The Challenges in the Development of Diabetes Prevention in Public Housing Settings

National Center for Health in Public Housing

December 21, 2022

Housekeeping

- All participants muted upon entry
- Engage in chat
- Raise hand if you would like to unmute
- Meeting is being recorded
- Slides and recording link will be sent via email

Today's Speakers

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NCHPH
National Center for Health in Public Housing

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CAMILLUS HEALTH CONCERN

National Center for Health in Public Housing (NCHPH)

- The National Center for Health in Public Housing (NCHPH) is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number U30CS09734, a National Training and Technical Assistance Partner (NTTAP) for $2,006,400 and is 100% financed by this grant. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.
- The mission of the National Center for Health in Public Housing (NCHPH) is to strengthen the capacity of federally funded Public Housing Primary Care (PHPC) health centers and other health center grantees by providing training and a range of technical assistance.

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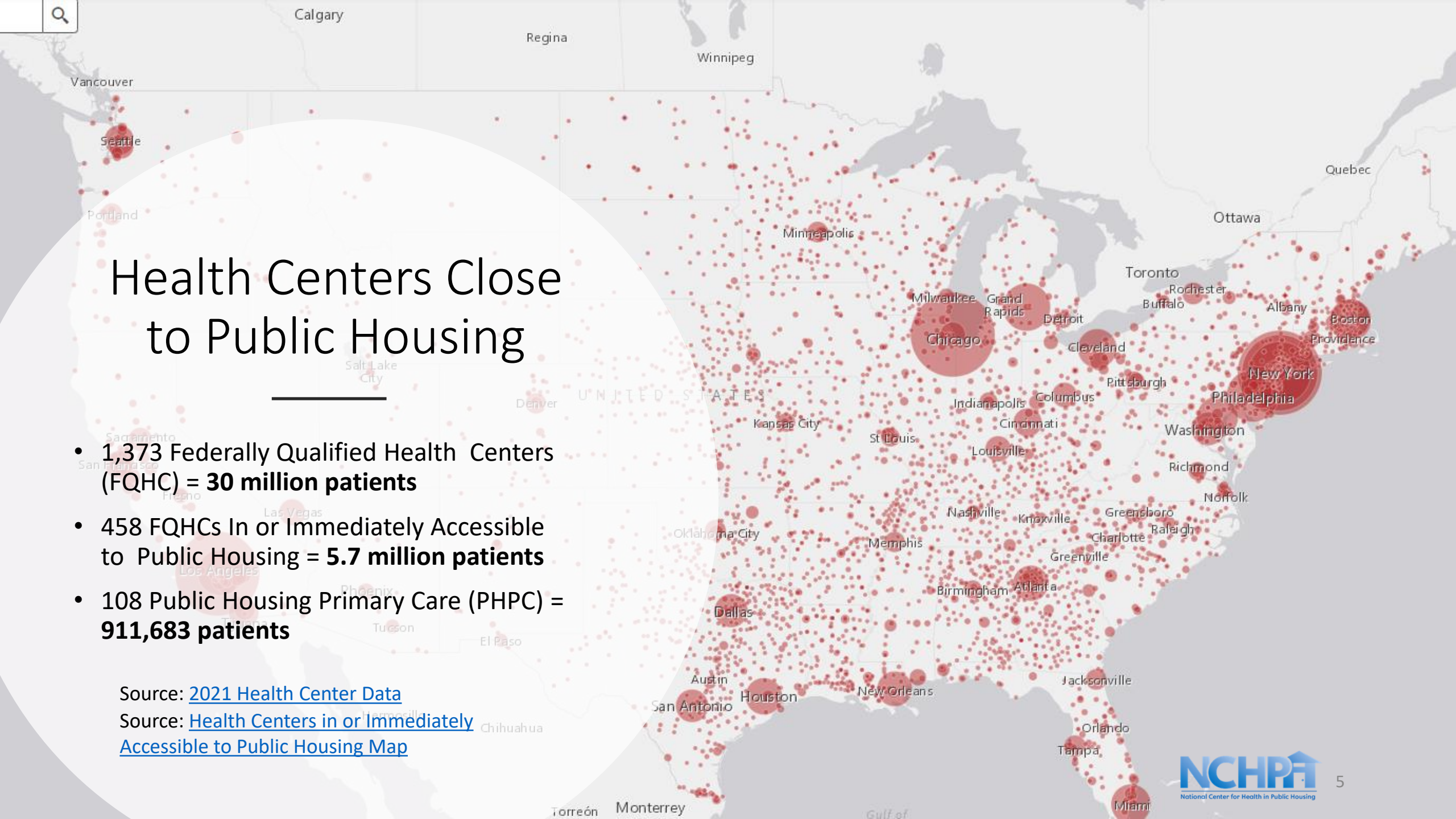
Health Centers Close to Public Housing

- 1,373 Federally Qualified Health Centers (FQHC) = **30 million patients**
- 458 FQHCs In or Immediately Accessible to Public Housing = **5.7 million patients**
- 108 Public Housing Primary Care (PHPC) = **911,683 patients**

Source: [2021 Health Center Data]
Source: [Health Centers in or Immediately Accessible to Public Housing Map]



Public Housing Demographics

1.5 Million Residents

2 Persons Per Household

38% Disabled

52% White

91% Low Income

43% African-American

26% Latinx

19% Elderly

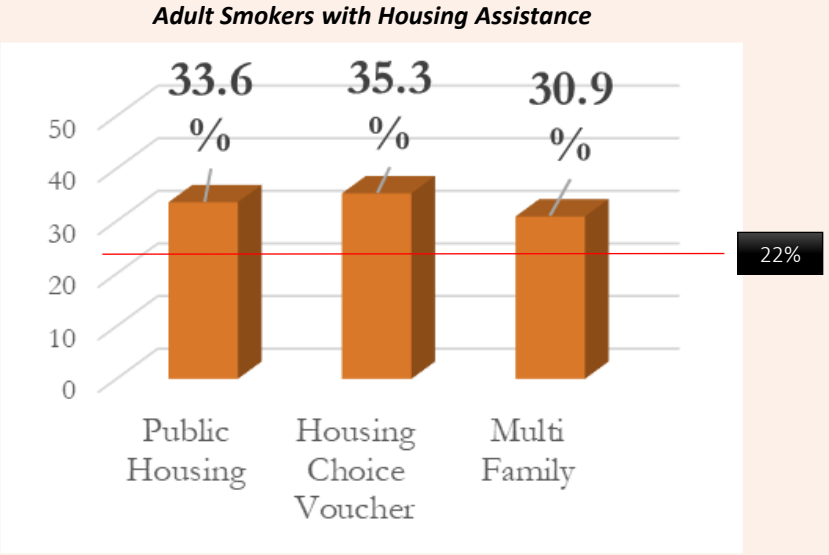
36% Children

32% Female Headed Households with Children

- Source: 2022 HUD Resident Characteristics Report

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.



Source: Helms, V. E., 2017, Sperling, J., & Steffen, B. L.

	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%

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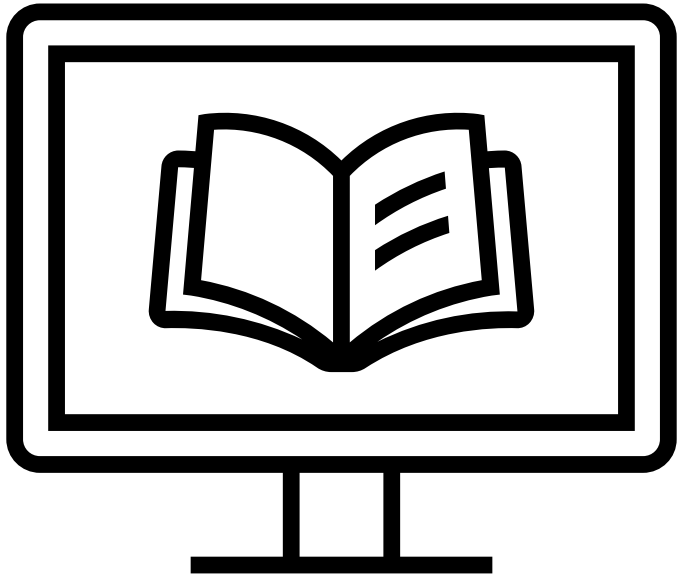

Learning Objectives

1. Discuss the prevalence of prediabetes and obesity in public housing
2. Summarize the challenges for diabetes prevention interventions
3. Identify interventions to address prediabetes in public housing

Prediabetes

Prediabetes is a serious health condition where blood sugar levels are higher than normal, but not high enough yet to be diagnosed as type 2 diabetes. Approximately 96 million American adults—more than 1 in 3—have prediabetes. Of those with prediabetes, more than 80% don't know they have it.

Source: CDC.gov

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Adult Body Mass Index

- If your BMI is less than 18.5, it falls within the underweight range.
- If your BMI is 18.5 to <25, it falls within the healthy weight range.
- If your BMI is 25.0 to <30, it falls within the overweight range.
- If your BMI is 30.0 or higher, it falls within the obesity range.

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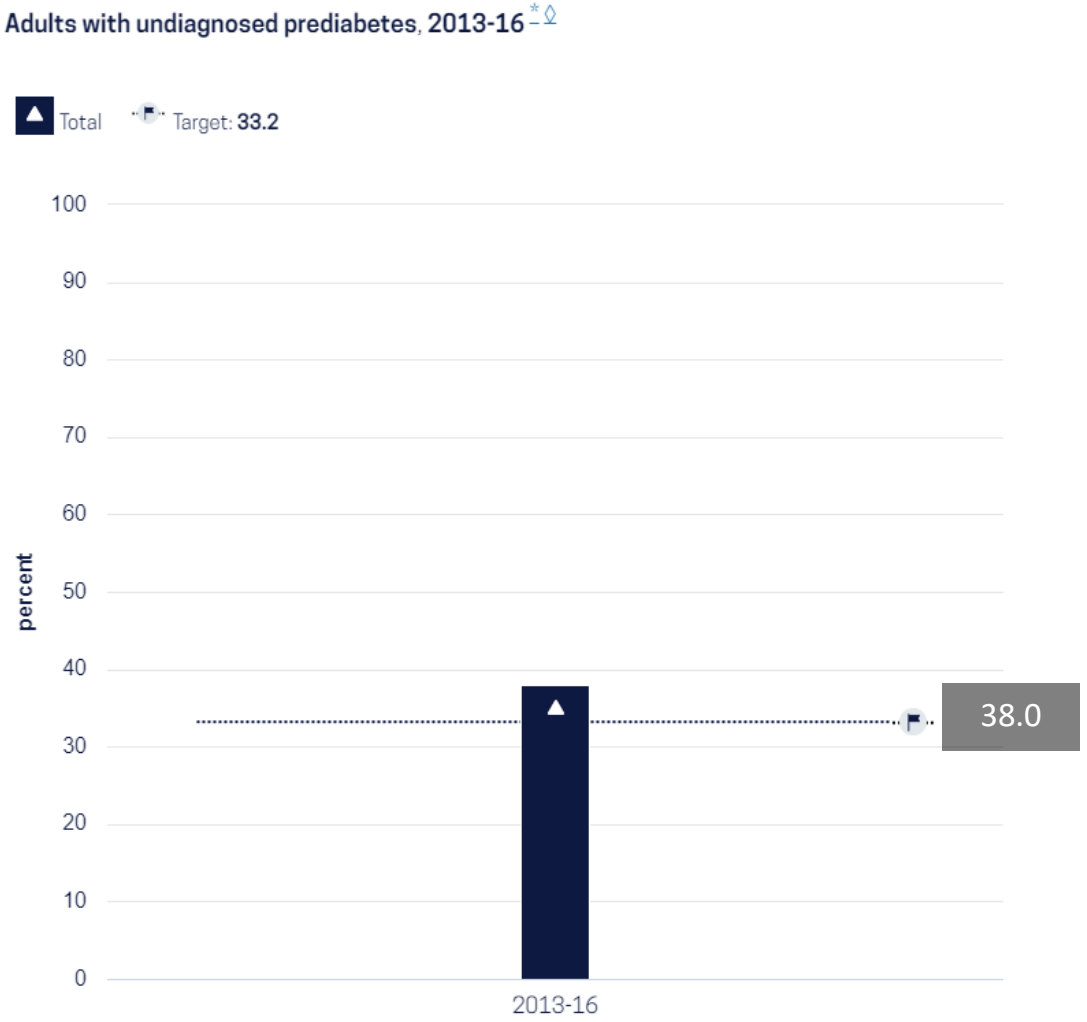
- **Numerator**

- Number of adults aged 18 years and over who have undiagnosed prediabetes (a fasting blood glucose level between 100 and 126 mg/dl or an HbA1c between 5.7 and 6.5).

- **Denominator**

- Number of adults aged 18 years and over without diagnosed or undiagnosed diabetes or diagnosed prediabetes (i.e. adults aged 18 years and over who have A1c less than 6.5 or fasting plasma glucose less than 126 and do not report being diagnosed with prediabetes or diabetes by a health care professional).



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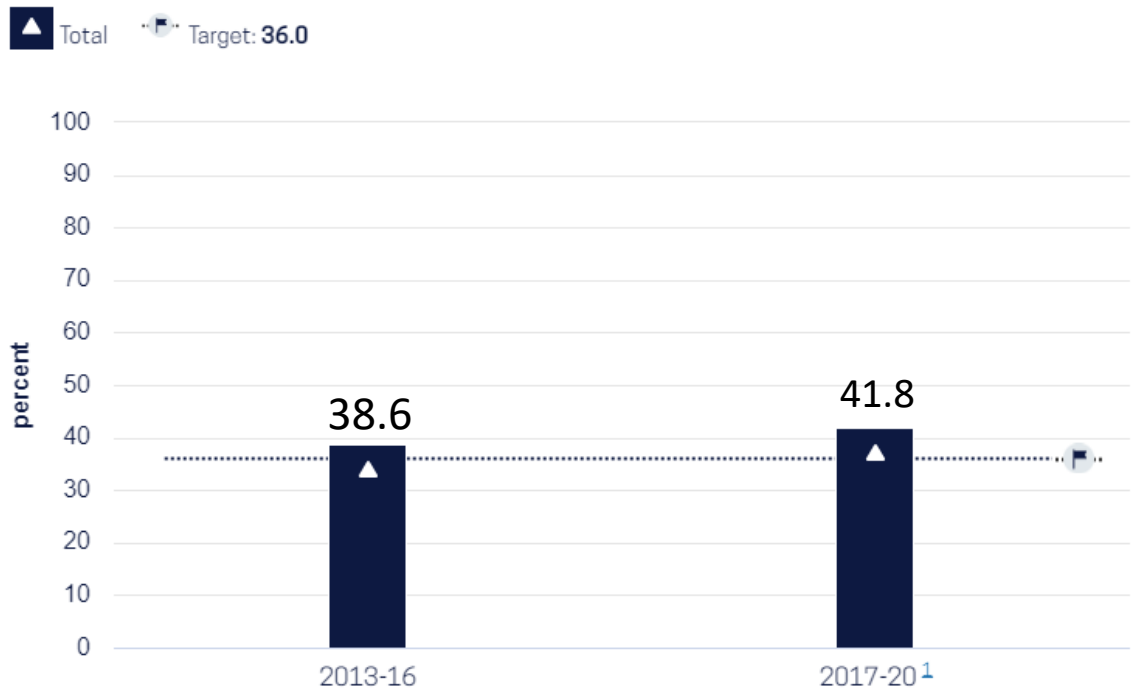
Obesity among adults, 2013-16 to 2017-20 *◊



Objective: NWS-03

Data Source: National Health and Nutrition Examination Survey (NHANES), CDC/NCHS

1. Estimates are calculated from 2017-March 2020 prepandemic data files.

*: Age adjusted to the year 2000 standard population.

◊: Unless otherwise noted, data represent "percent, 20+ years"

DSU: Data do not meet the criteria for statistical reliability, data quality, or confidentiality.

DNA: Data have not been analyzed.

DNC: Data for specific population not collected.

--- : Data are not available.

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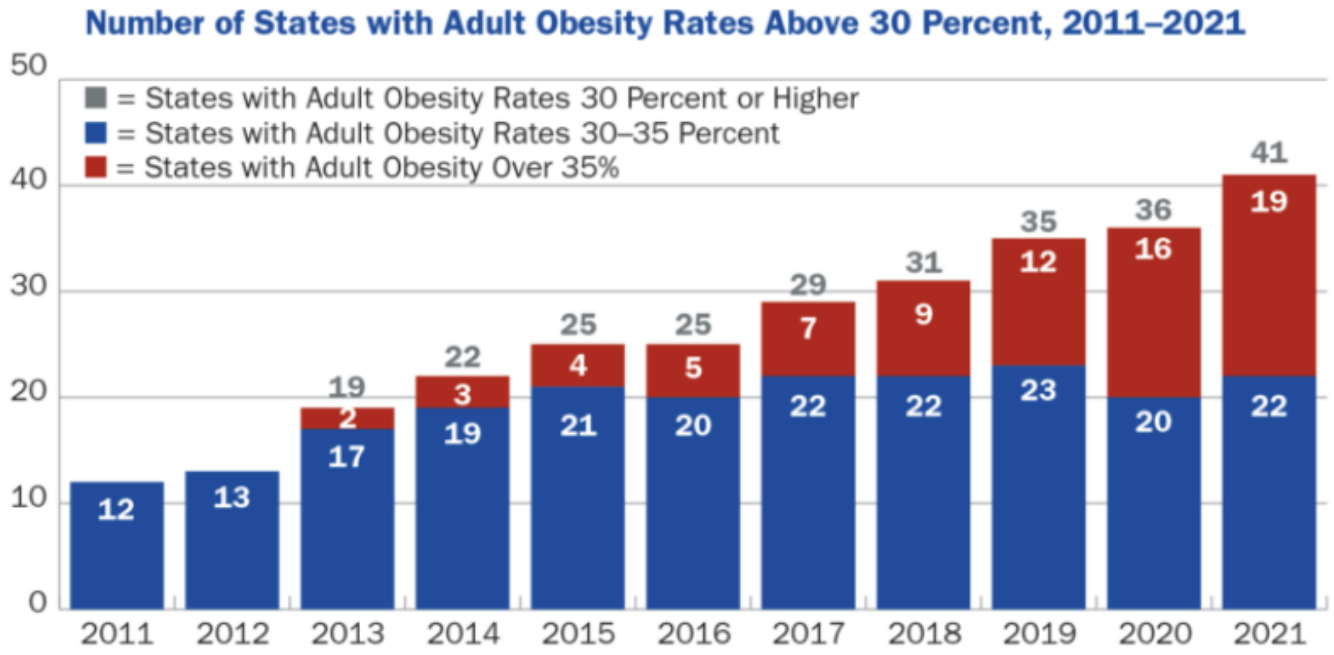
Healthy People 2030

A decade ago, no state had an adult obesity rate at or above 35 percent.



Source: TFAH analysis of BRFSS data

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Section F – Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan

Line	Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan	Total Patients Aged 18 and Older (a)	Estimated Number of Patients with BMI Charted and Follow-Up Plan Documented as Appropriate	Estimated % of Patients with BMI Charted and Follow-Up Plan Documented as Appropriate
13.	MEASURE: Percentage of patients 18 years of age and older with (1) BMI documented and (2) follow-up plan documented if BMI is outside normal parameters	16,021,493	9,823,612	61.32%

Source: HRSA, 2022

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	Total No. Patients	Overweight Patients	% Overweight patients
PHPC	911,683	234,801	25.75
FQHCs	30,193,278	7,622,987	25.24

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Obesity Category

- Class 1: BMI of 30 to < 35
- Class 2: BMI of 35 to < 40
- Class 3: BMI of 40 or higher. Class 3 obesity is sometimes categorized as “severe” obesity

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Adult Body Mass Index Example

Adult Body Mass Index (BMI)

Height	Weight Range	BMI	Considered
5′ 9″	124 lbs or less	Below 18.5	Underweight
	125 lbs to 168 lbs	18.5 to 24.9	Healthy weight
	169 lbs to 202 lbs	25.0 to 29.9	Overweight
	203 lbs or more	30 or higher	Obesity
	271 lbs or more	40 or higher	Class 3 Obesity

BMI does not measure body fat directly, but BMI is moderately correlated with more direct measures of body fat obtained from skinfold thickness measurements, bioelectrical impedance, underwater weighing, dual energy x-ray absorptiometry (DXA) and other methods [1,2,3]. Furthermore, BMI appears to be strongly correlated with various adverse health outcomes consistent with these more direct measures of body fatness [4,5,6,7,8,9].

- Source: https://www.cdc.gov/obesity/basics/adult-defining.html

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Challenges – Healthy Food

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Challenges - Exercise

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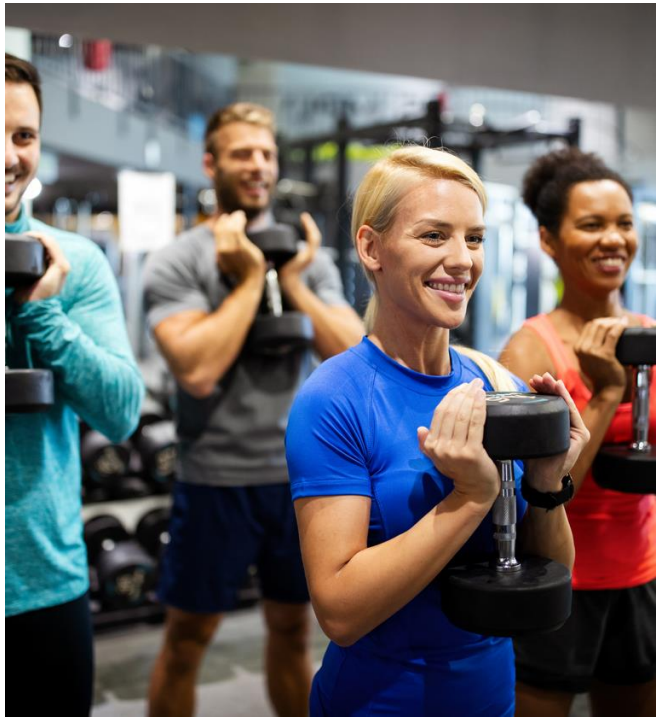
Challenges- Exercise



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Challenges Specific to the Public Housing Population

- Public housing patients have difficulty paying for medications and services
- Public housing developments located in culturally diverse communities
- Poor adherence to self-management
- Travel distance and lack of transportation
- Technology barriers

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Challenges – PHPC Settings

- Reimbursement
- Providers' perception
- Knowledge gaps
- Insurance coverage
- Time
- Workforce shortage
- Resources for diabetes educators are limited

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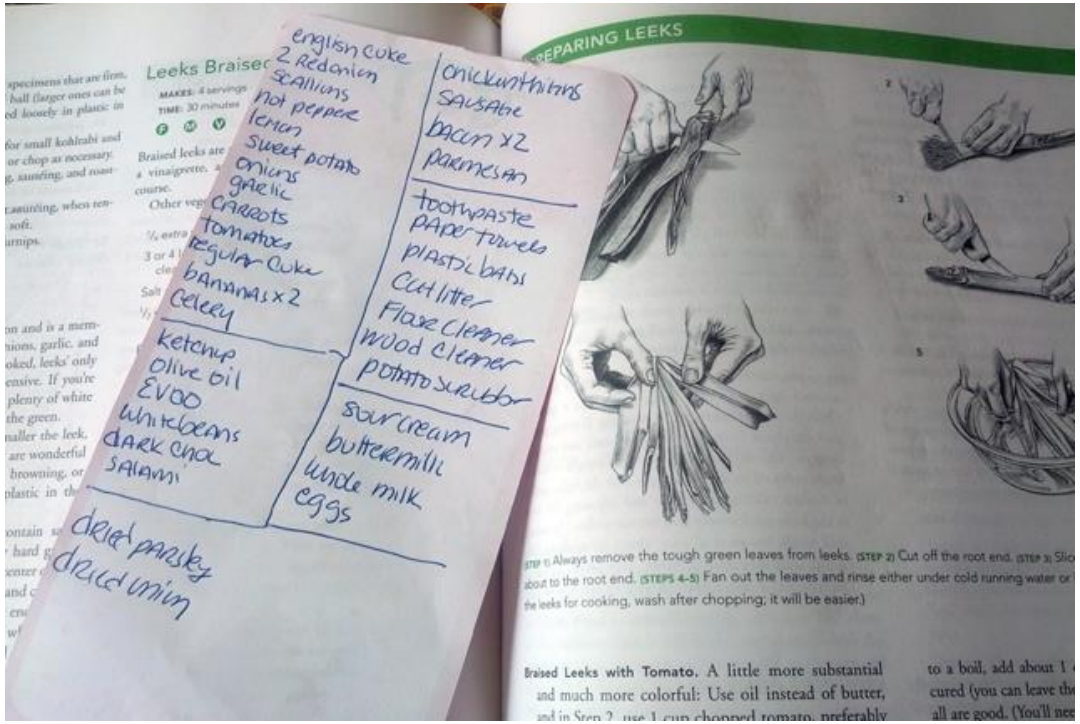
Pre-visit Planning (Planned Care)



Co-morbidities	Hypertension / amputation / retinopathy / neuropathy / nephropathy				
Number of Hgb A1c per review period	None / one / two / three / four / more than four				
Latest Hgb A1c	<6 / 6 – 6.9 / 7- 7.9 / 8 – 8.9 / 9- 10 / > 10 / Not available				
Number LDL per review period	None / one / two / three / four / more than four				
Latest LDL	_____(write in LDL) / Not Available				
Latest triglyceride	_____(write in triglyceride) / Not Available				
Latest HDL	_____(write in HDL) / Not Available				
Opthalmology referral	Yes / No				
Documented Foot exam with monofilament OR Podiatry Referral	Yes / No				
Systolic Blood Pressure	_____ (write in SBP)				
Diastolic Blood Pressure	_____ (Write in DBP)				
Pneumonia Shot	Yes / No				
Flu Shot	Yes / No				
Microalbumin OR UA	Yes / No / Nephropathy documented				
ASA Tx	Yes / No				
ACE Tx if appropriate	Yes / No				

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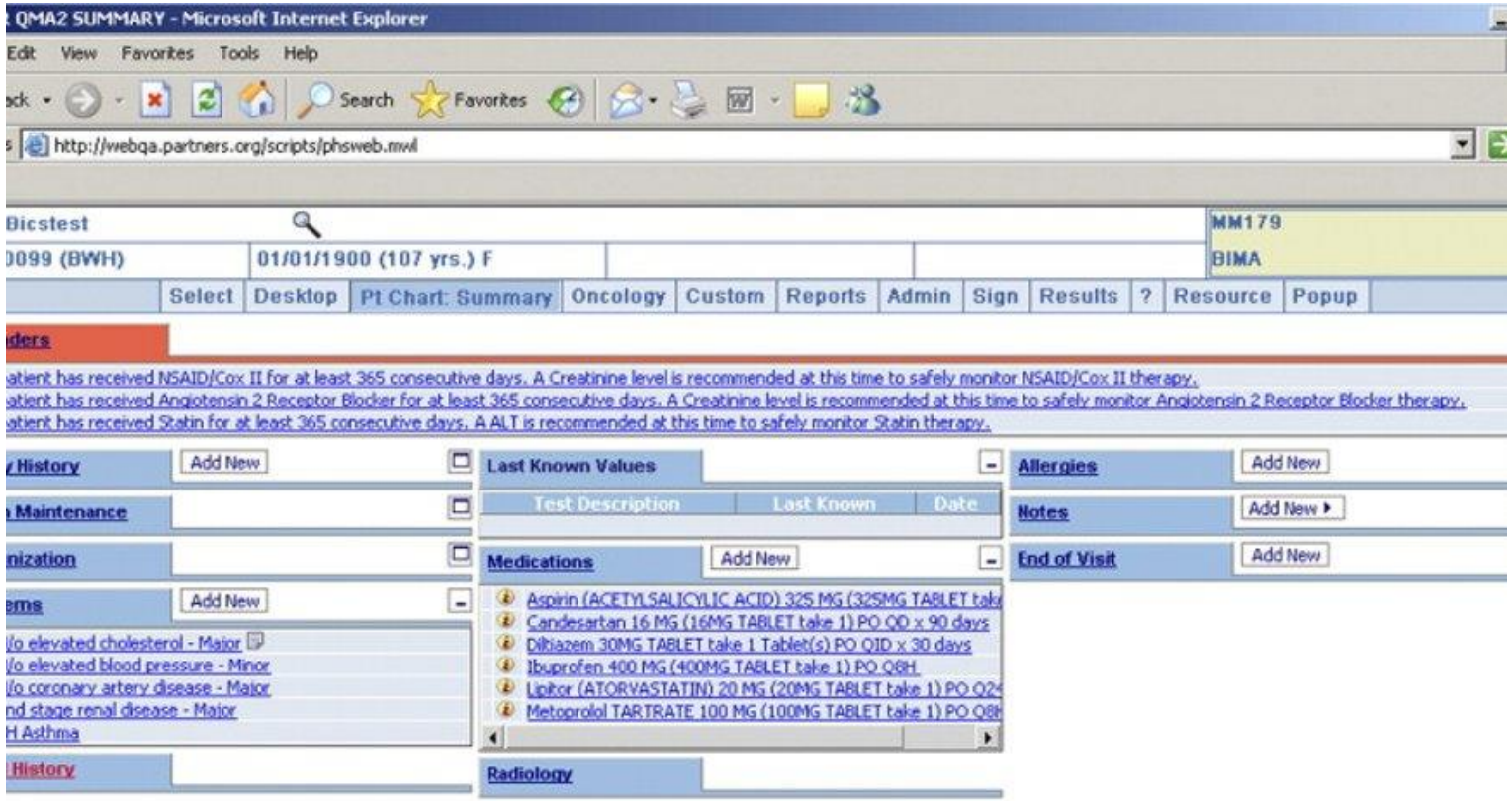
Pre-visit Planning



Family Centered

Plain Language and Health Literacy

- Source: https://open.umich.edu/education/dent/patient-comm-skills

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Glucose Testing

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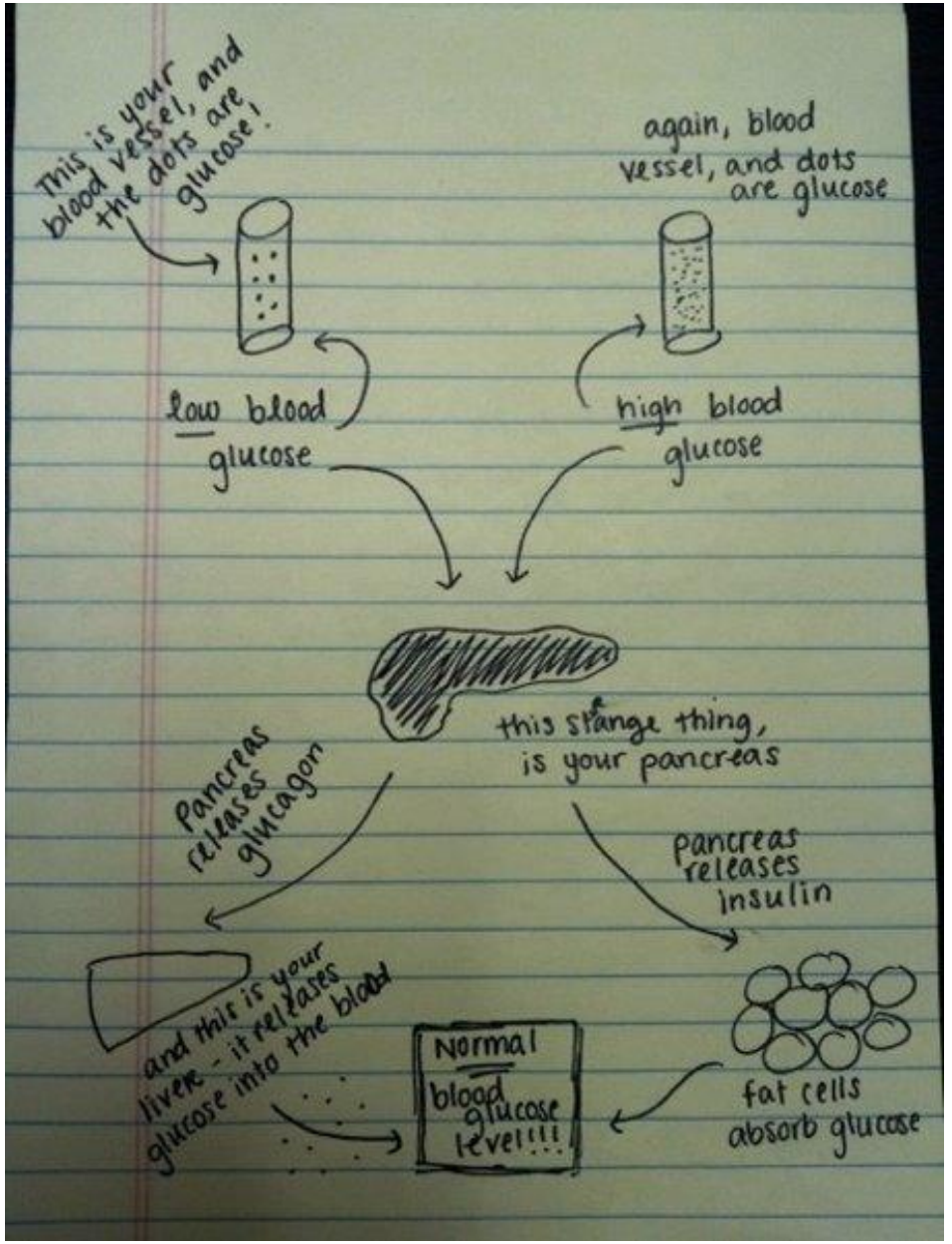
Health Literacy



Language Barriers

Food Insecurity

GARDENS AS THERAPY

In the course of assisting women with depression, Ginger, a Brockton Neighborhood Health Center (BNHC) social worker, realized

Every Friday they met, working for an hour in the garden and then gathering in group therapy in the teaching kitchen. Harvests were

INTERVENTIONS

A TEACHING KITCHEN WITH CLASSES IN COOKING AND NUTRITION

A LOCAL GROCERY STORE PARTNERSHIP FOR FOOD VOUCHERS AND NUTRITION EDUCATION

LEVERAGING SERVICES THROUGH THE PROJECT BREAD COALITION

A COMMUNITY GARDEN AND THERAPY PROGRAM

PARTNERSHIPS FOR FOOD DONATIONS

A MOBILE FOOD MARKET FOR LOW-COST PRODUCE IN PARTNERSHIP WITH THE LOCAL COLLEGE

HIRING A COMMUNITY HEALTH

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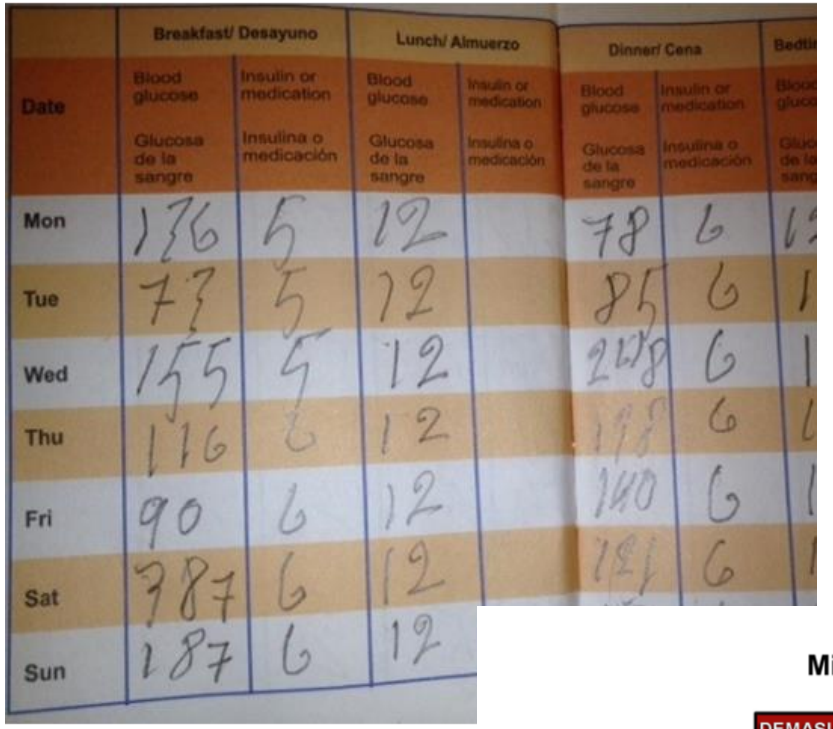
Numeracy



Date	Breakfast/ Desayuno		Lunch/ Almuerzo		Dinner/ Cena		Bedtime
	Blood glucose Glucosa de la sangre	Insulin or medication Insulina o medicación	Blood glucose Glucosa de la sangre	Insulin or medication Insulina o medicación	Blood glucose Glucosa de la sangre	Insulin or medication Insulina o medicación	Blood glucose Glucosa de la sangre
Mon	176	5	12		78	6	6
Tue	73	5	12		85	6	1
Wed	155	5	12		208	6	1
Thu	116	6	12		178	6	1
Fri	90	6	12		140	6	1
Sat	787	6	12		181	6	1
Sun	187	6	12				

Mi Diario de Azúcar en la Sangre

FECHA:___/___/___	DEMASIADO BAJO (0 - 59)	BAJO (60 - 89)	CORRECTO (90 - 130)	ALTO (131 - 180)	DEM... (1...
Antes del ***Desayuno*** ___:___					
COMENTARIOS:					
Antes del ***Almuerzo*** ___:___					
COMENTARIOS:					
Antes de la ***Cena*** ___:___					
COMENTARIOS:					
Otra Hora ___:___					
COMENTARIOS:					

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CAMILLUS HEALTH CONCERN

THE CHALLENGES IN THE DEVELOPMENT OF DIABETES PREVENTION IN PUBLIC HOUSING SETTINGS

Francis Afram-Gyening, Chief Executive Officer
Dr. Chandra Jennings, Medical Director
Anna Ferguson, Chief Nursing Officer
Ana Velez, Quality Outcomes Manager

CAMILLULS HEALTH CONCERN
GOOD SHEPARD HEALTH CENTER
336 NW 5TH STREET
MIAMI, FL 33128

CAMILLUS HEALTH CONCERN

SATELITE SITES:

NCL CAMPUS (2ND FLOOR)
1545 NW 7TH AVENUE
MIAMI, FL 33136

SALVATION ARMY
1907 NW 38TH STREET, ROOM 195
MIAMI, FL 33142

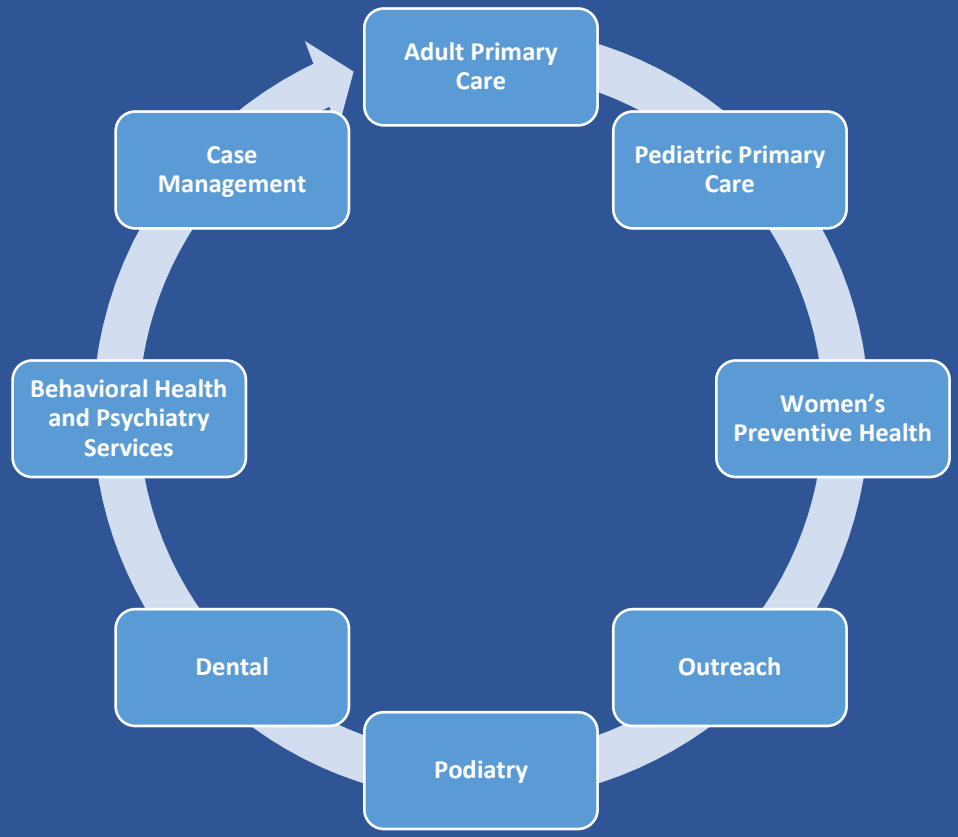
THE HISTORY OF CAMILLUS HEALTH CONCERN

- Founded in 1985 by Brothers of Good Shepherd and now Hospitaller Brothers of St. John of God
- One of nearly 1,400 FQHCs nationally
- One of nearly 50 FQHCs in Florida
- The only FQHC whose mission is to provide healthcare services to those experiencing homelessness in Miami Dade County

WHO WE SERVE

- Patients Served Annually: 6,000
- Total Visits: 34,500
- 3 Operating Sites:
  - Greer Building
  - NCL Clinic at Camillus House
  - Health Resource Center at Salvation Army
  - Outreach

CAMILLUS HEALTH CONCERN SERVICES



THE PREVALENCE OF PREDIABETES AND OBESITY IN PUBLIC HOUSING

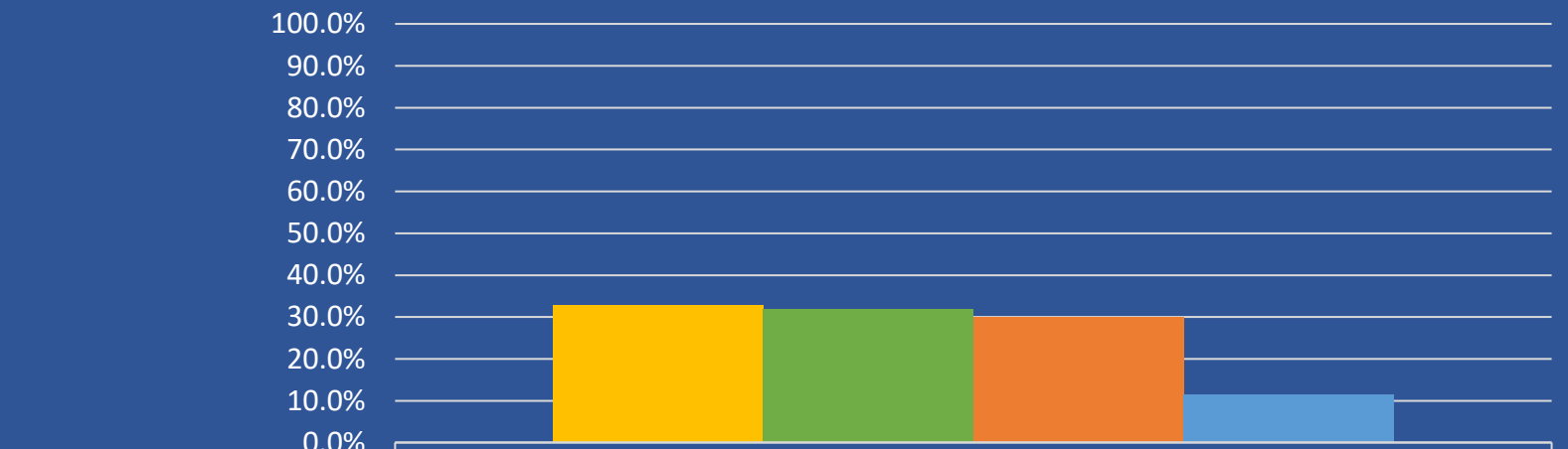
- Prediabetes is a high-risk state for developing diabetes and associated complications.
- Prediabetes means you have a higher-than-normal blood sugar level. It's not high enough to be considered type 2 diabetes yet.
- If you have prediabetes, the long-term damage of diabetes-especially to your heart, blood vessels and kidneys-may already be stating.

TESTING FOR PREDIABETES

There several blood tests for prediabetes. One of the tests is glycated hemoglobin (A1C) test. The A1C test measure your average blood glucose for the past two to three months. In general:

- Below 5.7% is normal
- Between 5.7% and 6.4% is diagnosed as prediabetes
- 6.5% or higher on two separate tests indicates diabetes.

DIABETES POOR CONTROL



	Diabetes Poor Control
CY 2021	33.0%
YTD 2022	32.0%
CHC Internal Goals 2022	30.0%
Healthy People 2030 Goal	11.6%

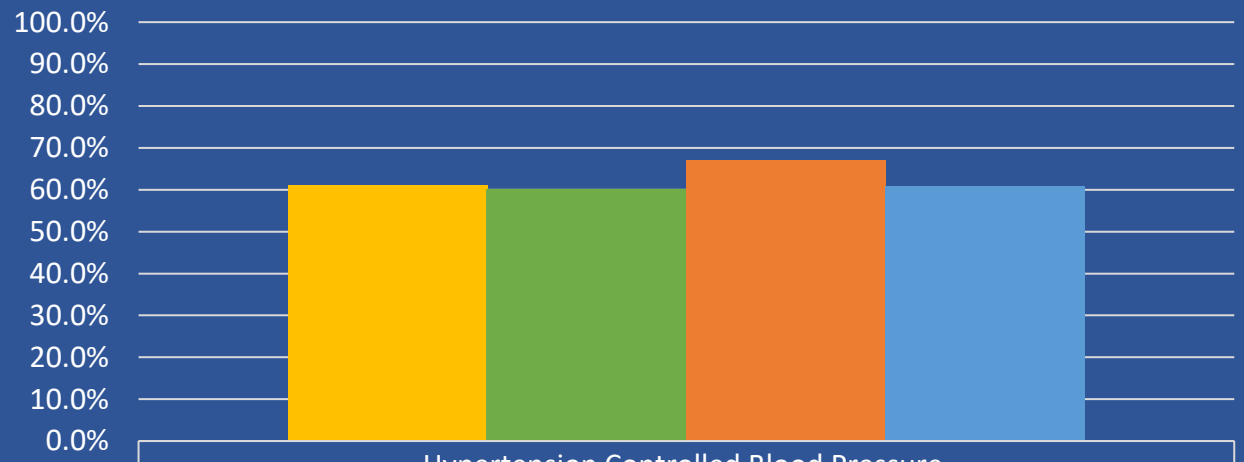
Diabetes poor control- Percentage of patients aged 18 through 75 years with type 1 or type 2 diabetes mellitus who had a most recent hemoglobin A1c (HbA1c) greater than 9 percent or if an HbA1c test was not done during the measurement year. *CMS Reference: CMS 122.*

UDS 2021 HRSA National Average: 32.29%

Healthy People 2030- *is the federal government's prevention objective for the general population on building a healthier nation. Designed to identify the most significant preventable threats to health and to establish national goals to reduce these threats.*

HRSA-funded *health centers are evaluated on a set of performance* ***measures*** *emphasizing health outcomes and the value of care delivered.*

HYPERTENSION CONTROLLED BLOOD PRESSURE



	Hypertension Controlled Blood Pressure
CY 2021	61.0%
YTD 2022	60.0%
CHC Internal Goals 2022	67.0%
Healthy People 2030 Goal	60.8%

*** Controlling High Blood Pressure CHC internal goal** *is based on a 15 percent increase from 2021 as recommended by HCN and for the homeless population that we serve.*

**** Healthy People 2030** is the federal government's prevention objective for the general population on building a healthier nation. Designed to identify the most significant preventable threats to health and to establish national goals to reduce these threats.*

**** HRSA**-funded health centers are evaluated on a set of performance **measures** emphasizing health outcomes and the value of care delivered.*

	Cervical Cancer Screening	Breast Cancer Screening	Statin Therapy for the Prevention of CVD
CY 2021	75.0%	47.0%	80.0%
YTD 2022	73.0%	39.0%	78.0%
CHC Internal Goals 2022	74.0%	60.0%	86.0%
Healthy People 2030 Goal	84.3%	77.1%	72.0%

FACTORS AFFECTING DIABETIC CARE

Research has shown that prediabetes and diabetes are higher among public housing communities than the general population because of :

- lack of access to health care services
- food insecurity
- obesity
- might have a diabetic family history

BARRIERS TO TREATMENT

Readiness to Change/Treat:

- Has the person accepted their diagnosis?
- Are they experiencing depression or any other mental health conditions?
- Food Insecurity- Food access

Follow-up Visits:

- Can they follow-up as scheduled/recommended every 3 months?
- Transportation barriers
- Job and Personal life conflicts

Access to Medications: insurance coverage vs out of pocket expenses

Medication management:

- Does the patient understand how to take their medications (e.g., oral vs insulin)?
- Can the maintain their medications (possession)?
- Proper Insulin storage
- Syringe storage/ disposal

CHALLENGES

Environmental factors

- Social Environment: Interpersonal support, isolation
- Physical Environment: Parks, sidewalks, etc.
- Access to early Care

Genetics

- Multigenerational disease

Education

- Literacy and communication levels

Access to Resources

- Does the community and/or health center have nutritionists/dieticians, gyms, community space, etc.

Conflicts and Stressors

- Priority of needs: housing, food, utilities, safety, familial stability

LESSONS LEARNED

Individual Needs Assessments

- Housing/Sheltering Status
- Work Conflicts
- Family/Intrapersonal Support or Conflicts

Decreasing barriers to access

- Access to telehealth
- Direct dispensing of medications
- Enhanced clinic access

Utilizing evidence-based strategies in a dynamic healthcare ecosystem

- Physical activity recommendations
- Medication management (oral meds vs insulins)

Patient Champions

- Multi-disciplinary supports

QUESTIONS ?

Visit us at NCHPH

Complete Post – Evaluation Survey

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