



TACHI Learning Session – Data Driven Storytelling

April 20, 2022

Agenda

- **Data Driven Story Telling Overview**
- **Using Data to Support Your Goals**
 - Identifying target populations, defining a SMART goal, and developing value propositions
- **Creating a Data Strategy:**
 - Data Use: Which Data Elements Do You Need?
 - Data Infrastructure: What Systems Can Support Your Data Needs?
 - Operations: What Support is Required to Help Tell Your Story Accurately?

KEY ELEMENTS OF ACH: DATA CAN SUPPORT MOST ELEMENTS

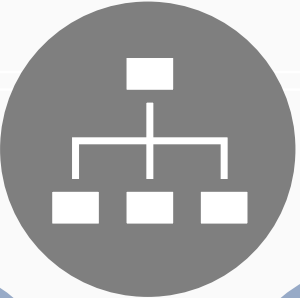
Backbone Organization



Community Engagement



Governance Structure



Aligned Vision & Goals



Shared Accountability



Sustainable Funding



Business Case & ROI



Continuous Learning



Shared Data System



Policy & Systems Change

Key Learning Objectives

1. Understand how **data driven story telling can be a powerful tool** to demonstrate performance at any stage of work: planning to implementation
2. Practical steps of **how to use data** to identify a target population, define an intervention, measure performance, or create a value proposition
3. Understand how to **create a data strategy** that includes appropriate data use, data systems and operational processes to support your site's current goals - start small and build upon your successes

Data & Technology Landscape: Focus on Data Driven Story Telling

Strategy

- Identifying key stakeholders and KPIs
- Identifying community needs and populations
- Quick wins and SMART goals
- Data governance

Operations

- Data use agreements, data sharing, BAAs
- Data privacy and security standards
- Limited data sets
- Consent processes
- Training
- Operational workflows
- Workforce needs
- Reporting
- Dashboards

Infrastructure

- Data warehousing systems (buy or build)
- Social referral platforms
- EMRs
- API capabilities

Building a Data Driven Story strategically and operationally



What is Data Driven Storytelling?

- Data storytelling is the practice of blending hard data with human communication to craft an engaging narrative that's anchored by facts.
- Data-driven stories are created through the process of analyzing and filtering large datasets to uncover insights and reveal new or different ways to understand the information. They're tailored to a specific audience and the context in which they're consumed.

“Data are just summaries of thousands of stories – tell a few of those stories to help make the data meaningful.”

— Chip and Dan Heath

“If you want people to make the right decisions with data, you have to get in their head in a way they understand. Throughout human history, the way to do that has been with stories,”

— Miro Kazakoff, MIT Sloan Lecturer

Elements to Build Your Data Driven Story

Like any good story there are three key elements that go into developing a data driven story:

Who:

Which stakeholders do you want to communicate your story to?

- Partners
- Funders/Payers
- The community

What:

What is the story that you want to tell these stakeholders?

- Importance of your intervention for improving community health/need
- Performance Improvement
- Impact/Results

How:

What data will you use and how will you collect it to support the story you're trying to tell?

- Demographic/health status data
- Δ in healthcare costs and/or utilization
- Social needs data/assessments

How Can you Use Data to Move from Planning to Execution?

1. Identifying your Target Population
2. Defining your Intervention & SMART Goals
3. Measuring Performance
4. Defining your Value Proposition

Using Data to Identify a Target Population

- In a sea of data, where should you focus? How do you decide where to start?

1. Identify the data you have access to

- Publicly available – census, food insecurity, PLACES etc.
- Health Department/CHNA data
- Private Company Data

2. Define Your Geography

- Census Tract
- Zip Code level

3. Compare Your Data to Averages

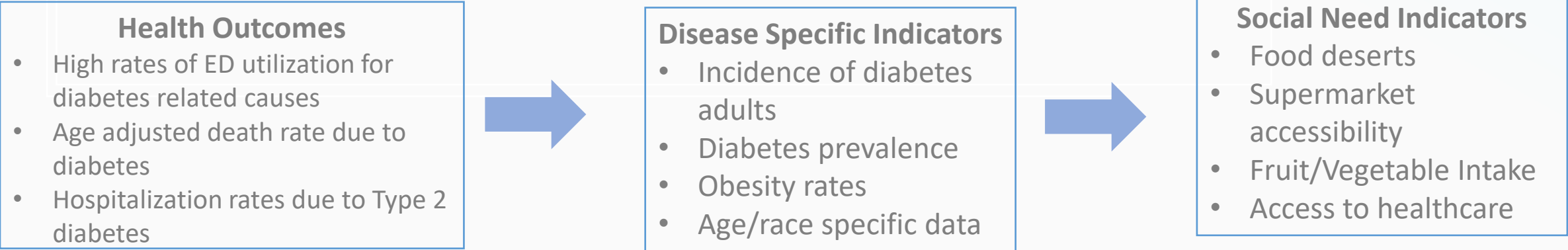
- County Data/State Data
- Look for trends and outliers in your data vs. the averages

4. Work Backwards

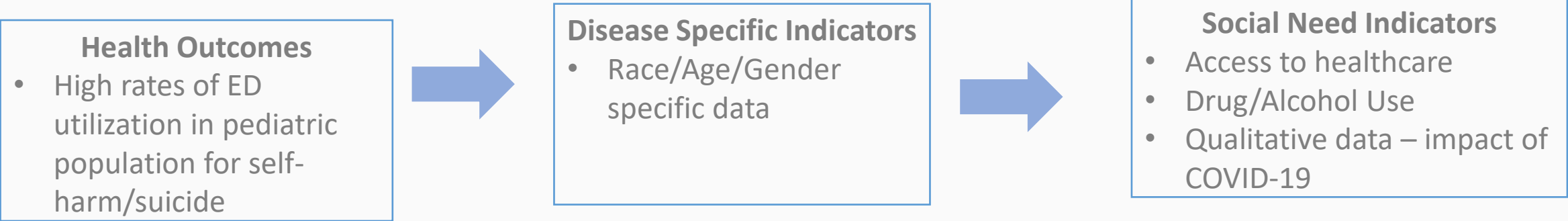
- Start with healthcare utilization data that looks out of the range of “normal” (e.g., unnecessary ED utilizations, chronic disease hospitalizations etc.)
- What are the root causes of that utilization (e.g., disease incidence, prevalence, age/race/sex disparities, health status indicators)
- What are the social need factors that impact the disease state/health status?
- **Use qualitative information to round out what the data is showing you.**

Identifying a Target Population – Find More than One Option

1. Diabetes Cases Related to Nutrition/Food Insecurity?



2. Mental Health Risk in Teenage Girls?



Develop Interventions where Performance can be Measured

1. **Prioritize** which social need you will focus on by considering:

- Supply of resources required to assist you in meeting the need (e.g., is there a waitlist for housing?)
- Individual vs. systemic need (e.g., workforce training opportunity vs. changing the education system)

2. Define your **SMART Goal**:

- Specific
- Measurable
- Achievable
- Relevant
- Time bound

3. What resources will you need to **measure performance**?

- Baseline data
- Key performance metrics
- Limited data sets
- Data sharing and collection processes
- Aligned operational processes

Ensure that you

Prioritize your Target Population:

	Diabetes	Adolescent Mental Health
Supply of resources to provide assistance	Yes	No
Individual vs. systemic	Individual	Individual/Systemic

Goal:

<p>Specific</p> <p>Measurable</p> <p>Achievable</p> <p>Relevant</p> <p>Time Bound</p>	<p>Reduce the rate of unnecessary ED utilization for Hispanic adults with diabetes by 15% in 2 years by:</p> <ul style="list-style-type: none"> Increasing the number of food insecurity assessments by 40% in Year 1 Increasing the number of food related referrals for this population by 30% in Year 2
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Measurement:

- Eligibility criteria of population (demographics, disease states, definition of food insecure)
- Current unnecessary ED utilization for diabetes rate
- Process for collecting and reporting on assessments and referrals
- Process for collecting ED utilization across time for specific population (ICD-10)



Aligning with the Pathways Model

<u>Pathways HUB Model</u>	<u>Key Question</u>	<u>Non-Pathways</u>
Find	Which Population Will You Focus On?	Identify Your Target Population
Treat (Based on 20 Pathways)	How Will You Impact the Populations Risk Factors?	Define Your Intervention
Measure	How will you demonstrate that you improved the baseline risk to the population?	Measure Performance

Using Data to Support Your Value Proposition

Value Proposition Keys

Check for “magical” thinking

Is there evidence for this connection?

Describe the Issue: Why is it Important?	Define the Solution: What Strategies are Being Employed?	Delineate the Benefits: What are the Likely Results and to whom will they Accrue?
<ul style="list-style-type: none"> This issue is affecting everyone in our community 	<ul style="list-style-type: none"> Educate people about the issue 	<ul style="list-style-type: none"> Dramatic improvement in health outcomes Cost savings for everyone

- Relevant Data:**
- Population demographics
 - Publicly available health data
 - SDoH data

- Relevant Data:**
- Research supporting your intervention
 - Relevant local prevalence and incidence statistics
 - Data that is relevant to the stakeholder (e.g., payer costs, HEIDS measures, healthcare costs, quality)

- Relevant Data:**
- Baseline health outcomes and cost data
 - Results that show a connection between your intervention and cost/health outcomes



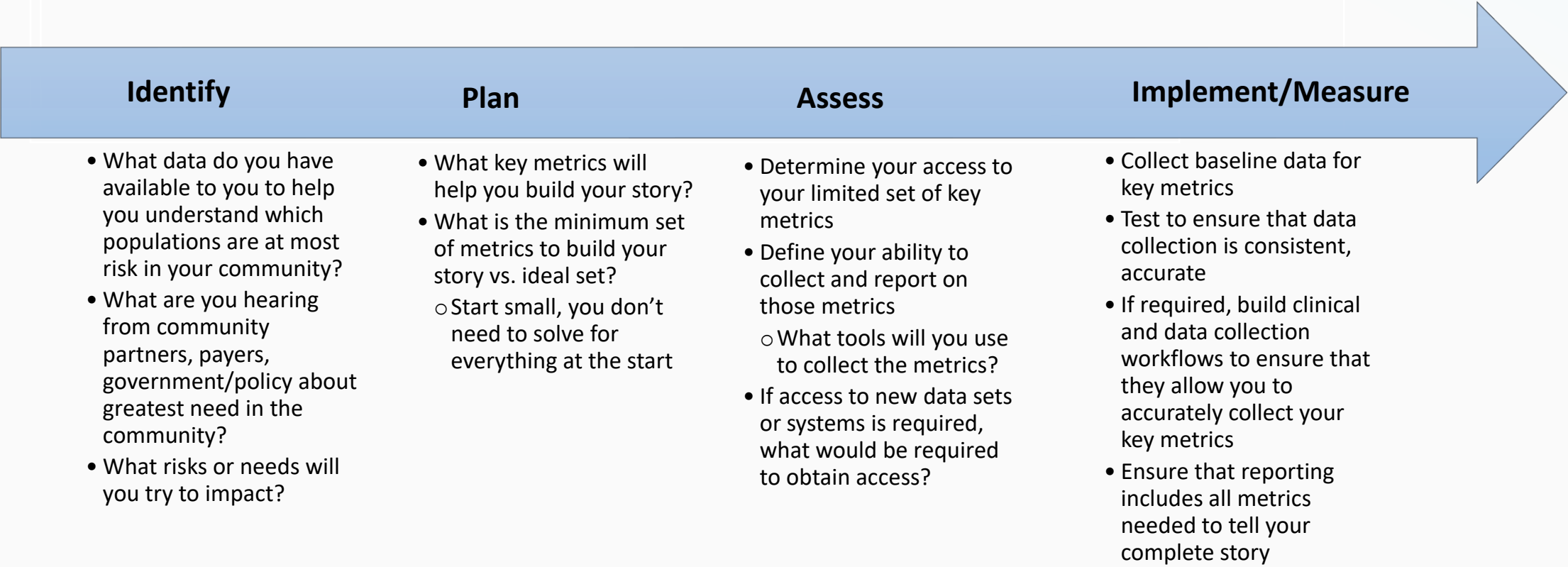
Using Data to Support Your Value Proposition: Example

Background: Rates of [diabetes prevalence in Hispanic adults ages 36-55](#) in the West Town neighborhood of Smith County are [two times higher than the county rates, and 2.5 times that of the state rates \(26% vs 13% and 10.4% respectively\)](#). In addition, rates of unnecessary St. Mary's hospital ED utilization due to [Type 2 diabetes complications in the population](#) are [23.3% vs. the county rate of 11.9%](#) and have been [steadily rising in the past 5 years](#). The residents have historically struggled with access to fresh produce and health food options, with the [nearest grocery stores at least 5 miles away for a population that has limited transportation](#). We believe if we address the food insecurity issues that this population struggles with by providing navigation and access to healthier options that we may be able to impact the ED utilization rates.

Proposed Intervention: We intend to screen individuals in this population who have been patients at St. Mary's in the past 18 months for an unnecessary ED visit due to diabetes for food insecurity. Individual who are identified will then meet with a member of our Care Coordinator team and receive assistance either through emergency assistance at local food banks, SNAP enrollment, or transportation assistance. Our goal would be to [increase the number of individuals screened in year 1 by 40% and to increase food related referrals/assistance by 35% by Year 2](#). Through this intervention we believe we can reduce unnecessary ED utilization rates in this population by 15% in 2 years.

- **How can you use this information to structure a conversation with a Community Benefit leader at St. Mary's to ask for an investment to build your Care Coordinator team resources for the project?**
- **At the end of your 2 years, how might you demonstrate to a funder how your results warrant an investment to expand your program?**

Data Driven Storytelling Roadmap

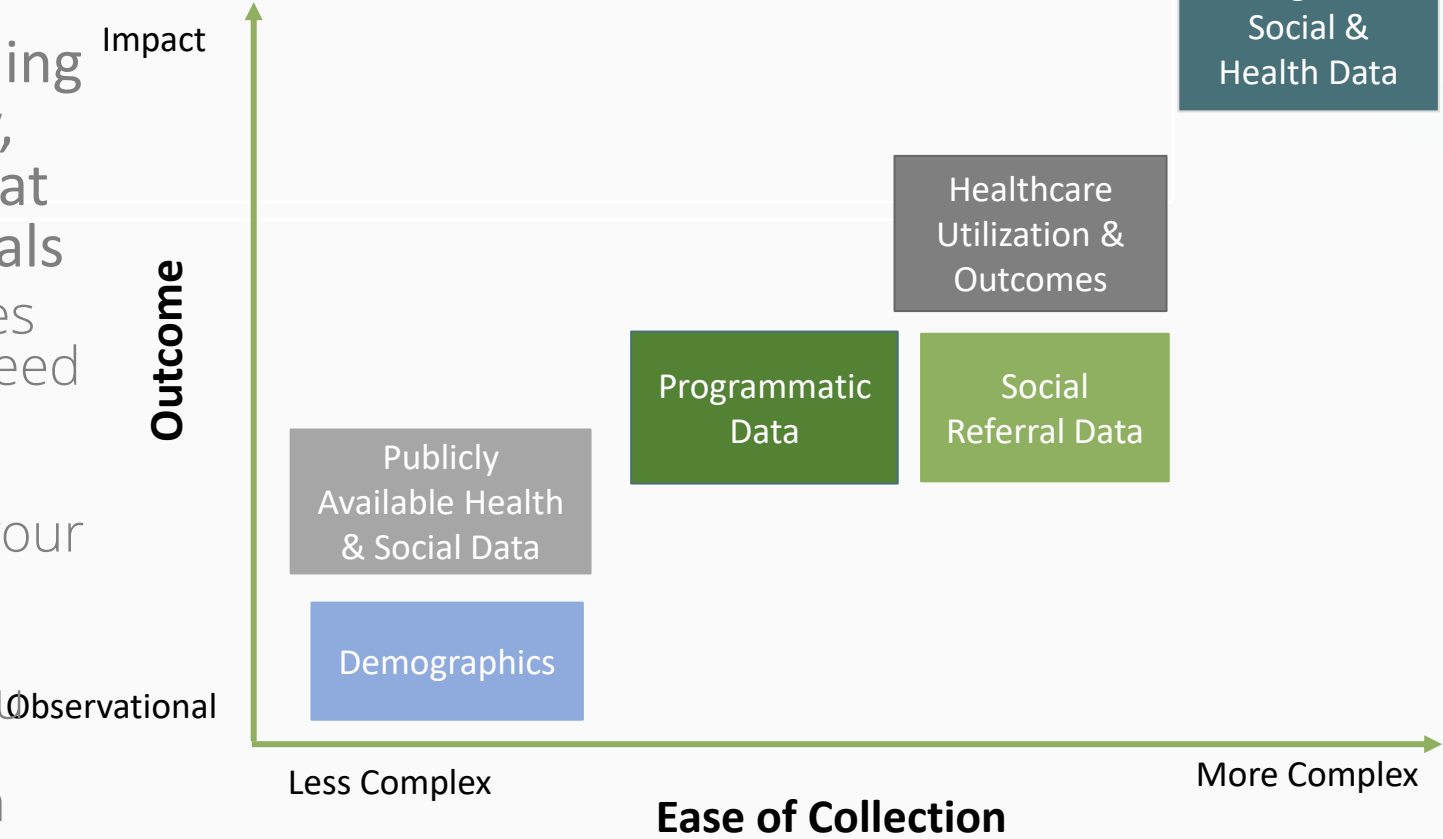


Data Use: Two Truths and a Lie

1. Integrated social and medical data is necessary if you want to demonstrate impact
2. Creating pilots with payers and funders doesn't need to have multiple years of complex impact results
3. Even readily available data can be helpful in supporting your story

Data Use: Data Doesn't Need to be Complex to Give Insights

- At every step of your planning to implementation journey, there are data elements that can help you meet your goals
 - Use available data sources to help define baseline need within your community
 - Programmatic data helps you define and monitor your intervention
 - Aggregation of social and medical data can help you define impact at an individual and population level



Data Use Case Study: Reducing Food Insecurity & Depression in Seniors

Health System XYZ

Goal: The health system was concerned about social isolation and food insecurity in seniors in a targeted geographic area

Intervention: The team decided that providing communal meals for seniors would allow them to address both issues – seniors would get access to nutritious food and be provided with an opportunity to socialize with others which they believed would reduce loneliness and thereby reduce depression in this population.

Measurement Tool: PHQ-9, a brief, self-administered questionnaire that assesses depression symptoms. Because the tool could be administered manually (i.e., pen/paper), they did not require any upfront investment in technology or data systems. Questionnaires were provided at each table for participants to complete. Questionnaires did not ask for identifying information in order to protect privacy.

Metrics Collected: Total number of people attending each meal; PHQ-9 scoring system

Results: The health system was able to provide 350 meals to seniors over a 6-month period. Based on total survey responses, 15% of participants were considered moderately depressed and another 35% were considered mildly depressed.

- Did Health System XYZ create a successful intervention? How do you know?
- Are there any limitations to how this team designed the intervention that might impact their ability to demonstrate success?
- What other data might you want to look at?
- Were the results sufficient to demonstrate that the intervention improved outcomes to stakeholders such as funders/payers or the community?

Data Use Case Study: Impacting Health Equity by Starting Small

MidWest Health System

Goal: Impact health inequities by reducing health disparities in their patient population

Data Analytics: Using tools and data analytics they created a heat maps that helped them identify care gaps in non-white patient populations which they prioritized based on a scoring rubric and then complemented with additional data include SDoH, organization information and information directly from the community.

Data Sources:

- Clinical and demographic data about their minority patient populations
- Community data at the census tract level.

Area of Focus: Narrowed their focus to disparities in cancer screening rates; minority patient populations were less likely to use the system's primary engagement tool. The barriers that make it harder to get screened also made it harder to use the engagement tool

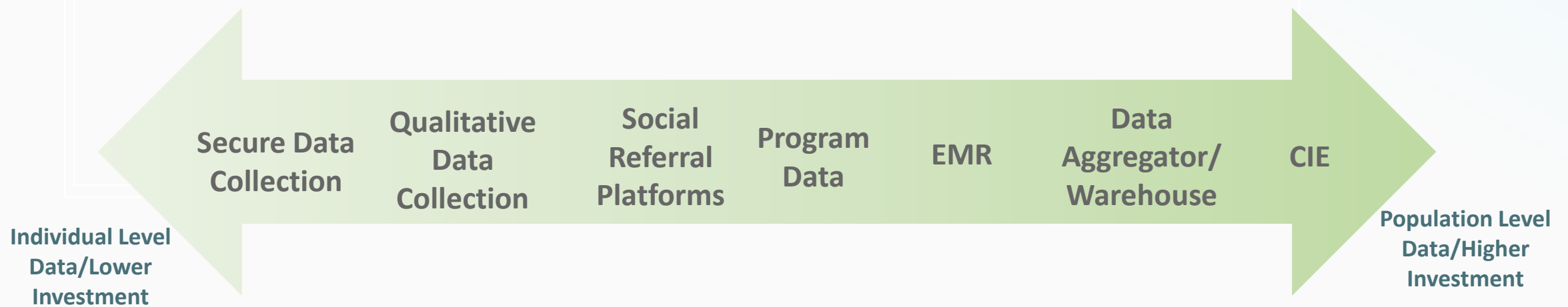
Next Steps: The System is now working to increase the depth of race, ethnicity and language data, increase screenings and patient feedback from minority communities

- Using data that was already in-house, or readily available, allowed the System to identify populations to target
- While their overall goal is broad, they started small and looked for an opportunity where they could make a quick impact in how they were engaging with their community

Data Infrastructure: Two Truths and a Lie

1. Social referral platforms will not allow you to aggregate disparate data stream
2. Successful data driven storytelling will not require a CIE
3. Quantitative and qualitative data systems are both important in telling your story

Data Infrastructure: How Can Systems Support Your Story?



- While the ultimate goal is to aggregate social and medical data to demonstrate population level improvements, there are multiple data sources that are less complex and less resource intensive but still allow you to collect, analyze and report on key metrics at an individual/person level
- Moving along this continuum might require more financial investment, data sharing agreements, aligned clinical and data workflows
- Identify what your current data assets are, and which ones will provide you with the metrics that you wish to use. Some may be immediate; some may be for future investment

Data Infrastructure Case Study: An IT System that Supports Only Some Goals

Large Community-Based Organization

Goal: The organization was looking for one system that could support multiple sites across the country to collect chronic data for preventive health programs and general fitness memberships. Ideally the system could be maintained centrally and could be accessible anywhere. Report capabilities and claims processing were also required.

Chosen System: They purchased a cloud-based platform that was both an EMR and claims processing system. The vendor noted that they could customize data collection and reporting. They were on a tight timeline, and this sounded like the best option. They could now focus on hiring the EMR/claims processing team while the system was being implemented.

Implementation: Once the system was purchased the program team outlined all the customization, they would need in order to collect data for both preventive health and membership services. Luckily the program team knew what data needed to be collected, though none of them had run the program in the field.

Results: The system was 95% built just as the team responsible for claims processing and EMR maintenance was being hired. Claims were successfully processed, and payments were flowing to the sites. While the system met the healthcare needs, it required substantial rebuilds after launch to accommodate how the coaches were collecting data in the field. Customization for non-healthcare services was limited as they base system could not be altered to meet these needs.

- What information would have been helpful to know before purchasing the system?
- What could they have done differently to prevent the rebuild from being necessary?

Operational Support: Two Truths and a Lie

1. Data governance should be an ongoing process
2. Regularly reviewing clinical workflows in relation to data collection is not a necessity
3. Data is only as powerful as your ability to collect it consistently and accurately at regular intervals

Execution of Data Driven Storytelling Involves All Areas of Operations

Governance	<ul style="list-style-type: none">• Establishing data sharing and use rules for all partners• Initiating and monitoring pilot testing and performance improvement• Ensuring that infrastructure investment and deployment align with implementation & outcome goals
Informatics	<ul style="list-style-type: none">• Reporting and dashboard templates• Data mapping
Clinical	<ul style="list-style-type: none">• Review of clinical workflows to support data collection while maintaining quality and satisfaction• Understanding of how new data workflows align with or impeded clinical processes
Legal	<ul style="list-style-type: none">• Data use agreements, business associate agreements, data sharing agreements, consent forms• Compliance and data security
Human Resources	<ul style="list-style-type: none">• Ensuring that the right staff are in place or recruited to support data analytics and systems



Operations Case Study: Competing Priorities for Clinicians

Community Clinic Partner

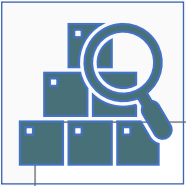
Situation: As the largest community clinic in the West Town area Stevens Community Care (SCC) has been asked to participate in 3 community health initiatives in the past 2 years all looking at how meeting social needs of individuals can help address health outcomes. You would like for SCC to join your new initiative

Challenges: SCC is committed to improving health and social outcomes for their communities, and leadership has readily accepted the opportunity to participate in these innovative solutions. However, implementation and ongoing participation in these projects has created strain on the clinic's operations:

- There are 3 community health workers funded through two different grants that are responsible for screening and submitting relevant data to each of the 4 initiatives:
 - 2 initiatives use FindHelp, one uses Unite Us for closed loop referrals; they all use the PREPARE assessment
 - Each initiative has slightly different health metrics that the CHWs are required to report on for each population they are studying
- The CHWs are spending more time inputting data than they are in conducting outreach.
- At this point SCC's leadership is questioning entering into yet another initiative that may stretch their CHWs even further. Already they have heard rumors that two of the CHWs are looking for other positions at the local hospital

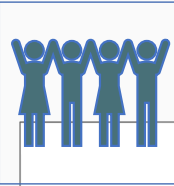
- How might your intervention be designed to minimize any additional work that the CHWs may need to perform to help you meet your goals?
- What conversations might you want to have with SCC and with which individuals, to determine how best to design your intervention, with minimal duplication?
- What pieces of data or operational elements might be helpful for you to understand?

Take Away: Using Data to Tell a Story at Each Stage of Planning & Implementation



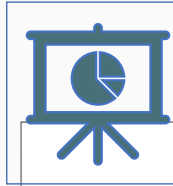
Establishing Baseline Needs

- **Strategic:**
 - Identify community needs and key populations to target for interventions
 - Establish intervention KPIs
- **Operational:**
 - Assess available data sets and the ownership and sharing requirements
 - Establish options for aggregating and storing data securely as needed
 - Create workflows for partners to consistently collect required data



Early Indicators of Success

- **Strategic:**
 - Identify quick wins (e.g., increased social care referrals, increased patient engagement)
- **Operational:**
 - Completion of CHW/navigator training and engagement
 - Pilot dashboard and reporting/analytics to ensure that key initial metrics are being collected consistently, accurately and at the correct frequency



Initial Results

- **Strategic:**
 - Create a plan for how to engage funders based on early results
 - Evaluate early implementation results with partners; what worked what didn't? adjust as needed for next phase of implementation
- **Operational:**
 - Demonstrate that adoption of new workflows and data systems has occurred
 - Develop reports that demonstrate ability to collect baseline performance, and initial results

TACHI Convening Details

- **Date:** Wednesday, June 15, 2022 from 8:00 am – 3:00 pm
- **Location:** Sam Houston Hotel, 1117 Prairie St, Houston, TX 77002
- **Preparation:** Come prepared with a 30-second elevator pitch that includes: (1) an introduction of your ACH team, (2) the goals/purpose of your ACH, and (3) a focus on how you are incorporating health equity into your ACH
- **Agenda:**
 - TACHI Refresher (optional)
 - Welcome Session
 - GHPC – Evaluation and Roadmap Discussion
 - Operationalizing Health Equity Keynote
 - Health Equity Assessment and Action Plan
 - Lunch
 - ACH and Health Equity Pulse Check and Discussion
 - Developing Health Equity Metrics
 - Closing Session