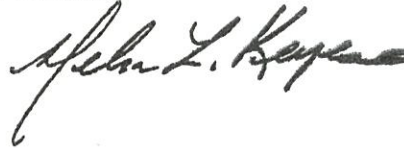


MEMORANDUM

ACTION MEMO #16-04

TO: District Nutrition Services Directors

FROM: Debra L. Keyes, MA, RD 
Director
Georgia WIC Program

DATE: November 5, 2015

RE: Healthy Foods A to Z Nutrition Education Class

This memo is intended to provide guidance on how to implement the Healthy Foods A to Z nutrition education class and procedures for the distribution of the supporting Healthy Foods from A to Z book. The Healthy Foods A to Z nutrition education class uses a targeted lesson plan and children's book to engage participants in an interactive discussion on how healthy eating can play a key role in diabetes prevention throughout the lifecycle. Additionally, the book is used as a tool to help families identify healthy foods as well as foster language development.

All districts are encouraged to offer the Healthy Foods A to Z nutrition education class in November (American Diabetes Month) and continue the use of the class through January 2016. Through the use of the Healthy Foods A to Z nutrition education resources, the Georgia WIC Program is able to support the Georgia Department of Public Health's mission to prevent disease as well as reinforce the messaging related to our statewide Language Nutrition initiative "Talk with Me Baby".

Guidance on how to implement the Healthy Foods A to Z nutrition education class and procedures for the distribution of the Healthy Foods from A to Z book is detailed below.

A. Training Resources:

The Georgia WIC Nutrition Education Committee has developed class lesson plans and identified the following supporting materials for the Healthy Foods A to Z Diabetes Prevention class:

- Diabetes Backgrounder (Attachment A)
- Gestational Diabetes - What You Need to Know (Attachment B)
- Prediabetes - Could It Be You? (Attachment C)
- Women at High Risk for Diabetes: Physical Activity, Healthy Eating and Weight Loss (Attachment D)
- Did You Have Gestational Diabetes When You Were Pregnant? (Attachment E)
- Prediabetes Data Summary (Attachment F)
- Evaluation and answer key for Healthy Foods A to Z Diabetes Prevention class (Attachment G & H)
- Healthy Foods A to Z Diabetes Prevention Lesson Plan (Attachment I)



The materials should be reviewed by class presenters and can count towards one hour of the required yearly twelve hours of Nutrition Specific continuing education for Competent Professional Authorities (CPA's) and Nutrition Assistants (NA's). Continuing education should be documented in the district continuing education log.

B. Training Staff:

The provider should:

- Read the professional backgrounder memo and the supporting documents referenced in the memo.
- Review the book "Healthy Foods from A to Z"
- Take the "Questionnaire for Prevent Diabetes Class" test and certify that they completed the activity themselves (signature line). An appropriate district evaluator should score the test (Registered Dietitian or Nutrition Manager) and sign-off on the training.

The answer key (Attachment H) will be provided to Nutrition Service Directors in a separate e-mail. Please note that the last question requires subjective evaluation by the scorer.

Note: BACKGROUND MATERIALS ARE NOT APPROVED FOR DISTRIBUTION TO GEORGIA WIC PARTICIPANTS. You may use appropriate supportive reinforcement materials that are on your district "Approved Nutrition Education Materials List for FFY 2016".

C. Receipt of Class Resources and Training Materials:

Books should arrive in your district the second week of November. They are intended to be distributed in November in conjunction with this lesson. The class and book distribution should continue through January 2016. It is intended that one book be given per family.

If your district is unable to coordinate participation during November 2015, please submit a plan, for approval to Barbara Stahnke indicating when and how you will distribute the books. These books must be distributed to WIC participants prior to July 1, 2016.

In addition to group or individual low risk nutrition education, books may also be given to families at Certification or High Risk visits. Documentation of the following topic(s) is required for certification or high risk in coordination with distribution of the book.

- Talk with Me Baby
- **And**, at least one of the following:
 - Fruits and vegetables,
 - Whole grains,
 - Milk,
 - Meat/meat substitutes
 - Bread/Cereal
 - Good Quality Snacks

Only CPA's and NA's that have completed the professional development activity may distribute the book "Healthy Foods from A to Z".

If you have any questions, please contact Barbara Stahnke, MEd, RD, LD at barbara.stahnke@dph.ga.gov or call 404-656-9869.

Attachments:

- c: Angela Hammond-Damon, IBCLC - Deputy Director, Operations & Nutrition Services
 - District Health Directors
 - District Program Managers
 - WIC Deputy Directors
 - WIC Managers

(ATTACHMENT A)

Backgrounder for November Class or November Individual Low Risk Nutrition Education

TO: CPA/Nutrition Assistants

FROM: Georgia WIC Nutrition Education Committee

RE: Healthy Foods A to Z (Prevent Diabetes)

Special thanks to Macon District for the initial development on this resource.

Diabetes is a group of diseases in which the body does not properly process food for energy. This can result from not enough insulin being produced by the pancreas which is usually the case in Type I diabetes, or the body not accepting or using the insulin it produces as in Type II diabetes. It can also be the result of both these things. The three major types of diabetes are Type 1, Type 2, and gestational diabetes. 29 million Americans have diabetes; with one quarter of them being undiagnosed. There are approximately 86 million Americans who have pre-diabetes.

Type 1 diabetes results from the body's failure to produce insulin. Insulin regulates blood glucose or "unlocks" the cells of the body to allow glucose to enter and fuel them. Type 2 diabetes usually begins as insulin resistance, a disorder in which cells do not use insulin properly. The pancreas gradually loses its ability to produce insulin. This is the most common type of diabetes.

Gestational diabetes is a form of glucose intolerance diagnosed only during pregnancy. Women who are overweight or have a family history of diabetes are more likely to develop gestational diabetes while pregnant. Women who have had gestational diabetes have an almost 50 percent chance of developing diabetes, mostly type 2, in the next 10 years. Treatment is required during pregnancy to normalize maternal blood glucose levels and avoid complications in the infant. **Women who have had gestational diabetes should be tested for diabetes 6 to 12 weeks after their baby is born.** If the test results show that blood sugar (blood glucose) is higher than normal, but not high enough to be diabetes, women should get tested every year. If the test is normal, women should get tested for diabetes again in 3 years.

Pre-diabetes is usually seen before people develop Type II diabetes and is sometimes referred to as impaired glucose tolerance. Diagnosis occurs at your doctor's office through testing of Fasting Blood Sugar, through a Hemoglobin A1C test or and Oral Glucose Tolerance Test. Diabetes may be screened though a health fair with screening through non-fasting blood sugars; but you still would have to go the doctor for a full evaluation.

Diabetes is the seventh leading cause of death in the U.S. and there is no cure. Of the 29 million Americans with Diabetes, 8.1 million do not know they have the disease. In Georgia 800,000 people are living with diabetes, and approximately 450,000 adults have pre-diabetes. Twenty-eight percent of adults with pre-diabetes worry about being able to purchase healthy foods. The risk factors for re-diabetes include being overweight or obese, having a family history of diabetes, getting little or no physical activity and having a history of gestational diabetes.

Reducing the risk for developing Diabetes is possible even if you have risk factors.

- Maintain a healthy weight with, thirty (30) minutes of physical activity five (5) days a week and a healthy diet including whole grains, low-fat dairy, lean proteins, and fruits & vegetables
- If overweight, losing 5-7% of body weight through thirty (30) minutes of physical activity five days a week and a healthy diet including whole grains, low-fat dairy, lean proteins, and fruits & vegetables

Please read the following backgrounders:

- “Women at High Risk for Diabetes: Physical Activity, Healthy Eating and Weight Loss” CDC
- “Pre-diabetes: Could it be You?” CDC
- “Did You Have Gestational Diabetes When You Were Pregnant?” NDEP
- “Gestational Diabetes: What you need to know” NIH/NIDDKD
- “Pre-diabetes Data Summary” The Georgia Department of Public Health

PLEASE DO NOT DISTRIBUTE THE PROFESSIONAL BACKGROUNDER MATERIALS TO GEORGIA WIC PARTICIPANTS. THESE ARE PROVIDED FOR YOUR PROFESSIONAL DEVELOPMENT. THEY ARE NOT ON THE GEORGIA WIC APPROVED EDUCATION MATERIALS LIST FOR PARTICIPANTS.



Gestational Diabetes

What You Need to Know

Did you know that if you are pregnant, you could get gestational diabetes?

What is gestational diabetes?

Gestational diabetes is a type of diabetes that develops only during pregnancy. Having diabetes means you have too much glucose, also called sugar, in your blood. Your body uses glucose for energy. Too much glucose in your blood is not good for you or your baby. You can protect your baby and yourself by controlling your blood glucose levels.

Who can get gestational diabetes?

Any pregnant woman can get gestational diabetes. Your chances of getting gestational diabetes are higher if you

- are overweight
- have had gestational diabetes before
- have given birth to a baby weighing more than 9 pounds
- have a parent, brother, or sister with type 2 diabetes
- have prediabetes, meaning your blood glucose levels are higher than normal yet not high enough for a diagnosis of diabetes

- are African American, American Indian, Asian American, Hispanic/Latina, or Pacific Islander American
- have a hormonal disorder called polycystic ovary syndrome, also known as PCOS

How will gestational diabetes affect me and my baby?

Gestational diabetes may lead to high blood pressure and too much protein in your urine while you are pregnant. You could also have a large baby and a difficult delivery. You might even need a c-section. Your gestational diabetes will probably go away after your baby is born. However, you will be more likely to get type 2 diabetes later in life. Also, your gestational diabetes may come back if you get pregnant again.

Untreated or uncontrolled gestational diabetes can cause problems for your baby, such as

- being born with a larger than normal body, which can make delivery difficult and more dangerous
- having low blood glucose right after birth
- having breathing problems
- having a higher chance of dying before or soon after birth
- becoming overweight or obese
- getting type 2 diabetes later on





What can I do about gestational diabetes?

Ask your doctor about getting tested for gestational diabetes. If you have gestational diabetes, you can

- talk with your doctor about what your blood glucose numbers should be.
- follow the healthy eating plan that you make with your health care team.
- be physically active—aim for 30 minutes most days of the week. Talk with your doctor about the type of activity that is best for you.
- take insulin shots, if needed. Insulin will not harm your baby.

Where can I get more information about diabetes?

National Diabetes Education Program

1 Diabetes Way
Bethesda, MD 20814-9692
Phone: 1-888-693-NDEP (1-888-693-6337)
TTY: 1-866-569-1162
Fax: 703-738-4929
Email: ndep@mail.nih.gov
Internet: www.ndep.nih.gov
www.yourdiabetesinfo.org

National Diabetes Information Clearinghouse

1 Information Way
Bethesda, MD 20892-3560
Phone: 1-800-860-8747
TTY: 1-866-569-1162
Fax: 703-738-4929
Email: ndic@info.niddk.nih.gov
Internet: www.diabetes.niddk.nih.gov

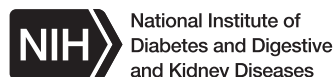
The National Diabetes Information Clearinghouse is a service of the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). The NIDDK is part of the National Institutes of Health of the U.S. Department of Health and Human Services.

This publication is not copyrighted. The Clearinghouse encourages people to duplicate and distribute as many copies as desired.

The NIDDK Awareness and Prevention Series
Materials for Community Health Fairs



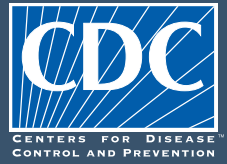
The NIDDK Awareness and Prevention Series is designed to make you ask yourself, "Could this be me or someone I care for?" So take a closer look. Additional information on this topic and other titles in the series is available through the National Diabetes Information Clearinghouse or on the Internet at www.diabetes.niddk.nih.gov.



NIH Publication No. 13-6185
September 2013

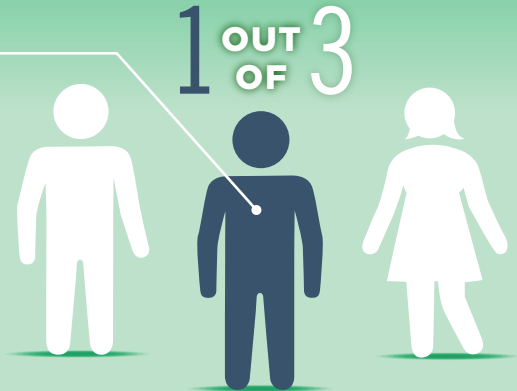
PREDIABETES

COULD IT
BE YOU?



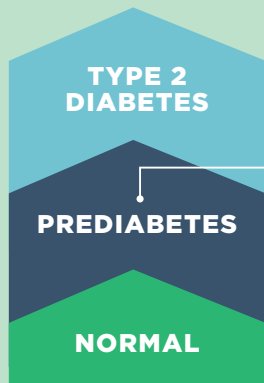
86
MILLION

86 million American adults—more than 1 out of 3—have prediabetes



9 **OUT** **OF** **10**

people with prediabetes do not know they have it



Prediabetes is when your blood sugar level is higher than normal but not high enough yet to be diagnosed as type 2 diabetes

Prediabetes increases your risk of:



**TYPE 2
DIABETES**



**HEART
DISEASE**



STROKE



If you have prediabetes, losing weight by:



**EATING
HEALTHY**



**BEING
MORE
ACTIVE**

can cut your risk of getting type 2 diabetes in

HALF





Without weight loss
and moderate
physical activity

**15-30% of people with
prediabetes** will develop
type 2 diabetes within 5 years



People who have diabetes are at higher risk of serious health complications:



BLINDNESS



**KIDNEY
FAILURE**



**HEART
DISEASE**



STROKE



**LOSS OF TOES,
FEET, OR LEGS**

YOU CAN PREVENT TYPE 2 DIABETES

FIND OUT IF YOU HAVE PREDIABETES —

See your doctor to get your
blood sugar tested



JOIN A CDC- RECOGNIZED

diabetes
prevention
program



- ✓ eat healthy
- ✓ be more active
- ✓ lose weight



LEARN MORE FROM CDC AND TAKE THE **PREDIABETES RISK QUIZ** AT
<http://www.cdc.gov/diabetes/prevention>

REFERENCES

Centers for Disease Control and Prevention. National diabetes statistics report: estimates of diabetes and its burden in the United States, 2014. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2014.

Knowler WC, Barrett-Conner E, Fowler SE, et al; Diabetes Prevention Program Research Group. Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. N Engl J Med 2002;346:393-403. As cited in March 22, 2013, MMWR.

Tuomilehto J, Lindstrom J, Eriksson J, et al; Finnish Diabetes Prevention Study Group. Prevention of type 2 diabetes mellitus by changes in lifestyle among subjects with impaired glucose tolerance. N Engl J Med 2001; 344:1343-1350.

CDC's Division of Diabetes Translation works toward a world free of the devastation of diabetes.

Women at High Risk for Diabetes:

Physical Activity, Healthy Eating, and Weight Loss



Why Should Women Care About Diabetes?

- Diabetes is a group of diseases marked by high levels of blood glucose resulting from defects in insulin production, insulin action, or both. Diabetes can lead to serious complications and premature death.¹
- The most common forms of diabetes are as follows
 - » **Type 1 diabetes** accounts for about 5% of all diagnosed cases of diabetes. Type 1 is usually diagnosed in children and young adults, although it can occur at any time. People with type 1 diabetes must use insulin from an injection or a pump to manage their diabetes.¹
 - » **Type 2 diabetes** accounts for about 95% of all cases diagnosed in adults. Several studies have shown that healthy eating, regular physical activity, and weight loss used with medication if prescribed, can help control complications from type 2 diabetes or can prevent or delay the onset of type 2 diabetes.¹
 - » **Gestational diabetes** is diagnosed in 2%–10% of pregnant women.² Gestational diabetes can cause health problems during pregnancy for both the child and mother. Children whose mothers had gestational diabetes have an increased risk of developing obesity and type 2 diabetes.³ Although gestational diabetes often goes away after pregnancy, about half of all women who have gestational diabetes get type 2 diabetes later in life.⁴
- It is estimated that 12 million women aged 20 years and older have diabetes, and approximately 27 million have prediabetes.^{1,5-7}

How Can Women Tell If They Are at High Risk for Diabetes?⁸

Women are at high risk for diabetes if they

- Are overweight (body mass index of 25 kg/m² or greater) and have one or more additional risk factors, such as
 - » Low physical activity (less than 150 minutes of moderate-intensity activity, such as walking, per week).
 - » Family history of type 2 diabetes.
 - » High-risk race/ethnicity (African American, American Indian or Alaska Native, Asian American, Hispanic or Latino, Native Hawaiian or Pacific Islander).
 - » Had a baby weighing 9 pounds or more or were diagnosed with gestational diabetes.
 - » High blood pressure (140/90 mmHg or higher).
 - » High cholesterol (240 mg/dL or higher).
 - » History of polycystic ovarian syndrome, a health problem that can affect a woman's hormones, menstrual cycle, and ability to have children.

- » Clinical conditions associated with insulin resistance, such as severe obesity, or the development of dark, thick skin in body folds and creases (a condition which is called ‘acanthosis nigricans’).
- » History of cardiovascular disease.
- Have prediabetes.

What Can Be Done to Reduce the Risk of Developing Type 2 Diabetes?

Research has shown that the following lifestyle modifications can prevent, or at least delay the onset of type 2 diabetes among people at risk of diabetes^{9-12:}

- Eating fewer high fat and high calorie foods.
- Losing at least 5%-7% of body weight, if overweight or obese.
- Being physically active for 150 minutes every week.

How Well Are Women At High Risk for Diabetes Doing?

A study of women at high risk for diabetes indicated that¹³

Physical Activity

- Only 1 of 4 women at high risk for diabetes reported that they exercised 150 minutes of moderate-intensity activity (such as walking) per week.
- No evidence was found that women at high risk for diabetes of different races/ethnicities, educational attainment, or household income differed in how likely they were to be physically active for 150 minutes per week.

Healthy Eating

- 90% of obese Mexican American women with high cholesterol reported that they were advised by their health care provider to eat fewer high-fat or high cholesterol foods; only 78% of non-Hispanic whites were given the same advice.
- There were no significant differences by education among obese women who were given advice about eating fewer high-fat or high-cholesterol foods.
- Only 76% of obese women with middle income (200%–399% of Federal Poverty Level [FPL]) reported that they received advice to eat fewer high-fat or high cholesterol foods; 82% of high income (400% or more FPL) obese women reporting that they received this advice.



Weight Loss

- Only 50% of non-Hispanic black and Mexican American women at high risk for diabetes reported trying to lose weight in the past 12 months compared to 60% of non-Hispanic white women at high risk for diabetes.
- Women at high risk for diabetes with a high school education (57%) or less (47%) were less likely than women at high risk for diabetes with more than a high school education (63%) to report that they tried to lose weight in the past 12 months.
- 1 of 2 women at high risk for diabetes who were near poor (100%–199% FPL) or poor (<100% FPL) reported trying to lose weight in the past 12 months; whereas 1 of 3 women from high income families reported trying to lose weight in the past 12 months.

To Learn More about Diabetes, Physical Activity, Healthy Eating, and Weight Loss, Please Visit the Following Web Sites:

Diabetes

Centers for Disease Control and Prevention
National Diabetes Education Program
American Diabetes Association

Physical Activity

Physical Activity: How Much Physical Activity do you Need?

Healthy Eating

Nutrition for Everyone

Weight Loss

Healthy Weight: It's Not a Diet, It's a Lifestyle

¹Centers for Disease Control and Prevention. National Diabetes Fact Sheet: National Estimates and General Information on Diabetes and Prediabetes in the United States, 2011. Atlanta, GA: US Department of Health and Human Services; 2011.

²Hunt KJ, Schuller KL. The increasing prevalence of diabetes in pregnancy. *Obstet Gynecol Clin North Am.* 2007;34:173-199.

³Dabelea D, Crume T. Maternal environment and the transgenerational cycle of obesity and diabetes. *Diabetes Care.* 2011;60:1849-1855.

⁴Kitzmler JL, Dang-Kilduff L, Taslimi MM. Gestational diabetes after delivery: short-term management and long-term risks. *Diabetes Care.* 2007;30:S225-S235.

⁵Cowie CC, Rust KF, Ford ES, et al. Full accounting of diabetes and prediabetes in the U.S. population in 1988–1994 and 2005–2006. *Diabetes Care.* 2009;32:287-294.

⁶US Department of Commerce. Age and Sex Composition: 2010. Washington, DC: US Census Department; 2010. Issued May 11. Available at: <http://www.census.gov/prod/cen2010/briefs/c2010br-03.pdf>.

⁷Centers for Disease Control and Prevention. *Diabetes Report Card 2012: National and State Profile of Diabetes and its Complications.* Atlanta, GA: US Department of Health and Human Services; 2012.

⁸American Diabetes Association. Standards of medical care in diabetes—2012. *Diabetes Care.* 2012;35(Suppl 1):S11-S63.

⁹Saito T, Watanabe M, Nishida J, et al. Lifestyle modification and prevention of type 2 diabetes in overweight Japanese with impaired fasting glucose levels. *Arch Intern Med.* 2011;171:1352-1360.

¹⁰Diabetes Prevention Program Research Group. Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. *NEJM.* 2002; 346: 393-403.

¹¹Pan XR, Guang-Wei L, Ying-Hua H, et al. Effect of diet and exercise in preventing NIDDM in people with impaired glucose tolerance: the Da Qing IGT and diabetes study. *Diabetes Care.* 1997; 20:537-544.

¹²Tuomilehto J, Lindström. Prevention of type 2 diabetes mellitus by changes in lifestyle among subjects with impaired glucose tolerance. *NEJM.* 2001; 344:1343-1349.

¹³U.S. Department of Health and Human Services. Women at High Risk for Diabetes: Access and quality of health care, 2003–2006. Agency for Healthcare Research and Quality and Centers for Disease Control and Prevention. 2011. AHRQ Publication No. 11-002.

Did You Have Gestational Diabetes When You Were Pregnant?

What You Need to Know.

Some women get diabetes when they are pregnant. Doctors call this gestational (jes-TAY-shun-al) diabetes. Most of the time, it goes away after your baby is born. Even if the diabetes goes away, you still have a greater chance of getting diabetes later in life. Your child may also have a greater chance of being obese and getting type 2 diabetes later in life. Use this tip sheet to learn what you can do for yourself and your child.

Action steps for you

Get tested for diabetes:

- ▶ Get tested for diabetes 6 to 12 weeks after your baby is born. If the test is normal, get tested every 3 years. If the test results show that your blood sugar (glucose) is higher than normal but not high enough to be diabetes, also called prediabetes, get tested for diabetes every year.
- ▶ Talk to your doctor about your test results and what you can do to stay healthy.
- ▶ If your test results show that you could get diabetes and you are overweight, ask your doctor about what changes you can make to lose weight and for help in making them. You may need to take medicine such as metformin to help prevent type 2 diabetes.



National Diabetes Education Program

A program of the National Institutes of Health and the Centers for Disease Control and Prevention

Change the foods you eat and be more active:

- ▶ Choose healthy foods such as:
 - fruits that are fresh, frozen, or canned in water
 - lean meats, chicken and turkey with the skin removed, and fish
 - skim or low-fat milk, cheese, and yogurt
 - vegetables, whole grains, dried beans, and peas
- ▶ Drink water instead of juice and regular soda.
- ▶ Eat smaller amounts of food to help you reach and stay at a healthy weight. For example, eat a 3-ounce hamburger instead of a 6-ounce hamburger. Three ounces is about the size of your fist or a deck of cards.
- ▶ Be more active each day. Try to get at least 30 minutes of activity, 5 days a week. It is okay to be active for 10 minutes at a time, 3 times a day. Walk with friends, swim, or garden to move more.
- ▶ Try to get back to a healthy weight. Talk to your health care team about a plan to help you lose weight slowly. Being at a healthy weight can help reduce your chances of getting type 2 diabetes.

Other action steps

- ▶ Tell your doctor or health care team if:
 - you had gestational diabetes
 - you want to get pregnant again
- ▶ Breastfeed your baby to help you lose weight and improve your child's health.
- ▶ Make sure your history of gestational diabetes is in your child's health record.



Action steps for the whole family

- ▶ Ask your doctor for an eating plan that will help your children grow and be at a healthy weight.
- ▶ Help your children make healthy food choices.
- ▶ Help your children be active for at least 60 minutes each day.
- ▶ Do things together as a family, such as making healthy meals or playing active games together.
- ▶ Limit your kids' play time in front of the computer, tablets, smartphones, and TV to 2 hours per day.
- ▶ Contact your local parks department or local health department to learn where you can find safe places to be active and get healthy foods.



Things to remember:

- ▶ Get tested for diabetes 6 to 12 weeks after your baby is born.
- ▶ Take steps to lower your chances of getting diabetes by being more active and making healthy food choices to get back to a healthy weight.
- ▶ Help your children be healthy and lower their chances of getting type 2 diabetes.

National Diabetes Education Program

1-888-693-NDEP (1-888-693-6337), TTY: 1-866-569-1162 • www.YourDiabetesInfo.org

Francine R. Kaufman, MD, Professor Emeritus of Pediatrics and Communications at the University of Southern California and attending physician at Children's Hospital Los Angeles reviewed this material for accuracy.

The U.S. Department of Health and Human Services' National Diabetes Education Program (NDEP) is jointly sponsored by the National Institutes of Health (NIH) and the Centers for Disease Control and Prevention (CDC) with the support of more than 200 partner organizations.



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Revised April 2014

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Prediabetes Data Summary

Diabetes is the 6th leading cause of death among adults and over 800,000 people live with diabetes in Georgia.¹ Individuals with prediabetes have an increased risk of developing Type 2 diabetes, heart disease and stroke. Moreover, individuals with prediabetes often possess cardiovascular risk factors such as hypertension, obesity and high cholesterol. Prediabetes almost always occurs among individuals who eventually develop Type 2 diabetes.² In Type 2 diabetes, the body does not use insulin properly which causes blood glucose (sugar) levels to be higher than normal. Approximately 450,000 adults in Georgia have prediabetes.

Prediabetes (also known as borderline diabetes) is a medical condition that occurs when blood glucose levels are higher than normal, but are not high enough to be diagnosed as diabetes.³ Test results among individuals diagnosed with prediabetes include:

- A1C test value: 5.7% - 6.4%
- Impaired fasting blood glucose (IFG) levels: 100-125 mg/dl OR
- Two- hour Oral Glucose Tolerance Test (OGTT) value: 140 mg/dl – 199 mg/dl

Making healthy lifestyle choices, such as eating healthy foods, being physically active and maintaining a healthy weight, may help to bring blood glucose (sugar) levels down to normal and decrease the risk of developing Type 2 diabetes

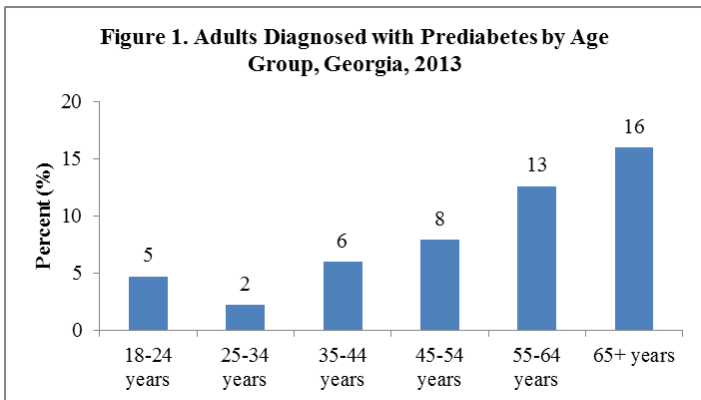


Table 1. Demographic Characteristics among Prediabetics, Georgia, 2013

| Demographic Characteristics | Percent (%) | 95% CI |
|-----------------------------|-------------|-------------|
| State Total | 7.9 | (7.2, 8.9) |
| Sex | | |
| Male | 7.8 | (6.8, 9.5) |
| Female | 7.9 | (6.9, 9.1) |
| Race/Ethnicity | | |
| White Non-Hispanic | 8.3 | (7.4, 9.4) |
| Black Non-Hispanic | 8.4 | (6.7, 10.4) |
| Annual Income | | |
| Less than \$15,000 | 6.4 | (4.5, 8.9) |
| \$15,000-\$24,999 | 7.4 | (5.7, 9.6) |
| \$25,000-\$34,999 | 9.5 | (6.9, 13.0) |
| \$35,000-\$49,999 | 7.4 | (5.5, 9.9) |
| \$50,000-\$74,999 | 8.3 | (6.1, 11.1) |
| \$75,000 or More | 7.8 | (6.2, 9.8) |
| Education | | |
| Less than High School | 5.8 | (4.1, 8.1) |
| High School Graduate | 8.9 | (7.3, 10.7) |
| Some College | 9.4 | (7.8, 11.4) |
| College Graduate | 6.7 | (5.6, 8.1) |
| Health Coverage | | |
| Has Health Insurance | 9.1 | (8.1, 10.1) |
| No Health Insurance | 4.4 | (3.0, 6.2) |

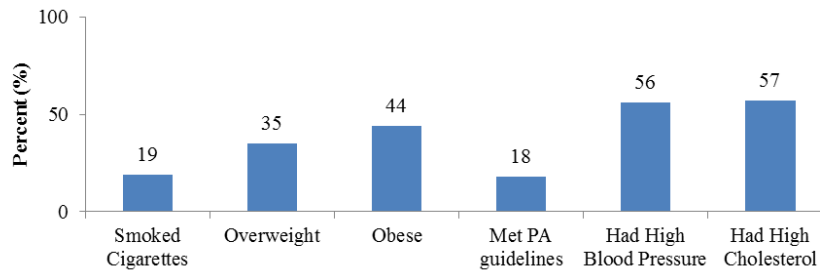
In Georgia during 2013:

- The prevalence of prediabetes was similar among males and females (Figure 1)
- Prediabetes prevalence was similar among non-Hispanic White and non-Hispanic Black adults
- Prediabetes prevalence was highest among adults 65 years and older compared to all other age groups
- Prediabetes prevalence was highest among adults with some form of health insurance (Table 1)
- The prevalence of prediabetes was similar across all income (annual) and education levels



Prediabetes

Figure 2. Common Prediabetes Risk Factors among Adult Prediabetics, Georgia, 2013



High cholesterol is the most common risk factor among Georgia adults with prediabetes

In Georgia during 2013:

- **More than one-half (57 percent) adults with prediabetes also had high cholesterol**
- 56 percent of adults with prediabetes also had high blood pressure
- Majority of adult prediabetics were either overweight (35 percent) or obese (44 percent)
- The smoking prevalence among adult prediabetics was 19 percent*
- Only 18 percent of adult prediabetics met the federal physical activity guidelines** for adults

The prevalence of prediabetes among adults varies among regions of the state

Distribution of Prediabetes (2012-2013)

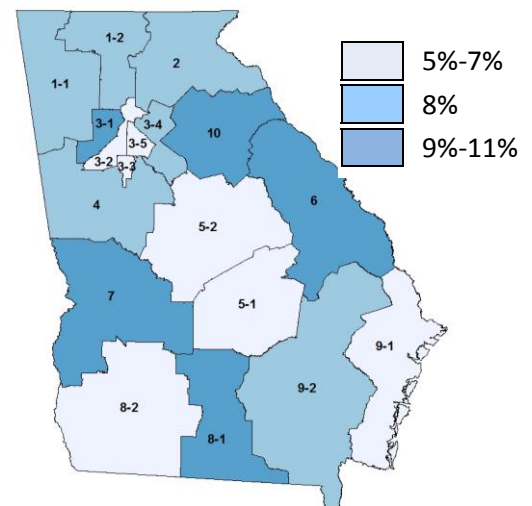
Prediabetes prevalence among adults was highest in the following Public Health Districts:

- 10 Northeast Health District (Athens)
- 7 West Central Health District (Columbus)
- 8-1 South Health District (Valdosta)
- 6 East Central Health District (Augusta)

Prediabetes prevalence among adults was lowest in the following Public Health Districts:

- 8-2 Southwest Health District (Albany)
- 3-2 Fulton Health District
- 5-2 North Central Health District (Macon)
- 3-3 Clayton County Health District (Jonesboro)
- 9-1 Coastal Health District (Savannah)

Map 1. Prevalence of Prediabetes among Adults, by Public Health District, Georgia, 2012-2013



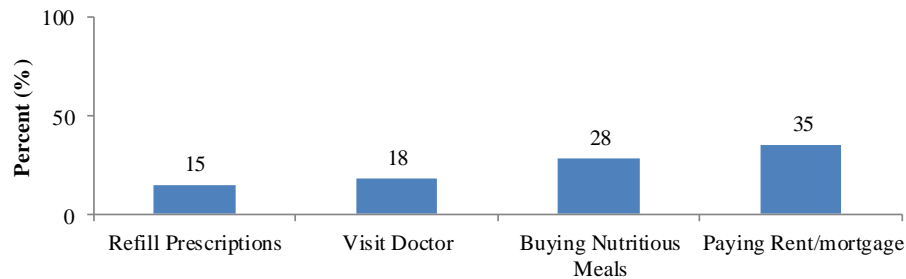
*The 2014 Surgeon General's Report states that smoking is a known risk factor for diabetes⁴

**2008 Physical Activity Guidelines for Adults⁵

2 hours and 30 minutes (150 minutes) of moderate-intensity aerobic activity (i.e., brisk walking) every week and muscle-strengthening activities on 2 or more days a week that work all major muscle groups (legs, hips, back, abdomen, chest, shoulders, and arms) **OR** 1 hour and 15 minutes (75 minutes) of vigorous-intensity aerobic activity (i.e., jogging or running) every week and muscle-strengthening activities on 2 or more days a week that work all major muscle groups (legs, hips, back, abdomen, chest, shoulders, and arms) **OR** An equivalent mix of moderate- and vigorous-intensity aerobic activity and muscle-strengthening activities on 2 or more days a week that work all major muscle groups (legs, hips, back, abdomen, chest, shoulders, and arms)

Prediabetes

Figure 3. Economic Constraints* among Adult Prediabetics, Georgia, 2013



Approximately 18 percent of adults with prediabetes did not see a physician due to cost.

Economic Constraints*

Among adults with prediabetes in Georgia (2013):

- 15 percent reported they did not fill or take their medication as prescribed due to cost
- **18 percent reported they did not see a doctor due to cost**
- 28 percent reported they were worried about having enough money to buy nutritious meals
- **Over one-third (35 percent) reported they were worried about having enough money to pay rent/mortgage**

*Economic constraints is defined as 1) cost being the reason for not refilling prescriptions or seeing a doctor or 2) worrying about having enough money to buy meals or pay rent/mortgage

References

1. Vital Records Program, Georgia Department of Public Health, 2013.
2. National Center for Chronic Disease Prevention and Health Department (2014). National Diabetes Report Available at <http://www.cdc.gov/diabetes/pubs/statsreport14/national-diabetes-report-web.pdf>
3. American Diabetes Association (ADA) Standards of Medical Care in Diabetes-2014. Available at: http://care.diabetesjournals.org/content/37/Supplement_1/S14.full.pdf+html
4. U.S Department of Health and Human Services (2014). Surgeon General Report. Available at: <http://www.surgeongeneral.gov/library/reports/50-years-of-progress/index.html>
5. Centers for Disease Control and Prevention (2014). 2008 Physical Activity Guidelines for Adults, available at: <http://www.cdc.gov/physicalactivity/everyone/guidelines/index.html>

Data Source: Georgia Behavioral Risk Factor Surveillance Survey (BRFSS), 2013

(ATTACHMENT G)

Questionnaire for Prevent Diabetes Class

1. Women are at high risk for developing diabetes with the following (select all correct answers):
 - A. Walking for 30 minutes 5 days a week.
 - B. Family history of Type 2 Diabetes
 - C. Had a baby who weighed more than 9 pounds or had gestational diabetes
 - D. Have high blood pressure
 - E. Are overweight (BMI > 25 kg/m²)
2. What is pre-diabetes?
 - A. It means you will never have any other type of diabetes.
 - B. It means you have a blood sugar level that is higher than normal but not high enough to say you have diabetes. You are at a higher risk for developing type 2 diabetes.
3. Is there any way to prevent or delay the onset of diabetes? (select all correct answers)
 - A. Yes. One hundred and fifty minutes per week of exercise may prevent or delay type 2 diabetes for adults at high risk of developing diabetes
 - B. No. There is nothing you can do
 - C. Yes. Loosing 5 to 7 percent of your weight for an overweight person may prevent or delay the onset of diabetes
- 4.) Choose the diet changes from the list below that can help prevent developing type 2 Diabetes (Select all correct answers):
 - A. Make half your plate fruits and vegetables
 - B. Eat more whole grains
 - C. Drink more juice and less water
 - D. Eat fried foods daily
 - E. Eat smaller portion sizes than usual
 - F. Drink whole milk
- 5.) Do you have to join a gym to get enough physical activity to be healthier?
 - A. Yes. You have to get a 1 year gym membership.
 - B. No. There are many things you can do to be more physical activity. Things such as walking, swimming, biking, or dancing any activity that keeps you moving for 30 minutes five days a week.
- 6.) What should a woman who is pregnant with diabetes do? (Select all correct answers)
 - A. Follow the healthy plan for eating and blood sugar numbers she made with her health care team
 - B. Talk with her doctor about the best kind of activity she can do to get to 150 minutes per week.
 - C. If on insulin, use it as directed by her doctor. Insulin will not harm her baby.
 - D. Eat WIC foods within her healthy eating plan.
 - E. Exclusively breastfeed her baby until the baby is 6 months, and continue to breastfeed while the baby is being introduced to complementary foods
- 7.) A pregnant mom who has just been diagnosed with gestational diabetes asks you if she can drink her WIC Juice on her diet plan. What is the best answer?
 - A. I will think if that is within my scope of practice. If it is not, I will refer her to someone in my clinic who can answer her question, or I will refer her back to her doctor.

- B. I will tell her that she should talk to her doctor.
- C. WIC Juice is 100% fruit so it can be included in a person with gestational diabetes' diet.

8.) The diet and behavior recommendations to prevent diabetes is safe for everyone to follow.

- A. True
- B. False

9.) Which of the following can be used to get **at least 150 minutes** of physical activity per week? (select all the correct answers)

- A. Walk for 10 minutes, 3 times a day, for 5 days each week.
- B. Put the dishes in the dishwasher after every meal.
- C. Dance in my living room for 30 minutes 5 days each week.
- D. Play tennis for 30 minutes on Monday & Tuesday, and Walk for 30 minutes every other day of the week.
- E. Watch TV with my children 30 minutes every day.

Look through the Healthy Foods A to Z book. Name one of each food type listed below and a fast nutrition fact about it. Examples: Beets are a vegetable that has vitamins, mineral and fiber. Melons are a fruit that is loaded with vitamin A.

10.) Vegetable _____

11.) Fruit _____

12.) Whole Grain _____

13.) Milk _____

14.) Legume _____

Completing this activity is worth 1 Nutrition Specific CEU:

- Read the class
- Read the professional development backgrounder
- Read the fact sheets
- Test completed (80% test score required)

I certify that I personally completed this activity:

_____ Print Name/Print Title/Signature/Date

Correct _____ /14 = _____

Scored by _____ Print Name/Print Title/Signature/Date

(ATTACHMENT I)

Group Secondary Education Lesson Plan

Target Group:

- All Georgia WIC clients attending low risk secondary education class

Objectives

- Educate clients about diabetes prevention through healthy foods
- Encourage language nutrition through the use of the following nutrition education materials:
 - ✓ Healthy Foods A to Z
 - ✓ Class Discussion

Outcome:

- Clients will state one healthy lifestyle habit that can help prevent diabetes for some people.

Welcome:

Say hello to everyone, introduce self, and topic.

For example:

“Welcome to WIC. What have you hear about Diabetes?”

- Diabetes can cause blindness, kidney failure, heart disease, stroke and the loss of toes, feet or legs
- Up to 30 % of people with pre-diabetes will develop permanent diabetes within 5 years if they don't get moderate physical activity and lose some weight
- About half of all women who have gestational diabetes, the kind that occurs only during pregnancy, will develop permanent diabetes later in life if they don't choose a healthier lifestyle.
- Approximately 450,000 adults in Georgia have pre-diabetes and 800,000 people live with Diabetes in Georgia
- The majority of adults with pre-diabetes in Georgia are overweight or obese.

Today we are going to have some fun learning about ways to be healthier and prevent Diabetes. I want to start with this book that you can leave with today. I hope that you will join me in learning today.”

Ice breaker (Choose one of the activities below):

Activity One

Using the “Healthy Foods A to Z” book, choose a picture and ask clients what they see:

- Clients may name a food they see pictured
- Clients may name the colors or the textures they see
- Clients may say: “I see a funny lady”; or “I see a tiger”
- Clients may tell a story: “I see a lady who is afraid because of the tiger.”

Praise and encourage responses and imagination; limit judgment calls about what the participant sees.

Activity Two

Choose some of the more unknown foods pictured in the book and see if participants can name them. Try to get a couple of back and forth dialogues with participants (more if the activity is generating interest).

Summarize whichever activity you chose

What we did today just now with this book is something you can do at home with your family. It is what we call Language Nutrition. It is reading, talking and imagining with your children along with a little back and forth. It is a way children can develop more words; it is also a way to introduce them to new foods. They might be more willing to try something that is in a favorite book that they have enjoyed with you.

Primary Education:

Now I want to do another activity using your own family copy of the book. (Pass out the book with one book per family).

November is Prevent Diabetes Month. Georgia WIC wants to make sure your family has the information you need to eat healthier and help prevent diabetes. **Luckily even if you are not at risk for diabetes,** the diet that you follow to prevent diabetes is the same diet as a healthy diet for everyone.

Using the book (Select at least three of the below food groups to discuss):

Food Group One:

Find a whole grain in the book; name it.

Message: whole grains have more fiber; fiber adds bulk without calories. This means it fills you up for a longer time. This means you might not get hungry as fast. (Fiber can also help you stay regular.) Most babies from the age of 8-9 months or when they start eating with their fingers can eat whole grains. Make sure that you break apart any large nuts, seeds or skins.

Sample Facilitated Discussion Question: What are some of the WIC foods that are whole grains?

Food Group Two:

Find a picture of a glass of milk in the book, name it.

Message: A low-fat eating plan can help prevent diabetes; low-fat and skim milk have protein, calcium and potassium and little fat. This means that low-fat milk is can help healthy growth. Remember, the 1-2 year olds still need the fat from whole milk, and babies should not have cow's milk until they are 1 year old; breastfeeding should be their exclusive source of food until 6 months of age.

Sample Facilitated Discussion Question: How do you use milk in your meal plan?

Food Group Three:

Find a picture of a fruit or vegetable in the book, name it.

Message: Many fruits and vegetables are loaded with fiber, vitamins and minerals in a low-fat and low calorie package. If you are trying to maintain a healthy lifestyle, remember to make half your plate fruits and/or vegetables.

Sample Facilitated Discussion Question: What are your favorite vegetables?

Food Group Four:

Find a picture with an egg, name it.

Message: Eggs can be part of a healthy diet. The fat in eggs is a healthier fat. They have protein, and protein can help you feel fuller longer; this means you might be less likely to over-do the amount that you are eating. This can help you maintain or lose weight.

Food Group Five:

Find a picture with a legume, name it.

Message: Legumes are a good source of protein and fiber. This means as part of a healthy diet they will help you feel fuller longer. Legumes are also called beans like pinto beans. If babies and toddlers are eating beans make sure they are soft with the outer skin broken.

Sample Facilitated Discussion Question: I like legumes in chili, how do you like them?

Evaluation

After today's class, what might you do differently to have a healthier family and help prevent diabetes?
(Many answers would be acceptable – examples below)

- I am going to read to my child
- I am going to tell stories with the pictures in this book
- I am going to try some of the foods in the book
- I am going to add low-fat milk to my diet
- I am going to add legumes to my salads

Individual Secondary Education

Target Group:

- All Georgia WIC clients attending low risk secondary education individual

Objectives

- Educate clients about diabetes prevention through healthy foods
- Encourage language nutrition through the use of the following nutrition education materials:
 - ✓ Healthy Foods A to Z
 - ✓ Patient centered Education

Outcome:

- Clients will state one healthy lifestyle habit that can help prevent diabetes for some people.

Welcome:

Greet and introduce self.

For example: "Welcome to WIC. My name is _____. How are you doing today? (Critical Thinking: Identify if any WIC or Nutrition Concerns exist; can you, within your scope of practice, address the concerns? – Address or Refer).

What nutrition, physical activity or WIC question would you like to talk about?

- Await an answer - Critical Thinking: can you, within your scope of practice, address the topic? – Address or Refer.
- If No response – Ask Permission to share information – It is National Diabetes Awareness Month and I would love to talk with you about preventing Diabetes. Would that be okay?
 - If Yes – Use Healthy Foods A to Z individual lesson
 - If No – How about we talk about a Strong 4 Life Healthy Habit?
 - If Yes – Use Healthy Foods A to Z Strong 4 Life lesson
 - If No – How about we talk about increasing fruits and vegetables in your family's diet?
 - If Yes – Complete Fruit and Veggies lesson plan from Strong 4 Life.
 - If No – It sounds like you are not interested in Nutrition and Physical Activity information from Georgia WIC. We are a healthy foods program, so I hope at a future date you will be interested in information from us. (DO NOT OFFER A BOOK – EVEN IF YOU DO TALK WITH ME BABY – **BOOKS DISTRIBUTED THROUGH GEORGIA WIC MUST INCLUDE NUTRITION, PHYSICAL ACTIVITY OR BREASTFEEDING EDUCATION.**)

“Healthy Foods A to Z” & Prevent Diabetes individual lesson

What have you heard about Diabetes?

Diabetes can cause blindness, kidney failure, heart disease, stroke and the loss of toes, feet or legs

- Up to 30 % of people with pre-diabetes will develop permanent diabetes within 5 years if they don't get moderate physical activity and lose some weight
- About half of all women who have gestational diabetes, the kind that occurs only during pregnancy, will develop permanent diabetes later in life if they don't choose a healthier lifestyle.
- Approximately 450,000 adults in Georgia have pre-diabetes and 800,000 people live with Diabetes in Georgia
- The majority of adults with pre-diabetes in Georgia are overweight or obese.

November is Prevent Diabetes Month. Georgia WIC wants to make sure your family has the information you need to eat healthier and help prevent diabetes. **Luckily even if you are not at risk for diabetes,** the diet that you follow to prevent diabetes is the same diet as a healthy diet for everyone.

Using the book “Healthy Foods A to Z”:

Find a whole grain in the book; name it.

Message: whole grains have more fiber; fiber adds bulk without calories. This means it fills you up for a longer time. This means you might not get hungry as fast. (Fiber can also help you stay regular.) Most babies from the age of 8-9 months or when they start eating with their fingers can eat whole grains. Make sure that you break apart any large nuts, seeds or skins.

Sample Facilitated Discussion Question: What are some of the WIC foods that are whole grains?

Find a picture of a glass of milk in the book, name it.

Message: A low-fat eating plan can help prevent diabetes; low-fat and skim milk have protein, calcium and potassium and little fat. This means that low-fat milk is can help healthy growth. Remember, the 1-2 year olds still need the fat from whole milk, and babies should not have cow's milk until they are 1 year old; breastfeeding should be their exclusive source of food until 6 months of age.

Sample Facilitated Discussion Question: How do you use milk in your meal plan?

Find a picture of a fruit or vegetable in the book, name it.

Message: Many fruits and vegetables are loaded with fiber, vitamins and minerals in a low-fat and low calorie package. If you are trying to maintain a healthy lifestyle, remember to make half your plate fruits and/or vegetables.

Sample Facilitated Discussion Question: What are your favorite vegetables?

Find a picture with an egg, name it.

Message: Eggs can be part of a healthy diet. The fat in eggs is a healthier fat. They have protein, and protein can help you feel fuller longer; this means you might be less likely to over-do the amount that you are eating. This can help you maintain or lose weight.

Find a picture with a legume, name it.

Message: Legumes are a good source of protein and fiber. This means as part of a healthy diet they will help you feel fuller longer. Legumes are also called beans like pinto beans. If babies and toddlers are eating beans make sure they are soft with the outer skin broken.

Sample Facilitated Discussion Question: I like legumes in chili, how do you like them?

Evaluation

What might you do differently to have a healthier family and help prevent diabetes? (Many answers would be acceptable – examples below)

- I am going to read to my child
- I am going to tell stories with the pictures in this book
- I am going to try some of the foods in the book
- I am going to add low-fat milk to my diet
- I am going to add legumes to my salads

Praise and Encouragement

EX. I am so happy that you are thinking about ways you and your family can be healthier. I would like for you to take this book home and read it with your family. With these fun pictures you can all probably come up with lots of great stories. When you read, talk and interact with your baby and children it develops their language. We call it language nutrition. We look forward to seeing you back at Georgia WIC in _____ months for your next _____ visit.

Use “Healthy Foods A to Z” & Strong 4 Life Lesson Booklet

Georgia WIC is working with Strong 4 Life and doctors across the state to have families build healthier habits. Pointing to the Strong 4 Life Healthy Habits poster identify with the participant which one they would like to learn more about.

Make half your plate veggies and fruits, be active, drink more water & limit sugary drinks, limit screen time:

- What made you choose that one?
- What do you know about _____?
- What are you already doing?

Critically Think: What guidance can I offer? Use your Strong 4 Life Class Book to guide you. Any one of the Strong 4 Life topics is an opportunity to use the “Healthy Foods A to Z” book:

- Pictures of veggies and fruits – naming party with the participant, you can help them identify nutrients.
- Pictures of milk & fruits for juice – discuss the variety of ways they already include these foods in the diet; maybe help them identify more ways.
- Alternative to Screen time is reading together and telling stories from the book.
- Talk about the energy the whole foods pictured in the book can lead them to Physical Activity.

Evaluation

What kind of change will you make after talking today? (Many answers would be acceptable – examples below)

- I am going to read to my child every day
- I will turn off the TV every night at 6PM.
- I am going to choose one new food from the “Healthy Foods A to Z” book to try each month.

Praise and Encouragement

EX. I am so happy that you are thinking about ways you and your family can be healthier. I would like for you to take this book home and read it with your family. With these fun pictures you can all probably come up with lots of great stories. When you read, talk and interact with your baby and children it develops their language. We call it language nutrition. We look forward to seeing you back at Georgia WIC in _____ months for your next _____ visit.