# ADDRESSING SOCIAL DRIVERS OF HEALTH:

## INTEGRATING SOCIAL CARE INTO HEALTH CARE

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# DISCLOSURES

- No financial disclosures or conflicts of interest
- Views expressed are our own and do not necessarily reflect the views of the U.S. Government or Department of Veterans Affairs

# AGENDA

- Discuss the concepts of social determinants of health, social risks, and social needs, and the impact of each on health
- Review the state of evidence for social care integration
- Learn from two case studies of social care interventions
- Reflections and Q&A

# SOCIAL DETERMINANTS OF HEALTH

*"The conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems."*

– World Health Organization Commission on Social Determinants of Health

# SOCIAL DETERMINANTS OF HEALTH

| Economic Stability | Neighborhood and Physical Environment | Education | Food | Community and Social Context | Health Care System |
|---|---|---|---|---|---|
| Employment | Housing | Literacy | Hunger | Social integration | Health coverage |
| Income | Transportation | Language | Access to healthy options | Support systems | Provider availability |
| Expenses | Safety | Early childhood education | | Community engagement | Provider linguistic and cultural competency |
| Debt | Parks | Vocational training | | Discrimination | Quality of care |
| Medical bills | Playgrounds | Higher education | | | |
| Support | Walkability | | | | |

**Health Outcomes**
Mortality, Morbidity, Life Expectancy, Health Care Expenditures, Health Status, Functional Limitations

Artiga S, Hinton E. Kaiser Family Foundation, 2018.

## Social determinants

The conditions in which people are born, grow, work, live and age, and the wider set of forces and systems shaping the conditions of daily life.

## Social risks

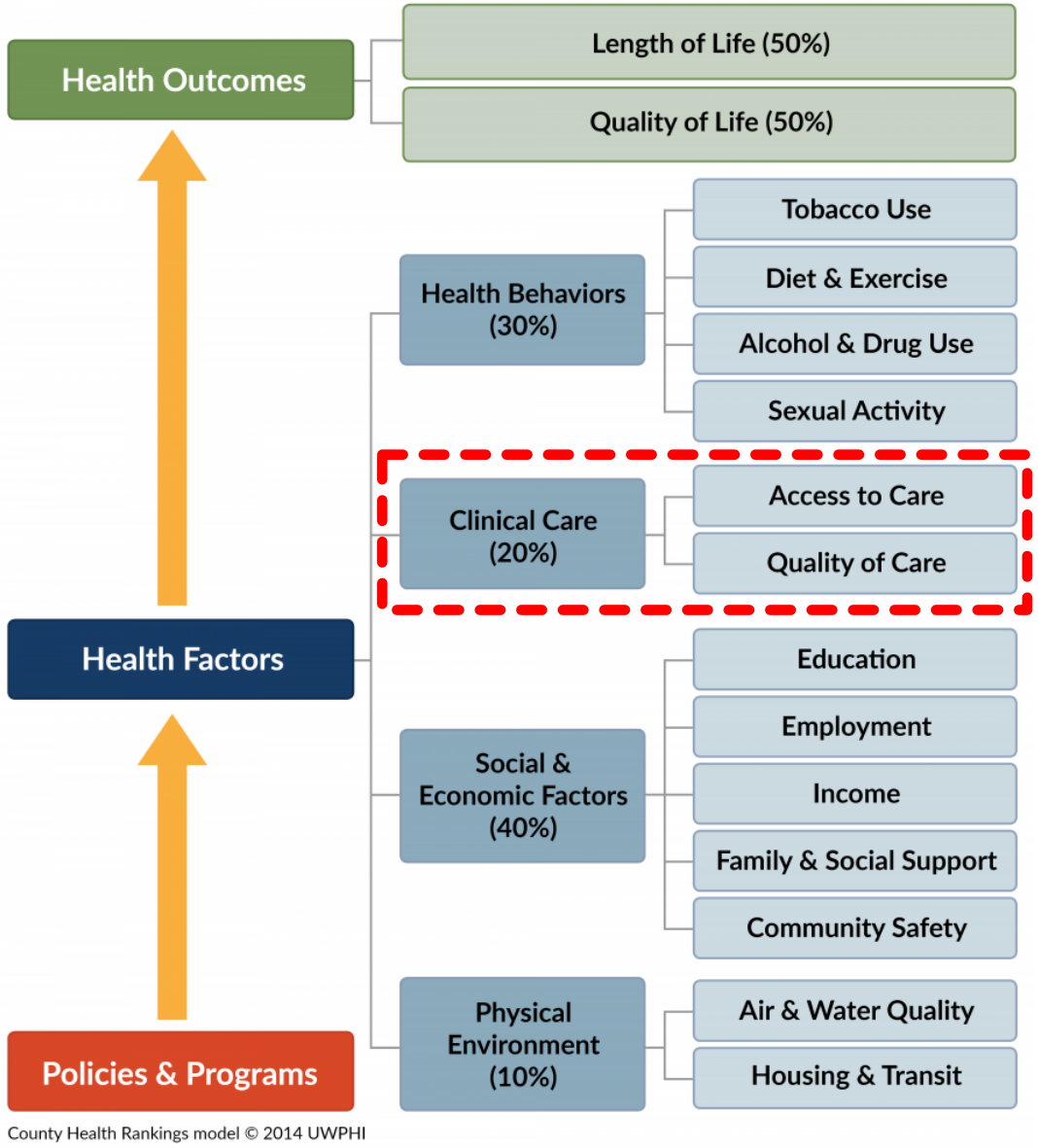
Individual-level adverse social conditions associated with poor health, such as food insecurity and housing instability.

## Social needs

A patient-centered concept that incorporates a person's preferences and perceptions about their most pressing needs


Alderwick H, Gottlieb LM. *Milbank Q.* 2019;97(2):407.
Green K, Zook M. *Health Affairs Blog.* 2019
National Academies of Sciences, Engineering, and Medicine 2019.
World Health Organization. 2010.

# SOCIAL DETERMINANTS HAVE A GREATER IMPACT ON HEALTH OUTCOMES THAN CLINICAL CARE




Remington et al. *Popul Health Metr.* 2015;13:11.

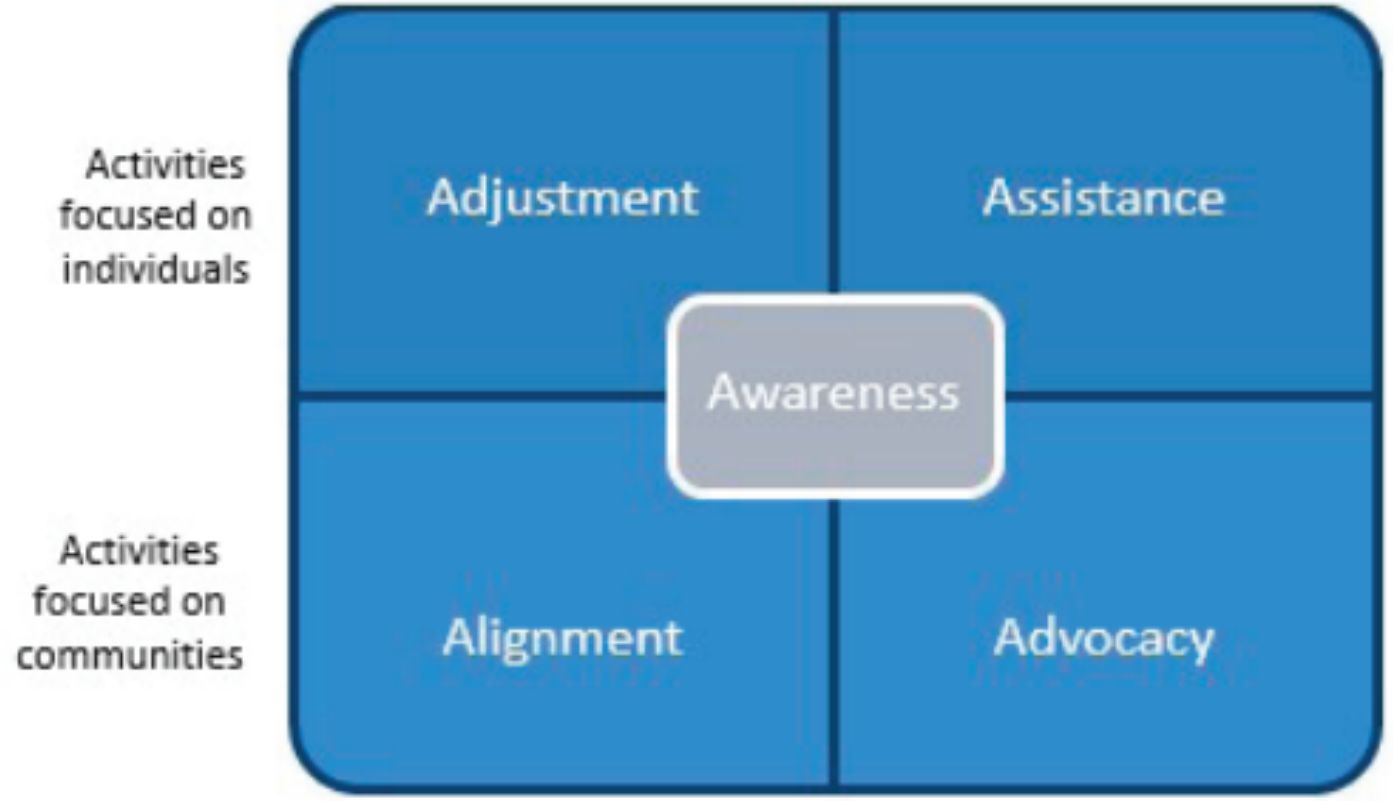
# IMPROVING THE INTEGRATION OF SOCIAL CARE INTO HEALTH CARE

Recommendations from National Academies of Sciences, Engineering, and Medicine (NASEM) report:

- Better integrate social care into health care delivery
- Support and train an engaged, integrated care workforce
- Develop an infrastructure for data sharing between health and social care
- Finance the integration of health care and social care


NASEM, 2019

# STRATEGIES TO STRENGTHEN SOCIAL CARE INTEGRATION IN HEALTHCARE SETTINGS




NASEM, 2019.

# CLINICIANS AND PATIENTS FEEL SOCIAL RISK SCREENING IS IMPORTANT, YET BARRIERS REMAIN

- 84% of clinicians support social risk screening, but only 41% feel able to address identified needs[1]
- 79% of adult patients and caregivers of pediatric patients feel social risk screening is acceptable; 65% supported inclusion of social risks in the EHR[2]
- Upwards of 50% of patients screening positive for social risks either decline assistance or do not follow-up with offered resources[3]


1. Schickedanz et al. Med Care. 2019;57:S197-S201.
2. De Marchis et al. Am J Prev Med. 2019;57:S25-S37.
3. De Marchis et al. J Am Board Fam Med. 2020;33:170-175.

# EVIDENCE-BASED GUIDANCE AROUND ADDRESSING SOCIAL RISKS AND SOCIAL NEEDS IS LIMITED

2021 USPSTF commissioned a technical brief reviewing the evidence base for social risk screening and interventions. Major findings:

- Reliability and validity of most social risk screening tools unknown
- Many studies on social care interventions lack comparison groups
- Few studies have examined the impact of social care interventions on health outcomes
- Few studies about screening or treating social risks assessed or reported on potential harms.

Eder et al. JAMA. 2021;326(14):1416-1428
Davidson et al. JAMA. 2021;326(14):1410-1415

# CMS ACCOUNTABLE HEALTH COMMUNITIES MODEL: CLINICAL-COMMUNITY COLLABORATION TO ADDRESS SOCIAL RISKS

- 29 “bridge organizations” (pilot clinical sites) across the U.S.
- Screened Medicare and Medicaid beneficiaries for 5 core social risks; navigation services offered for those with ≥1 social risk and ≥2 ED visits in prior year
- 1/3 of beneficiaries screened positive for at least one social risk. Food insecurity was the most common
- 74% of eligible beneficiaries accepted navigation, but only 14% of those who completed full year of navigation had any social risks documented as resolved
- Early findings showed 9% reduction in ED visits among Medicare beneficiaries receiving navigation

CMS AHC Model First Evaluation Report, 2020

# COMPARING IN-PERSON NAVIGATION VS PERSONALIZED WRITTEN RESOURCES ON SOCIAL RISKS AND HEALTH

- RCT with 611 caregiver-child dyads recruited from a pediatric urgent care clinic
- Caregivers screened for social risks and randomized to personalized written resource information vs written information plus longitudinal in-person navigation
- Significant improvements for both groups in social risks and child and caregiver health at 6-month follow-up.
- Implications for potential effectiveness of “lower touch” interventions

Gottlieb et al, JAMA Netw Open. 2020;3(3):e200701

# CINCINNATI CHILD HEALTH-LAW PARTNERSHIP (CHILD HeLP)

- Medical-legal partnership (MLP) between Cincinnati Children's Hospital Medical Center and the Legal Aid Society of Greater Cincinnati
- Retrospective cohort study of 2,203 children at 3 primary care centers and 3 school-based clinics referred to MLP program with matched controls
- Most frequent referrals related to housing conditions, public benefit denials and delays, and educational access.
- Median predicted hospitalization rate for children 38% lower in intervention group in the year after referral

Beck et al, Health Aff 2022 Mar;41(3):341-349

# ASSESSING CIRCUMSTANCES AND OFFERING RESOURCES FOR NEEDS

ACORN
SCREENING VETERANS FOR SOCIAL NEEDS

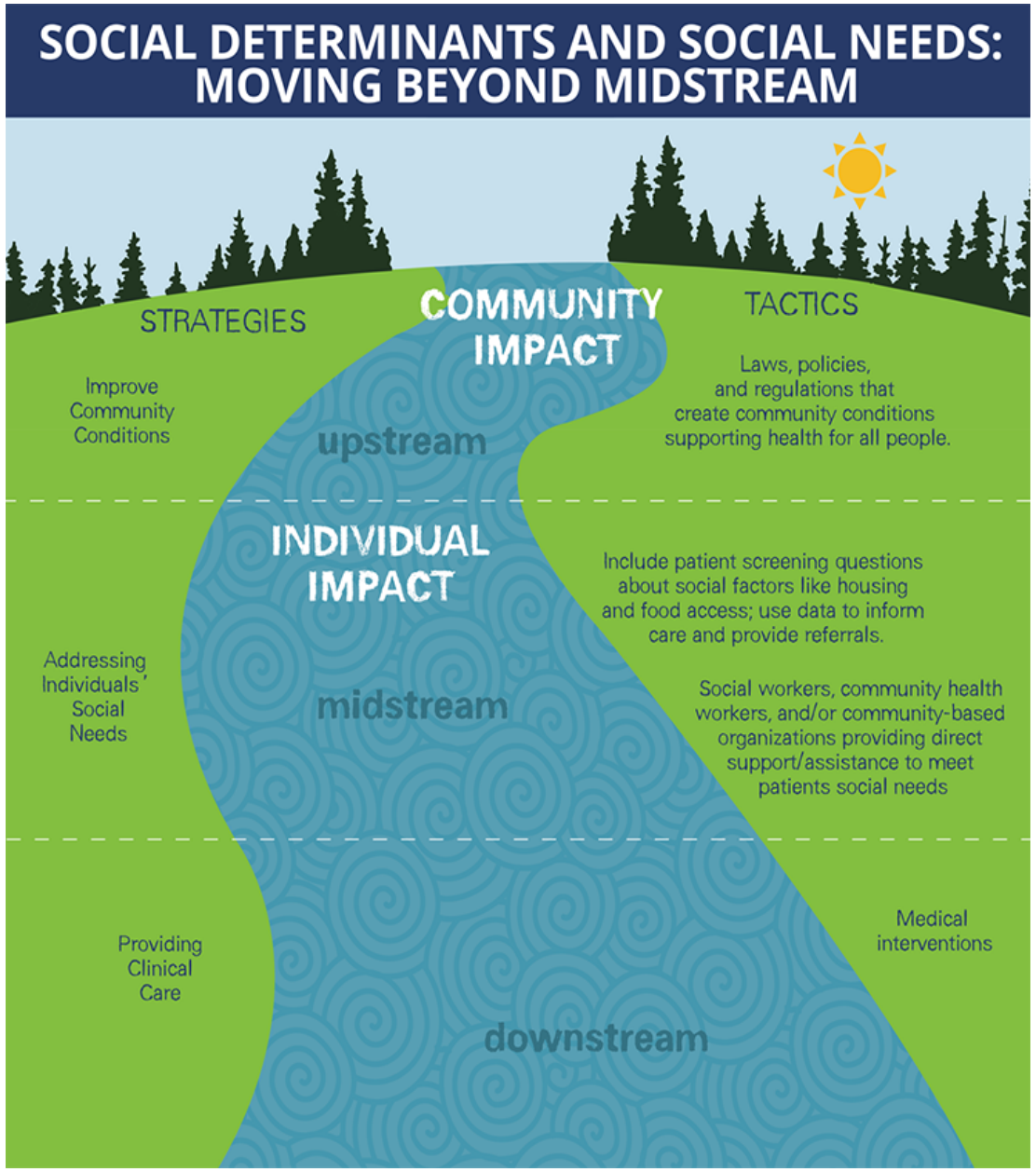
- National QI initiative funded by VA Office of Health Equity and implemented in partnership with VA National Social Work Program
- ACORN core components (required elements):
    1) administration of the Veteran-tailored social risk screener (10 domains)
    2) provision of personalized resource guides and referrals to VA and community services for identified social risks
    3) mechanism to address any urgent needs at the time of screening
- Since initial 2018 pilot, iteratively adapted ACORN to diverse clinical settings and populations, specialties, and individuals administering screening

Cohen et al, U.S. Department of Veterans Affairs, 2022

# ADDITIONAL QUESTIONS FOR THE FIELD

- Are social risk instruments measuring what we think they are measuring?
- How often should we be screening for social risks?
- How can we improve equitable uptake of and access to offered social care assistance?
- What are best practices for meaningfully engaging in cross-sector collaborations and support rather than overwhelm the capacity of community partners? How do we build capacity at the state-level for addressing social risks and social needs?
- How to best leverage current funding and reimbursement opportunities to ensure sustainability?
- How can we leverage technology and resource referral platforms to sustain screening, referral, and navigation efforts?

CMS AHC Model First Evaluation Report, 2020.




Castrucci et al, Health Affairs Blog, January 16, 2019

# RESOURCES

- The EveryONE Project (aafp.org)
- Social Interventions Research and Evaluation Network (SIREN):
  - Evidence & Resource Library
  - Social Needs Screening Tool Comparison Table
- Magnan, S. 2021. Social Determinants of Health 201 for Health Care: Plan, Do, Study, Act. *NAM Perspectives.* Discussion Paper, National Academy of Medicine, Washington, DC. https://doi.org/10.31478/202106c

# MID-OHIO FARMACY

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# THE IMPACT OF ACCESS TO HEALTHY FOOD

Over 29 million meals are missed annually in Franklin County due to lack of access to food resources

Nutrition is a cornerstone of a strong, healthy life

Access to nutritious food has shown evidence of improved health outcomes, prevention of disease progression and lower overall costs of care


The Mid-Ohio Farmacy program aligns with the medical center's strategic plan

# HOW MID-OHIO FARMACY WORKS

## Screening

Validated Hunger Vital Sign™ two question tool

- “Within the past 12 months we worried whether our food would run out before we got money to buy more.”
- “Within the past 12 months the food we bought just didn't last and we didn't have money to get more.”

# HOW MID-OHIO FARMACY WORKS

## Prescription


- Patients who screen positive for food insecurity are provided a prescription for access to fresh, healthy food and enrolled into the program through their healthcare provider.
  - Prescription is in the form of a referral to the Mid-Ohio Farmacy program.
- Enrolled patients are given access to free fresh produce on a weekly basis, as opposed to the typical monthly access.

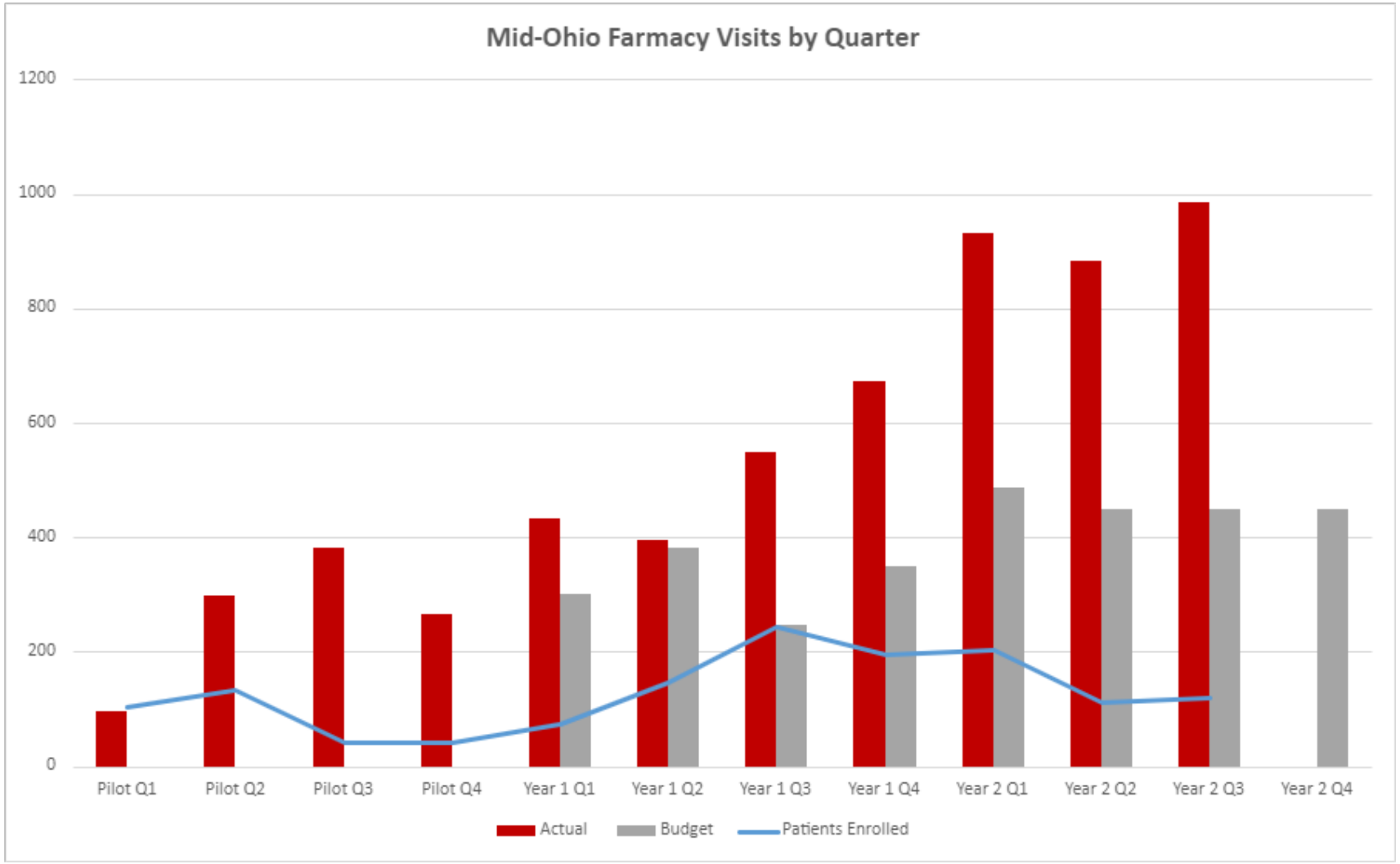
# HOW MID-OHIO FARMACY WORKS

## Closed Loop SDoH Referral


- Patients given a personal Farmacy bar-coded wallet card with a unique Rx ID.
- Referral sent electronically to Mid-Ohio Food Collective and synced with PantryTrak, the electronic system used by food pantries in central Ohio.
- When a patient visits a food pantry to fill their Farmacy referral, their wallet card is scanned and their visit is documented in PantryTrak.
- Referral loop is closed using a secure FTP process linking the unique Farmacy Rx IDs back into EPIC.
- We then connect patient food access data to health outcomes data.

# SUPPORTING PRINT MATERIALS


# ENROLLMENT SUCCESS




*The MOF Program is supported through internal grant funding through OSUWMC. Program leaders are required to provide quarterly status reports and updates on enrollment, funds used and status of metrics of success designed at the beginning of the program (i.e. patients enrolled, number of visits, Rx fill rate, etc...)*

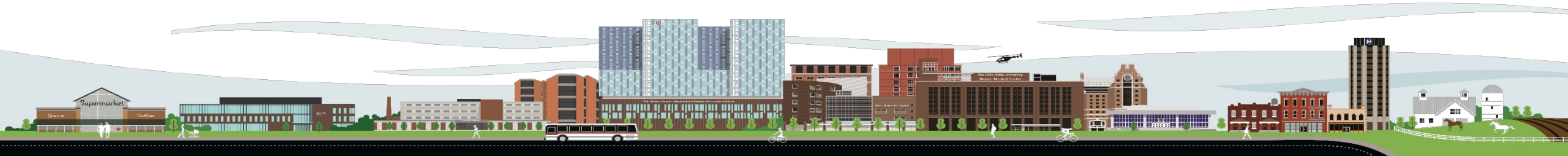
# EVALUATION AND OUTCOMES

- **Goal 1: To describe utilization patterns for patients referred to the Mid-Ohio Farmacy**
  - Referral adherence
  - Number of visits
  - Locations visited

- **Goal 2: To estimate the effects of participation in Mid-Ohio Farmacy on clinical indicators**
  - Weight
  - BMI
  - HbA1C
  - Blood pressure
  - Visit compliance

# PROGRAM CHALLENGES

- Continued funding needed to offer fresh produce for patients referred from OSUWMC.
- Transportation for patients to access food pantry once they have the referral.
- Patient follow-up to ensure successful linkage to the food pantry and closing of the referral loop.
- Ongoing outreach to achieve goal of two food pantry visits per month per patient (level at which positive clinical outcomes realized).
- Patient specific data acquisition/sharing between MOFC and OSUWMC on number of visits, locations accessed, etc…
- Scalability challenges include consistency in training and enrollment practices, funding to support increased demand.



# READ MORE


https://www.dispatch.com/news/20191110/prescribing-vegetables-partnership-looks-to-improve-patient-health-by-prescribing-healthy-foods


https://www.healthaffairs.org/do/10.1377/hblog20191220.448706/full/

ADFM Annual Conference 2022

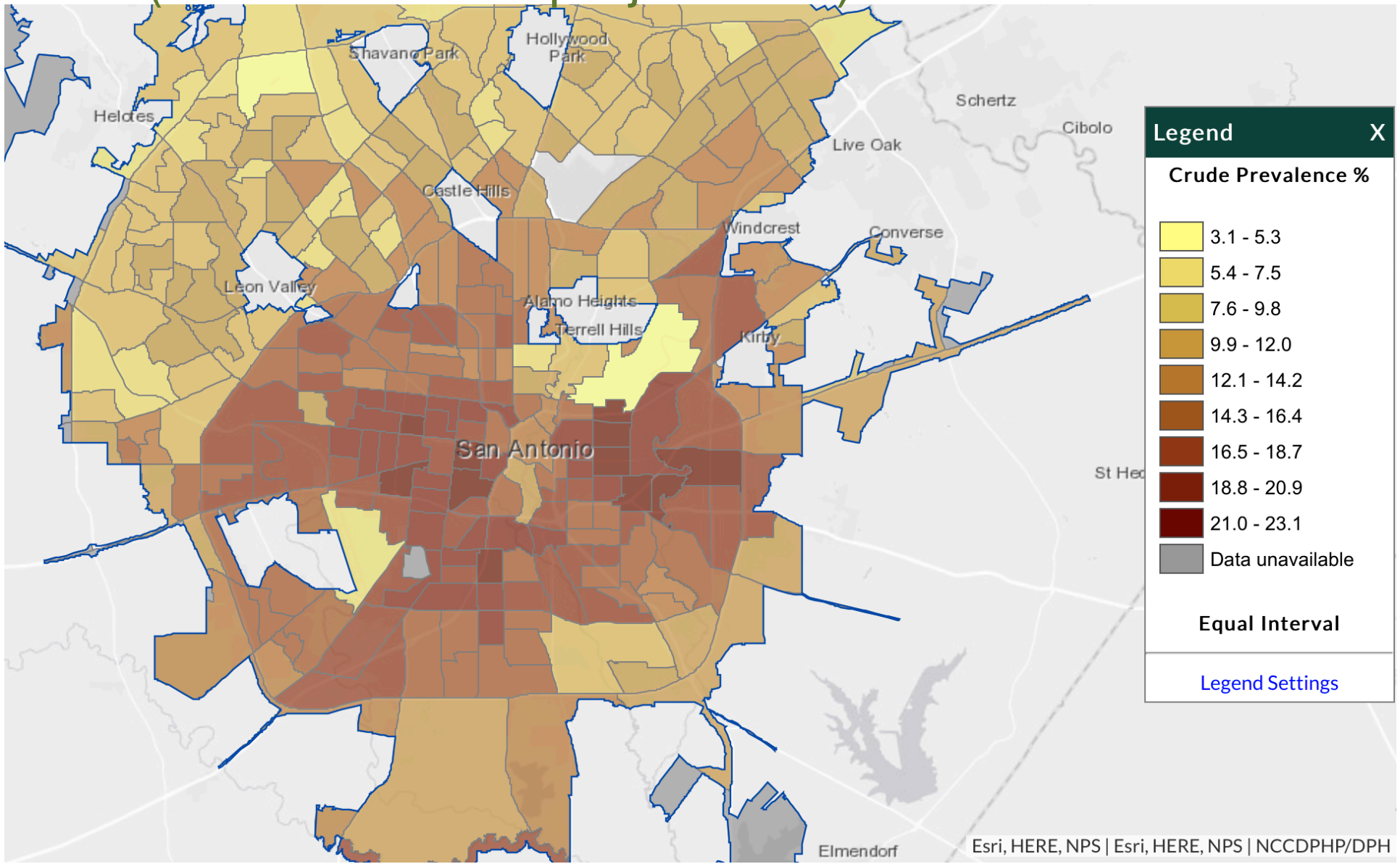
# ADDRESSING SOCIAL DRIVERS OF HEALTH: INTEGRATING SOCIAL CARE INTO HEALTH CARE

Carlos Roberto Jaén, MD, PhD
UT Health San Antonio

# “*Nosotros*” Approach: Community Health Workers as Trust Builders and Community Healers

# San Antonio 2016 crude diabetes prevalence

## (CDC 500 Cities project data)



# INTERVENTION COMPONENTS

Texas Medicaid 1115 Waiver in 2012 created opportunity for new model (DSRIP)

Practice organized to identify and assist patients needing additional help to thrive

Diabetes registry

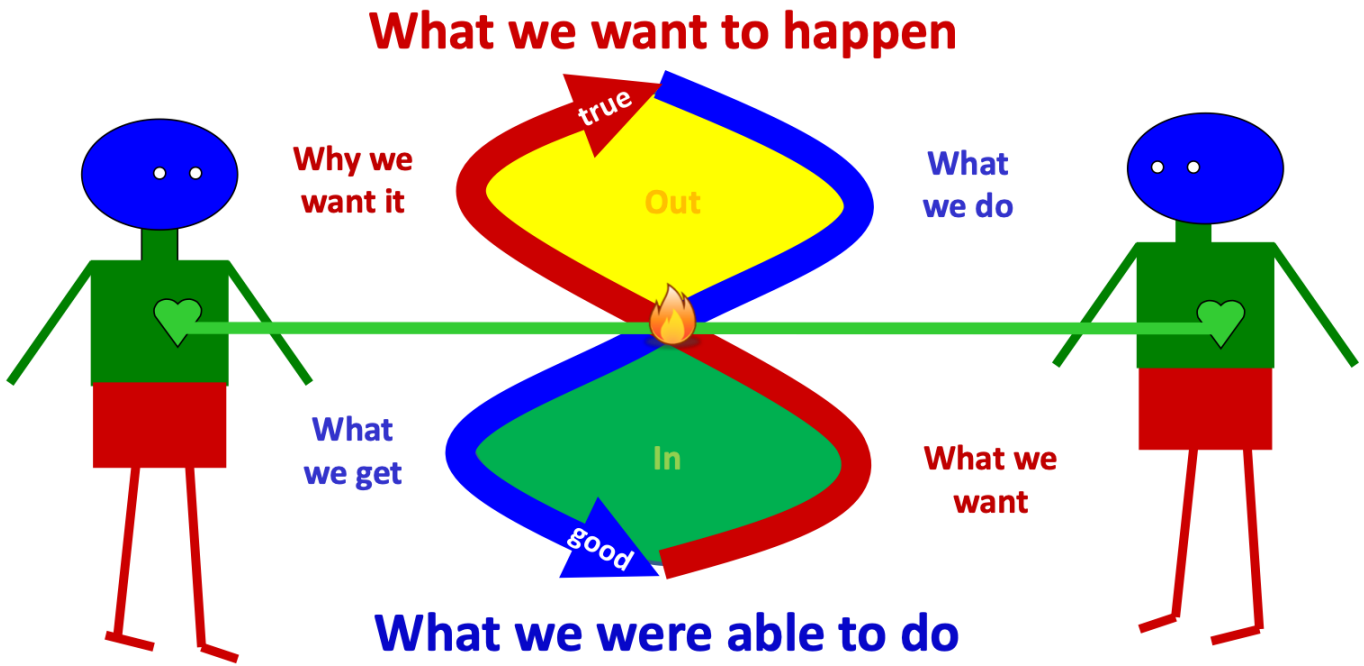
Added additional RN and MA FTE to support diabetes care

Hired 10 community health workers

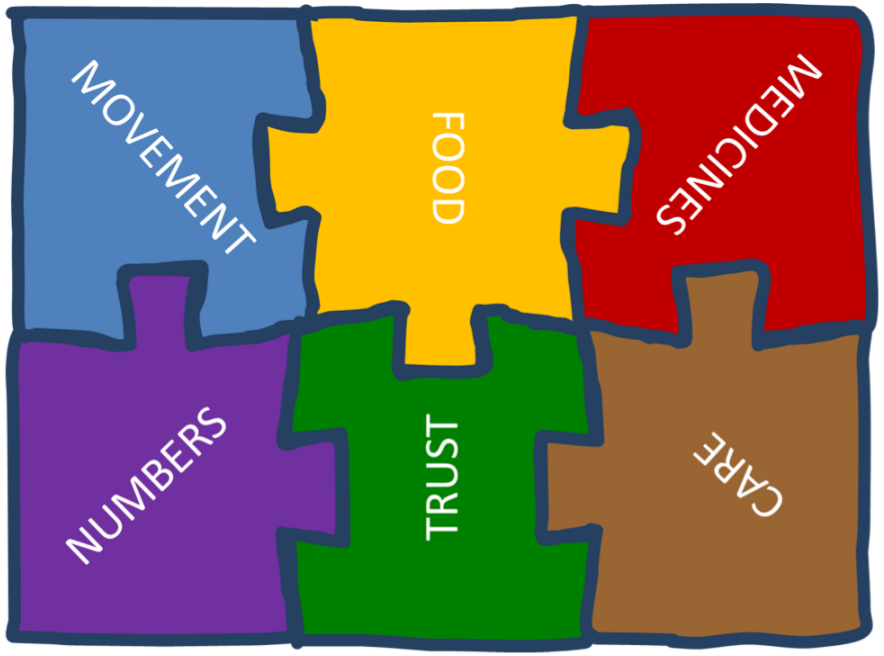
Implemented a new "*Nosotros*" approach for home and community-based care of type 2 DM

Advanced Primary Care in San Antonio: Linking Practice and Community Strategies to Improve Health. *JABFM*. 2013;26(3):288–298.

# NOSOTROS


What we want to happen
true
Why we want it
Out
What we do
What we get
In
What we want
good
What we were able to do

# CHANGE FOR SELF-CARE



# PERIODS OF CARE - DEFINITIONS

| | Goal | Duration | Definition of Success |
|---|---|---|---|
| **Outreach** | Engage patient | 1 day to 7 weeks | Commitment to meet |
| **Stabilization** | Trust-building<br>Create alliance | Up to 12 weeks | Problem-solve obstacles to self-care |
| **Self-care generativity** | Patient commits to self-care | | Patient can reflect and plan self-care |

# METHODS

Program evaluation

Patients recruited from registry based on HbA1c >9% or <9 + significant psychosocial needs

Primary outcome: repeated measures analysis of HbA1c

Secondary outcome: HC utilization data for year before and year after intervention

CHWs classified patients' progress through intervention

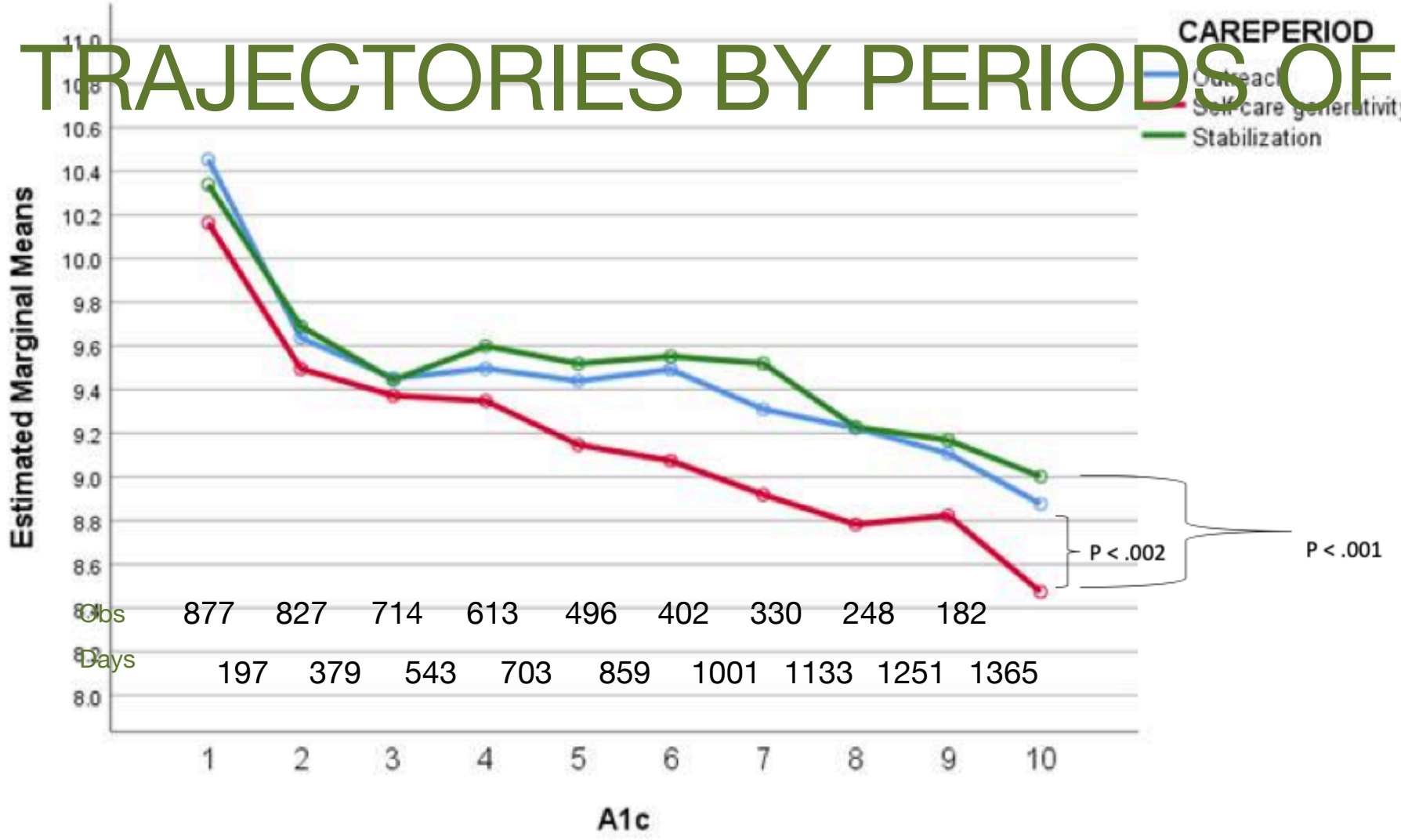
Data sources: Diabetes registry and EHR

Primary analyses: Repeated measures data for A1c, healthcare utilization

# DEMOGRAPHICS

| | Total | Outreach | Stabilization | Self-care |
|---|---|---|---|---|
| Participants | 986 | 267 (27.1%) | 399 (40.5%) | 320 (32.5%) |
| Female | 61.6% | | | |
| Age (s.d.) | 55.7 (10.8) | 54.6 (11.4) | 57.6 (10.0) | 54.9 (10.9) |
| English-preferred | 60.4% | 62.9% | 64.2% | 53.8% |
| Uninsured* | 59.0% | 56.6% | 59.4% | 60.6% |
| Baseline A1c (s.d.) | 10.3 (2.0) | 10.5 (2.0) | 10.1 (2.0) | 10.4 (2.0) |

# HBA1C TRAJECTORIES BY PERIODS OF CARE



# HEALTH CARE UTILIZATION BY CARE GROUP

| Care period | Urgent care | ER | Hospital |
|---|---|---|---|
| Outreach | 0.97 (0.61-1.60) | 1.15 (0.87-1.52) | **1.49 (1.06-2.12)** |
| Stabilization | **1.81 (1.20-2.70)** | 1.13 (0.88-1.45) | **1.78 (1.31-2.40)** |
| Self-care generativity | Reference | Reference | Reference |

# STRENGTHS AND LIMITATIONS

+Integrated team with community footprint can engage patients and help manage diabetes in vulnerable population

+Focus on repairing relationships and building skills

+Longer-term follow-up than most CHW studies

-Non-randomized design; potential selection bias

-Drop out when program is not working

# NEXT STEPS

Program now incorporated into the core structure of primary care clinic funded by shared savings contract with Medicaid managed care organizations and Texas Incentives for Physicians and Provider Services (TIPPS) replaces DSRIP

| Component 1<br>PMPM Payment<br>$47.99 PMPM | Component 2<br>Biannual Lump Sum Payment<br>62.68% | Component 3<br>Increased Rate on E/Ms<br>(99201-99215 @ 58.64%) |
|---|---|---|
| Payment based on number of distinct patients treated by organization | Payment adjustment as lump sum based on FFS billing | Payment adjustment on claim for 99201-99215 encounters |

# ANNALS OF FAMILY MEDICINE PUBLICATION

Expected September 2022

Co-authors: Robert L. Ferrer, Carolina Gonzalez-Schlenker, Ramin Poursani, Inez Cruz, Polly Hithcock-Noël, Ray Palmer