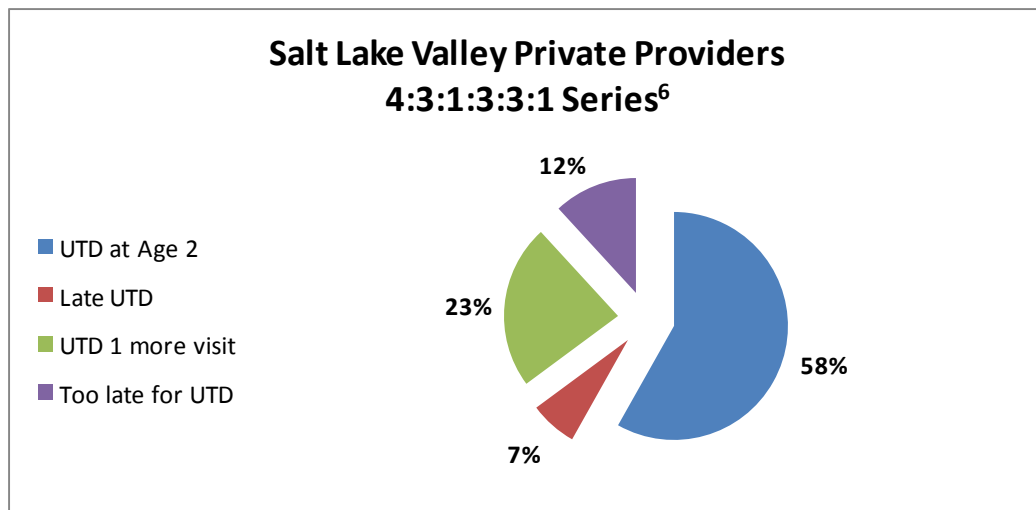
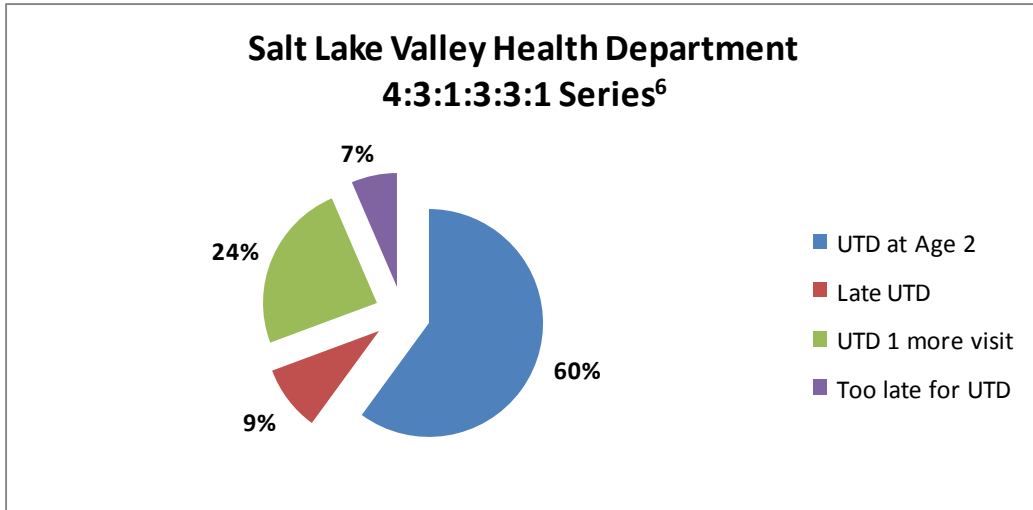
CoCASA: Up-to-Date at Age Two by Antigen 2009 ⁶								
	4 DTaP	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3:1	95% Confidence Interval
All Providers	67.9%	88.0%	83.9%	83.0%	87.5%	81.8%	59.6%	58.4%, 60.7%

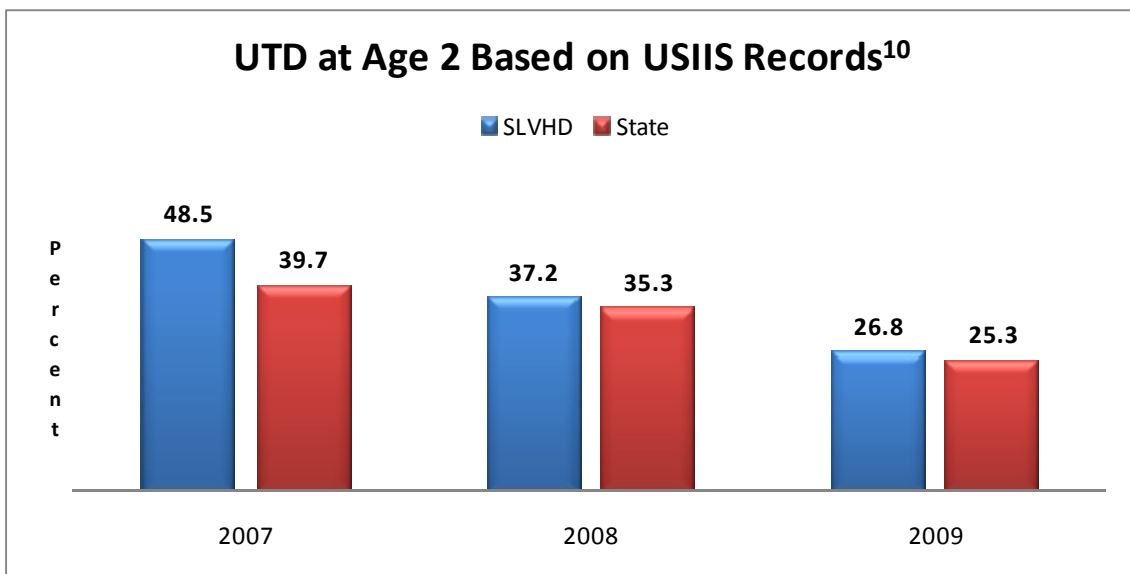
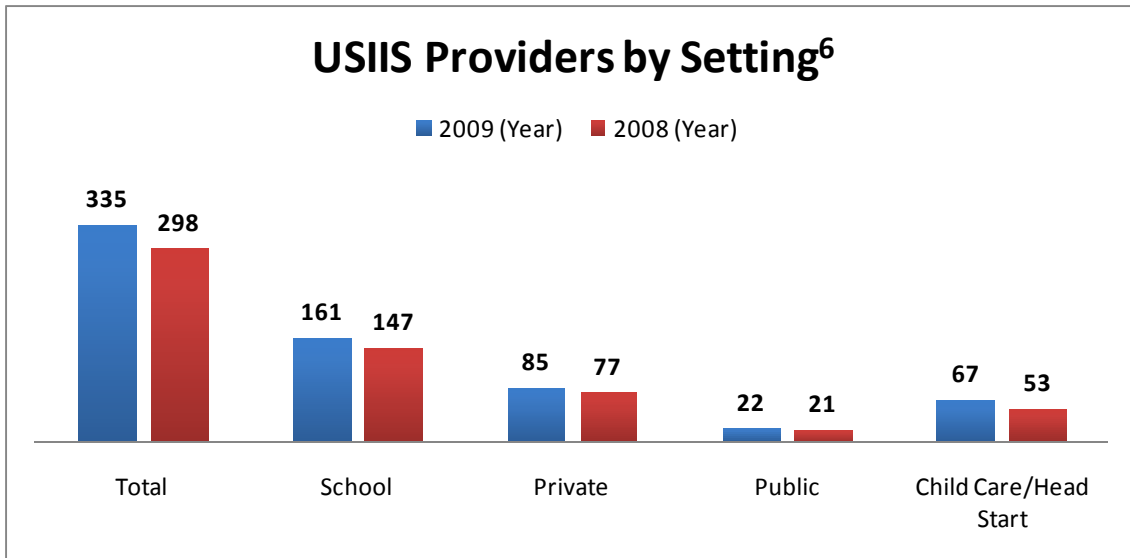
Up-to-Date at Age Two (4:3:1:3:3:1) 2009 ⁶			
	2009		2008
Provider Type	Point Estimate	95% Confidence Interval	95% Confidence Interval
All VFC Private Providers	58.1%	56.0%, 60.3%	53.8%, 58.8%
FQHC/RHC	NA	NA	NA
Local Health Departments	60.1%	58.8%, 61.5%	78.5%, 84.3%

Health Care 2009	
Providers/Facilities	Number
Private VFC Providers ⁶	74
Public Medical Clinics ⁶	20
Hospitals ^{7,*}	19
Long-term Care and Assisted Living Centers ⁸	88
Local Health District Offices ⁶	6



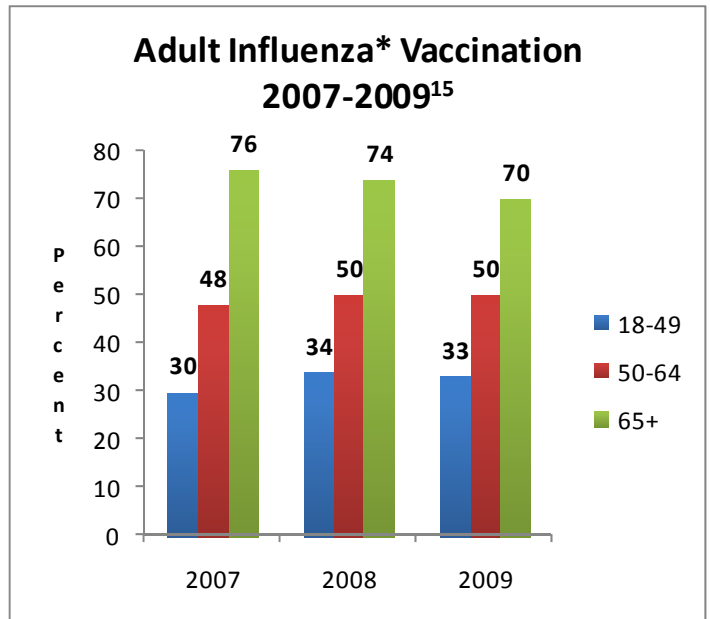
*St. Mark's Hospital & University of Utah Medical Center NOT offering birth dose Hepatitis B vaccine.



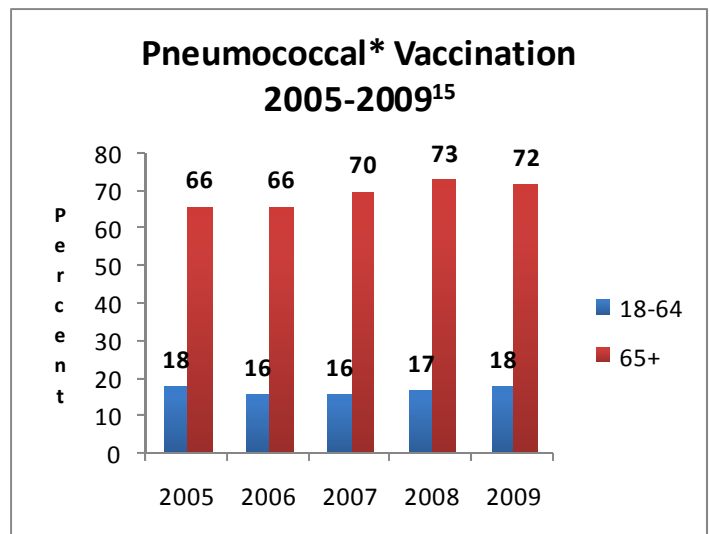


Adequately Immunized by School District 2009 ⁶										
Salt Lake	Canyons		Granite		Jordan		Murray		Salt Lake	
	Adeq Imm	Total Exmp	Adeq Imm	Total Exmp	Adeq Imm	Total Exmp	Adeq Imm	Total Exmp	Adeq Imm	Total Exmp
Kindergarten School Entry	88.0%	3.3%	88.3%	1.5%	90.4%	3.1%	81.3%	1.6%	90.7%	2.0%
Second-Dose Measles (K-12)	97.3%	2.2%	97.7%	1.6%	96.7%	2.7%	95.5%	4.0%	96.2%	1.6%
7th Grade Entry	94.0%	4.1%	95.1%	2.4%	95.0%	2.9%	91.8%	4.4%	80.4%	1.7%

Child and School Health 2009		
Group	Clinics/Facilities	Enrollment
WIC Women ¹¹	8	7,101
WIC Infants ¹¹	8	7,256
WIC Children ¹¹	8	13,643
Child Care ¹²	102	7,113
Head Start ¹³	31	1,610
Public/Charter Schools ¹⁴	282	185,339
Private Schools ¹⁴	85	9,204



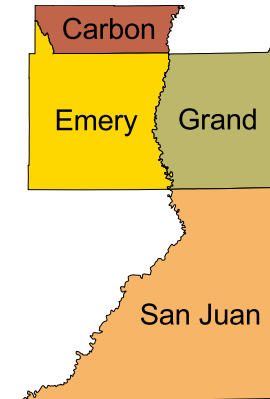
Immunized for Child Care 2009 ⁶		
Salt Lake	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	92.7%	1.2%
Head Start Centers	91.1%	0.8%



*Influenza=within past 12 months, pneumococcal=ever had **25**

Population 2009 ¹	Number	% of Total
Total Population	55,752	
17 and Under	14,934	26.8%
18 to 34	15,038	27.0%
35 to 49	8,786	15.8%
50 to 64	9,880	17.7%
65 and Over	7,114	12.8%
Poverty	Estimated Number 2009 ¹	% of Total 2007-2008 ²
Total 0-100% Poverty	7,700	13.8%
17 and Under	2,500	16.8%
18 to 34	2,600	17.1%
35 to 49	800	8.6%
50 to 64	1,100	11.4%
65 and Over	700	9.9%*
Total 101-200% Poverty	14,700	26.3%
17 and Under	4,800	32.1%
18 to 34	3,900	26.0%
35 to 49	2,400	26.9%
50 to 64	1,600	16.0%
65 and Over	1,900	27.1%

Race/Ethnicity ¹	2000	2004	2008
White	83.19%	82.83%	82.16%
Black	0.25%	0.43%	0.69%
American Indian/Alaska Native	16.21%	16.27%	16.58%
Asian	0.29%	0.39%	0.45%
Native Hawaiian & Other Pacific Islander	0.06%	0.08%	0.12%
Hispanic	6.78%	7.43%	8.14%



Population 2009 ¹	Number	% of Total
Total 0-18	15,909	
<1	828	5.2%
1-2	1,592	10.0%
3-5	2,349	14.8%
6-9	3,228	20.3%
10-14	4,213	26.5%
15-18	3,699	23.3%
Population 2009 ¹	Number	% of Total
Carbon	19,768	35.5%
Emery	10,848	19.5%
Grand	9,493	17.0%
San Juan	15,643	28.1%

Uninsured	Estimated Number 2009 ¹	% of Total 2007-2008 ³
Total Uninsured (0-64)	8,800	18.1%
17 and Under	2,000	13.1%
18 to 34	4,600	30.4%
35 to 49	1,300	14.6%
50 to 64	1,100	11.4%
Selected Insurance Type 2008 ⁴	Number	% of Total
Medicare	8,600	19.0%
CHIP*	900	5.6%

*Children's Health Insurance Program, Ages 0 to 18

*Use caution in interpreting, the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability

CoCASA: Up-to-Date at Age Two by Antigen 2009⁶

	4 DTaP	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3:1	95% Confidence Interval
All Providers	47.4%	73.9%	72.1%	73.9%	73.6%	70.0%	39.6%	34.2%, 45.0%

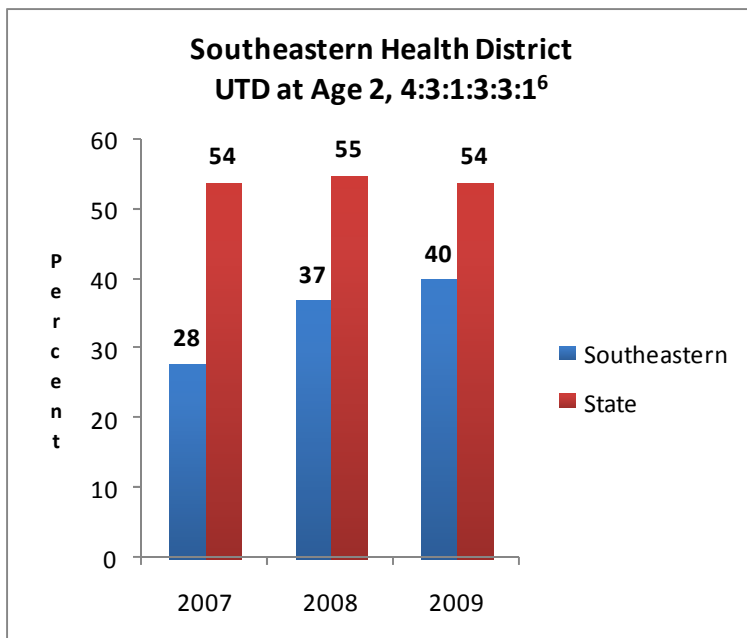
Up-to-Date at Age Two (4:3:1:3:3:1) 2009⁶

Provider Type	2009		2008
	Point Estimate	95% Confidence Interval	95% Confidence Interval
All VFC Private Providers	35.6%	24.9%, 46.3%	36.7%, 67.7%
FQHC/RHC	47.4%	22.3%, 72.5%	9.5%, 47.3%
Local Health Departments	40.5%	33.8%, 47.3%	17.7%, 41.7%

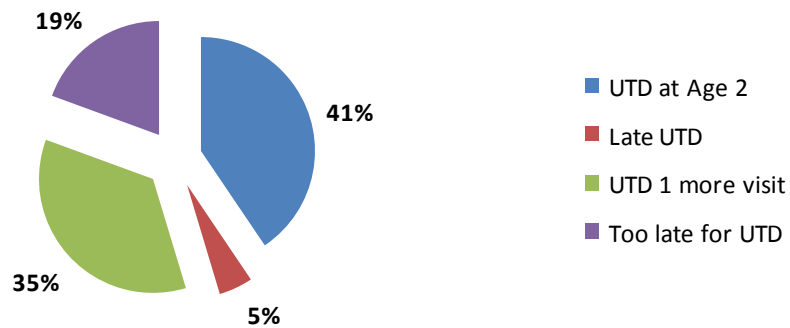
Health Care 2009

Providers/Facilities	Number
Private VFC Providers ⁶	4
Public Medical Clinics ⁶	14
Hospitals ^{7,*}	5
Long-term Care and Assisted Living Centers ⁸	7
Local Health District Offices ⁶	5

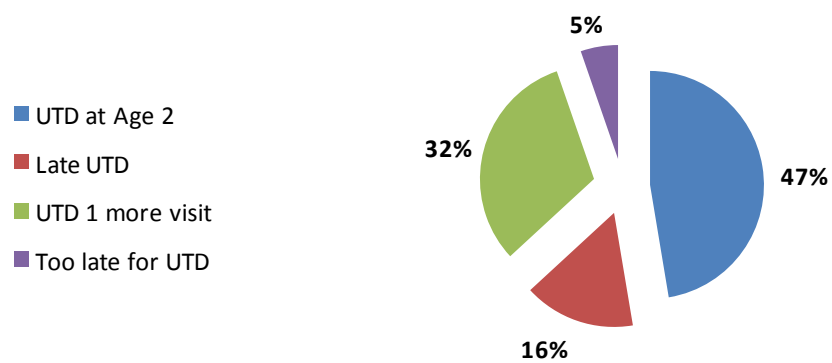
*Allen Memorial Hospital & San Juan Hospital NOT offering birth dose Hepatitis B vaccine.



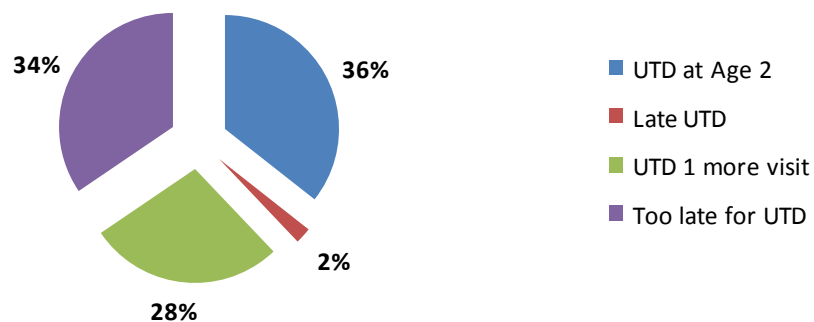
**Southeastern Utah District Health Department
4:3:1:3:3:1 Series⁶**

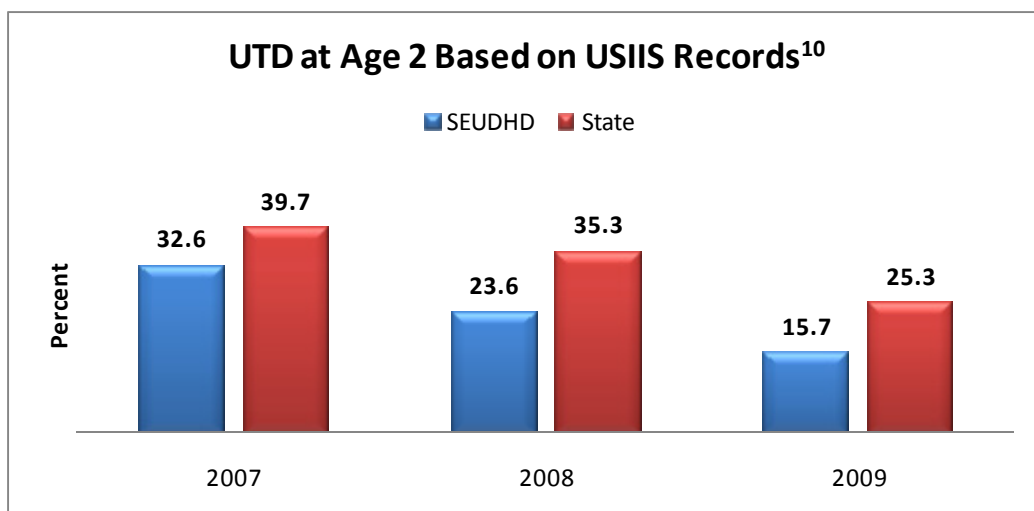
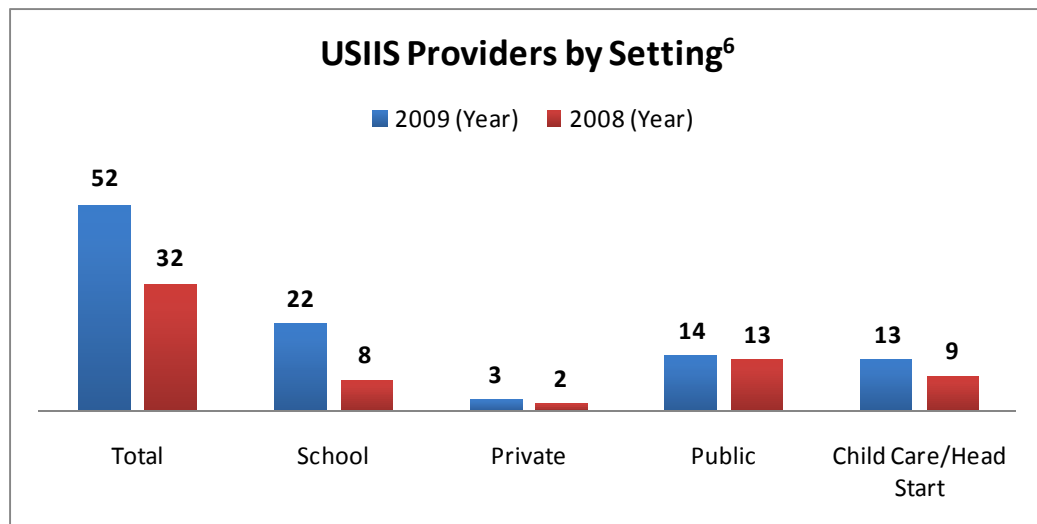
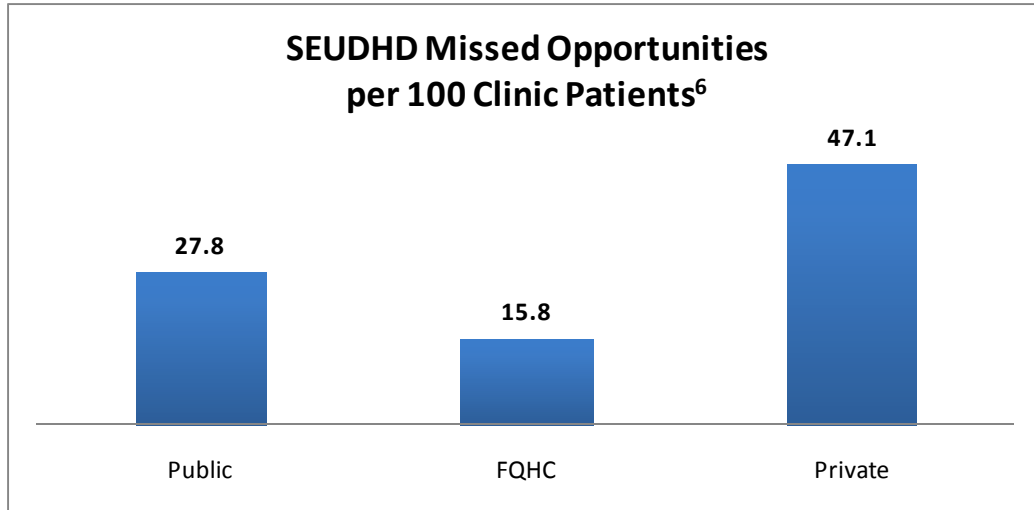


**Southeastern FQHC
4:3:1:3:3:1 Series⁶**



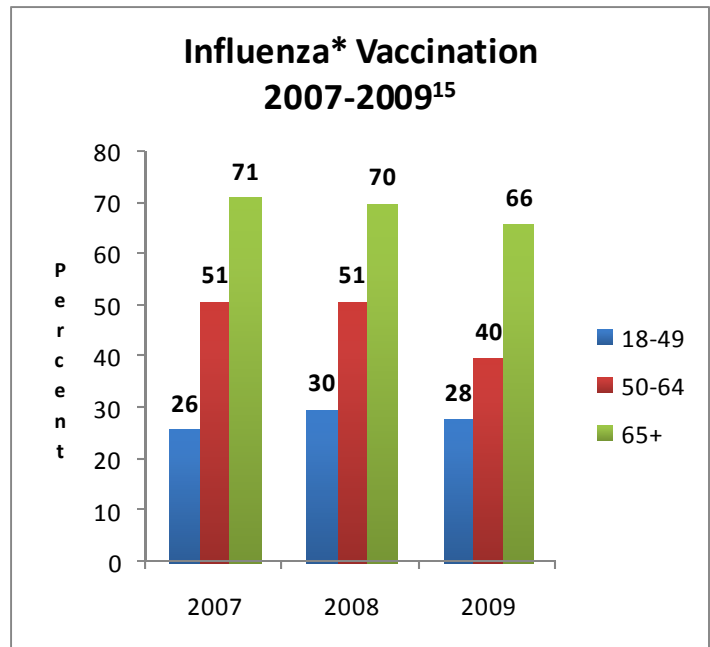
**Southeastern Private Providers
4:3:1:3:3:1 Series⁶**



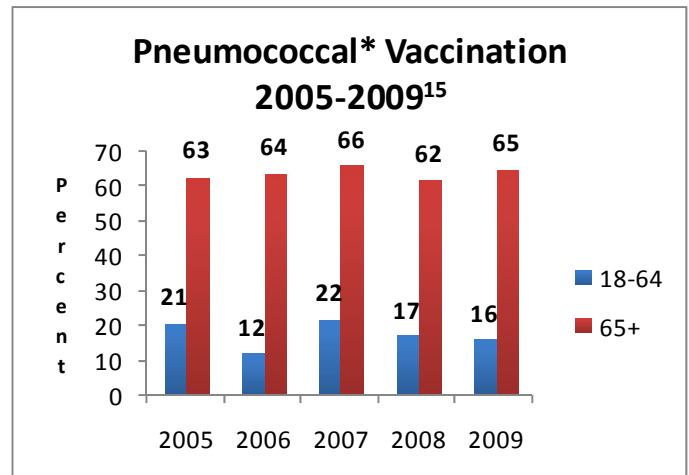


Adequately Immunized by School District 2009 ⁶								
Southeastern	Carbon		Emery		Grand		San Juan	
	Adequate Immune	Total Exmp	Adequate Immune	Total Exmp	Adequate Immune	Total Exmp	Adequate Immune	Total Exmp
Kindergarten School Entry	83.0%	3.6%	75.5%	5.2%	92.7%	4.8%	91.2%	1.9%
Second-Dose Measles (K-12)	97.2%	2.1%	96.5%	2.7%	96.3%	3.6%	96.1%	3.1%
7th Grade Entry	89.6%	1.3%	96.9%	3.1%	93.3%	6.7%	96.0%	3.1%

Child and School Health 2009		
Group	Clinics/Facilities	Enrollment
WIC Women ¹¹	6	425
WIC Infants ¹¹	6	398
WIC Children ¹¹	6	820
Child Care ¹²	1	13
Head Start ¹³	11	318
Public/Charter Schools ¹⁴	44	10,787
Private Schools ¹⁴	4	198



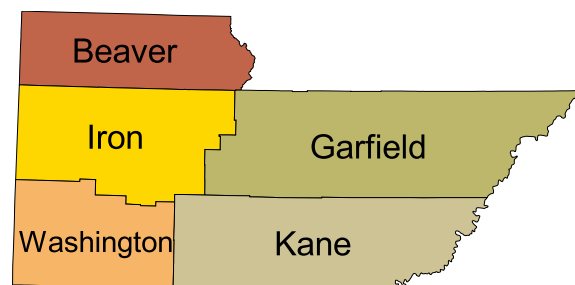
Immunized for Child Care 2009 ⁶		
Southeastern	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	30.8%	0%
Head Start Centers	85.5%	3.5%



*Influenza=within past 12 months, pneumococcal=ever had **30**

Population 2009 ¹	Number	% of Total
Total Population	210,756	
17 and Under	60,006	28.5%
18 to 34	56,355	26.7%
35 to 49	34,003	16.1%
50 to 64	29,150	13.8%
65 and Over	31,242	14.8%
Poverty	Estimated Number 2009 ¹	% of Total 2007-2008 ²
Total 0-100% Poverty	21,300	10.1%
17 and Under	7,200	12.0%
18 to 34	7,000	12.5%*
35 to 49	3,100	9.0%*
50 to 64	2,300	7.9%*
65 and Over	1,500	4.7%*
Total 101-200% Poverty	64,700	30.7%
17 and Under	23,400	39.0%
18 to 34	19,800	35.1%
35 to 49	11,300	33.3%
50 to 64	4,500	15.3%
65 and Over	5,200	16.7%

Race/Ethnicity ¹	2000	2004	2008
White	97.09%	96.71%	96.22%
Black	0.26%	0.41%	0.68%
American Indian/Alaska Native	1.72%	1.72%	1.71%
Asian	0.55%	0.73%	0.94%
Native Hawaiian & Other Pacific Islander	0.38%	0.42%	0.46%
Hispanic	4.76%	5.76%	7.52%



Population 2009 ¹	Number	% of Total
Total 0-18	63,559	
<1	3,771	5.9%
1-2	7,936	12.5%
3-5	11,194	17.6%
6-9	13,364	21.0%
10-14	15,085	23.7%
15-18	12,209	19.2%
Population 2009 ¹	Number	% of Total
Beaver	6,576	3.1%
Garfield	5,149	2.4%
Iron	46,825	22.2%
Kane	6,740	3.2%
Washington	145,466	69.0%

Uninsured	Estimated Number 2009 ¹	% of Total 2007-2008 ³
Total Uninsured (0-64)	33,700	18.8%
17 and Under	9,000	15.0%
18 to 34	17,900	31.7%
35 to 49	5,400	16.0%
50 to 64	1,700	5.7%*
Selected Insurance Type 2008 ⁴	Number	% of Total
Medicare	35,400	18.3%
CHIP*	7,200	11.4%

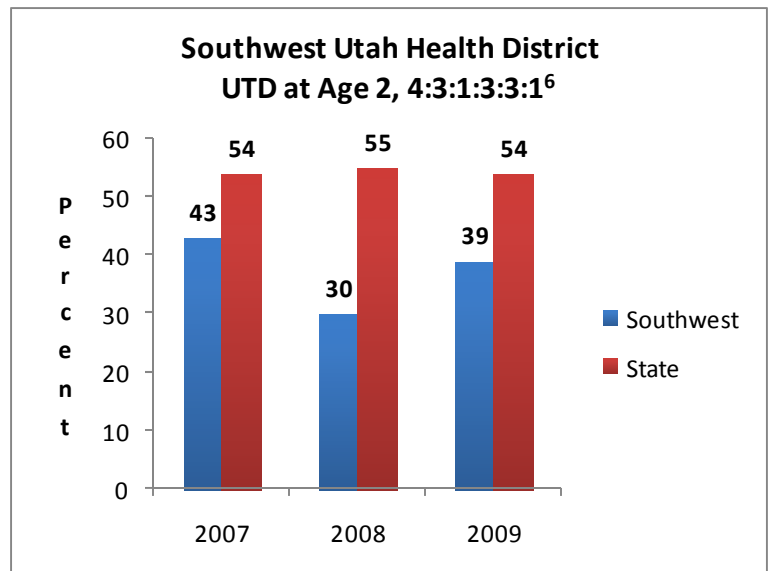
*Children's Health Insurance Program, Ages 0 to 18

*Use caution in interpreting, the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability

CoCASA: Up-to-Date at Age Two by Antigen 2009 ⁶								
	4 DTaP	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3:1	95% Confidence Interval
All Providers	49.6%	75.2%	70.9%	71.5%	72.5%	70.1%	39.4%	36.9%, 41.9%

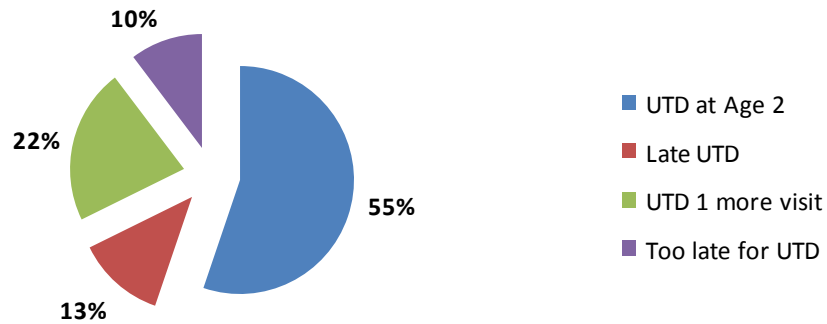
Up-to-Date at Age Two (4:3:1:3:3:1) 2009 ⁶			
	2009		2008
Provider Type	Point Estimate	95% Confidence Interval	95% Confidence Interval
All VFC Private Providers	37.1%	34.1%, 40.1%	23.2%, 37.2%
FQHC/RHC	33.8%	27.6%, 40.0%	17.1%, 40.5%
Local Health Departments	55.2%	48.6%, 61.8%	21.8%, 42.0%

Health Care 2009	
Providers/Facilities	Number
Private VFC Providers ⁶	18
Public Medical Clinics ⁶	19
Hospitals ^{7,*}	7
Long-term Care and Assisted Living Centers ⁸	35
Local Health District Offices ⁶	5

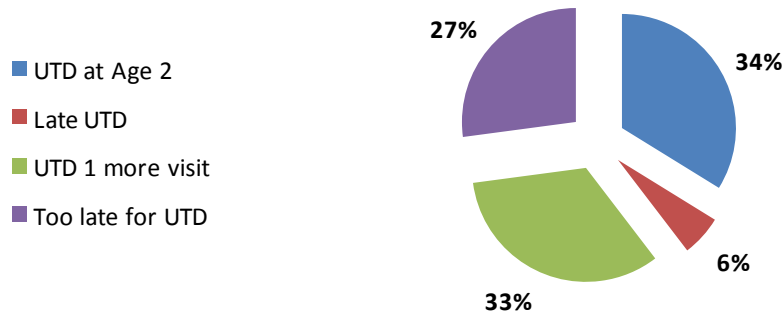


*Kane County Hospital & Milford Valley Hospital NOT offering birth dose Hepatitis B vaccine.

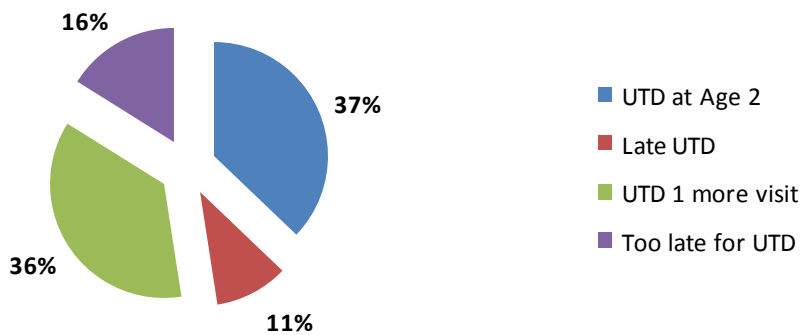
**Southwest Utah Public Health Department
4:3:1:3:3:1 Series⁶**

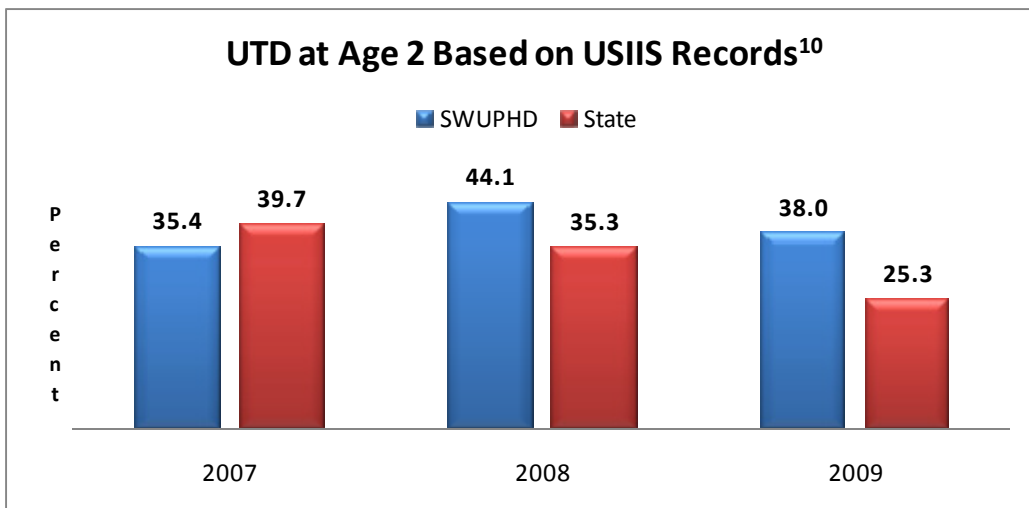
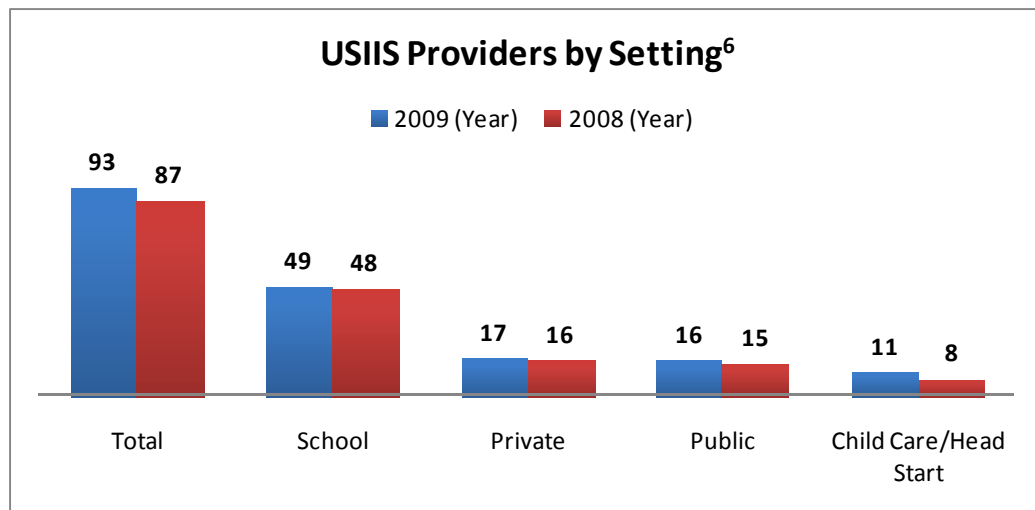
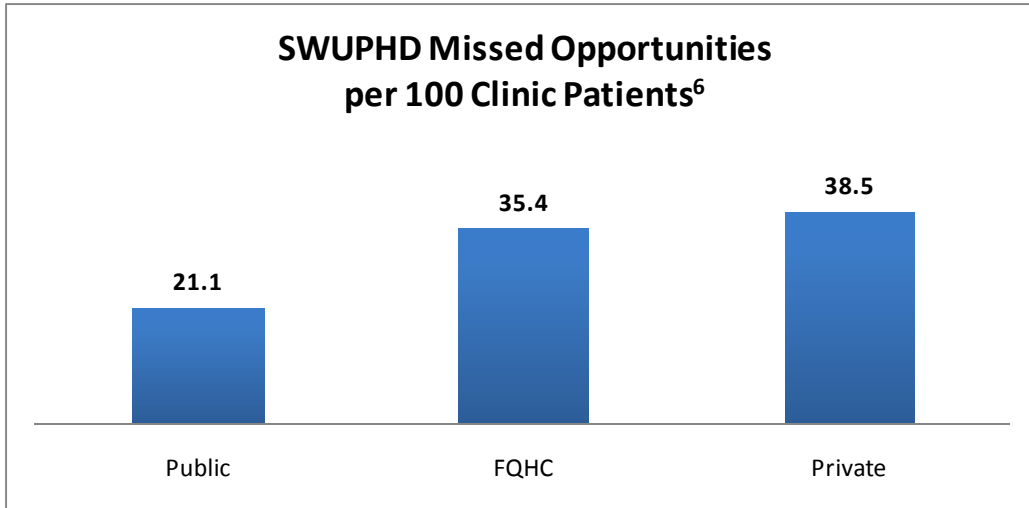


**Southwest Utah FQHC
4:3:1:3:3:1 Series⁶**



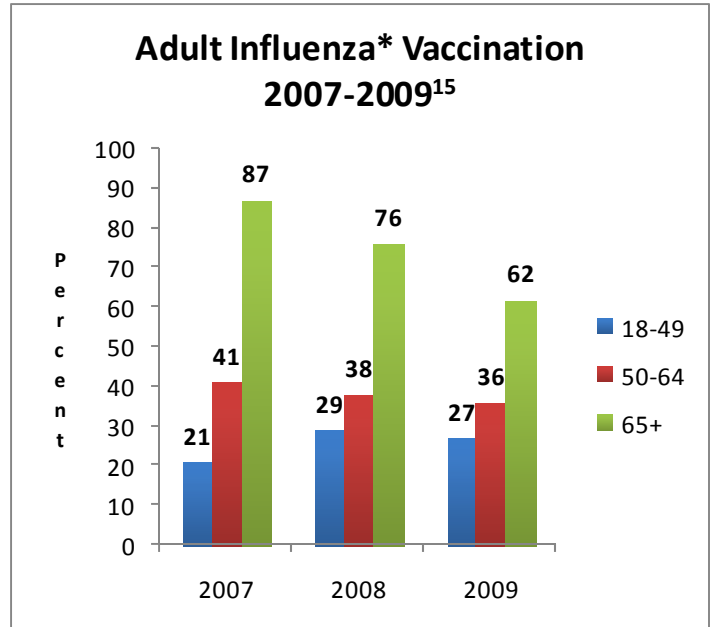
**Southwest Utah Private Providers
4:3:1:3:3:1 Series⁶**



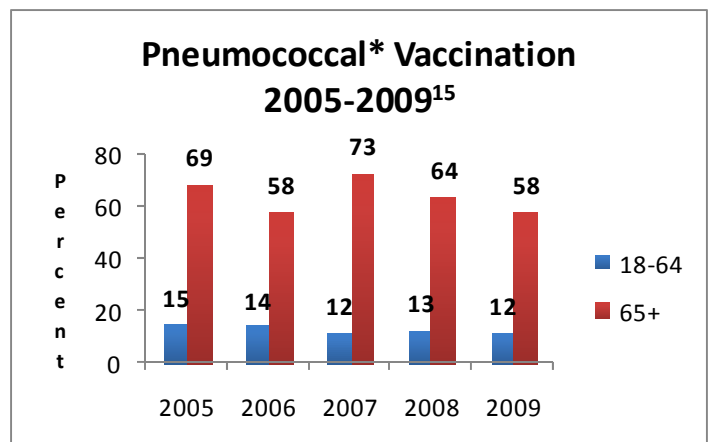


Adequately Immunized by School District 2009 ⁶											
Southwest	Beaver		Garfield		Iron		Kane		Washington		
	Adequate Immune	Total Exmp	Adequate Immune	Total Exmp	Adequate Immune	Total Exmp	Adequate Immune	Total Exmp	Adequate Immune	Total Exmp	
Kindergarten School Entry	91.7%	3.5%	82.9%	4.0%	82.9%	5.2%	84.3%	8.8%	87.6%	4.9%	
Second-Dose Measles (K-12)	98.2%	1.6%	97.1%	2.9%	95.6%	4.2%	94.9%	4.9%	95.2%	4.3%	
7th Grade Entry	96.0%	3.2%	94.5%	2.7%	94.6%	5.0%	94.9%	5.1%	93.9%	4.1%	

Child and School Health 2009		
Group	Clinics/Facilities	Enrollment
WIC Women ¹¹	5	1,472
WIC Infants ¹¹	5	1,408
WIC Children ¹¹	5	2,975
Child Care ¹²	7	407
Head Start ¹³	1	408
Public/Charter Schools ¹⁴	98	36,260
Private Schools ¹⁴	5	188



Immunized for Child Care 2009 ⁶		
Southwest	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	91.2%	2.7%
Head Start Centers	92.9%	2.5%



*Influenza=within past 12 months, pneumococcal=ever had **35**

Population 2009 ¹	Number	% of Total
Total Population	40,451	
17 and Under	9,885	24.4%
18 to 34	10,186	25.2%
35 to 49	8,722	21.6%
50 to 64	8,259	20.4%
65 and Over	3,399	8.4%
Poverty	Estimated Number 2009 ¹	% of Total 2007-2008 ²
Total 0-100% Poverty	2,600	6.5%
17 and Under	900	9.4%*
18 to 34	**	**
35 to 49	500	6.0%*
50 to 64	**	**
65 and Over	**	**
Total 101-200% Poverty	3,900	9.7%
17 and Under	1,100	10.8%
18 to 34	1,200	11.9%*
35 to 49	600	6.7%
50 to 64	500	5.7%*
65 and Over	600	17.0%

Race/Ethnicity ¹	2000	2004	2008
White	98.35%	97.94%	97.48%
Black	0.28%	0.44%	0.63%
American Indian/Alaska Native	0.34%	0.35%	0.36%
Asian	0.99%	1.23%	1.48%
Native Hawaiian & Other Pacific Islander	0.05%	0.04%	0.04%
Hispanic	8.15%	10.32%	12.25%



Population 2009 ¹	Number	% of Total
Total 0-18	10,510	
<1	538	5.1%
1-2	1,115	10.6%
3-5	1,714	16.3%
6-9	2,217	21.1%
10-14	2,587	24.6%
15-18	2,339	22.3%

Uninsured	Estimated Number 2009 ¹	% of Total 2007-2008 ³
Total Uninsured (0-64)	3,800	10.2%
17 and Under	600	6.2%*
18 to 34	2,300	22.5%*
35 to 49	600	6.9%*
50 to 64	200	2.9%*
Selected Insurance Type 2008 ⁴	Number	% of Total
Medicare	3,600	10.2%
CHIP*	**	**

*Children's Health Insurance Program, Ages 0 to 18

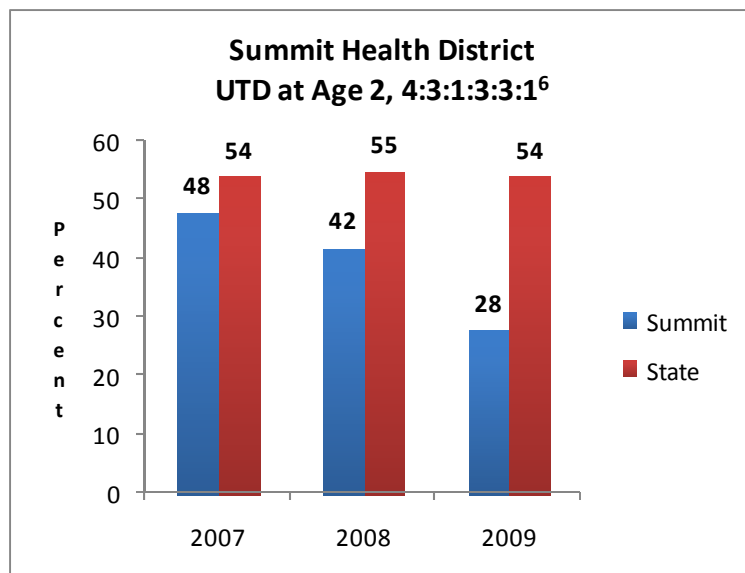
*Use caution in interpreting, the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability

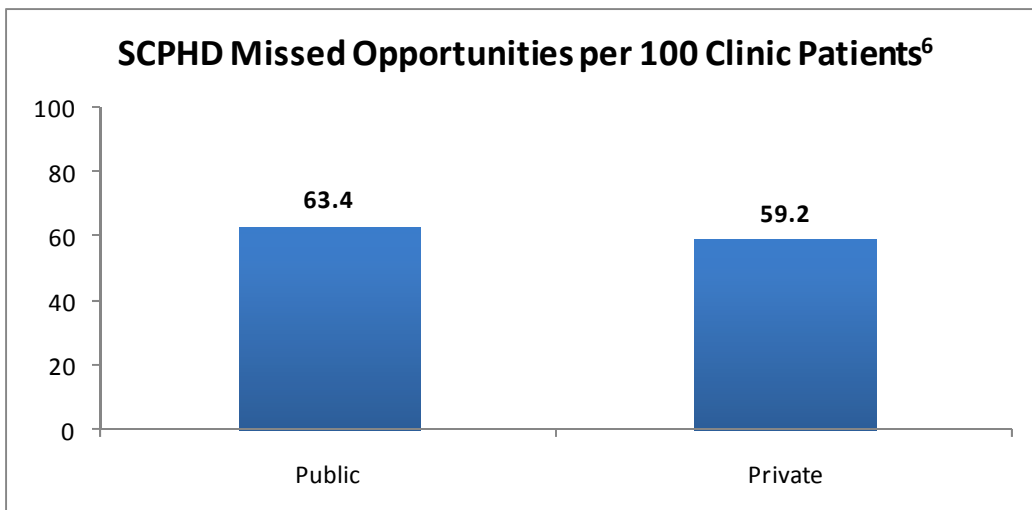
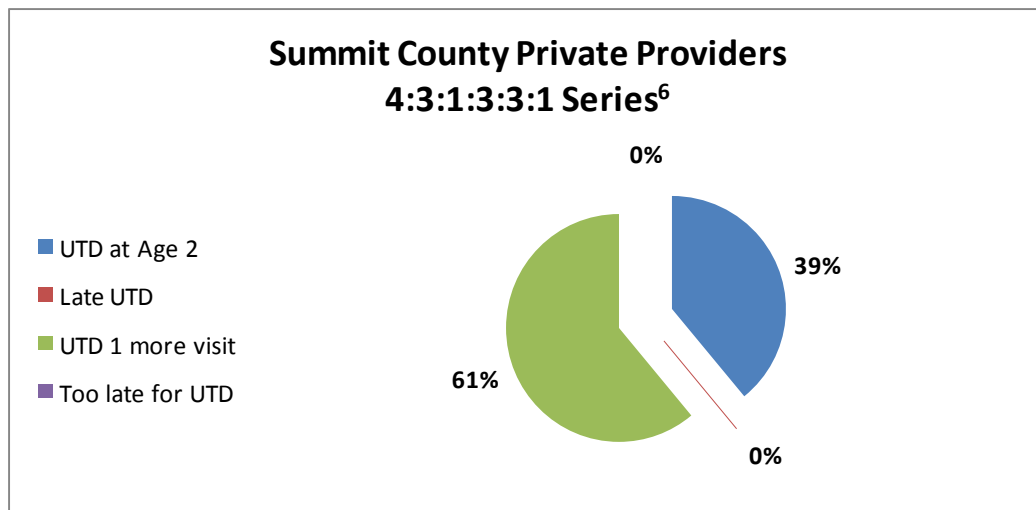
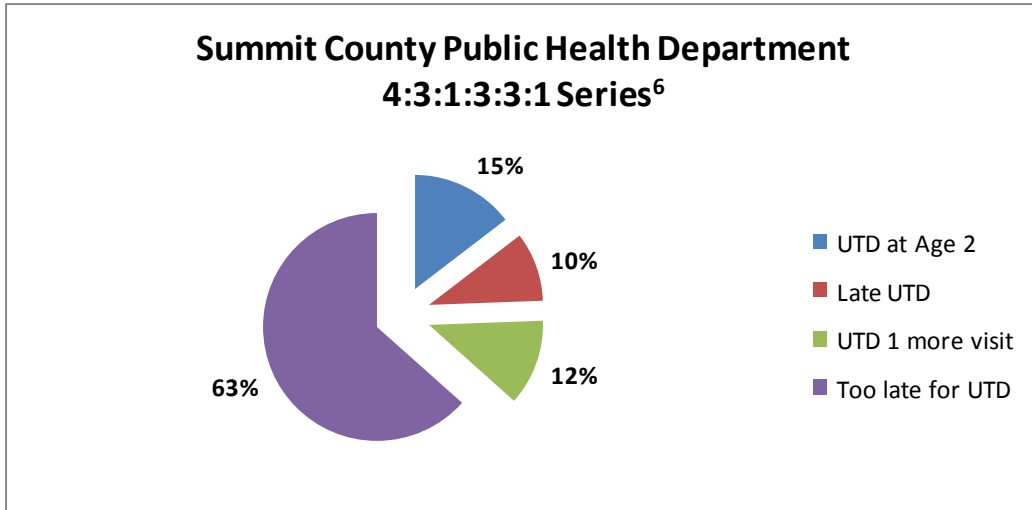
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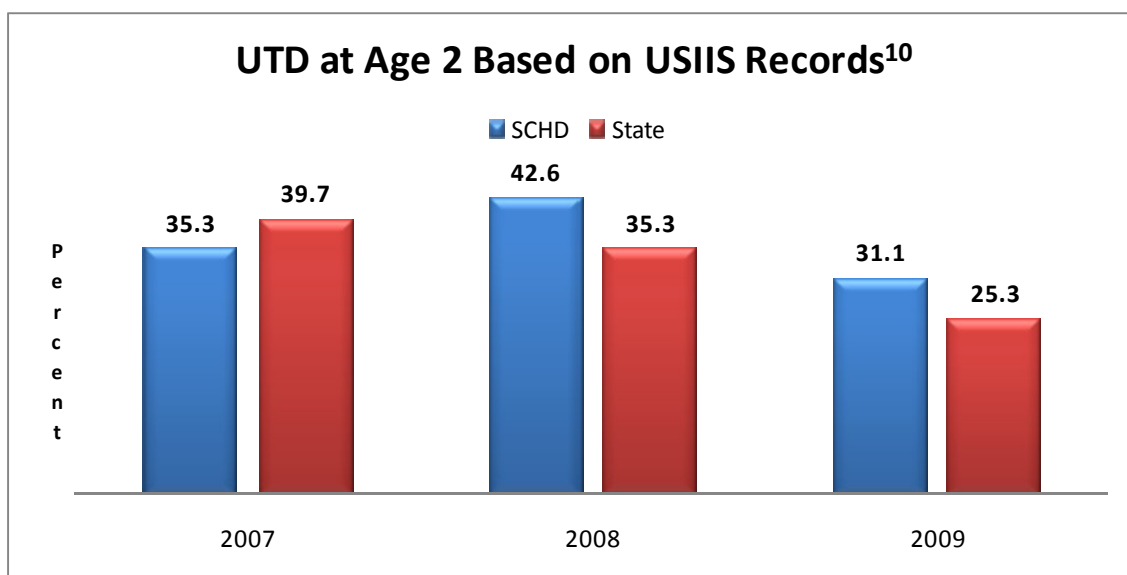
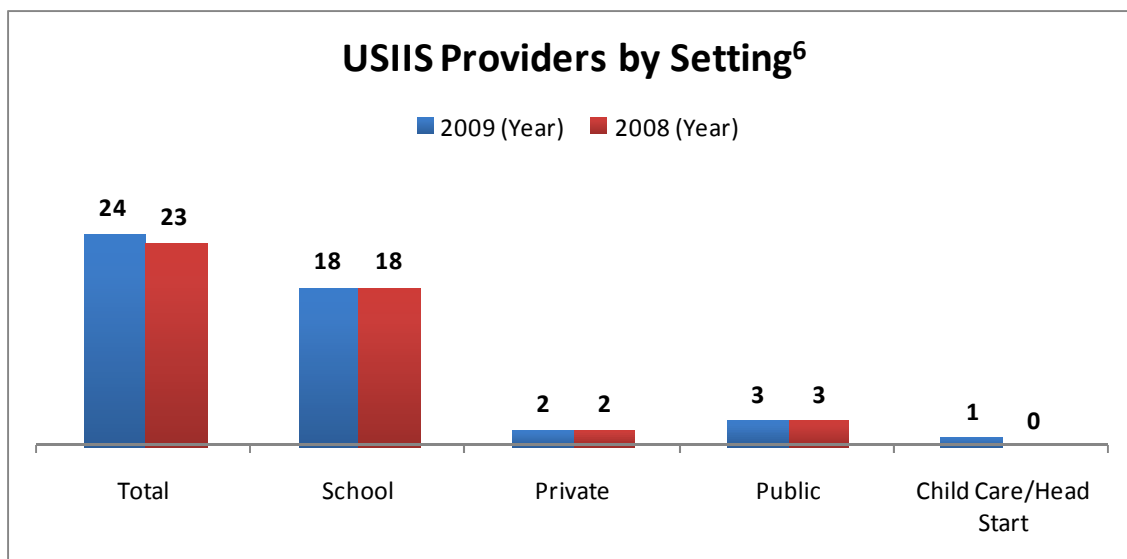
CoCASA: Up-to-Date at Age Two by Antigen 2009 ⁶								
	4 DTaP	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3:1	95% Confidence Interval
All Providers	56.7%	66.7%	71.1%	66.7%	42.2%	70.0%	27.8%	18.0%, 37.6%

Up-to-Date at Age Two (4:3:1:3:3:1) 2009 ⁶			
	2009		2008
Provider Type	Point Estimate	95% Confidence Interval	95% Confidence Interval
All VFC Private Providers	38.8%	24.2%, 53.4%	37.8%, 58.2%
FQHC/RHC	NA	NA	NA
Local Health Department	14.6%	2.6%, 26.6%	9.5%, 37.3%

Health Care 2009	
Providers/Facilities	Number
Private VFC Providers ⁶	4
Public Medical Clinics ⁶	3
Hospitals ⁷	0
Long-term Care and Assisted Living Centers ⁸	1
Local Health District Offices ⁶	3



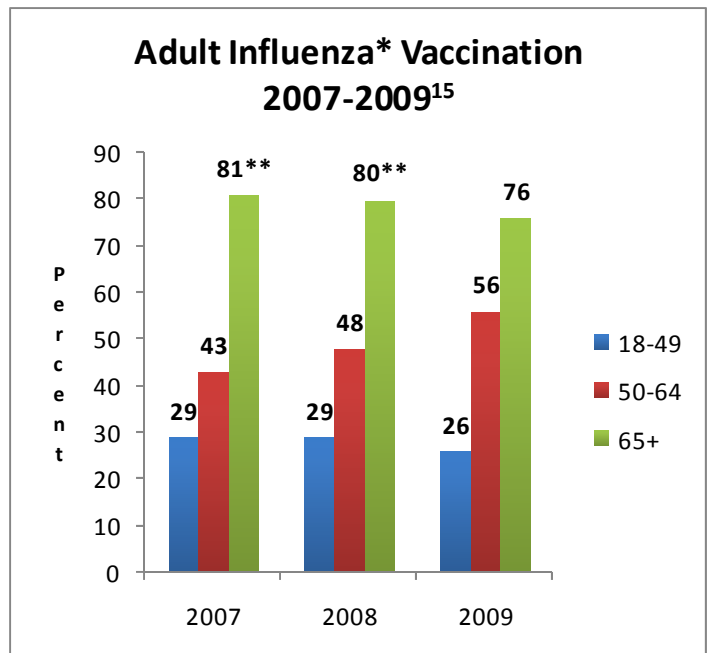




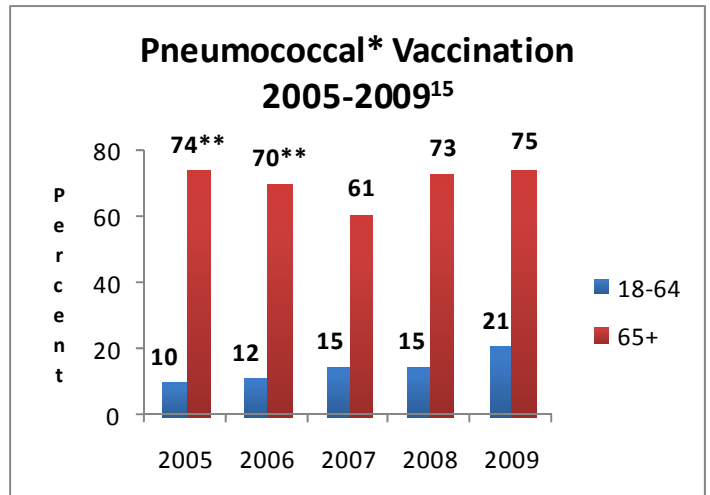
Adequately Immunized by School District 2009 ⁶						
Summit	North Summit		Park City		South Summit	
	Adequately Immunized	Total Exemptions	Adequately Immunized	Total Exemptions	Adequately Immunized	Total Exemptions
Kindergarten School Entry	87.0%	5.4%	81.4%	8.5%	85.8%	7.5%
Second-Dose Measles (K-12)	97.6%	2.2%	95.3%	4.7%	96.2%	3.8%
7th Grade Entry	100%	0%	91.3%	7.6%	95.8%	4.2%

Child and School Health 2009		
Group	Clinics/Facilities	Enrollment
WIC Women ¹¹	2	183
WIC Infants ¹¹	2	166
WIC Children ¹¹	2	351
Child Care ¹²	2	82
Head Start ^{13, +}	+	+
Public/Charter Schools ¹⁴	14	7,013
Private Schools ¹⁴	4	217

⁺Data for Summit County Head Start are included in DCHD.



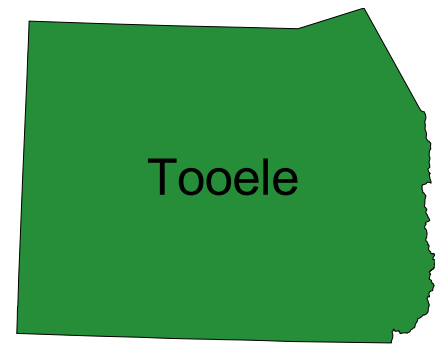
Immunized for Child Care 2009 ⁶		
Summit	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	93.9%	3.7%
Head Start Centers	Reported in Davis HS	Reported in Davis HS



**Use caution in interpreting, the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability

*Influenza=within past 12 months, pneumococcal=ever had

Population 2009 ¹	Number	% of Total
Total Population	59,117	
17 and Under	18,868	31.9%
18 to 34	15,843	26.8%
35 to 49	11,777	19.9%
50 to 64	7,704	13.0%
65 and Over	4,925	8.3%
Poverty	Estimated Number 2009 ¹	% of Total 2007-2008 ²
Total 0-100% Poverty	3,700	6.3%
17 and Under	1,500	8.0%*
18 to 34	700	4.5%*
35 to 49	800	6.7%*
50 to 64	400	5.5%*
65 and Over	**	**
Total 101-200% Poverty	15,400	26.1%
17 and Under	5,800	31.0%
18 to 34	4,300	27.2%
35 to 49	2,700	22.7%
50 to 64	1,300	16.4%
65 and Over	1,100	22.3%



Population 2009 ¹	Number	% of Total
Total 0-18	19,764	
<1	1,027	5.2%
1-2	2,279	11.5%
3-5	3,333	16.9%
6-9	4,327	21.9%
10-14	5,082	25.7%
15-18	3,716	18.8%

Race/Ethnicity ¹	2000	2004	2008
White	96.01%	95.64%	95.46%
Black	1.38%	1.48%	1.61%
American Indian/Alaska Native	1.77%	1.64%	1.59%
Asian	0.65%	0.79%	0.92%
Native Hawaiian & Other Pacific Islander	0.19%	0.45%	0.41%
Hispanic	10.46%	10.15%	10.60%

Uninsured	Estimated Number 2009 ¹	% of Total 2007-2008 ³
Total Uninsured (0-64)	3,800	7.0%
17 and Under	500	2.6%*
18 to 34	1,900	11.7%
35 to 49	1,000	8.6%
50 to 64	500	6.0%*
Selected Insurance Type 2008 ⁴	Number	% of Total
Medicare	6,500	12.0%
CHIP*	**	**

*Children's Health Insurance Program, Ages 0 to 18

*Use caution in interpreting, the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability

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CoCASA: Up-to-Date at Age Two by Antigen 2009⁶

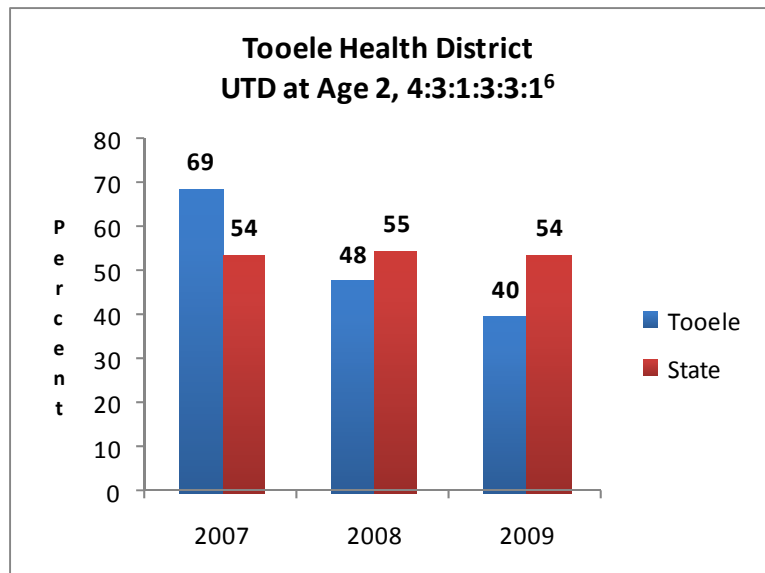
County	4 DTaP	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3:1	95 % Confidence Interval
All Providers	47.0%	65.6%	60.8%	67.0%	62.8%	58.8%	40.3%	36.1%, 44.5%

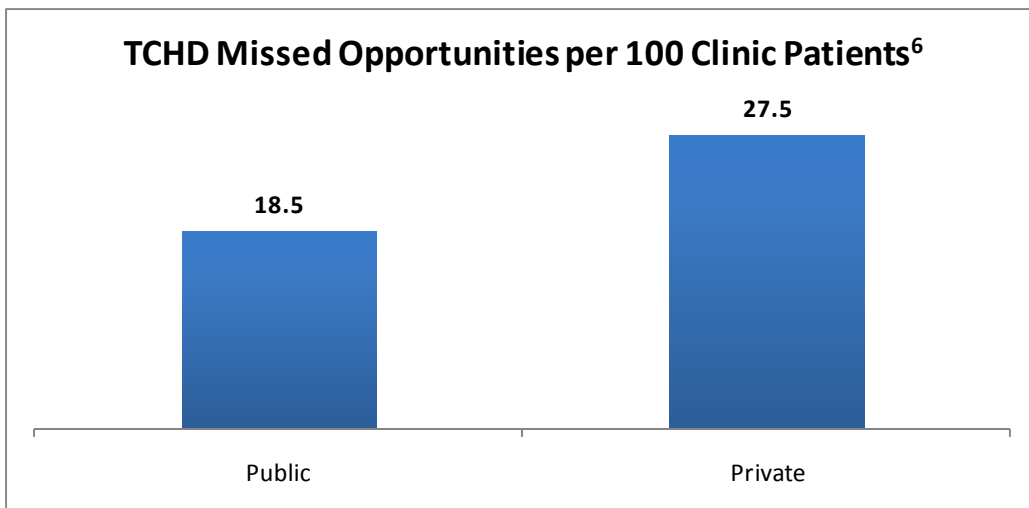
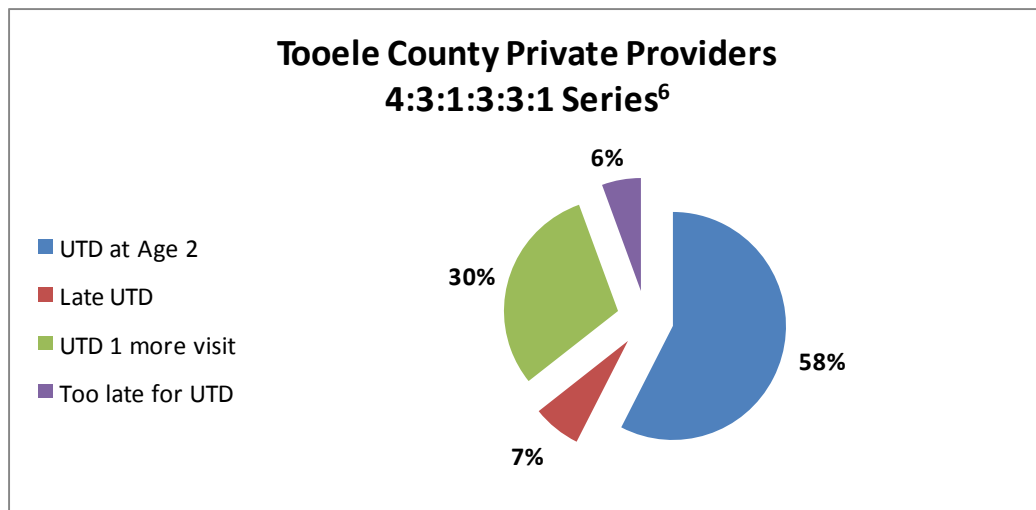
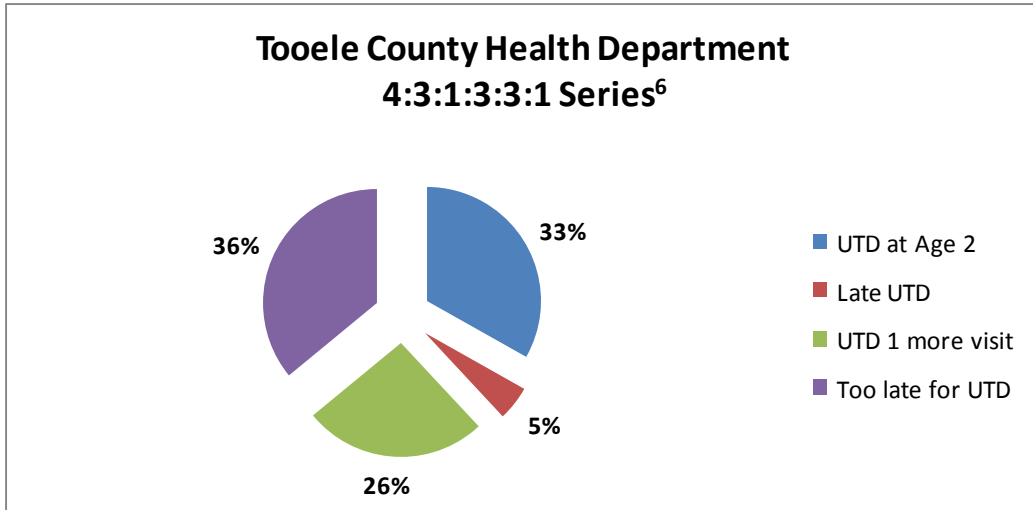
Up-to-Date at Age Two (4:3:1:3:3:1) 2009⁶

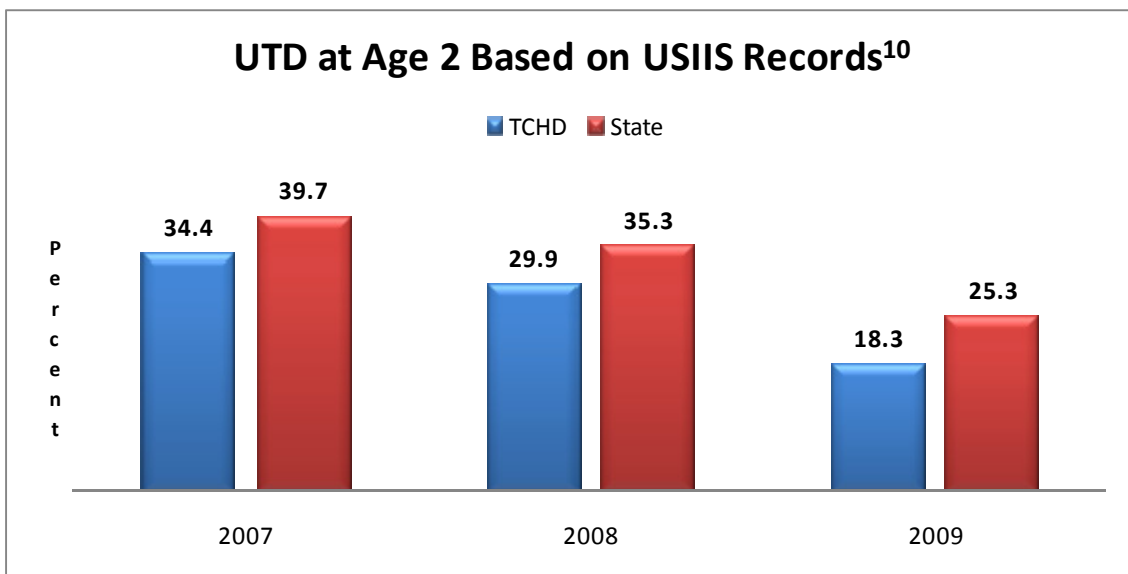
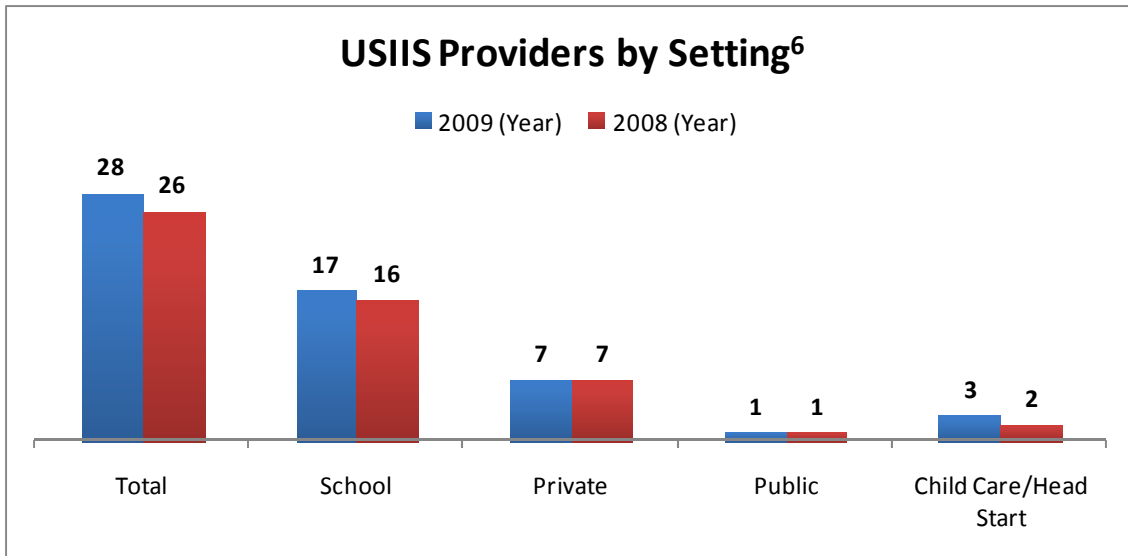
Provider Type	2009		2008
	Point Estimate	95% Confidence Interval	95% Confidence Interval
All VFC Private Providers	57.5%	49.5%, 65.5%	26.0%, 42.0%
FQHC/RHC	NA	NA	NA
Local Health Departments	33.2%	28.4%, 38.0%	80.1%, 96.6%

Health Care 2009

Providers/Facilities	Number
Private VFC Providers ⁶	9
Public Medical Clinics ⁶	2
Hospitals ⁷	1
Long-term Care and Assisted Living Centers ⁸	5
Local Health District Offices ⁶	1





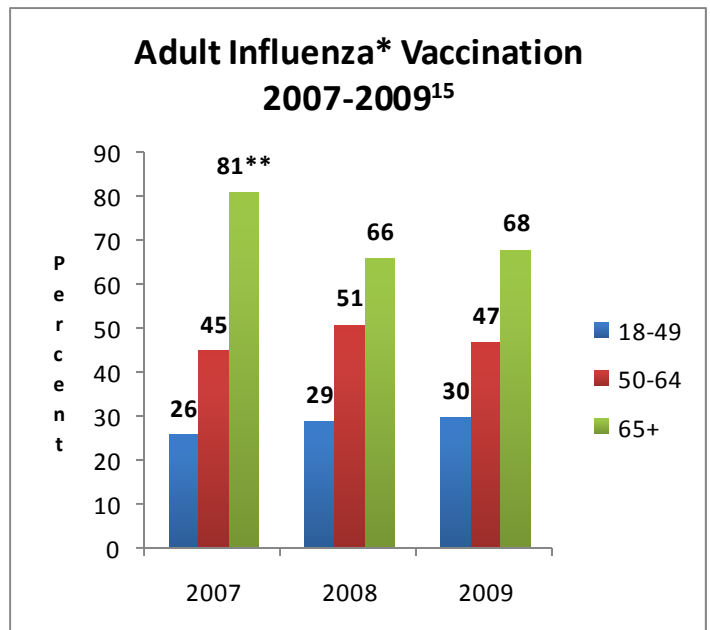


Adequately Immunized by School District 2009⁶

Tooele	Tooele	
	Adequately Immunized	Total Exemptions
Kindergarten School Entry	91.7%	2.5%
Second-Dose Measles (K-12)	97.8%	1.9%
7th Grade Entry	94.0%	3.7%

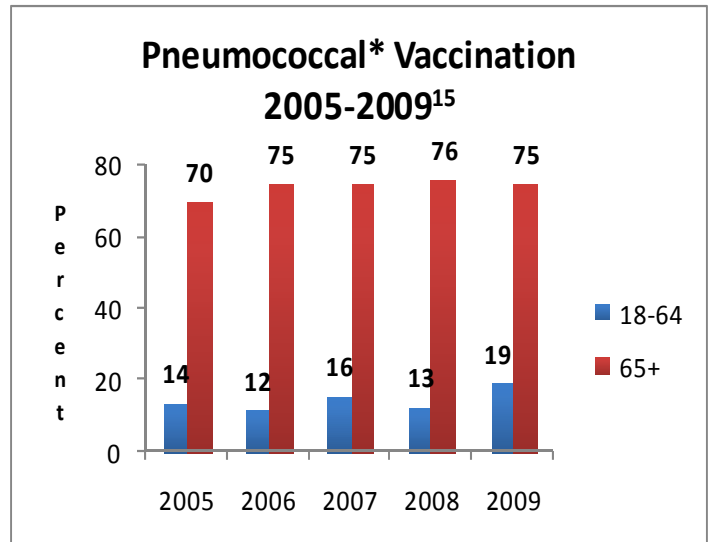
Child and School Health 2009

Group	Clinics/ Facilities	Enrollment
WIC Women ¹¹	2	430
WIC Infants ¹¹	2	411
WIC Children ¹¹	2	881
Child Care ¹²	2	298
Head Start ¹³	4	239
Public/Charter Schools ¹⁴	28	12,470
Private Schools ¹⁴	0	0



Immunized for Child Care 2009⁶

Tooele	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	90.3%	2.7%
Head Start Centers	95.4%	0.4%

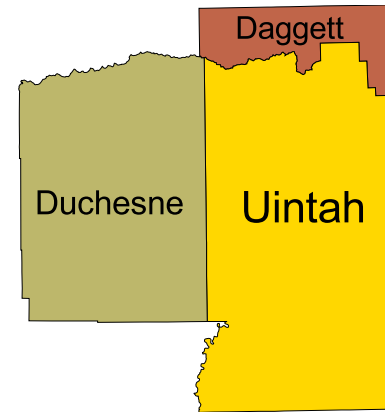


**Use caution in interpreting, the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability

*Influenza=within past 12 months, pneumococcal=ever had

Population 2009 ¹	Number	% of Total
Total Population	49,647	
17 and Under	15,290	30.8%
18 to 34	13,493	27.2%
35 to 49	7,834	15.8%
50 to 64	7,627	15.4%
65 and Over	5,403	10.9%
Poverty	Estimated Number 2009 ¹	% of Total 2007-2008 ²
Total 0-100% Poverty	3,900	7.9%
17 and Under	1,800	11.7%
18 to 34	900	6.9%*
35 to 49	700	9.5%
50 to 64	300	3.5%*
65 and Over	**	**
Total 101-200% Poverty	10,900	21.9%
17 and Under	3,700	24.1%
18 to 34	2,700	20.2%
35 to 49	1,600	20.1%
50 to 64	1,100	14.4%
65 and Over	1,700	32.1%

Race/Ethnicity ¹	2000	2004	2008
White	91.58%	91.35%	91.33%
Black	0.16%	0.23%	0.42%
American Indian/Alaska Native	7.98%	8.10%	7.90%
Asian	0.22%	0.23%	0.26%
Native Hawaiian & Other Pacific Islander	0.07%	0.08%	0.10%
Hispanic	3.56%	4.20%	5.06%



Population 2009 ¹	Number	% of Total
Total 0-18	16,117	
<1	1,139	7.1%
1-2	2,116	13.1%
3-5	2,674	16.6%
6-9	3,270	20.3%
10-14	3,690	22.9%
15-18	3,228	20.0%
Population 2009 ¹	Number	% of Total
Daggett	988	2.0%
Duchesne	17,368	35.0%
Uintah	31,291	63.0%

Uninsured	Estimated Number 2009 ¹	% of Total 2007-2008 ³
Total Uninsured (0-64)	5,600	12.6%
17 and Under	1,300	8.3%
18 to 34	2,600	19.2%
35 to 49	700	8.9%
50 to 64	1,200	15.2%
Selected Insurance Type 2008 ⁴	Number	% of Total
Medicare	6,200	14.5%
CHIP*	600	3.8%

*Children's Health Insurance Program, Ages 0 to 18

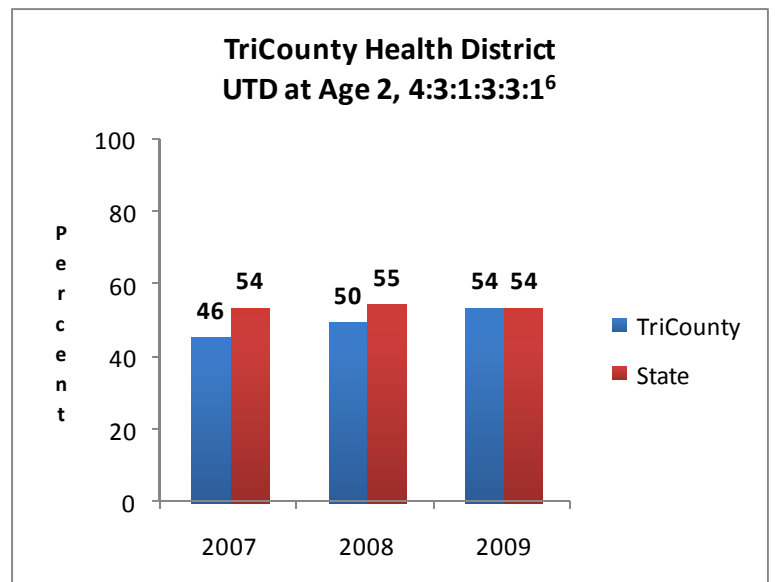
*Use caution in interpreting, the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability

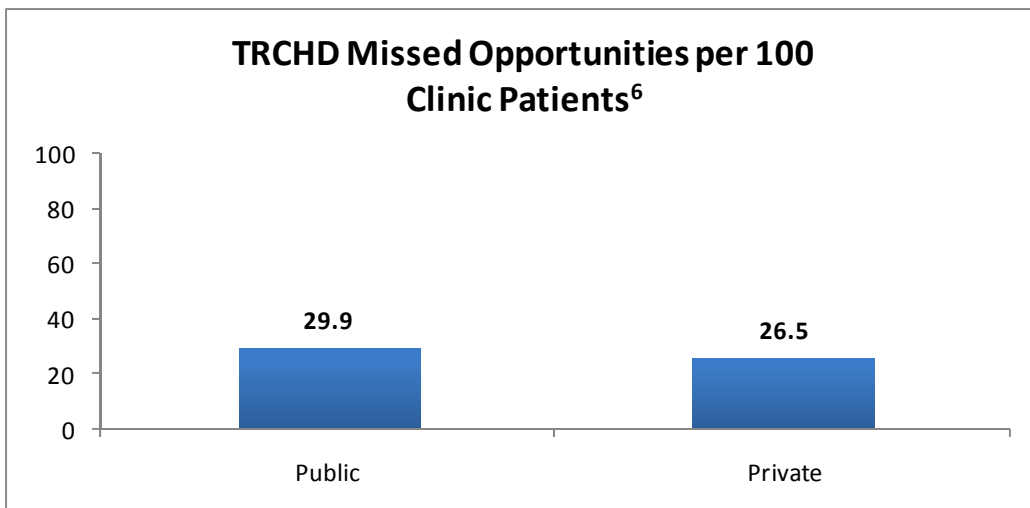
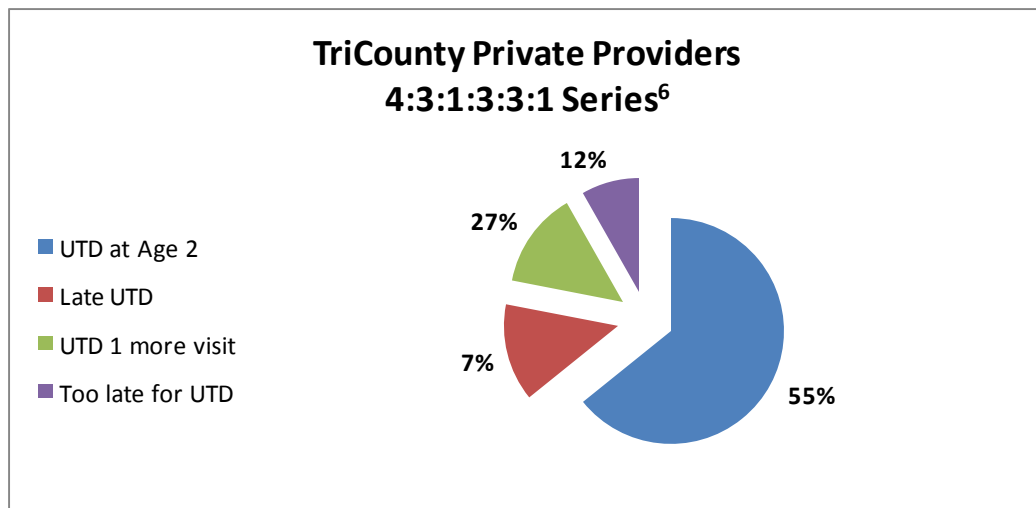
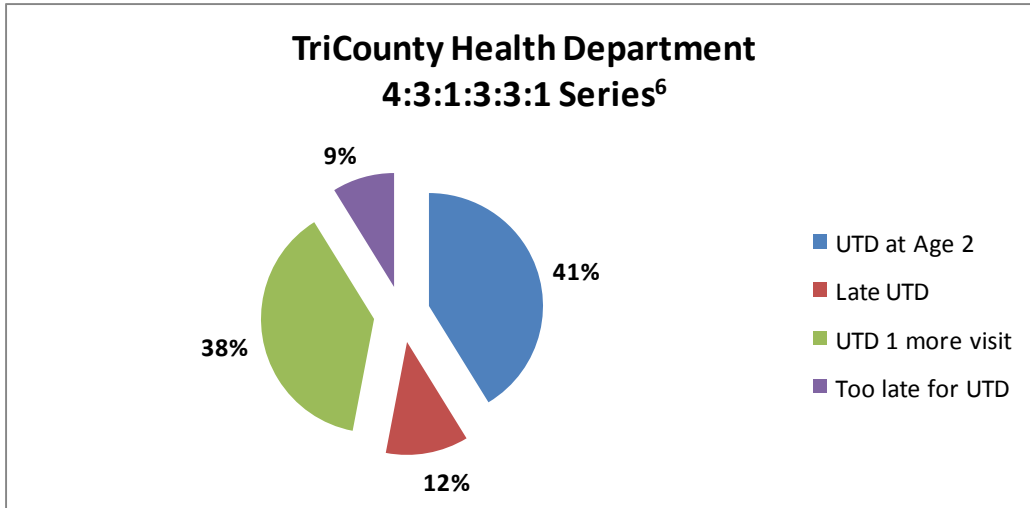
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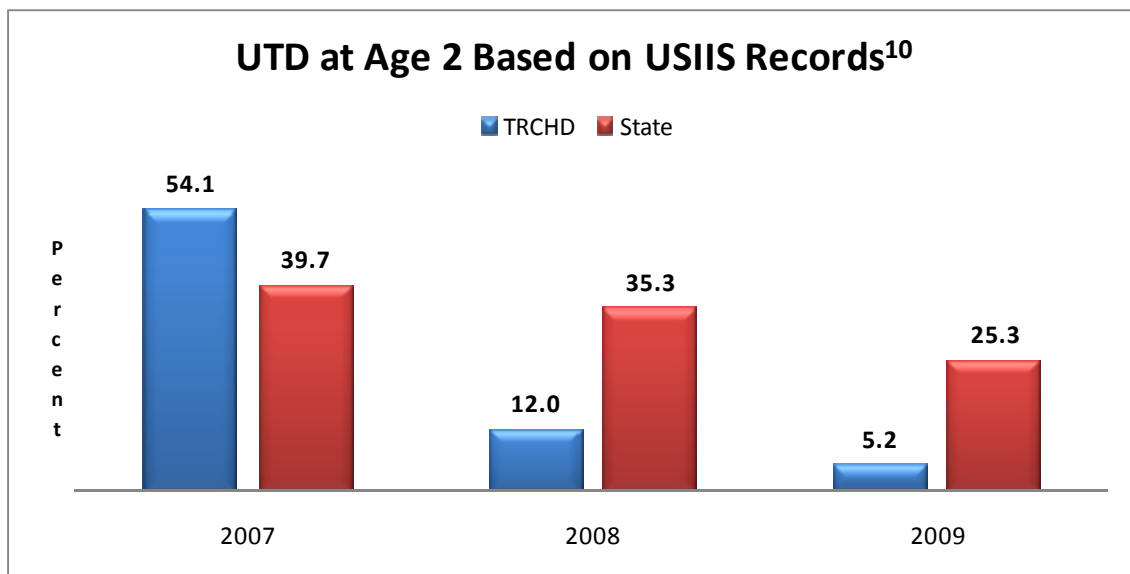
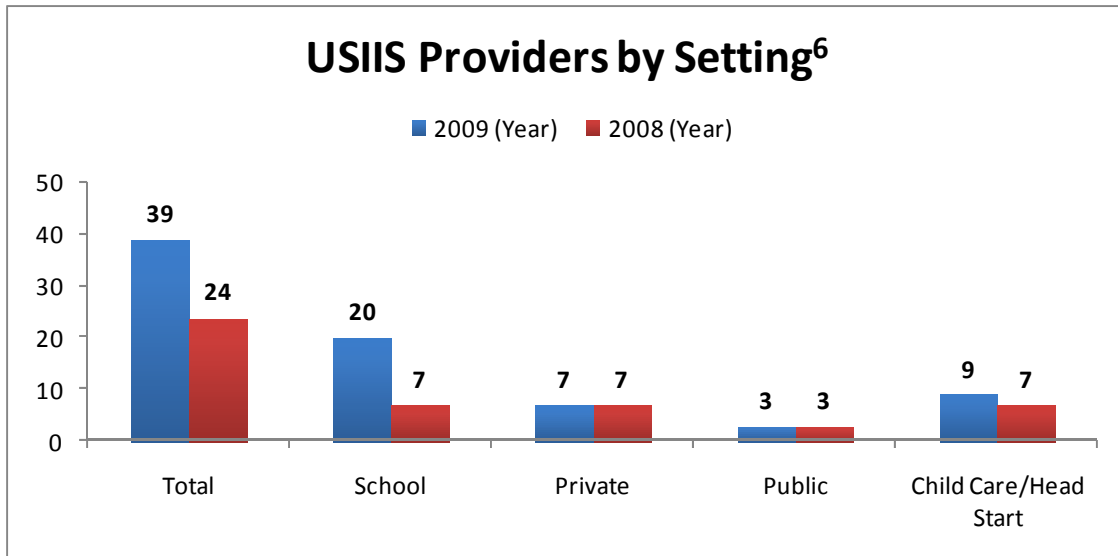
CoCASA: Up-to-Date at Age Two by Antigen 2009 ⁶								
	4 DTaP	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3:1	95% Confidence Interval
All Providers	62.3%	81.6%	80.6%	83.8%	83.6%	75.0%	54.2%	50.7%, 57.7%

Up-to-Date at Age Two (4:3:1:3:3:1) 2009 ⁶			
	2009		2008
Provider Type	Point Estimate	95% Confidence Interval	95% Confidence Interval
All VFC Private Providers	54.7%	51.1%, 58.3%	43.7%, 59.1%
FQHC/RHC	NA	NA	53.8%, 94.0%
Local Health Departments	41.2%	23.2%, 59.2%	35.8%, 53.0%

Health Care 2009	
Providers/Facilities	Number
Private VFC Providers ⁶	6
Public Medical Clinics ⁶	3
Hospitals ⁷	3
Long-term Care and Assisted Living Centers ⁸	6
Local Health District Offices ⁶	2





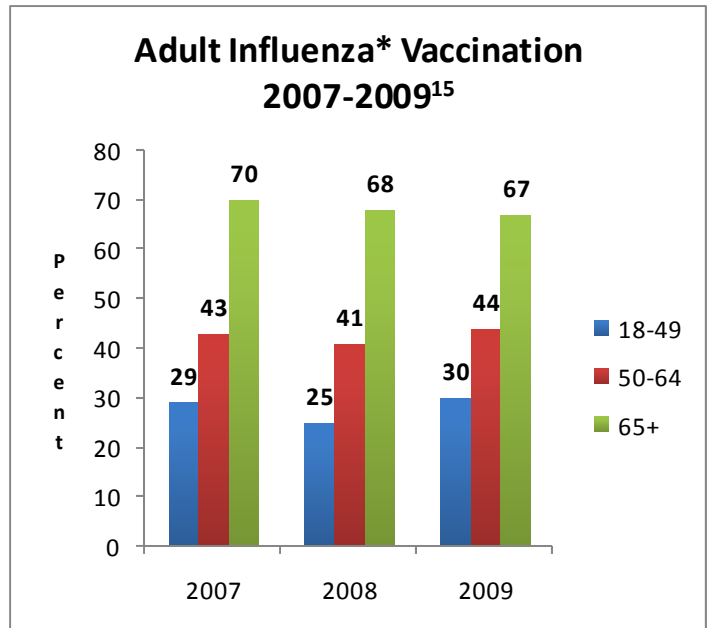


Adequately Immunized by School District 2009⁶

TriCounty	Daggett		Duchesne		Uintah	
	Adequately Immunized	Total Exemptions	Adequately Immunized	Total Exemptions	Adequately Immunized	Total Exemptions
Kindergarten School Entry	72.7%	0%	82.6%	4.4%	83.2%	5.5%
Second-Dose Measles (K-12)	93.5%	2.4%	95.0%	4.2%	96.8%	3.1%
7th Grade Entry	87.5%	12.5%	79.6%	10.7%	94.3%	4.1%

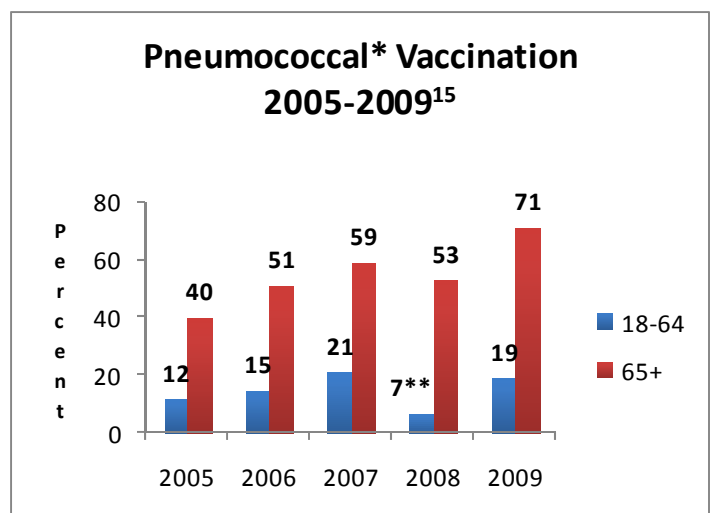
Child and School Health 2009

Group	Clinics/Facilities	Enrollment
WIC Women ¹¹	2	251
WIC Infants ¹¹	2	257
WIC Children ¹¹	2	368
Child Care ¹²	2	185
Head Start ¹³	1	215
Public/Charter Schools ¹⁴	36	11,160
Private Schools ¹⁴	1	68



Immunized for Child Care 2009⁶

TriCounty	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	98.9%	1.1%
Head Start Centers	93.5%	0.9%



**Use caution in interpreting, the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability

*Influenza=within past 12 months, pneumococcal=ever had

Population 2009 ¹	Number	% of Total
Total Population	531,442	
17 and Under	181,710	34.2%
18 to 34	179,604	33.8%
35 to 49	80,573	15.2%
50 to 64	54,590	10.3%
65 and Over	34,965	6.6%
Poverty	Estimated Number 2009 ¹	% of Total 2007-2008 ²
Total 0-100% Poverty	54,700	10.3%
17 and Under	21,600	11.9%
18 to 34	18,500	10.3%
35 to 49	7,300	9.1%
50 to 64	5,700	10.5%*
65 and Over	900	2.5%*
Total 101-200% Poverty	131,300	24.7%
17 and Under	51,100	28.1%
18 to 34	48,000	26.7%
35 to 49	17,600	21.8%
50 to 64	6,800	12.4%
65 and Over	6,400	18.4%

Race/Ethnicity ¹	2000	2004	2008
White	97.23%	96.92%	96.46%
Black	0.35%	0.51%	0.75%
American Indian/Alaska Native	0.65%	0.66%	0.74%
Asian	1.17%	1.29%	1.42%
Native Hawaiian & Other Pacific Islander	0.61%	0.62%	0.63%
Hispanic	7.04%	8.07%	9.59%



Population 2009 ¹	Number	% of Total
Total 0-18	191,916	
<1	12,351	6.4%
1-2	24,584	12.8%
3-5	34,583	18.0%
6-9	43,555	22.7%
10-14	43,238	22.5%
15-18	33,605	17.5%

Uninsured	Estimated Number 2009 ¹	% of Total 2007-2008 ³
Total Uninsured (0-64)	58,600	11.8%
17 and Under	16,900	9.3%
18 to 34	27,400	15.3%
35 to 49	8,600	10.6%
50 to 64	5,900	10.7%*
Selected Insurance Type 2008 ⁴	Number	% of Total
Medicare	40,800	8.8%
CHIP*	6,900	3.6%

*Children's Health Insurance Program, Ages 0 to 18

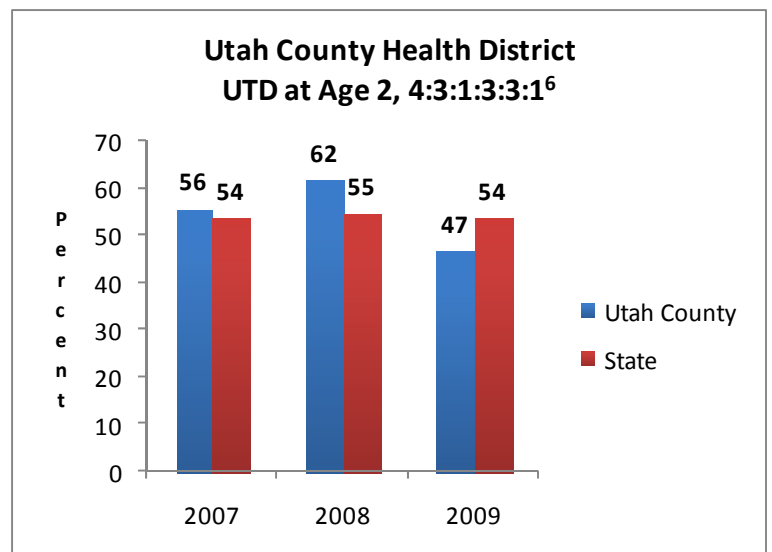
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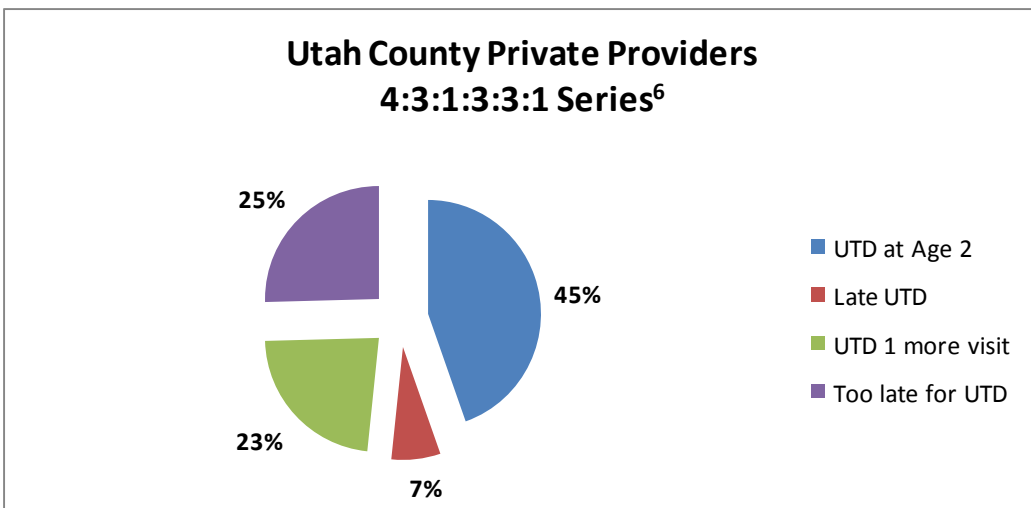
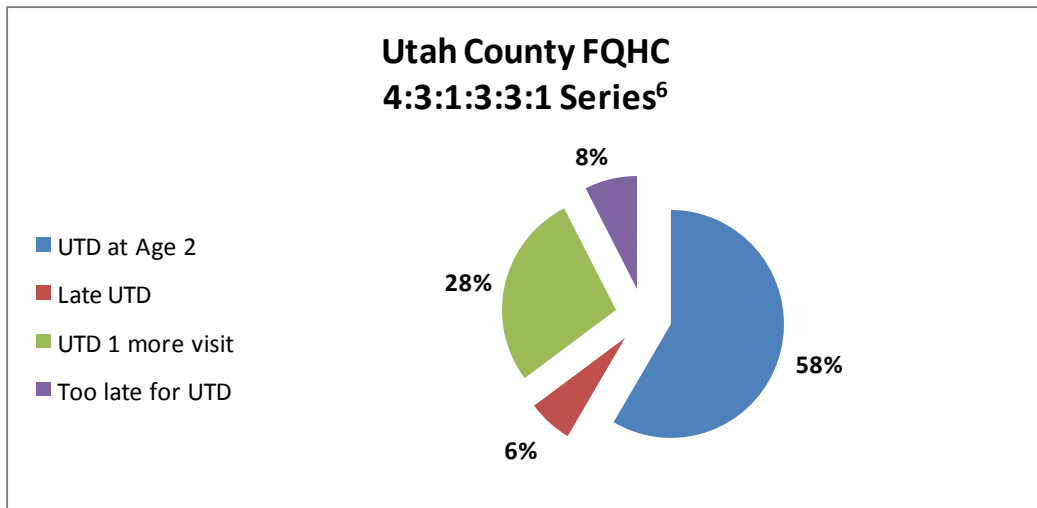
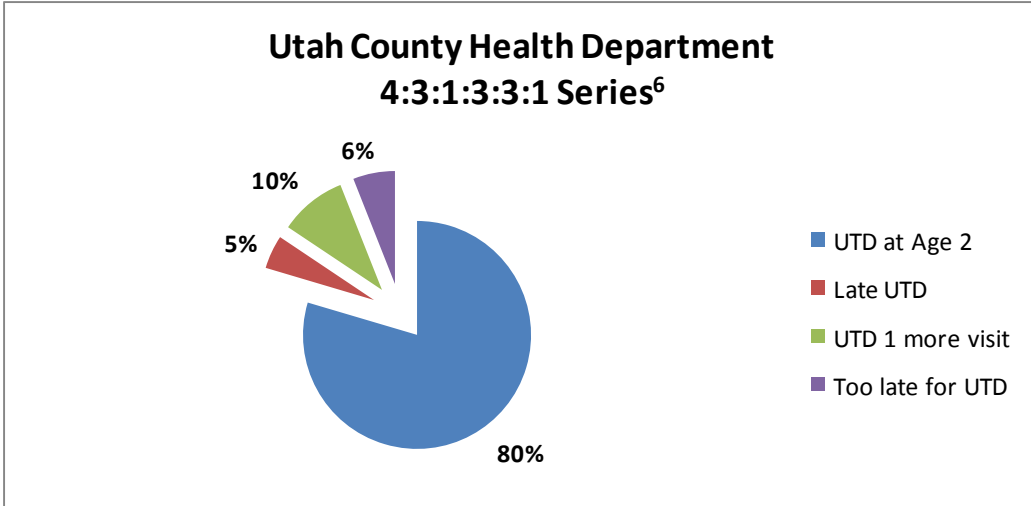
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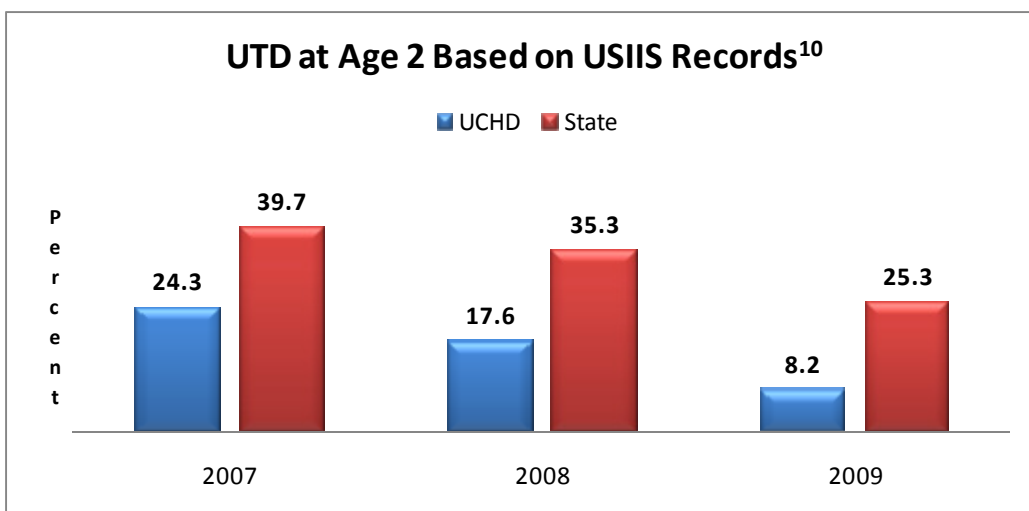
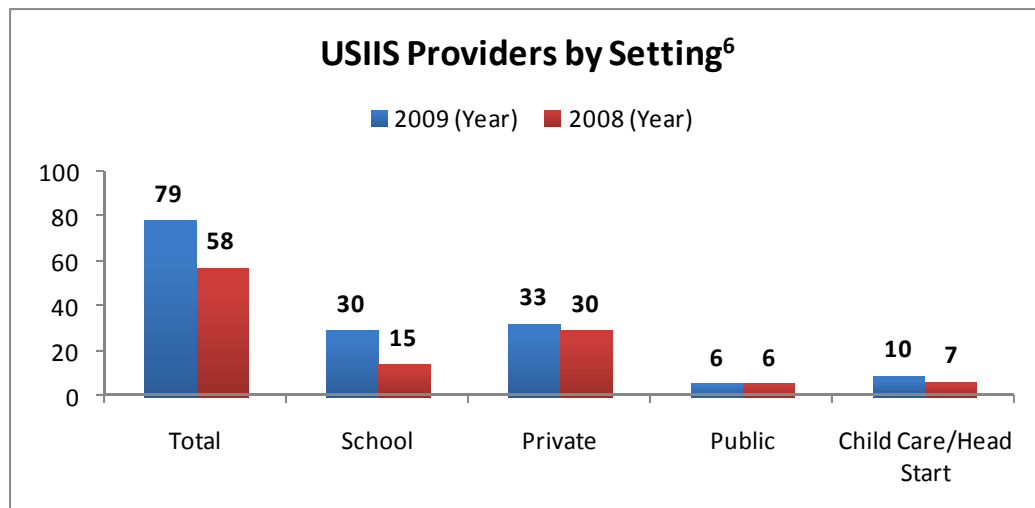
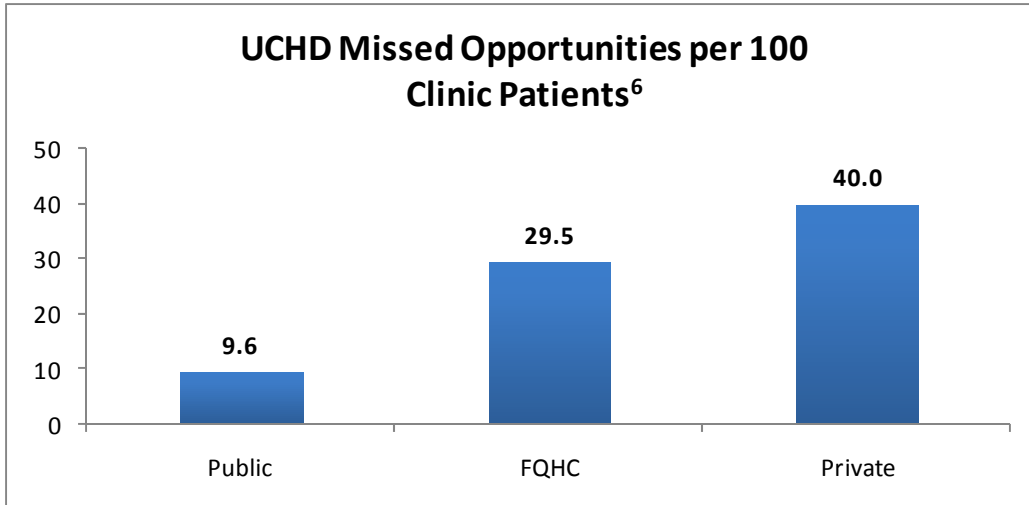
CoCASA: Up-to-Date at Age Two by Antigen 2009 ⁶							
	4 DTaP	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3:1 95% Confidence Interval
All Providers	55.0%	72.9%	77.3%	76.4%	70.2%	76.3%	46.7% 44.8%, 48.7%

Up-to-Date at Age Two (4:3:1:3:3:1) 2009 ⁶			
	2009		2008
Provider Type	Point Estimate	95% Confidence Interval	95% Confidence Interval
All VFC Private Providers	44.6%	42.6%, 46.7%	42.6%, 53.2%
FQHC/RHC	58.4%	50.8%, 66.0%	NA
Local Health Departments	79.5%	70.2%, 88.8%	84.9%, 94.1%

Health Care 2009	
Providers/Facilities	Number
Private VFC Providers ⁶	46
Public Medical Clinics ⁶	4
Hospitals ⁷	9
Long-term Care and Assisted Living Centers ⁸	57
Local Health District Offices ⁶	3





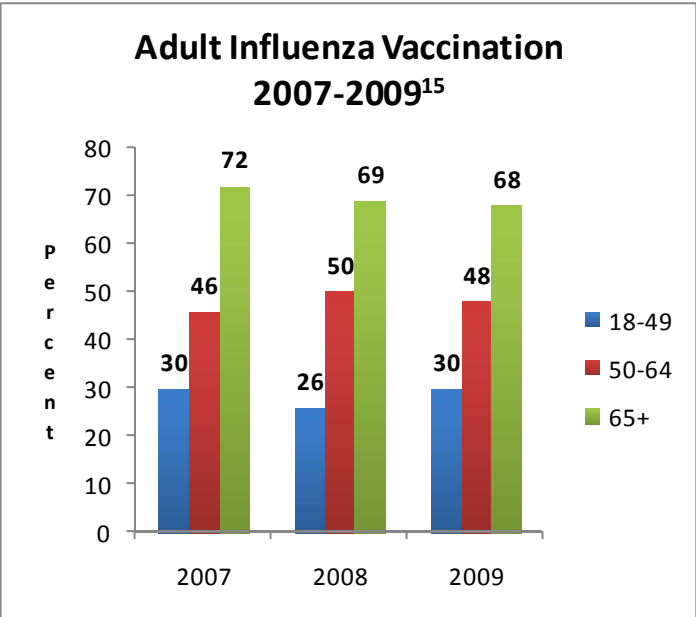


Adequately Immunized by School District 2009⁶

Utah County	Alpine		Nebo		Provo	
	Adequately Immunized	Total Exemptions	Adequately Immunized	Total Exemptions	Adequately Immunized	Total Exemptions
Kindergarten School Entry	84.0%	4.1%	83.3%	5.1%	89.6%	3.7%
Second-Dose Measles (K-12)	95.5%	3.7%	92.7%	4.7%	96.4%	3.3%
7th Grade Entry	90.8%	4.6%	87.7%	6.9%	94.1%	4.5%

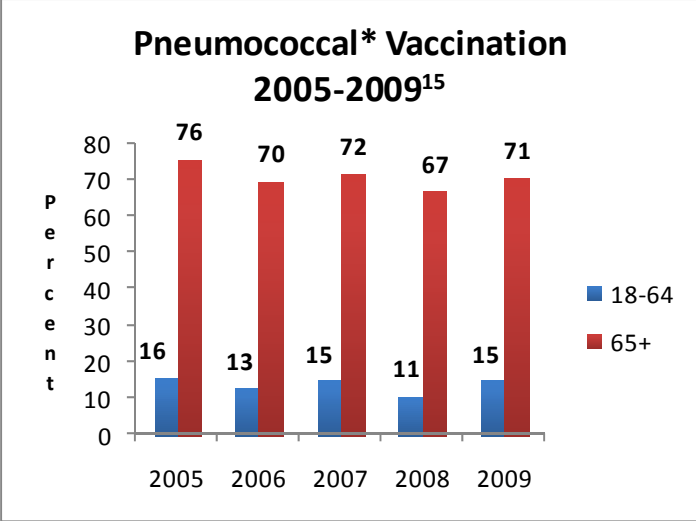
Child and School Health 2009

Group	Clinics/Facilities	Enrollment
WIC Women ¹¹	4	3,768
WIC Infants ¹¹	4	3,285
WIC Children ¹¹	4	6,903
Child Care ¹²	17	1,223
Head Start ^{+, 13}	2	904
Public/Charter Schools ¹⁴	168	114,589
Private Schools ¹⁴	12	743



Immunized for Child Care 2009⁶

Utah County	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	80.8%	2.2%
Head Start Centers ⁺	93.6%	3.7%



⁺ Head Start data for WCHD included in UCHD

*Influenza=within past 12 months, pneumococcal=ever had

Population 2009 ¹	Number	% of Total
Total Population	23,428	
17 and Under	6,806	29.1%
18 to 34	6,441	27.5%
35 to 49	4,522	19.3%
50 to 64	3,482	14.9%
65 and Over	2,177	9.3%
Poverty	Estimated Number 2009 ¹	% of Total 2007-2008 ²
Total 0-100% Poverty	2,500	10.7%
17 and Under	800	12.4%
18 to 34	1,000	15.5%
35 to 49	300	7.2%*
50 to 64	**	**
65 and Over	**	**
Total 101-200% Poverty	4,100	17.7%
17 and Under	1,600	23.2%
18 to 34	1,300	20.3%
35 to 49	700	14.8%
50 to 64	300	8.2%
65 and Over	200	9.3%

Race/Ethnicity ¹	2000	2004	2008
White	98.83%	98.53%	98.10%
Black	0.25%	0.31%	0.40%
American Indian/Alaska Native	0.52%	0.59%	0.58%
Asian	0.30%	0.46%	0.81%
Native Hawaiian & Other Pacific Islander	0.10%	0.11%	0.10%
Hispanic	4.57%	6.49%	8.15%



Population 2009 ¹	Number	% of Total
Total 0-18	7,191	
<1	399	5.5%
1-2	832	11.6%
3-5	1,221	17.0%
6-9	1,545	21.5%
10-14	1,730	24.1%
15-18	1,464	20.4%

Uninsured	Estimated Number 2009 ¹	% of Total 2007-2008 ³
Total Uninsured (0-64)	2,700	12.8%
17 and Under	700	9.7%
18 to 34	1,300	19.8%
35 to 49	500	10.8%
50 to 64	300	8.1%*
Selected Insurance Type 2008 ⁴	Number	% of Total
Medicare	2,400	11.9%
CHIP*	200	2.3%

*Children's Health Insurance Program, Ages 0 to 18

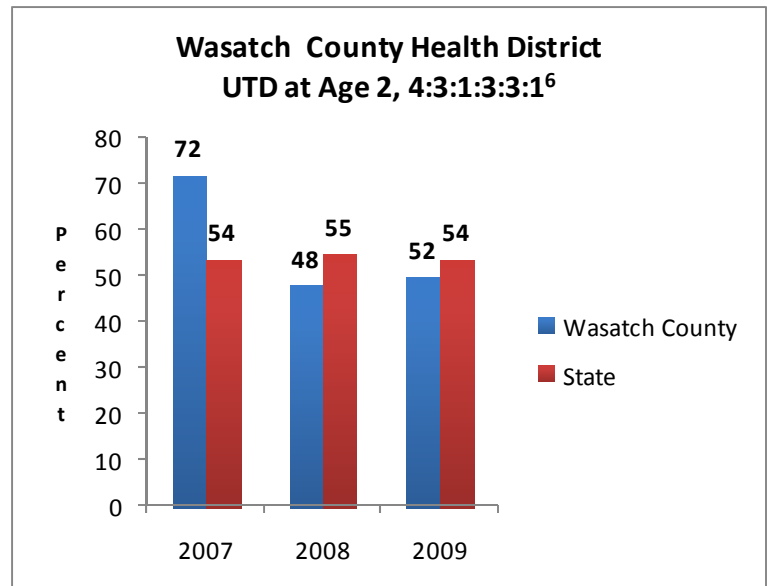
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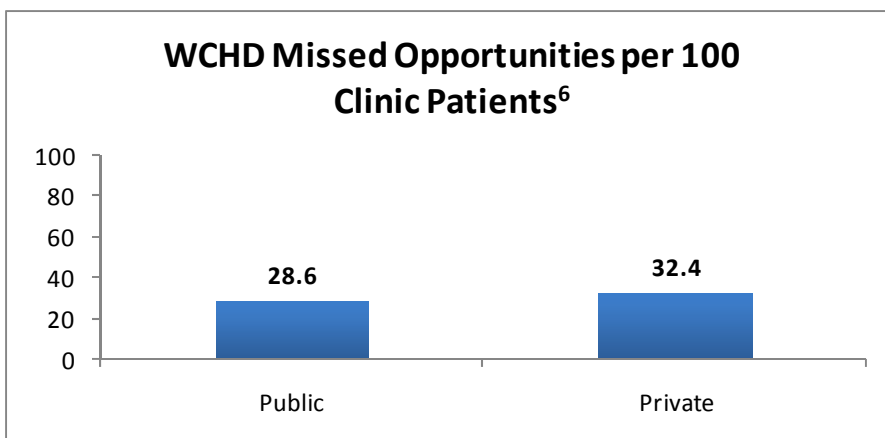
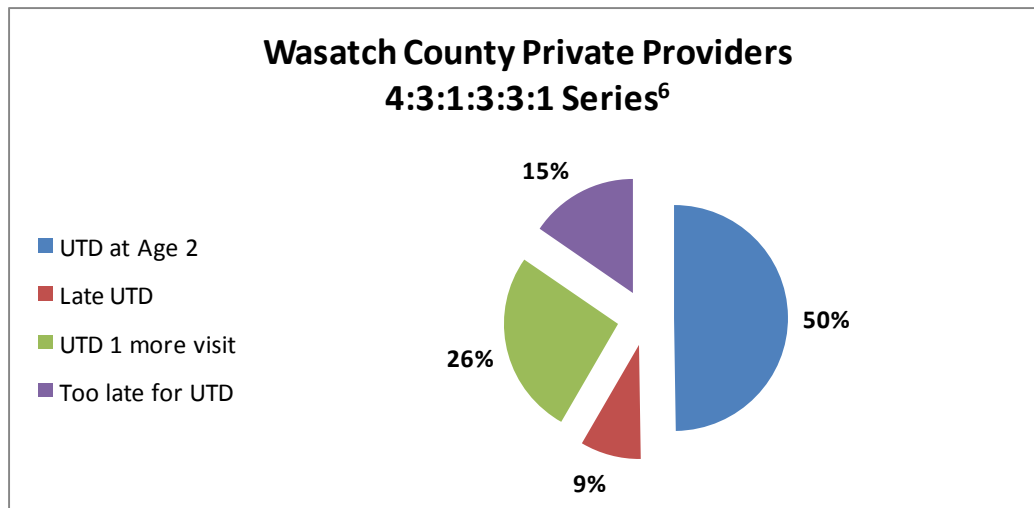
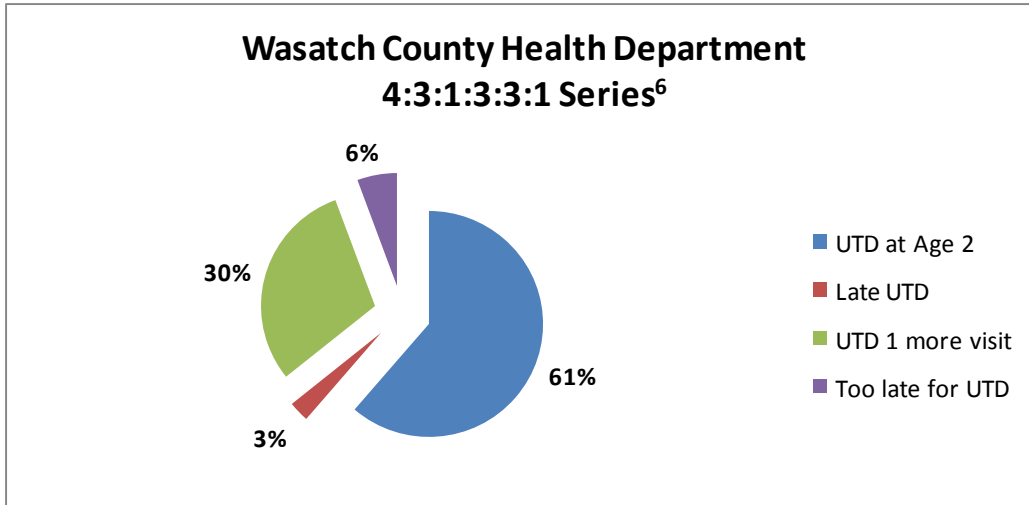
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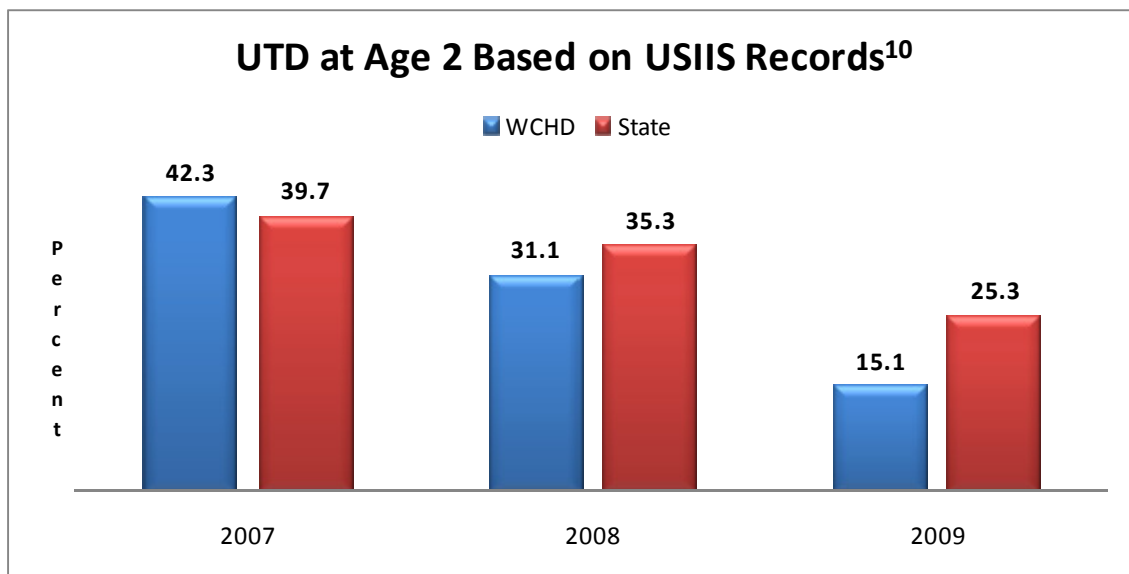
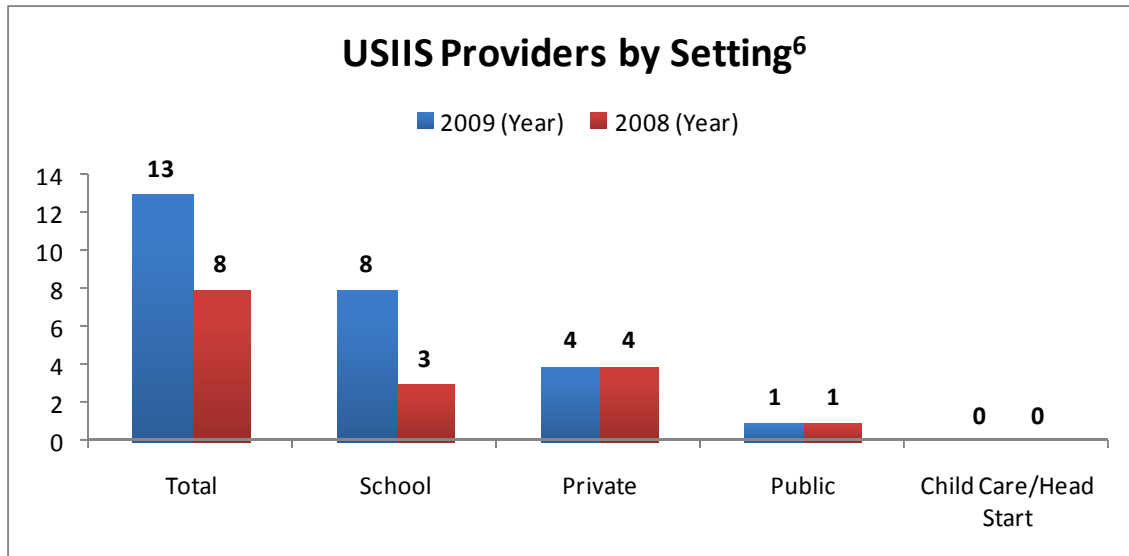
CoCASA: Up-to-Date at Age Two by Antigen 2009 ⁶							
	4 DTaP	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3:1 95% Confidence Interval
All Providers	62.7%	83.5%	73.1%	82.7%	74.4%	69.0%	51.8% 46.7%, 56.9%

Up-to-Date at Age Two (4:3:1:3:3:1) 2009 ⁶			
	2009		2008
Provider Type	Point Estimate	95% Confidence Interval	95% Confidence Interval
All VFC Private Providers	49.7%	44.1%, 55.3%	NA
FQHC/RHC	NA	NA	NA
Local Health Departments	61.4%	49.3%, 73.5%	37.9%, 57.5%

Health Care 2009	
Providers/Facilities	Number
Private VFC Providers ⁶	3
Public Medical Clinics ⁶	1
Hospitals ⁷	2
Long-term Care and Assisted Living Centers ⁸	2
Local Health District Offices ⁶	1





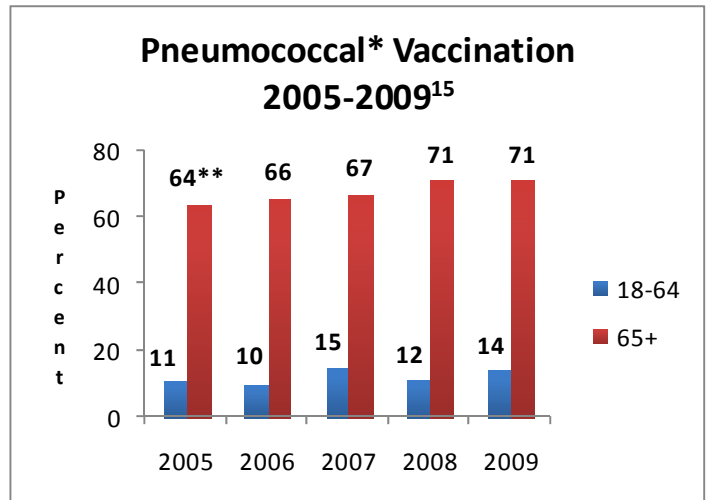
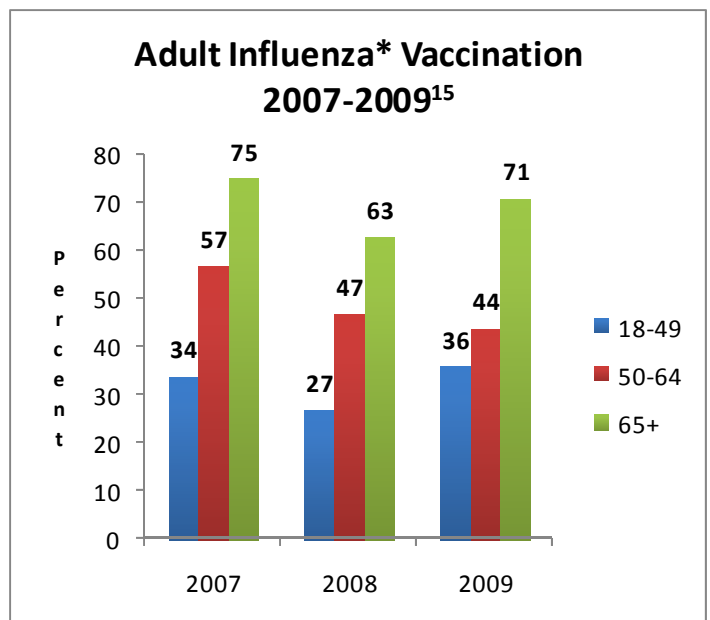


Adequately Immunized by School District 2009 ⁶		
Wasatch	Wasatch	
	Adequately Immunized	Total Exemptions
Kindergarten School Entry	74.5%	3.4%
Second-Dose Measles (K-12)	94.3%	4.0%
7th Grade Entry	81.7%	4.1%

Child and School Health 2009		
Group	Clinics/ Facilities	Enrollment
WIC Women ¹¹	1	141
WIC Infants ¹¹	1	137
WIC Children ¹¹	1	259
Child Care ¹²	2	59
Head Start ^{+, 13}	+	+
Public/Charter Schools ¹⁴	10	5,293
Private Schools ¹⁴	0	0

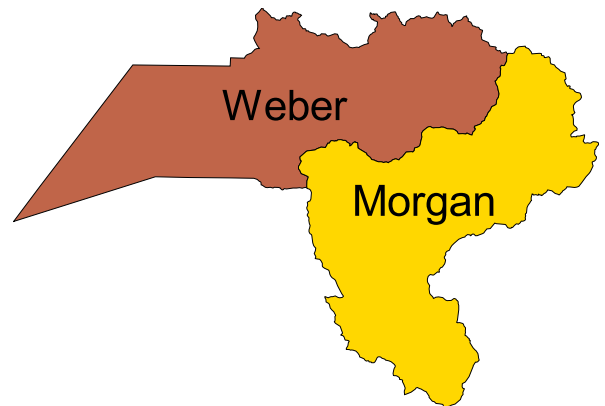
*Data for Wasatch Head Start reported with Utah County.

Immunized for Child Care 2009 ⁶		
Wasatch	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	93.2%	1.7%
Head Start Centers	Reported in Utah Co HS	Reported in Utah Co HS



**Use caution in interpreting, the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability

Population 2009 ¹	Number	% of Total
Total Population	237,206	
17 and Under	70,963	29.9%
18 to 34	63,007	26.6%
35 to 49	43,291	18.3%
50 to 64	35,742	15.1%
65 and Over	24,203	10.2%
Poverty 2007-2008 ²	Estimated Number	% of Total
Total 0-100% Poverty	22,100	9.3%
17 and Under	9,900	13.9%*
18 to 34	3,800	6.1%*
35 to 49	4,100	9.5%*
50 to 64	1,800	5.0%*
65 and Over	2,400	9.8%*
Total 101-200% Poverty	47,400	20.0%
17 and Under	18,900	26.7%
18 to 34	11,400	18.1%
35 to 49	9,600	22.2%
50 to 64	4,100	11.4%
65 and Over	3,200	13.2%*



Population 2009 ¹	Number	% of Total
Total 0-18	74,560	
<1	4,455	6.0%
1-2	8,735	11.7%
3-5	12,408	16.6%
6-9	16,370	22.0%
10-14	18,499	24.8%
15-18	14,093	18.9%
Population 2009 ¹	Number	% of Total
Morgan	9,947	4.2%
Weber	227,259	95.8%

Race/Ethnicity ¹	2000	2004	2008
White	96.23%	96.12%	95.89%
Black	1.46%	1.47%	1.61%
American Indian/Alaska Native	0.83%	0.88%	0.95%
Asian	1.30%	1.33%	1.36%
Native Hawaiian & Other Pacific Islander	0.17%	0.19%	0.20%
Hispanic	12.36%	13.69%	15.46%

Uninsured	Estimated Number 2009 ¹	% of Total 2007-2008 ³
Total Uninsured (0-64)	12,200	5.7%
17 and Under	**	**
18 to 34	4,500	7.1%*
35 to 49	4,600	10.7%
50 to 64	1,300	3.7%*
Selected Insurance Type 2008 ⁴	Number	% of Total
Medicare	31,100	13.8%
CHIP*	7,500	10.1%

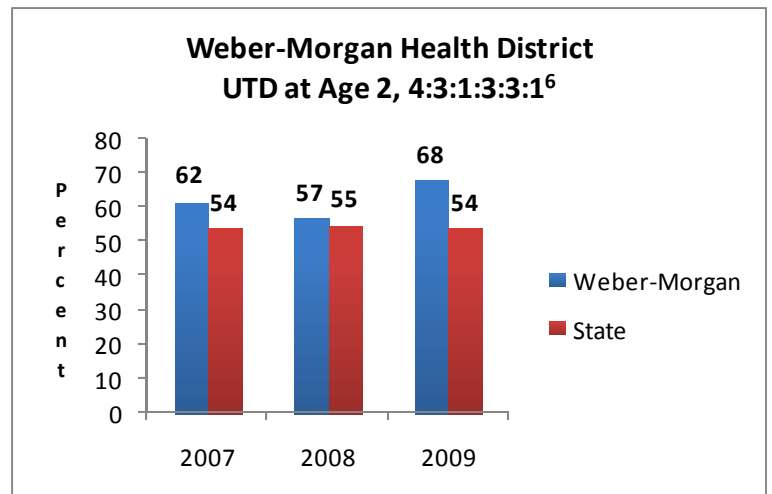
*Children's Health Insurance Program, Ages 0 to 18

*Use caution in interpreting, the estimate has a relative standard error greater than 30% and does not meet UDOH standards for reliability

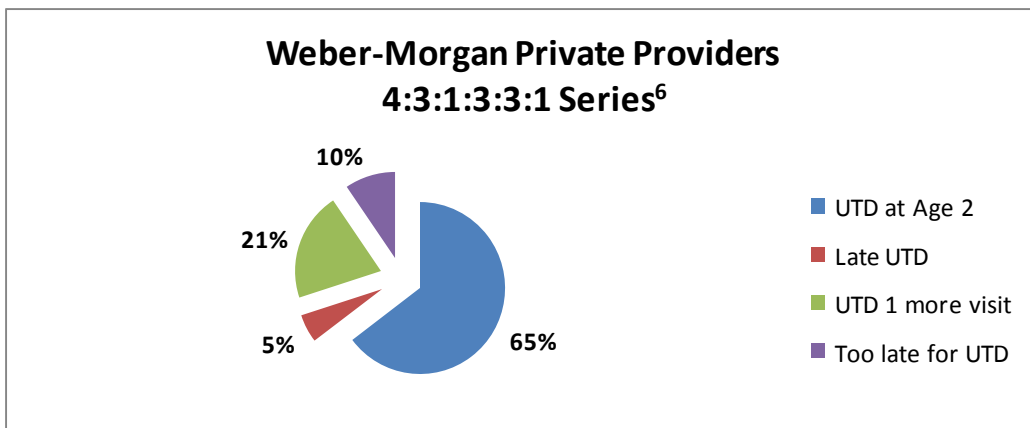
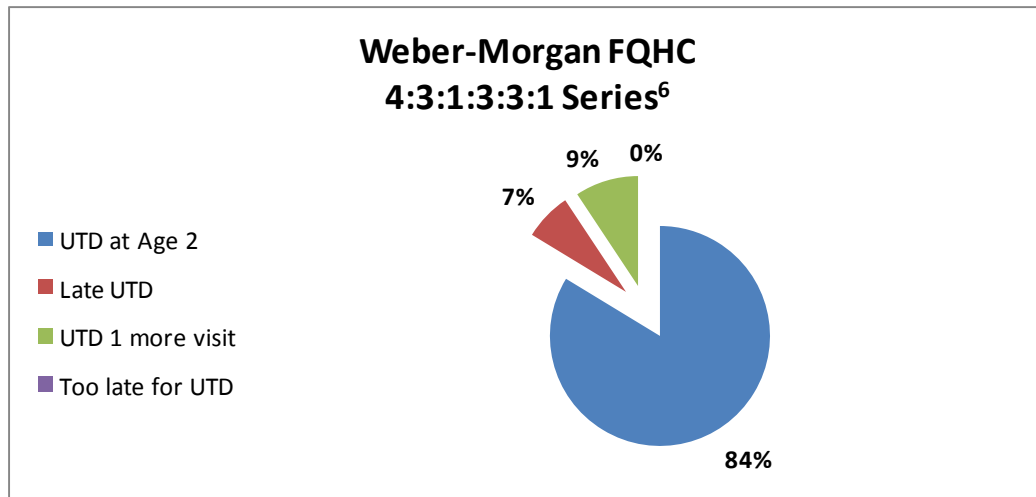
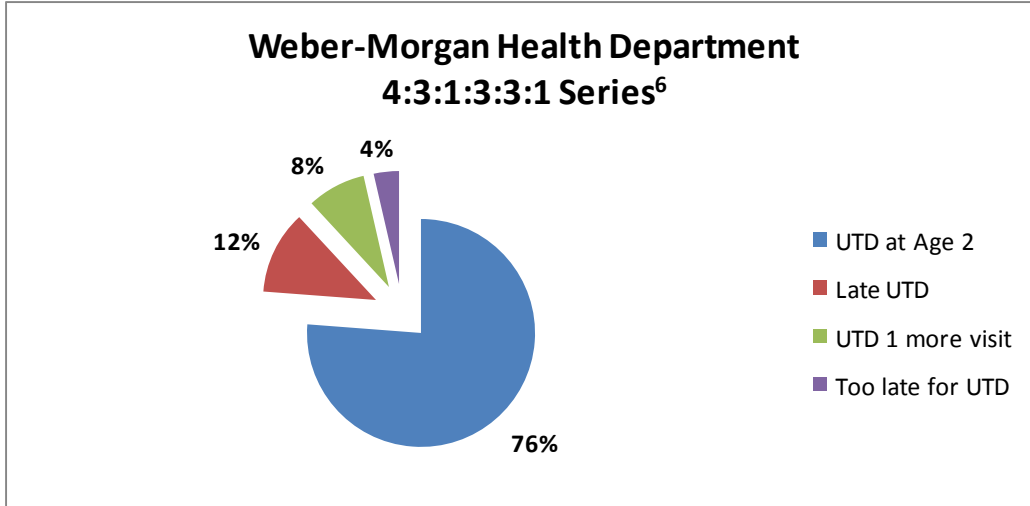
CoCASA: Up-to-Date at Age Two by Antigen 2009 ⁶								
	4 DTaP	3 Polio	1 MMR	3 Hib	3 Hep B	1 Varicella	4:3:1:3:3:1	95% Confidence Interval
All Providers	74.7%	89.8%	87.3%	88.7%	88.7%	86.5%	68.1%	64.7%, 71.5%

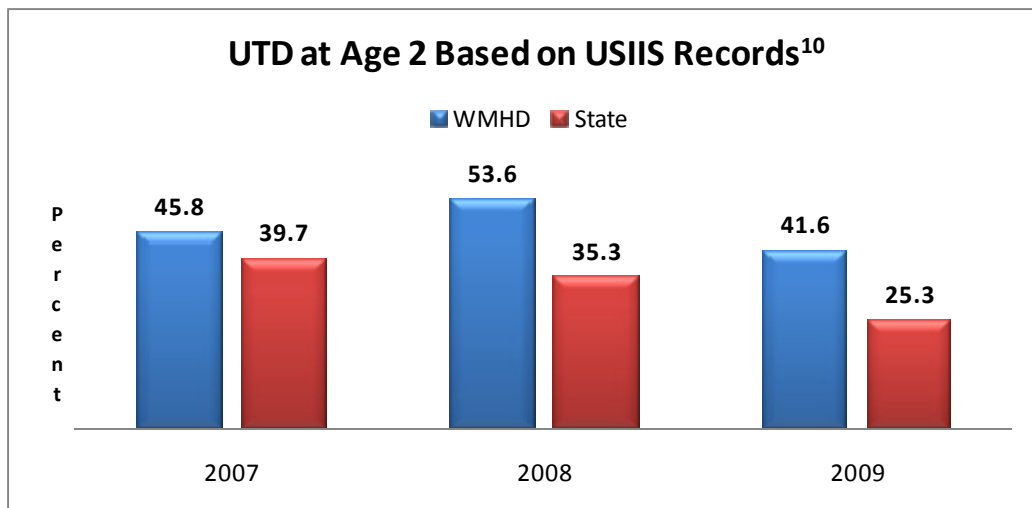
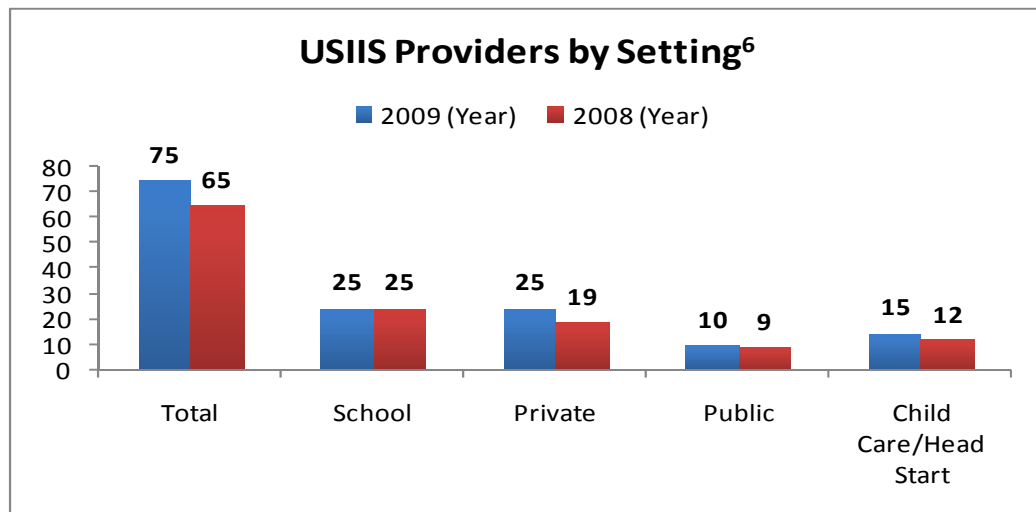
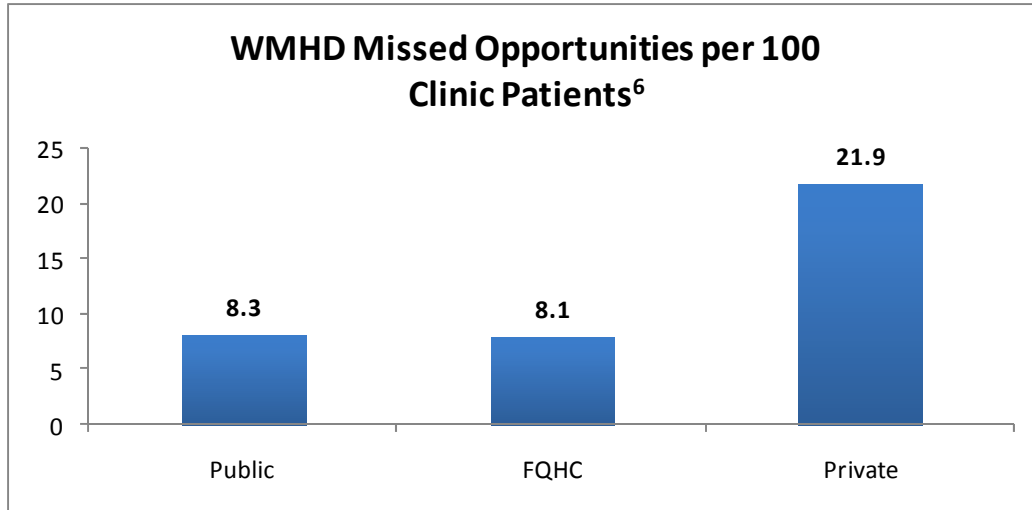
Up-to-Date at Age Two (4:3:1:3:3:1) 2009 ⁶			
	2009		2008
Provider Type	Point Estimate	95% Confidence Interval	95% Confidence Interval
All VFC Private Providers	64.6%	60.6%, 68.6%	31.0%, 53.4%
FQHC/RHC	83.7%	75.3%, 92.1%	NA
Local Health Departments	76.2%	66.5%, 85.9%	58.6%, 75.8%

Health Care 2009	
Providers/Facilities	Number
Private VFC Providers ⁶	22
Public Medical Clinics ⁶	9
Hospitals ⁷	3
Long-term Care and Assisted Living Centers ⁸	20
Local Health District Offices ⁶	1



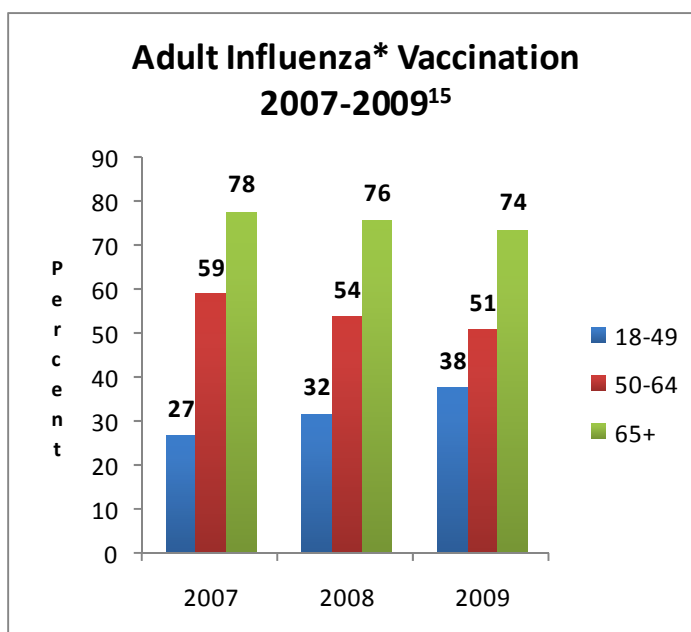
Weber-Morgan Early Childhood Immunization



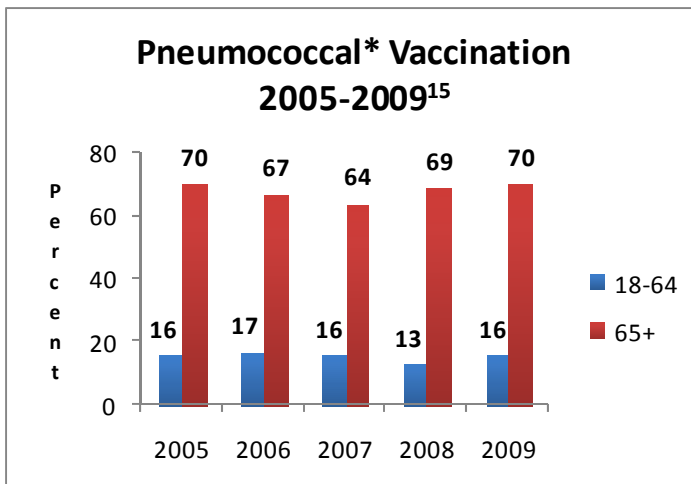


Adequately Immunized by School District 2009 ⁶						
Weber-Morgan	Morgan		Ogden		Weber	
	Adequately Immunized	Total Exemptions	Adequately Immunized	Total Exemptions	Adequately Immunized	Total Exemptions
Kindergarten School Entry	89.4%	4.4%	93.8%	1.7%	91.3%	2.7%
Second-Dose Measles(K-12)	97.0%	2.8%	97.9%	1.5%	98.2%	1.6%
7th Grade Entry	81.1%	1.7%	95.6%	2.6%	96.2%	1.7%

Child and School Health 2009		
Group	Clinics/Facilities	Enrollment
WIC Women ¹¹	2	1,766
WIC Infants ¹¹	2	1,894
WIC Children ¹¹	2	3,354
Child Care ¹²	21	1,718
Head Start ^{13, *}	1	644
Public/Charter Schools/ ¹⁴	77	46,419
Private Schools ¹⁴	17	1,322



Immunized for Child Care 2009 ⁶		
Weber-Morgan	Adequately Immunized	Total Exemptions
Child Care Facilities and Preschools	89.3%	2.7%
Head Start Centers ⁺	97.1%	0.5%



* Head Start data for WMHD include data for Weber County only. Morgan County data included in DCHD.

*Influenza=within past 12 months, pneumococcal=ever had

Since 2007, the CDC has published the National Immunization Survey (NIS) for teen populations. This survey is similar to the childhood NIS. Survey responses are collected via telephone through random digit dialing. Those who participate are asked to provide health care provider information so their verbal responses over the phone can be validated through the official immunization record. Children ages 13-17 were included in the study. Participants were asked about receiving meningococcal conjugate vaccine (MCV4), MMR, Hepatitis B, Varicella, Td or Tdap, and HPV (beginning in 2007). The 2009 NIS included 20,066 adolescents (57.2% response rate) who had provider verified vaccination records. The CDC identifies three limitations in this survey: there could be bias due to non-response and households without landline telephones; underestimation of vaccine coverage may have occurred due to the exclusive use of provider verified records; some state level and race/ethnicity level data should be interpreted with caution because of small sample sizes. Results from this survey have been reported on a national and state level, which can be seen in the tables below. A percentage in red indicates significant improvement over the previous year. There was an increase in coverage in Utah for all vaccines and significant improvement for Tdap. The National coverage increased significantly for all vaccines except MMR. Utah made gains on the national coverage for all vaccine series in which it was lagging, and continues to exceed national coverage for Tdap.

NIS Teen 2008, Ages 13-17 ⁱ		
Vaccine/Vaccine Series	Utah Coverage	National Coverage
MCV4, 1 dose	31.3%	41.8%
MMR, 2 doses	82.6%	89.3%
Hepatitis B, 3 doses	70.2%	87.9%
Varicella, 1 dose among teens without history of varicella disease	67.5%	81.9%
Td, or Tdap, 1 dose	62.7%	72.2%
Tdap, 1 dose	46.8%	40.8%
HPV4, 1 dose (females)	17.1%	37.2%

NIS Teen 2009, Ages 13-17 ⁱⁱ		
Vaccine/Vaccine Series	Utah Coverage	National Coverage
MCV4, 1 dose	42.0%	53.6%
MMR, 2 doses	87.3%	89.1%
Hepatitis B, 3 doses	80.6%	89.9%
Varicella, 1 dose among teens without history of varicella disease	77.7%	87.0%
Td, or Tdap, 1 dose	73.2%	76.2%
Tdap, 1 dose	64.1%	55.6%
HPV4, 1 dose (females)	32.5%	44.3%

Sources: ⁱ MMWR September 18, 2009 58(36);997-1001, ⁱⁱ MMWR August 20, 2010/59(32);1018-1023

Appendix B: Evaluation Project: Juvenile Justice Services

2010

The Utah Immunization Program (UIP) conducted an evaluation project to determine how well we are immunizing high risk youth in the state of Utah. High risk youth were defined as youth who were involved with the Juvenile Justice Services (JJS). The JJS serves children 8-18 years of age who commit acts that are illegal because of their age (e.g. using tobacco or alcohol) or who have committed misdemeanor or felony acts. This project set out to answer three primary questions. First, what is the immunization coverage level among adolescent populations for vaccines recommended by the Advisory Committee on Immunization Practices (ACIP)? Second, how soon after a youth arrives at a JJS facility is their immunization status assessed? Third, according to JJS nursing staff how can the UIP improve vaccination coverage among high risk youths?

Immunization coverage levels were assessed from medical files at secure facilities and observation and assessment (O&A) facilities. These were selected because of the length of stay. Youth at secure facilities are required to be in custody for at least six months, while youth in custody at O&A facilities are required to stay at least 45 days. The remaining facilities and programs offered by the JJS serve youth who are much more transient, and therefore may not have adequate records available to assess. Results for coverage can be found in the table below. JJS coverage results were equal to or exceeded the general population of the State for all vaccines except one dose HPV and one dose Varicella.

Table 1 Adolescent Coverage by Type of JJS, 2008

Dose	Secure Facility		Observation & Assessment	
	Coverage	95% CI	Coverage	95% CI
Td/Tdap, 1 dose	75.2%	68.6%, 81.8%	46.8%	39.0%, 54.6%
Meningococcal, 1 dose	60.0%	53.5%, 66.5%	34.0%	26.6%, 41.4%
Hepatitis B, 3 doses	70.3%	64.3%, 76.3%	51.9%	44.1%, 59.7%
MMR, 2 doses	86.0%	81.4%, 90.6%	66.0%	58.6%, 73.4%
Varicella, 1 dose*	17.6%	11.6%, 23.6%	21.4%	14.7%, 28.1%
Hepatitis A, 2 doses	41.0%	34.5%, 47.5%	23.1%	16.5%, 29.7%
HPV, 3 doses	15.0%	5.2%, 36.0%	3.4%	0.6%, 17.2%
HPV, 1 dose	65.0%	44.1%, 85.9%	17.2%	3.5%, 30.9%

Table 2 Comparison of JJS coverage and the 2008 National Immunization Survey-Teen Data

Dose	NIS-Teen for Utah		JJS Facilities	
	Coverage	95% CI	Coverage	95% CI
Td/Tdap, 1 dose	62.7%	54.9%, 69.9%	63.5%	58.6%, 68.4%
Meningococcal, 1 dose	31.3%	24.9%, 38.6%	49.1%	44.0%, 54.2%
Hepatitis B, 3 doses	70.2%	63.1%, 76.5%	62.7%	57.8%, 67.6%
MMR, 2 doses	82.6%	76.5%, 87.4%	77.8%	73.6%, 82.0%
Varicella, 1 dose*	67.5%	53.7%, 78.7%	19.5%	15.0%, 24.0%
Hepatitis A, 2 doses	NA	NA	33.6%	28.8%, 38.4%
HPV, 1 dose	17.1%	10.3%, 27.2%	36.7%	23.2%, 63.7%

*Among teens without a history of varicella disease.

For the 83 youth tracked in 2009, the average time to assessment was 9.18 days (95% CI: 6.12, 12.24), which is well before the mandatory 30-day mark. Of the 83 youth only six took longer than 30 days to be assessed. It appears that JJS nursing staff at O&A facilities do all they can to track down immunization histories for the youth in custody.

Several barriers to immunization for youth in custody were identified. Most of the youth either have no insurance or are underinsured, and may not have access to medical care when not in custody. All nurses reported that obtaining an accurate history is a challenge. Common concerns for obtaining a history include:

- ◆ Obtaining an accurate immunization history from USIIS when there are often multiple records or records that aren't current
- ◆ Difficulty in obtaining a vaccine history from a parent
- ◆ Records of youth transferred from another JJS facility don't always follow them
- ◆ Identifying the primary care giver when some children live in multiple households
- ◆ Obtaining a history for out of state residents.

Suggestions for improving immunization coverage among high risk youth include:

- ◆ Different facilities need to communicate with one another on immunizations, and ensure that immunization histories follow the youth if they are transferred from one JJS facility to another
- ◆ Help maintain an adequate inventory so no vaccine is wasted
- ◆ Improve the process for obtaining parental consent, particularly at intake
- ◆ Encourage all LHD's, all State programs, and those that contract with State JJS, to become an active user of USIIS and combine all immunizations in USIIS to allow one patient record
- ◆ Have someone from the Health Department give the vaccine
- ◆ The advocate, case worker, or parents need to let the nurse know what immunizations are needed at intake and throughout the custody period
- ◆ Work with Genesis Youth Center or other early intervention efforts (Early Intervention Program in Ogden) to immunize prior to incarceration
- ◆ Extend age limit to 19 years of age for youth covered by the VFC Program if they're in JJS custody (they could be there until age 21)

Youth in custody are being immunized at the same level or better for all key adolescent vaccine series. But there is still room for improvement. Each facility seems to operate according to individual guidelines, but improvements in two areas can likely benefit all. The two most frequent topics of discussion while conducting this evaluation report are first, that we need to increase the number of clinics who enroll and actively use (entering data specifically) USIIS. Second, we need to promote the education of parents and youth involved with JJS regarding vaccines. This education should occur when the social worker has contact with the parents and youth. If the JJS is hesitant to have their social workers provide the education we should at least make the UIP program and its materials available to the parents through the social workers.

Appendix C: Kindergarten Entry Validation Study

2010

The Utah Immunization Rule for Students (R396-100) requires students entering kindergarten to have received the following immunizations: 5 DTaP, 4 Polio, 2 MMR, 3 Hepatitis B, 2 Hepatitis A and 1 Varicella. Every school in Utah that enrolls kindergarten students is required to report the number of students who meet the requirement through an online system each year. The CDC asked the Utah Immunization Program (UIP) to validate the results of the annual electronic report. The November 30, 2009 electronic report indicated that 87.9% of students entering kindergarten met school requirements, and 3.2% of students' parents requested an exemption.

There were 640 elementary schools in Utah during the 2009-2010 school year, and it would be too expensive and time-consuming to visit all schools within the state to validate the electronic report. A probability proportional to size sampling technique was used to ensure that each student had an equal opportunity to be included in the study. Forty-one schools within Weber, Davis, Salt Lake, and Utah counties (Wasatch Front) and 15 schools within the remaining Utah counties (non-Wasatch Front) were sampled. A total of 2,215 (4.3% of all Utah kindergarten students) students were included in the sample. Audits were conducted by UIP staff. When UIP staff arrived at a school, they examined either the Utah School Immunization Record (Pink Card) or a vaccine history printed by a student's physician. The student record was counted as missing if neither the Pink Card nor physician history were available.

Results from this audit indicate that there is an over reporting of students who meet school requirements. Records from the audits haven't matched the electronic report for the past three school years, but audit results are coming closer to matching the electronic report. Audits will continue to be conducted on an annual basis for the foreseeable future. There was not a statistically significant difference between coverage in Wasatch and non-Wasatch Front schools. The vaccine series that was most often incomplete was Hepatitis A.

Students Who Met School Rule Requirement						
Category	Validation Finding (1 st day of School)	95% CI (1 st day of school)	95% CI As of November 30 th	Electronic Report Finding	Match 1 st day of school	Match Nov 30 th
Met School Requirement	81.1%	79.5%, 82.7%	85.6%, 88.4%	87.9%	No	Yes
Exemption Requested	3.9%	3.1%, 4.7%	3.1%, 4.7%	3.2%	Yes	Yes
Missing Record	0.1%	0.05%, 0.4%	0.05%, 0.4%	0.5%	No	No

Wasatch vs. Non-Wasatch Front Schools						
Area	Reported Met Requirement	Sampled Met Requirement 95% CI	Match	Reported Exempt	Sample Exempt 95% CI	Match
Wasatch	88.3%	80.6%, 84.3%	No	2.9%	2.7%, 4.5%	Yes
Non-Wasatch	86.8%	74.2%, 80.8%	No	4.5%	3.0%, 6.4%	Yes

Missing Vaccine Series						
Single Series Incomplete (n = 205)						
	DTaP	Polio	MMR	Hep B	Varicella	Hep A
Number	11	6	14	4	3	167
Percent	5.4%	2.9%	6.8%	2.0%	1.5%	81.5%
Combination of Series Incomplete (n = 129)						
	DTaP	Polio	MMR	Hep B	Varicella	Hep A
Number	96	87	104	24	22	94
Percent	74.4%	67.4%	80.6%	18.6%	17.1%	72.9%

Appendix C: 7th Grade Entry Validation Study

2010

Because the 7th grade electronic report didn't match the audit the previous year, the UIP decided to continue auditing the 7th grade report. The Utah Immunization Rule for Students (R396-100) requires students entering the 7th grade to have received the following immunizations: 1 dose Tdap (in addition to the previous required 5 doses of DTaP), 2 Measles, 3 Hepatitis B, and 1 Varicella. During the 2009-2010 school year, 244 schools in Utah enrolled 7th grade students and reported immunizations electronically. The November 30, 2009 electronic report indicated that 91.7% of students entering 7th grade met the school requirement, and 3.7% of students' parents requested an exemption.

A probability proportional to size sampling technique was used to ensure that each student had an equal opportunity to be included in the study. A much larger sample was taken this year compared to the 2008-2009 school year. Twenty schools within Weber, Davis, Salt Lake, and Utah counties (Wasatch Front) and seven schools within the remaining Utah counties (non-Wasatch Front) were sampled. A total of 1,104 students were included in the sample. Audits were conducted by UIP staff. When UIP staff arrived at a school, they examined either the Pink Card or a vaccine history printed by a student's physician. The student record was counted as missing if neither the Pink Card nor physician history were available.

Results from this audit indicate that there is an over-reporting of students who meet school requirements. There was a statistically significant difference between coverage in Wasatch and non-Wasatch Front schools again this year. Tdap was the most commonly missed vaccine or vaccine series. Many of these students may have received the Tdap vaccine, but frequently there was no official record (written on the Pink Card) in the student's cumulative file.

Students Who Met School Rule Requirement						
Category	Validation Finding (1 st day of School)	95% CI (1 st day of school)	95% CI As of November 30 th	Electronic Report Finding	Match 1 st day of school	Match Nov 30 th
Met School Requirement	73.4%	70.8%, 76.0%	75.1%, 80.1%	91.7%	No	No
Exemption Requested	4.4%	3.2%, 5.6%	3.2%, 5.6%	3.7%	Yes	NA
Missing Record	0.2%	0.04%, 0.7%	0.04%, 0.7%	0.3%	Yes	Yes

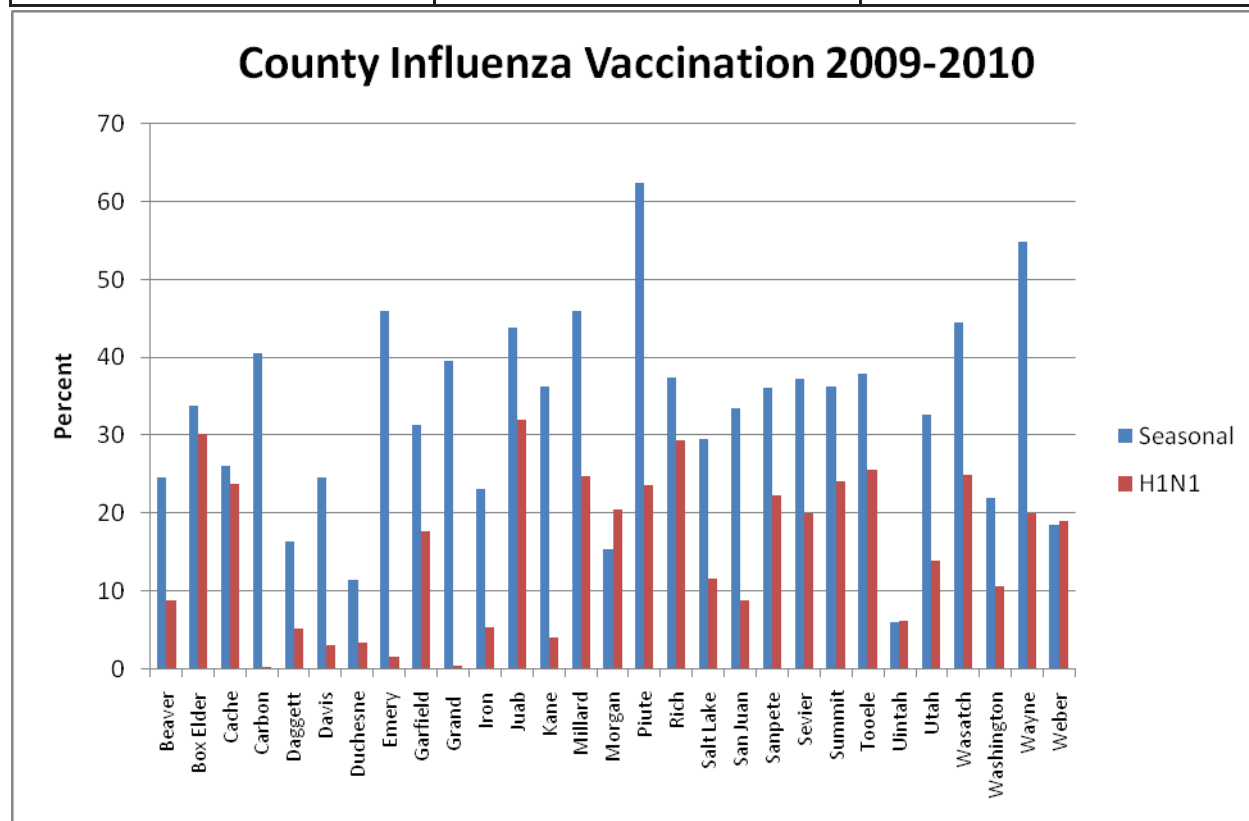
Wasatch vs. Non-Wasatch Front Schools						
Area	Reported Met Requirement	Sampled Met Requirement 95% CI	Match	Reported Exempt	Sample Exempt 95% CI	Match
Wasatch	91.2%	66.1%, 72.5%	No	3.5%	2.5%, 5.1%	Yes
Non-Wasatch	93.2%	80.9%, 89.1%	No	4.4%	3.2%, 8.6%	Yes

Missing Vaccine Series							
Single Series Incomplete (216)							
	Tdap	DTaP	Polio	MMR	Hep B	Varicella	Hep A
Number	172	1	6	5	3	0	29
Percent	79.6%	0.5%	2.8%	2.3%	1.4%	0%	13.4%
Combination of Series Incomplete (31)							
	Tdap	DTaP	Polio	MMR	Hep B	Varicella	Hep A
Number	27	5	7	5	7	8	25
Percent	87.1%	16.1%	22.6%	16.1%	22.6%	25.8%	80.6%

In May of 2010, a USIS query was made to understand vaccination levels for seasonal influenza as well as H1N1 for the 2009/2010 flu season. Vaccine doses were counted from September 1, 2009 through April 30, 2010. The data were organized into the following age categories: <2 (infant), 2-4 (preschool age), 5-11 (elementary school), 12-14 (junior high), 15-18 (high school), 19-34, 35-64, and 65+. The data were also organized by ZIP code, so the data could be organized and analyzed by local health district (LHD), county, and small areas. There were over two million records included in this query, which represents about 74% of the entire population. Results by age for the entire state of Utah and coverage by county can be seen below. For both vaccines, coverage among children peaked at age two to four years. There was a second peak for adults 65+ years, but coverage dropped with increasing age for the H1N1 vaccines.

Table 1 Influenza vaccination coverage for the State of Utah, 2009-2010

Age Group	Seasonal	H1N1
<2	17.8%	16.8%
2-4	35.8%	20.8%
5-11	30.1%	15.9%
12-14	20.8%	11.1%
15-18	18.7%	9.2%
19-34	15.6%	8.3%
35-64	35.9%	16.4%
65+	71.8%	11.3%
All ages	28.7%	13.2%



During 2009, several queries were made by USIIS staff to better understand up-to-date coverage at age two years within Utah. Separate queries were made based on ZIP code, race/ethnicity, and utilization of Medicaid. ZIP code data were further organized by small areas created by the Office of Public Health Assessment. These 61 small areas are organized by political, social, and economic factors. The race/ethnicity categories include White, Black or African American, Asian/Pacific Islander, Native American/Alaskan Native, and Hispanic/not Hispanic. For the second consecutive year Asian/Pacific Islander coverage was below the State average. The purpose of the Medicaid query was to determine if Medicaid populations had a different coverage level than the total population. This year the Medicaid population had a higher coverage level than non-Medicaid. This is in contrast to what was observed last year. Significant results from these queries can be seen below.

Small Areas with Much Lower Than Expected Coverage			
Small Area	Coverage Level	Difference from State Coverage	Low in 2008
Utah County South	3.3%	-22.3%	Yes
Carbon/Emery Co.	3.7%	-21.8%	Yes
TriCounty LHD	5.2%	-20.4%	Yes
Springville/Spanish Fork	6.2%	-19.7%	No
Provo South	6.8%	-19.1%	Yes
Provo/BYU	6.5%	-19.0%	Yes
American Fork/Alpine	7.5%	-18.1%	Yes
East Orem	7.4%	-18.0%	Yes
Wasatch County	15.1%	-10.3%	No

2008 Race/Ethnicity Data		
Race or Ethnic Group	Coverage	95% Confidence Interval
State, All Groups	30.5%	30.2%, 30.8%
American Indian/Alaska Native	37.8%	34.6%, 41.0%
Asian/Pacific Islander	23.2%	21.5%, 24.9%
Black/African American	35.1%	31.7%, 38.5%
White	30.6%	30.3%, 30.9%
Hispanic	30.3%	29.5%, 31.1%
Not Hispanic	30.6%	30.2%, 31.0%

2008 Medicaid Data				
Category	Coverage	95% Confidence Interval	Minimum Coverage	Maximum Coverage
Medicaid	51.9%	51.3%, 52.5%	TriCounty, 9.6%	WMHD, 73.8%
Non-Medicaid	28.6%	28.3%, 28.9%	TriCounty, 11.8%	WMHD, 43.7%

IMMUNIZATION REPORT FOR LONG-TERM CARE FACILITIES

Long-term care facilities are required to report the influenza and pneumococcal immunization status of patients and the influenza and hepatitis B immunization status of employees to the Utah Immunization Program. Completion of the annual report is necessary to prevent sanctioning of a facility's license.

The report includes persons who are residents and employees of a facility between October 1 and December 31 of the survey year. The survey is completed online no later than January 31 of the following year. Facilities reporting include hospitals (swing beds and transitional care beds), nursing care facilities, small health care facilities, and type I and type II assisted living facilities. All 282 of the care facilities now operating reported for 2009.

The portion of the survey reported here is as follows.

Influenza (flu) immunizations: given during the report time period for residents and employees

Pneumococcal immunizations: given at any time for residents only

Hepatitis B immunizations: given at any time to an employee having direct patient contact

(Note: A percentage in *italics* indicates there was a statistically significant improvement from the previous year (p<0.05))

State of Utah: 282 Facilities			
	Number	Flu	Pneumococcal
Residents	14,829	74.4%	<i>48.8%</i>
	Number	Flu	Hepatitis B
All Employees	16,613	<i>48.6%</i>	NA
Employees with Direct Patient Care	11,533	NA	55.7%

Bear River Health District: 17 Facilities			
	Number	Flu	Pneumococcal
Residents	791	76.0%	62.7%
	Number	Flu	Hepatitis B
All Employees	1,298	51.6%	NA
Employees with Direct Patient Care	861	NA	52.0%

Central Utah Public Health District: 17 Facilities			
	Number	Flu	Pneumococcal
Residents	369	85.1%	63.1%
	Number	Flu	Hepatitis B
All Employees	578	67.0%	NA
Employees with Direct Patient Care	411	NA	65.9%

Davis County Health District: 27 Facilities			
	Number	Flu	Pneumococcal
Residents	1,638	79.6%	52.7%
	Number	Flu	Hepatitis B
All Employees	1,603	56.8%	NA
Employees with Direct Patient Care	1,265	NA	44.0%

Salt Lake Valley Health District: 88 Facilities			
	Number	Flu	Pneumococcal
Residents	5,772	69.5%	44.8%
	Number	Flu	Hepatitis B
All Employees	5,472	42.9%	NA
Employees with Direct Patient Care	3,651	NA	49.4%

Southeastern Utah Public Health District: 7 Facilities

	Number	Flu	Pneumococcal
Residents	275	79.6%	44.4%
	Number	Flu	Hepatitis B
All Employees	296	65.9%	NA
Employees with Direct Patient Care	204	NA	35.3%

Southwest Utah Public Health District: 35 Facilities

	Number	Flu	Pneumococcal
Residents	1,404	72.2%	37.7%
	Number	Flu	Hepatitis B
All Employees	1,684	48.0%	NA
Employees with Direct Patient Care	1,014	NA	58.8%

Summit County Health District: 1 Facility

	Number	Flu	Pneumococcal
Residents	34	82.4%	50.0%
	Number	Flu	Hepatitis B
All Employees	39	25.6%	NA
Employees with Direct Patient Care	21	NA	42.9%

Tooele County Health District: 5 Facilities

	Number	Flu	Pneumococcal
Residents	148	94.6%	52.7%
	Number	Flu	Hepatitis B
All Employees	552	55.4%	NA
Employees with Direct Patient Care	338	NA	82.1%

TriCounty Health District: 6 Facilities			
	Number	Flu	Pneumococcal
Residents	319	64.3%	51.1%
	Number	Flu	Hepatitis B
All Employees	580	66.2%	NA
Employees with Direct Patient Care	452	NA	75.0%

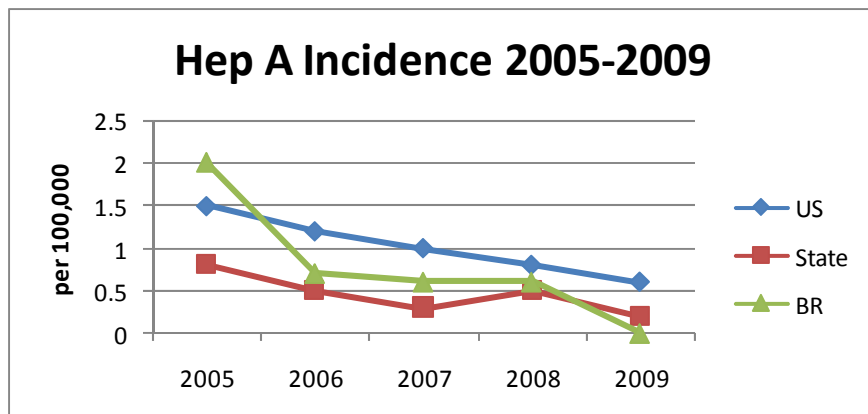
Utah County Health District: 57 Facilities			
	Number	Flu	Pneumococcal
Residents	2,379	79.6%	56.9%
	Number	Flu	Hepatitis B
All Employees	2,909	44.8%	NA
Employees with Direct Patient Care	2,162	NA	60.3%

Wasatch County Health District: 2 Facilities			
	Number	Flu	Pneumococcal
Residents	54	90.7%	88.9%
	Number	Flu	Hepatitis B
All Employees	60	71.7%	NA
Employees with Direct Patient Care	36	NA	58.3%

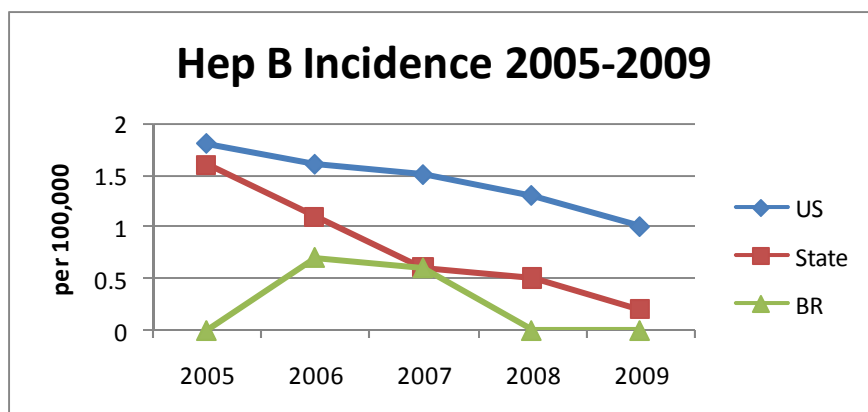
Weber-Morgan Health District: 20 Facilities			
	Number	Flu	Pneumococcal
Residents	1,646	76.5%	45.4%
	Number	Flu	Hepatitis B
All Employees	1,542	46.0%	NA
Employees with Direct Patient Care	1,076	NA	52.1%

Bear River Health District

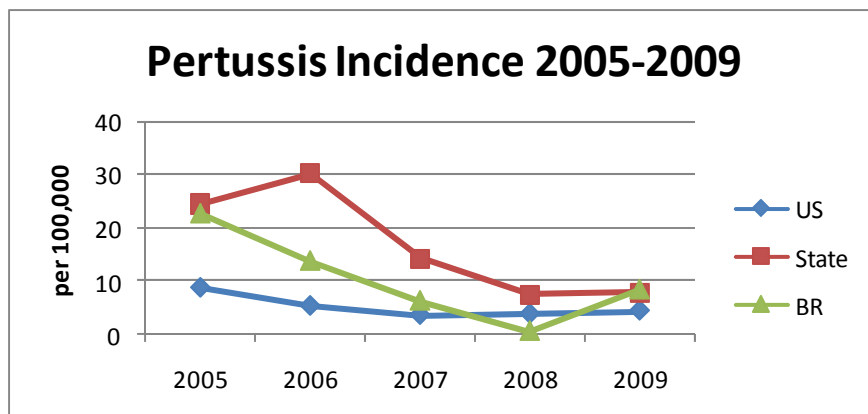
Hepatitis A, Hepatitis B, and Pertussis are diseases that are preventable through immunization. Trends in vaccine-preventable diseases are tracked with the intent that the data can be helpful in developing collaborative immunization campaign efforts. The following data were provided by the Office of Epidemiology, Utah Department of Health, for statewide and local health districts. National data were obtained from the CDC. The 2008 and 2009 US rates were calculated from provisional data found in the Morbidity and Mortality Weekly Report, Vol. 58, No. 52, and population data from the US Census Bureau.



Hepatitis A			
Year	US	State	BR
2005	1.5	0.8	2.0
2006	1.2	0.5	0.7
2007	1.0	0.3	0.6
2008	0.8	0.5	0.6
2009	0.6	0.2	0.0

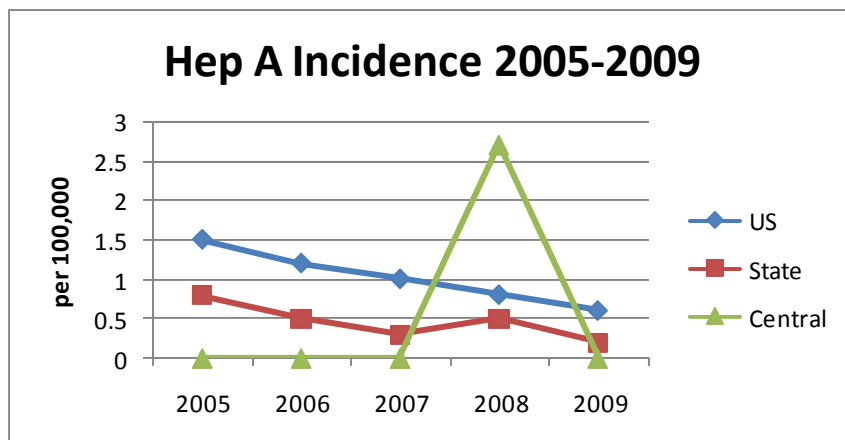


Hepatitis B			
Year	US	State	BR
2005	1.8	1.6	0.0
2006	1.6	1.1	0.7
2007	1.5	0.6	0.6
2008	1.3	0.5	0.0
2009	1.1	0.2	0.0

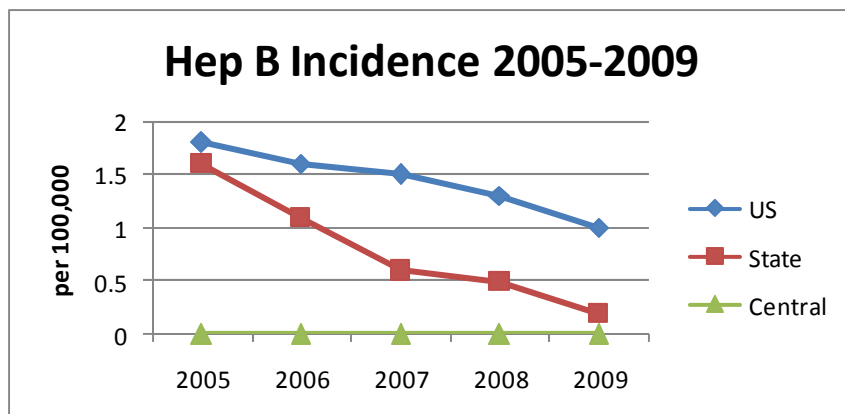


Pertussis			
Year	US	State	BR
2005	8.7	24.4	22.7
2006	5.3	30.1	13.8
2007	3.6	14.3	6.3
2008	3.8	7.6	0.6
2009	4.4	7.8	8.4

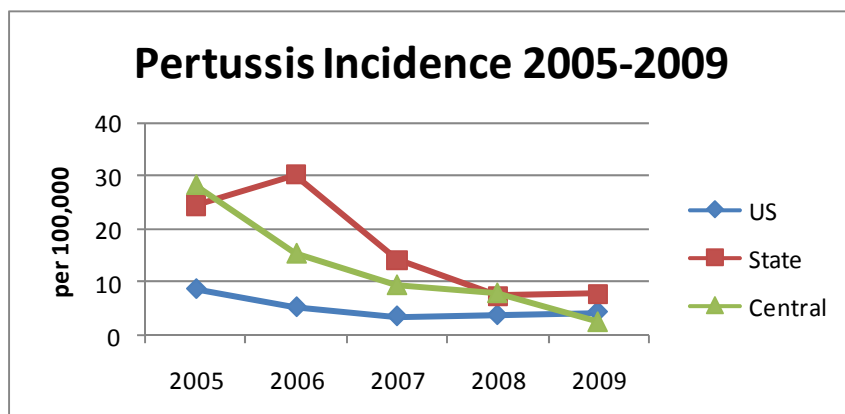
Central Utah Public Health District



Hepatitis A			
Year	US	State	Central
2005	1.5	0.8	0.0
2006	1.2	0.5	0.0
2007	1.0	0.3	0.0
2008	0.8	0.5	2.7
2009	0.6	0.2	0.0

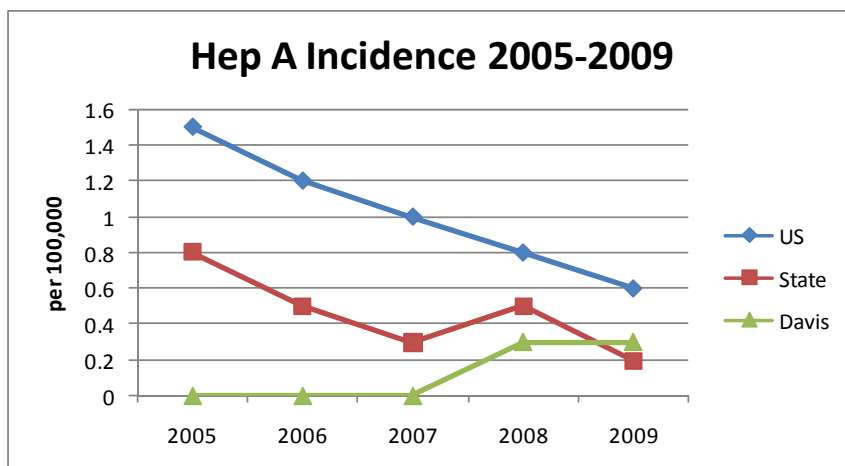


Hepatitis B			
Year	US	State	Central
2005	1.8	1.6	0.0
2006	1.6	1.1	0.0
2007	1.5	0.6	0.0
2008	1.3	0.5	0.0
2009	1.0	0.2	0.0

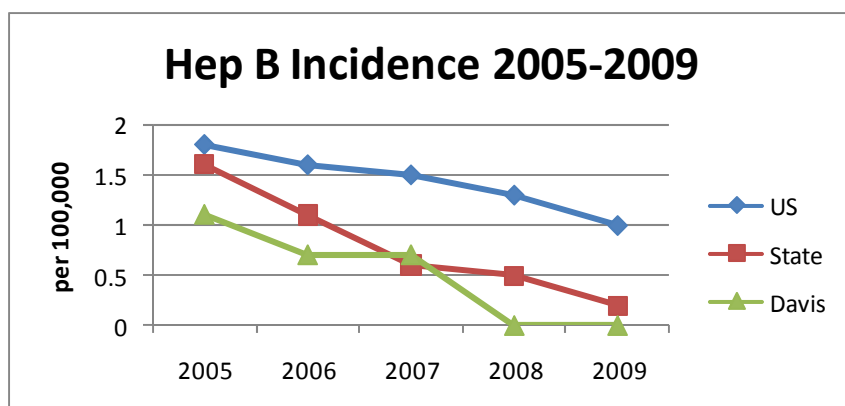


Pertussis			
Year	US	State	Central
2005	8.7	24.4	28.2
2006	5.3	30.1	15.4
2007	3.6	14.3	9.5
2008	3.8	7.6	8.0
2009	4.4	7.8	2.6

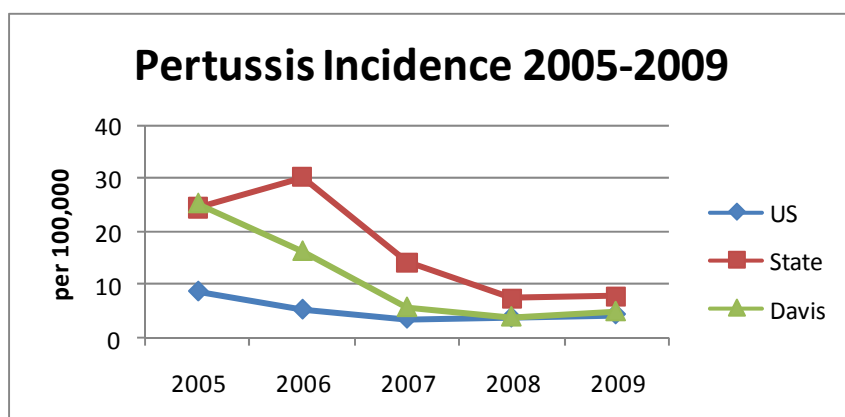
Davis County Health District



Hepatitis A			
Year	US	State	Davis
2005	1.5	0.8	0.0
2006	1.2	0.5	0.0
2007	1.0	0.3	0.0
2008	0.8	0.5	0.3
2009	0.6	0.2	0.3

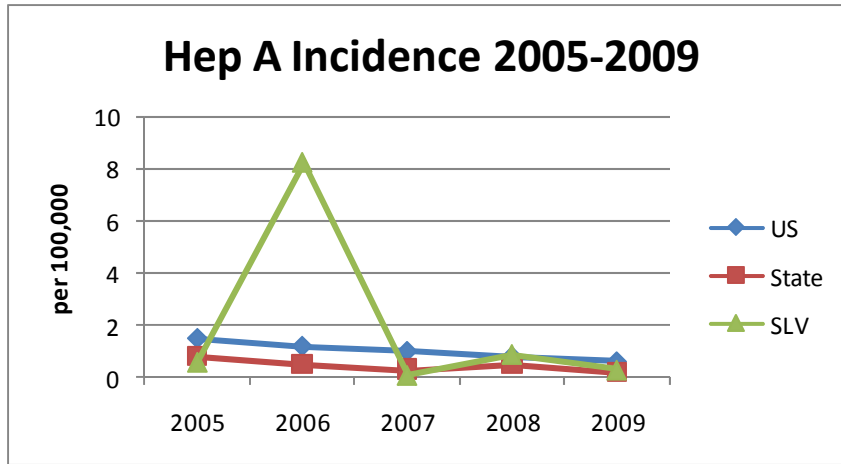


Hepatitis B			
Year	US	State	Davis
2005	1.8	1.6	1.1
2006	1.6	1.1	0.7
2007	1.5	0.6	0.7
2008	1.3	0.5	0.0
2009	1.0	0.2	0.0

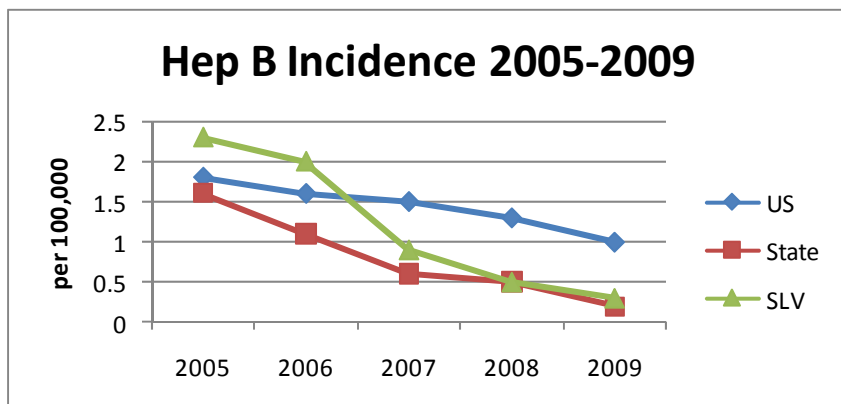


Pertussis			
Year	US	State	Davis
2005	8.7	24.4	25.3
2006	5.3	30.1	16.3
2007	3.6	14.3	5.7
2008	3.8	7.6	3.9
2009	4.4	7.8	4.9

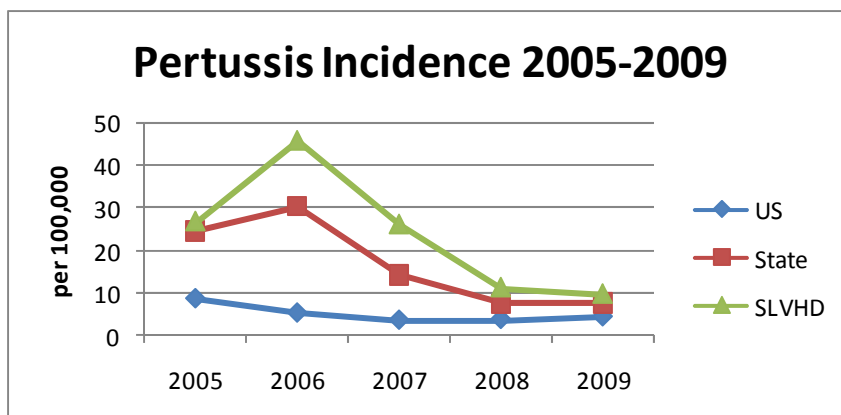
Salt Lake Valley Health District



Hepatitis A			
Year	US	State	SLV
2005	1.5	0.8	0.6
2006	1.2	0.5	8.2
2007	1.0	0.3	0.1
2008	0.8	0.5	0.9
2009	0.6	0.2	0.3

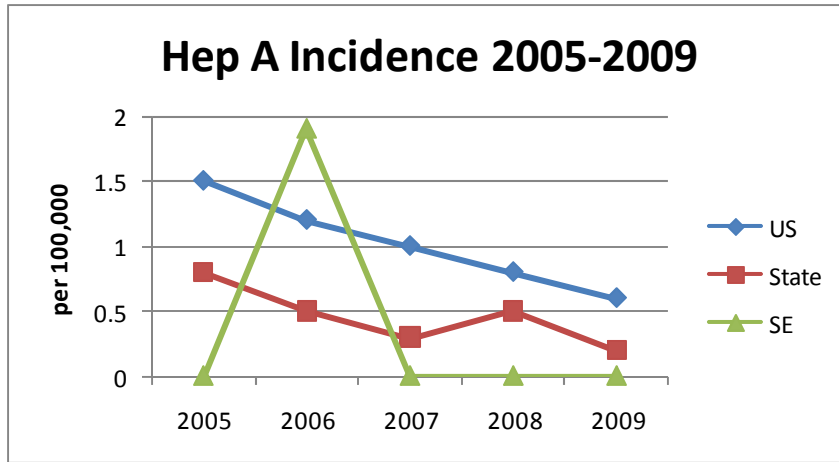


Hepatitis B			
Year	US	State	SLV
2005	1.8	1.6	2.3
2006	1.6	1.1	2.0
2007	1.5	0.6	0.9
2008	1.3	0.5	0.5
2009	1.0	0.2	0.3

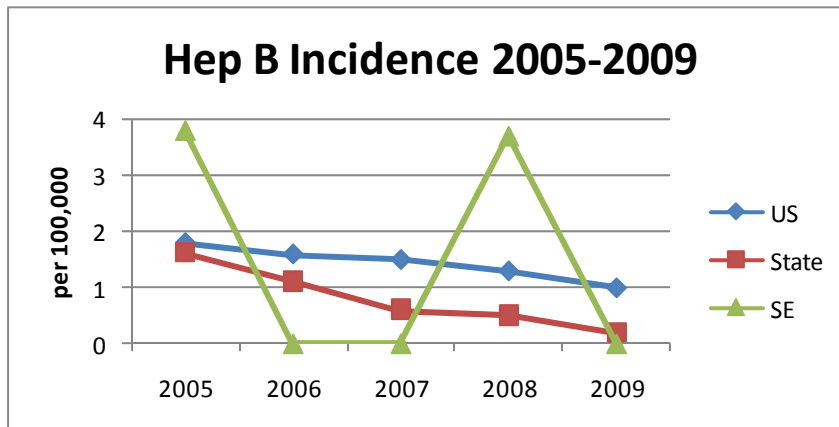


Pertussis			
Year	US	State	SLV
2005	8.7	24.4	26.7
2006	5.3	30.1	45.6
2007	3.6	14.3	26.0
2008	3.8	7.6	11.2
2009	4.4	7.8	9.7

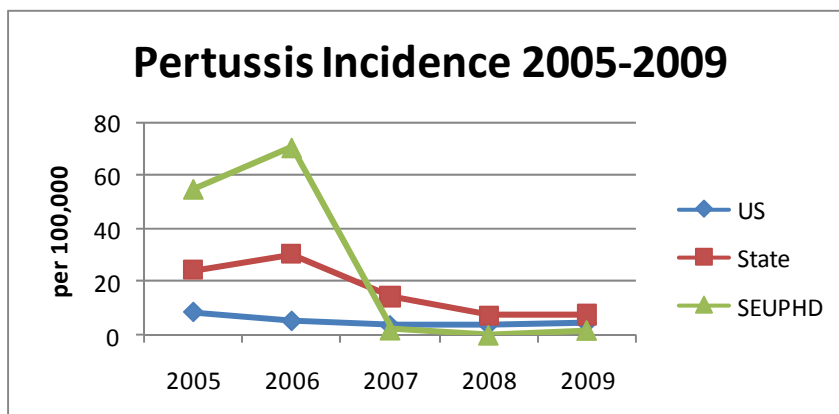
Southeastern Utah Health District



Hepatitis A			
Year	US	State	SE
2005	1.5	0.8	0.0
2006	1.2	0.5	1.9
2007	1.0	0.3	0.0
2008	0.8	0.5	0.0
2009	0.6	0.2	0.0

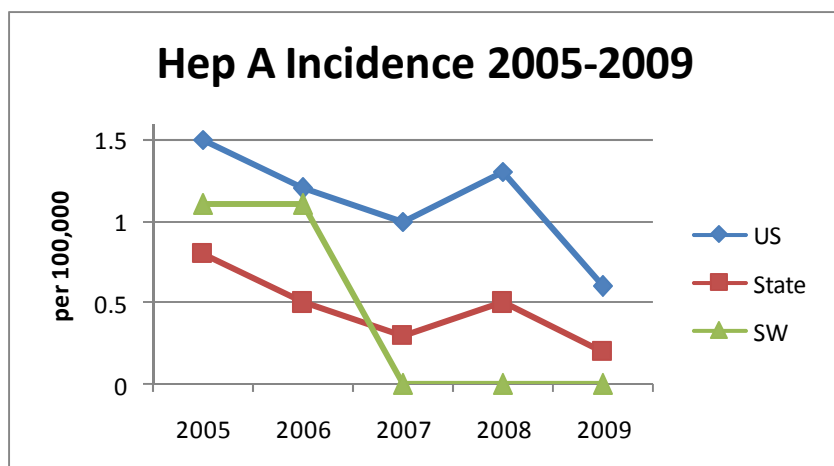


Hepatitis B			
Year	US	State	SE
2005	1.8	1.6	3.8
2006	1.6	1.1	0.0
2007	1.5	0.6	0.0
2008	1.3	0.5	3.7
2009	1.0	0.2	0.0

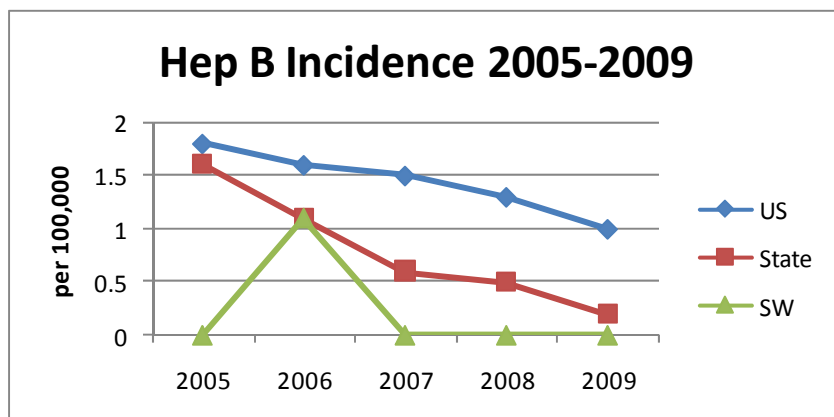


Pertussis			
Year	US	State	SE
2005	8.7	24.4	54.9
2006	5.3	30.1	70.5
2007	3.6	14.3	1.9
2008	3.8	7.6	0.0
2009	4.4	7.8	1.8

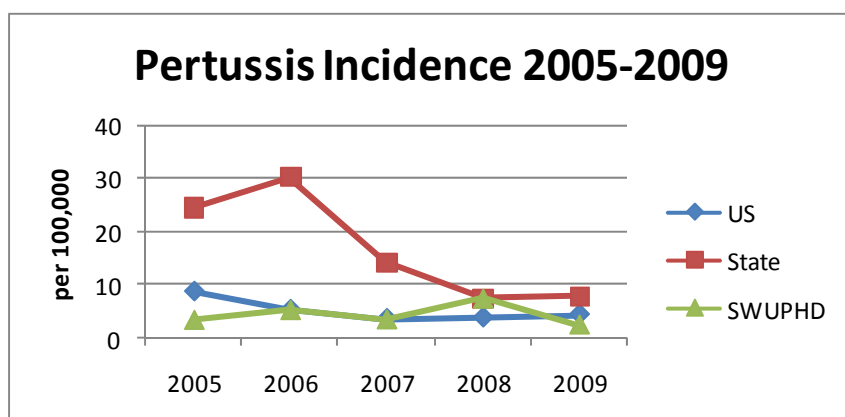
Southwest Utah Public Health District



Hepatitis A			
Year	US	State	SW
2005	1.5	0.8	1.1
2006	1.2	0.5	1.1
2007	1.0	0.3	0.0
2008	0.8	0.5	0.0
2009	0.6	0.2	0.0

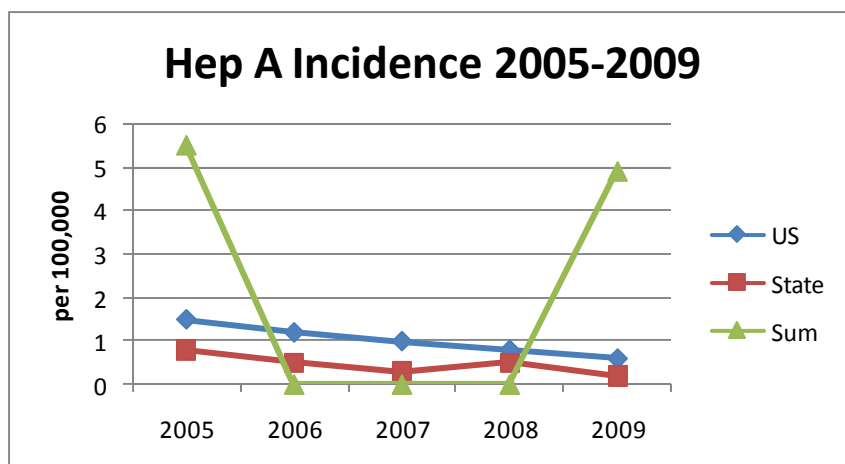


Hepatitis B			
Year	US	State	SW
2005	1.8	1.6	0.0
2006	1.6	1.1	1.1
2007	1.5	0.6	0.0
2008	1.3	0.5	0.0
2009	1.0	0.2	0.0

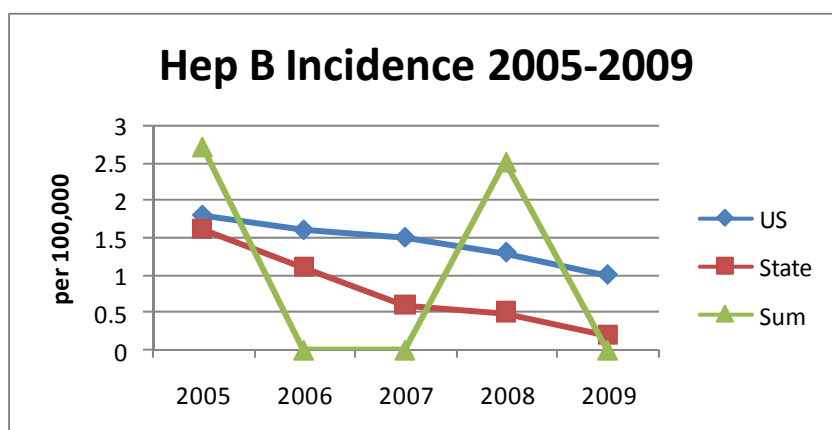


Pertussis			
Year	US	State	SW
2005	8.7	24.4	3.3
2006	5.3	30.1	5.2
2007	3.6	14.3	3.4
2008	3.8	7.6	7.4
2009	4.4	7.8	2.4

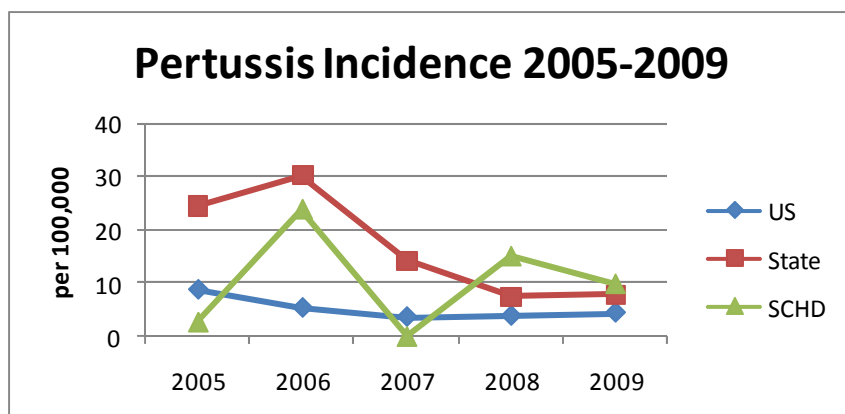
Summit County Health District



Hepatitis A			
Year	US	State	Sum
2005	1.5	0.8	5.5
2006	1.2	0.5	0.0
2007	1.0	0.3	0.0
2008	0.8	0.5	0.0
2009	0.6	0.2	4.9

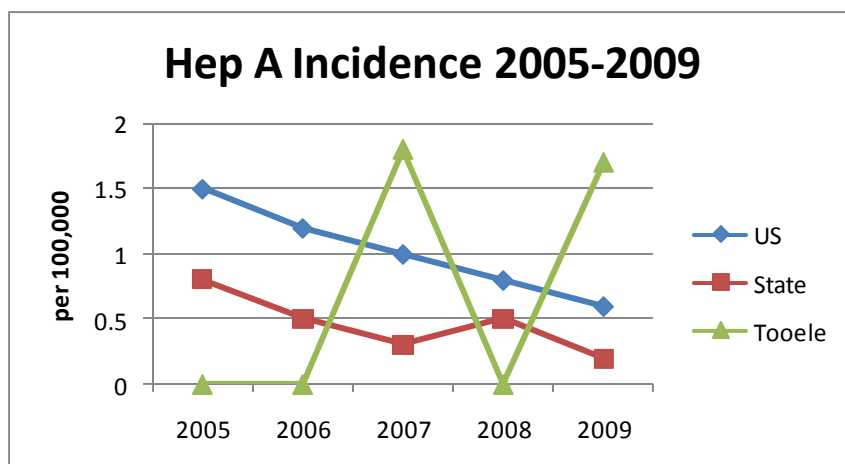


Hepatitis B			
Year	US	State	Sum
2005	1.8	1.6	2.7
2006	1.6	1.1	0.0
2007	1.5	0.6	0.0
2008	1.3	0.5	2.5
2009	1.0	0.2	0.0

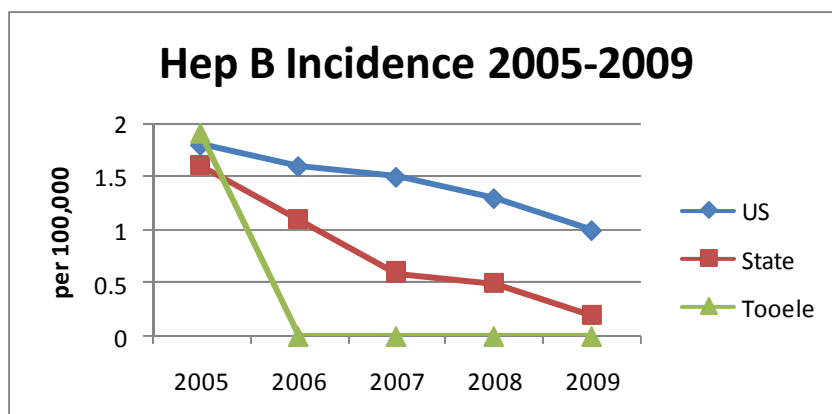


Pertussis			
Year	US	State	Sum
2005	8.7	24.4	2.7
2006	5.3	30.1	23.9
2007	3.6	14.3	0.0
2008	3.8	7.6	15.1
2009	4.4	7.8	9.9

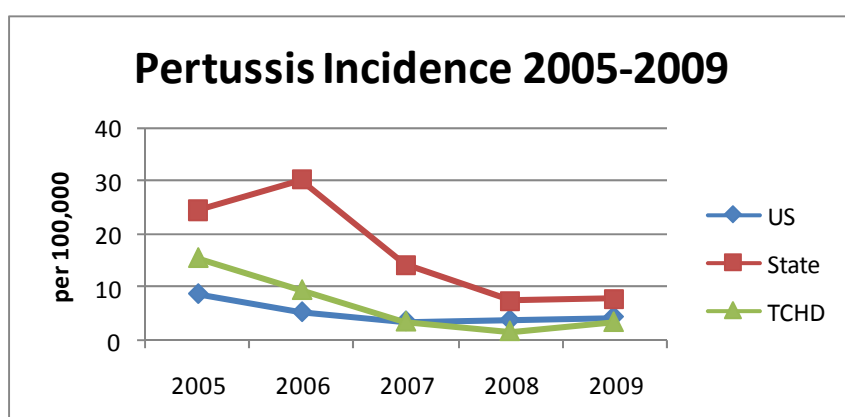
Tooele County Health District



Hepatitis A			
Year	US	State	Tooele
2005	1.5	0.8	0.0
2006	1.2	0.5	0.0
2007	1.0	0.3	1.8
2008	0.8	0.5	0.0
2009	0.6	0.2	1.7

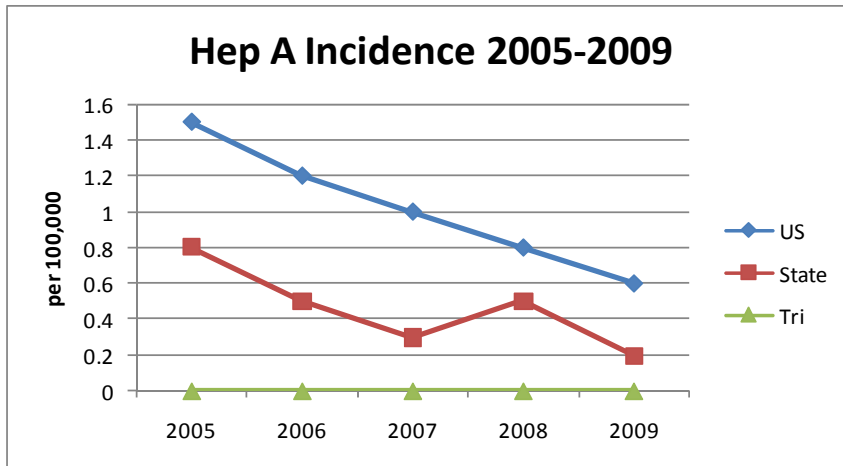


Hepatitis B			
Year	US	State	Tooele
2005	1.8	1.6	1.9
2006	1.6	1.1	0.0
2007	1.5	0.6	0.0
2008	1.3	0.5	0.0
2009	1.0	0.2	0.0

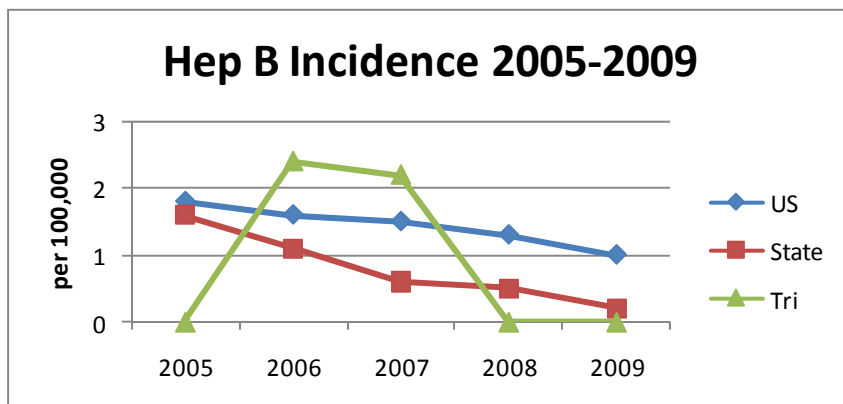


Pertussis			
Year	US	State	Tooele
2005	8.7	24.4	15.4
2006	5.3	30.1	9.4
2007	3.6	14.3	3.5
2008	3.8	7.6	1.7
2009	4.4	7.8	3.4

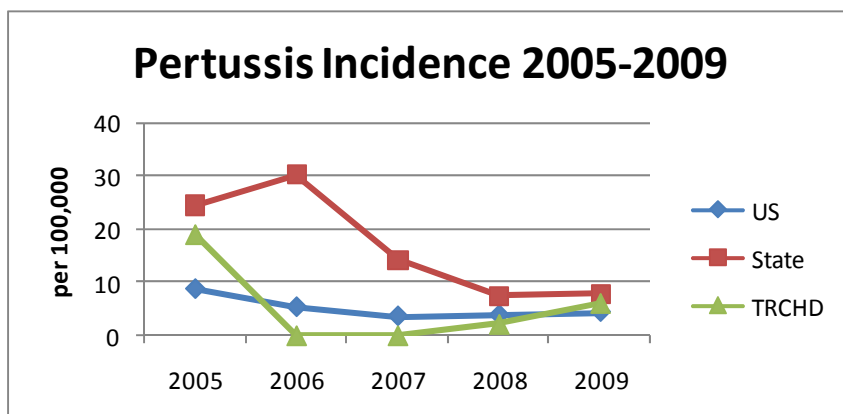
TriCounty Health District



Hepatitis A			
Year	US	State	TriCo
2005	1.5	0.8	0.0
2006	1.2	0.5	0.0
2007	1.0	0.3	0.0
2008	0.8	0.5	0.0
2009	0.6	0.2	0.0

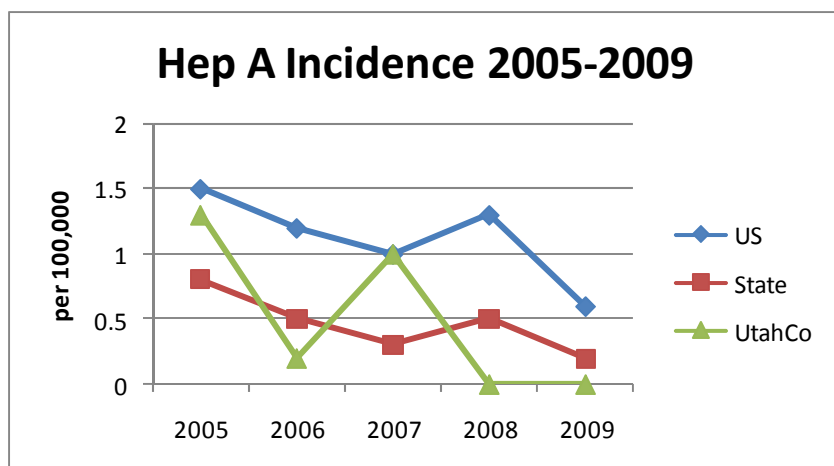


Hepatitis B			
Year	US	State	TriCo
2005	1.8	1.6	0.0
2006	1.6	1.1	2.4
2007	1.5	0.6	2.2
2008	1.3	0.5	0.0
2009	1.0	0.2	0.0

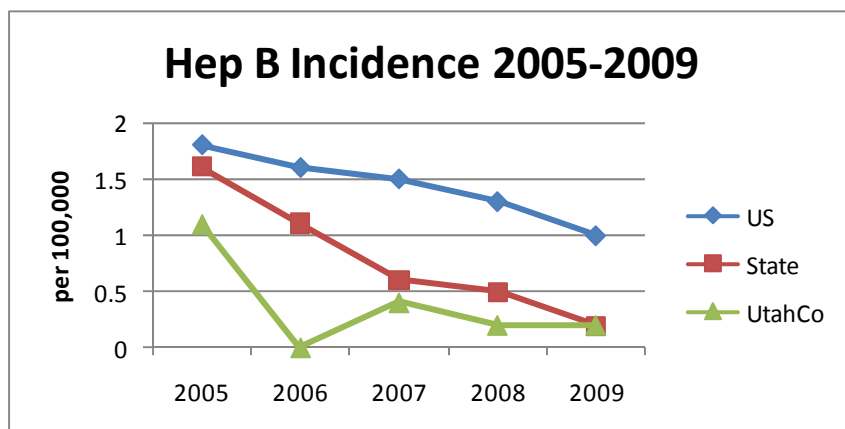


Pertussis			
Year	US	State	TriCo
2005	8.7	24.4	18.8
2006	5.3	30.1	0.0
2007	3.6	14.3	0.0
2008	3.8	7.6	2.1
2009	4.4	7.8	6.0

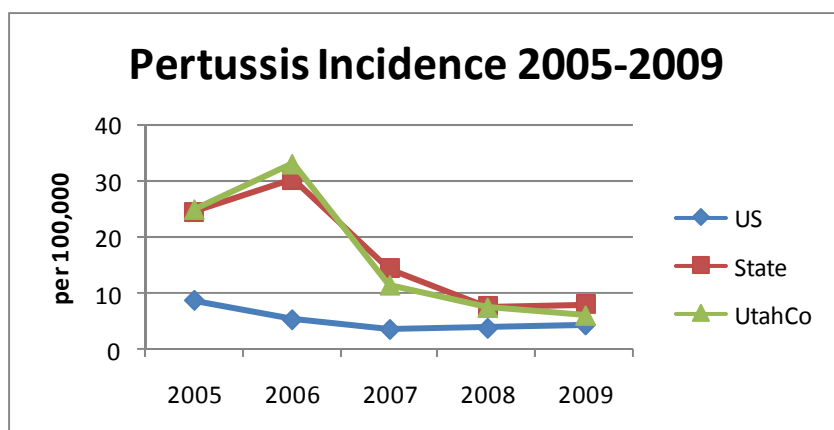
Utah County Health District



Hepatitis A			
Year	US	State	UtahCo
2005	1.5	0.8	1.3
2006	1.2	0.5	0.2
2007	1.0	0.3	1.0
2008	0.8	0.5	0.0
2009	0.6	0.2	0.0

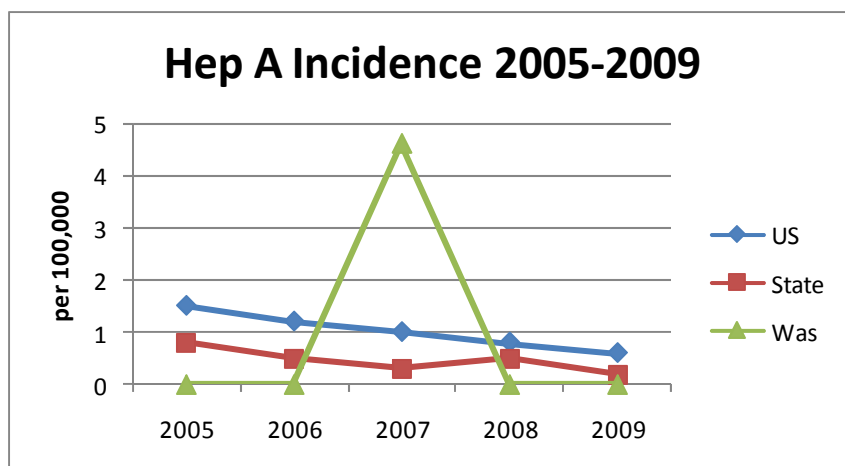


Hepatitis B			
Year	US	State	UtahCo
2005	1.8	1.6	1.1
2006	1.6	1.1	0.0
2007	1.5	0.6	0.4
2008	1.3	0.5	0.2
2009	1.0	0.2	0.2

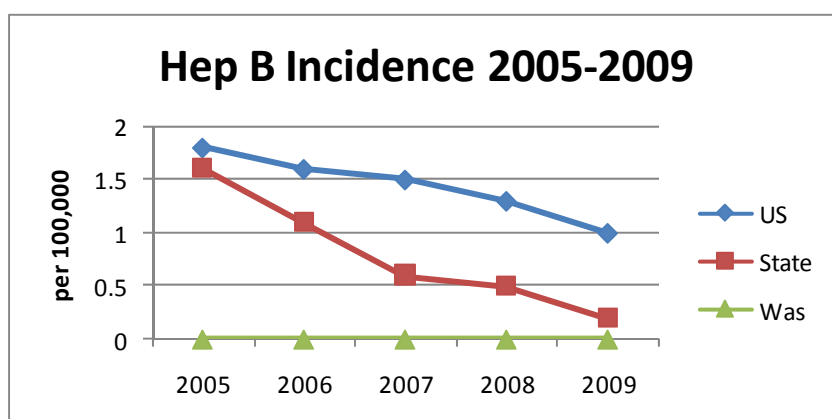


Pertussis			
Year	US	State	UtahCo
2005	8.7	24.4	24.9
2006	5.3	30.1	33.0
2007	3.6	14.3	11.4
2008	3.8	7.6	7.4
2009	4.4	7.8	6.0

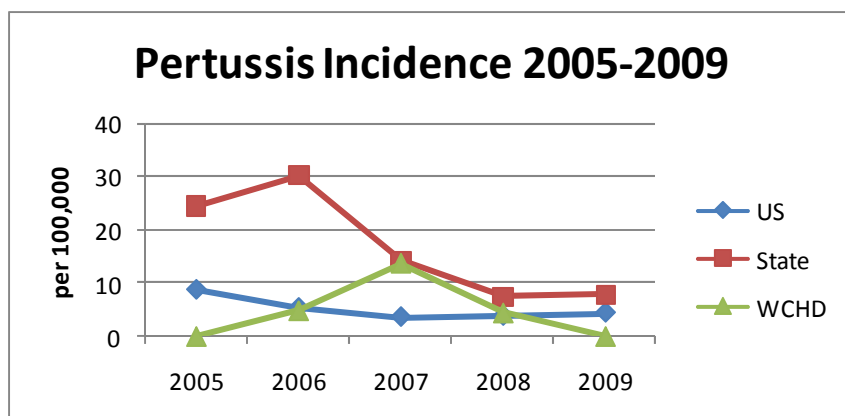
Wasatch County Health District



Hepatitis A			
Year	US	State	Was
2005	1.5	0.8	0.0
2006	1.2	0.5	0.0
2007	1.0	0.3	4.6
2008	0.8	0.5	0.0
2009	0.6	0.2	0.0

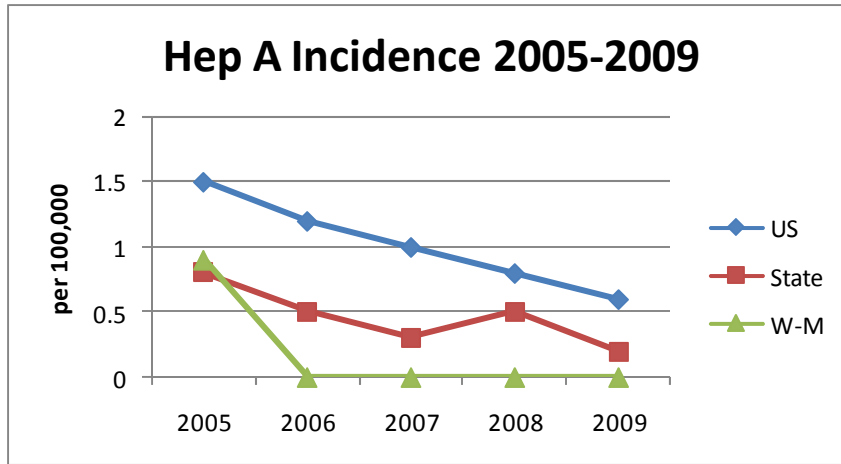


Hepatitis B			
Year	US	State	Was
2005	1.8	1.6	0.0
2006	1.6	1.1	0.0
2007	1.5	0.6	0.0
2008	1.3	0.5	0.0
2009	1.0	0.2	0.0

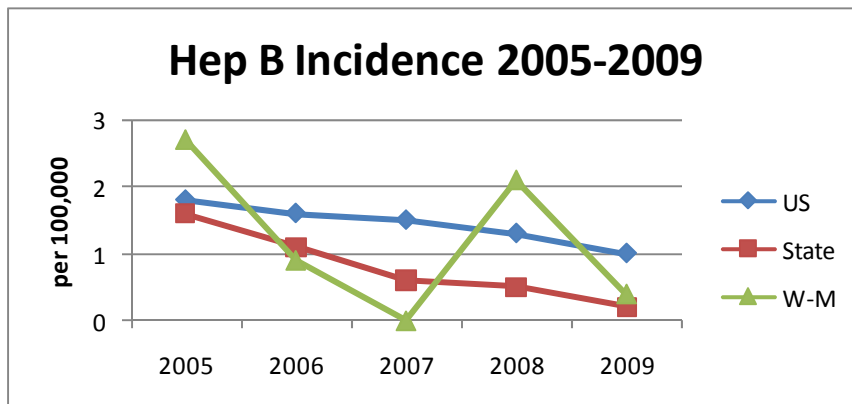


Pertussis			
Year	US	State	Was
2005	8.7	24.4	0.0
2006	5.3	30.1	4.8
2007	3.6	14.3	13.7
2008	3.8	7.6	4.4
2009	4.4	7.8	0.0

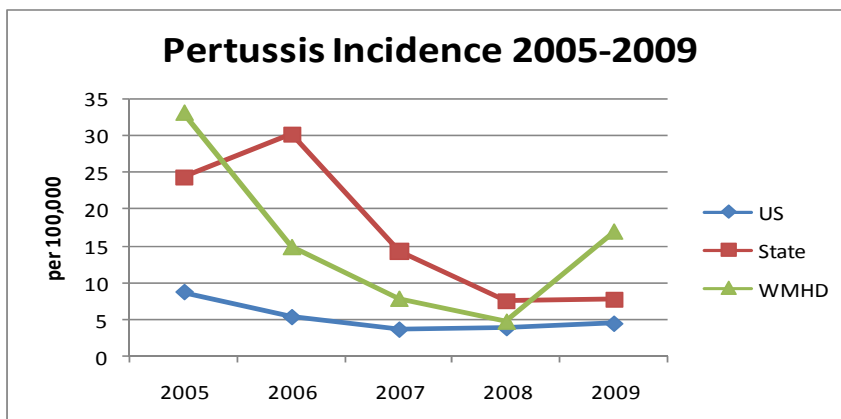
Weber-Morgan Health District



Hepatitis A			
Year	US	State	W-M
2005	1.5	0.8	0.9
2006	1.2	0.5	0.0
2007	1.0	0.3	0.0
2008	0.8	0.5	0.0
2009	0.6	0.2	0.0



Hepatitis B			
Year	US	State	W-M
2005	1.8	1.6	2.7
2006	1.6	1.1	0.9
2007	1.5	0.6	0.0
2008	1.3	0.5	2.1
2009	1.0	0.2	0.4

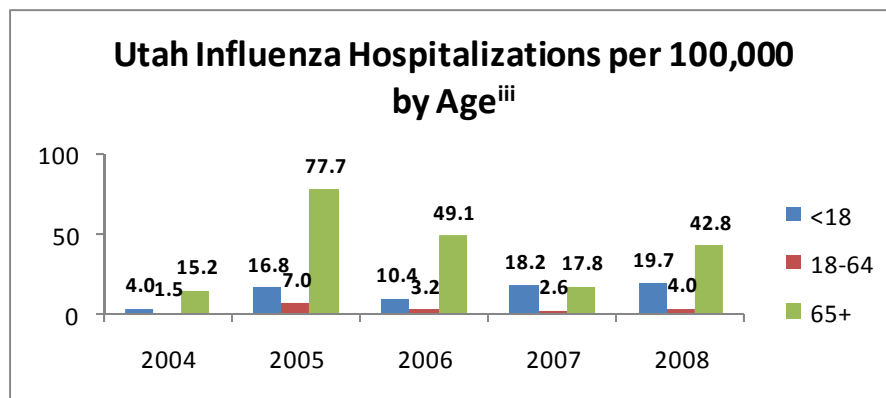
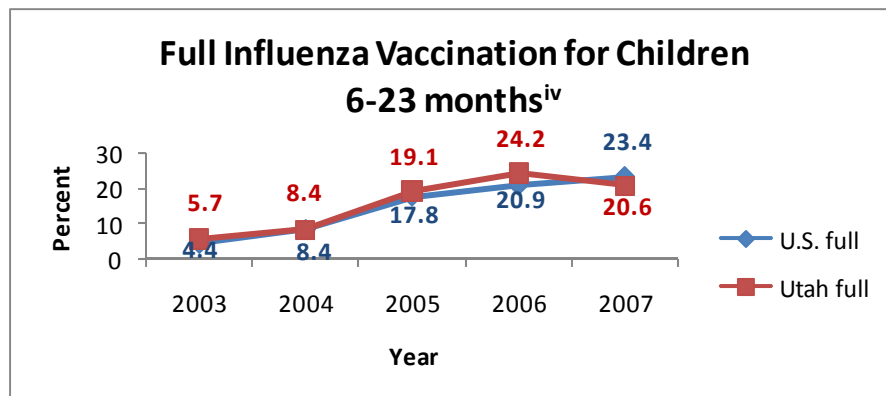


Pertussis			
Year	US	State	W-M
2005	8.7	24.4	33.0
2006	5.3	30.1	14.8
2007	3.6	14.3	7.8
2008	3.8	7.6	4.7
2009	4.4	7.8	16.9

Influenza (flu) is a very contagious viral infection of the nose, throat, bronchial tubes, and lungs. Flu is a respiratory infection and generally does not involve gastrointestinal symptoms, except in very young children. It is estimated that 30 to 60 million U.S. residents get the flu each year. About 100,000 of them are hospitalized and an estimated 36,000 die each year from complications (primarily pneumonia) associated with the infection. Populations that are particularly susceptible to influenza include adults 65 years and older (more than 90% of all influenza deaths), children less than 24 months, people with cardiovascular disease, chronic respiratory disease, and chronic metabolic disease such as diabetes¹.

Flu vaccine is up to 90% effective in preventing illness for healthy populations younger than 65ⁱⁱ, but effectiveness is contingent upon the strains used in the vaccine being similar to the strains that circulate during flu season. For populations older than 65 years, the vaccine is 30-40% effective in preventing illness, 50-60% in preventing hospitalization, and 80% effective in preventing death. As indicated below, Utah compares favorably with national flu vaccination rates for children 6-23 months, but there is still much room for improvement. Charts for flu vaccination among adults 18 years and older can be found on the *Child and Adult Immunization* pages in the main body of this report. Detailed immunization data can be found in Appendix B: USIIS queries. Hospital discharge data for influenza for 2004-2008 can also be seen below.

A data query was made to the USIIS staff to determine influenza vaccination levels among children 2-18 years during the most recent flu season (September 1, 2009 to May 31, 2010). Immunization coverage was 27.5% for seasonal (3.67 times greater than last year), and 14.7% for H1N1. Coverage was lowest in Beaver County (10.1%) and highest in Piute County (44.7%). Last year Beaver was lowest at 1.5% and Piute highest at 20.5%. State coverage levels were highest for the 2-4 age group (35.8%) and decreased as the child age group increased, with a coverage level for children 15-18 of 18.7%. This also matches the pattern in the data from the 2008-2009 flu season.



Sources: ⁱ <http://ibis.health.utah.gov/indicator/view/InflCas.Year.html>, ⁱⁱ Epidemiology and Prevention of Vaccine-Preventable Diseases (CDC Pink Book), ⁱⁱⁱ IBIS-PH Hospitalization data, ^{iv} NIS 2003-2007.

1. *Utah Governor's Office of Planning and Budget*. Retrieved on April 13, 2010 from Utah Department of Health, Center for Health Data, Indicator-Based Information System for Public Health website: <http://ibis.health.utah.gov/>.
2. Office of Public Health Assessment (2009, July). *2007-2008 Utah Healthcare Access Survey IBIS-PH* [Data file]. Salt Lake City, UT: Utah Department of Health. **Note: numbers rounded to the nearest 100 persons.**
3. Office of Public Health Assessment (2009, July). *2007-2008 Utah Healthcare Access Survey IBIS-PH* [Data file]. Salt Lake City, UT: Utah Department of Health. **Note: numbers rounded to the nearest 100 persons.**
4. Office of Public Health Assessment (2009, July). *2008 Utah Healthcare Access Survey* [Data file]. Salt Lake City, UT: Utah Department of Health.
5. CHEC Medicaid Program (2009). *Form CMS-416: Annual EPSDT Participation Report FFY2009*. Salt Lake City, UT: Utah Department of Health.
6. Utah Immunization Program. (n.d.). *2009 program data* [Data file]. Salt Lake City, UT: Utah Department of Health.
7. Emergency Medical Services. (n.d.). *2009 program data* [Data file]. Salt Lake City, UT: Utah Department of Health.
8. Utah Immunization Program (July 2010). *Long-Term Care 2009 Annual Report*. Salt Lake City, UT: Utah Department of Health.
9. Department of Health and Human Services, CDC. (n.d.). *National Immunization Survey* [Data file]. Retrieved September 17, 2010 from http://www.cdc.gov/vaccines/stats-surv/nis/data/tables_2009.htm.
10. Utah Statewide Immunization Information System. 2007-2009 program data [Data file]. Salt Lake City, UT: Utah Department of Health.
11. Utah Women, Infants, and Children (WIC) Program. (n.d.). *Monthly Participation Reports 2009*. Salt Lake City, UT: Utah Department of Health. **Note: numbers reported are the average of the 12 months in calendar year 2009.**
12. Utah Immunization Program (November 2009). *Licensed and Reporting Unlicensed Child Care Centers and Preschools: Child Care Annual Summary Report*. Salt Lake City, UT: Utah Department of Health.
13. Utah Immunization Program (November 2009). *Head Start: Child Care Annual Summary Report*. Salt Lake City, UT: Utah Department of Health.
14. Utah State Office of Education (2009). *Annual Report of the State Superintendent of Public Instruction: Utah 2008-2009*. Retrieved June, 2010 from <http://www.schools.utah.gov/finance/other/AnnualReport/ar2009.htm>.
15. *Behavioral Risk Factor Surveillance System*. Retrieved on June 2010 from Utah Department of Health, Center for Health Data, Indicator-Based Information System for Public Health Website: <http://ibis.health.utah.gov/>.

Immunization Program, Maternal and Child Health Bureau

Division of Epidemiology and Laboratory Services
Utah Department of Health
PO Box 142001
Salt Lake City, Utah 84114-2001
Phone: (801) 538-9450
Fax: (801) 538-9440
Websites: www.immunize-utah.org
www.usiis.org

Utah Statewide Immunization Information System

Division of Epidemiology and Laboratory Services
Utah Department of Health
Helpline: (801) 538-3440
(800) 678-3440
Websites: www.immunize-utah.org
www.usiis.org

Data Resources Program, Maternal and Child Health Bureau

Division of Community and Family Health Services
Utah Department of Health
PO Box 142001
Salt Lake City, Utah 84114-2001
Phone: (801) 538-6916
Fax: (801) 538-6591
Website: www.health.utah.gov/drps

Child Adolescent School Health Program, Maternal and Child Health Bureau

Division of Community and Family Health Services
Utah Department of Health
PO Box 142001
Salt Lake City, Utah 84114-2001
Phone: (801) 538-9459
Fax: (801) 538-9409
Website: www.health.utah.gov/cash

Women, Infants, and Children Program, Maternal and Child Health Bureau

Division of Community and Family Health Services
Utah Department of Health
PO Box 141013
Salt Lake City, Utah 84114-1013
Phone: (801) 538-6620
Fax: (801) 538-6729
Website: www.health.utah.gov/wic

Other Resources Available

National Immunization Program
National Immunization Data and Statistics
Immunization Action Coalition
Healthy People 2010
Utah Department of Health
Utah Maternal and Child Health Bureau
Indicator-Based Information System for Public Health (IBIS-PH)
Office of Health Care Statistics
Utah Medicaid Program

www.cdc.gov/vaccines
www.cdc.gov/vaccines/stats-surv/default.htm
www.immunize.org
www.healthypeople.gov
www.health.utah.gov
www.health.utah.gov/cfhs/mch
http://ibis.health.utah.gov
www.health.utah.gov/hda
www.health.utah.gov/medicaid

