

Utah Health Status Update: Depression

September 2009

Utah Department of Health

Of all mental illnesses, depression is the most common disorder.¹ Approximately 14.8 million adults in the U.S., or 6.7% of the adult population, suffer from major depression each year.² Major depression is the leading cause of disability in the U.S. for ages 15–44.

Depression was selected by the Healthy People 2010 committee in order to monitor progress in mental health treatment among adults. Healthy People 2010 objective 18-9b states “Increase the proportion of adults with recognized depression who receive treatment.”

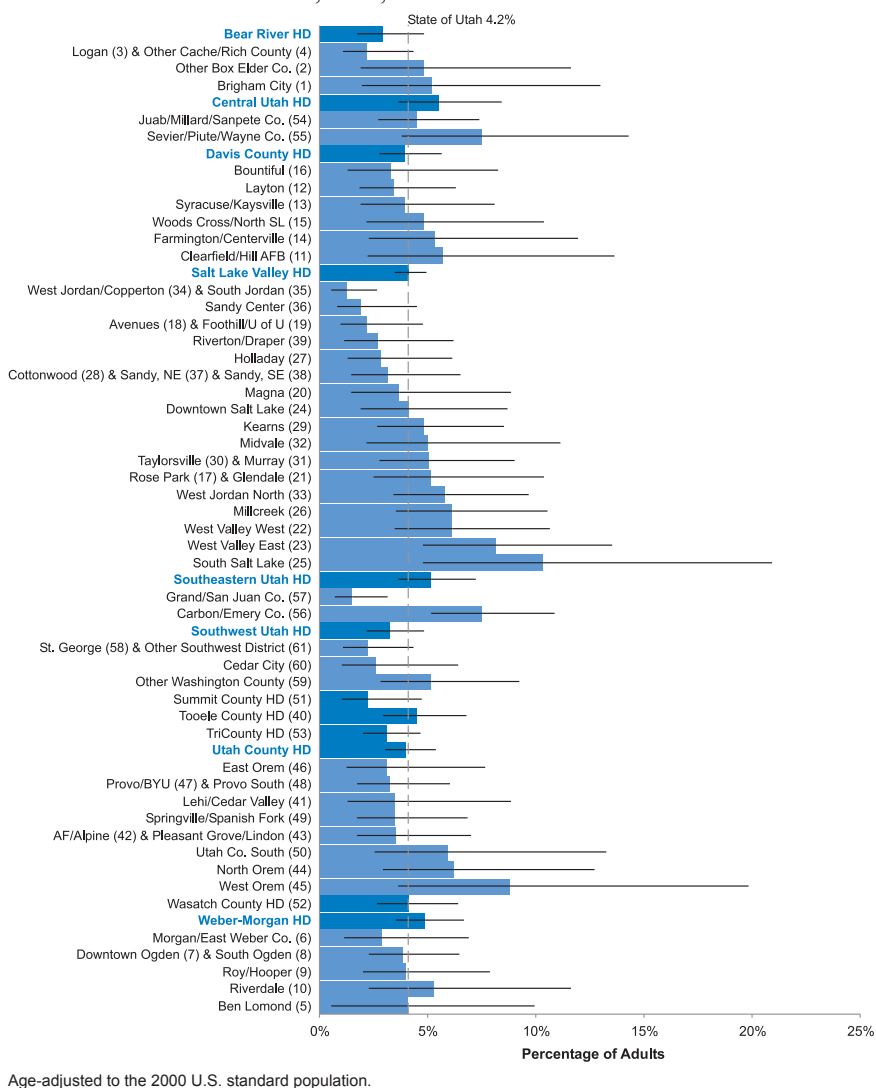
In order to estimate the prevalence of depression in Utah adults, the Patient Health Questionnaire (PHQ-9) was included on the Utah Behavioral Risk Factor Surveillance System (BRFSS) from 2005–2007. The PHQ-9 is a validated screening tool to diagnose clinical depression. The BRFSS is a random-digit-dialed telephone survey of noninstitutionalized persons 18 years of age and older. Survey respondents were classified as having major depression based on a validated algorithm.

Results from the survey indicate that 4.1% of Utah adults, or approximately 75,100 individuals, had major depression. More women (5.1%) were classified as having major depression than men (3.1%). Based on data from 2006, Utah ranked 21st for percentage of adults with major depression compared to the 33 other states that included some variation of the PHQ-9 on the BRFSS that year. Utah’s rate (4.2%) was similar to the combined rate (4.2%) of the 34 states. North Dakota had the lowest rate of major depression (2.2%) while West Virginia had the highest rate (7.0%).

The age-adjusted rate of major depression in Utah varied by local health district (LHD). Central Utah LHD had the highest rate of major depression (5.6%) while Summit County LHD had the lowest rate (2.2%). However, neither of these rates is statistically different from the overall state rate of major depression (4.1%). Looking at small areas within LHDs, adults in South Salt Lake had the highest rate of major depression (10.4%) followed by West

Major Depression by Small Area

Figure 1. Percentage of adults reporting current major depression by local health district and small area, Utah, 2005–2007



Orem (8.8%) and West Valley East (8.2%). The lowest rates of major depression were found in the combined West Jordan/Copperton and South Jordan small areas (1.2%), Grand/San Juan County (1.5%) and Sandy Center (1.9%). The South Salt Lake and West Valley East rates were significantly higher than the state rate. The combined West Jordan/Copperton and South Jordan small area and Grand/San Juan County rates were significantly lower than the state rate (see Figure 1).

The prevalence of major depression was higher among adults with selected chronic diseases. People who ever had a stroke had rates of major depression three times higher than those who had never had a stroke (12.0% vs. 3.9%). People who had ever had a heart attack (8.6% vs. 4.0%), had current asthma (8.2% vs. 3.7%), hypertension (7.7% vs.

3.6%), and doctor diagnosed arthritis (7.5% vs. 2.9%) had major depression at more than twice the rate of those without those chronic conditions. Adults with diabetes (6.2% vs. 3.9%) also had higher rates of depression than those not diagnosed (see Figure 2).

A multivariate analysis was performed to determine if certain health behaviors were different for Utah adults who had major depression. The analysis controlled for age, sex, race, education, and employment as individual logistic regression models. Persons who were classified with major depression were 5.4 times more likely to report fair or poor health status, 2.3 times more likely to be current smokers, 1.8 times more likely to report binge drinking, and more than 1.5 times more likely to be obese when compared to people not classified with major depression. They were only about half as likely to engage in the recommended amount of physical activity. Major depression was not related to the consumption of fruits and vegetables (see Figure 3).

Utah has a similar prevalence of major depression when compared to other states using the PHQ-9 analysis, although geographic variation exists within the State. Major depression may be associated with certain chronic conditions, health, and health behaviors. Targeted screening for and treatment of depression should be considered among persons who have had strokes or heart attacks and persons with chronic diseases. Public health efforts towards increased physical activity, smoking cessation, and alcohol addiction should recognize the impact of depression on these behaviors. Timely and appropriate interventions can help improve the quality of life of persons who suffer from this disease.

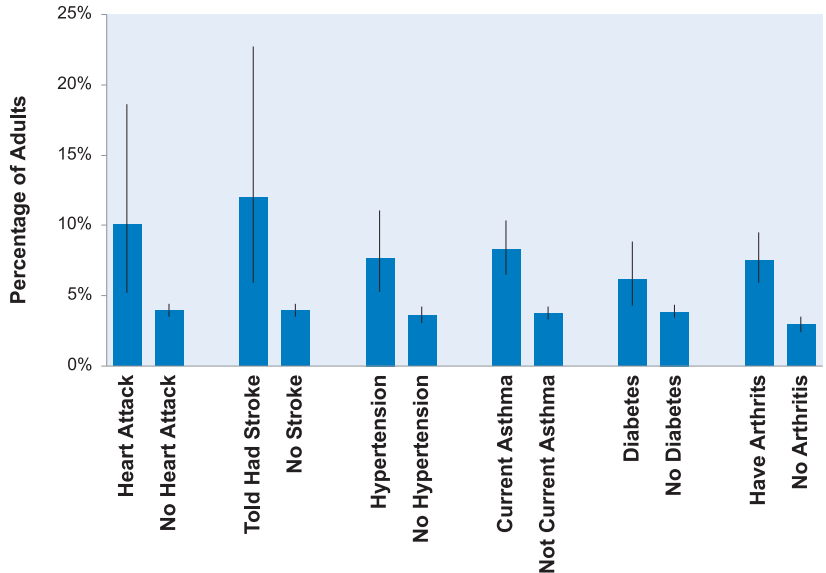
References

1. U.S. Department of Health and Human Services. *Healthy People 2010*. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. Washington, DC: U.S. Government Printing Office, November 2000.
2. National Institutes of Mental Health "The Numbers Count: Mental Disorders in America." Retrieved from <http://www.nimh.nih.gov/publicat/numbers.cfm#MajorDepressive> on February 27, 2006.

A comprehensive report on these data is being prepared and will be available by fall, 2009 and can be accessed at <http://health.utah.gov/opha/publications/brfss/Depression/Depression.html>.

Major Depression by Chronic Disease

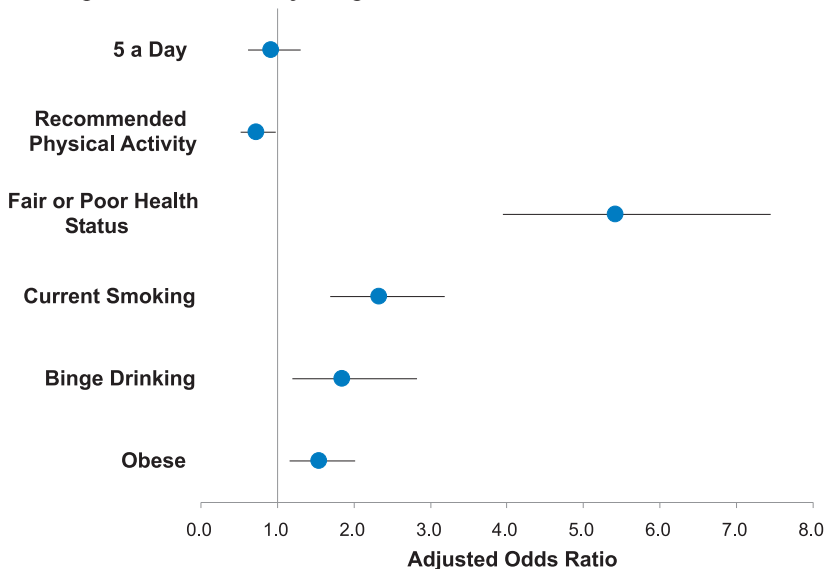
Figure 2. Percentage of adults reporting current major depression by selected chronic diseases, Utah, 2005–2007



Age-adjusted to the 2000 U.S. standard population. Hypertension and asthma data reported for 2005 and 2007.

Lifestyle Behaviors of Utahns With Major Depression

Figure 3. Odds of lifestyle behaviors for persons with major depression versus persons without major depression, Utah, 2005–2007



Age-adjusted to the 2000 U.S. standard population. 5 a Day and recommended physical activity data reported for 2005 and 2007.

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Breaking News, August 2009

Multiple Births

Natural incidence for twins is 1 in 80 (3%) and for triplets 1 in 8000 (0.2%).* Since 1980 in the U.S. there has been an increase in multiple births by 75% for twins and by 220% for triplets and quadruplets.* The increase in multiple births is attributed to delayed pregnancy, treatment with fertility drugs, and assisted reproductive technology (ART). In the U.S. in the year 2006, ART alone accounted for 1% of all deliveries and 18% of multiple births.*

Gestational age at delivery decreases as fetal number increases. The average gestational age for triplets is 32 weeks and for quadruplets 29 weeks in the U.S. (5 and 8 weeks early, respectively). Babies born early are at risk for multiple long term problems. Prematurity is the most powerful predictor of cerebral palsy and the risk of cerebral palsy is increased among multiple births.*

In summary, although positive achievements in science and technology are undeniable, one must weigh the possibility of undesirable consequences such as extreme prematurity which carries a risk for prolonged hospital stay, long term health problems, neurological deficit, and cognitive impairment.

Multiple Births Seen Through the Neonatal Follow-up Program (NFP), UDOH, Prospective Study of Very Low Birth Weight Babies, Nov. 2006–Nov. 2007

	Spontaneous	ART
Number of Children	192	133
Number of Families	104	69
Twins	164 (85%)	80 (60%)
Triplets	9 (5%)	27 (20%)
Quadruplets	0 (0%)	8 (6%)
Single Survivor	19 (10%)	18 (14%)

Gravity of Illness

Number of Children (Percent)	Spontaneously Occurring Multiple Births	Multiple Births as a Result of ART
Average gestation (Term is 38–40 weeks and premature is 37 weeks and less)	29 weeks	28 weeks
Average birth weight (1 pound = 454 grams)	1183 grams	1128 grams
Newborn Intensive Care Unit (NICU) stay	68 days	68 days
Discharged from NICU on oxygen (Infants with chronic lung disease)	98 (51%)	78 (59%)
Severe brain bleed placing the infant at risk for cerebral palsy and cognitive impairment	26 (14%)	28 (21%)
Retinopathy of prematurity requiring laser treatment placing the infant at risk for long term vision concerns	22 (11%)	12 (9%)
Congenital anomaly	13 (7%)	24 (18%)

* References available upon request.

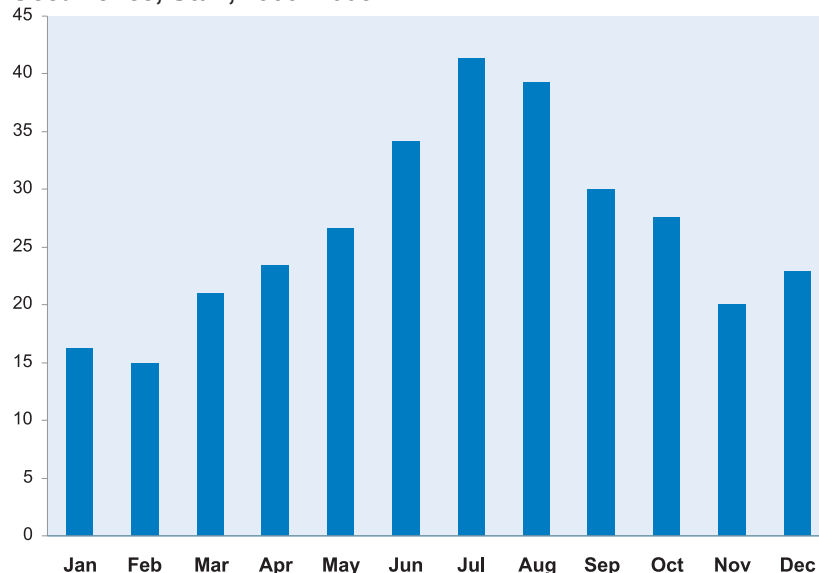
Community Health Indicators Spotlight, August 2009

Salmonella

Outbreaks of *Salmonella* have become a year-round occurrence; they are being identified and investigated even during the off-peak months for foodborne diseases. This new pattern is due in a large part to improved identification of outbreaks through specialized laboratory techniques that can help public health link distant illnesses together as outbreaks. Over the last 12 months, the Utah Department of Health and local health departments in Utah have partnered with the Centers for Disease Control and Prevention and other state and local health departments to investigate outbreaks of *Salmonella* that have been linked to turkey products, peanut butter products, and *Salmonella* cultures for school laboratories. Several other outbreaks were investigated for which no source was identified.

During the spring of 2009, public health in Utah investigated an outbreak of *Salmonella* infections linked to *queso fresco*, Mexican-style homemade raw-milk cheese, made privately in people's homes. Public health officials believe the cheese was contaminated from ingredients used to make the *queso fresco*, or from cross-contamination of the cheese. Public health has advised the public to: only use pasteurized milk to make *queso fresco*; keep milk and other ingredients refrigerated; use proper food handling practices to avoid cross contamination; and only buy *queso fresco* from the refrigerated section of the grocery store, not street vendors or door-to-door salesmen.

Average Number of Cases of Salmonellosis by Month of Occurrence, Utah, 1999–2008



Monthly Health Indicators Report

(Data Through July 2009)

Monthly Report of Notifiable Diseases, July 2009	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)	18	52	138	191	0.7
Enterotoxigenic Escherichia coli (E. coli)	10	15	37	41	0.9
Hepatitis A (infectious hepatitis)	0	2	3	12	0.2
Hepatitis B (serum hepatitis)	1	3	5	15	0.3
Measles (Rubeola, Hard Measles)	0	0	0	0	--
Meningococcal Diseases	0	1	1	7	0.2
Norovirus	0	3	6	12	0.5
Pertussis (Whooping Cough)	7	26	106	236	0.4
Salmonellosis (Salmonella)	23	36	156	179	0.9
Shigellosis (Shigella)	0	5	13	23	0.6
Varicella (Chickenpox)	0	7	334	459	0.7
Viral Meningitis	4	13	16	46	0.3
West Nile (human cases)	0	2	1	2	0.4

Notifiable Diseases Reported Quarterly, 2nd Qtr 2009	Current Quarter # Cases	Current Quarter # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
HIV	17	23	39	42	0.9
AIDS	10	10	23	23	1.0
Chlamydia	1,545	1,221	3,281	2,488	1.3
Gonorrhea	84	175	180	354	0.5
Tuberculosis	9	8	20	17	1.2

Program Enrollment for the Month of July 2009	Current Month	Previous Month	% Change ^s From Previous Month	1 Year Ago	% Change ^s From 1 Year Ago
Medicaid	197,248	195,257	+1.0%	166,026	+18.8%
PCN (Primary Care Network)	23,438	24,103	-2.8%	19,068	+22.9%
CHIP (Children's Health Ins. Plan)	40,131	40,742	-1.5%	34,491	+16.4%

Medicaid Expenditures (in Millions) for the Month of July 2009[†]	Current Month	Expected/Budgeted for Month [‡]	Fiscal YTD	Budgeted Fiscal YTD [‡]	Variance -over (under) budget [‡]
Capitated Mental Health	\$ 0.7	N/A	\$ 112.9	N/A	N/A
Inpatient Hospital	\$ 13.0	N/A	\$ 234.7	N/A	N/A
Outpatient Hospital	\$ 8.4	N/A	\$ 108.7	N/A	N/A
Long Term Care	\$ 11.2	N/A	\$ 203.1	N/A	N/A
Pharmacy	\$ 2.4	N/A	\$ 129.0	N/A	N/A
Physician/Osteo Services [‡]	\$ 6.4	N/A	\$ 86.5	N/A	N/A
TOTAL HCF MEDICAID	\$ 121.3	N/A	\$ 1,721.1	N/A	N/A

Health Care System Measures	Number of Events	Rate per 100 Population	% Change ^s From Previous Year	Total Charges in Millions	% Change ^s From Previous Year
Overall Hospitalizations (2007)	278,952	9.7%	-0.7%	\$ 4,265.9	+10.1%
Non-maternity Hospitalizations (2007)	164,659	5.6%	-0.9%	\$ 3,554.6	+9.9%
Emergency Department Encounters (2007)	682,122	24.0%	-1.3%	\$ 781.0	+17.1%
Outpatient Surgery (2007)	296,596	10.5%	-5.7%	\$ 1,109.0	+8.6%

Annual Community Health Measures	Current Data Year	Population at Risk	Number Affected	Percent/Rate	% Change ^s From Previous Year
Overweight and Obesity (Adults 18+)	2008	1,924,274	1,119,500	58.2%	+0.5%
Cigarette Smoking (Adults 18+)	2008	1,924,274	179,200	9.3%	-20.4%
Influenza Immunization (Adults 65+)	2008	237,275	173,900	73.3%	-3.8%
Health Insurance Coverage (Uninsured)	2008	2,781,954	298,200	10.7%	+0.7%
Motor Vehicle Crash Injury Deaths	2008	2,781,954	268	9.6 / 100,000	-3.3%
Suicide Deaths	2008	2,781,954	384	13.8 / 100,000	+1.3%
Diabetes Prevalence	2008	2,781,954	129,500	4.7%	-1.0%
Coronary Heart Disease Deaths	2008	2,781,954	1,514	54.4 / 100,000	-4.0%
All Cancer Deaths	2008	2,781,954	2,478	89.1 / 100,000	-5.6%
Births to Adolescents (Ages 15-17)	2008	61,727	1,122	18.2 / 1,000	-2.0%
Early Prenatal Care	2008	55,605	43,997	79.1%	-0.4%
Infant Mortality	2008	55,605	264	4.7 / 1,000	-7.9%
Childhood Immunization (4:3:1:3:3:1)	2008	53,525	39,400	73.6%	-5.8%

§ % Change could be due to random variation.

† The final Medicaid July old adjustment expenditures have not been posted and are not included in this report. The Medicaid service expenditures reported here are the most current as of the release date of this report.

‡ Determination on tier 1 and tier 2 unemployment enhancements and the ARRA rate differentials for the the school districts are still being decided. For these two reasons the total Medicaid Budget amounts are not ready to be released.

‡ Medicaid payments reported under Physician/Osteo Services do not include enhanced physician payments.

Notes: Data for notifiable diseases are preliminary and subject to change upon the completion of ongoing disease investigations. Active surveillance for influenza has ended until the 2009 season.