



CVP

Center for Vulnerable Populations
at San Francisco General Hospital and
Trauma Center

CHARM

Center for Health And Risk in
Minority youth and young adults

Funded by the National Institute of Minority and Health Disparities

Issue Brief: Chronic Disease Risk — Gestational Diabetes

February 2013

The prevalence of gestational diabetes is growing

Key Insights

- Gestational diabetes (GDM) can harm both mother and child. Children and mothers face a greater risk of developing obesity and type 2 diabetes²
- GDM rates are increasing and currently affect between 7% and 18% of pregnancies in the U.S.^{2,3}
- Increases in GDM rates may result in a greater overall population with obesity and type 2 diabetes³
- GDM rates vary considerably by race and ethnicity^{2,4}

What is gestational diabetes (GDM)?

Gestational diabetes is a type of diabetes that develops during pregnancy.¹

How is GDM diagnosed?

Most pregnant women get screened for gestational diabetes between 24-28 weeks and once diagnosed receive targeted services to help them achieve healthy pregnancy outcomes.

How big of a problem is GDM?

- Gestational diabetes affects between 7% -18% of pregnancies in the United States with rates varying by age, ethnicity, family history of diabetes, and obesity among other risk factors.²

- The number of cases of gestational diabetes is thought to be growing.³
- One study found higher rates of increases in GDM among younger women.³

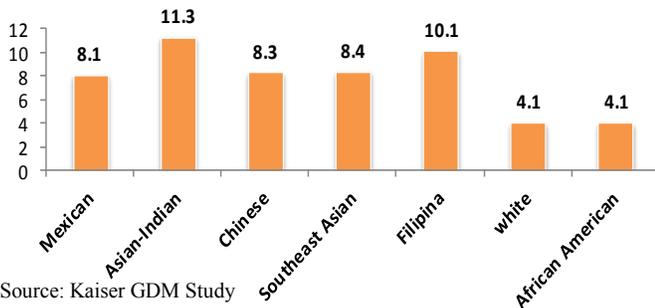
Why is GDM a problem?

- Gestational diabetes can affect both mother and child.
- Pregnant women with gestational diabetes are about 7 times more likely to develop type 2 diabetes after birth than women without the condition. These women have a 35-60% chance of developing diabetes in the 5-10 years following birth.²
- Women with gestational diabetes can also have higher rates of complications during pregnancy such as preeclampsia.
- Gestational diabetes in pregnant women can result in babies that are larger than average, which increases their risk of birth trauma. These babies might also be at higher risk of developing obesity and type 2 diabetes.²

Who is at risk for GDM and are their disparities across race/ethnicity?

- Racial and ethnic minority women have the highest rates of gestational diabetes for reasons that are not well understood.

GDM Rates by Race-Country of Birth Categories in Northern California %



Source: Kaiser GDM Study

- In California, the overall prevalence of gestational diabetes (5.3%) is increasing, with pronounced higher prevalence among Latinas (5.7%) and Asians (8.5%) compared to non-Hispanic whites (4%).
- In a multivariate analysis, GDM risk was 35-80% greater for women born in Mexico or Asia, respectively.⁴
- In a population-based study in Northern California (Kaiser GDM Study), the age-adjusted prevalence of gestational diabetes was highest among Mexican-born Hispanics and among several Asian sub-groups, including Asian-Indian, Chinese, Southeast Asian, and Filipina, compared with in white and African American groups.

Can the risk of type 2 diabetes be reduced in women with GDM?

Studies have shown that lifestyle changes such as careful monitoring of diet and engaging in physical activity can reduce the risk of progression to diabetes. The Diabetes Prevention Program study showed that these types of behavior changes proved more effective than using medication to control insulin levels in women with gestational diabetes.

What are the healthcare system costs of GDM?

- Hospital costs for deliveries in women with gestational diabetes was 18% more expensive than for normal deliveries. Women with preexisting diabetes were 55% higher than women with normal deliveries.

- The combined hospitalization costs of women with diabetes, either GDM or preexisting diabetes, was more than \$1.4 billion or 8.5% of all hospital costs associated with pregnancy care.⁵

References

- ¹CDC. *Gestational Diabetes*. <http://www.cdc.gov/diabetes/pubs/pdf/gestationalDiabetes.pdf>
- ²National Diabetes Education Program. 2011. *Diabetes Risk After Gestational Diabetes*. http://ndep.nih.gov/media/fs_post-gdm.pdf
- ³Ferrara 2004 - *An Increase in the Incidence of Gestational Diabetes Mellitus- Northern California, 1991–2000*. <http://www.ncbi.nlm.nih.gov/pubmed/14990417>
- ⁴Henderson MM, et al 2010. *Disparity in the risk of gestational diabetes by race-ethnicity and country of birth*. <http://www.ncbi.nlm.nih.gov/pubmed/20670225>
- ⁵AHRQ. 2010. *One in 16 Women Hospitalized for Childbirth Has Diabetes*. <http://www.ahrq.gov/news/nn/nn121510.htm>

Additional Resources

California Diabetes Program

<http://www.caldiabetes.org/>

Kaiser Gestational Diabetes Research

http://www.dor.kaiser.org/external/research/topics/Gestational_Diabetes/

Diabetes Prevention Program

<http://diabetes.niddk.nih.gov/dm/pubs/preventionprogram/>