

ROLE OF COMMUNITY HEALTH WORKERS IN ADDRESSING DIABETES

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ABOUT MHP SALUD

MHP Salud is a **national** nonprofit organization with over **35 years of experience** developing, implementing, and evaluating community-based, culturally tailored **Community Health Worker (CHW)/Promotor(a) de Salud programs** and **promoting** the CHW model through training and consultation services.

Mission

MHP Salud **implements** Community Health Worker programs to **empower underserved Latino communities** and promotes the CHW model **nationally** as a culturally **appropriate strategy to improve health**.

Vision

Our populations and their communities will enjoy health without barriers.



OVERVIEW

- I. *Dinamica* / Ice Breaker
- II. CHW Roles and Responsibilities Addressing Diabetes
- III. CHW-Led Diabetes Intervention Case-Studies
- IV. Diabetes Resources and Tools Overview
- V. CHW- Diabetic Patient Plan
- VI. Wrap-up Activity

DINAMICA



CHW ROLES AND RESPONSIBILITIES ADDRESSING DIABETES



WHO ARE CHWS?

1. A Community Health Worker is? _____.
2. It is important for a CHW to _____ his/her community.
3. Without Community Health Workers, _____.



COMMUNITY HEALTH WORKERS

A **CHW** is a frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community served. This trusting relationship enables the **CHW** to serve as a liaison/link/intermediary between health and social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery. - APHA CHW Section Definition: *Promotore(as) de Salud* – Spanish term for CHWs



HOW DO CHW-LED DIABETES INTERVENTIONS POSITIVELY IMPACT INDIVIDUAL PATIENTS?

Improvements in A1C Levels:

One of the most commonly reported positive health outcomes in CHW-led diabetes interventions is the improvement /stabilization of A1C levels reported in patients. The hemoglobin A1C test is a marker widely used to diagnose pre-diabetes and diabetes and to monitor diabetes control in patients.

Increased Physical Activity:

Studies have reported that CHW-led interventions have resulted in increased physical activity of participants, a key factor in preventing and managing diabetes.

Greater Patient Understanding of their Disease:

Frequently reported is the increase in participants' knowledge regarding how to prevent and manage diabetes. Results have been significantly better when participating in CHW-led interventions as compared to control groups.

Improved Mental Health and Decreased Diabetes Distress:

Studies have shown that CHW-led stress management exercises are successful when incorporated into diabetes education and management classes. Mental stress has been shown to worsen glycemic control among persons with type 2 diabetes, so addressing mental state is a key element in addressing diabetes holistically.

HOW DO CHW-LED DIABETES INTERVENTIONS POSITIVELY IMPACT ORGANIZATIONS AND COMMUNITIES?

The benefits of CHW-led interventions targeting diabetes do not end with individual health outcomes. Several studies have also shown positive community-level benefits of CHW-led interventions:

Reducing Disparities:

Disparities in prevalence of type 2 diabetes and complications in underserved populations have been linked to poor quality of care including lack of access to diabetes management Programs. By providing access to cost-effective care, CHWs have been able to successfully address and mitigate these health disparities.



Reducing ER Utilization and Medical Costs:

CHW interventions have resulted in decreased rates of unnecessary ER usage and decreased medical costs.



Improving Patient / Provider Coordination:

CHWs have also shown positive results in enhancing coordination between patients and providers. Increasing medication adherence and follow-up visit attendance

ROLES AND SUB-ROLES OF CHWS

Role	Sub-Roles
Cultural Mediation	<ul style="list-style-type: none"> a. How to use health and social service systems b. Community perspectives and cultural norms c. Health literacy and cross-cultural communication
Culturally Appropriate Health Education	Health promotion, disease prevention, and health condition management that is culturally and linguistically appropriate
Care Coordination, Case Management and System Navigation	<ul style="list-style-type: none"> a. Providing assistance and coordination over time b. Making referrals and providing follow-up c. Helping to address barriers to service d. Care system navigation
Coaching and Social Support	<ul style="list-style-type: none"> a. Motivating people to access care and services b. Supporting behavior change c. Facilitating community-based support groups
Advocating	<ul style="list-style-type: none"> a. Identifying community needs and resources b. Advocating for clients and communities c. Empowering communities to pursue their own desired policy change
Building Capacity to Address Issues	<ul style="list-style-type: none"> a. Building individual and community capacity b. Training with CHW peers and among networks
Individual and Community Assessments	Participate in holistic individual- and community-level assessments
Outreach	<ul style="list-style-type: none"> a. Recruitment of individuals b. Informing individuals c. Representing your organization at community events
Evaluation	<ul style="list-style-type: none"> a. Data collection b. Assisting in interpreting results c. Sharing results and findings

ROLES AND SUBROLES OF CHWS

ADDRESSING DIABETES



CULTURAL MEDIATION



How can this role be applied to address diabetes?

- Awareness of the cultural barriers that diabetic patients are facing and can support with patient-provider and provider-patient communication.
- Ability to explain medical processes to diabetic patients using culturally appropriate language and behaviors.

CULTURALLY APPROPRIATE HEALTH EDUCATION



How can this role be applied to address diabetes?

- Use a variety of educational methods to motivate and support behavior change among diabetic patients.
- Coordinate education and behavior change activities with care team.
- Educate diabetic patients about internal and external resources that support health behavior change and diabetes management.
- Support the development of educational tools and resources to support health behavior change and diabetes management.

CARE COORDINATION, CASE MANAGEMENT, AND SYSTEM NAVIGATION



How can this role be applied to address diabetes?

- Obtain and share up-to-date eligibility requirements and other information about health insurance, public health programs, social services, and additional resources to protect and promote health-diabetes.
- Monitor the process of all applications/forms submitted with their guidance and support.
- Are knowledgeable of the departments within the clinic to effectively coordinate care.

COACHING AND SOCIAL SUPPORT



How can this role be applied to address diabetes?

- Motivating diabetic patients to access care and services.
- Motivating and supporting diabetic patients to adopt a healthy lifestyle.
- Facilitating community-based diabetic support groups

ADVOCATING



How can this role be applied to address diabetes?

- Advocate on behalf of patients and communities, as appropriate, to assist people to attain needed care or resources in a reasonable and timely fashion.

BUILDING CAPACITY TO ADDRESS ISSUES



How can this role be applied to address diabetes?

- Encourage diabetic patients to identify and use available resources to meet their needs and achieve health goals.
- Help to build diabetic patient's self-efficiency and self-efficacy.

INDIVIDUAL AND COMMUNITY ASSESSMENTS



How can this role be applied to address diabetes?

- Perform individual and community assessments prior to the implementation of a program to assess needs and priorities.
- Provide continuous assessments to document diabetic patient's behavior and knowledge changes.

OUTREACH



How can this role be applied to address diabetes?

- Meet people/patients where they are at by building relationships based on listening, trust, and respect.
- Establish and maintain relationships with community organizations to provide diabetic patients with access to social resources.

EVALUATION



How can this role be applied to address diabetes?

- Collect diabetic patient data
- Assist in interpreting results
- Share results and findings

CHW-LED DIABETES INTERVENTION CASE-STUDIES

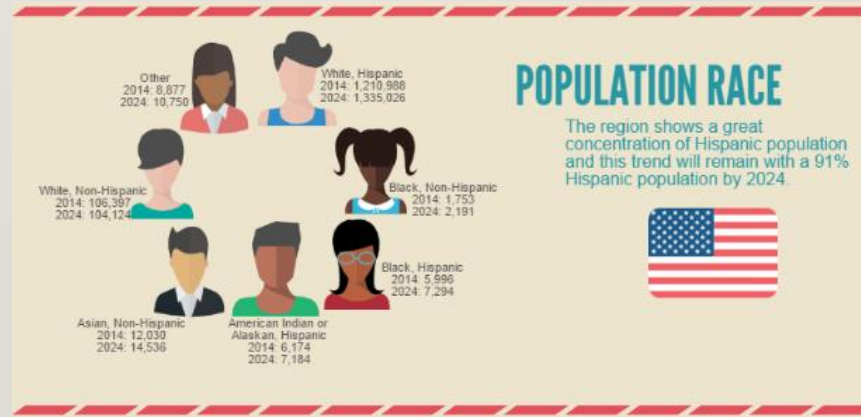


DATA-DRIVEN DIABETES PROGRAMS

OBSESITY AND DIABETES IS PANDEMIC IN LOWER RIO GRANDE VALLEY OF SOUTH TEXAS



<https://www.utsystem.edu/projectdoc>



VIVIR UNA VIDA PLENA LIVING A FULFILLING LIFE



A program dedicated to promoting the adoption of healthy lifestyles among individuals at high risk for, or diagnosed with the early stages of **chronic diabetic kidney disease (CDKD)**.

Located in **Hidalgo and Starr Counties in South Texas**, the program uses a participant-centered approach that provides education, support and skill building to help participants live healthy lives.



VIVIR UNA VIDA PLENA LIVING A FULFILLING LIFE



CHW Role:

- Door-to-door outreach in predominantly Latino and Hispanic neighborhoods (colonias)
- Link participants to a medical home/partner clinic
- Provide cultural competent self-management education classes
- Connect them to community resources



PROGRAM GOALS



Provide information to 1,500 individuals about Chronic Diabetic Kidney Disease

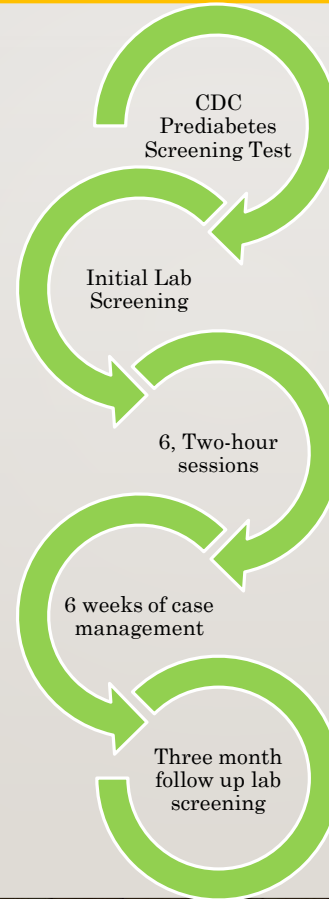
Provide CHW-led case management and health education to 100 individuals diagnosed at risk for or at early stage diagnosis for chronic diabetic kidney disease (CDKD).

Increase knowledge and positive attitudes surrounding diabetes self-management and healthy living

Decrease blood pressure and hemoglobin A1C

Self reported Improvements in healthy eating habits

PROGRAM OVERVIEW



PROGRAM SUCCESSES



134
At risk or
diagnosed with
CKD



73
Participants
enrolled in
education
sessions

1530
Individuals
reached with
information
about CKD





PARTICIPANT TESTIMONIAL



“I took Vivir una Vida Plena classes with Rosy (CHW). In those classes I learned a lot of things. To begin with, I learned how to provide my children with better food and prevent them from developing diabetes. I started going to the class and then my children would accompany me. They would remind me of the foods we needed to buy when we were grocery shopping. To date, my son has lost 10 lbs. my children no longer drink soda and don’t crave other junk foods. They learned how to choose and eat healthier options.”

Mrs. Chapa – 2018 Participant

CASE STUDY

Research

BMJ Global Health

Community health workers improve disease control and medication adherence among patients with diabetes and/or hypertension in Chiapas, Mexico: an observational stepped-wedge study

Patrick M Newman,¹ Molly F Franke,² Jafet Arrieta,³ Hector Carrasco,³ Patrick Elliott,⁴ Hugo Flores,⁵ Alexandra Friedman,⁶ Sophia Graham,⁷ Luis Martinez,⁸ Lindsay Palazuelos,⁹ Kevin Savage,² Hayley Tymeson,¹⁰ Daniel Palazuelos⁹

To cite: Newman PM, Franke MF, Arrieta J, et al. Community health workers improve disease control and medication adherence among patients with diabetes and/or hypertension in Chiapas, Mexico: an observational stepped-wedge study. *BMJ Glob Health* 2018;3:e000566. doi:10.1136/bmjgh-2017-000566

Handling editor Valery Ridde

Received 11 September 2017
Revised 2 November 2017
Accepted 15 November 2017

ABSTRACT

Background Non-communicable diseases (NCDs) contribute greatly to morbidity and mortality in low-income and middle-income countries (LMICs). Community health workers (CHWs) may improve disease control and medication adherence among patients with NCDs in LMICs, but data are lacking. We assessed the impact of a CHW-led intervention on disease control and adherence among patients with diabetes and/or hypertension in Chiapas, Mexico.

Methods We conducted a prospective observational study among adult patients with diabetes and/or hypertension in the context of a stepped-wedge roll-out of a CHW-led intervention. We measured self-reported adherence to medications, blood pressure and haemoglobin A1c at baseline and every 3 months, timed just prior to expansion of the intervention to a new community. We conducted individual-level mixed effects analyses of study data, adjusting for time and clustering by patient and community.

Findings We analysed 108 patients. The CHW-led intervention was associated with a twofold increase in the odds of disease control (OR 2.04, 95% CI 1.15 to 3.62). It was also associated with optimal adherence assessed by 30-day recall (OR 1.86; 95% CI 1.15 to 3.02) and a positive self-assessment of adherence behaviour (OR 2.29; 95% CI 1.26 to 4.15), but not by 5-day recall.

Interpretation A CHW-led adherence intervention was associated with disease control and adherence among adults with diabetes and/or hypertension. This study supports a role of CHWs in supplementing comprehensive primary care for patients with NCDs in LMICs.

Trial registration number NCT02549495.

Key questions

What is already known about this topic?

- ▶ Community health workers (CHWs) represent a potentially effective force in helping to address the rising burden of noncommunicable disease (NCDs) in low-income and middle-income countries (LMICs).
- ▶ There is a lack of data evaluating the effectiveness of CHWs in improving outcomes among patients with NCDs in LMICs.

What are the new findings?

- ▶ A CHW-delivered intervention focusing on disease management and medication adherence improved disease control and adherence to medications among patients with diabetes and hypertension in rural Mexico, when added to a functioning comprehensive primary care system.
- ▶ These data provide the first prospective evidence of the effectiveness of CHWs in improving disease outcomes among patients with NCDs in Latin America.

Recommendations for policy

- ▶ CHWs have a role in health systems strengthening to improve disease outcomes among patients with NCDs in LMICs.
- ▶ Health systems that already provide comprehensive clinic-based primary care for patients with NCDs can further improve adherence, and clinical outcomes, by incorporating CHWs.

BMJ Glob Health: first published as 10.1136/bmjgh-2017-000566 on 15 February 2018. Downloaded from <http://gh.bmj.com/> on September 13, 2019 by guest

Newman PM, Franke MF, Arrieta J, et al. Community health workers improve disease control and medication adherence among patients with diabetes and/or hypertension in Chiapas, Mexico: an observational stepped-wedge study *BMJ Global Health* 2018;3:e000566.

CASE STUDY

Population

Assessed the impact of a CHW-led intervention on disease control and adherence among **patients (108) with diabetes and/or hypertension in Chiapas, Mexico.**

Methods

Prospective observational study among adult patients with diabetes and/or hypertension, in the context of a stepped-wedge roll-out of a CHW-led intervention.

- Measured self-reported adherence to medications, blood pressure and haemoglobin A1c at baseline and every 3months, timed just prior to expansion of the intervention to a new community.
- Conducted individual-level mixed effects analyses of study data, adjusting for time and clustering by patient and community.



CASE STUDY

Results

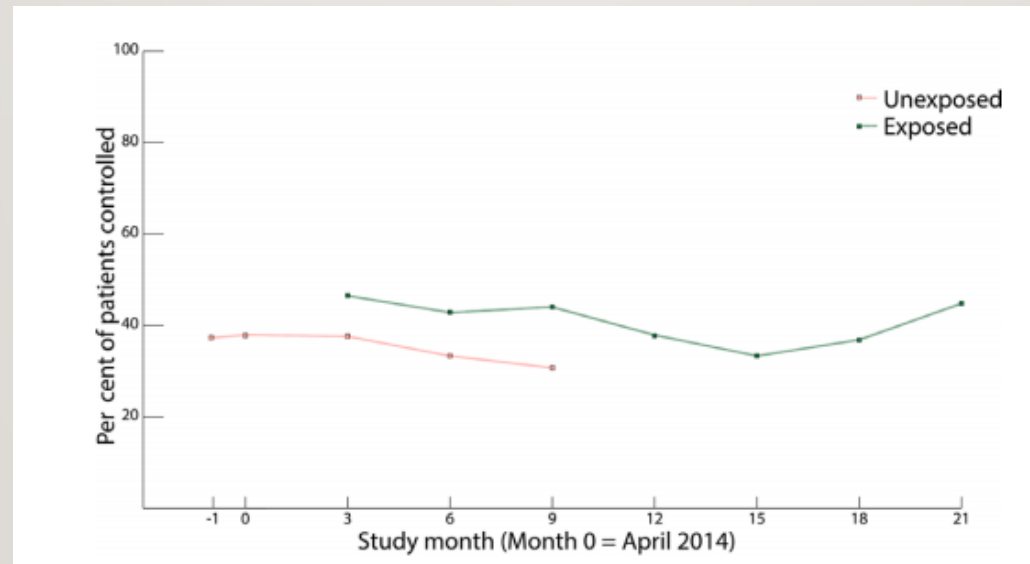
The CHW-led intervention was associated with **two-fold increase** in:

- Optimal adherence assessed by 30-day recall (OR 1.86; 95% CI 1.15 to 3.02)
- Odds of disease control (OR 2.04, 95% CI 1.15 to 3.62)
- Positive self-assessment of adherence behavior (OR 2.29; 95% CI 1.26 to 4.15)

CASE STUDY

Results

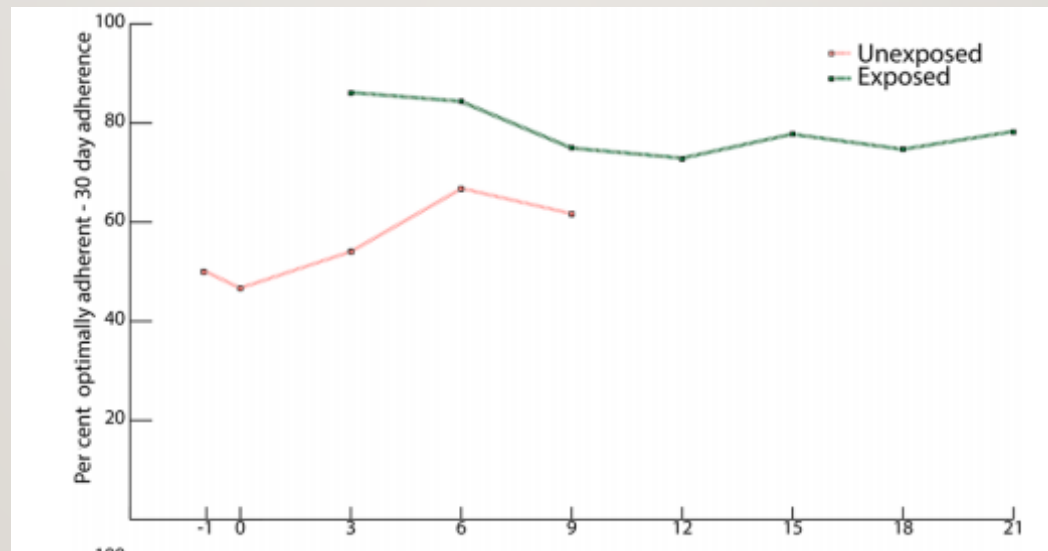
Odds of disease control (OR 2.04, 95% CI 1.15 to 3.62)



CASE STUDY

Results

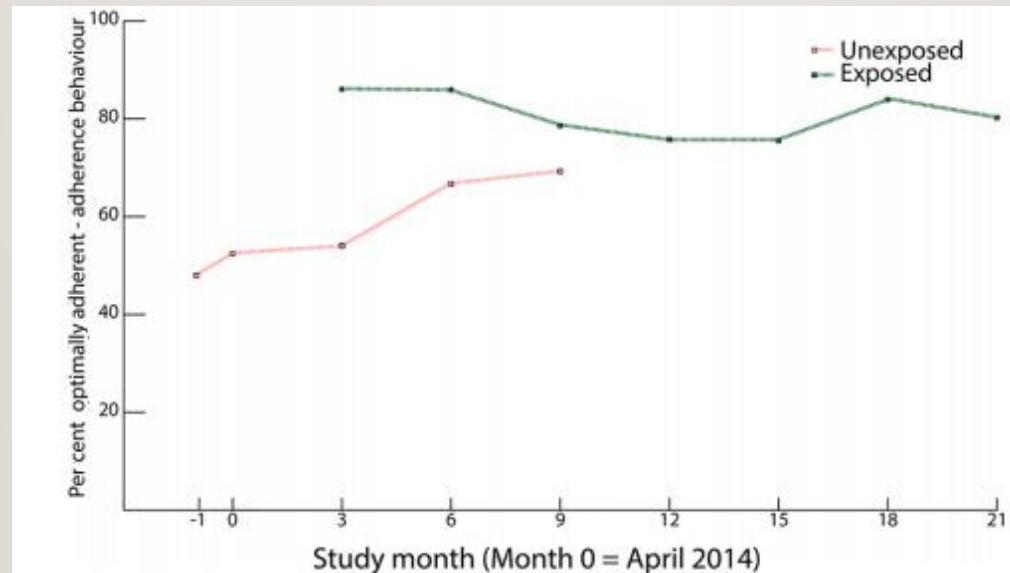
Optimal adherence assessed by 30-day recall (OR 1.86; 95% CI 1.15 to 3.02)



CASE STUDY

Results

Positive self-assessment of adherence behavior (OR 2.29; 95% CI 1.26 to 4.15)



CASE STUDY

Conclusion

A CHW-delivered intervention focusing on disease management and medication adherence improved disease control and adherence to medications among patients with diabetes and hypertension in rural Mexico, when added to a functioning comprehensive primary care system.



DIABETES RESOURCES AND TOOLS OVERVIEW



UNDERSTANDING AND ADDRESSING DIABETES IN YOUR COMMUNITY: A QUICK GUIDE FOR CHWS

Understanding and Addressing Diabetes in your Community: A Quick Guide for CHWs is a resource for Community Health Workers that provides information about diabetes, and provides tools for Community Health Workers can use to guide patients with diabetes towards a healthier future. Included with the guide are guidelines on how to manage diabetes, as well as an A1c tracker so patients can track their progress towards their A1c goals.



Available at:

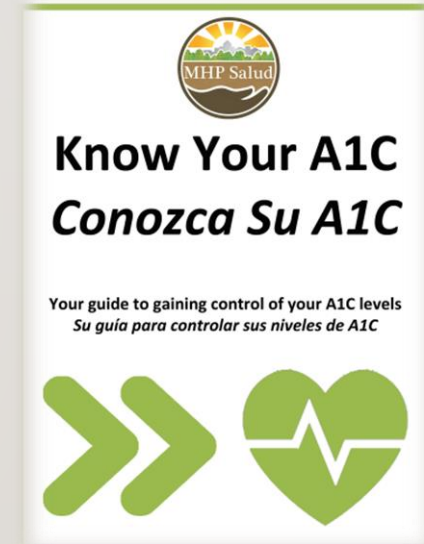
- <https://mhpsalud.org/portfolio/understanding-addressing-diabetes-community-quick-guide-chws/> - English
- <https://mhpsalud.org/portfolio/comprendiendo-abordando-diabetes-guia-para-promotores-de-salud/> - Spanish

KNOW YOUR A1C TOOL

This bilingual tool can be printed into a pamphlet that participants can use to track their A1C and other biometric data.

Available at:

<https://mhpsalud.org/portfolio/know-your-a1c-tool-2/>



COMMUNITY HEALTH WORKERS AND DIABETES INTERVENTIONS: A RESOURCE FOR PROGRAM MANAGERS AND ADMINISTRATORS

Community Health Workers and Diabetes Interventions: A Resource for Program Managers and Administrators explains the positive impact that CHW-led diabetes interventions can have on individual patients as well as organizations and communities. This resource also contains links to external resources, as well as contains MHP Salud's own programmatic approaches to addressing diabetes.

Available at:

<https://mhpsalud.org/portfolio/community-health-workers-diabetes-interventions/>



BRIEF REPORT: DIABETES AND THE CHW MODEL

This report offers an overview of how the CHW model has been used as an intervention and chronic care management approach when it comes to type 2 diabetes.

Available at:

<https://mhpsalud.org/portfolio/brief-report-diabetes-and-the-chw-model-2/>



ROAD TO HEALTH -DIABETES CURRICULUM

Road to Health Toolkit, is a free, informational resource for Community Health Workers, nurses, dietitians and health educators alike. The overall goal of this toolkit is to share the message that type 2 diabetes is preventable and can be delayed in high risk groups. This toolkit consists of a user's guide, flipchart, activities guide, quiz, educational posters, training videos, booklets, music and podcasts. Also included in the toolkit is an evaluation guide. The guide assists in measuring outreach and target audience, changes made by participants, and key demographic data.

Available at:

<https://www.cdc.gov/diabetes/ndep/pdfs/toolkits/road-to-health/road-to-health-toolkit-flipchart.pdf> - English

<https://www.cdc.gov/diabetes/ndep/pdfs/toolkits/camino-buena-salud/road-to-health-toolkit-flipchart-spanish.pdf> - English

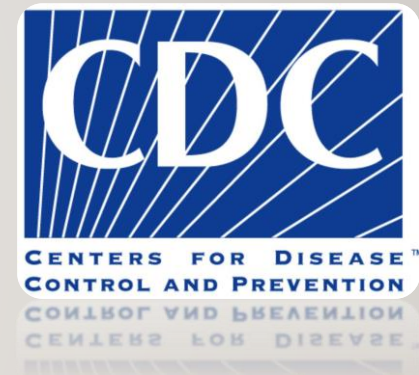


BEYOND THE ROAD TO HEALTH TOOLKIT

Beyond The Road to Health Toolkit, the CDC provides a wide selection of resources and curricula relating to diabetes prevention and management. The PreventT2 Curriculum is a 12-month program that promotes lifestyle change through self-efficacy, physical activity and diet. This curriculum consists of 31 sessions, all available in both English and Spanish. Most of the sessions also include handouts for program participants, which are available in both language.

Available at:

<https://www.cdc.gov/diabetes/prevention/lifestyle-program/t2/t2materials.html>



DIABETES INITIATIVE- RESOURCES & CURRICULA

The Diabetes Initiative, funded by the Robert Wood Johnson Foundation offers tools and resources for developing and implementing programs that focus on improving diabetes self-management Included in their list of resources is a six-session diabetes self-management curriculum. The curriculum focuses on such topics as monitoring the disease, understanding blood sugar levels, nutrition, medication and complications, health tips, and navigating the supermarket/grocery store.

Available at:

<http://www.diabetesinitiative.org>



AMERICAN DIABETES ASSOCIATION- RESOURCES

The American Diabetes Association provides a large array of resources focused both on prevention and management of diabetes. Several helpful tools include an “Am I At Risk?” calculator for individuals, a resource locator for local communities, materials for researchers and policy makers, and several helpful tools for those currently living with Type 2 Diabetes (meal planning, explanations of treatment and care, complications, and information regarding diabetes and health insurance.)

Available at:

<https://www.diabetes.org/>

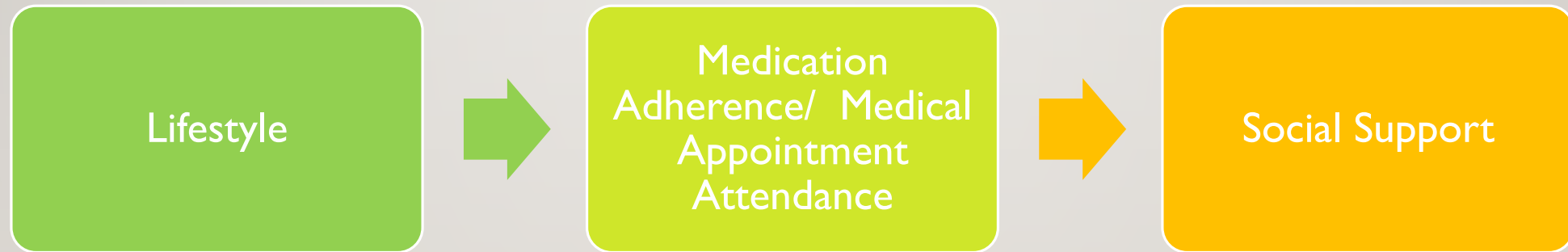


CHW- DIABETIC PATIENT PLAN

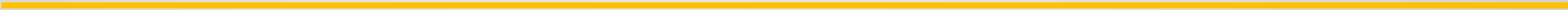


CHW PLAN FOR DIABETIC PATIENT

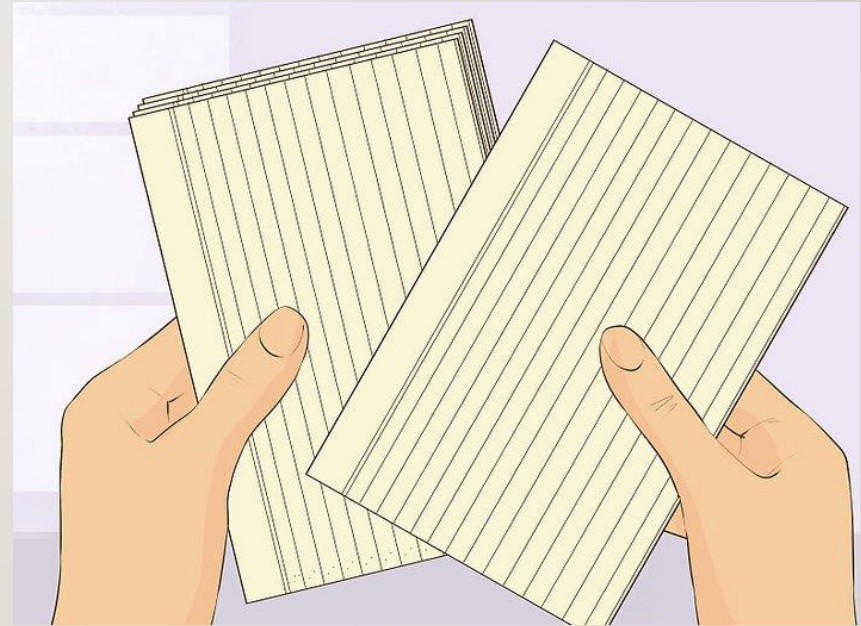
GROUP ACTIVITY



WRAP-UP



RATING OUR IDEAS



QUESTIONS?



THANK YOU



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