



The Impact of Nutrition on Diabetes Prevention and Diabetes Management

NCHPA
National Center for Health in Public Housing
a project of North American Management

April 23, 2020



MUTE



CHAT

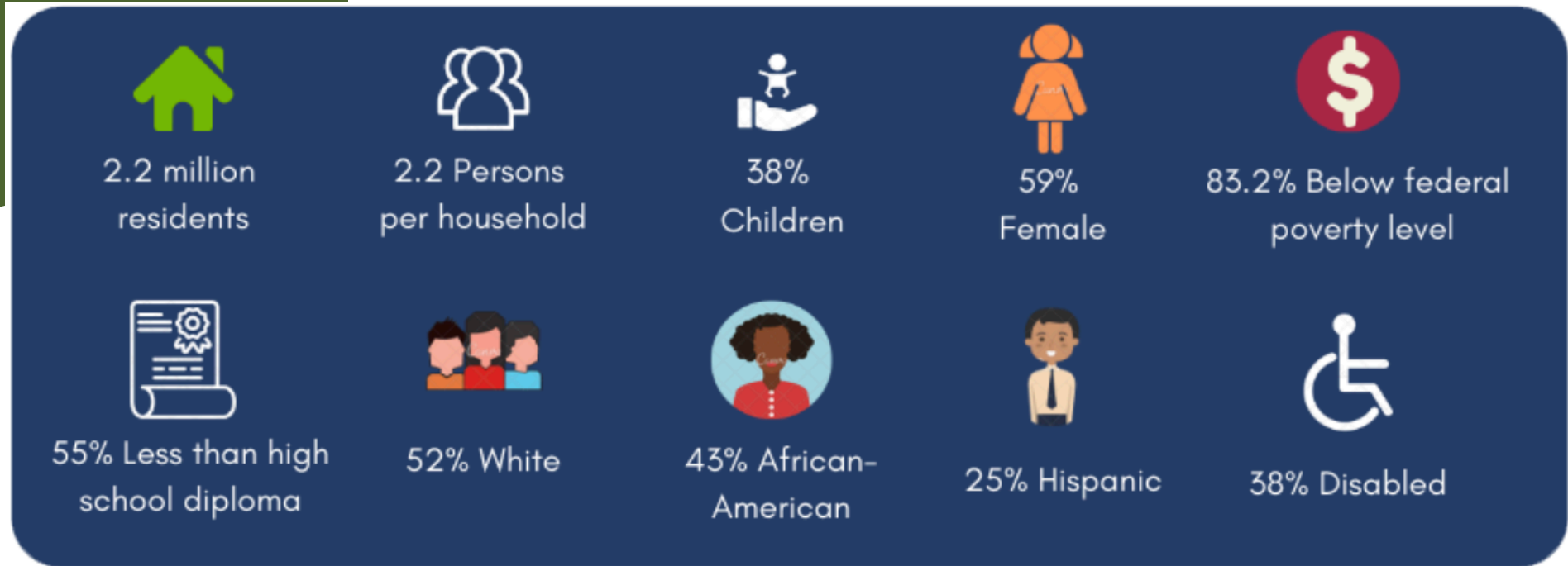


RAISE HAND



Q&A

Public Housing Demographics



Source: HUD

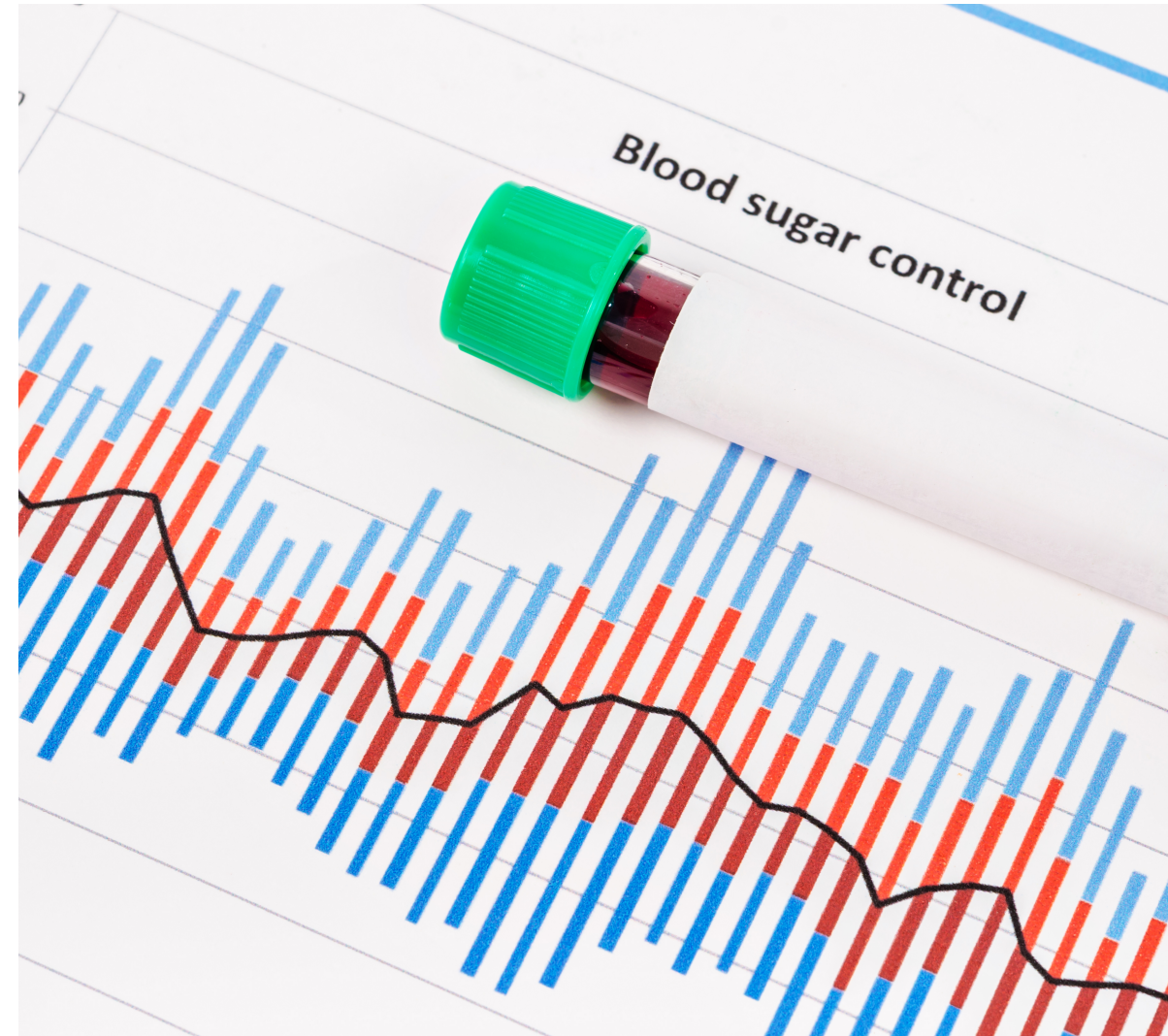
Diabetes in Health Centers

A little over 9% of health center (HC) patients have diabetes

32.79% of HC patients have Poorly Controlled Hemoglobin A1c (HbA1c > 9%)

15% of Public Housing Grantee patients have diabetes

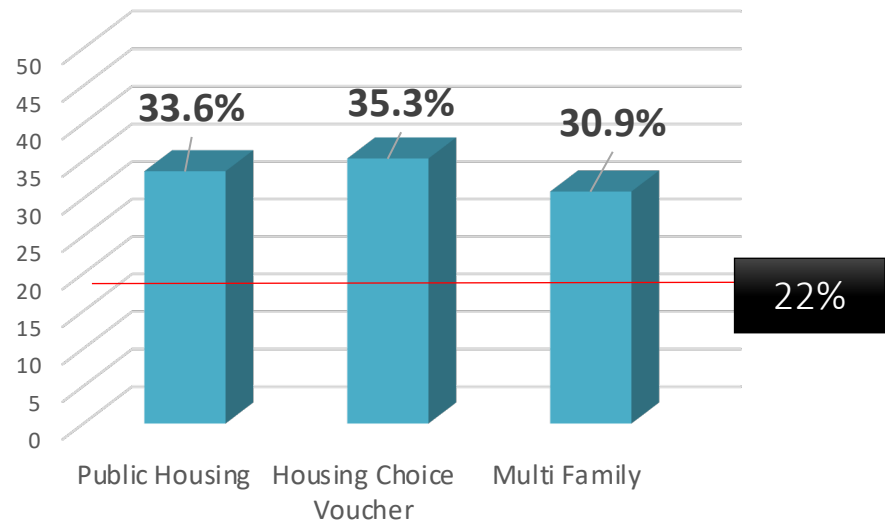
Source: UDS



A Health Picture of HUD-Assisted Adults, 2006-2012

Adults in HUD-assisted housing have higher rates of chronic health conditions and are greater utilizers of health care than the general population. * Updated version expected in Summer 2020

Adult Smokers with Housing Assistance



Source: Helms VE, 2017

	HUD-Assisted	Low-income renters	All Adults
Fair/Poor Health	35.8%	24%	13.8%
Overweight/Obese	71%	60%	64%
Disability	61%	42.8%	35.4%
Diabetes	17.6%	8.8%	9.5%
COPD	13.6%	8.4%	6.3%
Asthma	16.3%	13.5%	8.7%



Today's Speakers:

- Shamera Robinson, MPH, RDN, CDCES

Director of Nutrition

- Jo Mandelson, MS, RDN
Registered Dietitian Nutritionist
and the Associate Director of Nutrition

Medical Nutrition Therapy in Diabetes:
A Review of the New Consensus Report by the
American Diabetes Association



Shamera Robinson

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Jo Mandelson

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Associate Director, Nutrition
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Learning Outcomes



Discuss misconceptions and understand macronutrient needs of people with diabetes.



Explain the major changes in nutrition guidance from ADA and describe how to address changes to nutrition guidance in real life settings.



Apply current nutrition-related evidence in clinical practice.



Identify key resources and evidence-based guidance to provide nutrition education for PWD.

ADA Nutrition Consensus Report

Diabetes Care

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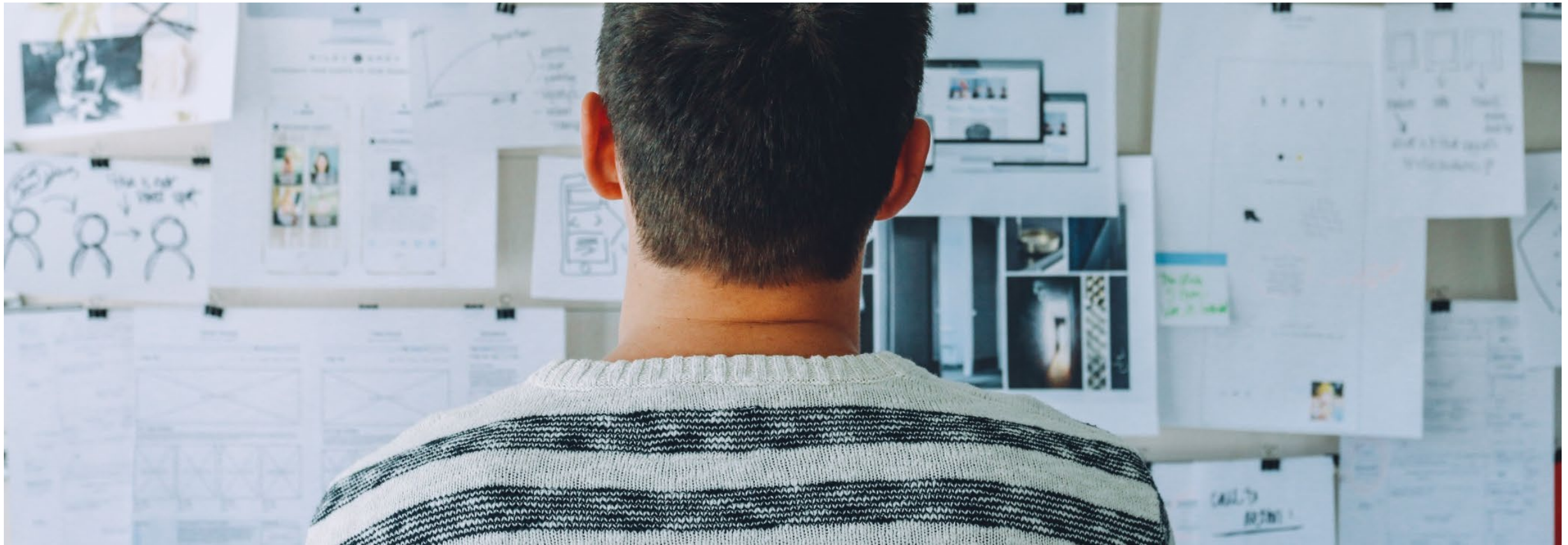


Nutrition Therapy for Adults With Diabetes or Prediabetes: A Consensus Report

<https://doi.org/10.2337/dci19-0014>

This Consensus Report is intended to provide clinical professionals with evidence-based guidance about individualizing nutrition therapy for adults with diabetes or prediabetes. Strong evidence supports the efficacy and cost-effectiveness of nutrition therapy as a component of quality diabetes care, including its integration into the medical management of diabetes; therefore, it is important that all members of the health care team know and champion the benefits of nutrition therapy and key nutrition messages. Nutrition counseling that works toward improving or maintaining

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Shamera Robinson,¹¹ Laura Saslow,¹²
Sacha Uelman,¹¹ Patricia B. Urbanski,¹³ and
William S. Yancy Jr.^{14,15}*



How Are Nutrition Recommendations Developed?

Article Selection

- Used 2013 ADA Nutrition Therapy Recommendations for the Management of Adults with Diabetes as a starting point
- Overall search criteria:
 - Articles published between January 1, 2014 and February 28, 2018
 - Adults with T1D, T2D or prediabetes
 - Outpatient, community or metabolic ward setting
 - At least 10 people per dietary group
 - At least 50% retention rate
 - Consensus paper includes >300 references...
- Eating patterns section emphasized randomized trials when available

ADA Consensus Report. *Diabetes Care*. 2019; 42:731-754.



What Can I Eat?



Consensus Recommendations

- Refer adults living with type 1 or type 2 diabetes to individualized, diabetes-focused MNT
 - ✓ at diagnosis
 - ✓ as needed throughout the life span
 - ✓ during times of changing health status to achieve treatment goals.

ADA Consensus Report.

Diabetes Care. 2019; 42:731-754

Goals of Nutrition Therapy

To promote and support **healthful eating patterns**, emphasizing a **variety of nutrient-dense foods in appropriate portion sizes**, to improve overall health:

- 1) Improve A1C, BP, cholesterol levels
- 2) Achieve/maintain body weight goals
- 3) Delay/prevent diabetes complications



Goals of Nutrition Therapy

- To address **individual** nutrition needs based on
 - ✓ personal and cultural preferences
 - ✓ health literacy and numeracy
 - ✓ access to healthful food choices
 - ✓ willingness and ability to make behavioral changes
 - ✓ **barriers** to change



Is MNT Clinically and Cost Effective?

- Reported A1C reductions from MNT are similar to or greater than what would be expected with treatment using currently available medication treatments for T2D.
 - Research supports the effectiveness of MNT interventions provided by RDNs for improving A1C with absolute decrease up to 2.0% in T2D and up to 1.9% in T1D at 3-6 months.
 - Multiple studies document the cost effectiveness for MNT for the prevention and management of diabetes.
-



Macronutrients

Consensus Recommendations

Evidence suggests that **there is not an ideal** percentage of calories from carbohydrate, protein, and fat for all people with or at risk for diabetes, therefore macronutrient distribution should be based on an **individualized** assessment of eating patterns, references, and metabolic goals.

ADA Consensus Report. *Diabetes Care*. 2019; 42:731-754



However, People
don't eat
macronutrients,
they eat food.

Eating Plans to Manage Type 2 Diabetes

Evaluated in ADA Report:

- Mediterranean-Style
- Vegetarian or Vegan
- Low-fat
- Very-Low Fat Ornish or Pritikin
- Low-Carb & Very-Low Carb
- DASH
- Intermittent Fasting
- Paleo

Summary Points: Eating Patterns

Type 1 diabetes

- No eating pattern has robust evidence
- Low-carb has very preliminary evidence of benefit

Type 2 diabetes

- Low-carb and Med-style have the most evidence of benefit



What is New?

- Reducing overall carbohydrate intake has the most evidence for improving glycemia
 - ✓ variety of eating patterns
- Low- and very-low-carbohydrate eating plans are viable approaches for select adults with type 2 diabetes
 - ✓ not meeting glycemic targets
 - ✓ Wish to reduce antiglycemic medications



Helpful Resource – Table 4

Carbohydrate Grams in relation to % total daily intake

Kcal	10%	20%	30%	40%	50%	60%	70%
1200	30g	60g	90g	120g	150g	180g	210g
1500	38g	75g	113g	150g	188g	225g	263g
2000	50g	100g	150g	200g	250g	300g	350g
2500	63g	125g	188g	250g	313g	375g	438g



Bottom line: Evidence does not support a clear preference for a specific eating pattern

Diabetes Care. 2019; 42(5):731-754

MacLeod J, et al. *JAND.* 2017; 117:1637–1658

Consensus Recommendation

Until evidence surrounding comparative benefits of different eating patterns in specific individuals strengthens, focus on the key factors that are common among the patterns:



Start Small

Focus on one goal at a time



Key Takeaways



Emphasize non-starchy vegetables



Minimize added sugars and refined grains



Choose whole foods over highly processed foods to the extent possible



Emphasize non-starchy vegetables





Minimize added sugars
and refined grains

Choose whole foods over highly processed foods
to the extent possible





Consider the Whole Picture



In Type 2 Diabetes, For Individuals with Overweight or Obesity

- At least 5% weight loss is recommended to achieve clinical benefit. *Benefits are progressive too!*
- Goal for optimal outcomes 15% or more when needed and can be feasibly and safely accomplished.

For Individuals with Overweight or Obesity

In prediabetes, the goal is 7%-10% for preventing progression to type 2 diabetes.

In type 1 diabetes, weight management is recommended part of care



Cardiovascular Disease

- ♥ Replace saturated fat with unsaturated fat to lower total cholesterol & LDL
- ♥ Keep sodium intake below 2300mg/day to lower blood pressure
- ♥ Increase physical activity
- ♥ Eat fatty fish, like salmon 2x/week
- ♥ Replace high carb with lower carb to lower BG & triglycerides & raise HDL

Chronic Kidney Disease

- Protein needs calculation:
 - 1 - 1.5g/Kg body weight
 - Same as general population
 - Protein restriction can increase risk for malnutrition
 - Focus on tight management of blood pressure and blood glucose
-

Food Insecurity and Access to healthy foods

- Another factor to consider
 - Screening
 - Be prepared to have resources available
 - SNAP
 - WIC
 - School Meals
 - Food Banks/Pantries/Churches
 - Unemployment
 - Others specific to your community
-

Additional Consensus Recommendations

Alcohol

Sweeteners

Energy Balance

MNT &
Medications

Micronutrients

Gastroparesis

Insulin Dosing

Personalized
Nutrition

Resources

[ASK THE EXPERTS Q&A SERIES](#)

[NUTRITION CONSENSUS REPORT](#)

[LIVING WITH TYPE 2 DIABETES PROGRAM](#)

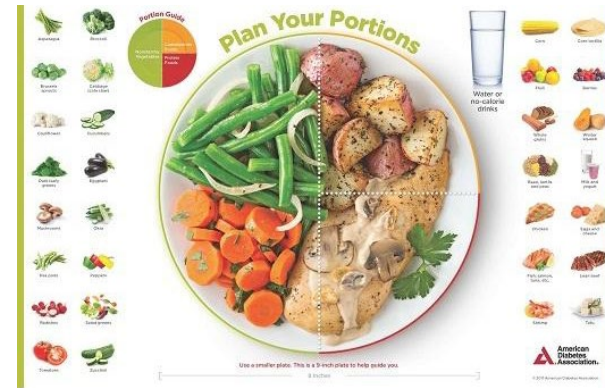
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Questions?

Contact Us
food@diabetes.org

Q&A



If you would like to ask the presenter a question, please submit it through the questions box on your control panel.



If you are dialed in through your telephone and would like to verbally ask the presenter a question, use the “raise hand” icon on your control panel and your line will be unmuted.

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Funding Opportunities



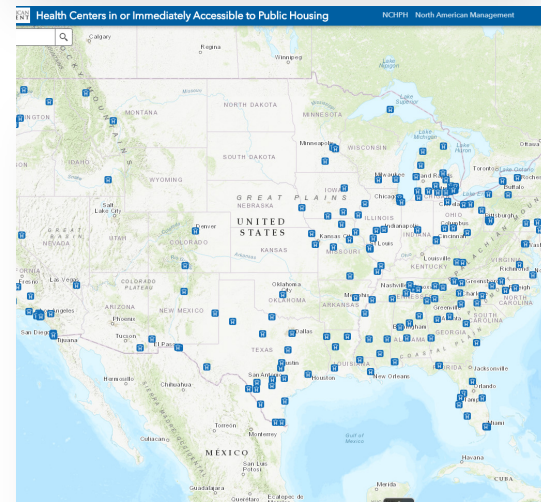
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THANK YOU!

