FINAL NARRATIVE REPORT

Title: Building Community Support for Diabetes

November 7, 2017 – November 15, 2019

STATEMENT OF PURPOSE:

The Building Community Support for Diabetes (BCSD) sought to reverse a persistent pattern of "high health care costs, despite poor health outcomes for Type 2 diabetes" among minority and vulnerable populations by focusing on community-based programs and a collective impact partnership approach.

COMMUNITY PARTNERSHIP:

International Pre-Diabetes Center, (IPDC) a 501©3 community based organization that was founded by a Kaiser Permanente Pharmacist in 2013 to improve outcomes for diabetes among minority and vulnerable populations: partnered with AstraZeneca (AZ), a pharmaceutical industry, and Kaiser Permanente, Panorama City Medical Center who both shared a common Mission to improve the health and well-being of the communities and population they serve. The three stake-holder organizations supported the partnership to "Build Community Support for Diabetes (BCSD)", and from the BCSD initiative: Diabetes Community Resource Center (DCRC) evolved.

Primary Aim:

The DCRC aimed to participate in a collaborative community-based project: that would develop and evaluate innovative ways to provide community resources, and self-management support for people with diabetes, and integrate those innovations into a community tool-kit for high quality diabetes care, and best practices for engaging target high-risk, vulnerable population.

PROBLEM:

In the Northeast San Fernando Valley, the Diabetes Community Resource Center (DCRC) catchment area: there exists a population of approximately 30,000 persons, mostly racial/ethnic minorities, with uncontrolled Type 2 diabetes, who are also high utilizers of health care services due to their diabetes and who face many SDOH, such as poverty, low health literacy, and food and housing insecurity.
The DCRC launched the Building Community Support for Diabetes (BCSD) to assist this population to:
(1). mitigate their SDOH;
(2). acquire knowledge and skills necessary to practice effective self-management and problem solving skills;
(3). improve their overall confidence in self-care behaviors and thereby improve their health outcomes and wellbeing.

The communities we serve face multiple, competing life priorities, language barriers and low levels of health literacy pose challenges for many members of the communities.
Our weapons of choice to assist these communities to overcome the barriers and challenges Were effective communication and Education.

POPULATION:

Our target population comprised a sample of 275 racial/ethnic minorities identified with electronic health record as high utilizers of health services indicated by hospitalizations and emergency department (ED) visits. High-risk, high utilizer adult patients with uncontrolled Type 2 diabetes (A1c of above 8) and reside in the Northeast San Fernando Valley. The total diabetes population, which numbers approximately 30,000, is primarily racial/ethnic minorities (15% African American, 65% Latina, and 20% other) high-risk vulnerable population who face multiple negative social determinants of health, such as high rates of poverty, high unemployment rates, low health literacy, food and housing insecurity, linguistic isolation, and limited transportation resources. Many are uninsured or underinsured. The majority are overweight or obese and given the uncontrolled nature of their diabetes at risk for complications such as amputations and developing heart disease or experiencing stroke.

RATIONALE FOR THE BCSD PROGRAM

Chronic conditions such as Type 2 diabetes affect racial/ethnic minorities disproportionately. The influence of social determinants of health (SDOH) on Type 2 diabetes outcomes is well documented in the literature. Many racial/ethnic minorities and urban residents, who have low socioeconomic status and less than a high school educational achievement tend to have a greater number of negative SDOH. Research conducted at Kaiser Permanente of Northern California found that patients with unaddressed SDOH tend to be high utilizers of emergency health services and generate high costs and that addressing SDOH is associated with a reduction in inappropriate utilization and related costs and an improvement in patient outcomes.

These findings underscore the need for providers to assess SDOH and then motivate patients to accept assistance to address unmet needs; however, in medically underserved communities such as our project's catchment area, these services are seldom routinely available.

THE NEED THAT THE PROGRAM ADDRESSES:

The program is an evidence supported, accredited, community-based Diabetes Self-Management Education/Training (DSMET) and community navigation services to high-risk, high utilizer adult patients with uncontrolled diabetes. Utilizing trained Community Health Workers (CHW) the program assists participants to overcome social determinants of health and acquire the skills and knowledge necessary to practice effective diabetes self-management and improve their health outcomes. The program's focus is: individualized routine, chronic disease maintenance care hat is available after hours and on week-ends to decrease overutilization and of emergency care services in acute care settings with routine community-based maintenance care that interrupts overutilization of emergency services and thereby decrease healthcare costs from cost avoidance.

PROGRAM:

The BCSD operates on the premise that "when people know better they act better." The program imparts this knowledge through its CLASSS Intervention: Community Linkages, Assessment, Screening, Services, and Support. Consequently, when a patient who has uncontrolled diabetes and is a high utilizer of health services is referred to BCSD, the DCRC staff proceed as follows:

1) The patient's biometric data – body mass index, glucose reading, etc. - are reviewed. The patient is also screened for SDOH and an assessment is made of the patient's knowledge of effective diabetes self-management approaches and the skills and resources necessary to overcome obstacles to effective self-management.

2) The patient is linked to a Community Navigator (CN) who speaks the patient's primary language and, in most cases, comes from the patient's community. The CN provides care coordination, referral and linkage to community-based social services to address SDOH, patient navigation, patient advocacy, and periodic follow-up assessments to verify that previously unmet social needs are being resolved and to identify any new needs that emerge.

3) While receiving wraparound social support services from the CN, the patient also attends one-on-one and group educational sessions with a certified diabetes educator (CDE). The CDE provides culturally competent coaching on evidence-based self-management techniques, for example, medication management and healthy eating, and assists the patient to create a tailored wellness plan with benchmarks. The CN supports the patient in adhering to the plan, which is adjusted as necessary. The project's CDEs and the CNs meet weekly to exchange information about the progress of their mutual clients. The average length of intensive service delivery to a patient is eight (8) weeks, after which the CN maintains monthly telephone, email or brief in-person contact with the

patient to ensure that the latter maintains effective self-management.

HIGHLIGHTS:

The DCRC CLASSS intervention:
Is relatively low cost program to implement, is culturally and linguistically competent, attempts to identify and address the root causes of poor patient outcomes, reduces inappropriate utilization of health services and provides clinical benefits to a highly vulnerable subpopulation.

1. **Cultural Adaptations**
- The programs and services are linguistically and culturally appropriate and are tailored to bridge gaps in care, and social un-met needs.

2. **Community Health Workers**
- The program recruits and trains CHWs from the community; they are the frontline workers in our community engagement efforts.
- CHWs are represented on the Center's advisory group and serve as eyes and ears in the community. Their work centers on the identification and response to social determinants of health as a means of engaging residents. Once these issues have been resolved to residents' satisfaction, the CHWs are then able to broach the possibility of resident engagement around less personal concerns and address broader issues such as improving health literacy in the community or tackling food deserts.

LESSONS LEARNED:

Competing Programs:
Given the demographic profile of the target population, their history of high service utilization and numerous SDOH, and the fact that they live in a recognized medically underserved area, the DCRC finds that there is not much competition to serve these patients.
Provider data indicate that in the DCRC's catchment area there are approximately 30,000 patients who have uncontrolled diabetes and are high utilizers of emergency services.
To date BCSD has served only 275 of them; thus, there is obviously a high need for the service and great potential for growth.
The DCRC is currently actively pursuing public and private funding to expand services to reach more of the target population, several of whom, have had uncontrolled diabetes for many years.

Community Collaborations: is key to success;
- Collaborating with the community and community-based organizations through partnerships to establish shared goals, create referral networks, coordinate services, secure additional resources and plan future initiatives.
- Building the capacity of community members to make decisions and to implement and manage change through trainings, particularly CHW training; and volunteer opportunities at the Center.

BEST PRACTICES:

1. Proactive Approach to Selecting the Target Population

- Our approach begins with audience segmentation using predictive analytics to identify those clients and sub-populations within our target area that are in the greatest need for certain services.
- Using the findings from the analysis we survey the prospective audience to identify their preferred communication channels and formats by sub-groups.
- Then our CHWs conduct outreach to community members and engage their assistance in crafting messages in the preferred format(s) using content that is linguistically and culturally appropriate.

2. Community Outreach and Engagement

- Engagement is the process of working collaboratively with diverse stakeholders including persons with or at risk for Type 2 diabetes, obesity and related conditions and their families;
- Community engagement is an ongoing process, that enables trust to be built over time.
- Next, our Center's advisory group, which includes members with expertise in health communication and health literacy, provides guidance on and assistance with dissemination via the preferred channels previously identified in the survey effort.

3. Patient Communication and Feed-Back

- Our communications activities: Evaluation which is an integral part to identify effective ways of communicating with patients
- We employ Google Analytics to assess our social media communications and retain private consultants to evaluate other communication efforts.
- We convene local forums to discuss the evaluation data and obtain feedback from the audience on how they may be improved.

INNOVATIONS

1. Approach:

- BCSD approach attempts to **drill down to the root cause of negative patient outcomes** and empower participants with the tools to overcome, or at least mitigate, these factors.
- Our **focus on routinizing: assessing and addressing the social determinants of health** (SDOH) that participants face and are barriers to self-care is innovative
- Our combination of **cultural and linguistic competency** coupled with a focus on SDOH was designed for and have demonstrated improved program retention rates and increase adherence to action plans leading to the achievement of **individualized desired outcomes.**

2. **Program Evaluation:**

- We recommend the use of culturally responsive evaluation (CRE) framework, whereby the evaluation is designed and conducted in a manner that advocates for the inclusion of the local San Fernando Valley cultural context in the evaluation process.

3. **Need and Place-Based Programs**

- Identify best practices for recruiting patients who will derive the greatest benefits from the program
- Optimize use of community resources: by aligning resources to greatest need

CHALLENGES ENCOUNTERED AND HOW THEY WERE ADDRESSED:

Over the years, our leadership has observed that:

- **Staff Turnover:**
  can impede service delivery and the smooth program implementation.
  We addressed this potential risk with cross training at least two staff members for each key project position to ensure that we have the necessary back-up in the event of staff turnover.
- **Staff Recruitment:**
  in the case of our CHWs, our hiring process focuses on identifying individuals with deep roots in the community, particularly persons who are successfully managing their own Type 2 diabetes and/or who have lived experience assisting friends and family to do the same.
- We have found that CHWs who fit this profile are highly motivated to remain in their posts despite the challenges of the position.

DELIVERABLES:

The BCSD project has designed and developed:

1. A Diabetes Self-Management Toolkit for Program Implementation and Best Practices;
2. A DCRC – CLASS Intervention to improve outcomes fro diabetes among high-risk and vulnerable populations
3. A Screening APP: that screens for social stressors and links to community resources for positively identified un-met social needs
4. A training curriculum for CHW's and providers wishing to implement the BCSD-CLASSS model.
5. Project staff have also provided technical assistance to safety net providers on how to integrate the model, including CHW support, in their clinical workflows.

CONTRIBUTION TO PUBLIC HEALTH

The project adds to the body of evidence on the importance of assessing SDOH, responding to health-related social needs, and delivering culturally and linguistically competent care as a

means of improving outcomes among high risk patients. The project also presents the BCSD-CLASSS as an intervention model that can be adapted for use with high risk patients with other chronic diseases besides Type 2 diabetes.

PRESENTATIONS AND PUBLICATIONS

1. **Know Diabetes by Heart Alliance**
   American Diabetes Association and American Heart Association

158 GRANT Submissions
Nominated Grantee
- International Pre-Diabetes Center
Title: Know Diabetes by Heart Community Collaborative
(2-1-2020 - 1-31-2021)
A systematic approach to routinizing referrals to Diabetes Self-Management Education/Training (DSME/T) in Community Setting.

2.

- **2019 American Public Health Conference and Symposium**

Tuesday, November 5, 2019
1:00 PM - 2:30 PM

- *Pennsylvania Convention Center - 118C*

- **Session 4239.0 - CHW Roundtable:**
- **Mobilizing to Eliminate Health Disparities**

Table 3: TITLE:

Adoption of Community Interventions that Target Community Actions upon Social Determinants of Health to Improve Diabetes Outcomes Among Vulnerable Populations?

Authors:
Yvonne Grant, PharmD, - **International Pre-Diabetes Center**, *Panorama City, CA and Andrea Mackey, BA, University of California, Berkeley ; Work - International Pre-Diabetes Center Inc, Panorama City, CA*

3.

AcademyHealth

- **2018 AcademyHealth Poster, Annual Research Meeting**
  35th Annual Research Meeting
  #C-319

THE 35th **June 24-26 Seattle**

TODAY'S RESEARCH DRIVING TOMORROW'S OUTCOMES

ANNUAL **RESEARCH MEETING**

TITLE: Will the Implementation of a Diabetes Self-Management Education/Training (DSME/T) Program in a Community Health Center (CHC) Improve Outcomes for Diabetes in a High-Risk Population?

Author:
Yvonne Grant, - **International Pre-Diabetes Center**

PLANS FOR SUSTAINING THE PROGRAM

- With current funding from American Diabetes Association and American Heart Association "Know Diabetes By Heart" (KDBH) National Alliance: we will use program learnings to develop guidelines which can help health systems to incorporate the intervention into their sites efficiently and cost-effectively and explore adapting the intervention in other health settings to improve outcomes for vulnerable high-risk, racial/ethnic minorities and historically underserved populations.
- Additionally, we will launch our sustainability efforts by continuing to share outcomes reports with health systems and payers to assess their interest in reimbursing for this intervention given its effect on patients' outcomes. We will also submit applications for

federal, state, and local government funding and grants from private philanthropies to continue the program beyond the AstraZeneca funding period.

CONCLUSIONS:

- The BCSD-CLASSS intervention reduced healthcare costs for a sample of 275 racial/ethnic minority patients with uncontrolled Type 2 diabetes who were high utilizers of health care services and who faced numerous negative SDOH.
- The intervention screened and assessed patients' needs including SDOH; assigned CHWs to assist patients to overcome SDOH and adhere to individualized wellness plans;
- Delivered culturally competent, evidence-based diabetes education to promote effective self-management.
- Over the two-year project period:
    - patients' hospitalization rate decreased by 68.8%,
    - the emergency department visit rate decreased by 22.8%, thereby
    - averting approximately $2 million dollars in healthcare cost avoidance.
    - A $1.6 million return on investment;
      (Total funding budget of $510,000 over 2 year: $425K for the BCSD program and $85K for building a screening APP for SDOH)

ACKNOWLEDGEMENTS

We wish to Thank the following key stakeholders for their diligence, collaborations, and technical support in making this work possible in the local community. The community participants extend their tremendous gratitude to you for making it possible to achieve goals that will improve their overall health and well-being.

1. **Kaiser Permanente:**
   Michael Soleimani, Erlinda Crisolo, Angel Hernandez, Victor Vergara, Jenny Melgar
2. **AstraZeneca:**
   Bradley Lew, James Doucette, Craig Schilling, Timothy Durand, Jennifer McGovern
3. **International Pre-Diabetes Center:**
   Yvonne Grant, Rashid Njai, Kimberly Morales, Andrea Mackey