UTAH DEPARTMENT OF HEALTH

# Utah Health Status Update:

## *Preconception and Interconception Health Among Utah Women*

January 2014

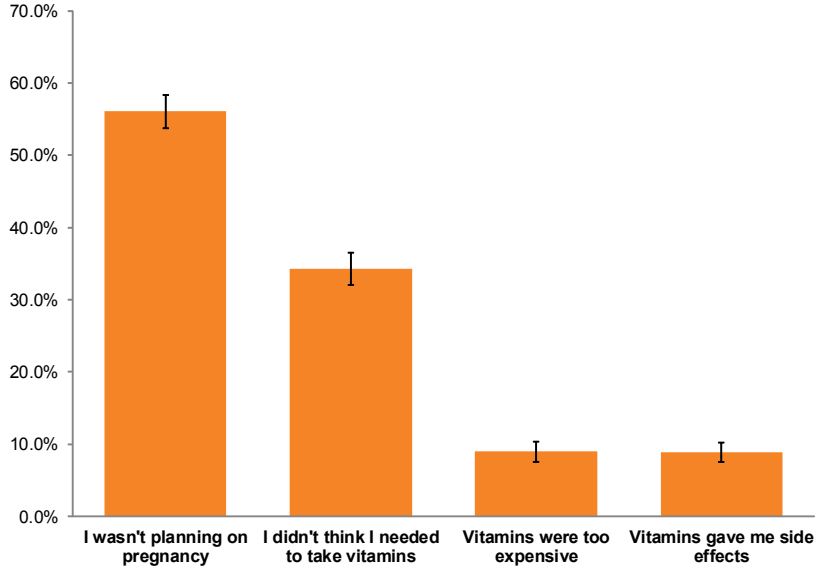
Women may be unaware that improving their health before pregnancy offers an advantage for a healthy pregnancy outcome. During the early weeks of pregnancy, being at optimal health is critical as a woman may not be aware that she is pregnant. Since most prenatal care does not begin until the first quarter of pregnancy, crucial intervention periods may have already been missed before a woman sees her prenatal care provider, and, with one in three pregnancies in Utah being unplanned, optimizing health for all women prior to conception can have a positive impact on Utahs birth outcomes, as well as a woman's overall health over her lifetime.

In 2007, a set of recommended indicators to measure preconception health were developed by a national work group. Forty-five core preconception health indicators were selected.[1] The development of these measures allows states to quantify and compare them, and then use the information to develop public health interventions that improve women's health. Using these measures, the Utah Department of Health recently published *Preconception & Interconception Health, Utah, 2009-2011* (http://health.utah.gov/mihp/pdf/preconception_web.pdf). Highlights of the report are discussed in this Health Status Update.

- **Adequate folic acid levels are known to reduce the risk of certain birth defects. Less than one-third of Utah women reported taking a daily multivitamin in the month before becoming pregnant.**
- **Less than 30% of Utah women had a preconception health visit with a health care provider to plan for a healthy pregnancy.**
- **Short pregnancy intervals are associated with poor birth outcomes. In Utah, 27.4% of repeat pregnancies were conceived before the optimal 18 months.**
- **A critical component of preconception health is awareness and treatment of chronic physical and mental health conditions.**

## Reasons for Not Taking a Daily Multivitamin

*Figure 1.* Percentage among women with a live birth, Utah, 2009-2011




Source: Pregnancy Risk Assessment Monitoring System (PRAMS)

In general, Utah women have high rates of self-reported good health. Over 90% of reproductive age women rate their health as excellent, very good, or good. Utah women report low rates of tobacco use and alcohol consumption, and have comparatively lower rates of overweight or obese body mass indexes compared to national data. In addition, 84.6% of women report that they always or usually get the social and emotional support they need.

Adequate folic acid levels are known to reduce the risk of certain birth defects. For greatest benefit, folic acid supplementation should begin at least three months prior to conception. Less than one-third of Utah women reported taking a daily multivitamin in the month before becoming pregnant. Figure 1 illustrates the reasons women gave for not taking a daily vitamin. Preconception education on the benefits of folic acid, regardless of pregnancy intent, can help improve consumption.

Utah women have low rates of preventive visits/screenings. Less than 30% of women had a preconception health visit with a health care provider to plan for a healthy pregnancy. Among women with a live birth, less than 60% reported having their teeth cleaned in the year before becoming pregnant. Oral health is an important component of overall health, and cleanings should be done yearly at minimum. These low rates reflect missed opportunities to improve pregnancy outcomes by evaluating health status and recommending risk reduction strategies.

Short pregnancy intervals are associated with poor birth outcomes such as prematurity, low birth weight, and infant morbidity. It is recommended that women wait at least 18 months after birth to conceive another pregnancy, allowing a woman's body to fully heal and her nutritional stores to return to favorable levels. In Utah, 27.4% of repeat pregnancies were conceived before

the optimal 18 months. Large discrepancies were seen by the mother's age with rates increasing with younger maternal age. Pregnancy spacing has been identified as a key intervention for the reduction of prematurity in Utah.

A very critical component of preconception health is awareness and treatment of chronic health conditions. Figure 2 shows rates of select chronic diseases among women of reproductive age. Poorly controlled or uncontrolled chronic diseases can lead to poor pregnancy outcomes. For example, uncontrolled diabetes during pregnancy can lead to an increased risk of stillbirth, miscarriage, and birth defects. Women with chronic hypertension have a higher risk for preeclampsia. Asthma can increase risks for prematurity and cesarean delivery. Achieving control of these conditions prior to pregnancy combined with good control during pregnancy can lower these risks.

Mental health issues should also be considered. Figure 3 shows rates of poor mental health, depression/anxiety, and postpartum depression. Mental health is a part of overall health and can impact a woman's ability to participate in healthy behaviors. Mental health conditions are treatable with supportive services, counseling, and/or medication and should be a routine part of any health screening.

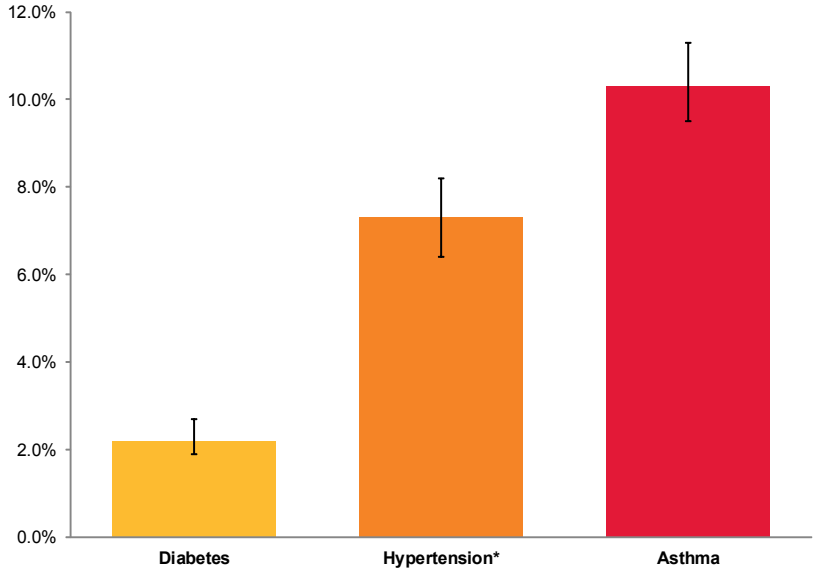
Improving women's health throughout their reproductive years is an ongoing process that should be integrated into every health encounter regardless of a woman's childbearing intent. Improving the general health of women benefits not only childbearing, but also the overall health of families. Utah women are at higher risk for poor pregnancy outcomes due to their preconception health status. Assessment of health risks among women of reproductive age should be continuous and plans for remediation of identified issues should be developed. Preconception health should be approached by every health care professional who provides care to women.

**References**


1. Hamilton BE, Martin JA, Ventura SJ. Births: Preliminary Data for 2011. National vital statistics reports; vol 61 no 5. Hyattsville, MD: National Center for Health Statistics, 2012.


## Chronic Health Conditions

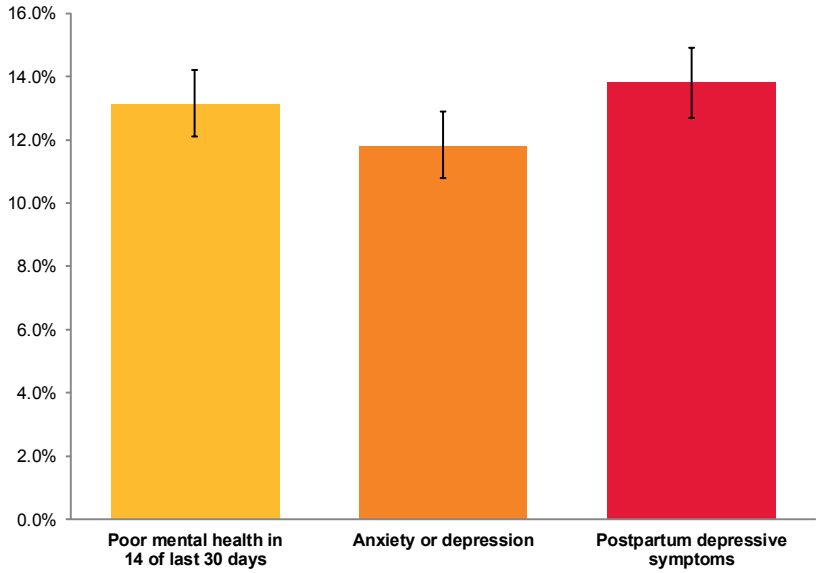
*Figure 2.* Percentage of women with condition, Ages 18-45, Utah, 2009-2011




Source: Utah Behavioral Risk Factor Surveillance System (BRFSS)
*Hypertension data is only for 2009 and 2011

## Mental Health Conditions

*Figure 3.* Percentage of women with condition, Ages 18-45, Utah, 2009-2011




Sources: Mental health status, BRFSS, all women ages 18-45. Anxiety/depression and postpartum depression, PRAMS, women ages 18-45 with a live birth.

## January 2014 Utah Health Status Update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## Breaking News, January 2014

### High-risk Pregnancy Intervention: Office of Home Visiting

In 2010, the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program was established under the Affordable Care Act (Public Law 111-148) to invest in the health of children for a period of five years (FY 2010 – FY 2015). As the state grant recipient, the Utah Office of Home Visiting (OHV) has received federal funding of $1.1 to $1.7 million annually to support the implementation of free, evidence-based home visiting services to at-risk families throughout Utah.

To date, there are 14 federally-approved home visiting models for the evidence of effectiveness. Based on a needs assessment, OHV funds four different agencies: Children's Service Society, Salt Lake County Health Department, Prevent Child Abuse Utah, and the Learning Center for Families. OHV also facilitates the implementation of three federally approved models: Healthy Family America, Nurse Family Partnership, and Parents as Teachers. As a partnership among federal, state, and local communities, these agencies provide life skill coaching to the primary caregivers and promote healthy child development for children up to age five. So far, 382 families in Utah have been served through this funding.

OHV supports the expansion of home visiting infrastructure throughout the state by developing a web-based database, acquiring state lead positions in Parents as Teachers and Healthy Family America models, and providing technical assistance to improve services through a Continuous Quality Improvement model. In addition, the OHV provides opportunities for professional development and training for home visitors. As a part of ongoing professional development and as a public awareness effort, the first statewide all-day conference was held on October 29, 2013 at Southtown Expo Center and was attended by more than 200 professionals.

For more information, contact Suzanne Leonelli, Program Coordinator, at Sleonelli@utah.gov or (801)-883-4673.

## Community Health Indicators Spotlight, January 2014

### UDOH Newborn Screening Program (NSP)

In 1965, hospitals in Utah began screening newborns for phenylketonuria (PKU), which was the most common preventable cause of intellectual disability at that time. A simple screen at birth could detect the disorder before irreversible symptoms began and allow for early and appropriate treatment. The screen and collection method was developed by Dr. Robert Guthrie. In 1979, the Utah Department of Health (UDOH) began to oversee the screening and the follow-up and established the Newborn Screening Program. At that time, Utah screened for PKU, galactosemia, and congenital hypothyroidism.

Currently, the UDOH Newborn Screening Program (NSP) provides screening and follow-up for 38 disorders including hemoglobinopathies (e.g. ,sickle cell disease), amino acid and acylcarnitine disorders, biotinidase deficiency, congenital adrenal hyperplasia, cystic fibrosis, and most recently, severe combined immunodeficiency disorder (SCID). Screening for critical congenital heart disease (CCHD) will begin in October 2014.

Nearly 100% of Utah's newborns are screened each year. For newborns who test positive for one of these conditions, rapid identification and treatment can make the difference between health and disability, or even life and death. Approximately 4,000 newborns each year require additional testing and follow-up. Each year about 400 newborns are diagnosed and treated for one of the disorders screened for by the NSP.

Of the newborns diagnosed with a disorder through newborn screening in 2012, the majority were hemoglobinopathies (74%). Other disorders identified in 2012 via newborn screening include congenital hypothyroidism (12%), cystic fibrosis (8%), amino acid disorders such as PKU (5%), and acylcarnitine disorders (2%). There were no cases of biotinidase deficiency or galactosemia in 2012.

NSP is housed at the Children with Special Health Care Needs Bureau and managed by Kim Hart, MS, a genetic counselor. Dr. Harper Randall, a board certified pediatrician, provides medical directorship for the NSP.

# Monthly Health Indicators Report

*(Data Through November 2013)*

| Monthly Report of Notifiable Diseases, November 2013 | 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 | 26 | 471 | 393 | 1.2 |
| Shiga toxin-producing Escherichia coli (E. coli) | 3 | 7 | 103 | 115 | 0.9 |
| Hepatitis A (infectious hepatitis) | 1 | 1 | 11 | 8 | 1.3 |
| Hepatitis B, acute infections (serum hepatitis) | 0 | 1 | 1 | 10 | 0.1 |
| Meningococcal Disease | 0 | 0 | 7 | 5 | 1.5 |
| Pertussis (Whooping Cough) | 20 | 54 | 965 | 539 | 1.8 |
| Salmonellosis (Salmonella) | 10 | 26 | 292 | 309 | 0.9 |
| Shigellosis (Shigella) | 1 | 2 | 23 | 38 | 0.6 |
| Varicella (Chickenpox) | 0 | 45 | 191 | 437 | 0.4 |
| Influenza* | Weekly updates at http://health.utah.gov/epi/diseases/flu | | | | |
| **Quarterly Report of Notifiable Diseases, 3rd Qtr 2013** | **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† | 27 | 25 | 90 | 82 | 1.1 |
| Chlamydia | 1,931 | 1,721 | 5,651 | 5,070 | 1.1 |
| Gonorrhea | 291 | 100 | 633 | 284 | 2.2 |
| Syphilis | 20 | 9 | 63 | 26 | 2.4 |
| Tuberculosis | 10 | 6 | 28 | 24 | 1.2 |
| **Medicaid Expenditures (in Millions) for the Month of November 2013** | **Current Month** | **Expected/ Budgeted‡ for Month** | **Fiscal YTD** | **Budgeted‡ Fiscal YTD** | **Variance - over (under) budget** |
| Capitated Mental Health | $ 12.7 | $ 14.1 | $ 56.8 | $ 58.5 | $ (1.7) |
| Inpatient Hospital | $ 12.1 | $ 12.3 | $ 55.9 | $ 86.4 | $ (30.6) |
| Outpatient Hospital | $ 4.5 | $ 6.5 | $ 18.4 | $ 29.3 | $ (10.9) |
| Long Term Care | $ 15.2 | $ 15.9 | $ 64.1 | $ 65.6 | $ (1.6) |
| Pharmacy ‡ | $ 10.3 | $ 11.1 | $ 43.2 | $ 66.7 | $ (23.5) |
| Physician/Osteo Services § | $ 6.4 | $ 11.1 | $ 22.5 | $ 36.9 | $ (14.4) |
| TOTAL HCF MEDICAID | $239.6 | $ 235.7 | $ 937.5 | $ 942.7 | $ (5.2) |

| Program Enrollment for the Month of November 2013 | Current Month | Previous Month | % Change¶ From Previous Month | 1 Year Ago | % Change¶ From 1 Year Ago |
|---|---|---|---|---|---|
| Medicaid | 254,746 | 257,295 | -1.0% | 255,117 | -0.1% |
| PCN (Primary Care Network) | 14,290 | 15,094 | -5.3% | 13,722 | +4.1% |
| CHIP (Children's Health Ins. Plan) | 34,063 | 34,300 | -0.7% | 35,546 | -4.2% |
| | Annual Visits | | | Annual Charges | |
| **Health Care System Measures** | **Number of Events** | **Rate per 100 Population** | **% Change¶ From Previous Year** | **Total Charges in Millions** | **% Change¶ From Previous Year** |
| Overall Hospitalizations (2011) | 280,830 | 9.3% | +0.8% | $ 5,818.8 | +7.4% |
| Non-maternity Hospitalizations (2011) | 175,847 | 5.7% | +3.8% | $ 4,909.9 | +7.9% |
| Emergency Department Encounters (2011) | 665,925 | 22.4% | +1.7% | $ 1,309.5 | +12.8% |
| Outpatient Surgery (2011) | 376,054 | 12.6% | +2.4% | $ 1,878.5 | +6.5% |
| **Annual Community Health Measures** | **Current Data Year** | **Number Affected** | **Percent/ Rate** | **% Change¶ From Previous Year** | **State Rank# (1 is best)** |
| Obesity (Adults 18+) | 2012 | 476,400 | 24.3% | -0.5% | 10 (2012) |
| Cigarette Smoking (Adults 18+) | 2012 | 207,300 | 10.6% | -10.8% | 1 (2012) |
| Influenza Immunization (Adults 65+) | 2012 | 147,100 | 56.0% | -1.5% | 40 (2012) |
| Health Insurance Coverage (Uninsured) | 2012 | 376,600 | 13.2% | -1.5% | n/a |
| Motor Vehicle Traffic Crash Injury Deaths | 2012 | 205 | 7.2 / 100,000 | -16.8% | 19 (2010) |
| Poisoning Deaths | 2012 | 661 | 23.1 / 100,000 | +15.6% | 45 (2010) |
| Suicide Deaths | 2012 | 545 | 19.1 / 100,000 | +9.3% | 45 (2010) |
| Diabetes Prevalence (Adults 18+) | 2012 | 141,100 | 7.2% | +7.5% | 14 (2012) |
| Poor Mental Health (Adults 18+) | 2012 | 307,800 | 15.7% | -3.7% | 12 (2012) |
| Coronary Heart Disease Deaths | 2012 | 1,580 | 55.3 / 100,000 | -3.4% | 3 (2010) |
| All Cancer Deaths | 2012 | 2,861 | 100.2 / 100,000 | +3.3% | 1 (2010) |
| Stroke Deaths | 2012 | 793 | 27.8 / 100,000 | +0.6% | 17 (2010) |
| Births to Adolescents (Ages 15-17) | 2012 | 668 | 10.4 / 1,000 | -6.6% | 11 (2011) |
| Early Prenatal Care | 2012 | 38,829 | 75.5% | +1.0% | n/a |
| Infant Mortality | 2012 | 248 | 4.8 / 1,000 | -12.6% | 10 (2010) |
| Childhood Immunization (4:3:1:3:3:1) | 2012 | 40,000 | 74.9% | +5.3% | 15 (2012) |

* Influenza activity is low/moderate in Utah. Influenza-like illness activity is above baseline statewide. As of December 4, 2013, 44 influenza-associated hospitalizations have 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.

‡ Includes only the gross pharmacy costs. Pharmacy Rebate and Pharmacy Part D amounts are excluded from this line item.

§ Physician/Osteo Services - Medicaid payments reported under Physician/Osteo Services does not include enhanced physician payments.

¶ % 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 2014 season.