

Utah Health Status Update:

Prevalence of Gestational Diabetes Mellitus in Utah

October 2003

Utah Department of Health

Gestational diabetes mellitus (or GDM) is broadly defined as any degree of glucose intolerance with first onset or recognition during pregnancy. Gestational diabetes increases the risk for adverse birth outcomes, including congenital malformations, respiratory distress, infant hypoglycemia, and macrosomia (infant weighing more than nine pounds).¹

Gestational diabetes is an emerging public health concern. The Utah Diabetes Prevention and Control Program examined prevalence of gestational diabetes between 1990 and 2001. Prior to 1997, a single check box on the birth certificate was used to denote diabetes during pregnancy, but pre-existing diabetes and gestational diabetes were not differentiated. In 1997, the original check box for diabetes was eliminated and replaced with two check boxes to distinguish between pre-existing diabetes and gestational diabetes. In Figure 1, rates of gestational diabetes prior to 1997 were estimated by applying the proportion of gestational diabetes births to all diabetes births.

Utah Trends in Gestational Diabetes

Nationally, about four percent of all pregnancies are affected by gestational diabetes (about 135,000 cases per year). In Utah, the current rate of gestational diabetes has increased slowly but steadily since 1997, reaching 2.3 percent of all pregnancies in 2001 (Figure 1).²

Non-Hispanic/Latina White mothers in Utah have a lower rate (1.9% of all pregnancies) than the state average. In sharp contrast, Native American mothers have the highest rate of gestational diabetes (5.2% of all pregnancies).

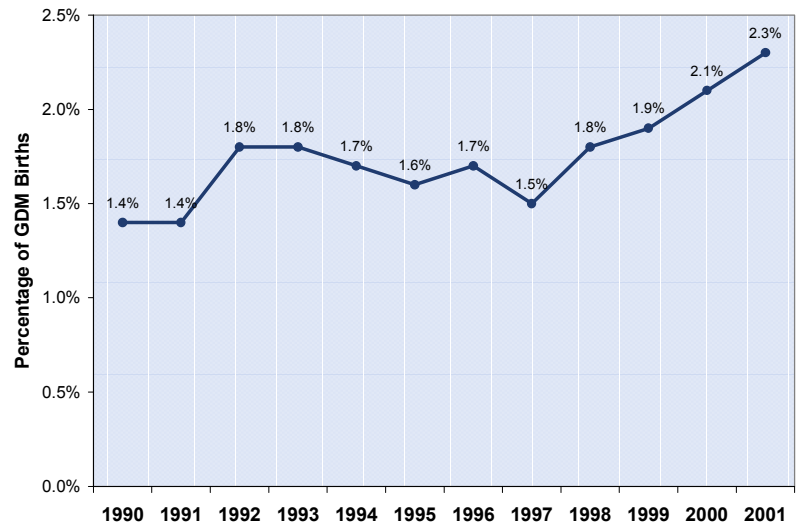
Prevalence of Gestational Diabetes by Selected Risk Factors

A clear relationship is evident between selected risk factors and prevalence of gestational diabetes in Utah. Age, number of prior births, and weight status are depicted in Figures 2-4.

Only 1.3 percent of Utah birth records for mothers less than 25 years of age in 2001 listed gestational diabetes (Figure 2). This percent-

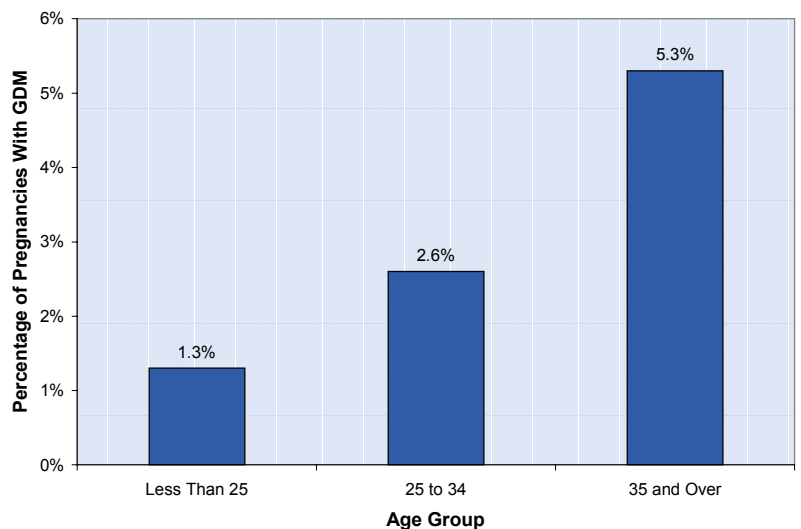
Trends in Gestational Diabetes

Figure 1. Births to Utah mothers with gestational diabetes as a percentage of all births, 1999-2001, Office of Vital Records and Statistics, Utah Department of Health



Gestational Diabetes by Age

Figure 2. Births to Utah mothers with gestational diabetes as a percentage of all births in 2001 by age, Office of Vital Records and Statistics, Utah Department of Health



age doubled to 2.6 percent for mothers between the ages of 25 and 34, and doubled again to 5.3 percent for mothers age 35 and over.

The number of prior births also increases the likelihood that a mother will have gestational diabetes. Among women with no prior births, less than 1 of 50 had gestational diabetes, compared to 1 of 20 mothers who had 6 or more prior births. (This analysis applies only to live births;

stillbirths and terminations are not included in the analysis.)

Among the three risk factors considered, weight status shows the strongest link with gestational diabetes. Only 1.4 percent of birth records for mothers who were not overweight listed gestational diabetes, doubling to 2.9 percent of birth records for mothers who were moderately overweight and redoubling to 5.8 percent of birth records for mothers who were obese.

Screening for and Diagnosing Gestational Diabetes

In general, women are screened for gestational diabetes between 24 and 28 weeks gestation. There is an ongoing debate whether women should be universally screened during pregnancy or whether only those with certain risk factors (e.g., overweight, older, member of a minority racial or ethnic group) should be screened.³ Studies are currently underway to resolve this issue.⁴

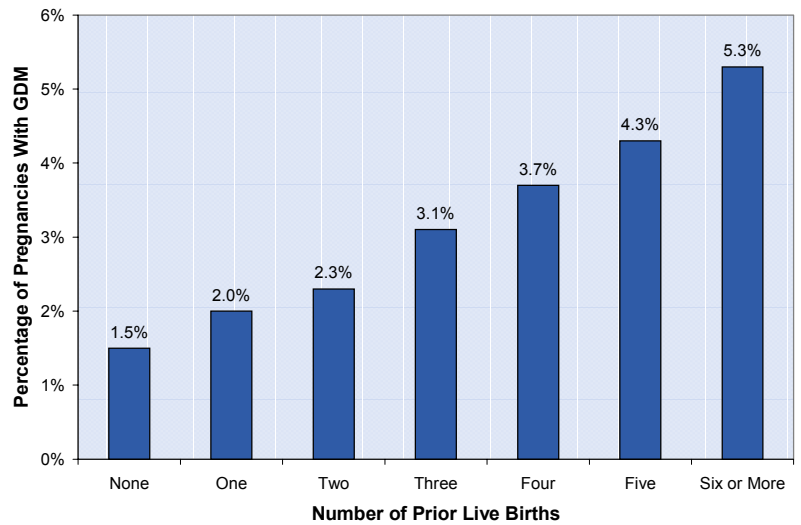
Mothers with gestational diabetes who keep their blood glucose levels under control through exercise, a nutritious diet, prescribed medication, and regular prenatal visits, substantially enhance their chances of having a positive outcome.



1. CDC. Pregnancy complications and perinatal outcomes among women with diabetes- North Carolina, 1989-1990. MMWR 1993; 42:847-851.
2. Office of Vital Records and Statistics, Utah Department of Health, Salt Lake City, UT
3. Jarrett RJ, Castro-Soares J, Dornhorst A, Beard R. Should we screen for gestational diabetes? BMJ 1997; 315: 736-39.
4. See, for example, <http://www.nums.nwu.edu/prevm/med/html/hapo.htm>

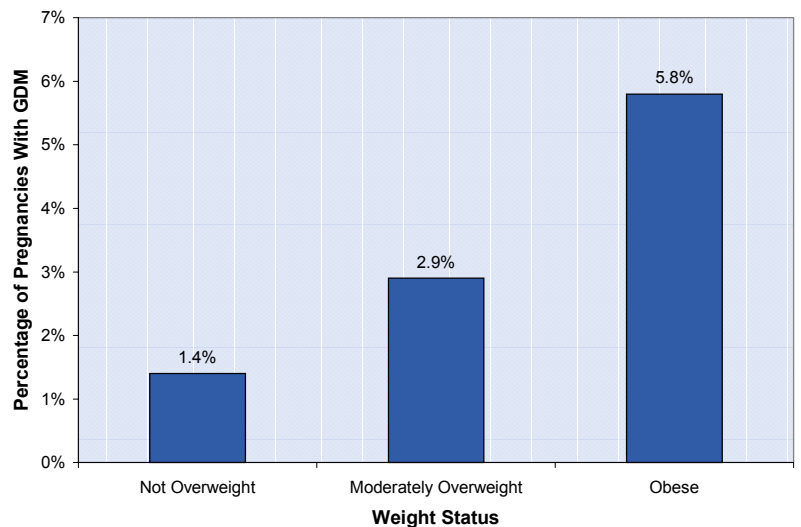
Gestational Diabetes by Number of Prior Births

Figure 3. Births to Utah mothers with gestational diabetes as a percentage of all births in 2001 by number of prior live births, Office of Vital Records and Statistics, Utah Department of Health.



Gestational Diabetes by Weight

Figure 4. Births to Utah mothers with gestational diabetes as a percentage of all births in 2001 by weight status, Office of Vital Records and Statistics, Utah Department of Health.



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