Innovative Health Systems Approach to Achieve Health Equity in Diabetes Prevention

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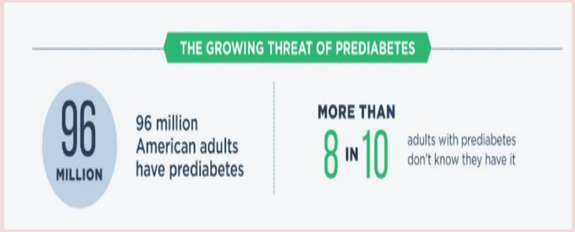
Introduction



Type 2 diabetes disproportionately impacts African American and Hispanic communities. A key feature of the the National Diabetes Prevention Program (National DPP), is a year-long structured, lifestyle change program, focused on healthy eating and physical activity, that can prevent or delay the onset of Type 2 diabetes.(2)

With funding from Centers for Disease Control and Prevention (CDC), and in collaboration with the American Medical Association (AMA) and Black Women's Health Imperative (BWHI), ACPM selected three health care organizations to implement innovative strategies to screen, test and refer Black and Hispanic women with prediabetes into the National DPP.

Goals of the Demonstration Project

1. To increase screening and testing of patients from the targeted population at high-risk for prediabetes and refer these patients to a CDC-recognized type 2 diabetes prevention program;
2. To engage patients from the targeted population to enroll in the program and support the CDC-recognized National DPP in retaining participants
3. To address a social determinant of health that is an identified barrier to enrollment and retention in the program; and,
4. To collect and report data on process and outcome

Sites & Methodology

Through monthly calls and site visits the partners (ACPM, AMA & BWHI) provided technical assistance to three grantees below:

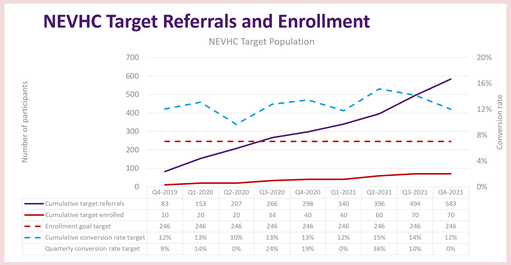
Northeast Valley Health Corporation (NEVHC) is a federally qualified health center in Los Angeles County serving a population that is more than 84% Hispanic/Latinx. They 1) created an alert on the clinical decision support tool to identify patients to be screened; 2) developed an algorithm and educated providers on when to diagnose, counsel and refer patients; 3) referred patients to an **internal National DPP** and provided virtual classes during the COVID-19 pandemic 4) screened and addressed social determinants of health (SDOH) using the PRAPARE tool and OneDegree for referrals.

Parkland Health and Hospital System (UTSW) is an integrated safety net system in Dallas County referring patients to an **external National DPP** at Baylor Scott & White Health. They 1) implemented population health-based screening and trained clinicians to refer patients; 2) optimized referral workflows from Parkland to Baylor. Baylor 1) reached out to referred patients to enroll in their virtual classes and 2) integrated farm stand voucher education into the National DPP classes to address food insecurity.

University of Washington Valley Medical Center (UW Valley) is a public hospital in King County, WA referring patients to an **external National DPP** at YMCA of Greater Seattle. They 1) implemented clinical support tools (e.g., Smartphrases) for ordering referrals & patient education; 2) evaluated barriers to enrollment among patients referred to YMCA; 3) educated providers/patients through informational videos, meetings and materials; and 4) expanded the project to all primary care clinics and implemented Plan-Do-Study-Act cycle on prediabetes care pathway.

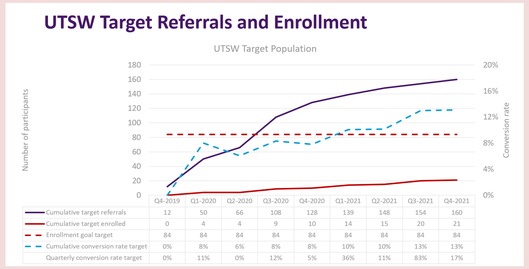
Results

Despite the COVID-19 pandemic, all three grantees have shown modest increases in referrals of Black and Hispanic patients. However, all have faced challenges in enrollment and completion of the National DPP and in addressing social needs.



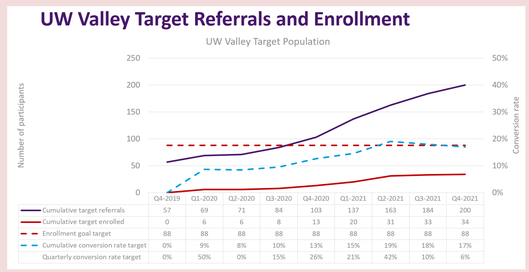
	Q4-2019	Q1-2020	Q2-2020	Q3-2020	Q4-2020	Q1-2021	Q2-2021	Q3-2021	Q4-2021
Cumulative target referrals	83	153	207	266	298	340	396	494	583
Cumulative target enrolled	10	20	20	34	40	40	60	70	70
Enrollment goal target	246	246	246	246	246	246	246	246	246
Cumulative conversion rate target	12%	13%	10%	13%	13%	12%	15%	14%	12%
Quarterly conversion rate target	9%	14%	0%	24%	19%	0%	36%	10%	0%

NEVHC: Following a provider education session conducted in June 2021 on shared decision making, prediabetes, standards of care, and National DPP, referrals substantially increased from June – December 2021.



	Q4-2019	Q1-2020	Q2-2020	Q3-2020	Q4-2020	Q1-2021	Q2-2021	Q3-2021	Q4-2021
Cumulative target referrals	12	50	66	108	128	139	148	154	160
Cumulative target enrolled	0	4	4	9	10	14	15	20	21
Enrollment goal target	84	84	84	84	84	84	84	84	84
Cumulative conversion rate target	0%	8%	6%	8%	8%	10%	10%	13%	13%
Quarterly conversion rate target	0%	11%	0%	12%	5%	36%	11%	83%	17%

UTSW/Baylor: To date, 127 Black/Hispanic women were referred from Parkland to Baylor National DPP with 50 enrolled (30 still enrolled). Parkland was unable to leverage automatic referrals in their EHR, but successfully utilized a medical assistant for warm hand offs.



	Q4-2019	Q1-2020	Q2-2020	Q3-2020	Q4-2020	Q1-2021	Q2-2021	Q3-2021	Q4-2021
Cumulative target referrals	57	69	71	84	103	137	163	184	200
Cumulative target enrolled	0	6	6	8	13	20	31	33	34
Enrollment goal target	88	88	88	88	88	88	88	88	88
Cumulative conversion rate target	0%	9%	8%	10%	13%	15%	19%	18%	17%
Quarterly conversion rate target	0%	50%	0%	15%	26%	21%	42%	10%	6%

UW Valley: Patients screening increased by an average of 7.5% among participating clinics. The number of referrals to the National DPP per month more than doubled. However, enrollment to the YMCA was drastically affected by the COVID-19 pandemic related to staff shortages.

Learnings & Opportunities

Opportunities

- ✓ Automating referrals and best practices for race/ethnicity data collection in EHR
- ✓ Clinicians need better support (e.g., scripts) on warmer hand offs & addressing patients' SDOH
- ✓ Utilizing dedicated CHWs in communities to link patients to the program
- ✓ Continuous assessment and addressing SDOH from referral to program completion
- ✓ Hiring and prompt training of coaches that reflect the participants in the National DPP
- ✓ Cultural competency/SDOH education of staff

Implications for future work

This quality improvement project demonstrates that health systems changes can make a difference in supporting referrals to the National DPP lifestyle change program. However, implementing solutions requires customizing the health system approach to the specific health care environment and developing/sustaining strong community partnerships.

References

1. Prediabetes Infographic https://www.cdc.gov/diabetes/library/socialmedia/infographics/ndpp.html
2. https://www.cdc.gov/diabetes/prevention/about.htm

Acknowledgements

This poster is supported by the American College of Preventive Medicine through a cooperative agreement CDC-RFA-OT18-1802 with the Canters for Disease Control and Prevention (CDC) of the U.S. Department of Health and Human Services (HHS). The contents are solely the responsibility of the author(s) and do not necessarily represent the official views of, nor an endorsement, by CDC/HHS, or the U.S. Government. The authors thank the CDC Division of Diabetes Translation for funding support and the three health system grantees for their hard work on the project. The authors also thank Angela Mickalide, PhD, MCHES, Kate Shreve, MPH with ACPM; Shannon Haffey, MHSA, Alejandro Hughes, MPH and Tamkeen Khan, PhD with AMA for additional guidance.