

# Utah Health Status Update: Uncontrolled High Blood Pressure in Utah

July 2012

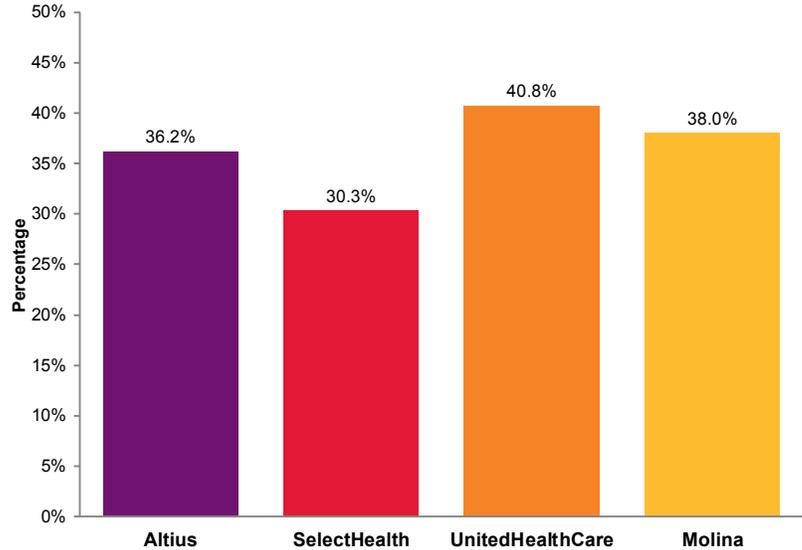
Although Utah has compared favorably among other states with respect to obesity, cancer, and other chronic disease rates, its population continues a long struggle with high blood pressure. Also called hypertension, high blood pressure is defined for adults as a systolic pressure of 140 mmHg or higher or a diastolic blood pressure of 90 mmHg or higher. It is the most common primary diagnosis in the U.S. and is a major risk factor for heart attack and stroke. In 2011, nearly one in four Utah adults (24.4%) reported being told they had high blood pressure, a rate that has not declined over the past two decades (Source: Utah Behavioral Risk Factor Surveillance System, Preliminary data, 2011). Moreover, many adults being treated for high blood pressure do not have their blood pressure “under control,” meaning a systolic blood pressure below 140 mmHg or a diastolic blood pressure below 90. According to the Utah 2011 Health Plan Quality of Care Report (HEDIS), more than one-third (35.8%) of Utah commercial health plan enrollees and 38 percent of Medicaid plan enrollees with high blood pressure do not have their blood pressure controlled (Figure 1).

High blood pressure is a major driver of health care expenses in Utah and is closely connected with other expensive chronic diseases. Alone, it

- **Cardiovascular disease is the leading cause of death in Utah, accounting for 3,554 deaths in 2010 (Utah Death Certificate Database).**
- **High blood pressure is a leading risk factor for heart attack and stroke.**
- **High blood pressure is often called The Silent Killer because it does not produce symptoms.**
- **High blood pressure prevalence increases with age. Ten percent of Utahns aged 18 to 44 report having been told they had high blood pressure compared with 50 percent of Utahns aged 65 and older (2011 Preliminary data, BRFSS).**

## Uncontrolled High Blood Pressure

Figure 1. Percentage of members (age 18-85) who had a diagnosis of hypertension and whose blood pressure (BP) was not adequately controlled (<140/90) during the measurement year, 2011



Source: Utah HEDIS, 2011

## Most Expensive Chronic Diseases

Table 1. Top ten chronic diseases by annual cost to treat and number of individuals treated, 2010

Chronic Disease	Annual Cost to Treat	Individuals Treated
1. Diabetes	\$202,885,766	48,108
2. Hypertension	\$111,284,114	60,381
3. Asthma	\$78,642,310	30,970
4. Coronary Heart Disease	\$52,236,140	7,995
5. Breast Cancer	\$30,563,297	3,150
6. Depression	\$28,162,682	32,415
7. End Stage Renal Disease	\$26,188,497	2,051
8. Heart Failure	\$21,696,168	2,081
9. Stroke	\$21,301,554	2,039
10. Chronic Obstructive Pulmonary Disease	\$13,335,058	1,647

Source: Utah All Payer Claims Database

is the second most expensive chronic disease in the state, with an annual treatment cost of \$111 million (Table 1). High blood pressure contributes to other expensive cardiovascular conditions, such as heart failure and stroke, and it makes diabetes harder to control.

In 2010, the Institute of Medicine (IOM) released a report that called high blood pressure a “neglected disease.” Although high blood pressure prevalence rarely makes the evening news, it represents a major public health problem due to its pervasiveness, public health implications, and costs. The facts supporting the allegation of neglect are simple:

- High blood pressure is highly prevalent. Overweight and obesity, high sodium intake, and low physical activity in the population guarantee that high blood pressure will continue to be a problem and may even increase in prevalence.

- Widely researched, safe, and relatively inexpensive treatments have the potential to bring high blood pressure under control.

In the Behavioral Risk Factor Surveillance System (BRFSS) Survey, seven in ten (70.1%) Utah adults with high blood pressure reported that they were under a physician’s care for this condition (Preliminary data, 2011). Only two-thirds (68.9%) of adults with high blood pressure reported taking medication for it. The crude rate was higher among women (78.3%, (95% CI 66.1%-87.0%)) than men (58.3%, (95% CI 50.3%-65.9%)), although the difference did not persist after age-adjustment. On a national level, the IOM report attributed poor adherence to blood pressure medications to both physician and patient factors, such as physicians not initiating or intensifying treatment in accordance with medical guidelines and patients not being able to afford medication. The Utah Heart Disease and Stroke Prevention Program works with partners such as the American Heart Association, HealthInsight, and the Association for Utah Community Health, to increase provider awareness of high blood pressure treatment guidelines and improve follow-up with patients who have high blood pressure.

For individuals, lifestyle changes may help to prevent or control high blood pressure. The IOM advised that individual efforts to lose weight, exercise more, and eat more healthfully can be significantly enhanced through supportive environmental and community changes. For example, public health policies that reduce sodium in prepared and packaged foods, that support menu labeling, and that encourage physical activity at work can have a widespread, long-term impact that reduces high blood pressure prevalence and increases high blood pressure control. Fortunately, many of the health behaviors that can prevent high blood pressure or help to control it also are effective in reducing complications associated with other chronic diseases, such as overweight/obesity and diabetes (Table 2). Therefore, community

## Estimated Decrease in High Blood Pressure Prevalence

Table 2. Estimated percentage decrease in high blood pressure by lifestyle intervention

Lifestyle Intervention	Change in HBP Prevalence	
	Percentage	95% Confidence Interval
Weight Loss	8%	(4-13%)
Reduced sodium intake	6%	(5-8%)
Healthy eating (i.e., DASH)	8%	(6-10%)
Increased physical activity	6%	(4-7%)

Source: Institute of Medicine. A Population-Based Policy and Systems Change Approach to Prevent and Control Hypertension. Washington, DC: The National Academies Press, 2010.

interventions to reduce the costs associated with high blood pressure are likely to produce broad benefits.

## July 2012 Utah Health Status Update

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## Breaking News, July 2012

### Births to Utah Mothers with a Reported Pre-Pregnancy Weight Greater than or Equal to 300 lbs

Obesity is becoming a larger public health concern in the United States, and Utah is no exception. Health care providers have a dual challenge when working with an obese or morbidly obese expectant mother. This article highlights some of the findings from a review of the medical information provided as part of the birth certificate process for children born to Utah mothers whose reported pre-pregnancy weight was 300 pounds or greater. This subset of mothers was chosen because Utah's OVRS (Office of Vital Records & Statistics) is required to validate reported weights with prenatal care providers when the provider indicates that the mother is at or above this weight threshold.

As a percentage of total births in Utah, this subset accounts for less than .05%. There were 191 births in 2009 and 216 in 2010 out of a total of 53,849 and 52,164, respectively. For 2011, preliminary data suggests about 210 births within this subset.

Mothers's average BMI as calculated from validated weight and height was slightly over 50 in all three years (50.2 in 2009, 50.9 in 2010 and 2011p), classifying these women as morbidly obese. Findings from the initial analysis that need further study, including a comparative analysis with other birth cohorts, are:

- Mental Health Issues—between 15 and 20% of mothers in the morbidly obese subset reported mental health issues.
- Primary C-section rate—First-time mothers who are morbidly obese are three-times more likely to have a C-section than other first time mothers. This is of particular concern as there are increased risks during the surgery as well as an increased risk for wound breakdowns, infections, and deep vein thrombosis in the postpartum period. Morbidly obese individuals are at greater risk for these conditions.
- High birth-weight babies—approximately 15% of babies born to these morbidly obese mothers weighed over 4,000 grams compared to 6.6% of babies born to mothers in the general population.
- Breastfeeding— Infants of these morbidly obese mothers who are breastfed at the time of discharge has increased over the study period from 57.6% in 2009 to 69.4% in 2010 and a preliminary of 75.2% in 2011.

## Community Health Indicators Spotlight, July 2012

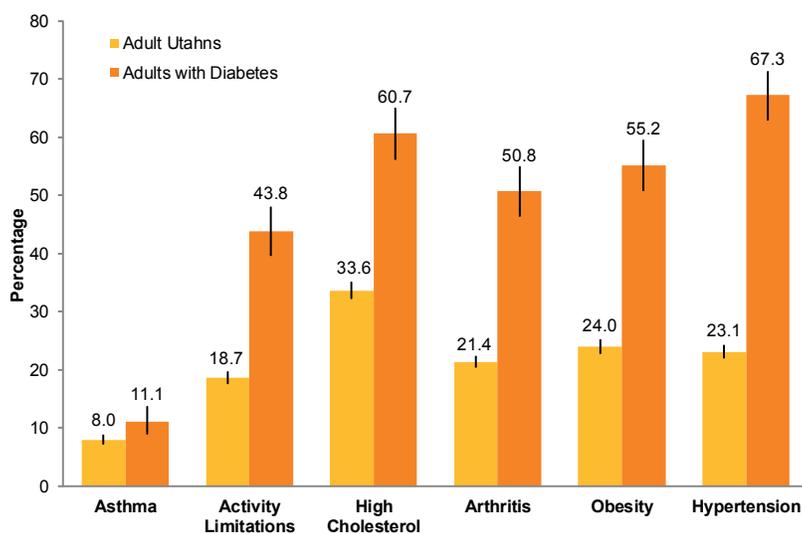
### Diabetes Comorbidity

About one in 15 adults in Utah has diabetes and it is the leading cost driver in the state. Health assessments for diabetes tend to focus on the disease-specific complications, but more attention should be given to the excess rates of other chronic conditions and risk factors experienced by people with diabetes.

Utah adults with diabetes have about twice the prevalence of high cholesterol, obesity, arthritis, and nearly three times the prevalence of hypertension as adults without diabetes. In addition, twice as many adults with diabetes report activity limitations.

A more comprehensive approach to the health of people with diabetes that includes co-morbidity will help to improve care, improve quality of life for those affected, and may help to explain the high health care costs of people with diabetes.

**Selected Chronic Diseases and Conditions Among Adults with and Without Diabetes, Utah BRFSS, 2009**



# Monthly Health Indicators Report

(Data Through May 2012)

Monthly Report of Notifiable Diseases, May 2012	Current Month # Cases	Current Month # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
Campylobacteriosis (Campylobacter)	36	35	126	133	0.9
Shiga toxin-producing Escherichia coli (E. coli)	5	5	15	19	0.8
Hepatitis A (infectious hepatitis)	1	0	2	3	0.7
Hepatitis B, acute infections (serum hepatitis)	0	1	0	4	0.0
Influenza*	Weekly updates at <a href="http://health.utah.gov/epi/diseases/flu">http://health.utah.gov/epi/diseases/flu</a>				
Meningococcal Disease	0	0	0	4	0.0
Pertussis (Whooping Cough)	48	26	343	146	2.3
Salmonellosis (Salmonella)	18	33	84	120	0.7
Shigellosis (Shigella)	0	2	7	14	0.5
Varicella (Chickenpox)	17	52	152	359	0.4
Quarterly Report of Notifiable Diseases, 1st Qtr 2012	Current Quarter # Cases	Current Quarter # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
HIV/AIDS†	18	26	18	26	0.7
Chlamydia	1,948	1,587	1,948	1,587	1.2
Gonorrhea	98	114	98	114	0.9
Syphilis	4	6	4	6	0.6
Tuberculosis	9	10	9	10	0.9
Medicaid Expenditures (in Millions) for the Month of May 2012	Current Month	Expected/Budgeted‡ for Month	Fiscal YTD	Budgeted‡ Fiscal YTD	Variance - over (under) budget
Capitated Mental Health	\$ 12.6	\$ 8.3	\$ 134.0	\$ 132.5	\$ 1.5
Inpatient Hospital	\$ 19.2	\$ 17.4	\$ 312.8	\$ 278.8	\$ 34.0
Outpatient Hospital	\$ 6.5	\$ 6.0	\$ 78.4	\$ 95.8	\$ (17.4)
Long Term Care	\$ 14.5	\$ 9.2	\$ 146.6	\$ 147.6	\$ (1.0)
Pharmacy§	\$ 15.5	\$ 9.3	\$ 163.9	\$ 148.8	\$ 15.1
Physician/Osteo Services	\$ 7.6	\$ 5.6	\$ 82.7	\$ 89.8	\$ (7.1)
TOTAL HCF MEDICAID	\$ 142.1	\$ 138.8	\$1,699.5	\$1,724.9	\$ (25.4)

Program Enrollment for the Month of May 2012	Current Month	Previous Month	% Change¶ From Previous Month	1 Year Ago	% Change¶ From 1 Year Ago
Medicaid	254,331	254,394	-0.0%	241,455	+5.3%
PCN (Primary Care Network)	16,927	16,215	+4.4%	17,323	-2.3%
CHIP (Children's Health Ins. Plan)	37,059	36,839	+0.6%	37,425	-1.0%
Health Care System Measures	Annual Visits			Annual Charges	
	Number of Events	Rate per 100 Population	% Change¶ From Previous Year	Total Charges in Millions	% Change¶ From Previous Year
Overall Hospitalizations (2010)	274,576	9.0%	-2.6%	\$ 5,416.2	+5.9%
Non-maternity Hospitalizations (2010)	167,340	5.3%	-0.9%	\$ 4,552.5	+5.9%
ED Encounters - Not Admitted (2010)	645,962	21.5%	-7.7%	\$ 1,160.9	+7.4%
Outpatient Surgery (2009)	311,442	10.6%	+1.9%	\$ 1,465.7	+14.7%
Annual Community Health Measures	Current Data Year	Number Affected	Percent/Rate	% Change¶ From Previous Year	State Rank# (1 is best)
Obesity (Adults 18+)	2010	454,700	23.1%	-4.0%	11 (2010)
Cigarette Smoking (Adults 18+)	2010	180,100	9.1%	-6.9%	1 (2010)
Influenza Immunization (Adults 65+)	2010	175,900	68.2%	-0.8%	23 (2010)
Health Insurance Coverage (Uninsured)	2010	301,900	10.6%	-5.6%	n/a
Motor Vehicle Traffic Crash Injury Deaths	2010	231	8.1 / 100,000	+0.1%	19 (2009)
Poisoning Deaths	2010	342	12.0 / 100,000	-38.1%	47 (2009)
Suicide Deaths	2010	479	16.8 / 100,000	+5.8%	n/a
Diabetes Prevalence (Adults 18+)	2010	128,000	6.5%	+6.2%	15 (2010)
Poor Mental Health (Adults 18+)	2010	296,100	15.0%	-0.2%	17 (2010)
Coronary Heart Disease Deaths	2010	1,488	52.2 / 100,000	-0.4%	2 (2008)
All Cancer Deaths	2010	2,791	98.0 / 100,000	+7.9%	1 (2008)
Stroke Deaths	2010	736	25.8 / 100,000	-1.4%	13 (2008)
Births to Adolescents (Ages 15-17)	2010	876	14.3 / 1,000	-13.2%	17 (2009)
Early Prenatal Care	2010	38,124	73.1%	+2.1%	n/a
Infant Mortality	2010	251	4.8 / 1,000	-9.0%	3 (2008)
Childhood Immunization (4:3:1:3:3:1)	2010	38,900	70.6%	-7.8%	12 (2010)

\* Influenza activity remains minimal in Utah. Influenza-like illness activity is below baseline statewide. As of November 16, 2011, 1 influenza-associated hospitalization has been reported to the UDOH. More information can be found at <http://health.utah.gov/epi/diseases/flu>.

† Diagnosed HIV infections, regardless of AIDS diagnosis.

‡ Budget has been revised to include supplemental funding from 2011 General Session.

§ Only includes the gross pharmacy costs. Pharmacy Rebate and Pharmacy Part-D amounts are excluded from this line item.

¶ % Change could be due to random variation.

# State rank based on age-adjusted rates.

Notes: Data for notifiable diseases are preliminary and subject to change upon the completion of ongoing disease investigations. Active surveillance for West Nile virus has ended until the 2012 season.