March 2008

California Department of Public Health
Maternal, Child and Adolescent Health Program

Gestational Diabetes Mellitus

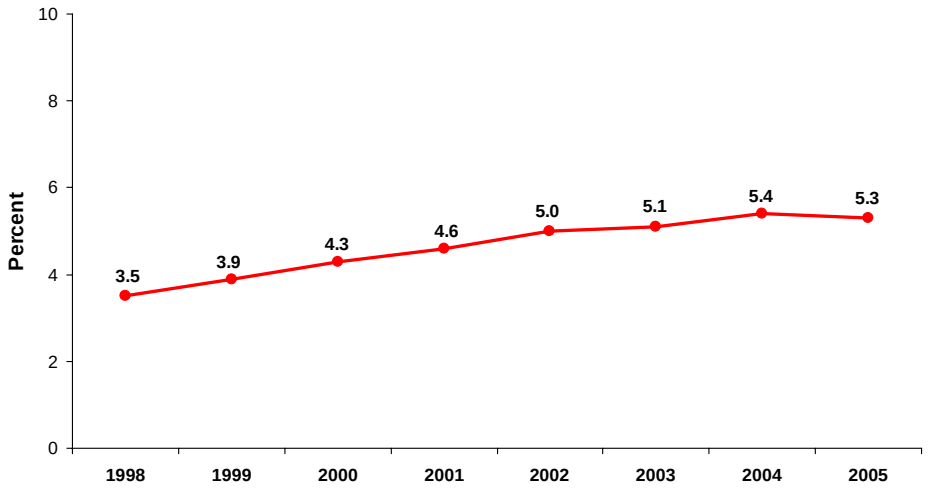
- Gestational diabetes mellitus (GDM) is defined as a carbohydrate intolerance that begins or is first recognized during pregnancy. It is one of the major complications during pregnancy.

- Poorly controlled GDM is a significant health risk during pregnancy because it is associated with adverse perinatal outcomes. Fetal and neonatal complications associated with GDM include increased risk for miscarriage, stillbirth and macrosomia ("big baby syndrome"), above 4000 grams or 8 pounds and 14 ounces. Maternal complications associated with GDM include pregnancy-induced hypertension and cesarean section deliveries.

- Offspring of women with GDM are at increased risk of obesity, glucose or carbohydrate intolerance and diabetes as children or adults.

- In California, the prevalence of GDM has increased 60 percent, from 3.3 % of hospital deliveries in 1998 to 5.3% in 2005 (see Figure 1).

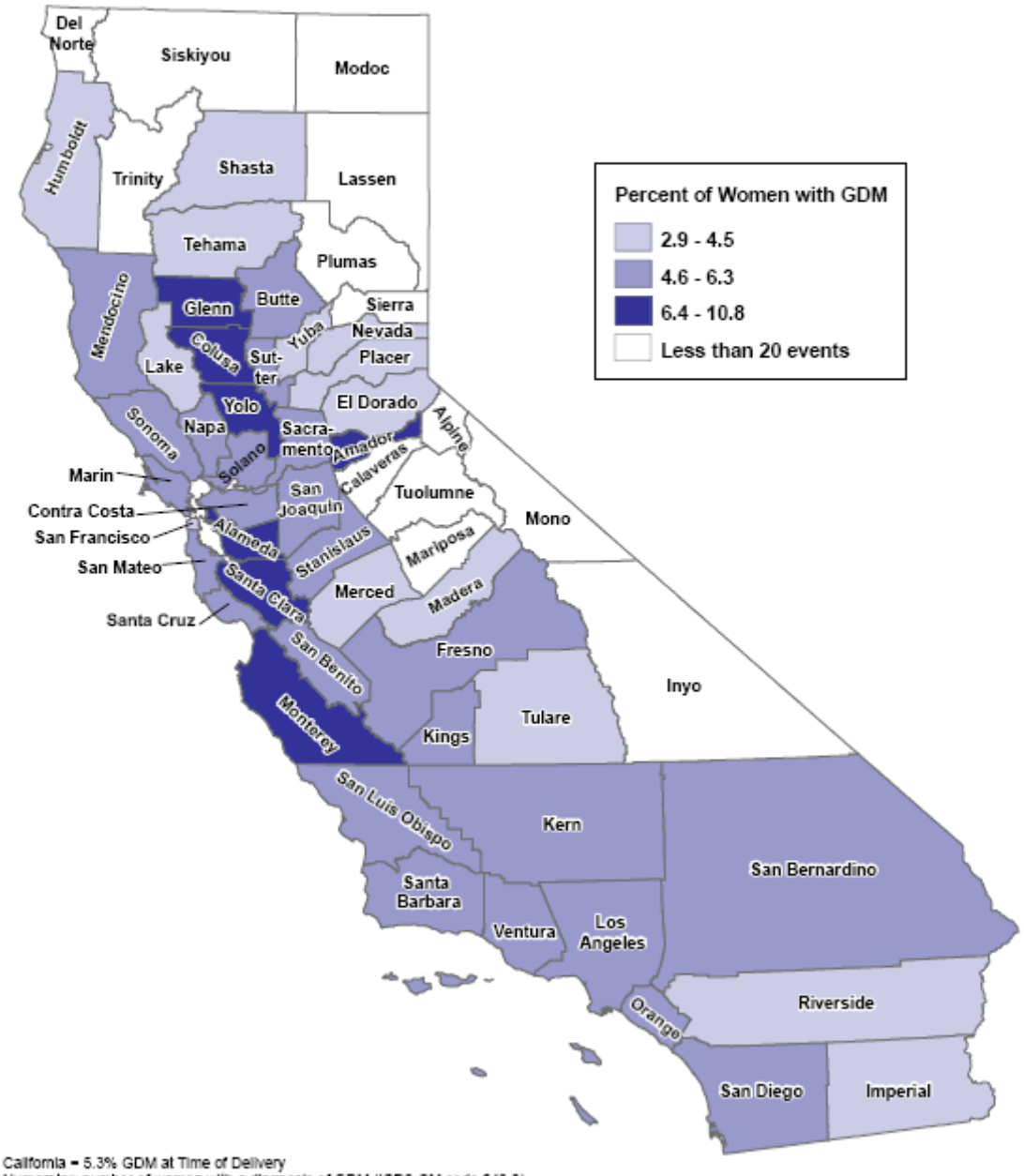
Figure 1. Percent of Resident California Women Hospitalized for Labor and Delivery with a Diagnosis of Gestational Diabetes Mellitus, Excluding Women with Pre-Existing Diabetes: 1998-2005



Numerator: number of women with a diagnosis of GDM (ICD9-CM code 648.8)
Denominator: number of hospitalized women with a birth outcome (v27.x), excluding pre-existing diabetes (ICD9-CM codes of 250.x, 648.0x, v58.67)
Data Source: 1998-2005 Patient Discharge Data, Office of Statewide Health Planning and Development
Prepared by: Maternal, Child and Adolescent Health Program / Epidemiology, Assessment and Program Development, March 2008

- Geographic disparities exist with the highest rates of GDM reported in the counties of Alameda, Amador, Colusa, Glenn, Monterey, Santa Clara and Yolo (see Figure 2).

Figure 2. CALIFORNIA 2005
Percent of Women Hospitalized for Labor and Delivery with a Diagnosis of Gestational Diabetes Mellitus (GDM), Excluding Women with Pre-Existing Diabetes by County of Residence



California = 5.3% GDM at Time of Delivery
Numerator: number of women with a diagnosis of GDM (ICD9-CM code 648.8)
Denominator: number of hospitalized women with a birth outcome (v27x), excluding pre-existing diabetes (ICD9-CM codes of 250.x, 648.0x, v58.67)
Data Source: 2005 Patient Discharge Data, Office of Statewide Health Planning and Development
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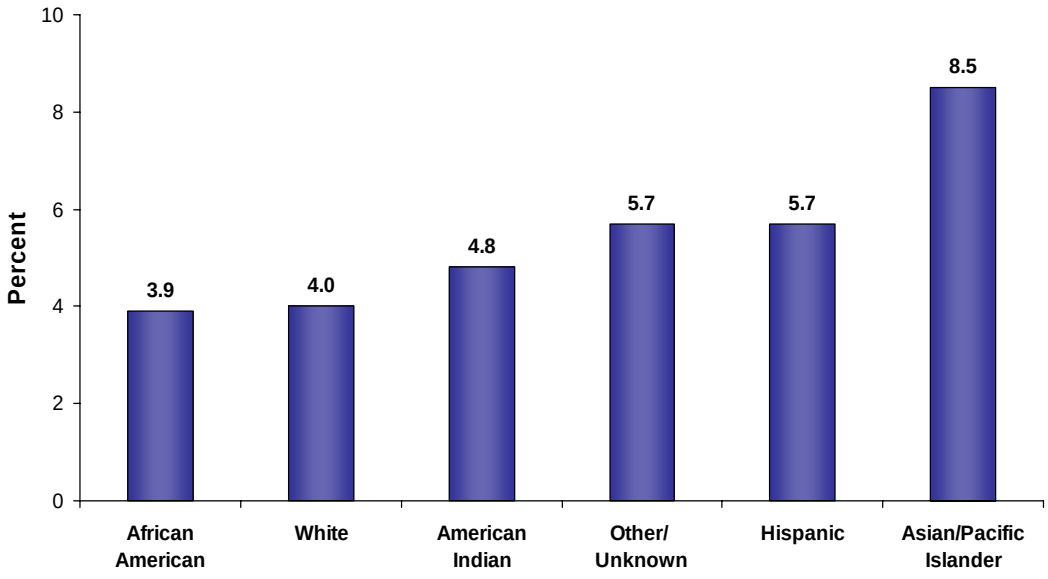
Figure 3. Percent of Resident California Women by Race/Ethnicity Hospitalized for Labor and Delivery with a Diagnosis of Gestational Diabetes Mellitus, Excluding Women with Pre-Existing Diabetes: 2005



Numerator: number of women with a diagnosis of GDM (ICD9-CM code 648.8)
Denominator: number of hospitalized women with a birth outcome (v27.x), excluding pre-existing diabetes (ICD9-CM codes of 250.x, 648.0x, v58.67)
Hispanic includes all those who were of Hispanic ethnicity, regardless of race
Data Source: 2005 Patient Discharge Data, Office of Statewide Health Planning and Development
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- The prevalence of GDM is highest among Asian/Pacific Islanders, compared to other racial/ethnic groups (see Figure 3).

- It is important to raise awareness among women that are pregnant or planning to become pregnant of the importance of early detection and control of gestational diabetes during pregnancy. Sweet Success, the clinical component of the California Diabetes and Pregnancy Program, reaches out to women who are at increased risk for GDM by providing diabetes health education, care and management from before conception, throughout pregnancy, and postpartum.