Accelerating Health Equity And Eliminating Diabetes Disparities in Community Health Centers (AHEAD)

Matthew O'Brien, MD, MSc and Marshall Chin, MD, MPH,
Co-Directors, AHEAD Core
Chicago Center for Diabetes Translation Research

Chicago Center for Diabetes Translation Research

- Chicago CCDTR is a collaboration between University of Chicago and Northwestern University
- Cores support diabetes translation research:
  - Administrative core
  - Pilot and feasibility core
  - Enrichment core
  - Research design, data & analytics core
  - Community engagement & health equity core
  - **AHEAD national core**

Community Health Center Partners in AHEAD

AllianceChicago (Alliance)

- 70 CHCs in 19 states
- serving ~3 million patients

Health Choice Network (HCN)

- 44 CHCs in 16 states
- Serving ~2.6 million patients

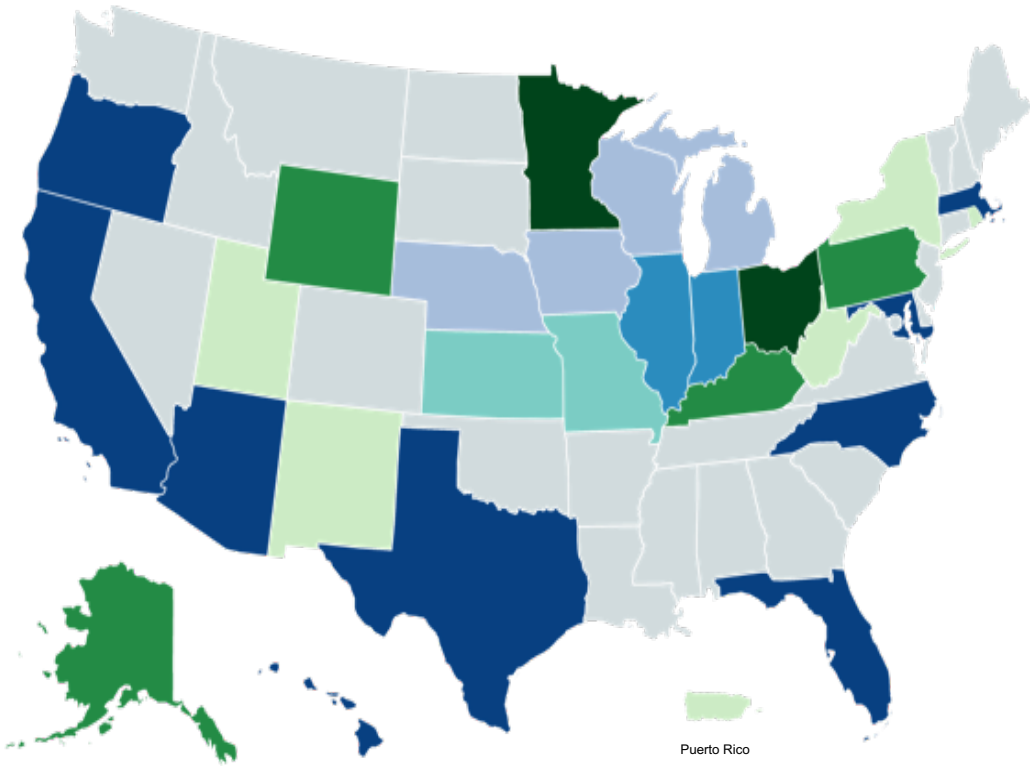
Midwest Clinicians Network (MWCN)

- 150 CHCs in 10 states

Clinical Directors Network (CDN)

- >600 CHCs nationally – Dissemination Partner

National Reach of AHEAD



- Alliance + HCN + MWCN
- Alliance + HCN
- Alliance + MWCN
- HCN + MWCN
- Alliance only
- HCN only
- MWCN only

AHEAD Aim 1

- To provide access to an existing national data repository of CHC patients that will accelerate collaborative, large-scale diabetes translation research

- Current data repository includes:
  - 1,081,492 patients aged ≥9 years old in AllianceChicago network
  - 2,920 diagnosis codes
  - 131 unique laboratory studies
  - 12,601 unique medications

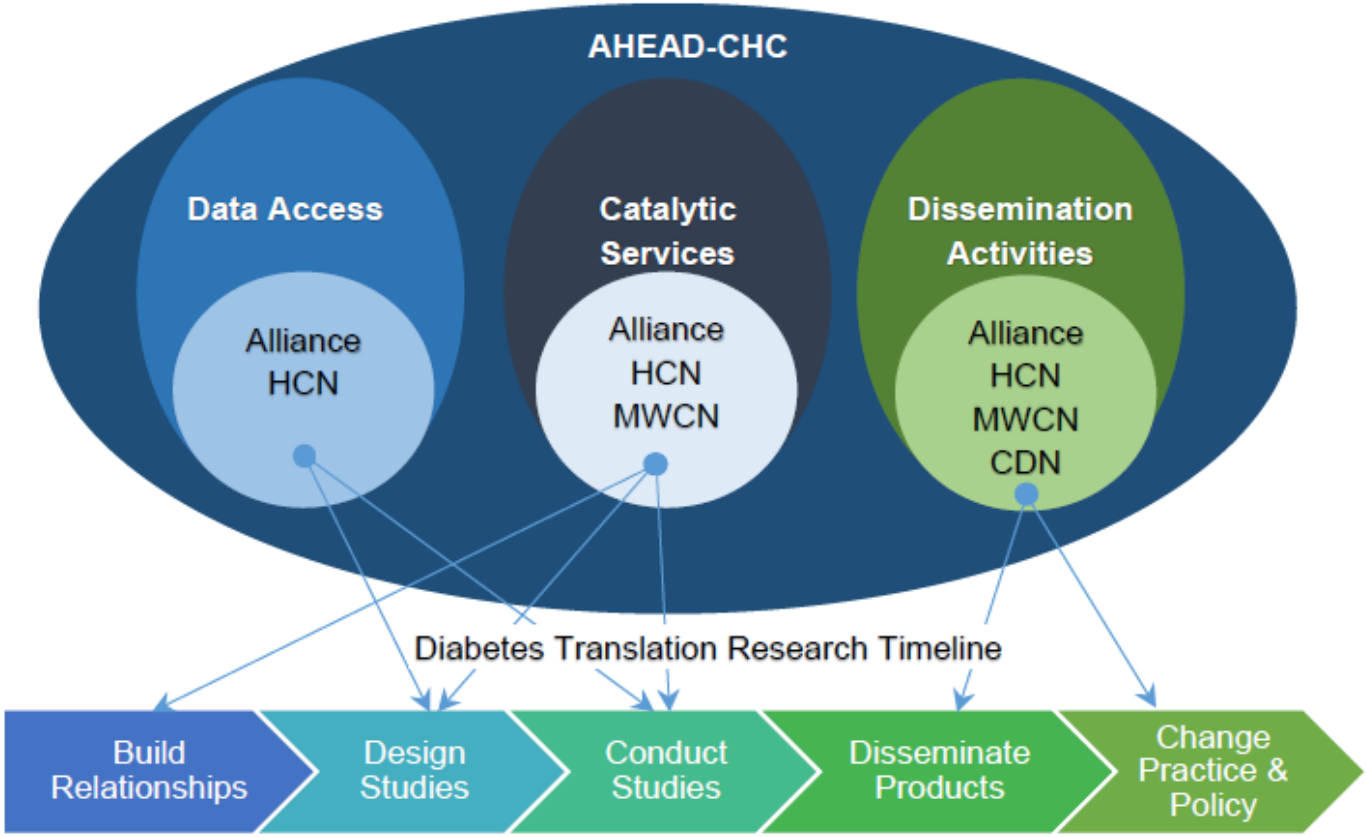
AHEAD Aim 2

- To offer academic investigators and CHC clinicians consultative services that support research partnerships and accelerate novel diabetes translation research
  - Identifying research partners
  - Developing/refining research questions
  - Conducting “prep for research” analyses
  - Navigating study implementation
  - Disseminating products locally

AHEAD Aim 3

- To disseminate products of successful diabetes translation research to an existing national network of relevant stakeholders
  - Webinars hosted by Clinical Directors Network (CDN) partnership
  - Dissemination activities offered by CHC partners
  - Dissemination activities offered by CCDTR

Overview of AHEAD



Contact Us

To request services from the Chicago Center for Diabetes Translation Research:

- Fill out our request form: https://redcap.link/ccdtr
- Email: cdtr@uchicago.edu
- Stay tuned for our new website launch

Development of social drivers of health cluster scores and correlation with diabetes and hypertension outcomes

September 2022

Dave Faldmo[1], Wen Wan[2], Rosy Chang Weir[3], Marshall Chin[2], Erin Hoefling[1], Vivian Li

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[3]Association of Asian Pacific Community Health Organizations (AAPCHO)

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Partners

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Siouxland Community Health
an iowahealth center

AT THE FOREFRONT
UChicago Medicine

AAPCHO
ASSOCIATION OF ASIAN PACIFIC COMMUNITY HEALTH ORGANIZATIONS

Overview

1. Study Aims
2. PRAPARE®/SDOH at Siouxland Community Health Center
3. Study Methodology and Results
4. Impact of the Findings
5. Q&A

Study Aims

- To identify clusters of social risk factors in a population that included patients with diabetes and hypertension
- To find effective methods for scoring PRAPARE®/ SDOH factors for use in correlational analyses, including risk stratification
- To assess the relationship between SDOH factors and hemoglobin A1c and blood pressure values, including diabetes and hypertension control

Importance of SDOH and Concise Screening/Scoring Tools

- SDOH impact health outcomes
- SDOH Screening Tools are useful for:
  - Individual patient care
  - Risk stratification for population health management
  - Risk adjustment for public reporting and payment

PRAPARE® - SDOH Screening Tool

- Protocol for Responding to & Assessing Patients' Assets, Risks & Experiences (AAPCHO, NACHC, OPCA)
- National standardized, evidence-based and stakeholder-driven. Toolkit and much more info at prapare.org
- 17 core and 4 optional questions, which covers 4 domains:
  1. Personal Characteristics
  2. Family and Home
  3. Money and Resources
  4. Social and Emotional Health

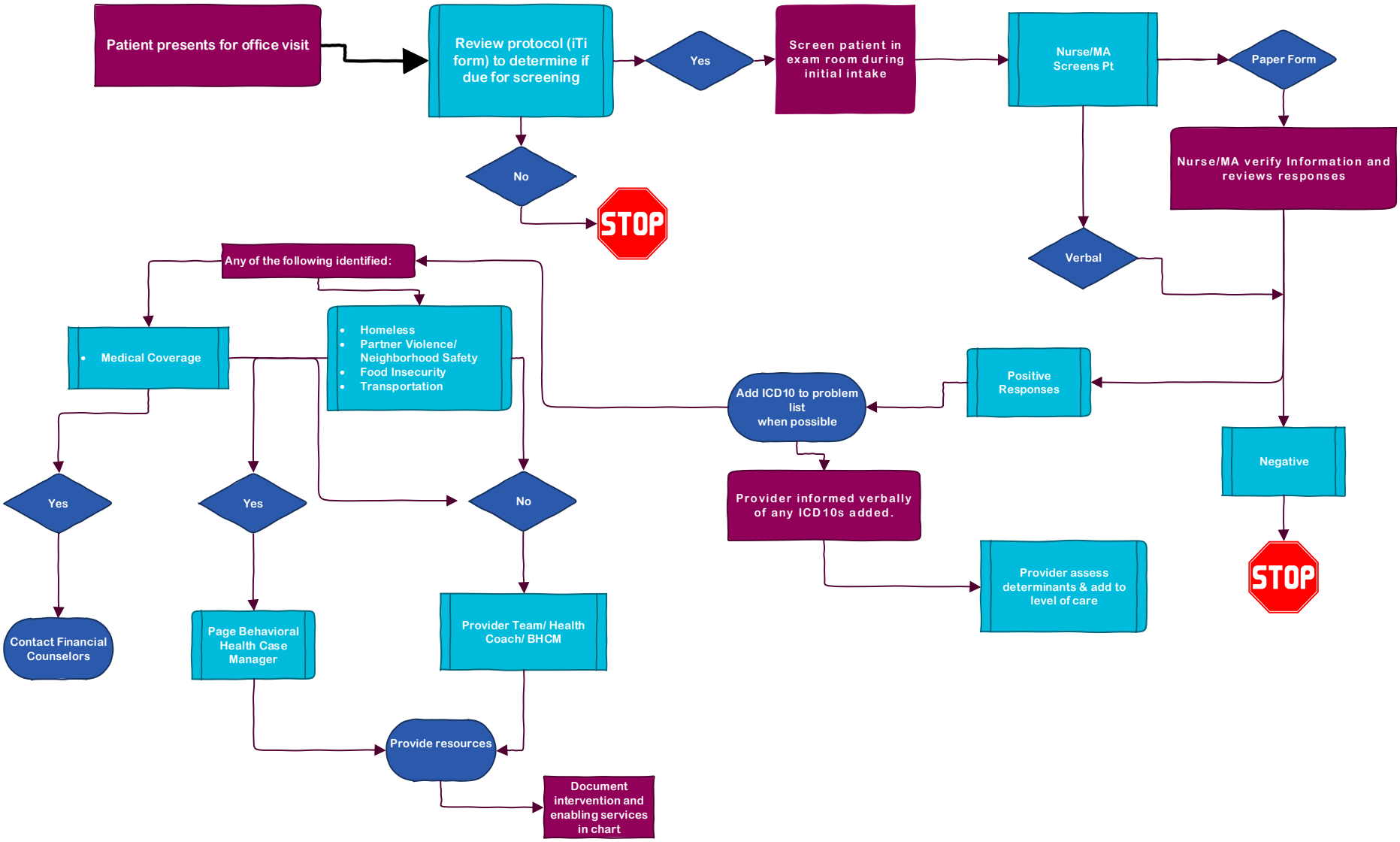
PRAPARE
Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences

PRAPARE® - SDOH at Siouxland

- Siouxland Community Health Center, Sioux City, Iowa
- One of the first PRAPARE pilot sites, began implementing PRAPARE in 2015.

Siouxland Community Health
an iowahealth center

PRAPARE® - SDOH Workflow at Siouxland



Siouxland Interventions to Address Food Insecurity for Diabetic Patients

Voices for Food/Grow an Extra Row

Partner with state extension office program to provide fresh produce donated by community gardeners to patients in need at health center

Demonstration Garden Boxes at Health Center

Healthy Cooking Classes

Partner with YMCA to provide cooking class at local grocery store

Grocery Store Tours

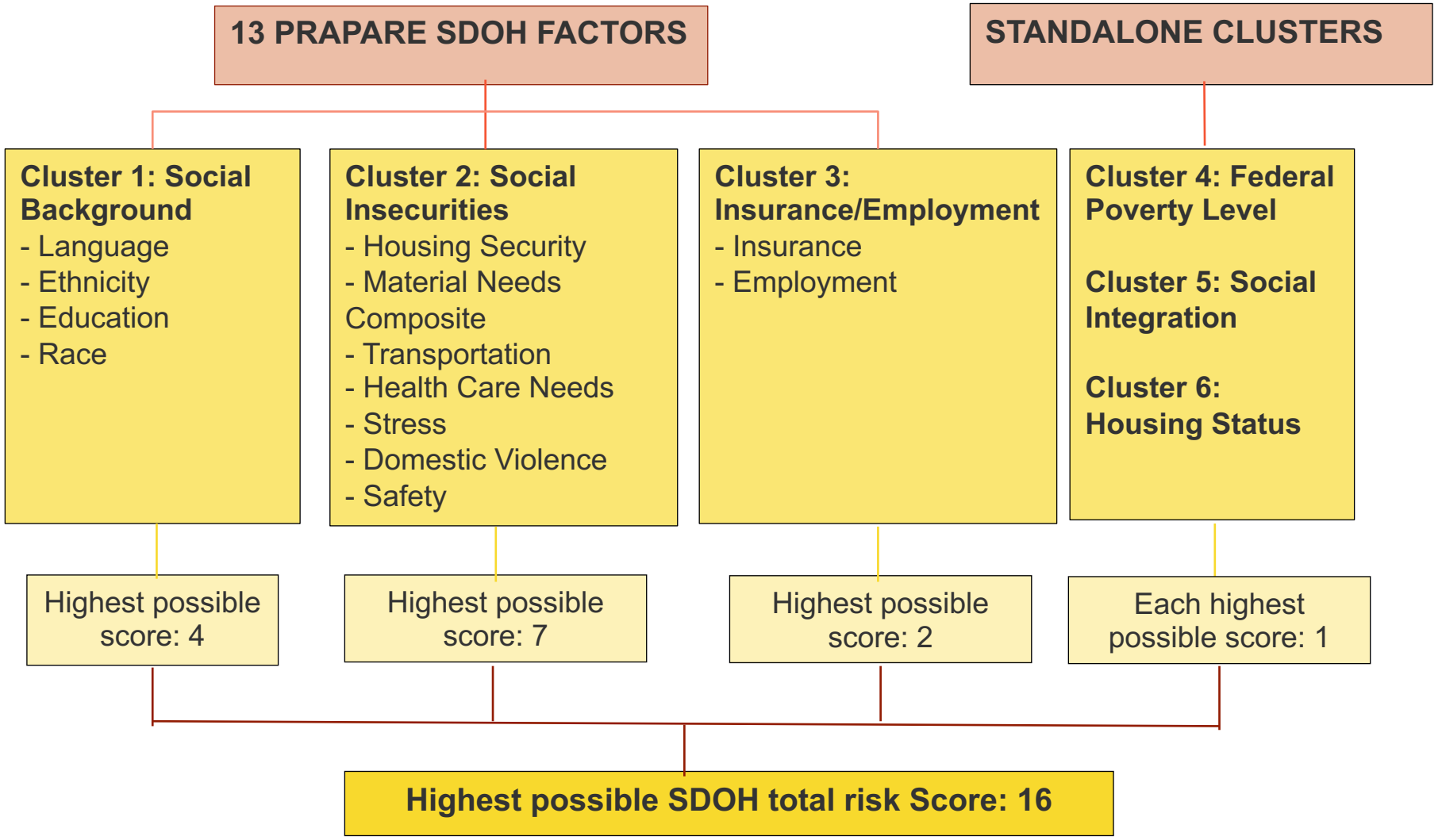
Partner with local grocery store to provides dietician-led tour of grocery store

Increased staff knowledge of community food pantries, soup kitchens, and other resources

Study Population

- 11,773 adults, aged 18-75
- Visited Siouxland Community Health Center between 1/1/2016 to 6/30/2018 and responded to the PRAPARE survey
- Blood pressure and hemoglobin A1c (HbA1c) records
  - 716 had diabetes only
  - 2,388 had hypertension only
  - 1,477 had both
  - 7,192 had neither disease

Structure of PRAPARE SDOH Factors by Factor Analysis



Results via Logistic Regression

Factor	UNCTL DM	UNCTL HTN	Combined UNCTL
	Odds Ratio		
Gender	0.88	0.90	0.87
Age	**0.97**	1.00	0.99
BMI	0.99	1.00	1.01
C1: Social Background Score	**1.12**	1.00	**1.06**
C2: Social Insecurities Score	**1.18**	**1.16**	**1.17**
C3: Insurance/Employment Score	**1.24**	1.09	**1.17**
C4: Federal Poverty Level	0.69	1.31	1.02
C5: Housing Status	0.77	1.19	1.04
C6: Social Isolation	0.85	1.13	1.07

Conclusions

- Social risks are associated with diabetes and hypertension
- Importance of screening for social risk and in understanding SDOH in patients with chronic conditions
- Association between the number of social risks with worse disease outcomes ⇒ broad, comprehensive screening
- Across all models, patients scoring higher in “Social Insecurities,” ⇒ worse disease outcomes ⇒ closer follow up on this cluster in disease monitoring
- Implications for clinical interventions: risk stratification, predicting high risk, high cost patients and risk adjustment

Challenges and Opportunities for FQHC Diabetes Research

Challenges:

- Competing priorities
- Limited financial resources
- Lack of research/data analytic expertise/training

Advantages:

- FQHC quality improvement experiences and infrastructure
- Research can help reduce disparities and health inequities
- Collaborative partners/academia recognize the value of FQHCs and the population we serve

Q&A

Thanks to The Chicago Center for Diabetes Translation Research through NIH/NIDDK for funding this project

Publication: https://www.jabfm.org/content/35/4/668

Thank you!

Diabetes Screening in Community Health Centers:
A journey spanning research, policy, and practice

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AllianceChicago
Innovating for better health

Overview

- Diabetes screening study analyzing secondary data from community health centers (CHCs)
- Translation of evidence into new diabetes screening policy
- Diabetes risk modeling study using the same CHC data
- Future directions in research, policy, practice

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USPSTF Diabetes Screening Recommendation

Released December 2015: "The USPSTF recommends screening for abnormal blood glucose as part of cardiovascular risk assessment in adults aged 40 to 70 years who are overweight or obese."

What are the implications for racial and ethnic minority groups, who:

- Develop diabetes at younger ages than White adults[1]
- Experience higher diabetes risk than White adults at normal weight[2,3]

1 Wang, et al. *JAMA Intern Med* 2021;181:1537-9
2 Hsu, et al. *Diabetes Care* 2015;38(1):150-8
3 Gujral, et al. *Ann Intern Med* 2017;166:628-36

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Performance of 2015 USPSTF Diabetes Screening Criteria in Community Health Centers

Aim/objective: among adult community health center patients without prediabetes or diabetes at baseline:

- Estimate the clinical performance of the USPSTF screening criteria to detect incident prediabetes and diabetes cases during 3-years of follow-up

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Methods

- **Study design:** Retrospective cohort study of clinical data (2008-2013) with an index patient visit in 2008-2010 and up to 3 years of follow-up
- **Data source:** Electronic health records
- **Setting:** 6 large safety-net community health centers in the Midwest and Southwest
- **Participants:** 50,515 adult patients without prediabetes or diabetes at baseline, followed for up to 3 years

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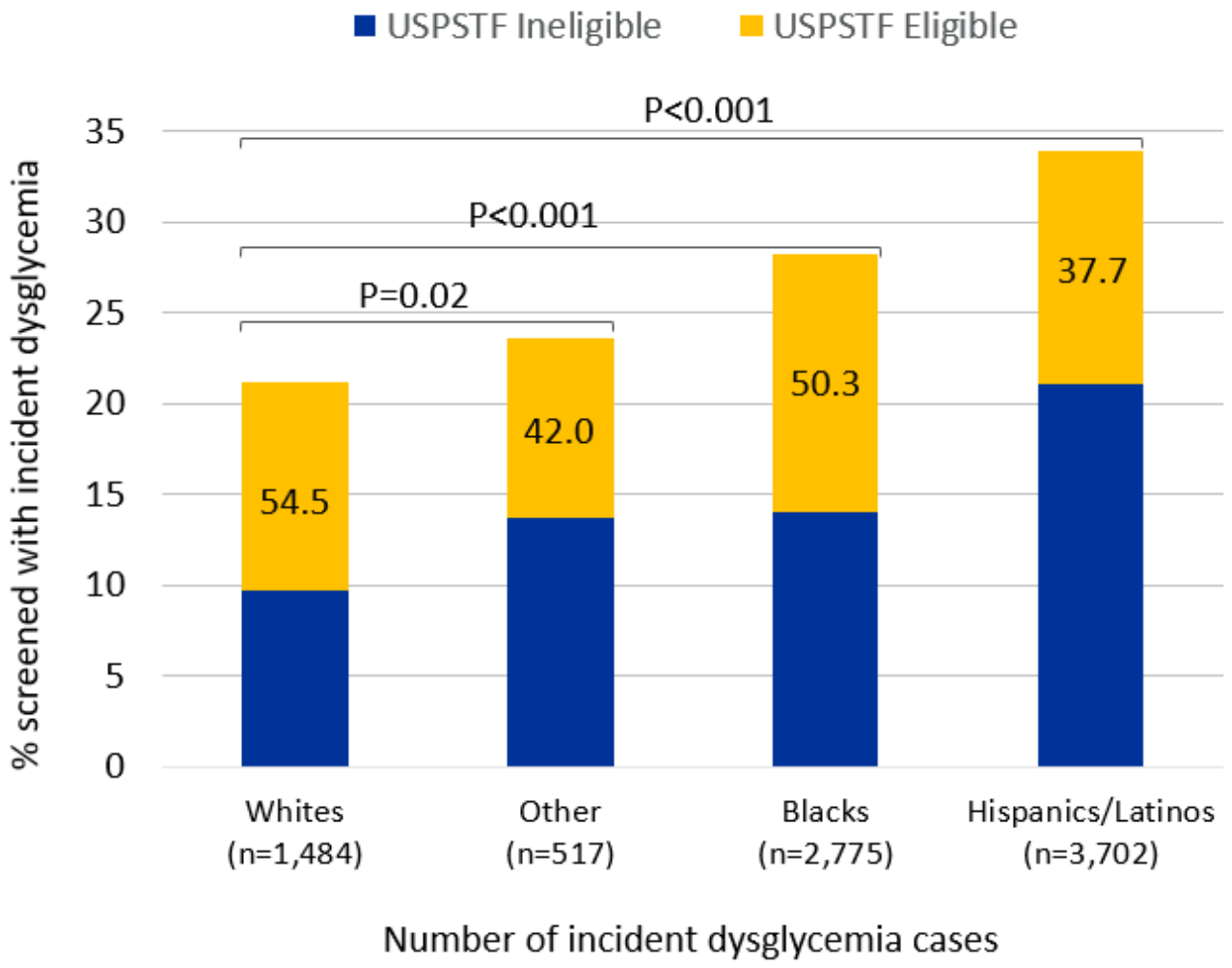

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O'Brien, et al. *PLOS Medicine* 2016;13:e1002074

Translation of findings to policy (2018->2021)

- Outreach from Diabetes Advocacy Alliance
- Letter from Diabetes Advocacy Alliance to HHS Secretary Burwell
- Invited presentation at Congressional Black Caucus
- USPSTF announced re-review of diabetes screening criteria with focus on health equity
- USPSTF literature review and public comment on draft criteria

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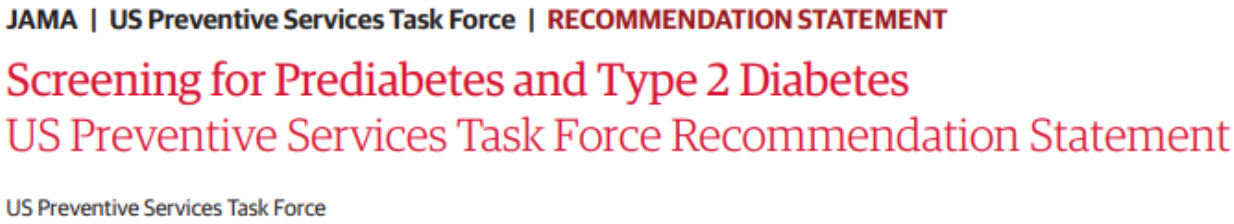
New diabetes screening recommendation: August 31, 2021


JAMA | US Preventive Services Task Force | RECOMMENDATION STATEMENT

Screening for Prediabetes and Type 2 Diabetes
US Preventive Services Task Force Recommendation Statement

US Preventive Services Task Force

Implications for health equity:

- Lowers screening age from 40 to 35 years old (+ overweight/obesity)
- Mentions that clinicians should consider screening earlier in members of high-risk groups (including racial/ethnic minorities)
- Explicitly acknowledges Asian-specific BMI cutoffs

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Future directions in research

Implementation study of the 2021 screening recommendation:

- Multi-component, multi-level intervention aimed to improve screening rates using:
  - Provider-facing components: clinical decision support, audit and feedback reports
  - Patient-facing components: education materials, text messages
- R01 proposal is currently under review at NIH
- Seeking community health center partners who want to participate

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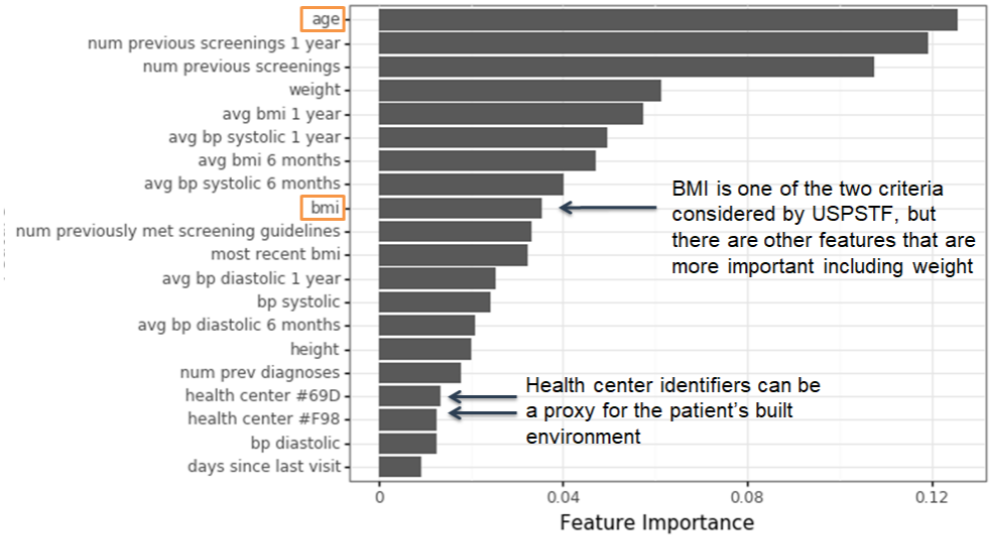
Diabetes Screening: Traditional vs. AI Approach

- 40-70 years old
- BMI ≥ 25



Opportunity: A Personalized risk score tool for clinicians

Proactive interventions for CHC patients at risk of developing diabetes

Data Science For Social Good
Summer Fellowship
THE UNIVERSITY OF CHICAGO

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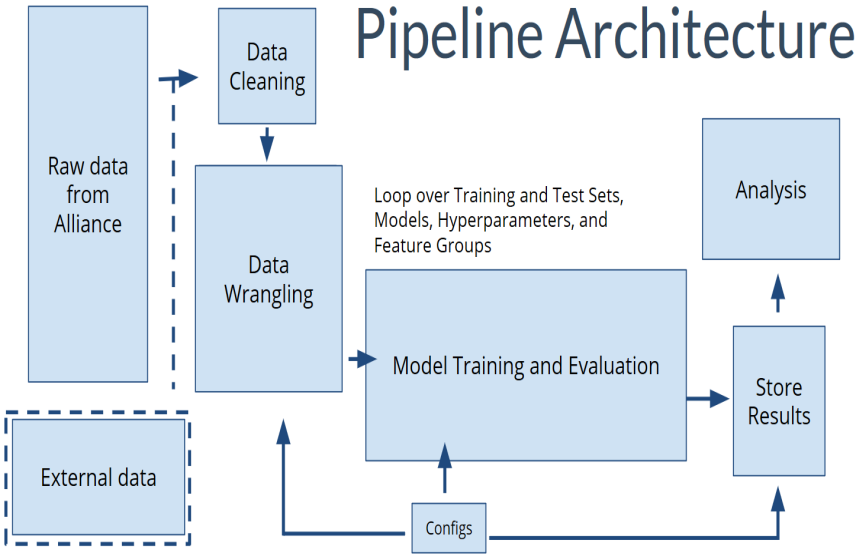
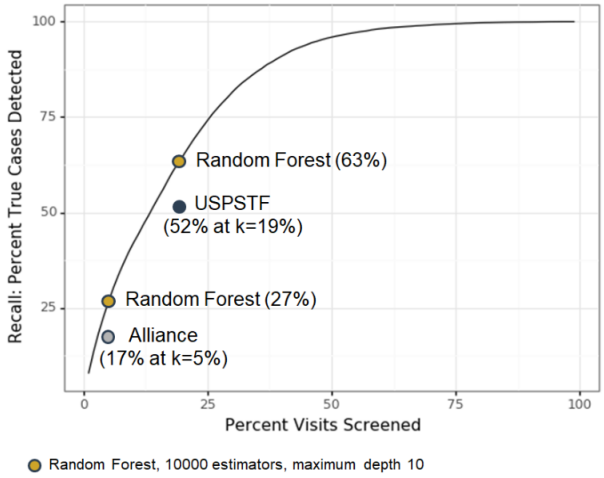
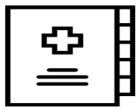




Visits
Observations



Diagnoses

Demographics

American Community Survey (ACS)

Lab results

Medications

Family History

Future directions in research

Develop interventions that leverage this risk model for improving primary care in community health centers

- Provider-facing clinical decision support displaying patients' risk of developing diabetes, which will inform their clinical care
- Patient-facing educational materials informing patients of their risk of developing diabetes and encouraging healthy lifestyle changes to prevent diabetes

AllianceChicago

THANK YOU!

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AllianceChicago

Conducting Research with Community Health Centers

Cynthia Schaefer, PhD, RN

Arshiya A. Baig, MD, MPH

Community-Based Participatory Research Partnership

- University of Chicago/Midwest Clinicians' Network
  - Diabetes translation research since 1997
  - MWCN Research Committee
  - Collaborations
    - Needs assessments
    - Partner identification
    - Projects: Diabetes Standards of Care, Health Disparities Collaborative, Health Center Diabetes Pilots, Hypertension/Lipids, Health Literacy, Diabetes and Depression, Combating Obesity, Group Visits, Virtual Group Visits (Chicago)

Midwest Clinicians' Network

- The network includes 150 health centers and 10 Primary Care Associations in a 10 state region
- Focus on networking, education and resources for FQHCs
- High utilization of listserv by members for best practices
- Patient experience and employee satisfaction surveys
- Research since late 1990's

The Midwest Clinicians' Network, Inc.'s mission is to enhance professional and personal growth for clinicians to become effective leaders for their health centers and promoters of quality, community-based primary health care.

Engagement Methods

- Board of Directors
- Primary Care Associations
- Listserv outreach
  - Survey specific topics for informational purposes
  - Feedback on topic interest
  - Recruit letters of support
  - Notify of opportunities
  - Share results
- Webinar
- Newsletter

Outcomes/Dissemination

- Publications
- Poster presentations (NACHC, ADA, SGIM, etc.)
- Dissemination to members
  - Webinar presentations
  - Newsletter
- Facilitate health centers participants sharing
  - Provide resources to leadership/board/staff
  - Funding for travel to state/national meetings

MWCN & UChicago Diabetes Group Visits

Interest/Concept Development

- MWCN BOD expressed interest in shared medical appointments for patients with diabetes.
- MWCN Research Committee worked with U Chicago.

Site visit study (2013-2014)

- Interviewed health center staff at 5 HCs in the Midwest to collect information on their experience running diabetes group visits.

Pilot study (2015-16)

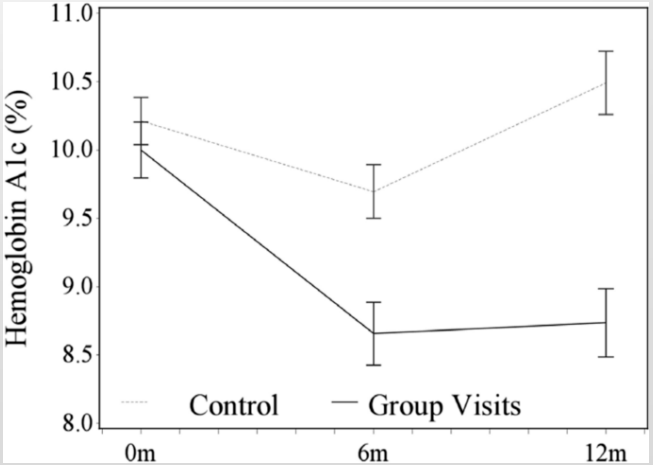
- Trained 6 HCs in 5 states to conduct diabetes group visits.
- Included text messaging at 1 health center.

Diabetes MESSAGES study (2017-22)

- Train 14 HC teams in Midwestern states to conduct diabetes group visit & text messaging program.
- Cluster randomized controlled design.

Pilot Study
Overview

- Design:
  - Trained 26 staff at 6 community health centers in 5 Midwestern states to implement group visits (3 urban, 3 rural)
  - Health centers recruited 8-10 patients with uncontrolled diabetes (HbA1c ≥ 8%)
  - Implemented 6 monthly diabetes group visits
- Results
  - 51 patients enrolled, 61% attended ≥ 4 visits
  - Improvement in A1c for GV patients
  - High provider and staff satisfaction



Office of Minority Health (OMH) Partnerships to Achieve Health Equity

- Focus on improving access to care & health outcomes among disadvantaged populations through development of innovative models for managing chronic conditions
- UChicago: One of 6 grantees across country
- Cluster randomized trial & evaluate diabetes GVs and text messaging in Midwest HCs

UChicago Medicine receives $1.8 million grant to improve diabetes care in underserved communities

Posted on August 1, 2017 by Matt Wood in News and Events

Arshlya Baig, MD (standing), during diabetes group visit training for staff at health centers in the MidWest Clinicians' Network

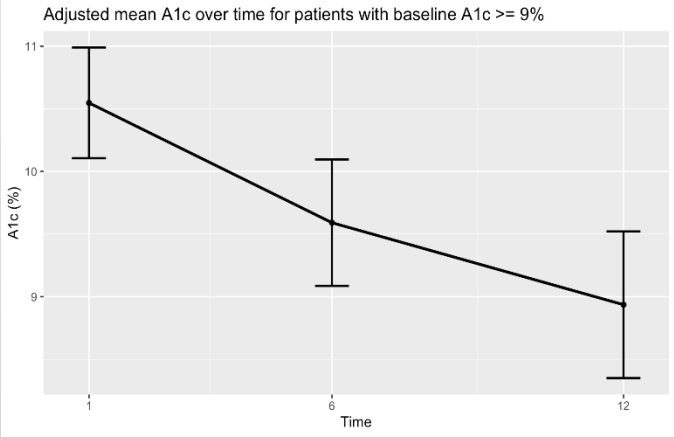
Researchers from the University of Chicago Medicine have received a five-year, $1.8 million grant, from the U.S. Department of Health and Human Services Office of Minority Health (OMH) to develop a program that could help improve diabetes care for low-income racial and ethnic minority patients.

OMH U.S. Department of Health and Human Services Office of Minority Health

Diabetes MESSAGES

- Design
  - Cluster randomized study with waitlist control
  - HCs had to form a team of 3-4 HC staff including one clinician (MD, NP, or PA)
  - 7 intervention and 7 waitlist control teams

- Results
  - Both group had improvement in A1c from baseline to 12 months
  - Attending 4-6 group visits was associated with significant reduction in A1C compared to no visits 6 months and 18 months
  - Patient improvement in social support and satisfaction with diabetes care
  - Patient with emotional health problem more likely to see a mental health specialist and prescribed a medication in intervention group
  - GV patients were more likely to have improved processes of care and more engagement with diabetes education post-intervention.



Virtual Group Visit Pilot

- Study Design
  - Conducted virtual GVs with pre and post data of 2020 cohort wait list arm
  - 6 sites
  - 49 patients enrolled
- Results
  - Trend for improvement in A1c in cohort from pre to post testing baseline to 12 months
  - For patients with A1C≥9% at baseline (N=31), there was a significant decrease in A1C from 10.70±1.65% at baseline to 9.36 ± 2.07% at 6 months (p=0.03).
  - Diabetes support and diabetes distress improved

Virtual Diabetes Group Visits Across Health Systems (VIDA)

VIDA
Virtual Diabetes Group Visits Across Health Systems

Main Objective:

Assess changes in clinical outcomes among adults with T2DM and CVD comorbidities in virtual diabetes group visits versus usual care.

AdvocateAuroraHealth

Midwest Clinicians' Network
Leadership, Growth and Quality Health Care

Access Community Health Network
TRANSFORMING COMMUNITY HEALTH CARE

AT THE FOREFRONT
UChicago Medicine

ccen
chicago chronic condition equity network

Diabetes Group Visit Toolkit

voices.uchicago.edu/diabetesgvtoolkit

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Preventing “Tipping Points” in High Comorbidity Patients: A Lifeline from Health Coaches

PI: Jonathan N. Tobin, PhD (CDN/The Rockefeller University)

Co-PI: Mary Charlson, MD (Weill Cornell Medicine)

Co-I: Nivedita Mohanty, MD (AllianceChicago)

Funding:

PCORI Award #IHS-2017C3-8923

With support from:

AHRQ Grant #P30-HS-021667

NYC-CDRN (INSIGHT) PCRF Award #20171205

CAPriCORN PCRF Award #20171205

Presentation Overview

This presentation will discuss:

- Community-Academic Partnerships and Networks of Networks
- Design of a Cluster-Randomized Pragmatic Multi-level Intervention Trial
- Intervention Targeted at Patients with High Comorbidity

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NYU: Flatbush, Park Ridge, Park Slope, Sunset Park

Erie: Division Foster, Waukegan, West Town

Friend: Ashland, Cottage Grove, Pulaski, Western

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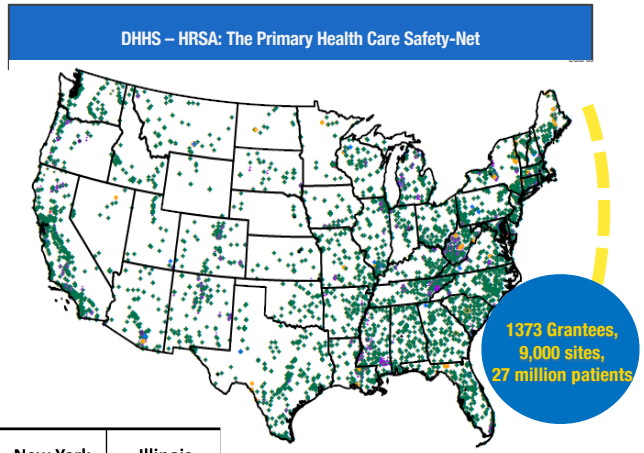
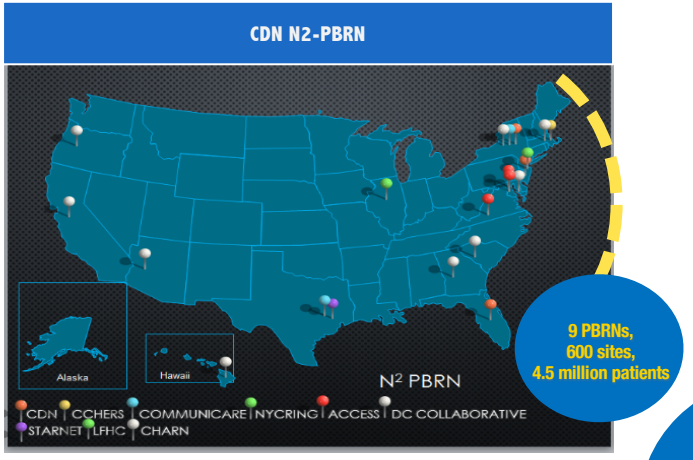
CDN N^2 –PBRN: Building a Network of Safety Net PBRNs

CDN is a Practice-Based Research Network (PBRN) that works with Federally Qualified Health Centers (FQHCs) and other primary health care safety-net practices





HRSA UDS 2021 Data

FACILITIES, PATIENTS & VISITS	National	New York	Illinois
Total # Grantees	1,373	63	45
Total # Delivery Sites	15,802	875	523
Total # Medical Users	25,759,024	1,883,696	1,343,833
Total # Medical Encounters	83,368,500	6,400,332	4,055,820
Total # Dental Users	5,701,053	441,735	145,545
Total # Dental Encounters	13,766,648	1,087,741	282,306
Total # Patients	30,193,278	2,226,970	1,448,136

Funded by AHRQ Grant: P30-HS-021667
PI: Jonathan N. Tobin, PhD (CDN)

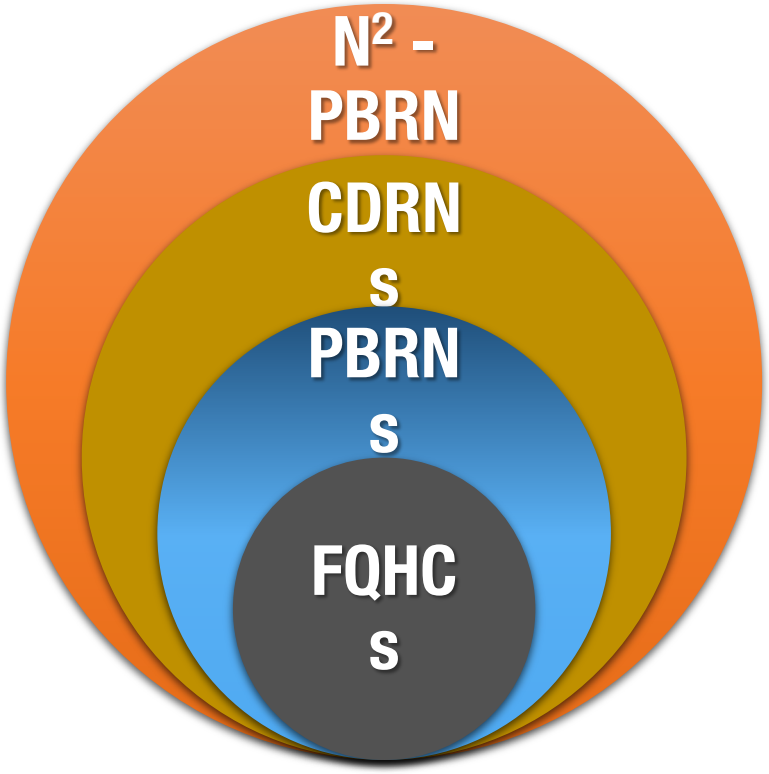
CDN is an AHRQ-designated Center of Excellence for Practice-based Research and Learning

www.CDNetwork.org

N²-PBRN
Scale-up Model

CDN N²-PBRN has built a **scalable research infrastructure** to serve the needs of clinicians who practice in the health care **safety-net**

By building on existing infrastructure, creating new **relationships** providing external practice facilitators (online, remote) and dissemination channels



AllianceChicago

Innovating for better health

- A centrally-hosted electronic health record solution for Community Health Centers
- **>2.6 Million:** Unique, Active, Patients in Enterprise Data Warehouse (24% 18 and under)
- Access to tools and services through subscription for other health centers who have alternative arrangements for hosting their EHR.
- Quality Improvement, Strategic Planning, Research

Our Mission

To improve personal, community and public health through innovative collaboration.

AllianceChicago's efforts are focused in three core areas:

Health Care Collaboration

Providing exemplary, innovative health services that unite health care providers and consumers to optimize effectiveness, efficiency, experience and outcomes

Health Information Technology

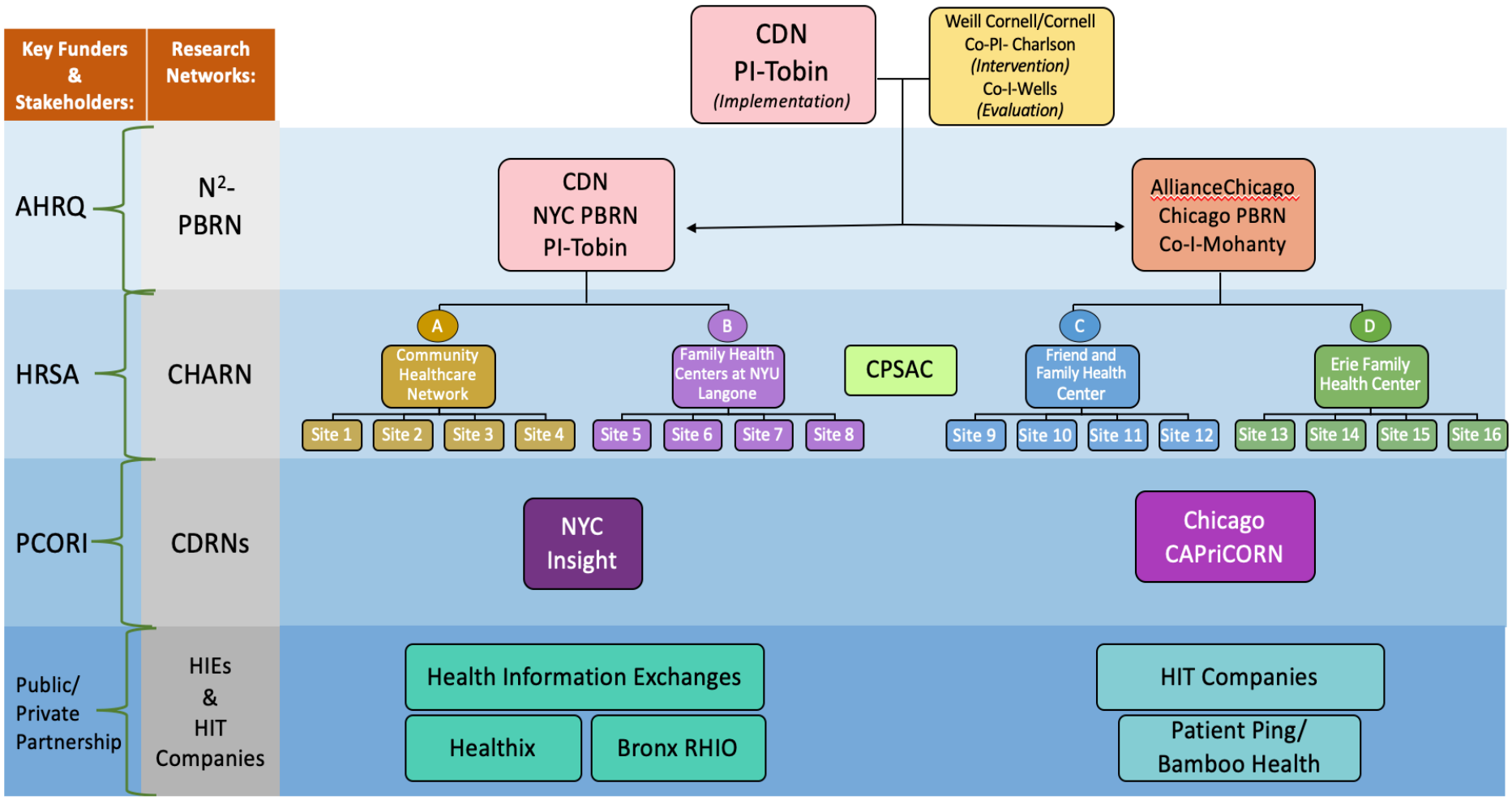
Leading the way in improving health and health care delivery through the thoughtful use of leading edge health information technology (HIT) in the safety net

Health Research & Education

Providing essential guidance that informs policy, health care delivery design and clinical services to improve health, increase relevance and accessibility of health care, and eliminate disparities

www.alliancechicago.org

Tipping Points – Organizations/Partners



Data Sources and Partnerships

	N²-PBRNs		FQHCs		CDRNs		HIEs & HIT Companies		
	CDN	**Alliance Chicago**	**NYU and CHN**	**Erie and Friend**	**Insight**	**Capricorn**	**Healthix, Bronx RHIO**	**Azara & Relevant**	**Bamboo Health**
EHR			EPIC & eCW	EPIC & Athena					
Determination of Eligibility									
Co-morbid diagnoses		X	X	X				X	
Confirm CCI ≥ 4	X	X	X	X				X	
Recruitment									
Contact information - phone, email, mail, text	X	X	X	X					
Intervention Delivery									
Communication with primary care team via EMR	X	X	X	X			X		X
Goal setting	X	X							
Participant Retention									
Contact information - phone, email, mail, text	X	X	X	X					
Outcome Ascertainment									
Hospital admissions			X	X	X	X	X		X
ED visits			X	X	X	X	X		X

Tipping Points – Practice Settings

- Predominantly low-income, black and Latino/a adult patients with multiple chronic diseases defined by **Charlson Comorbidity Index of ≥4**
- Trained Health Coaches conduct recruitment, assessment and intervention at 4 Federally Qualified Health Center networks

NYC	Chicago
• Family Health Centers at NYU Langone • Community Healthcare Network	• Erie Family Health Center • Friend Family Health Center

**Centers for Disease Control and Prevention*

"EVERYBODY NEEDS A COACH. EVERYONE."

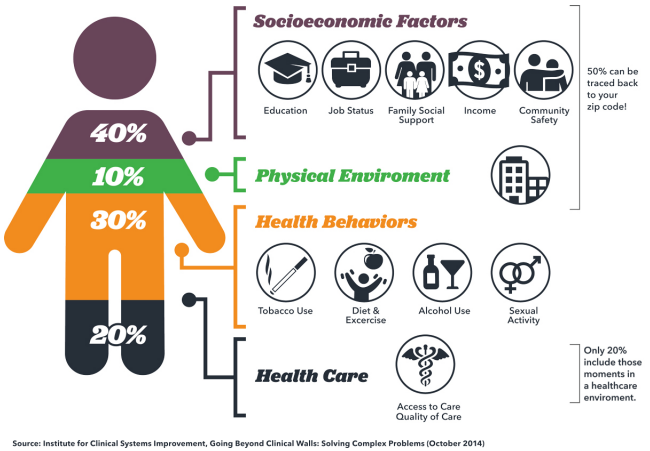
-Dr. Atul Gawande

- Chronic Disease Management including Diabetes Care is optimized by a team-based approach
- Health Coaches can expand the reach and capacity of the Primary Care team
- Tipping Points engages Clinical Champions, Health Center Operations, and Patients
- A Patient and Clinician Advisory Board promotes continuous communication between the Research Teams and practice-level factors

Implementation of Research in Real-World Settings

- Health Coach Training
- Health Coach Orientation and Integration with Clinical Champions and Care Teams
- Tailored strategies for integration within each clinical environment
  - Warm Hand Offs
  - Integration with Team Huddles
  - Remote Recruitment and Patient Touchpoints
  - Supporting patient with community resources to address needs
  - Closing communication loops with the Primary care teams

PCMH



Source: Institute for Clinical Systems Improvement, Going Beyond Clinical Walls: Solving Complex Problems (October 2014)

Tipping Points Intervention

Experimental Arm Includes:

- **Setting life goals and self-management goals** with Health Coaches to engage patients
- **Coaching toward self-management** goals shared with patient's primary care clinician and Health Coach to work with patient to develop an action plan for when they should contact their clinician
- **Emotional and tangible support for life stresses** Patients in the PCMH+ coaching intervention can contact the Health Coach if they need help because of new life events, psychosocial challenges, new diagnoses or deterioration in their current social or clinical status. The Health Coach encourages patients to mobilize family and friends to provide support.

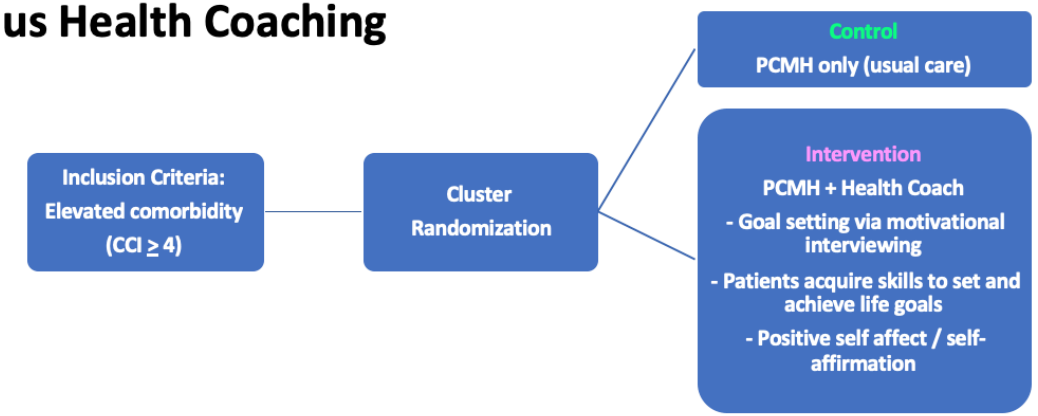
Tipping Points Intervention

Control Group (PCMH only):

Patients receive their usual care at their health center per Patient-Centered Medical Home (PCMH) guidelines

Experimental Group (PCMH + HC):

Patients receive their usual care at their health center per Patient-Centered Medical Home (PCMH) guidelines **plus Health Coaching**



Tipping Points
PCMH vs. PCMH + Health Coaching

Needs Identified by Patients	PCMH Intervention alone (Control)	PCMH plus Health Coach (Experimental)	Domains of Health Education Impact Questionnaire[195]
Engagement in self-management	Patient-centered care that supports patients in learning to manage their own care	Same as PCMH	Positive and active engagement in life
Effectively communicating with physicians	Comprehensive accessible care that meet each patient's needs	Same as PCMH	Skills and technique acquisition
Navigating the health care system	Coordinated care across all elements of the health care system	Same as PCMH	Health services navigation
Providing emotional support		Empathic listening	Emotional Well-being
Assistance with handling life stresses		Mobilizing social support and Connecting with relevant community support services	Constructive attitude/approaches; Social integration and support

Baseline Demographics in Chicago & NYC

		CHICAGO	NYC	TOTAL
		N (%)	N (%)	N
		587 (50%)	**583 (50%)**	**1170**
Age	Mean age	56.5 (±10.8)	61.9 (±11.0)	**59.2 (±11.2)**
Gender	Female	409 (70%)	443 (76%)	**852 (73%)**
Race	Black	270 (48%)	273 (49%)	**543 (46%)**
	White	121 (22%)	48 (9%)	**169 (14%)**
	Asian/Indian/Alaskan/ Hawaiian/Pacific Islander	29 (5%)	12 (2%)	**41 (4%)**
	Other	142 (25%)	225 (40%)	**367 (31%)**
Hispanic/Latino	Yes	240 (58%)	236 (58%)	**476 (41%)**
CCI	4	142 (24%)	205 (35%)	**347 (30%)**
	5	142 (24%)	153 (26%)	**295 (25%)**
	6 - 7	171 (29%)	168 (29%)	**339 (29%)**
	8+	132 (22%)	57 (10%)	**189 (16%)**

Comparison of Participants with and without Diabetes at Baseline

		DIABETES	NO DIABETES	TOTAL
		N (%)	N (%)	N
		801 (74.4%)	**276 (25.6%)**	**1077**
Age	Mean age	59.3 (±10.3)	57.7 (±12.8)	**59.1 (±11.1)**
Gender	Female	582 (73%)	206 (75%)	**788 (73%)**
Race	Black	365 (46%)	158 (57%)	**523 (49%)**
	White	114 (14%)	48 (17%)	**162 (15%)**
	Asian/Indian/Alaskan/ Hawaiian/Pacific Islander	27 (3%)	14(5%)	**41 (4%)**
	Other	295 (37%)	56 (20%)	**351 (33%)**
Hispanic/Latino	Yes	366 (46%)	75 (27%)	**441 (41%)**
CCI	4	224 (28%)	95 (34%)	**319 (30%)**
	5	195 (24%)	76 (28%)	**271 (25%)**
	6 – 7	242 (30%)	69 (25%)	**311 (29%)**
	8+	140 (17%)	36 (13%)	**176 (16%)**
Hypertension	Yes	692 (86%)	193 (70%)	**885 (82%)**

Conclusions

- PBRNs can collaborate with CDRNs to conduct multi-site, multi-state pragmatic clinical trials which include patient-reported outcomes when using a “network of networks” model
- Diabetes (often accompanied by hypertension) is a high prevalence condition among patients with multiple co-morbidities
- Goal-setting and support that extend the reach of the primary care team are key features of Tipping Points
- Destabilizing events, such as Emergency Department visits and Unplanned Hospitalizations, are outcomes that can be ascertained electronically, and that matter for a range of stakeholders, including :
  - Patients
  - Caregivers
  - Clinicians & FQHC staff
  - Health systems
  - Total Cost of Care

Q&A Session

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