PCCI

Pioneering New Ways to Health

Building Connected Communities of Care

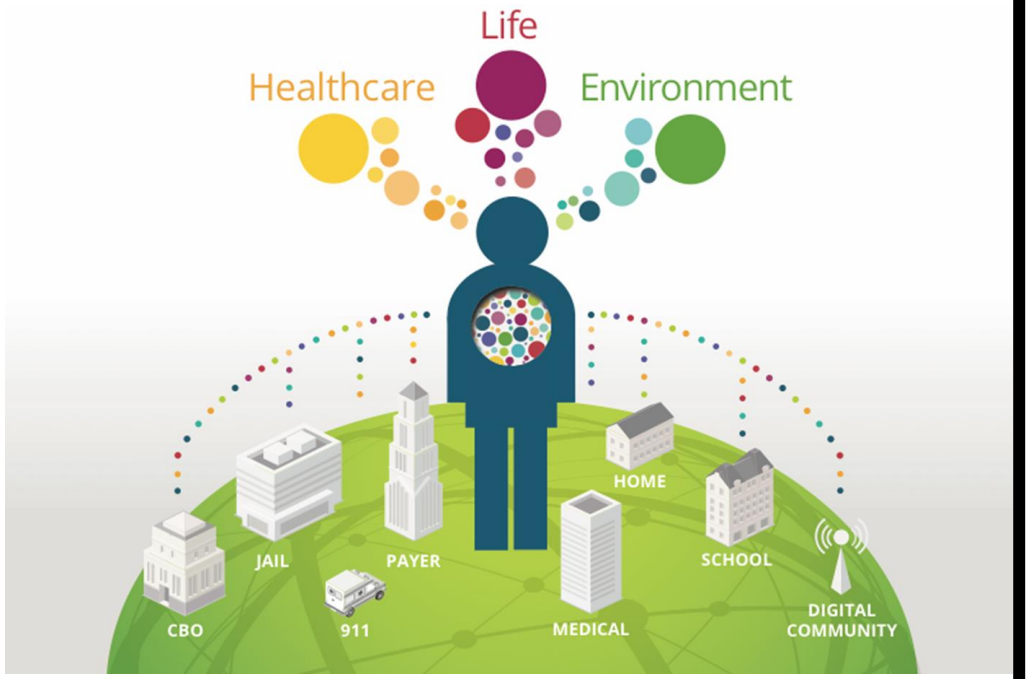
A Capabilities Overview

September 12, 2022

AGENDA

1. Brief PCCI Overview
2. Overview of Our Capabilities
3. Questions and Next Steps

PCCI: A NON-PROFIT, DATA SCIENCE & SDOH INNOVATION HUB, AFFILIATED WITH PARKLAND HEALTH



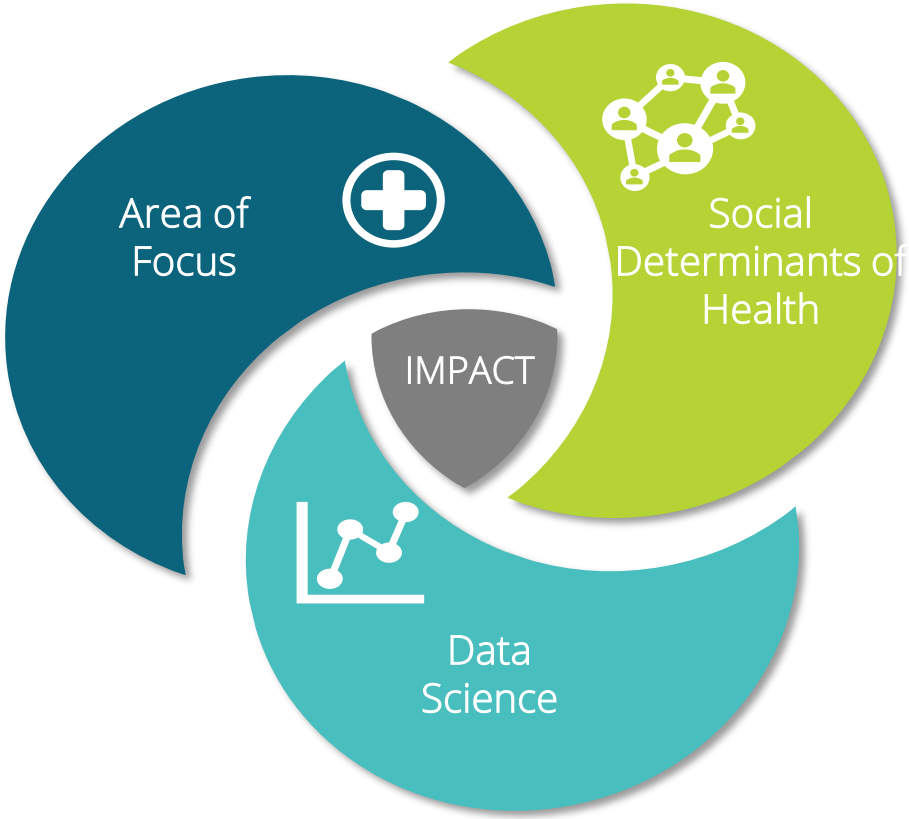
Health begins where we live, learn, work, play and pray.

PCCI
- 40 FTEs (20 DS/Tech)
- 2019 Dallas Best Tech Startups
- 2020, 2021 Dallas Innovation Awards

PHHS
One of the largest and most technologically advanced public hospital systems, with an affiliated health plan [PCHP]

IMPACT HIGHLIGHTS
- Over **2 Million** Patients Impacted
- **29** Grants/Contracts
- Over **$55.2 Million +** In Funding
- **$76.3 Million** in Cost Avoidance
- **100+** Publications, Presentations
- 1 Newly-Released **Book** on SDOH
- **5 Patents Granted (14** Pending**)**
- **10+ National Impact Partnerships (HIMSS, EHF, IHI, etc.)**

PCCI HAS BEEN FOCUSED ON VULNERABLE POPULATIONS FOR MORE THAN A DECADE



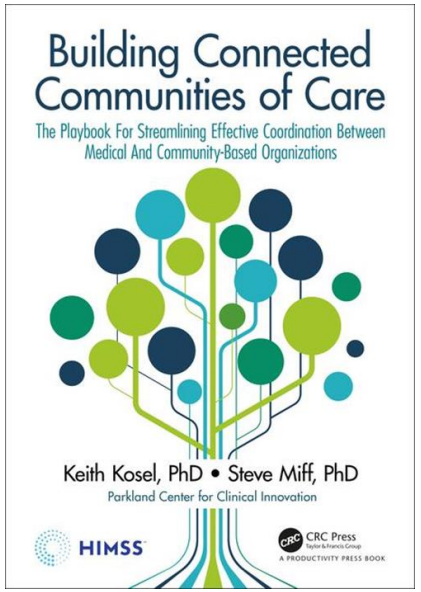
Develop Shared Data Assets To Facilitate Cross-Community Understanding

Build Predictive Analytics To Determine Who Is At Risk

Create Connected Communities Of Care

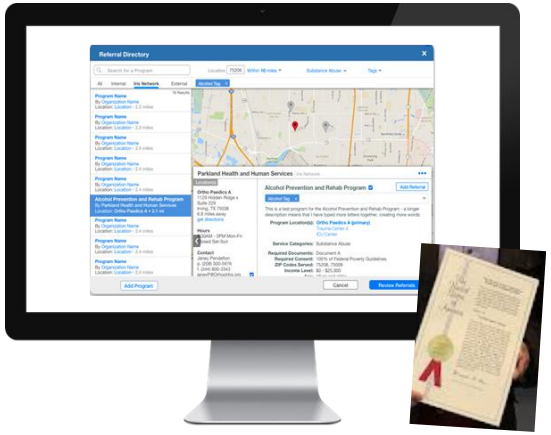
10-YEAR HISTORY OF LEADING SDOH TECHNOLOGY, ANALYTICS AND COMMUNITY DEPLOYMENTS

Step-by-Step Guide to Clinical/Community Partnership Development



Community Needs Assessments/Community Health Needs Assessment

Pieces Connect™: SDoH Case Management System



First and Only Awarded Patent

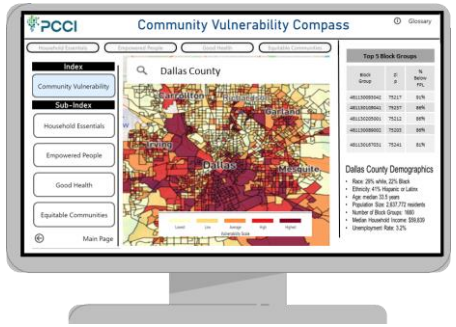
Clinical/Community-Based Program Design

CMS
CENTERS FOR MEDICARE & MEDICAID SERVICES

Accountable Health Communities

TACHI
TEXAS ACCOUNTABLE COMMUNITIES FOR HEALTH INITIATIVE

SDoH-Based Analytics: Community Vulnerability Compass



Central Texas Model Community Initiative: Impact Evaluation

Model Community Performance:
Is the MC being utilized to its fullest extent?

Model Community Evaluation:
Are we creating an optimized system?

Whole Person Health:
Are people healthier via the model community?

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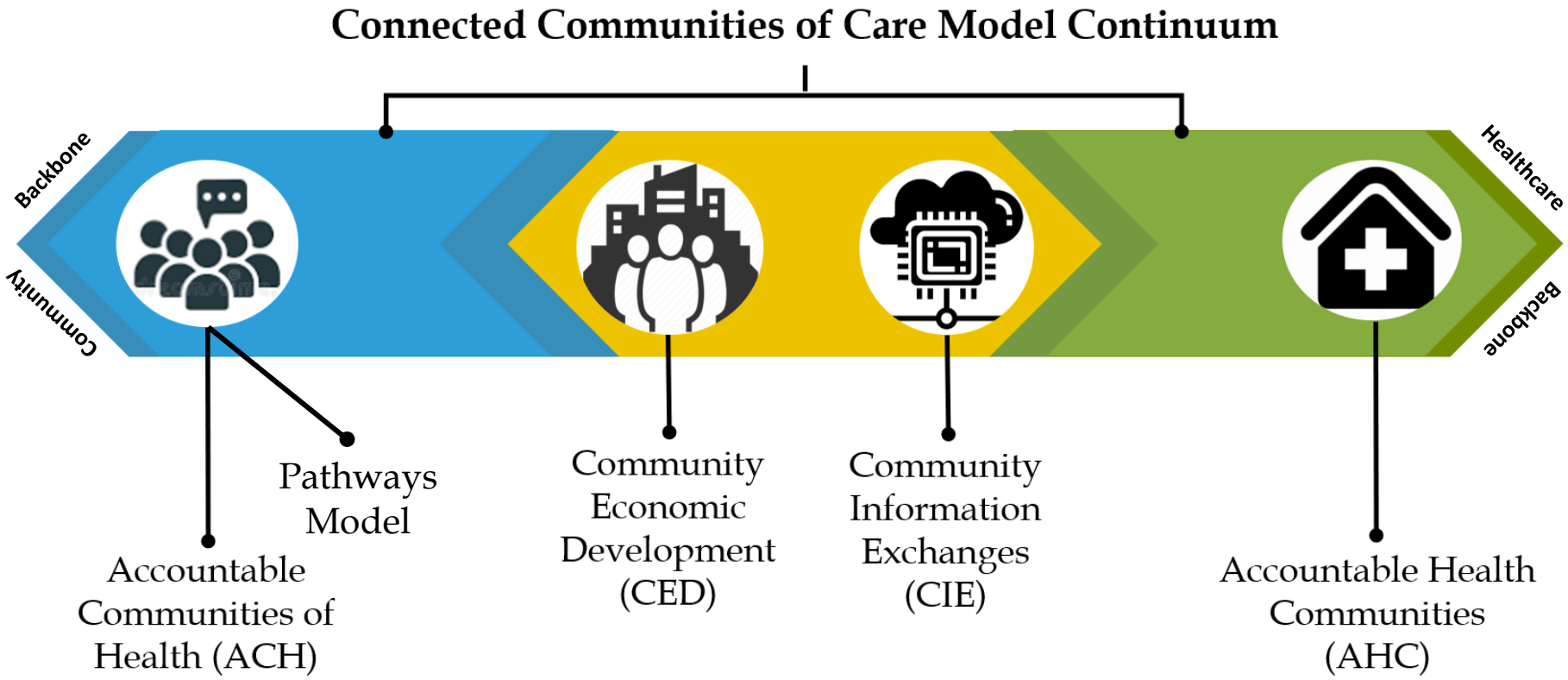
THE BURNING PLATFORM: THE COVID-19 CRISIS UNDERSCORES THE IMPORTANCE OF SDOH

PCCI WORKS ACROSS THE SPECTRUM OF CCC MODELS THAT ARE EMERGING ACROSS THE COUNTRY



POSITIVE IMPACT ON COMMUNITY HEALTH

PROGRAMMATIC EXPERIENCE: AHC- A DALLAS COLLABORATIVE

Program Objective

The Accountable Health Communities (AHC) Model tests whether systematically identifying and addressing the health-related social needs of Medicare and Medicaid beneficiaries' through screening, referral, and community navigation services will impact health care costs and reduce health care utilization.

Program Partners

Methodist DALLAS

Metrocare SERVICES

children'shealth

Parkland

Creating connections across Dallas:

- 17 Clinical Sites
- 100+ Community Sites

BaylorScott&White HEALTH

Additional Goals

- ***Increase beneficiaries' awareness of community resources to address unmet HRSNs***
- ***Increase beneficiaries' connection to community resources to address HRSNs***
- ***Optimize community capacity to address HRSNs through quality improvement and alignment of community resources***

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QUANTIFYING IMPACT: SYSTEM LEVEL

Findings Overview

- The navigation cohort has a statistically significant reduction in Average ED Utilization post-navigation when compared to the control cohort.
- The navigation cohort more actively seeks (or keeps) appointments for outpatient services.
- Right place care results in an overall reduction in costs.
- Navigated individuals have a greater decrease ***in per Person ED*** visits.
- Positive ROI was achieved and the economics support continuity and expansion of the Program

https://catalyst.nejm.org/doi/full/10.1056/CAT.22.0149

AHC LESSONS LEARNED

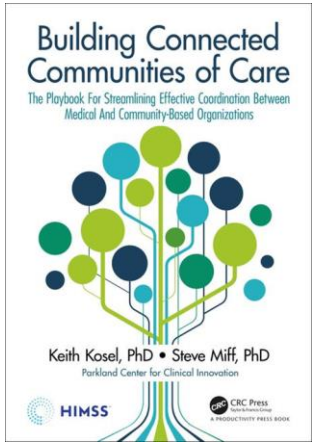
KEY FINDINGS

- Integration of SDOH screening has a significant impact on clinical workflows. Finding the best place to screen takes several iteration to get right. We found post-discharge telephonic outreach to be the most successful.

- Consistency and accountability with the CHW team is essential. We have daily targets, learning huddles and performance scorecards that are foundational to the daily operations of AHC. We also know average case loads that any CHW can manage and use this data to dynamically flex staffing.

- Impact comes from quantitative and qualitative stories – every single person we've helped is worth celebrating.

CONNECTED COMMUNITIES OF CARE REQUIRE EXCELLENCE IN 6 FOUNDATIONAL AREAS



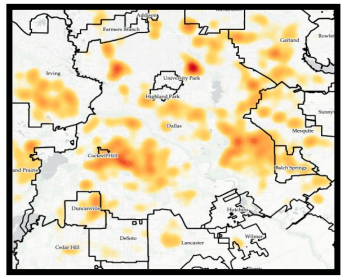
STRATEGIC FACILITATION WILL ADDRESS FOUNDATIONAL THEMES

	Facilitation Goals and Key Questions	
Themes 1 and 2: Current State	***Goals***: Refine long and short-term strategy/purpose (perhaps align with a state public health goal). Review alternatives for regional engagement and select an initial approach that builds upon the work that has already been done.	*Key Questions to be Answered/Reinforced* • Why is CO pursuing this effort and what is it expected to achieve? By when? • Is there a 'north star' outcome/impact measure? If so, what is it? • What success factors have already been determined? • Who are regional champions/detractors? What other initiatives might this compete with? • What would happen if we didn't pursue this initiative?
Theme 3: Technology Infrastructure and Data Taxonomy	***Goals:*** Advise on 'structured, but flexible' approaches for technology infrastructure, data nomenclature and information sharing. *Key Questions to be Addressed* • What functionalities are required by clinical sites, CBOs or both? • What adoption barriers can be anticipated and how can they be overcome?	*Key Questions to be Addressed (continued)* • What types of reports need to be generated, by site and by role? • How will data security and privacy protocols be implemented and audited? • What type of training will be needed, by site type and by role?

Theme 4: Governance	***Goals:*** Advise on approaches to governance and associated pros and cons.
	Key Questions to be Answered
	• What are the governing structures that could be considered?
	  ○ How will CCCs operate between state and local leadership?
	  ○ How will funds flow?
	  ○ How will network participants be identified and approved?
	  ○ What type of data must be collected and shared (consistent with HIPAA regulations)?
		Key Questions to be Answered (continued)
		• What are the established rules and policies that will guide the day-to-day workings of the CCC?
		  ○ How are needs prioritized?
		  ○ How and at what rate should regional CCCs grow?
		  ○ How will strategic partnerships be determined?
		  ○ How will CCCs be sustained?
		• What legal/policies need to be amended and/or created in order to meet the needs of regional CCCs?

Theme 5: Sustainability Planning	When considering a CCC's sustainability, one should not only consider its financial sustainability but also its operational sustainability, which may be overlooked, but can be just as important as the financial component. Our CCC work addresses both components for a smooth and stable transition from start-up mode to long-term viability.	*Key Questions Answered* • How will succession planning for key CCC roles be managed? • How will the CCCs measure initial and ongoing success? • What financial measures are key to include in regular reporting? • What non-financial measures are key to include in regular reporting? • How will regions advance and/or mature expectations and performance measures of participating CBOs?
Theme 6: Informing Colorado activities, based on other initiatives that are underway nation-wide.		

REGION-BY-REGION READINESS ASSESSMENTS



PCCI has a structured methodology for looking at region-specific readiness for embarking on a CCC. We evaluate local preparedness for a successful CCC and prioritize (review trade-offs) regarding where a region should begin on that journey.

We do this work thorough developing deeper understandings of the market dynamics and ecosystem maturity in the targeted geographies. This includes understanding: the size/density of vulnerable populations, the hotspots for key clinical conditions and for current patient population, the mix and quantity of potential CBO partners, the SDOH programs currently in place, and the capacity/technical sophistication of all involved organizations.

The output is a series of recommendations on how to best organize clinical and community resources to provide for the end-to-end needs of the whole person.

Additional issues that are addressed:

- Catalysts – forces making this a community-wide priority.
- Community readiness – needed buy-in. Successes and/or failures from earlier initiatives.
- Community capacity – visibility to funds, ability to collaborate.
- High priority externalities – local/state engagement and/or policies.

GOAL #1: DEEPER UNDERSTANDING OF VULNERABLE POPULATIONS

ANALYSIS:

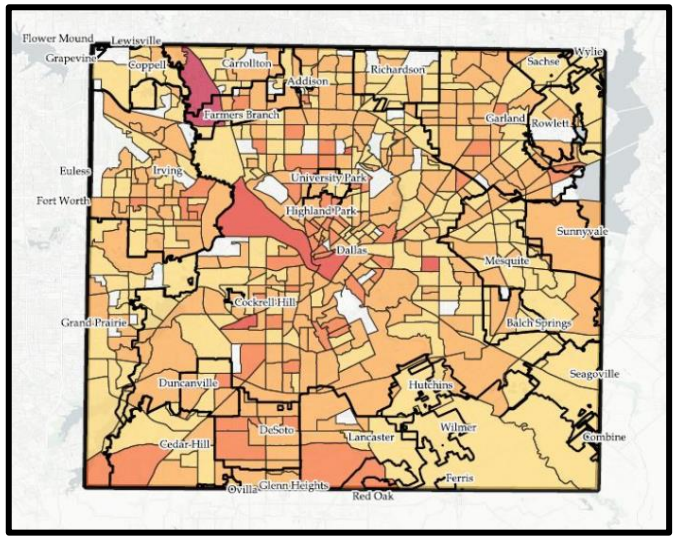
- What are the characteristics of the population that would most benefit, such as those with behavioral health disorders, low income, multiple chronic conditions, lack of or minimal health insurance, and/or receiving services at behavioral health clinics, and social service settings?
- What are the social barriers that impact health outcomes, such as inability to pay, lack of transportation, lack of social support, unemployment, and lack of insight into health problems?
- Where are the specific block-level 'hot spots' where needs appear to be the greatest?
- What is the technical capability, sophistication, size and setting, and population served by the CBOs that may participate?

Aggregate Measures

- Area Deprivation Index (ADI)
- Social Vulnerability Index (SVI)

Key Indicator Analysis

- Median Income (directional)
- Paycheck predictability
- Health Insurance Coverage
- Single parent households
- Education Level
- Mobility (No vehicles)
- H& T index
- Food Insecurity
- Housing Affordability
- Life expectancy



GOAL #1a: DEEPER UNDERSTANDING OF SPECIFIC USE CASES

ANALYSIS:
Clinical condition hot-spotting and CCC prioritization. Our analysis first uses CDC Places data to map health conditions across a community. Where appropriate, we complement the data-driven analysis with interviews with from line care teams and community leaders to better inform the quantitative findings.

CDC Places Aggregate Information

Good Health

- Life Expectancy
- Healthy Beginnings
- Adolescent Health
- Substance Abuse
- Chronic Disease Burden
- Mental Health

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Deep Dive Into the Top 5

- Heart Disease
- Cancer
- Stroke
- Chronic Obstructive Pulmonary Disease
- Diabetes

+

Primary Interviews

Appendix F: Interview Questions for Clinical Leaders

Semi-structured Interviews with Clinical Leaders

Interviewer's Guide

Disease Conditions

1. What health conditions do you see as the most frequently responsible for morbidity and mortality in this community that should be targeted for intervention? [LIST A- *Identify all that apply*]
2. What health conditions cause the greatest disruption in the quality of life of this community's residents? [LIST A – *Identify all that apply*]
3. Which conditions account for the greatest number of days to be missed at work? At school?
4. In your experience, what are the most common types of healthcare (i.e., ED, dental care, general medical care, etc.), that the vulnerable and underserved populations in this community seek out?
5. Which health conditions are most exacerbated by the poor social conditions among vulnerable populations? [LIST A – *Identify all that apply*]

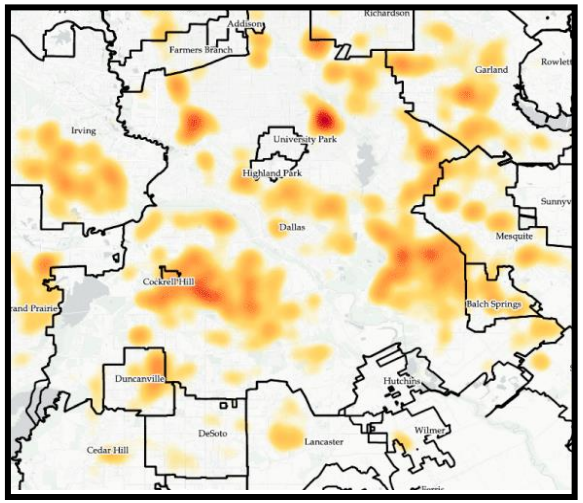
Appendix G: Interview Questions for CBO Leaders

Semi-structured Interviews with Leaders of Social Service Organizations

Interviewer's Guide

Disease Conditions

1. In your experience, what health conditions do you see as the most frequently responsible for morbidity and mortality in this community that should be targeted for intervention? [LIST A – *Identify all that apply*]
2. What health conditions cause the greatest disruption in the quality of life of this community's residents? [LIST A – *Identify all that apply*]
3. In your experience, what are the most common types of healthcare services (i.e., ER, dental, general medical, etc.) that the vulnerable and under-served populations in this community seek out?



GOAL #2: SDOH MATURITY ASSESSMENT

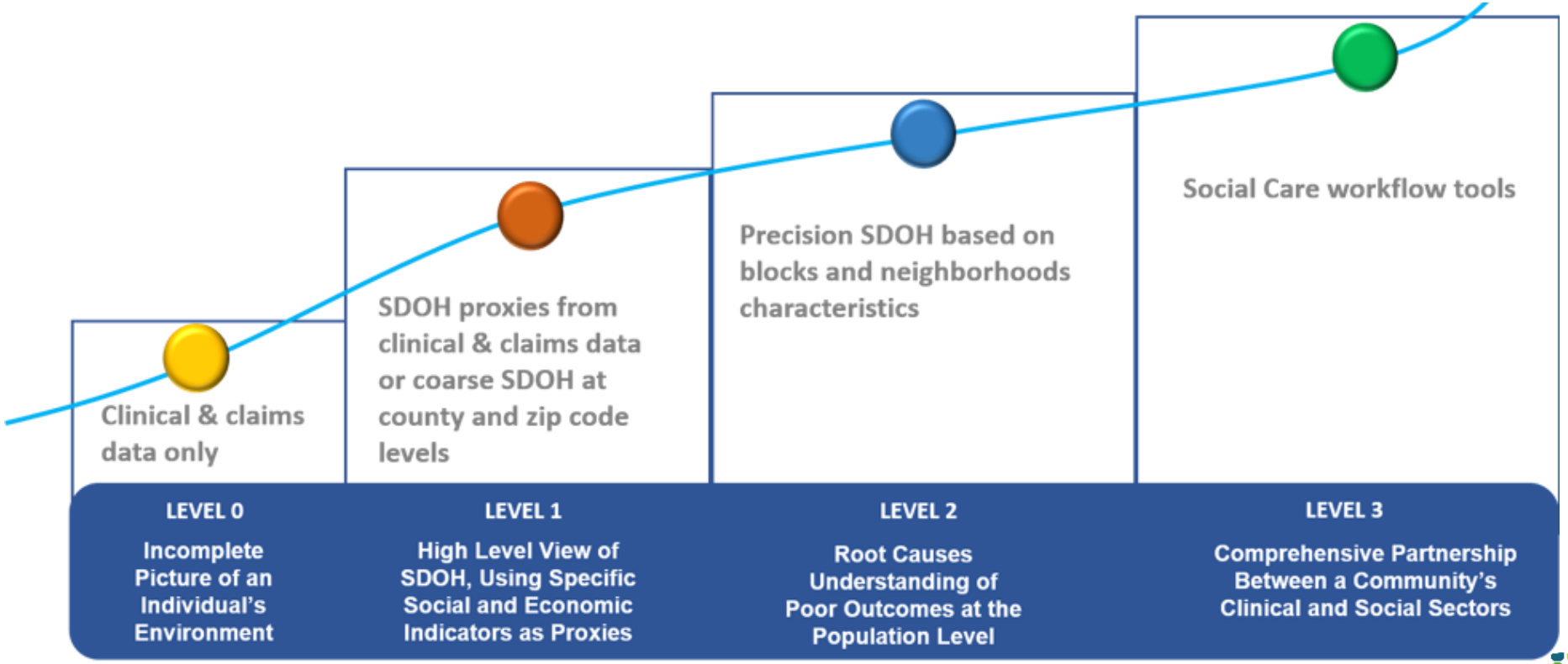
Evaluation Category	Metrics Theme	Metric
Capacity to Engage	Staffing	Retention rate
	Staff Availability	Available time to learn new system
	Staff Willingness	Openness to adopting new tools/resources
	Staff Willingness	Comfort with technology generally
	Staff Willingness	Able to use full/closed loop system
	Leadership Support	Board support/participation in Model Community launch
	Program Operations	# of current participants served
	Program Operations	Current # of referrals
	Program Operations	Method of collecting current referrals
Services Provided	Program Operations	Collect list of all current programs offered by CBO/Partner
Technology Infrastructure	Compliance	Existing HIPAA compliance policies/procedures and frequency of training
	Compliance	Existing data security policies, procedures, frequency of training
	Capabilities	# of additional systems used by staff
	Capabilities	Ability to record and track referral data
	Capabilities	# of current documentation systems used

CONSIDERATIONS

- Once the Assessment has been conducted and a participating organization has been assigned a Model level, this should indicate both the metrics that they are accountable to track and the metric targets that they should aim to achieve.
- Performance measures should be calibrated differently based on Engagement Model level, e.g., organizations at different Engagement Model levels may track some of the same measures, but will have different targets or % improvement goals

GOAL #2A: REVIEW OF EXISTING PROGRAMS AND TECH PLATFORMS

ANALYSIS:
Review of current SDOH-focused initiatives to understand the types of data inputs, technology tools and impacts being seen.

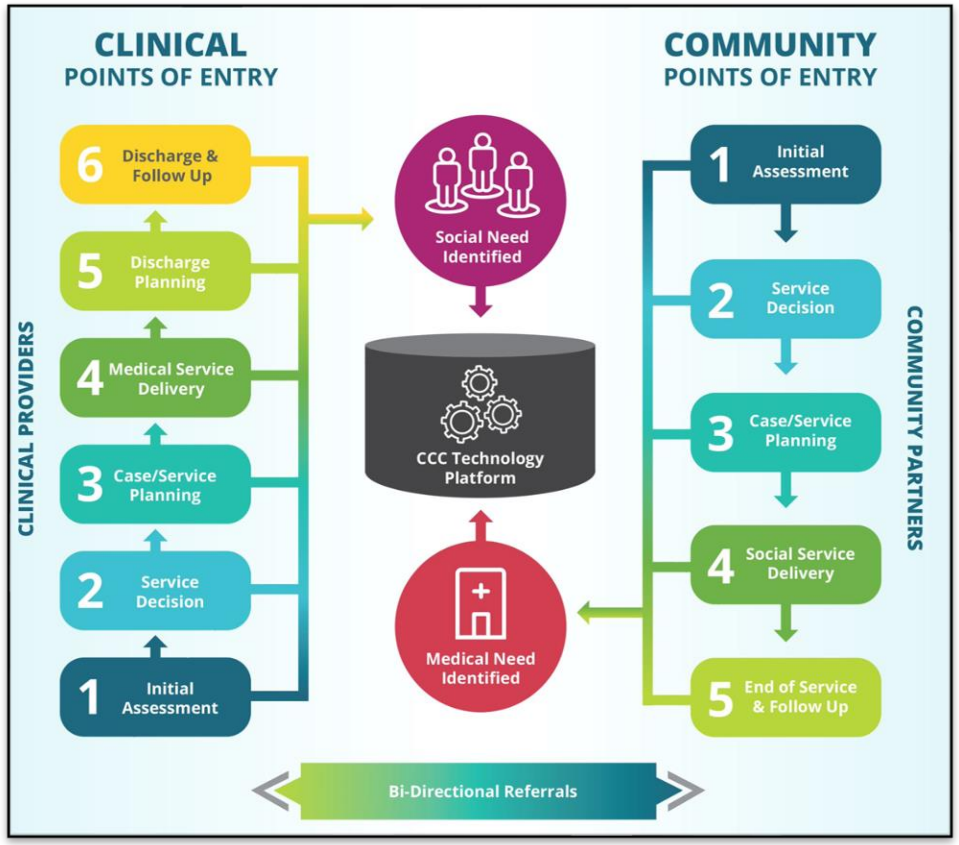


SAMPLE MATURITY MODEL

	PARTNERSHIP CONTINUUM: MEETING PORGANIZATIONS WHERE THEY ARE			
Community Partnership Strengthening	**Observational Engagement**	**Essential Insights**	**Longitudinal Insights**	**Operating Partner**
Who: Key community organizations where good can happen by supporting each other's shared purpose and mission.	**Who:** Organizations that are understand the concept, but not ready to fully commit or would be successful as a data-driven partner.	**Who:** Organizations that can commit and will be successful as a data-driven partner.	**Who:** Organizations that can commit and will be successful as a more advanced data-driven partner.	**Who:** Organizations that seek direct operational and decision-making roles that are required for the successful deployment.
What: • Build trust with existing and new community organizations. • Consider organizations as possible future partners for model community, depending on interest, capacity and areas of focus.	**What:** • Organizations agree to participate for 1 year as an observational partner. • Participate in learning sessions, community voice collection and provide feedback on goals/value proposition. • Likely an active CBO/clinic in community, *may* be listed on an SDOH resource directory. • Has a desire to participate as community voice, but no expectation of data sharing.	**What:** • Organizations agree to participate for 2 years as an essential insights partner. • Participate as members of Governance committees. • List program and service information as part of a referral management. • Commit to data sharing on foundational measures are essential for tracking the success of model community performance.	**What:** • Organizations agree to participate for 2 years as longitudinal insights partners. • Participate as members of Governance committees. • Serve as a 'hub' site for community and clinical referrals. • Has ability/capacity to make electronic referrals, including the functionality to send, accept, and decline referrals, and provide electronic "status" and "outcome" updates. • Commit to data sharing on advanced measures that become longitudinally connected and are essential for tracking the success of strategic outcomes.	**What:** • Organizations agree to participate for 2 years as an operating partner. • Participate in operations, strategic decision making and performance management. Lead governance committees. • Focus on broader stakeholder engagement (payors, policy makers), with an eye towards sustainability. • Leverage strong technology and data infrastructure and manage license(s) and/or other partnerships needed for short and long-term success.

GOAL #3: MAKING IT REAL TO IDENTIFY GAPS AND OPPORTUNITIES

ANALYSIS:
Three to five current patient personas are selected and, in conjunction with a small team of clinical and community-based representatives, we model common processes/workflows across bi-directional points of entry. This information plays a vital role in informing how to better coordinate transitions of care, reduce redundancies and inefficiencies, and improve clinical and social outcomes.



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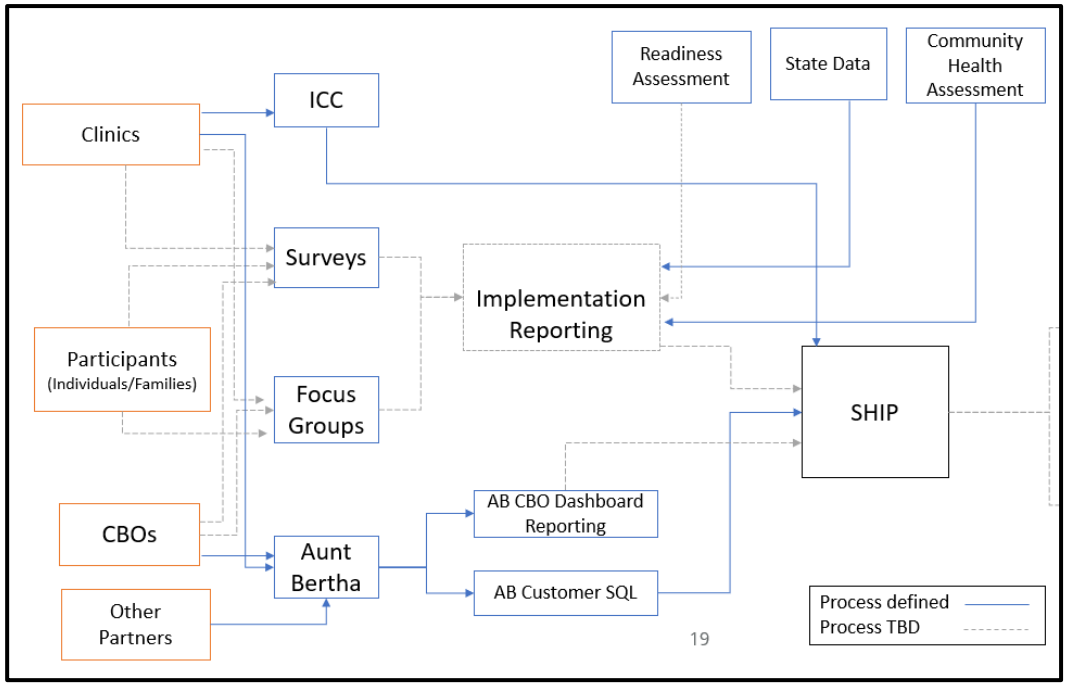

NEXT STEPS: CRAFT AN EXAMPLE WITH ONE OF YOUR USE CASES

Use Case: Adults with intellectual and developmental disabilities (IDD)

- Description: Leveraging SHIE (social health information exchange) to facilitate care coordination for adults with IDD who live independently in their own homes, but need extra support for daily living
- User Description: 40-year-old female with IDD who lives in a group home setting in metro Denver
- Primary Needs: Financial (including employment support), physical health (chronic disease care for diabetes), basic needs (self-care support, food, etc.)
- Issues: Caregiver (group home director) does not have access to a computer - smartphone only, employment support is only available in a neighboring county