Know Diabetes by Heart (KDBH)

Tool-Kit

Best Practices and Lessons Learned

March 2020 - March 2021

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INTRODUCTION

Purpose of the Tool-Kit

1. The Tool-Kit can enable reduction in time to plan a similar intervention for comparable population by providing a simple, logically organized structure

2. It is designed to be easy to use by practitioners and while it provides guidance and best practices for challenging populations, it is not prescriptive

3. It is adaptable and easily customizable to the local context

4. It provides comprehensive resource of relevant material; and demonstrable benefit to users.

5. It utilizes evidence based approaches that are reimbursable and likely to be sustainable over the long term

Use of the Tool-Kit

- The activities are to improve the care and health-outcomes for high risk and vulnerable populations

- We highlight a selection of the many innovative and successful activities in the DCRC project entitled: “Building Community Support for Diabetes” and implemented by a collaborative cross-sector partnership

- The Tool-Kit includes the information necessary to allow it to be effectively implemented in a similar setting and for comparable population by someone other than the program developer.

- We hope that the Tool-Kit will be used to improve outcomes for comparable high risk and vulnerable populations in other chronic diseases and settings impacted by poor health outcomes and high health care costs.

Structure of the Tool-Kit

- The information in the Tool-Kit is organized to highlight the strategies selected to achieve the program's goal and objectives.
- Core features for program success and best practices are highlighted.
- We discuss some of the challenges that were encountered during the project period and present our solutions for overcoming the challenges/barriers.
- We present the core features that we have determined to be required for the success of the program.
- Data is collected and evaluated to determine the effectiveness of the program

Target Population for The Tool-Kit

TABLE 1: (Covers the Demographic Population)

Variable	Values				
Race/Ethnicity	Hispanics	African American	Asian Americans	Whites non-Hispanic	Other
	53%	11%	10%	23%	3%
Gender	**Female**		**Male**		**Other**
	51%		49%		< 1%
Age	**18-49**		**50-65**		**65+**
	45%		35%		20%
Primary Language	**English**		**Spanish**		**Other**
	60%		35%		5%
Insurance Status	**Medicaid**		**Medicare**	**Private Insurance**	**Uninsured/ Other**
	65%		11%	5%	19%
Living In Poverty	**Below 200% Federal Poverty Level (FPL)**		**Below 125% FPL**		**Below 100% FPL**
	10%		75%		15%
Less than High School Ed	36%				

Target Audience for the Tool-Kit

The Target Audience for this Tool-Kit Includes:

- Health systems seeking to improve the health of communities they serve,
- Hospital administrators and health management organizations for chronic diseases, including population care management: with
- A need for patient individualization in complex care management,
- Physicians, nurses, allied health professionals (including Community Navigators),

- Medical schools and other health care training requiring community service learning to improve management of complex patients or to
- Better understand the role of community based organizations (CBO) in complex patient care management and in
- Addressing Social Determinants of Health (SDoH);
- Federally Qualified Community Health Centers, Community Health Centers, other Safety Net Clinics,
- Local Health Departments,
- Non-profit community-based organizations and other
- Organizations serving vulnerable and high-risk populations with resources for un-met needs.

Selection Criteria: How the Interventions were selected for the Tool Kit

We selected Interventions that are:

1. **Innovative:** as demonstrated by one of the following:

    - **New approaches**: in **training Community Navigators** (CN) to increase patient engagement in self-care behaviors, care navigation and community outreach for linkage to un-met social needs

    - **Train CN: in Screening for un-met social needs**, providing peer-support and linkages to community resources for –un-met needs.

    - **Use of new technology** or using technology in a new way to provide more efficient service or improved care: **Use of Medical Health (MH) Record to identify patients for referral to Diabetes Self-Management Education (DSME) Program**

    - **Utilize MH Record to make referrals to DSME during routine patient care**

    - **Address the needs of high risk and or vulnerable population**

2. Has a broad impact

- Positive impact on quality, safety and cost

3. Potential for replicating the model

- In other facilities or communities
- For comparable population and
- Other chronic diseases
- Evidence of scalability where applicable.

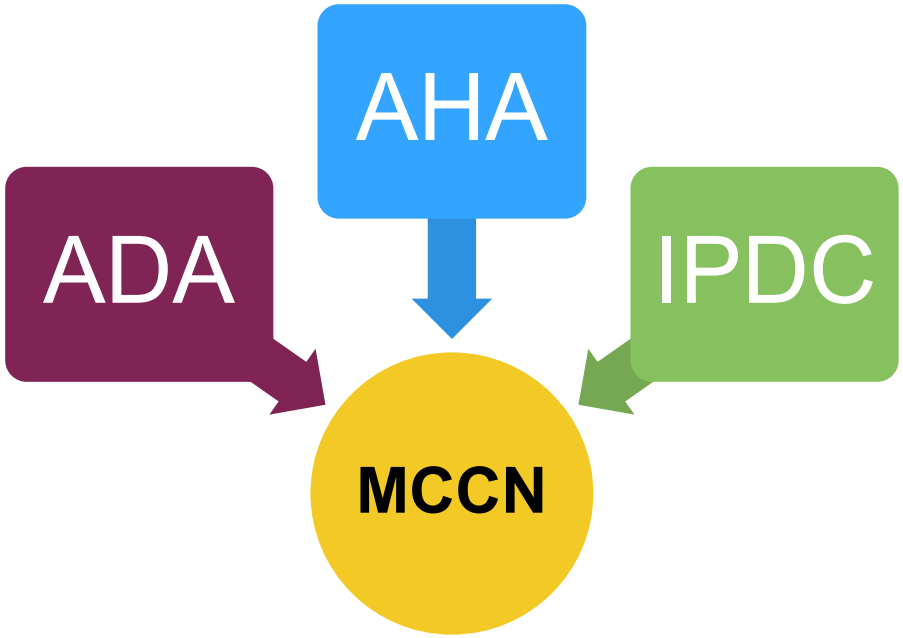
Description of the Problem the Tool-Kit Addresses

Although MCCN is an accredited DSMES supplier, its primary care providers (PCPs) struggle to routinely refer patients with T2D to DSMES and fewer than 25% of referred patients follow through with referrals. To remedy this situation, IPDC, which had provided training and technical assistance to MCCN when the network sought DSMES provider accreditation, proposed a pilot project, funded by KDBH, that would

The project designed funded by KDBHI called for the IPDC Center to provide technical assistance and training to an MCCN clinic so that providers could adopt a referral workflow that would:

- routinize DSMES referrals for all patients between the ages of 45 and 65 with T2D;
- provide patients with the necessary screening and support to overcome social determinants of health (SDOH) that can be barriers to DSMES enrollment and retention;
- track the referral outcomes to ascertain whether patients do in fact access the DSMES services; and assess patients' awareness of their risk for cardiovascular disease as a result of attending DSMES

The $99, 998 funding would increase access and retention in accredited Diabetes Self-Management Education and Support (DSMES) programs among residents of Los Angeles and Orange counties with a Type 2 Diabetes (T2D) diagnosis.



PARTNERSHIP: KEY STAKEHOLDERS

Approach: Partnership and Stakeholders

Health systems and providers are facing increasing demands to provide more quality individualized care, while lack of time among providers and the illness burden among high risk and vulnerable patients only seem to grow.

Despite promising research evidence that shared commitment and a multi-sector partnership approach to promote chronic disease self-management and support services at the community level are effective, these partnerships and collaborations are rarely utilized.

Some patients despite usual and routine care for chronic disease management do not improve, and for numerous reasons including: psycho-social factors and un-met social needs that present challenges and barriers to self-care management.

To address the above challenges, KDBH, MCCN and IPDC:

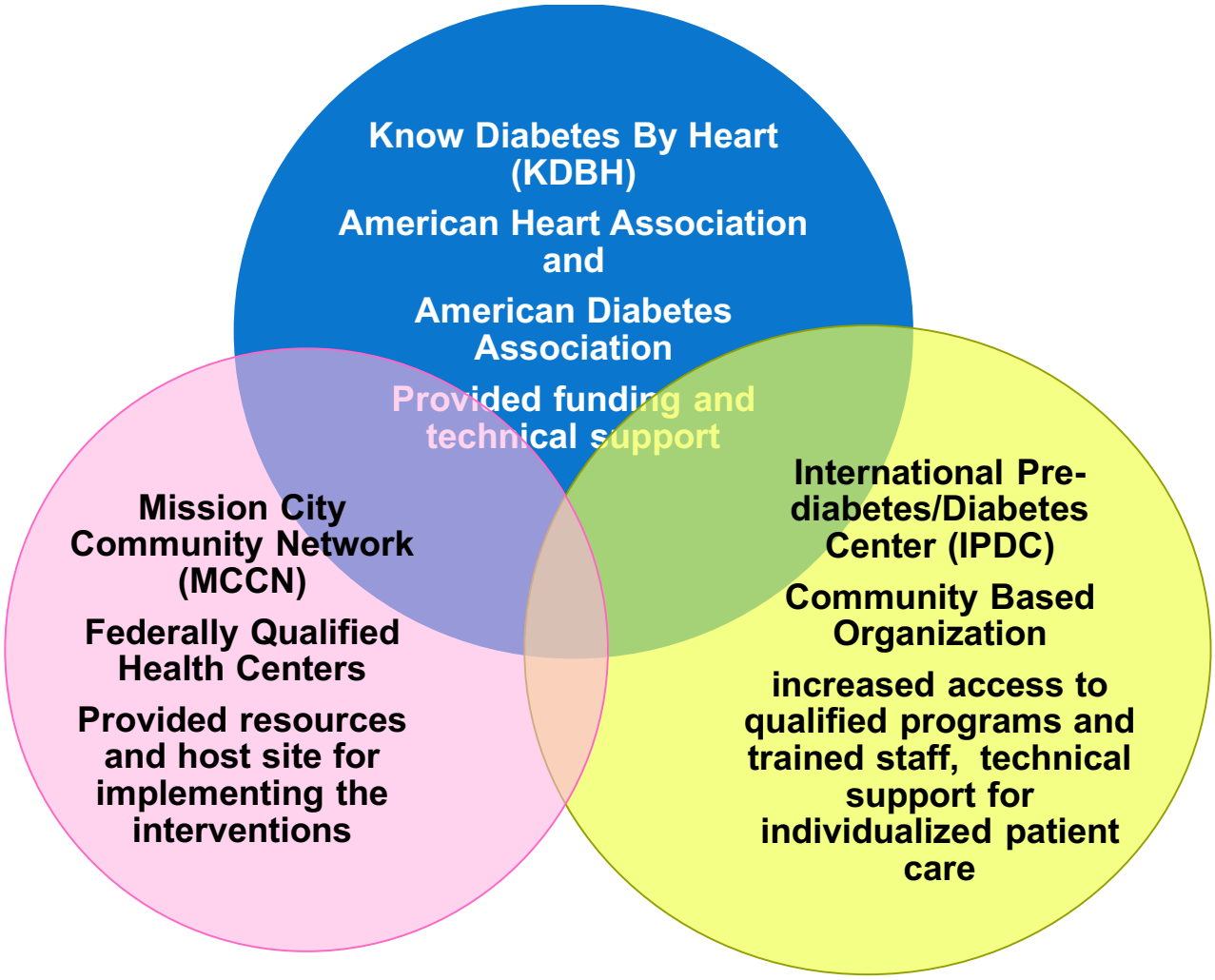
- Pursued a shared interest in improving community health by
- Promoting approaches that screen and target most vulnerable populations to reduce disproportionate disparities that drive poor health outcomes.
- Leverage resources to improve environment and community capacity in ways that are sustainable and produce measurable health outcomes
- Build community initiatives on a platform of governance, management, and implementing interventions that can result in stable financing that assures program continuity and sustainability.

Theories Used:

1. Cross-Sector Community Collaborations: Complex health care problems engaging vulnerable populations are best solved in partnerships with multiple key stakeholders including Community Navigators, to screen for and align resources with un-met social needs

2. Collective Impact: A collective Impact Framework Approach with shared management and accountabilities is a best approach for solving complex health care problems and challenges.

3. Trained Community Navigators: who are from the local communities and are trusted by vulnerable populations can play a role in closing gaps for disproportionate health disparities in chronic diseases, poor health outcomes and high health care cost among high risk and vulnerable populations.



PARTNERSHIP: KEY STAKEHOLDERS

Supporting Theory:
Complex health care problems engaging vulnerable populations are best solved in partnerships with multiple key stakeholders

References:
Rich E, Lipson D, Libersky J, Parchman M. Coordinating Care for Adults With Complex Care Needs in the Patient-Centered Medical Home: Challenges and Solutions. White Paper (Prepared by Mathematica Policy Research under Contract No. HHSA290200900019I/HHSA29032005T). AHRQ Publication No. 12-0010-EF.Rockville, MD: Agency for Healthcare Research and Quality. January 2012

PARTNERSHIP: ALSO, INCLUDED COLLABORATION ON METRICS: (Outlined in Contract)

The Metrics and Measures That Are Within Scope for This Collaboration Agreement Included:

1. Integrate DSMES referrals into the workflow at one MCCN clinic
2. Support PCPs to refer all patients with T2D to culturally and linguistically competent DSMES
3. Track the proportion of referred patients who actually: attend and complete DSMES
4. Assess patient awareness of their risk for cardiovascular disease, heart attack, heart failure and stroke before and after participation in DSMES

PROTOCOL

Patient Recruitment: Using Electronic Medical Record (EMR)

METHOD

MCCN a Federal Qualified Community Health Center (FQHC) network, although they had received national accreditation for their DSMES program: providers were not referring patients with Diabetes (T2D) to the program.

To improve referral MCCN adapted its EMR to make referrals in two main ways:

1. Ability to make referrals from all points of care by all providers utilizing EMR; The EMR searched a data base to identify patients with A1c > 8.0 and a notification appeared whenever the patient's record was accessed by a provider alerting the provider of the referral process utilizing the EMR.
2. Newly diagnosed patients with diabetes were virtually referred to DSMES and whenever a patient enrolled in DSMES the notification alert disappeared from the EMR alert.

IMPACT:

- We compared and contrasted the effectiveness of patient recruitment processes to determine best practices for patient enrollment and engagement;
- The EMR for patient recruitment increased from 2.6% at baseline to 79% with the EMR recruitment intervention

Patient Referral: Inclusion Criteria

Participant Eligibility:

To qualify for DSMES/T coverage, a participant must have:

- Documentation of a diagnosis of type 1, type 2, or gestational diabetes
  - Diagnosis can occur prior to Medicare Part B enrollment
- Diagnosis must be made using the following criteria:

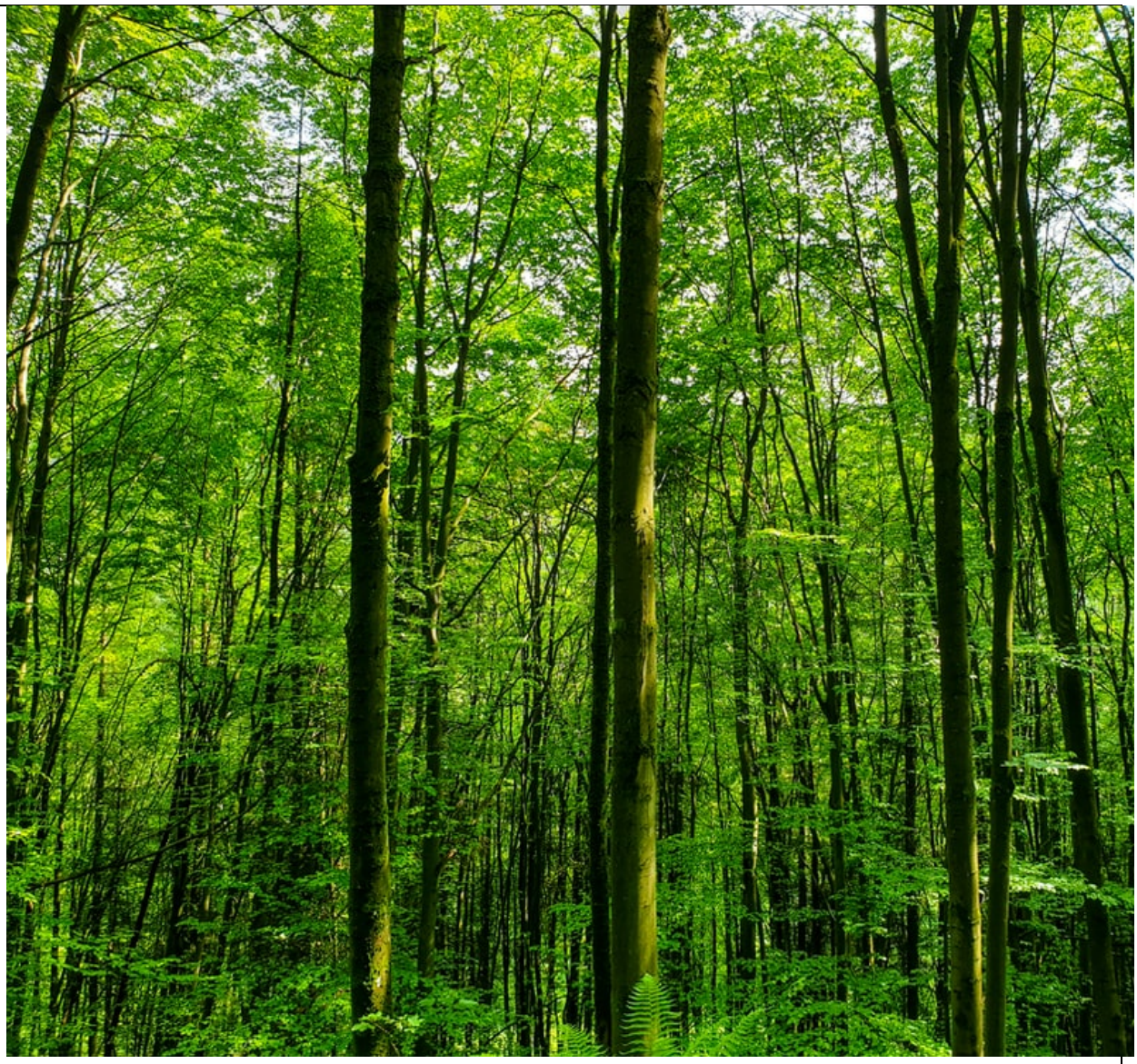
Participant Eligibility	
TEST	VALUE
Fasting Blood Glucose	≥126 mg/dL on two separate occasions
2-Hour Post-Glucose Challenge	≥200 mg/dL on two separate occasions
Random Glucose Test	>200 mg/dL with symptoms of uncontrolled diabetes

Community Health Worker/ Navigator (CN) Model

- The CN Model provides: Taking the time to understand patient's needs, preferences, and concerns particularly as they are related to virtual service delivery contributed to the pilot's success.

- IPDC provided training on the Community Navigator model that resulted in a team based coordinated approach to align with the broader goals of community needs and increase access to care and resources for social determinants of health (SDOH).

- The CN provides outreach to patients and feedback to staff.
- The process of discussing what a patient wants to accomplish and devising a plan to achieve the result supported by a community navigator is identified as a best approach.

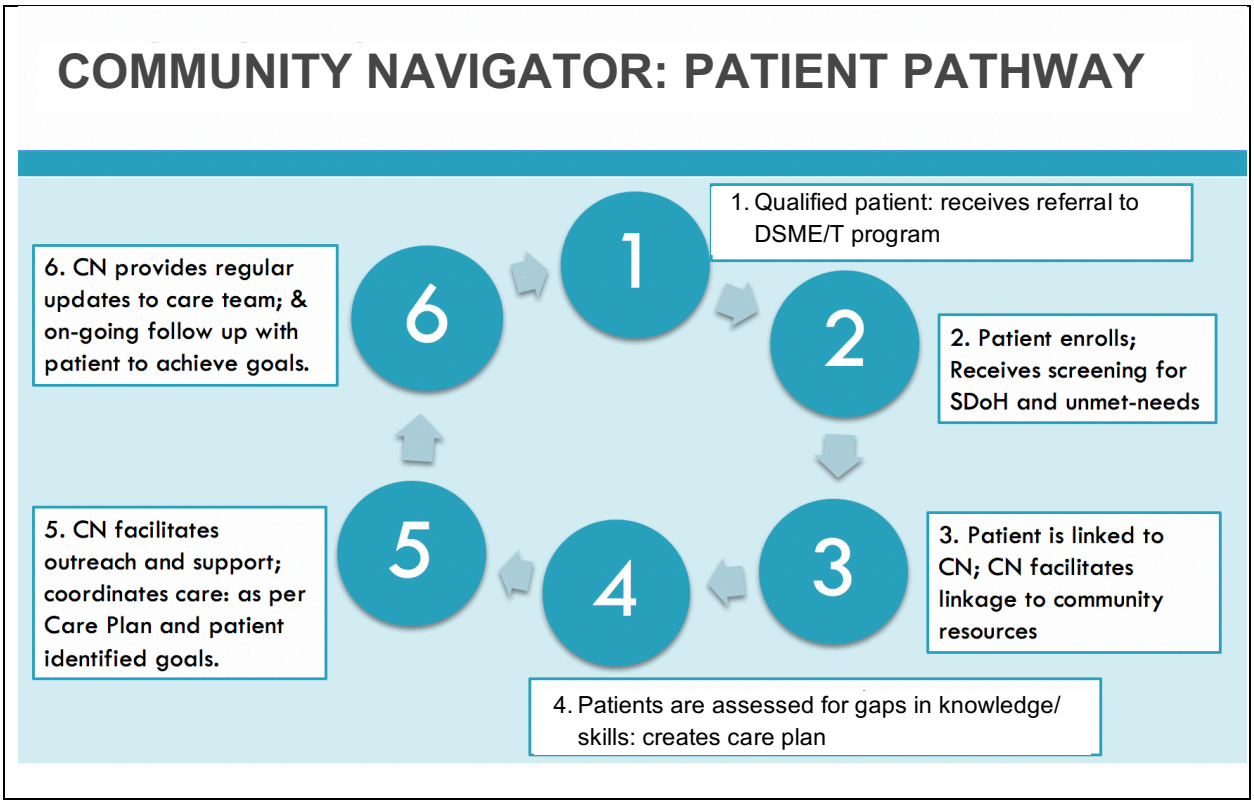


Patient Engagement: Community Navigator Model

- **The program is structured to assess for un-met needs in resources, self-management skills coping and problem solving skills utilizing trained CN**

- **The program achieves successful outcomes by aligning targeted resources to bridge the gaps that are specific to un-met needs.**

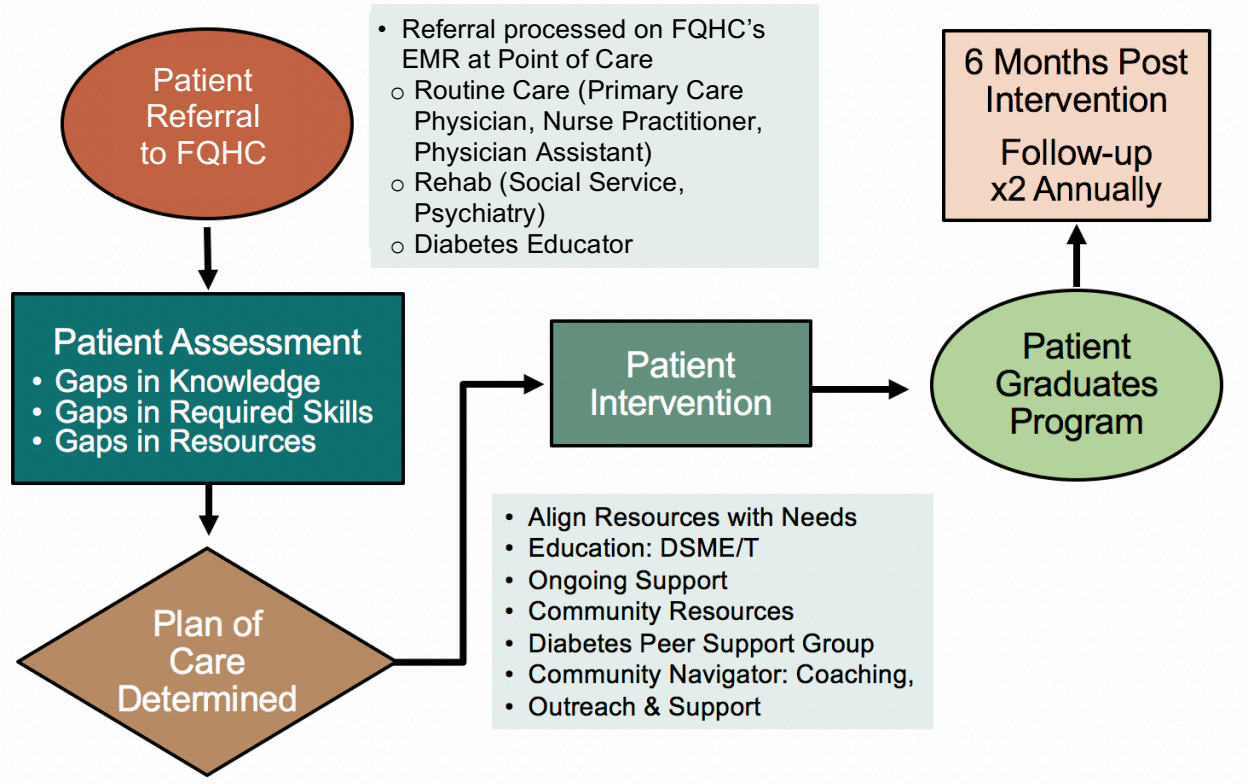
- **The CN supports and facilitates the community outreach**



Patient Individualization: Activities

- Develop a process for identifying the target population: highest risk patients with un-met social needs
- Develop an efficient mechanism for improving screening
- Compare different screening methods to evaluate effectiveness
- Asses for gaps in knowledge and skills in diabetes self-care management
- Focus on high risk demographics
- Compare participant program enrollment to target regions for high risk population
- Compare impact and improvement for participation to target regions for high risk populations
- Screen and identify patients with un-met social needs
- Community Navigators (CN) provide outreach and support to participants with un-met needs

DSME/T FQHC Patient's Journey



Collect Data:

- Number-of-patients screened and referred to community resources
- Number of patients enrolled in program from various screening methods
- Number of patient screened and referred to diabetes self-management education
- Number of patients (percentages) enrolled in program from target zip-codes
- Number of patients (percentages) who improved in self-care behaviors from various target regions
- Number of patients screened and identified with un-met social needs
- Number of patients (percentages) with positive screens who receive outreach and support from CN

Lessons Learned

1. We identified a need for patient follow-up at least every 6 months after completing DSME/T program; as 10% of patients experience challenges with worsening diabetes control about 6 months after completing the program.
2. It is important to note that CMS and other commercial insurance companies reimburse for 2 hours of follow-up DSME/T annually with provider referral.

Qualified DSMES Programs

Curriculum: Diabetes Self-Management Education

- Training materials should include all necessary materials used to train staff who will implement the program.

Guidelines:

- Teaching materials will be adapted to meet participants' needs and takes into account the characteristics such as age, type of diabetes, ethnicity, health literacy, and other co-morbidities
- The curriculum incorporates the National Standards for accredited programs
- It is individualized to bridge gaps in patient's knowledge and skills-set
- It is aligned with patient's priority areas while it covers the minimum requirements for accredited programs:

DSMES:

AADE7

- Healthy Eating
- Physical Activity
- Diabetes Monitoring
- Risk Reduction
- Problem Solving
- Taking Medication Appropriately
- Healthy Coping

Virtual DSMES Program

Given COVID-19 and shelter-in-place the need arose to engage participants in a virtual DSMES program.

We created additional delivery modes for DMSES, which resulted in options for patient education including:

- In-person DSMES
- Telephone DSMES
- Hybrid DSMES (Combination online and in-person DSMES)

Initially patients were reluctant to participate in a virtual program.
We conducted focus groups and surveys to gain feedback and make the content more engaging to build interest and willingness to participate in a virtual program.

The greatest challenge was to cover the core content in a meaningful way.

While accredited organizations can adapt the DSME curriculum to fit the needs of patients the curriculum must cover the following core competencies:

- Diabetes Pathophysiology and Treatment Options
- Healthy Eating
- Physical Activity
- Medication Usage
- Blood Glucose Management and Monitoring
- Preventing Acute and Chronic Complications
- Healthy Coping and
- Problem Solving

Many participants requested YouTube videos on several core content areas, including:

- Coping and
- Healthy Eating

Guidance on Allowable Adaptations:

Guidelines: Guidance on what adaptations are allowable and what adaptations are not allowable helps to minimize the number of adaptations that may have a negative impact on the program outcomes. Adaptation guidance should be informed by the program's core components, logic model, theory, and available research evidence.

Qualified programs and **trained staff** are mandatory requirements to ensure success of the programs and program outcomes.

- Hence there are no adaptations to replace qualified programs and trained staff.
- Access to Community Navigator (CN) may be waived for individual high risk patients (with poor outcomes for chronic diseases) in cases where they have no positive screening results for unmet social needs.

Monitoring Fidelity and Quality

Guidelines: Tools for monitoring fidelity and quality help organizations assess program implementation and make continuous quality improvements to ensure the program is implemented as intended.

- The DSME/T program is nationally accredited, and as such adheres to evidence based program standards, implements continuous performance activities and submit annual program and performance improvement results to AADE annually.

- Annual Program and Performance -Improvement reporting are required to ensure program fidelity as well as for continued program Accreditation.

STRATEGIES		METRIX
1	Increase access to evidence-based programs (accredited programs) for DSME/T	# of patient who receive diabetes self- management education
2	Target actions to bridge gaps in need and develop patient individualized plan	Number-of-patient encounters
3	Provide coaching to increase patient self-management skills	Number of patient who report satisfaction with the DSME/T program
4	Empower patients to set achievable goals and improve compliance with taking diabetes medications	# of patients who report Increased adherence to diabetes medications
5	Support patient goal setting and bridge gaps in need with CN outreach to food banks and access to safe physical activity	# of patients (percentage) who report improved self-care behaviors (eating habits/ Physical activity) post intervention
6	Increase access and engagement in community diabetes self-management education program	# of patients (percentage) who report increased confidence and outcomes with diabetes self-management education
7	Prevent avoidable hospitalizations and ED visits with proactive patient outreach using electronic to identify patients	Decreased health care costs from avoidance of ED visits and **hospitalizations**

Lessons Learned

A). Characteristics of Participants who did not improve from the intervention and

B). Opportunities for Improvement

1. Hispanics

a. Highest A1c for Hispanics (A1c > 10.0): was among Hispanic males who worked multiple jobs; and had less follow-up visits (likely related to time constraints)

b. Opportunities for engaging employers: Create incentives for increased access to educational materials, and participation in wellness programs – virtual programs

3. **African Americans**

a. Highest A1c within African Americans (AA) ; (A1c > 10.0): was among AA females, many were obese and could benefit from structured increased physical activity

b. Opportunities for engaging in peer support groups: create incentives for increased participation in walking groups; incentives/ rewards for achieving physical activity goals

4. **Indian**

a. Highest A1c within Indian population; (A1c > 10.0): was among females, many who were more interested in caring for their family/others, rather than themselves

b. Opportunities for engaging in peer support groups: create incentives for increased participation in walking groups, healthier eating, and incentives for improved A1c

Effective Core Activities

- Train Community Navigators (CN) to increase patient engagement in self-care behaviors, care navigation and community outreach for linkage to un-met social needs
- Utilize Electronic Medical Record to make referrals and identify patients for referrals to DSMES
- Provide Visual Resources such as YouTube Videos and demonstrations To support participants who struggle with language, literacy and or comprehension
- Provide Support with Coping (during COVID-19); Address feelings of isolation
- Demonstrate the Benefits of Virtual DSMES
- Screening and referral for Anxiety and Depression

- Support with resources to engage in Virtual physician follow-up appointment and other Community outreach for un-met needs including food insecurity
- Consistent Message: Diabetes and CVD
- Resume Peer Support Groups

Overview of Greatest Accomplishments

- Utilizing Electronic Medical Record to identify patients for referrals and to process referrals to DSMES generated the highest outcomes.
- Multiple provider utilizing electronic medical record at point of care to recruit and refer a patient to DSMES; increase enrollment and engagement in DSMES
- Increase options for DSMES options; in-person, telephone, and hybrid; increase access and enrollment in DSMES
- The process of discussing what a patient wants to accomplish and devising a plan to achieve the result supported by a community navigator is identified as a best approach.

ACRONYMS & GLOSSARY OF TERMS:

Accredited Programs	Accredited or Recognized programs: that meet minimum standards and is eligible for reimbursement by CMS and most commercial insurance companies
ADA	American Diabetes Association
AADE	American Association of Diabetes Educators
AZ	AstraZeneca
CDC	Centers for Disease Control and Prevention
CN	Community Navigators
CMS	Centers for Medicare and Medical
DSME/T	Diabetes Self-Management Education/Training:
E.H.R	Electronic Health Record
Evidence-Based, Programs	**Programs** that have been rigorously tested in controlled settings, proven effective, and translated into practical models that are widely available to community-**based** organizations.
HIT	Health Information Technology
High-Risk Population	Populations with multiple chronic diseases, that are impacted by numerous psycho-social and or environmental factors
IPDC	International Pre-Diabetes center
KP	Kaiser Permanente
PDPTC	Pre-Diabetes Professional Training Center
Social Stressors	Include factors like socioeconomic status, education, neighborhood and physical environment, employment, and **social** support networks, as well as access to **health** care
SDoH	Social Determinants of Health
Standards-DSME/T	Incorporating the standards into practice are required for program Accreditation or Recognition
211-Community Resources	When **you dial 211** from almost anywhere in the United States or Puerto Rico, **you** are connected with a trained professional in your area who can connect **you** with resources and assistance for essential community services
Vulnerable Populations	Living below the 200% federal poverty level and having less than high school educational attainment