

# Utah Health Status Update:

## Pregnancy Weight Gain

February 2008

Utah Department of Health

In 1990 the Institute of Medicine (IOM) released guidelines for weight gain during pregnancy.<sup>1</sup> The recommendations were developed to ensure optimal outcomes for mother and infant and were based upon prepregnancy body mass index (BMI), a measure of height and prepregnancy weight. For each BMI category, a different weight gain range was recommended (Table 1). At the time of the publication, the obesity epidemic was in its early stages and the focus of these recommendations was to ensure women gained enough weight during pregnancy. As such, the IOM did not make specific recommendations for weight gain in women who were obese prior to becoming pregnant. Since then, rising rates of prepregnancy overweight and obesity have made appropriate weight gain during pregnancy of greater importance.

Appropriate pregnancy weight gain is important as research has found that inadequate pregnancy weight gain is associated with low birth weight infants and premature delivery.<sup>1</sup> Excessive pregnancy weight gain is associated with an increased risk for large for gestational age infants, cesarean delivery, and long term maternal weight retention.<sup>2</sup>

Utah PRAMS (Pregnancy Risk Assessment Monitoring System) data from 2000–2006 show that among Utah women, excessive weight gain is most prevalent (Figure 1). Over these six years, inadequate weight gain decreased by 20% while excessive weight gain increased by 11%. The biggest predictor of weight gain during pregnancy is the mother's prepregnancy BMI (Figure 2). Women who enter their pregnancy with a lower BMI are more likely to have inadequate weight gain and women with an overweight or obese BMI are more likely to have excessive weight gain.

The high rates of excessive weight gain in Utah are of concern. PRAMS data from 2004–2006 show that women with excessive weight gain are 60% more likely to have a cesarean section and almost twice as likely to have abnormal labors. Women with excessive weight gain are

### Pregnancy Weight Gain Recommendations

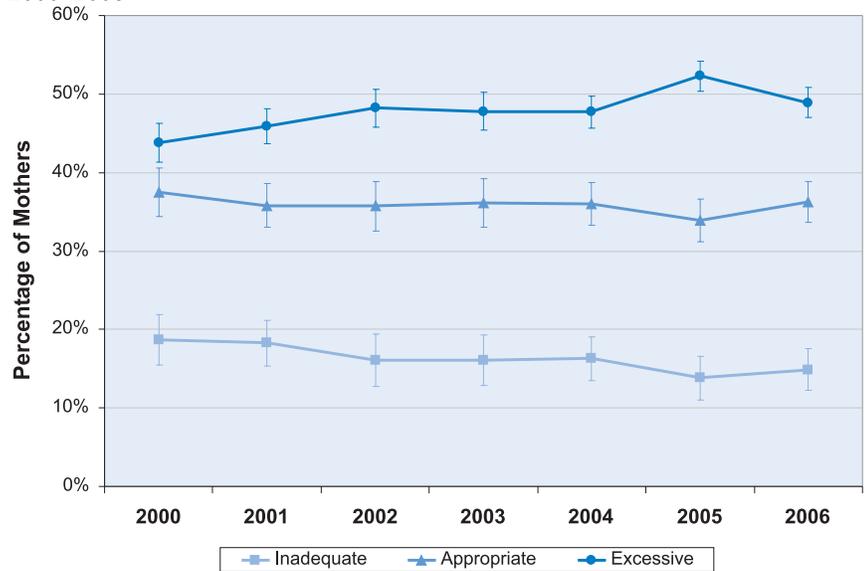
Table 1. Institute of Medicine Pregnancy Weight Gain Recommendations

Prepregnancy BMI	Category	Recommendation
<19.8	Underweight	28 to 40 pounds
19.8 to 26.0	Normal	25 to 35 pounds
26.1 to 29.0	Overweight	15 to 25 pounds
29.1+	Obese	At least 15 pounds*

\*The IOM failed to provide a defined weight gain range for women in the obese category. Due to this limitation, these data use a cutoff of 15 pounds for the obese category, which correlates with the definition of high maternal weight gain used by the USDA Women, Infants, and Children (WIC) program.

### Maternal Weight Gain

Figure 1. Percentage of mothers in each weight gain category, Utah, 2000–2006



also at risk for long term weight retention, which put them at higher risk for poor outcomes in subsequent pregnancies.

The PRAMS survey asks women, “During any of your prenatal care visits, did a doctor, nurse, or other health care worker talk with you about how much weight you should gain during your pregnancy?” Figure 3 notes counseling rates by a woman's prepregnancy BMI. Overweight and obese women were significantly less likely than normal weight women to report being counseled about weight gain during pregnancy.

Pregnant women should be counseled about appropriate weight gain during pregnancy and referred for nutritional counseling if they are gaining too little or too much. Pregnant women who are enrolled in

Medicaid and who are considered nutritionally at risk are eligible for up to seven hours of consultation with a registered dietician. Some private insurance plans may pay for dietary counseling; providers should check with individual plans for coverage.

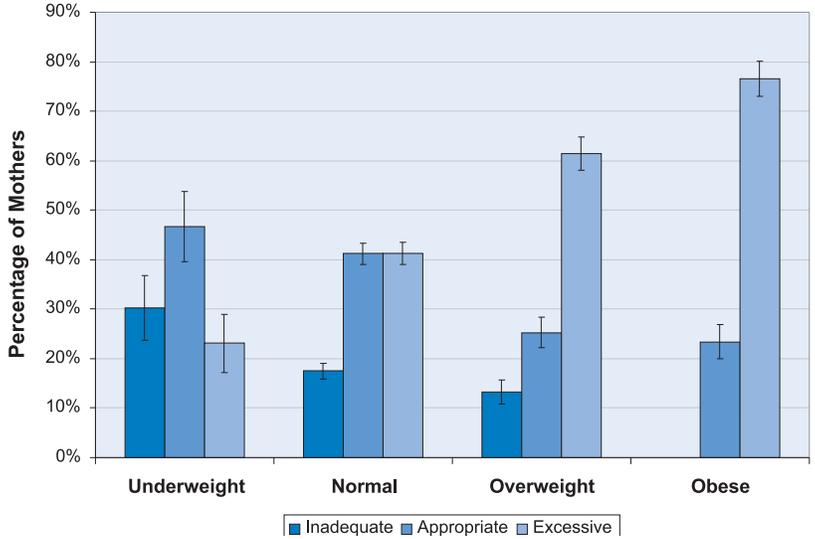
The Utah Department of Health recently made available BMI specific weight gain charts for women to monitor pregnancy weight gain. These are available online at <http://www.babyourbaby.org/duringpregnancy/weightgain.htm>. New dietary guidelines for pregnant women were released in 2007 by the U.S. Dept. of Agriculture and can be found at [http://www.mypyramid.gov/mypyramidmoms/pyramidmoms\\_plan.aspx](http://www.mypyramid.gov/mypyramidmoms/pyramidmoms_plan.aspx). The Maternal and Child Health (MCH) Bureau has identified appropriate weight gain as a state performance measure for Utah's Title V (MCH) block grant and will be working on interventions and tracking changes in appropriate pregnancy weight gain.

**References:**

- <sup>1</sup> Institute of Medicine: Nutrition During Pregnancy. Part I, weight gain; part II; nutrient supplements. National Academy Press, Washington, DC, 1990.
- <sup>2</sup> National Research Council and Institute of Medicine: Influence of Pregnancy Weight on Maternal and Child Health. Workshop Report. The National Academies Press, Washington, DC, 2007.

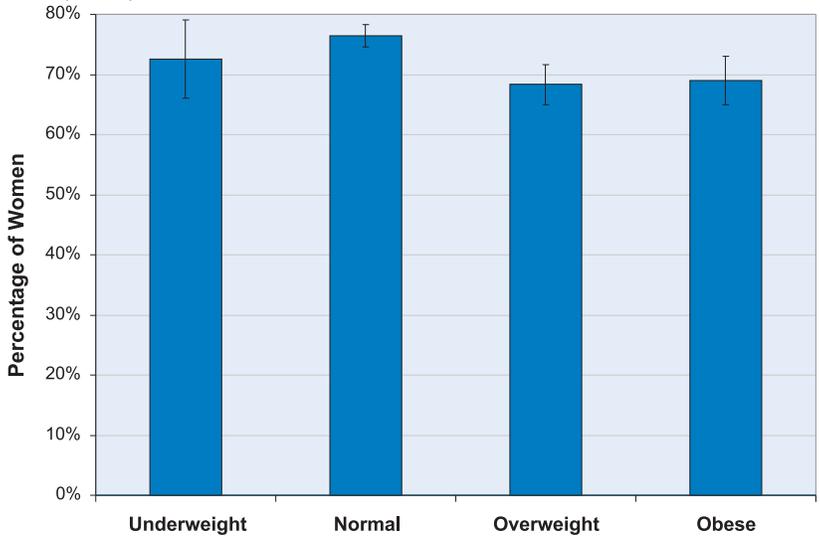
**Pregnancy Weight Gain by Prepregnancy BMI**

Figure 2. Percentage of mothers in each weight gain category by prepregnancy BMI, Utah, 2004–2006



**Weight Gain Counseling**

Figure 3. Prevalence of weight gain counseling by prepregnancy body mass index, Utah, 2004–2006



**February 2008**

**Utah Health Status Update**

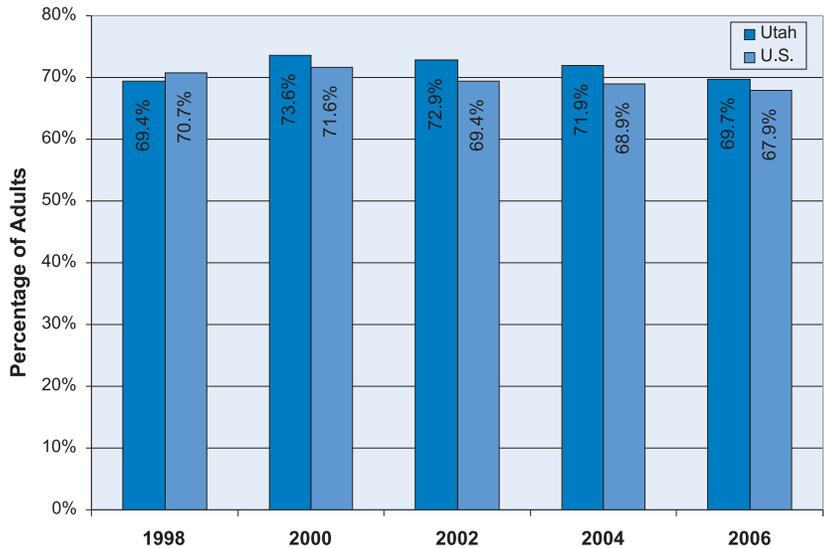
For additional information about this topic, contact Laurie Baksh in the Reproductive Health Program, (801) 538-9146, [lbaksh@utah.gov](mailto:lbaksh@utah.gov); or the Office of Public Health Assessment, Utah Department of Health, Box 142101, Salt Lake City, UT 84114-2101, (801) 538-9462, FAX (801) 538-9346, email: [chdata@utah.gov](mailto:chdata@utah.gov)

## Breaking News, January 2008

### Dental Visits Among Utah Adults

Although over the past few decades we have seen significant improvement in oral health, dental disease is still among the most common of chronic health problems among Utah adults. Oral health is an integral and important part of general health. Research has demonstrated that a wide variety of medical conditions are associated with oral health. Diabetes, heart disease, stroke, respiratory infections, HIV, and adverse pregnancy outcomes have been linked with poor oral health. Beyond physical health, poor oral health may impact nutrition, social relationships, employment opportunities, and ability in speaking and learning. According to the CDC, over 164 million work hours are lost every year due to dental-related illness. Based on the 2006 Behavioral Risk Factor Surveillance System data, 69.7% of Utah adults reported visiting a dentist or dental clinic in the past year. This percentage has dropped slightly from 73.6% in 2000, representing a 5.3% decrease in dental visits (see Figure). Utah adults with higher education were more likely to report a dental visit in the past year than those with less education (79.3% of college graduates vs. 49.3% of less than high school). Regular dental visits are important in the prevention, early detection, and treatment of oral health conditions for all ages. When adults do not receive basic oral health services, their untreated dental disease may progress until it affects their overall health and requires complicated and expensive medical treatment. For additional information about this topic, contact Steven Steed, DDS, State Dental Director, Utah Oral Health Program (801-538-6757).

**Percentage of Adults Who Reported a Dental Visit in the Past Year, Utah and U.S., 1998, 2000, 2002, 2004, and 2006**



Age adjusted to U.S. 2000 population.  
Source: Behavioral Risk Factor Surveillance System

## Community Health Indicators Spotlight, January 2008

### Child Care Provider Training

In January of 2006, the Bureau of Child Care Licensing began offering free training classes for staff in licensed child care centers throughout the state. The training was designed with two important goals in mind. First, to support centers in complying with the licensing rules by offering training in the health and safety standards found in the rules. And second, to improve the state-wide consistency of our rule enforcement. Providers have responded enthusiastically to these trainings, and the demand has steadily increased since the program was implemented. The chart to the right shows the number of training classes taught for each month of 2007.

**Number of Child Care Provider Trainings by Month, 2007**



# Monthly Health Indicators Report

(Data Through December 2007)

<b>Monthly Report of Notifiable Diseases, December 2007</b>	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)	19	17	328	285	1.2
Enterotoxigenic Escherichia coli (E. coli)	6	4	136	99	1.4
Hepatitis A (infectious hepatitis)	2	2	7	33	0.2
Hepatitis B (serum hepatitis)	4	6	16	44	0.4
Influenza <sup>†</sup>	Weekly updates at <a href="http://health.utah.gov/epi/diseases/flu">http://health.utah.gov/epi/diseases/flu</a>				
Measles (Rubeola, Hard Measles)	0	0	0	0	--
Meningococcal Diseases	0	1	12	7	1.6
Norovirus	2	0*	19	15*	1.3
Pertussis (Whooping Cough)	57	29	437	375	1.2
Salmonellosis (Salmonella)	19	16	297	267	1.1
Shigellosis (Shigella)	5	3	45	52	0.9
Varicella (Chickenpox)	52	100*	807	698*	1.2
Viral Meningitis	2	7	135	166	0.8
<b>Notifiable Diseases Reported Quarterly, 4th Qtr 2007</b>	Current Quarter # Cases	Current Quarter # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
HIV	26	24	91	86	1.1
AIDS	10	11	39	45	0.9
Chlamydia	1,560	1,241	5,685	4,187	1.4
Gonorrhea	205	186	800	600	1.3
Tuberculosis	11	8	39	34	1.2
<b>Program Enrollment for the Month of December 2007</b>	Current Month	Previous Month	% Change <sup>s</sup> From Previous Month	1 Year Ago	% Change <sup>s</sup> From 1 Year Ago
Medicaid	158,267	158,140	+0.1%	163,472	-3.2%
PCN (Primary Care Network)	19,116	20,204	-5.4%	17,074	+12.0%
CHIP (Children's Health Ins. Plan)	31,454	30,651	+2.6%	32,834	-4.2%

<b>Medicaid Expenditures (in Millions) for the Month of December 2007</b>	Current Month	Expected/Budgeted for Month	Fiscal YTD	Budgeted Fiscal YTD	Variance - over (under) budget
Capitated Mental Health	\$ 15.3	\$ 9.0	\$ 50.1	\$ 45.0	\$ 5.1
Inpatient Hospital	\$ 18.9	\$ 20.4	\$ 94.8	\$ 95.0	(\$ 0.3)
Outpatient Hospital	\$ 8.5	\$ 8.3	\$ 38.0	\$ 39.4	(\$ 1.4)
Long Term Care	\$ 16.8	\$ 16.5	\$ 91.2	\$ 96.0	(\$ 4.9)
Pharmacy	\$ 12.7	\$ 13.1	\$ 62.1	\$ 68.2	(\$ 6.1)
Physician/Osteo Services <sup>‡</sup>	\$ 6.6	\$ 6.8	\$ 29.4	\$ 31.8	(\$ 2.4)
<b>TOTAL HCF MEDICAID</b>	<b>\$ 153.6</b>	<b>\$ 132.9</b>	<b>\$ 729.2</b>	<b>\$ 733.3</b>	<b>(\$ 4.1)</b>
<b>Health Care System Measures</b>	Number of Events	Rate per 100 Population	% Change <sup>s</sup> From Previous Year	Total Charges in Millions	% Change <sup>s</sup> From Previous Year
Overall Hospitalizations (2006)	272,404	9.9%	-0.9%	\$ 3,874.8	+10.7%
Non-maternity Hospitalizations (2006)	161,398	5.7%	-2.5%	\$ 3,235.3	+11.0%
Emergency Department Encounters (2006)	670,168	24.7%	-1.3%	\$ 667.2	+20.6%
Outpatient Surgery (2005)	308,300	11.7%	-0.5%	\$ 947.7	+12.1%
<b>Annual Community Health Measures</b>	Current Data Year	Population at Risk	Number Affected	Percent/Rate	% Change <sup>s</sup> From Previous Year
Overweight and Obesity (Adults 18+)	2006	1,777,802	976,000	54.9%	+1.3%
Cigarette Smoking (Adults 18+)	2006	1,777,802	174,200	9.8%	-15.0%
Influenza Immunization (Adults 65+)	2006	217,313	156,700	72.1%	+3.4%
Health Insurance Coverage (Uninsured)	2006	2,582,371	306,500	11.9%	+2.5%
Motor Vehicle Crash Injury Deaths	2006	2,582,371	296	11.5 / 100,000	-0.7%
Suicide Deaths	2006	2,582,371	357	13.8 / 100,000	+1.6%
Diabetes Prevalence	2006	2,582,371	105,600	4.1%	-0.7%
Coronary Heart Disease Deaths	2006	2,582,371	1,563	60.5 / 100,000	-2.3%
All Cancer Deaths	2006	2,582,371	2,600	100.7 / 100,000	+1.4%
Births to Adolescents (Ages 15-17)	2006	58,992	981	16.6 / 1,000	+5.9%
Early Prenatal Care	2006	53,475	42,237	79.0%	+0.3%
Infant Mortality	2006	53,475	269	5.0 / 1,000	+12.2%
Childhood Immunization (4:3:1:3:3)	2006	51,016	41,000	80.4%	+8.5%

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

† Influenza activity continues to be mild in Utah. Influenza-like illness measures are below baseline. As of January 10, 2008, 26 influenza-associated hospitalizations have been reported to the UDOH. Two of these hospitalizations were reported during the last week. More information can be found at <http://health.utah.gov/epi/diseases/flu>.

§ % Change could be due to random variation.

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

Note: Active surveillance for West Nile Virus has ended until the 2007 season.