FEEDING AMERICA®

ADDRESSING FOOD INSECURITY AND DIABETES PREVENTION:

RESOURCES AND TOOLS FOR SUCCESS

CONTENTS

INTRODUCTION

Rates of diabetes have risen dramatically over the last several decades. Diabetes is now the 3rd leading cause of death[1] in the U.S. and has become a tremendous public health problem. The Centers for Disease Control reports[2] over 30.3 million Americans have diabetes. An additional 84.1 million adults—more than 1 out of 3—are living with prediabetes, and 9 out of 10 people with prediabetes are not aware they have it. Prediabetes significantly increases a person's risk for type 2 diabetes, but participation in a Diabetes Prevention Program is effective in reducing risk and preventing or delaying diabetes onset. Research indicates[3] that food insecure adults are at increased risk for chronic diseases like hypertension, prediabetes and type 2 diabetes.

30.3 MILLION
People have diabetes

84.1 MILLION
People have prediabetes

9 OUT OF 10
people with prediabetes are not aware they have it.

Feeding America is committed to improving food security and diet quality for the people we serve, and we recognize that the cycle of food insecurity, poor health and chronic disease create enormous challenges for families.

In order to better understand how food banks can support people with prediabetes, Feeding America conducted a diabetes prevention pilot project with the Alameda County Community Food Bank (ACCFB) in Oakland, CA from 2017-2019. The pilot project included implementation and evaluation of key activities: screening food bank clients for prediabetes risk; providing 12-months of healthy, supplemental food; referring clients to formal, community-based Diabetes Prevention Programs (DPP) and healthcare providers; and providing text-based health education and program information.

Feeding America and ACCFB identified several important learnings over the course of the project. This document outlines results from the pilot project and identifies key resources and considerations for food banks working to address prediabetes in their communities.

The pilot project included implementation and evaluation of key activities:

1. Screening food bank clients for prediabetes risk
2. Providing 12-months of healthy, supplemental food (in addition to "regular" pantry services)
3. Referring clients to formal, community-based Diabetes Prevention Programs (DPP) and healthcare providers
4. Providing text-based health education and program information

1 Stokes A, Preston SH. Deaths Attributable to Diabetes in the United States: Comparison of Data Sources and Estimation Approaches. PLOS ONE. 2017;12(1): e0170219. https://doi.org/10.1371/journal.pone.0170219

2 CDC National Diabetes Statistics Report, 2017. http://www.diabetes.org/assets/pdfs/basics/cdc-statistics-report-2017.pdf

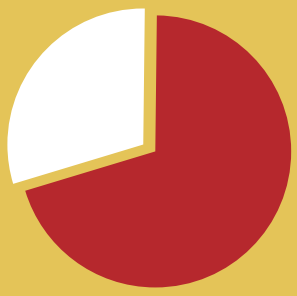
3 Seligman HK, Laraia BA, Kushel MB. Food Insecurity Is Associated with Chronic Disease among Low-Income NHANES Participants. J Nutr. 2010;140(2): 304–310.

DIABETES PREVENTION PILOT PROJECT: RESULTS

DIABETES PREVENTION PILOT PROJECT (2017-19)

Number of adults screened for prediabetes:

422



70.9%
of those screened were at high risk

249
Enrolled in Pilot

Mean age: **48.5**
90.6% Female
80.1% Latino/a

PILOT PROJECT RESULTS AND OBSERVATIONS

Participants in the pilot had significant improvements in:

- **Food Security Status**
- **Health Status**
- **Physical Activity**
- **Dietary Intake**

- ☑ Diabetes risk was exceptionally high among this population of adults accessing food bank services
- ☑ Food banks can successfully implement programming that addresses diabetes risk factors
- ☑ Clients reported a high level of satisfaction with project elements
- ☑ Connecting clients to Diabetes Prevention Programs is possible, but requires strong partnerships

NEXT STEPS: FOOD BANKS WORKING TO PREVENT DIABETES

Given the elevated risk for diabetes observed in food-insecure populations, food banks are well positioned to implement programming to address prediabetes in the communities they serve. The following information provides details, resources and considerations for food banks interested in or engaged in this work.

PLANNING A PROGRAM

1. **Identify the need:** review local public health and community data to understand diabetes risk and population health needs

2. **Assess food bank capacity** for initiating programming, developing and maintaining partnerships, and distributing appropriate foods to clients
   - Build internal staff and leadership support for diabetes prevention programming
   - Plan for staffing needs

3. **Identify community partners**
   - Diabetes Prevention Program (DPP) providers
     - › The CDC maintains a registry of in-person and online DPP providers: https://nccd.cdc.gov/DDT_DPRP/Registry.aspx
     - › Some DPP providers (e.g., commercial weight loss programs) may not be appropriate community partners for food banks
   - Local healthcare organizations (for referring clients who are not connected to a healthcare provider)
     - › Develop a basic resource sheet with a listing of community health resources that can be shared with food bank clients
   - Partner agencies and pantry sites that may be available for recruiting clients and hosting group DPP classes

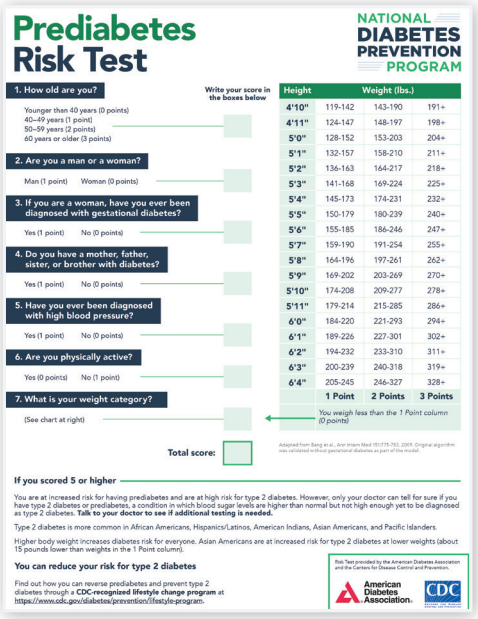
4. **Develop plans** for formal partnership engagement
   - Ensure capacity for partners to conduct DPP classes in the community that meet clients' needs (e.g., location, timing, language, cultural considerations)
     - › Draft partnership documents (MOUs) and data sharing agreements if needed

5. **Identify area or community** to prioritize for programming
   - Start small: plan to begin one cohort (10–15 adults) before expanding
   - Work with DPP providers and agency partners to schedule classes for a full 12-months
     - › Finalize class schedule before beginning outreach
     - › Plan ahead for schedule changes (holidays, planned site closures, etc.)

6. **Develop a community outreach plan**
   - Share information about the project, timeline, components and rationale for why the food bank is addressing prediabetes
   - Include basic information on prediabetes vs. diabetes (the DPP is a program for people at risk—not those with an existing diabetes diagnosis)
   - DPP resources are available at: https://www.cdc.gov/diabetes/prevention/index.html

ASSESSING PREDIABETES RISK

- Prediabetes risk can be assessed by completing a short risk test (accessible at: https://www.cdc.gov/prediabetes/takethetest/)
- Tests can be administered by food bank staff or volunteers, and completed in a few minutes when clients are waiting in line for food
- For clients who screen high on the risk test, determine interest in participating in a DPP and need to connect client with a healthcare provider



Prediabetes Risk Test

NATIONAL DIABETES PREVENTION PROGRAM

1. How old are you? (Write your score in the boxes below)
- Younger than 40 years (0 points)
- 40–49 years (1 point)
- 50–59 years (2 points)
- 60 years or older (3 points)

2. Are you a man or a woman?
- Man (1 point)
- Woman (0 points)

3. If you are a woman, have you ever been diagnosed with gestational diabetes?
- Yes (1 point)
- No (0 points)

4. Do you have a mother, father, sister, or brother with diabetes?
- Yes (1 point)
- No (0 points)

5. Have you ever been diagnosed with high blood pressure?
- Yes (1 point)
- No (0 points)

6. Are you physically active?
- Yes (0 points)
- No (1 point)

7. What is your weight category?
- (See chart at right)

Height	Weight (lbs.)		
	1 Point	2 Points	3 Points
4'10"	119-142	143-190	191+
4'11"	124-147	148-197	198+
5'0"	128-152	153-203	204+
5'1"	132-157	158-210	211+
5'2"	136-163	164-217	218+
5'3"	141-168	169-224	225+
5'4"	145-173	174-231	232+
5'5"	150-179	180-239	240+
5'6"	155-185	186-246	247+
5'7"	159-190	191-254	255+
5'8"	164-196	197-261	262+
5'9"	169-202	203-269	270+
5'10"	174-208	209-277	278+
5'11"	179-214	215-285	286+
6'0"	184-220	221-293	294+
6'1"	189-226	227-301	302+
6'2"	194-232	233-310	311+
6'3"	200-239	240-318	319+
6'4"	205-245	246-327	328+

You weigh less than the 1 Point column (0 points)

Total score:

Adapted from Bang et al., Ann Intern Med 151:775-783, 2009. Original algorithm was validated without gestational diabetes as part of the model.

If you scored 5 or higher

You are at increased risk for having prediabetes and are at high risk for type 2 diabetes. However, only your doctor can tell for sure if you have type 2 diabetes or prediabetes, a condition in which blood sugar levels are higher than normal but not high enough yet to be diagnosed as type 2 diabetes. **Talk to your doctor to see if additional testing is needed.**

Type 2 diabetes is more common in African Americans, Hispanics/Latinos, American Indians, Asian Americans, and Pacific Islanders.

Higher body weight increases diabetes risk for everyone. Asian Americans are at increased risk for type 2 diabetes at lower weights (about 15 pounds lower than weights in the 1 Point column).

You can reduce your risk for type 2 diabetes

Find out how you can reverse prediabetes and prevent type 2 diabetes through a **CDC-recognized lifestyle change program** at https://www.cdc.gov/diabetes/prevention/lifestyle-program.

Risk Test provided by the American Diabetes Association and the Centers for Disease Control and Prevention.

American Diabetes Association. CDC

REFERRING CLIENTS TO DIABETES PREVENTION PROGRAMS

- DPP programs are year-long lifestyle change programs where participants meet weekly for about 6 months, and then 1-2 times a month for 6 months (details at: https://www.cdc.gov/diabetes/prevention/lifestyle-program/lcp-details.html)
- Develop a referral process to help food bank clients enroll and participate in local DPP classes
  - › "Passive" referrals include providing clients with information, handouts, phone numbers, and materials so that clients can reach out to DPP providers to learn more and enroll in a program
  - › "Active" referrals can include the food bank getting client permission to share client information with a DPP provider to support program enrollment; DPP providers can also visit food distributions to enroll eligible clients on-site
- Operating a DPP program can be intense; referring clients to existing community-based DPP providers is likely the most feasible option for food banks to connect clients to DPP programming; some food banks, however, may determine that operating their own DPP should be considered to best meet client needs
  - › Details for operating a DPP program can be found here: https://www.cdc.gov/diabetes/prevention/program-providers.htm

PROVIDING NUTRITIOUS FOOD

- Food banks can work with DPP providers to align food distributions with DPP classes (which may support increased client engagement and retention), or schedule DPP food distributions to occur at times and community locations accessible to DPP participants
- DPP food distributions can be tailored to improve a client's household food security status and support DPP participants in making healthy choices that are appropriate for diabetes prevention
- Key considerations for food banks implementing DPP food programming include:
  - › Timing of food distributions: weekly, bi-weekly, or monthly
  - › Duration of food distributions for participants: 6-months (to align with the core DPP classes), 12 months (to cover an entire DPP program), or a different duration
  - › Plan to include both shelf stable foods (which can be procured, packed, and stored in advance) and perishable products (which may need weekly involvement from food bank operations and programming staff)
  - › Develop diabetes-appropriate food package menus
    - Focus on whole grains, lean proteins, low fat dairy, fresh vegetables and fruits
    - Menus should mirror USDA MyPlate or Feeding America's "Food to Encourage" guidelines
  - › Provide for client choice whenever possible
  - › Provide culturally-appropriate foods
  - › Consider how DPP boxes can build on existing food bank operations
  - › Conduct food demonstrations and tastings to introduce clients to new or unfamiliar items
  - › Include with food distributions: recipes, prediabetes and health hand-outs and information on local healthcare resources

Sample monthly food box menu for a 1-2 person household

(amounts can be increased for larger households, or decreased if distributing food more frequently than monthly):

- (2) 15 oz. can low-sodium green beans
- (2) 15 oz. can low-sodium diced tomatoes
- (1) 15 oz. can peaches in 100% juice
- (1) 2 lb. bag dry black beans
- (1) 2 lb. bag garbanzo beans
- (2) 5 oz. canned chicken
- (1) 18 oz. jar peanut butter
- (2) 1% shelf-stable milk (32 oz.)
- (1) 1 lb. bag whole wheat pasta
- (1) 1 lb. bag oatmeal
- (1) dozen eggs
- (20 pounds) fresh produce: carrots, onions, leafy greens, broccoli, fruit

PROVIDING PROGRAM SUPPORT

- **DPP Class Enrollment**
  - › Have enrollment events take place at food distribution sites; giving clients a number to call, or having clients receive a call from a DPP provider may be less successful
  - › Set the class schedule and times before recruiting clients and have a class calendar available for participants
  - › Host an introductory "Session 0" where DPP providers share program details with eligible clients
- **Address Barriers**
  - › Consider timing, location, weather, transportation, childcare needs, weight of foods, familiarity of ingredients, etc. in planning program activities
  - › Co-locate classes with food distributions when possible
- **Participant Engagement**
  - › Engagement reminders (calls, text messaging) for food distributions and classes are time consuming, but can be very important for increasing or maintaining engagement

LIFESTYLE COACH CONSIDERATIONS FOR FOOD BANK DPPS

Lifestyle coaches are the DPP program staff that conduct classes and support participants in meeting their goals. Food banks should share insights about their client population with lifestyle coaches to ensure program success:

- Clients may be more receptive to and interested in in-person classes (rather than online or "virtual" classes)
- Clients are interested in nutrition and cooking information that is helpful for preparing meals for the entire family; include lots of simple recipes, healthy substitutes and guidance on using unfamiliar items; focus on and do more nutrition label reading exercises
- Develop hands-on, cooperative, communal activities with culturally-relevant food items, handouts, and recipes
- Plan for make-up classes and a need to conduct 1-on-1 outreach for reminders
- Ensure participants are connected to healthcare and encourage them to access primary care services (which may include routine laboratory testing, which provides feedback on health status beyond weight loss)

"The program helped me stay focused on my health and helped me realize what food I'm eating and not eating."

—Oakland pilot project participant

- Encourage participants to share their stories and personal recipes
- Provide incentives such as: measuring cups, mixing utensils, activity trackers, water bottles, slow cooker or crockpot, etc.
- Encourage clients to bring their spouses, partners, or other family members to participate in classes
- Adjust lessons and content to address participants' cultural considerations, needs, and preferences
- While in-person classes may be preferable, online or "virtual" options exist
  - › These options eliminate timing and transportation barriers, but introduce new challenges (technology needs, literacy levels, etc.)
- Emphasize small, positive changes over the long term

EVALUATING SUCCESS

- When planning the program, identify at the outset potential metrics to track, how data will be collected, and what the definition of "success" is for the program
  - › Process measures may include: number of clients screened, number of clients connected to a healthcare provider, number of clients enrolled in or completed a DPP program, food distribution reports, etc.
  - › Outcome measures may include: number of clients that reach DPP milestones (class participation, weight loss, physical activity, etc.), client satisfaction results
- Determine need for data sharing agreements and how DPP providers and other community partners can share program information with the food bank
- Data management: maintaining an effective data management system will reduce errors with tracking client outcomes, help forecast food needs, and facilitate reporting

FUNDING AND SUSTAINABILITY

- DPP programs typically have a cost for participants
- Food banks can support their client population in accessing DPP services by ensuring clients are enrolled in or aware of programs that cover DPP classes as a defined health insurance benefit
  - › Medicare: the Medicare DPP (MDPP) is a covered benefit for individuals enrolled in Medicare part B with no participant cost
  - › Medicaid: several states are including coverage of DPP participation for their Medicaid populations; contact state Medicaid offices to learn more: https://www.medicaid.gov/about-us/contact-us/contact-state-page.html
  - › Private insurance: many private insurance companies now cover DPP costs for their members
- Food banks can also work with local healthcare organizations, community partners, and funders to identify long-term funding solutions to both support food bank DPP programming and potentially off-set DPP participation costs (e.g., by use of grant funds) for food bank clients who are uninsured

CONCLUSION

Food banks are trusted, community-based organizations that serve vulnerable populations at increased risk for health problems and chronic diseases like diabetes. Through education, distribution of nutritious foods, and connecting clients to healthcare resources and prevention programming, food banks can support the people they serve and help promote wellness.

For more information about diabetes prevention and other nutrition and health programming, visit Feeding America's "Hunger and Health" website: https://hungerandhealth.feedingamerica.org/, or contact the Health and Nutrition Team at nutritionteam@feedingamerica.org.

ADDITIONAL RESOURCES

HIPAA Resource:
https://hungerandhealth.feedingamerica.org/resource/hipaa-concerns-protecting-patient-information-affect-partnership/

Feeding America's *Nourish Toolbox*:
https://feedingamerica.sharepoint.com/agencies_programs/chn/Pages/The-Nourish-Toolbox.aspx

Feeding America's *Food Bank—Health Care Partnership Toolkit*:
https://feedingamerica.sharepoint.com/agencies_programs/chn/Pages/Health-Care-Partnerships-and-Intervention-Toolkit.aspx

Hunger and Health – Healthy Recipes:
https://hungerandhealth.feedingamerica.org/healthy-recipes/

MyPlate:
https://www.choosemyplate.gov/

For online DPP resources, go to:
https://nccd.cdc.gov/DDT_DPRP/Registry.aspx and enter "Online or Combination In-person/Online" in the "Show organizations by location (state)" field

National Diabetes Prevention Program Customer Service Center:
https://nationaldppcsc.cdc.gov/s/

American Diabetes Association:
http://diabetes.org/

American Association of Diabetes Educators:
https://www.diabeteseducator.org/

National Diabetes Prevention Program Coverage Toolkit:
https://coveragetoolkit.org/

Solera Integrated Health Network:
https://soleranetwork.com/

HealthSlate:
http://healthslate.com/

CareMessage:
https://www.caremessage.org/

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ALAMEDA COUNTY COMMUNITY FOOD BANK

"I'm very thankful for this project. It has benefited me, and I hope it's something that can be continued for others to benefit."

—Oakland pilot project participant

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