Association of Health Literacy with Poor Diabetes Outcomes

National Center for Health in Public Housing

Tuesday, February 18, 2020

National Center for Health in Public Housing

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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.

Training and Technical Assistance

Research and Evaluation

Outreach and Collaboration

Increase access, quality of health care, and improve health outcomes

MUTE

CHAT

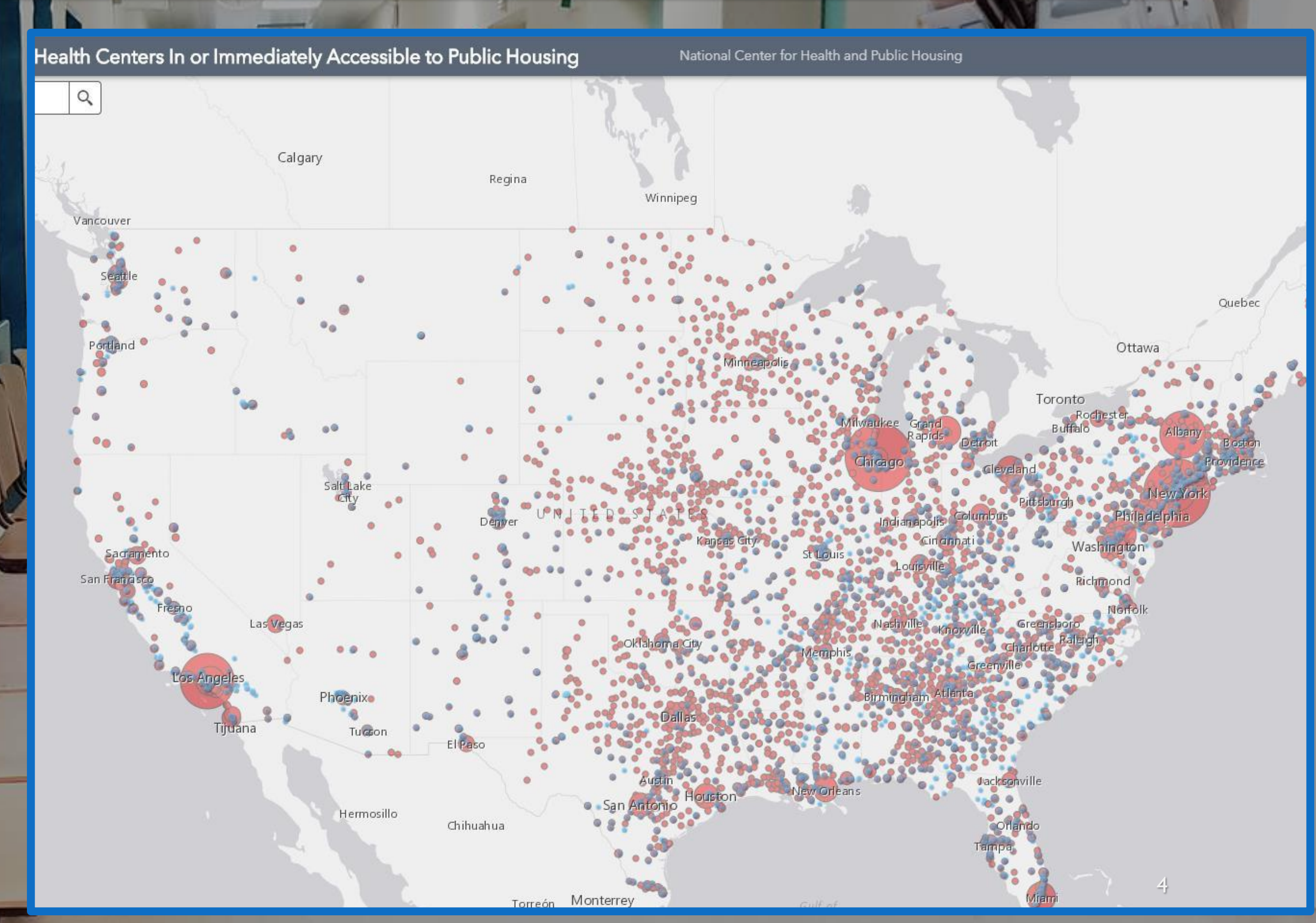
RAISE HAND

Q&A

Health Centers Close to Public Housing

- 1,300 Federally Qualified Health Centers (FQHC) = 28.3 million
- 356 FQHCs In or Accessible to Public Housing = 4.4 million patients
- 107 Public Housing Primary Care (PHPC) = 817,123patients

www.nchph.org



NCHPH
National Center for Health in Public Housing

Public Housing Demographics

2.2 million residents	2.2 persons/ household	38% children
59% female	55% less than high school diploma	83.2% below federal poverty

Diabetes in Health Centers

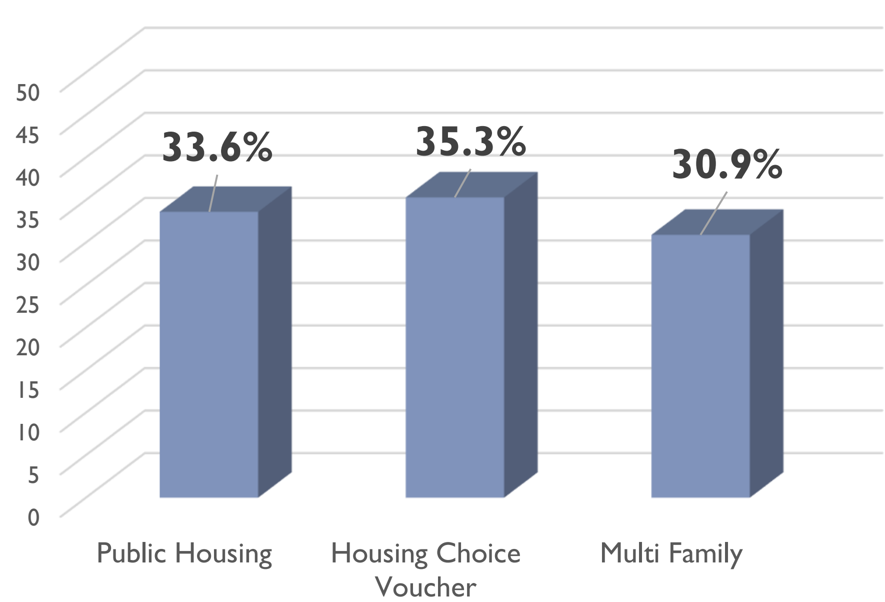
A little over 15% of health center (HC) patients have diabetes

32% of HC patients have Poorly Controlled Hemoglobin A1c (HbA1c > 9%)

9% of Public Housing Grantee patients have diabetes

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 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%

How Health Centers can position themselves to care for these vulnerable populations

Identify patients

Screen for SDoH needs

Create partnerships

Track interventions

Identify payment models to reimburse for those services

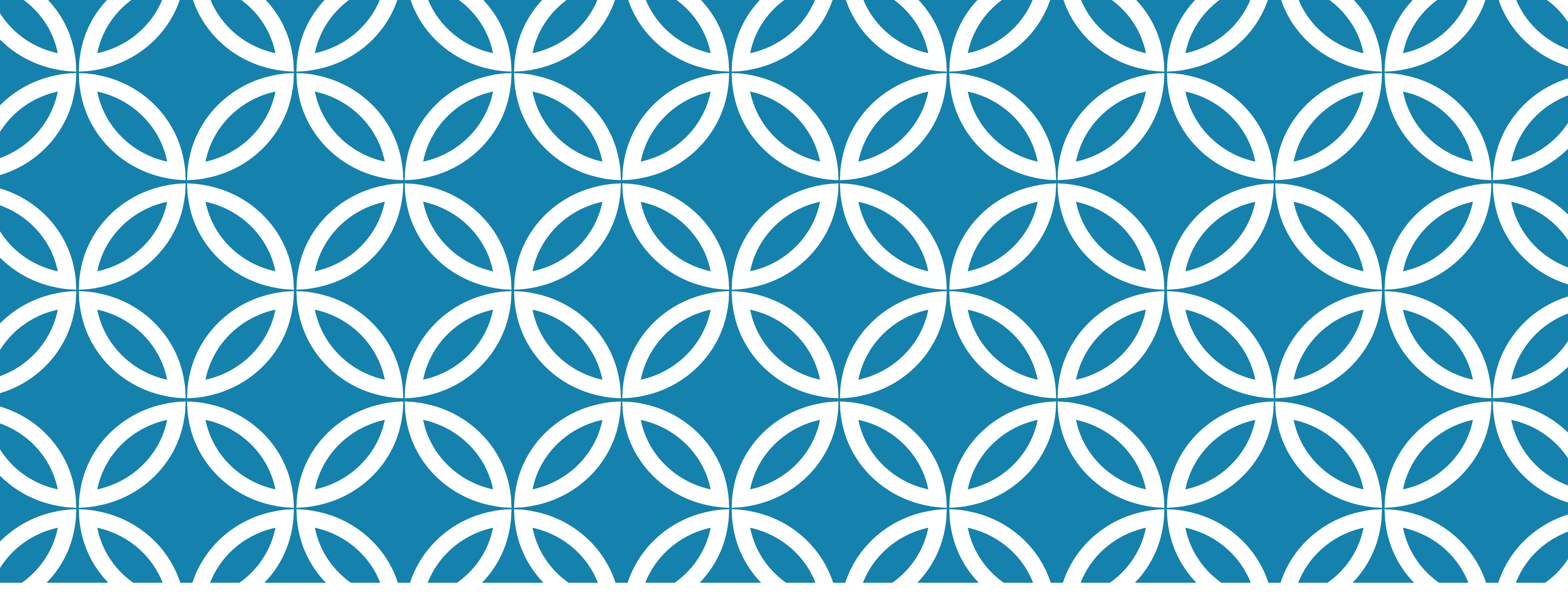
Create care teams using care coordinators

Shape your practice to suit the needs- times that services are available, use of telemedicine, etc.

Act immediately to address needs

Teresita Lawson

Pharmacist and Certified Diabetes Health Educator



HEALTH LITERACY
IMPACT ON DIABETES OUTCOMES

2020 HEALTH IN PUBLIC HOUSING NATIONAL TRAINING SYMPOSIUM

Teresita Lawson, BSPharm, RPh, CDE

February 18, 2020

COMMUNITY HEALTH CENTERS

- Lead Clinical Pharmacist- Federally Qualified Health Center 2008-2016
- Design, implementation and continuous quality improvement of Clinical Pharmacy Services program
- Established as a result of participation in Patient Safety and Clinical Pharmacy Services HRSA collaborative
- Focused on an interdisciplinary team-based approach
- Aimed at improving patient-centered care, patient outcomes and expansion of the clinical pharmacy services program.
- Collaborative and coordinated care of patients with difficult to control diabetes and other chronic conditions
- Program was selected to participate in Project Impact Diabetes an APHA Foundation initiative
- Program earned several awards including the BD/Direct Relief Innovation in Diabetes Care Award and the NJAFP Patient Centered Innovation Award.

SOME FACTS ABOUT HEALTH LITERACY

- Only 12% of adults have Proficient health literacy according to the National Assessment of Adult Literacy.
- 9 out of 10 adults may lack the skills needed to manage their health and prevent disease.
- 14% of adults (~30 million people) have Below Basic health literacy.
- More likely to report their health as poor
- More likely to lack health insurance than adults with Proficient health literacy.
- Linked to
  - Poor health outcomes
  - Higher rates of hospitalizations
  - Less frequent use of preventive services
  - Higher healthcare costs

Office of Disease Prevention and Health Promotion Health Communication Activities; Quick Guide to Health Literacy; US Department of Health and Human Services

SOME FACTS ABOUT HEALTH LITERACY

- Populations most likely to experience low health literacy
  - Older adults
  - Racial and ethnic minorities
  - People with less than a high school degree or GED certificate
  - Low income levels
  - Non-native speakers of English
  - People with compromised health status
- Education, language, culture, access to resources, and age all impact a person's ability to understand health status, navigate the system, and can have a negative impact on their health literacy skills.

Office of Disease Prevention and Health Promotion Health Communication Activities; Quick Guide to Health Literacy; US Department of Health and Human Services

HEALTH LITERACY AND HEALTH OUTCOMES

- Skip important preventive measures such as mammograms, Pap smears, and flu shots
- Enter the system when they are sicker
- More likely to have chronic conditions
- Associated with an increase in preventable hospital visits and admissions
- Higher rate of hospitalization and use of emergency services
- Negative psychological effects- sense of shame, may attempt to hide the inabilities

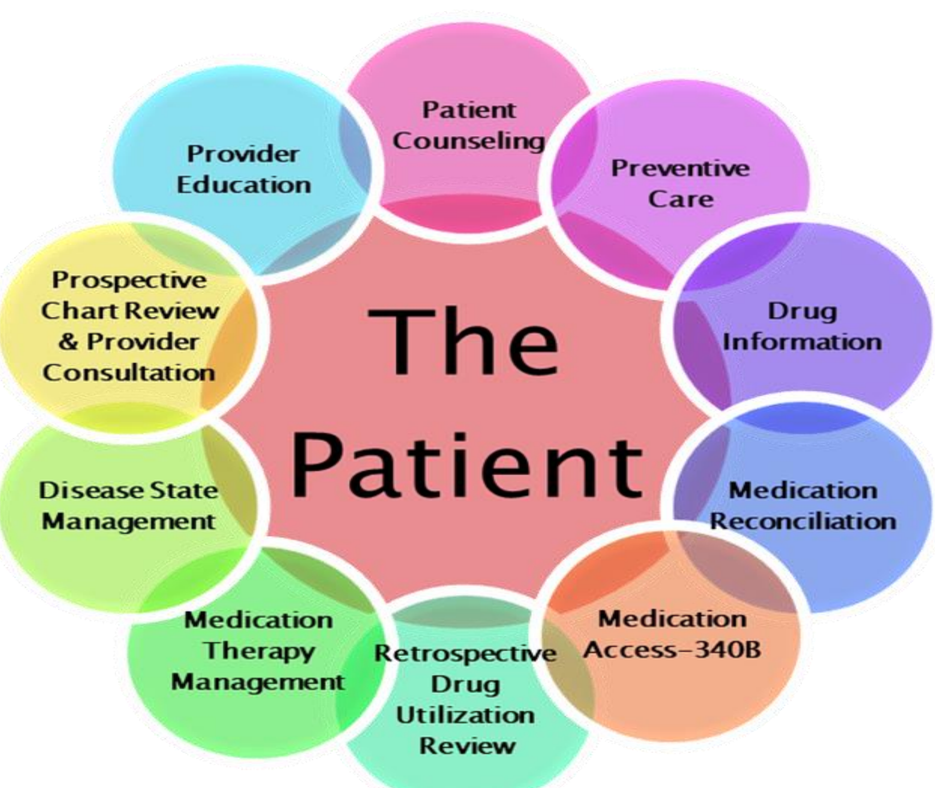
Office of Disease Prevention and Health Promotion Health Communication Activities; Quick Guide to Health Literacy; US Department of Health and Human Services

CLINICAL PHARMACY SERVICES PROGRAM

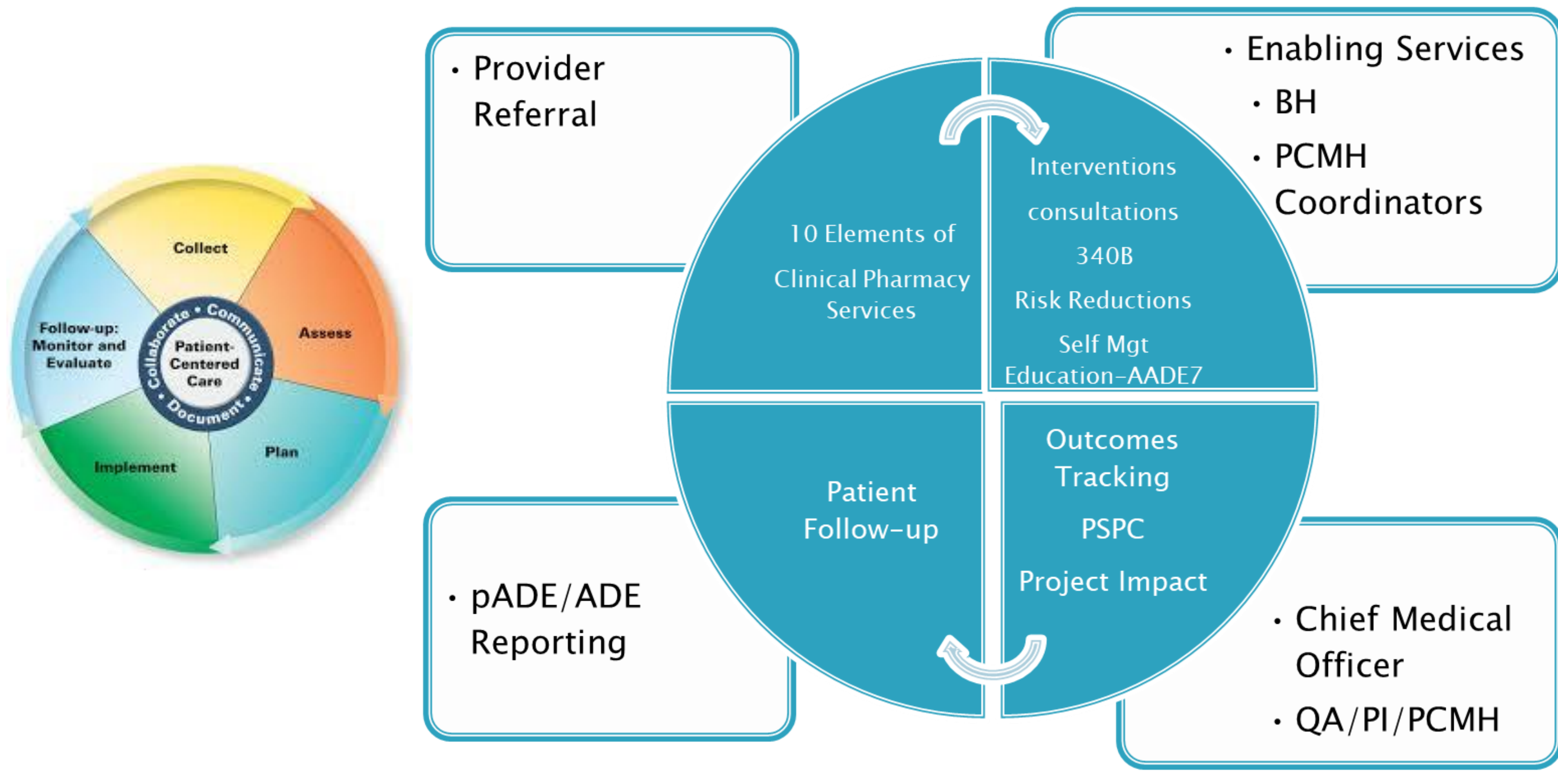
Pharmacist Patient Care Process- Evidence Based

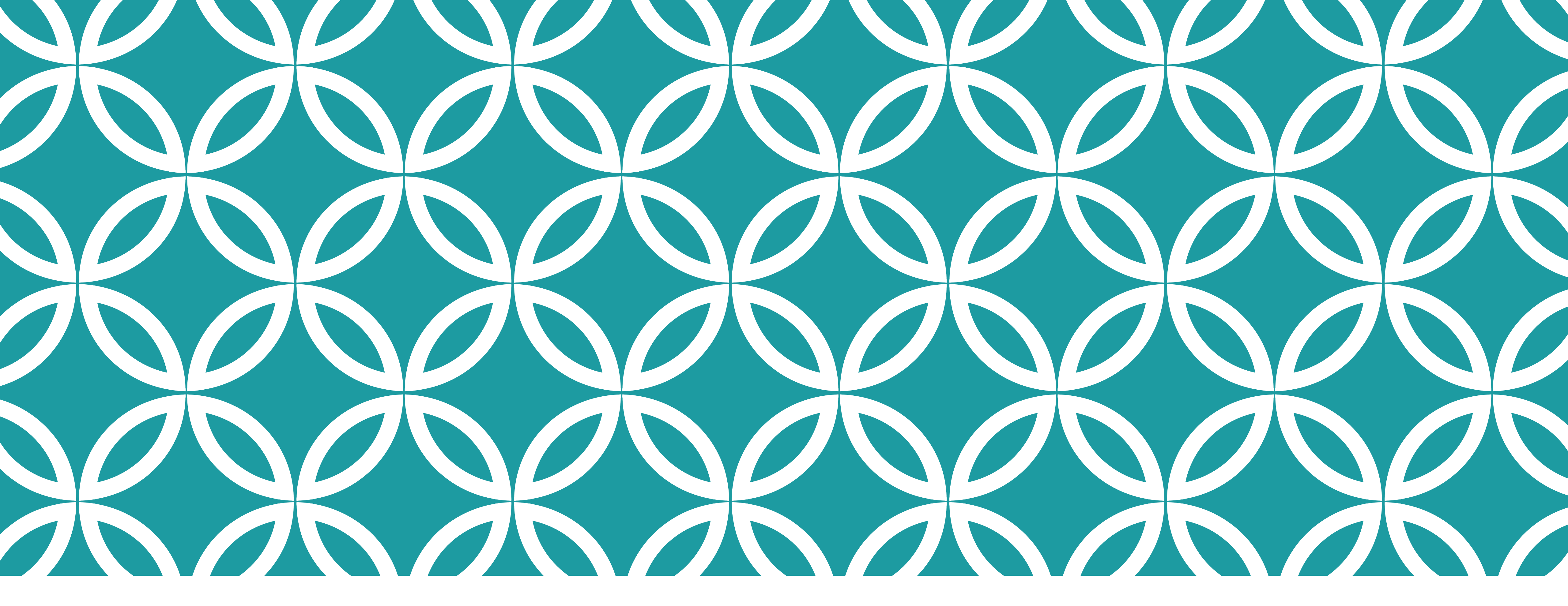
- Patient Centered- embedded Pharmacist Patient Care Process
- AADE 7 Self Care Behaviors
- Comprehensive- 10 elements
- Conducted Regularly- high touch
- Team Collaboration- interdisciplinary
- Prevention- vaccines, referrals to ophthalmology, podiatry
- Care transitions- tracking of ER visits, booking patients recently seen in ER or discharged
- Encounters documented in EMR
- Aligned with NCQA PCMH

CPS Components



COORDINATION OF CARE DELIVERY MODEL





IMPROVING OUTCOMES IN PATIENTS WITH DIABETES WITH LIMITED HEALTH LITERACY

The Tools- Assessment

NCA IDENTIFIED NEEDS TO IMPROVE OUTCOMES MEDICATION MANAGEMENT

Cost

Access

Adherence

Optimization

Resources

Clinical Inertia

The Joint Commission of Pharmacy Practitioners (JCPP)

Collect

Assess

Plan

Implement

Follow-up: Monitor and Evaluate

Patient-Centered Care

Collaborate • Communicate • Document •

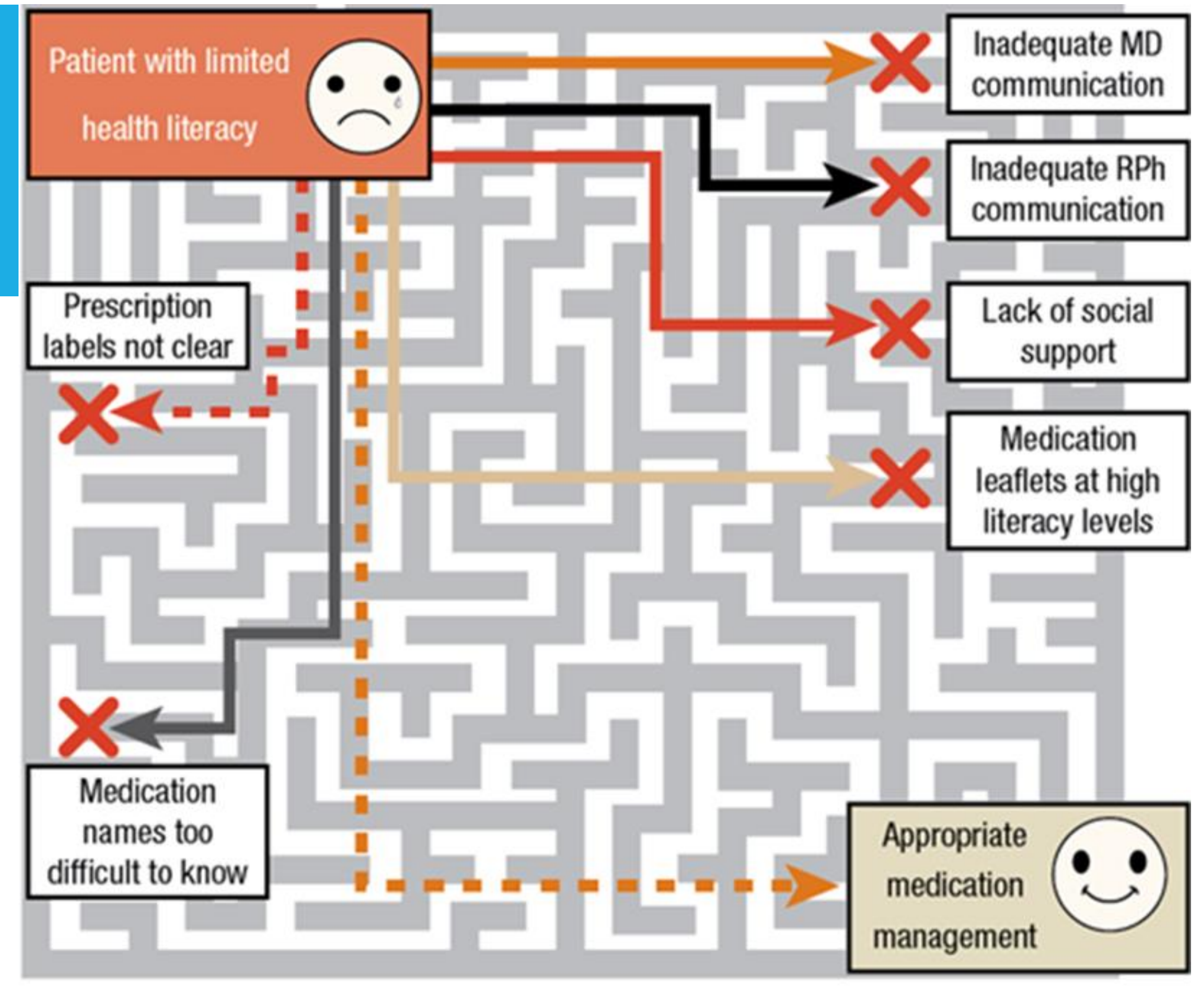
CLINICAL INERTIA- MULTIFACTORIAL

- **Medication Side Effects** – fear of hypoglycemia, weight gain
- **Regimens** that require familiarization with new methods of administration and dosing schedules
- **Clinician resources** – staffing, clinical decision support, cost concerns, underestimation of patient concerns
- **Medication costs** – particularly important in the low income/uninsured populations
- **Health Literacy -** A lack of understanding of the nature of their disease can also result in reluctance to intensify treatment
- **Health Beliefs** - idea that their diabetes has worsened as a result of some "failure" on their part denial about their disease progression and its potential complications, particularly if they have no physical symptoms
- **Fear** - patient resistance to insulin initiation because of fear of injection-induced pain
- **Patient frustration** – not reaching goals may lead to therapeutic failure due to nonadherence

Okemah J, Peng J, Quiñones M. Addressing Clinical Inertia in Type 2 Diabetes Mellitus: A Review. *Adv Ther*. 2018;35(11):1735–1745. doi:10.1007/s12325-018-0819-5

SYSTEM BARRIERS TO MEDICATION ADHERENCE

- Misinterpretation of prescription labels
- Medication information provided at high literacy levels
- Patient feels intimidated or embarrassed
- Lack of insurance or underinsured
- Retail model – time constraints on dedicated face to face counseling/communications
- Time constraints on provider-patient communications



Source: DiPiro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey LM: *Pharmacotherapy: A Pathophysiologic Approach, Ninth Edition:* www.accesspharmacy.com

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ADDRESSING CLINICAL INERTIA-TEAMWORK

- Tap into community resources and programs to support self management i.e. peer support groups, promotoras, community centers, churches
- Include caregivers/family when appropriate
- Assess patient understanding of medications and regimen- Teach Back, Health Literacy, Cultural, Linguistic
- Patient Education Tools – 3rd grade level
- Make sure they understand the consequences of non-adherence- "What's in it for Them!"
- Shared decision making- decision making support
- Frequent follow up – high touch - regular educational input and support, and the development of physician–patient rapport
- Teamwork – Coordinated Patient Centered Care - Staff training and clear clinical guidelines
- Pharmacist in primary care
- Certified Diabetes Educator

IMPROVING ADHERENCE -TOOL & BROWN BAG/MEDICATION MANAGEMENT

Name:	Date: ___/___/____							
Medications - Medicinas	What is it for? - Para Que Es?	Before Breakfast - Antes del Desayuno	After Breakfast - Despues del Desayuno	Before Lunch - Antes del Almuerzo	After Lunch - Despues del Almuerzo	Before Dinner - Antes De La Comida	After Dinner - Despues De La Comida	Bedtime - Al Acostarse

Zufall Health Center Teresita J. Lawson, Rph, CDE Dr. Rina Ramirez, MD, FACP

- Teach Back
- Personal Medication Record
- Medication Action Plan
- Health Literacy/Literacy
- Self Management Tool

Simple Method - CDC's Noon Conference/ Medication Adherence/March 27, 2013

ADHERENCE TOOL

- Patient Knowledge, Comprehension and Self Efficacy Assessment
  - **Improves Adherence**- " The SIMPLE Method"
  - **Addresses Barriers**- cognition, side effects
  - **Engages patient** in the process
  - **Identifies Solutions**
  - **Mitigates Literacy**- Bilingual/Universal Symbols, Clocks
  - **Reduces Side Effects**- Enhances Acceptance
  - **Aligns with QI Initiatives** -Medication Reconciliation- Medication Education/Meaningful Use/PCMH
  - **Self-Management Take Home Tool** for Patient/Medication Action Plan

S	=	Simplify Regimen
I	=	Impart Knowledge
M	=	Modify Patient Beliefs and Behaviors
P	=	Provide Communication and Nurture Trust
L	=	Leave the Bias
E	=	Evaluate Adherence

PATIENT CASE- ADHERENCE TOOL IN ACTION

49YO, Hispanic Male, limited English, History of T2DM 3 years, HTN 1 year, A1C – 8.5%

Patient came in for initial consultation with CPS- BP at visit 140/90

Brought in brown bag- metformin 1000 mg BID, HCTZ 25mg QD, Aspirin 81mg QD

Adherence Sheet – ask open ended questions with adherence sheet – Can you tell me what this medication is for? (While pointing to metformin) Assessed patient knew it was for diabetes. Can you tell me how you take the medication? Patient revealed that he hated the medication, gave him diarrhea. He also revealed that he took the metformin before breakfast and at lunch time because the label said twice daily. He also revealed that he would take it with or without food. He took the diuretic in the AM and the aspirin he self prescribed. Complained of frequent urination throughout the day. Objective observation- brown bag- bottle dated 28 days before visit. Original fill 30 days, bottle contained 22 tablets. Why? Patient revealed non-adherence.

INTERVENTIONS- SIMPLE METHOD

S- Simplify Regimen- Educated patient on dosing of metformin and separate doses by at least 8 hours, always take with food. Consultation with MD, Recommendation to dc aspirin and change HCTZ to ACE/ARB. Suggested to change metformin IR to ER formulation. Recommendation accepted.

I- Impart Knowledge- educated patient on pathophysiology of diabetes and what metformin and ACE/ARB would do for him. What is in it for the patient!

M- Modify Beliefs - Educated patient on dosing of metformin- separate doses by at least 8 hours, always take with food.

P- Provide communication and nurture trust – High touch - saw patient every 2 weeks until goal of dropping A1C to 7.5% was met. Then every 3 months were patient maintained an A1C of less than 7%.

L- Leave the bias – empathize, always greeted patient with a smile and respect. Partnered with the patient and always treated him as the most important team member in the management of his condition.

E- Evaluate Adherence- adherence tool was utilized at every visit with the patient. He always kept a list of his medications in his wallet and kept the new Adherence tool on his refrigerator door. Patient reported the change to metformin ER really helped his GI side effects and brown bag was always consistent with adherence. He reported loving the ACE and not having to urinate frequently during the day. Patients BP at last visit was 120/70 and A1C was 6.8%.

ADHERENCE ASSESSMENT- START THE CONVERSATION

❖ **EMBEDDED IN EMR**

Clinical Pharmacy: Drug Adherence: Risk Assessment

- I am convinced of the importance of my medicine 0-10 10,
- I worry that my medicine will do more harm than good to me 0-10 0,
- How committed are you to starting the medicine and staying on the medicine? 0-10 10,
- Do you sometimes forget to take your medicine? Not at all, Several Days, More than half the days, All the time

➢ **Conducted for all Patients**
➢ **Helps Identify Barriers- Cognitive Issues, Health Beliefs, Self Efficacy**
➢ **Helps Identify potential for Non-Adherence**
➢ **Embedded in CPS Encounter**

HOW TO READ A PRESCRIPTION LABEL

- Counseling Tool- Simple/Health Literacy/Literacy
- Improves Adherence
- Educates Patient on Refills
- Helps patient navigate the system
- Patient feels less intimidated and more in control
- Integrates patient as integral to process
- Improves Communications- All Parties
- Engages Community 340B Partners

How to Read Your Prescription La[bel]

1	**RX#/PRESCRIPTION NUMBER** This number helps the pharmacy fill your prescription more easily.
2	**YOUR NAME-** Always make sure it is your name on the label
3	**HOW TO TAKE YOUR MEDICINE** Ask your pharmacist or provider if you are not sure about how to take your medicine
4	**NAME OF GENERIC & BRAND, STRENGTH AND QUANTITY OF YOUR MEDICINE** Ask your pharmacist or provider if you are not sure about what the medicine is for.
5	**THE DATE YOUR PRESCRIPTION/REFILL WAS PREPARED BY YOUR PHARMACY**
6	**NAME OF YOUR PROVIDER WHO PRESCRIBED YOUR MEDICINE**
7	**NUMBER OF REFILLS AUTHORIZED ON THE MEDICINE**
8	**USE BY DATE** Do not take this medicine past this date
9	**ORIGINAL DATE OF THE PRESCRIPTION** This is the first time you had this medicine ordered

1 RX # 1329264 RP 5 01/24/14
JOHN SMITH 2
123 MAIN ST DOVER, NJ 07801
3 TAKE ONE TABLET DAILY
DR DOE, JOHN 6 Use By: 012415 8
4 30 LEVOTHYROXINE 75 MCG TABLET- SANDOZ
LEVOTHYROXINE SODIUM Generic for SYNTHROID
7 3 Refills Thru 24 Jan 15 Orig Dt: 01/24/14 9

OTHER HELPFUL TIPS:

- ✓ Request refills at your pharmacy first - they will get in touch with your provider
- ✓ Request a refill before running out of medicine
- ✓ Take with Food/Meals- ask if it should be taken before or after your meals (breakfast, lunch and dinner).
- ✓ The number of pills may be different from what your provider ordered. This may be due to your insurance plan.
- ✓ Have a list of the medicine you are picking up at the pharmacy
- ✓ Let the pharmacist know what medicines you need

HOW TO READ A NUTRITIONAL LABEL

- Numeracy
- Cultural opportunities
- Understanding of nutritional components
  - Carbs, Protein, Fat, Sugar substitutes
- Benefits of healthy eating:
  - Good Carbs
  - Bad Carbs
  - Low saturated fat
  - Protein
  - Calories
  - Sodium content

Nutrition Facts

4 servings per container
Serving size 1 1/2 cup (208g)

Amount per serving
Calories 240

	% Daily Value*
Total Fat 4g	5%
Saturated Fat 1.5g	8%
Trans Fat 0g	
Cholesterol 5mg	2%
Sodium 430mg	19%
Total Carbohydrate 46g	17%
Dietary Fiber 7g	25%
Total Sugars 4g	
Includes 2g Added Sugars	4%
Protein 11g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 6mg	35%
Potassium 240mg	6%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Office of Disease Prevention and Health Promotion Health Communication Activities; Quick Guide to Health Literacy; US Department of Health and Human Services

AADE 7 SELF CARE BEHAVIORS-EVIDENCE BASED SYSTEM

American Association of Diabetes Educators

- Embedded in EMR
- Utilized at every encounter
- Guided encounter – Motivational Interviewing
- Goal setting
- Assessment of patient goals and targets
- Assessment of patient behaviors

AADE 7 SELF CARE CASE- DOCUMENTATION IN EMR

AADE 7 Self Care Behaviors: **Healthy Eating** Healthy Eating Discussed: Yes, Discussed Plate Method, Increase water intake Instructed pt to include carbs and protein in her diet. , Barriers **health belief, How important is it to you? 9**, Plan **Plate Method, Nutrition Labels.** Being Active Being Active Discussed: Yes, Discussed Cardio, Barriers Patient reports no barriers, How important is it to you? 9, Plan Cardio - Walking. Monitoring Monitoring Discussed: Yes, Discussed Testing Scheduled Reviewed, Bring in log for review, Barriers Patient reports no barriers, How important is it to you? 9, Plan Measure AM sugars, Measure PP sugars. Medications Medication discussed: Yes, **Discussed Adherence, Adherence shee**t given, **Barriers Forgetfulness, Health Belief**, How important is this to you? 9, Plan Other Insulin and metformin doses corrected. . Reducing Risks Reducing Risks Discussed: Yes, Discussed: Follow insulin instructions, Call with questions, Barriers: Low health literacy, **Does not fully understand risks,** How important is this to you? 9, Plan: Appointment provider made increase carb and protein intake. Patient Education Education/self management material provided: **Diabetes self management literature, Plate method, Medication education, insulin dose adjustment, pt to f/u frequently for insulin adjustment.**

LIVING WITH DIABETES
AMERICAN DIABETES ASSOCIATION

- Booklets in English and Spanish
- Plate method
- Medications
- Monitoring
- Prevention
- Physical Activity
- **REVIEWED WITH EVERY PATIENT**
- **EVERY PATIENT TOOK ONE HOME**

www.diabetes.org

PATIENT CASE

57 year old Lady from Senegal Africa. Uninsured, No English, Lives with Son in Law and Daughter

Newly dx in August 2011, first visit 9/11   A1C = >14% Classic Diabetes Symptoms

Only on SFU
Frightened, very low literacy, in her culture women are completely dependent, not self reliant
Pharmacist Interventions
Knowledge Assessment with Son in Law as interpreter/family integration
Education based on assessment– pathology/glucose utilization/insulin resistance, nutrition based on her culture- she was so happy about being able to eat within her culture, medication mgt, monitoring, exercise, and resources for the family to get involved
Close and Frequent Follow-up with patient with integration of entire family
Medication Recommendations and adjustments
Insulin administration/best practices/overcoming needle fear and cultural myths about insulin- pt thought it caused death
Oral medication mgt
Provider Consultations
ADE/pADE tracking
Referred to 340B Pharmacy for Free Meter, activated coupon for patient before sending her to Pharmacy
A1C as of 2/8/11 = 7.6%
A1C as of 5/13 = 6.2%

WHAT WORKED

- Established trust- empathetic and non bias
- Tools allowing customization of encounters based on patient behavior, health beliefs, level of health literacy, barriers
- Frequent follow ups- high touch
- Education – simply explained pathophysiology, labs, consequences and impact to patient
- Medication reviews – patient safety- ADE monitoring, take home self management tools
- Self-Management Education – AADE 7- Healthy Eating – taught them easy ways to eat healthier and still enjoy the foods of their culture – Cultural Sensitivity always front and center
- Patient engagement -Partnering – through trust, involvement of family, the patient is engaged in a partnership for their health and well being
- Addressed health beliefs – cultural myths about Diabetes and medications like Insulin
- Enhanced access to care and treatment- 340B, uninsured, manufacturer programs, referrals to preventive and adjunctive services i.e. Behavioral health, podiatry, etc.

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.

- Symposium Registration, Call for Abstracts and Posters, and sponsorship opportunities are now available for our 2020 Symposium.

- When? June 18 – 19, 2020

- For more information visit: 2020 Health in Public Housing National Training Symposium

2020 HEALTH IN PUBLIC HOUSING NATIONAL TRAINING SYMPOSIUM

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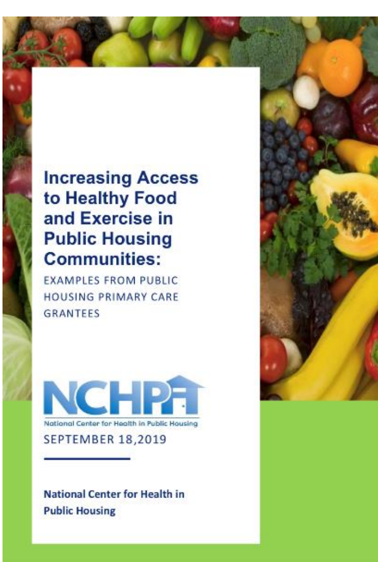

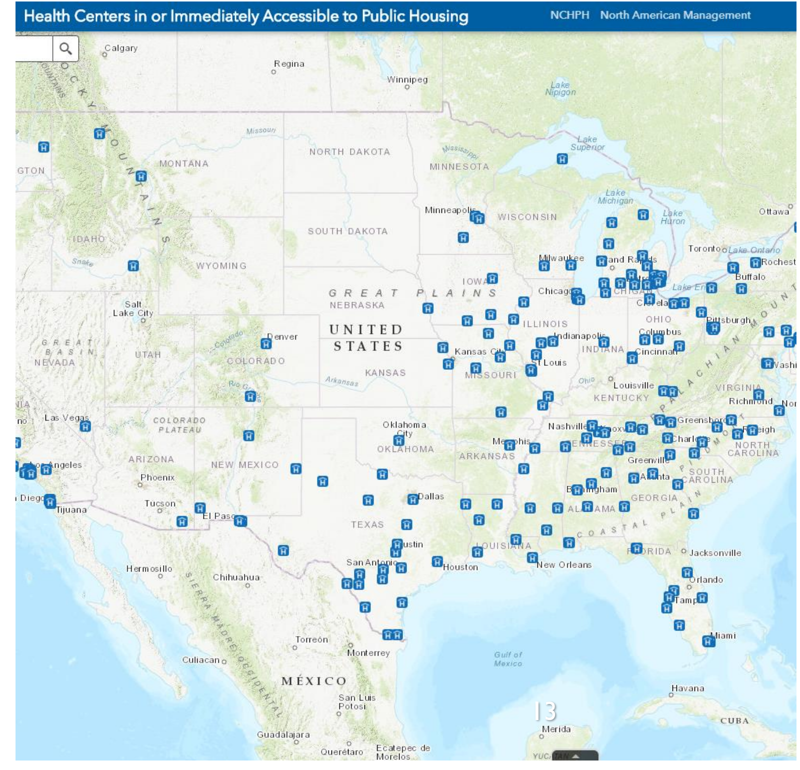

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