



ODPCP

OHIO DIABETES PREVENTION AND CONTROL PROGRAM

This special supplement to the diabetes newsletter is brought to you by the Ohio Department of Health (ODH) Gestational Diabetes Collaborative Team.

We have lots to share since we first introduced ourselves to you in last Fall's newsletter.

In this supplement you will find a description of our team, highlights of what we've learned over the past 18 months about gestational diabetes in Ohio, our plans for National Diabetes Month and more! We'd love to hear from you on what you think of the work we're doing. Enjoy the read!

Signed,

The ODH Gestational Diabetes Collaborative Team

The Ohio Department of Health Gestational Diabetes Team: Fostering Collaboration between the Maternal Child Health and Chronic Disease Programs

Vision: *“All women with a history of gestational diabetes mellitus will have a plan for prevention or delay of onset of Type 2 DM prior to delivery. Continuity of care will be ensured.”*

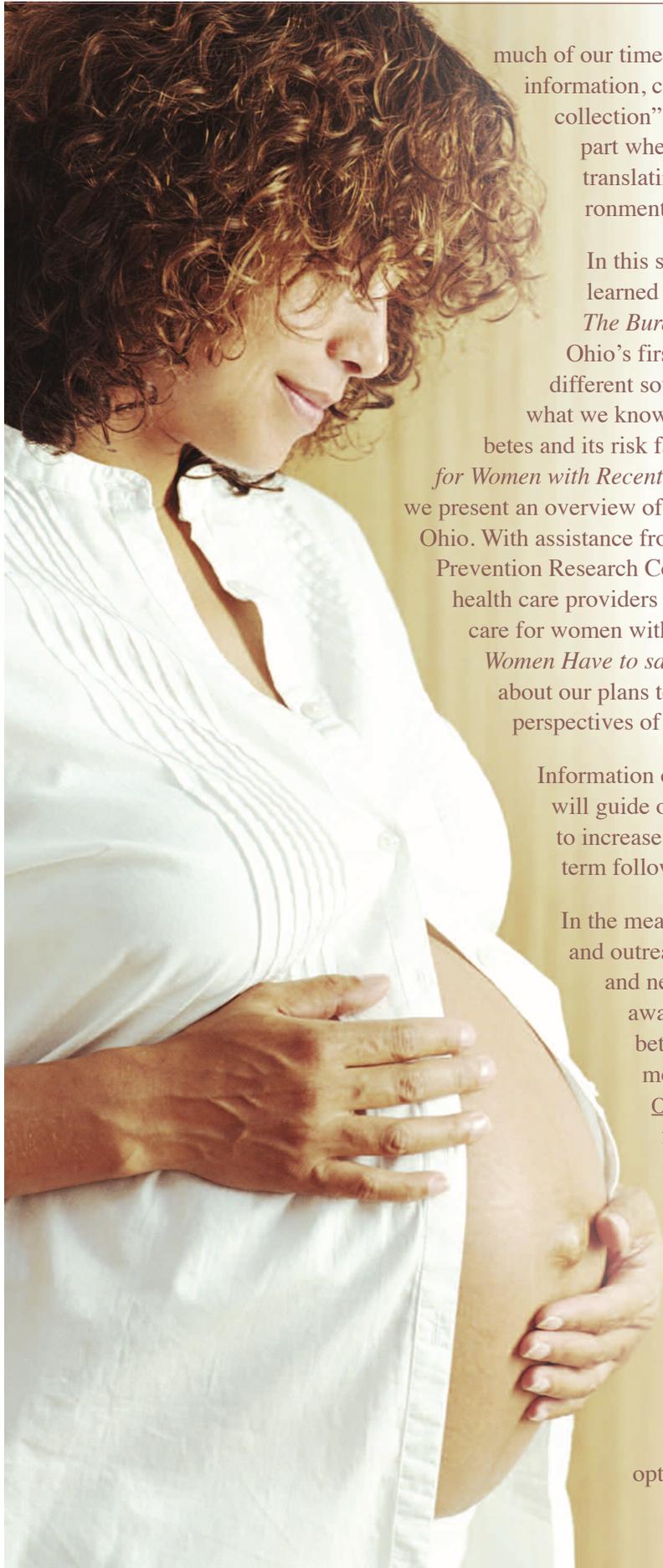
Mission: *“To improve the health of all women across the lifespan through the ongoing collaboration between Chronic Disease and Maternal and Child Health programs*

Eighteen months ago, ODH's Division of Family and Community Health Services, Office of Healthy Ohio, State Epidemiology Office and the Ohio Department of Jobs and Family Services teamed together to develop and implement a statewide plan to prevent the development of type 2 diabetes mellitus among women with a history of gestational diabetes mellitus (GDM). That is when Ohio was selected, along with Missouri and West Virginia, to participate in a national year-long learning collaborative. The

project is sponsored by and receives technical assistance from a consortium made up of the Association of Maternal and Child Health Programs (AMCHP), the National Association of Chronic Disease Directors (NACDD) Women's Health Council, and the Centers for Disease Control and Prevention (CDC). Although the initial one-year sponsored collaborative has officially ended, our team is really just getting started and we have a lot of momentum!

Following the plan we developed in the Spring of 2010, we have spent





much of our time compiling existing data, and where we couldn't find information, collecting primary data. As we transition from this "data collection" phase, we are getting ready for the fun part, and the part where you, our partners, will be more vital than ever: translating what we are learning into policy, systems and environmental changes to prevent diabetes.

In this supplement you will get a glimpse of what we've learned from our data-related activities. In "*Read all About it: The Burden of Gestational Diabetes in Ohio*", the highlights of Ohio's first gestational diabetes data book, including data from 6 different sources, are presented. This descriptive report outlines what we know and don't know about the burden of gestational diabetes and its risk factors in Ohio. In "*Improved Postpartum Care Needed for Women with Recent Gestational Diabetes Mellitus –Affected Pregnancies,*" we present an overview of findings from a survey of health care practitioners in Ohio. With assistance from CDC epidemiologists and the Case Western Reserve Prevention Research Center, the team surveyed Ohio prenatal and primary health care providers to learn about their knowledge and practices around care for women with a history of GDM. Finally, in "*Listening to what Ohio Women Have to say about Preventing Type 2 Diabetes*", you will learn about our plans to conduct focus groups this winter to understand the perspectives of women with a history of GDM.

Information obtained from the data book, survey and focus groups will guide our team to develop appropriate collaborative strategies to increase post-partum glucose screening rates and improve long-term follow-up of women with a history of GDM.

In the meantime, we continue to refine and develop our education and outreach activities. Using both traditional social marketing and newer social media techniques the team is raising the awareness of the link between gestational and type 2 diabetes. Visit the ODH or Healthy Ohio websites this month for our gestational diabetes feature. Check out [ODH's Facebook](#) page or subscribe to the [ODH Twitter](#) feed to receive our GDM messages and pass them on within your own networks. You may also hear our radio public service announcements in your community. To learn about our text4baby efforts, look in this supplement for "*Text4baby: Using Social Media for Healthier Women and Babies in Ohio.*" For public health and clinical providers, the team is presenting a GDM webinar this month for providers within ODH-funded prenatal clinics. Then, in early spring, the webinar will be recorded and made available on the OhioTrain website, with an option to gain nursing or dietitian CEUs.

Improved Postpartum Care Needed for Women with Recent Gestational Diabetes Mellitus-Affected Pregnancies

Gestational Diabetes Mellitus (GDM) affects 2–10% of pregnancies in the United States¹ and an estimated average of 9,000 pregnancies each year in Ohio². Approximately 30% of women with GDM have glucose abnormalities after delivery,^{3,4} and in the decades following a GDM-affected pregnancy, an estimated 70% of women may develop Type 2 Diabetes Mellitus (T2DM).⁵

Current guidelines recommend that women with a recent GDM-affected pregnancy be tested for T2DM 6 to 12 weeks postpartum. Subsequent testing should take place every 1-3 years or more frequently in the presence of additional risk factors.⁶ Furthermore, physical activity, good nutrition, and maintenance of a healthy weight can prevent or delay the onset of T2DM. Therefore, postpartum T2DM testing, educational counseling on future risk of T2DM and importance of physical activity, and appropriate nutrition referrals are recommended for women with a recent GDM-affected pregnancy.

Previous studies have found that up to three-quarters of women with GDM do not receive a postpartum test for T2DM⁷⁻⁹, and even fewer receive other follow up services (such as educational counseling on their future risk of T2DM)¹⁰. There have been no available data specific to Ohio regarding the practices of providers who care for patients with GDM during pregnancy, in the immediate postpartum period, or for long-term follow up. The Ohio Department of Health, in collaboration with the Case Western Reserve University's Prevention Research Center, and the Centers for Disease Control and Prevention (CDC), recently conducted a survey of prenatal and primary health care providers in Ohio to identify current practices in the antepartum and postpartum care of women with GDM-affected pregnancies. Because the results from this survey were needed quickly in order to inform a state-wide plan on GDM and T2DM, a request for assistance (often referred to as an EPI-AID) was made to the CDC. Epidemic Intelligence Service Officers (EISOs) from the CDC, at the invi-



tation of the Ohio Department of Health, provided technical assistance in the development and implementation of the survey. While visiting the Ohio Department of Health in September 2010, the EISOs piloted and finalized the survey and assisted in its mailing.

Surveys were sent by mail and the internet to a sample of health care providers in Ohio from September through December, 2010. Recipients included licensed and practicing internal medicine physicians, family medicine physicians, obstetricians and gynecologists (OB/GYN), and certified nurse midwives (N=2,035). The overall response rate was 46%.

Like other published estimates, the prevalence of postpartum screening was suboptimal. One in three (36%) providers indicated that they always or often screened women with GDM-affected pregnancies for T2DM at the postpartum visit. Only 33% of the providers correctly identified that at least 40% of women with GDM pregnancies will progress to T2DM within 10 years (Table 1). In addition, only 45% of providers indicated that they retest women with histories of GDM for T2DM every 1–3 years. Responses for each of these variables differed by provider type. Compared to OB/GYNs, family practice and internal medicine providers reported a higher prevalence of retesting women every 1-3

years after GDM-affected pregnancy. Less than two-thirds (59%) of providers reported that they always inform women with a recent history of GDM that they are at increased risk for T2DM (range by provider: 46.2 to 65.2%), and approximately half (47%) reported that they recommend for women to be tested for T2DM in future pregnancies (range: 36.2 to 56.7%). Only 25% of providers indicated that they always counseled women with recent



Dr. Jean Ko and Dr. Loren Rodgers, both CDC Epidemic Intelligence Service Officers, preparing to mail questionnaires for the healthcare provider survey

Table 1. Ohio Providers’ Knowledge and Behaviors Related to Postpartum Care of Women with GDM-Affected Pregnancies

	Overall N=935 (%)	Family practice n=274 (%)	Internal medicine n=177 (%)	OB/GYN n=338 (%)	Nurse midwives n=146 (%)
Correctly identified subsequent risk for T2DM is >40%	32.8	30.6	36.1	31.9	35.0
Retest women at postpartum visit	35.9	44.2	41.4	41.2	18.6
Retest women every 1-3 years after GDM pregnancy	44.9	62.4	54.0	36.9	20.0
Inform women of their increased risk for T2DM	59.3	60.3	51.7	65.2	46.2
Tell women that they should be tested for T2DM in future pregnancies	46.9	50.9	56.7	49.7	36.2
Counsel women on nutrition	25.4	33.3	31.0	27.0	17.1
Provide nutrition referrals to overweight/obese women	15.8	21.1	31.0	17.6	5.4

GDM-affected pregnancies on nutrition or provided referrals to dietary counseling (range: 17.1 to 33.3%), and 16% reported that they always provide overweight or obese women a referral to a diet support group or for nutrition counseling (range: 5.4 to 31.0%).

In Ohio, opportunities to prevent and diagnose T2DM among women with recent GDM-affected pregnancies are often missed. Existing literature suggests that barriers are present on both the provider and patient side. Poor communication between prenatal care and primary care providers may account for some of the lack of screening. Systems of care that support providers to effectively follow up GDM patients can help improve provider performance. An example is reminders (electronic, mailed, or by telephone) that alert clinicians that specific patients need a postpartum screening for diabetes. To obtain more information about patient barriers and to identify prevention strategies that resonate with women, focus groups will be conducted by the Ohio Department of Health. The information gained from the provider survey and from patient focus groups will be used to develop a state plan to improve T2DM screening among women with a recent GDM-affected pregnancy in the postpartum period and beyond.

This work was sponsored by the Association of Maternal and Child Health Programs (AMCHP), the National Association of Chronic Disease Directors (NACDD) Women's Health Council and The Centers for Disease Control and Prevention (CDC).

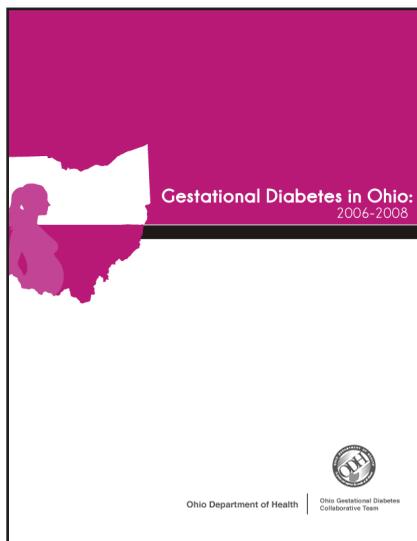


References

1. Hunt KJ, Schuller KL. The increasing prevalence of diabetes in pregnancy. *Obstet Gynecol Clin North Am.* Jun 2007;34(2):173-199, vii.
2. Ohio Department of Health O. The Ohio Gestational Diabetes Mellitus (GDM) Collaboration: Working to Prevent or Delay Type 2 Diabetes among Women with a History of Gestational Diabetes. 2011; <http://www.odh.ohio.gov/ASSETS/ED0BBCC00A8B453BAFA7A8D358F74107/gdmfacts.pdf>. Accessed July 7, 2011.
3. Schaefer-Graf UM, Buchanan TA, Xiang AH, Peters RK, Kjos SL. Clinical predictors for a high risk for the development of diabetes mellitus in the early puerperium in women with recent gestational diabetes mellitus. *Am J Obstet Gynecol.* Apr 2002;186(4):751-756.
4. Retnakaran R, Qi Y, Sermer M, Connelly PW, Hanley AJ, Zinman B. Glucose intolerance in pregnancy and future risk of pre-diabetes or diabetes. *Diabetes Care.* Oct 2008;31(10):2026-2031.
5. Kim C, Newton KM, Knopp RH. Gestational diabetes and the incidence of type 2 diabetes: a systematic review. *Diabetes Care.* Oct 2002;25(10):1862-1868.
6. ACOG Committee Opinion No. 435: postpartum screening for abnormal glucose tolerance in women who had gestational diabetes mellitus. *Obstetrics and gynecology.* 2009;113(6):1419-1421.
7. Almaro CV, Ecker T, Moroz LA, Bucovetsky L, Berghella V, Baxter JK. Obstetricians seldom provide postpartum diabetes screening for women with gestational diabetes. *Am J Obstet Gynecol.* May 2008;198(5):528 e521-525.
8. Kim C, Tabaei BP, Burke R, et al. Missed opportunities for type 2 diabetes mellitus screening among women with a history of gestational diabetes mellitus. *Am J Public Health.* Sep 2006;96(9):1643-1648.
9. Dietz PM, Vesco KK, Callaghan WM, et al. Postpartum screening for diabetes after a gestational diabetes mellitus-affected pregnancy. *Obstet Gynecol.* Oct 2008;112(4):868-874.
10. Kim C, McEwen LN, Piette JD, Goewey J, Ferrara A, Walker EA. Risk perception for diabetes among women with histories of gestational diabetes mellitus. *Diabetes Care.* Sep 2007;30(9):2281-2286.

Submitted by Jean Ko, PhD,
Centers for Disease Control and Prevention

Read All About It: The Burden of Gestational Diabetes in Ohio!



Ohio's first data book on gestational diabetes was published last month by the Ohio Department of Health's Gestational Diabetes Collaborative Team! The report marks Ohio's first comprehensive look at the burden of GDM and complements the Burden of Diabetes Reports.

Some highlights from the report, which uses 2006-8 data from multiple sources:

- Half of all women giving birth each year entered pregnancy overweight or obese, a strong risk factor for GDM.
- Between 5 and 10 percent of births in Ohio (including 7.6 percent of Medicaid births) are affected by GDM: that's 7,500 to 15,000 pregnancies every year.
- Approximately 4 percent of all women aged 25-34, and 3 percent of women aged 35-44, have a history of GDM (but not type 2 diabetes) and are at risk of developing type 2 diabetes and for having another pregnancy affected by diabetes.
- Babies born after a GDM-affected pregnancy are more likely to be delivered by c-section, have a high birth weight and be admitted to the NICU.
- Obstetrics hospital stays were a mean of 0.7 days longer and resulted in approximately \$2000 higher charges when GDM-related, compared to stays that were not GDM-related.

This report is a first step in helping us to track the burden of GDM in Ohio, better understand where to target prevention efforts, and identify areas where better data are needed. It is a resource for both medical and public health professionals that care for women with both gestational and type 2 diabetes.

A limited number of hard copies are available from the ODH Diabetes Prevention and Control Program, but you can find the full report now at <http://bit.ly/GDM-DataBook>.

Oza-Frank R, Shellhaas C, Wapner A, Conrey E. (2011 October). Gestational Diabetes in Ohio: 2006-2008; Columbus, Ohio: Ohio Department of Health.

*Submitted by Elizabeth J Conrey, RD, PhD,
State Epidemiology Office*



Listening to What Ohio Women Have to Say About Preventing Type 2 Diabetes

Beginning this fall and throughout the winter and spring, the Gestational Diabetes Team will conduct focus groups of women with a history of GDM. LaVERDAD Marketing of Cincinnati, Ohio has been engaged to facilitate these focus groups. The goals are to identify women's knowledge about the long term implications of having GDM, obtain information about and possible barriers to having a post-partum

visit and screening and test educational messages in order to develop messages to which women will best respond.



Fifteen focus groups of up to two hours in length will be conducted with eight to ten women of reproductive age (18-44 years) who have been diagnosed with gesta-

tional diabetes within the past ten years. The women will represent high risk populations (e.g., African American, Hispanic/Latino, and Appalachian). The sessions will be held in five regions of Ohio (three per region) during day-time and evening hours with child care provided to facilitate participation.

The women who participate will gain knowledge about the disease, how to prevent it, and be compensated for their time (\$50 incentive for each woman). The GDM team will gain valuable insight into developing statewide programs to prevent type 2 diabetes and help to ensure that Ohio women and babies are healthy.

If you are an organization that could help identify and recruit the women for the focus group discussions, please contact Deborah Spradley, LaVERDAD Marketing at **513.891.1430** or www.laverdadmarketing.com.

*Submitted by Jo Bouchard, MPH,
Bureau of Child and Family Health Services*

The American College of Obstetricians and Gynecologists Issues New Guidance on the Screening and Diagnosis of Gestational Diabetes

The Committee on Obstetric Practice for the American College of Obstetricians and Gynecologists recently published Committee Opinion 504 in the September issue of *Obstetrics & Gynecology*. This guidance focuses on the screening and diagnosis of gestational diabetes mellitus (GDM). Here is a summary of the key recommendations:

All pregnant women should be screened for GDM, whether by patient history, clinical risk factors, or a 50-g, one-hour loading test to determine blood glucose levels.

The diagnosis of GDM can be made based on the result of the 100-g, three-hour oral glucose tolerance test, for which there is evidence that treatment improves outcome.

Diagnosis of GDM based on the on-step screening and diagnosis test outlined in the International Association of Diabetes in Pregnancy Study Group guidelines is not recommended at this time because there is no evidence that diagnosis using these criteria leads to clinically significant improvements in maternal or newborn outcomes and it

would lead to a significant increase in health care costs.

The optimum mode of screening, diagnosis, and treatment will continue to be a focus for clinical research in the future. Clinicians and public health professionals must be prepared to adapt practice as new evidence becomes available.

*Submitted by Cynthia Shellhaas, MD, MPH,
Bureau of Child and Family Health Services*



Text4baby: Using Social Media for Healthier Women and Babies in Ohio

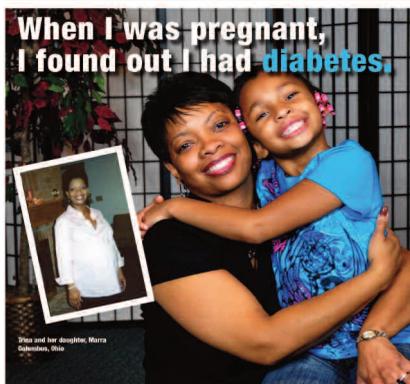
One way that ODH is working to increase the public's knowledge about gestational diabetes and encourage use of recommended screenings is by promoting the use of text4baby. Text4baby is a free mobile health service helping pregnant women and new moms get information about caring for their health and the health of their babies. By simply texting "BABY" (or "BEBE" for information in Spanish) to 511411, women can register to receive weekly text messages, timed to their individual due dates or their baby's birth date throughout their pregnancy and baby's first year. These tips and messages were developed through a partnership that includes government agencies; nonprofit groups and health experts. Text4baby participants receive messages focused on nutrition, immunization, birth defect prevention, and related topics. ODH is a partner with the National Healthy Mothers, Healthy Babies Coalition to pro-

mote this valuable free service. Since the initial launch of the text4baby initiative in February of 2010, Ohio has registered 7164 unique users to the service. See below for promotional resources. For more information on this initiative please visit www.textforbabies.org.



*Submitted by Janelle Edwards, MPH, MCHES,
Bureau of Child and Family Health Services*

Resources Available



Now, I am at risk for diabetes for the rest of my life. So is my child.

But we can take steps to PREVENT it. Gestational diabetes is diabetes that is found for the first time when a woman is pregnant. If you had gestational diabetes, tell your health care team and get tested. Tell your child's doctor.

There are steps you can take to prevent or delay diabetes and lower the risk for you and your child. Learn more at <http://ndep.nih.gov> or call 1-888-693-NDEP (6337); TTY: 1-866-569-1162.

HR02 NDEP is jointly sponsored by NIH and CDC with the support of more than 200 partner organizations.



adapts NDEP's resource in a unique and special way. View the posters at 1.usa.gov/odhdiabetesprograms. Contact Thomas Joyce (thomas.joyce@odh.ohio.gov) for details.

- Text4baby 18 x 24" posters, business cards or tear-off pads. Contact Janelle Edwards (janelle.edwards@odh.ohio.gov) for details.

You may request the following resources free from ODH:

- History of GDM Posters come in 2 sizes and three versions depicting a black woman, a white woman or a Hispanic woman (Spanish language). The National Diabetes Education Program (NDEP) awarded these posters the 2011 Frankie Award, which commends a Diabetes Prevention and Control Program who

- A copy of the data book, *Gestational Diabetes in Ohio: 2006-2008* (<http://bit.ly/GDM-DataBook>). Contact Elizabeth Conrey (elizabethj.conrey@odh.ohio.gov) for details.

The following websites offer useful information for women affected by diabetes:

Current gestational diabetes

www.marchofdimes.com/Pregnancy/complications_diabetes.html

www.cdc.gov/reproductivehealth/maternalinfanthealth/PregComplications.htm

www.diabetes.org/diabetes-basics/gestational/

History of gestational diabetes or current type 2 diabetes

<http://aging.ohio.gov/services/evidencebasedhealthyagingprograms/>

A great resource statewide is OSU Extension Dining with Diabetes at <http://fcs.osu.edu/diabetes/>.

Federally Qualified Health Centers and community health centers are a good resource for those without a primary care provider or those who need assistance with medications and diabetes management at www.ohiohc.org

The National Diabetes Education Program at www.ndep.nih.gov is a good resource for the public. You can search the site for topics, resources, recipes, or risk assessments.