

Ohio Gestational Diabetes Postpartum Care Learning Collaborative

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BACKGROUND

In 2010, the Ohio Department of Health's (ODH) maternal and child health and chronic disease programs joined together to prevent or delay the onset of type 2 diabetes mellitus (T2DM) in women with a history of gestational diabetes mellitus (GDM). The team worked to ensure health care practitioners provided preconception, postpartum, and ongoing care for women to prevent GDM and T2DM; to educate women of child-bearing age about GDM and T2DM risks and increase their access to care to reduce their risk of T2DM; and to enhance understanding of the epidemiology of GDM in Ohio.

Beginning in 2013, the team focused its aim on increasing receipt of postpartum T2DM screening, with special emphasis on Medicaid-insured women. In partnership with the Ohio Colleges of Medicine Government Resource Center (GRC), the Ohio Gestational Diabetes Postpartum Care Learning Collaborative was launched to achieve this aim through development of resources and implementation of quality improvement (QI).

PROGRAM OBJECTIVES

The main objective of this QI program was to increase knowledge among and improve health outcomes for women with a history of GDM. The pilot phase had 2 SMART (Specific, Measureable, Achievable, Relevant, Time-bound) aims for participating clinics: 1) Increase the postpartum visit rate for women with history of GDM by 25% and 2) Increase the rate of postpartum T2DM screenings among women with history of GDM by 50%. Key drivers included standardization of clinical guidelines in GDM management; increased access to maternal health services; coordination of care; and promotion of a culture of safety and improvement.

TITLE /MCH BLOCK GRANT MEASURES ADDRESSED
NPM 4 A) Percent of infants who are ever breastfed and B) Percent of infants breastfed exclusively through 6 months
NPM 14 A) Percent of women who smoke during pregnancy

TARGET POPULATION SERVED

Pregnant women with GDM were the target population, with an emphasis on Medicaid-enrolled women. Clinical sites were eligible if at least half of pregnant patients were enrolled in Medicaid.

PROGRAM ACTIVITIES

The 18-month pilot had three components: (1) development of educational and clinical care toolkits for providers and patients; (2) monthly learning sessions, facilitated by clinical subject-matter experts, to provide training on specific topics, answer questions, and facilitate discussion among pilot sites; and (3) rapid cycle data feedback to promote engagement and monitor progress. Each is described in turn.

(1) Toolkits were developed based on current best practices, clinical recommendations, and results of in-state qualitative and quantitative data collection. Subject matter experts reviewed all materials. The provider toolkit contained resources including work sheets and tools for office flow, and information for GDM management and postpartum care. Patient toolkits contained general prenatal care information (including a broad overview of GDM and maintenance of a healthy lifestyle); information on GDM and management during pregnancy, prevention of T2DM, and postpartum care. Patient toolkits were supplied as booklets written at a fourth to fifth grade reading level in both English and Spanish.

(2) Monthly learning sessions were offered virtually through a monthly webinar-based format and featured GDM experts presenting trends relating to GDM in Ohio, clinical guidelines and recommendations, and examples for integrating guidelines into practice. Webinar titles included: *Identifying and Screening Pregnant Moms-to-Be at High Risk for GDM* and *Obstetrician and Primary Care Provider Communication:*

Reducing the Barrier. Webinars also shared toolkit resources, best practices for treating women diagnosed with GDM, and monthly data on key improvement measures to identify areas to accelerate change. Sites could opt for individual coaching calls for site-specific technical assistance.

(3) Rapid cycle data feedback at the clinical and aggregate level was a key component of this quality improvement program, which was rooted in Langley's Model of Improvement (2009). Rapid cycle data feedback allowed for clinics to implement short Plan-Do-Study-Act cycles, which test small-scale changes before a successful change is fully adopted or an unsuccessful change is abandoned. If a change is abandoned, a new one is developed and tested via the Plan-Do-Study-Act cycle. To facilitate the rapid cycle feedback, a secure, web-based data portal was built. Quality improvement measures were selected based on a key driver diagram. Each month, sites reviewed the charts of at least 20 women who were at 33 to 36 weeks gestation with a GDM diagnosis. De-identified data on each measure were entered directly into the secure portal. Through the portal, clinics had open access to site-specific and aggregate data, which allowed them to monitor progress relative to peers and to established targets. Aggregate data were shared and discussed monthly during the learning sessions.

PROGRAM OUTCOMES/EVALUATION DATA

Of the fifteen clinics recruited, twelve remained actively engaged through the 11-month reporting period. More than seventy provider toolkits and 2,345 patient toolkits were distributed. Of the eleven pilot sites that completed toolkit surveys, all reported the provider toolkit was easy or somewhat easy to use, and they would continue to use at least one toolkit resource after project completion. Most sites (92%) responded that provider toolkit resources were helpful or very helpful when treating patients. Of patients who completed a survey, 91% reported that the consumer toolkit resources were either helpful or very helpful. Among patients with a GDM diagnosis, 99% indicated they would attend their postpartum visit, with 87% responding they would probably or definitely receive a postpartum oral glucose tolerance test.

All QI measures were compared to baseline at the end of 11 months. Several health and wellness prenatal education measures, including providing education on prenatal nutrition and weight gain, were already achieving approximately 100% completion at baseline and were maintained throughout the project period. Other topics including breastfeeding, exercise, family planning (including spacing births), and smoking cessation improved from baseline to follow-up. Education on GDM risk, impact, and the importance of timely postpartum screening for T2DM increased from 67% at baseline to 100% of reviewed charts at follow-up. Timeliness of prenatal GDM screening (prior to

28 weeks gestation) was 87% at baseline and 95% at project completion. Finally, end of project statistics on these 3 postpartum measures, which were lacking baseline data, were as follows. At project completion, 59% of charts indicated a scheduled 30-minute follow-up appointment within 4 weeks of GDM diagnosis. Of women who had a chart reviewed during the prenatal period and had a delivery recorded, 69% had completed a postpartum visit between 21 and 56 days after delivery. Of women with a postpartum visit, 40% had a documented T2DM screen within 12 weeks of delivery.

PROGRAM COST

The total cost for the pilot program of the collaborative was \$368,000, which included the development of the secure data portal. Tool kit development and printing accounted for \$162,887 of the total cost. Clinical sites were not compensated for their participation in the collaborative.

ASSETS & CHALLENGES

Assets

This program was developed within a data-to action framework with contributions from nationally and regionally known clinicians and experts on GDM. Materials were based on nationally recognized best practices and clinical guidelines, state-collected data, and input from subject matter experts (including maternal-fetal medicine physicians specializing in diabetes with pregnancy, a registered dietician/epidemiologist, and public health professionals). State data sources that informed resource materials included a data book with quantitative GDM-related data compiled from six sources; quantitative data on provider knowledge and practices from a survey of obstetric and primary care providers; and qualitative data from focus groups with women with a history of GDM. An additional asset was that sites were eager to participate, making recruitment easy. The developers attributed this to the careful background work that ensured topics and materials were addressing gaps and recognized needs of practitioners and patients.

Challenges

Feedback from providers revealed one of the largest barriers in boosting documented postpartum visit rates to be a lack of continuity of care from the patient's prenatal provider to their primary care provider (PCP). This was especially true within sites that did not provide postpartum care but relied on the PCP to conduct the postpartum visit and/or T2DM screen. Despite attempts to notify the PCP of a patient's health status, sites rarely received a response regarding postpartum visit rates or screening results. Because of this fragmented system, some sites struggled to see measurable results.



Overcoming Challenges

To facilitate continuity of care, care coordination strategies were added to the program following the pilot. A notification letter template was supplied for the prenatal care provider to notify the PCP about the patient's GDM diagnosis and the need for T2DM screening. A client information sheet was also developed for patients to bring to their first primary care follow-up appointment that contains patient specific information from the prenatal care provider regarding the patient's care plan. A QI measure around care coordination was also integrated into the program.

LESSONS LEARNED

Based on provider toolkit feedback surveys and discussions during monthly calls, improvements were made to the toolkits following the pilot. These include detailed instructions regarding timing and use of resources, more emphasis on postpartum glucose testing, and additional guidance and resources to assist in care coordination with PCPs. Because of challenges in obtaining complete postpartum data when a different clinician provided postpartum care, additional data quality strategies were implemented including phone or fax follow up with the postpartum care provider. The patient toolkit in this pilot consisted of two separate patient toolkits (one for women at high-risk prior to the GDM screen and the other for women diagnosed with GDM). Providers found using two booklets to be cumbersome and mostly used the post-diagnosis booklet. Therefore, following the pilot, the patient toolkit was streamlined into a single booklet.

FUTURE STEPS

In May 2015, a second wave of the QI program launched with 20 actively participating sites, 5 of which continued from the pilot in a "sustain phase". Pilot feedback was incorporated to include additional emphasis on care-coordination strategies for providers and to streamline the patient toolkit. A third wave of the program is launching in winter of 2016-17 and will engage 5-6 sites in a more intensive process. To share the resources and success of this program more widely, a website was launched in 2016 with downloadable toolkit materials, background information, recorded learning sessions, and other resources (www.ohiogdm.com).

COLLABORATIONS

The Ohio Gestational Diabetes Postpartum Care Learning Collaborative consisted of clinical and public health subject matter experts, state health department leadership in both chronic disease and maternal and child health, quality improvement experts, and pilot site teams.

PEER REVIEW & REPLICATION

Shellhaas C, Conrey E, Crane D, Lorenz A, Wapner A, Oza-Frank R, Bouchard J. The Ohio Gestational Diabetes Postpartum Care Learning Collaborative: Development of a quality improvement initiative to improve systems of care for women. *Maternal and Child Health Journal* 2016 [Epub ahead of print] (DOI: 10.1007/s10995-016-2170-2).

RESOURCES PROVIDED

Each site was supplied with provider and patient toolkits to serve as resources to support clinical practice change and increase patient awareness of GDM. The provider toolkit was a three-pocket folder with work sheets and tools for office flow and postpartum care, resources for GDM management, and general prenatal resources. The included patient care algorithms were adapted from a 2013 American College of Obstetricians and Gynecologists (ACOG) Practice Bulletin on Gestational Diabetes.

During this pilot, two separate patient toolkits were single, ring-bound 5 x 7 inch booklets. One patient booklet was intended for pregnant women considered at high-risk of developing GDM and contained general prenatal care information including a broad overview of GDM and maintenance of a healthy lifestyle. The second patient toolkit was directed toward pregnant women with a GDM diagnosis and contained resources specific to GDM education and management during pregnancy, prevention of T2DM, and postpartum care. Patient booklets were written at a fourth to fifth grade reading level and available in English and Spanish. Note that the patient toolkit was streamlined into a single booklet following the pilot.

A secure web-based portal was provided for participants to enter monthly chart review data. It also allowed participants to view their own data over time and in comparison to all participating sites.

The Ohio Gestational Diabetes Postpartum Care Learning Collaborative produced a website (www.OhioGDM.com) that houses information on GDM, T2DM, and additional resources for both providers and patients. The patient and provider toolkits are available for download.

Key words:

Quality Improvement, Gestational Diabetes, Postpartum Care, Maternal Health, Type 2 Diabetes, Prenatal Care



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