

LAKE COUNTY MENTAL HEALTH COALITION

Workshop Part 2:
Continuing to Align on a
Data Sharing Model for Lake County

September 11, 2017



AGENDA

CONTINUING TO ALIGN ON A DATA SHARING MODEL FOR LAKE COUNTY

Purpose of workshop: Continue to align on a data sharing model and data measurements

Workshop Content:

- Recap/highlight Comparable Community Models from the August 21 workshop *(25 minutes)*
- Facilitated discussions – Further aligning on a data sharing model for Lake County
 - *Discuss preferences for information/questions needing answers for Lake County (30 Minutes)*
 - *Discuss preferences for data that could be used for answering key information/questions (30 Minutes)*
 - *Discuss preferences for what is possible for data sharing models that could be used in Lake County (45 minutes)*
- Data Governance – What is DG and how do we apply it to Lake County data sharing *(25 minutes)*
- Next Steps *(5 minutes)*

COALITION GOALS

THE PURPOSE OF THE LAKE COUNTY MENTAL HEALTH COALITION IS TO ADVANCE SUSTAINABLE COMMUNITY-LEVEL CHANGE THROUGH COLLABORATIVE EFFORTS, SUCH AS ENHANCED SYSTEM-WIDE DATA SHARING, COORDINATION, AND COLLABORATION, IN ORDER TO BETTER LEVERAGE EXISTING LIMITED RESOURCES AND MAXIMIZE THE IMPACT.

The development of a systematic, coordinated network that promotes care, recovery, and social inclusion through timely access to prevention, treatment, and recovery support can yield the following benefits:

Slide # 3

RESULTS OF DATA SHARING

The ability to measure and make decisions with data to impact:



IMPROVED ACCESSIBILITY & SERVICES

Communities with provider shortages gain access to in-demand specialists



JAIL DIVERSION

A coordinated system can align individuals with their needs earlier and avoid legal and criminal events



DECREASED COST

Early intervention and less acute cases from consistent coordinated care



CARE COORDINATION

Systematic tracking and case management of patients can support improved mental health outcomes



IMPROVED PATIENT EXPERIENCE

Improve patient satisfaction by reducing wait times and reduce attrition in the system



HIGHER QUALITY DATA

Coordinated systems surface data to make decisions on behalf of individuals with mental health needs



CLINICIAN SATISFACTION

Automation reduces time spent on tasks (i.e. phone calls versus timely ADT messaging)

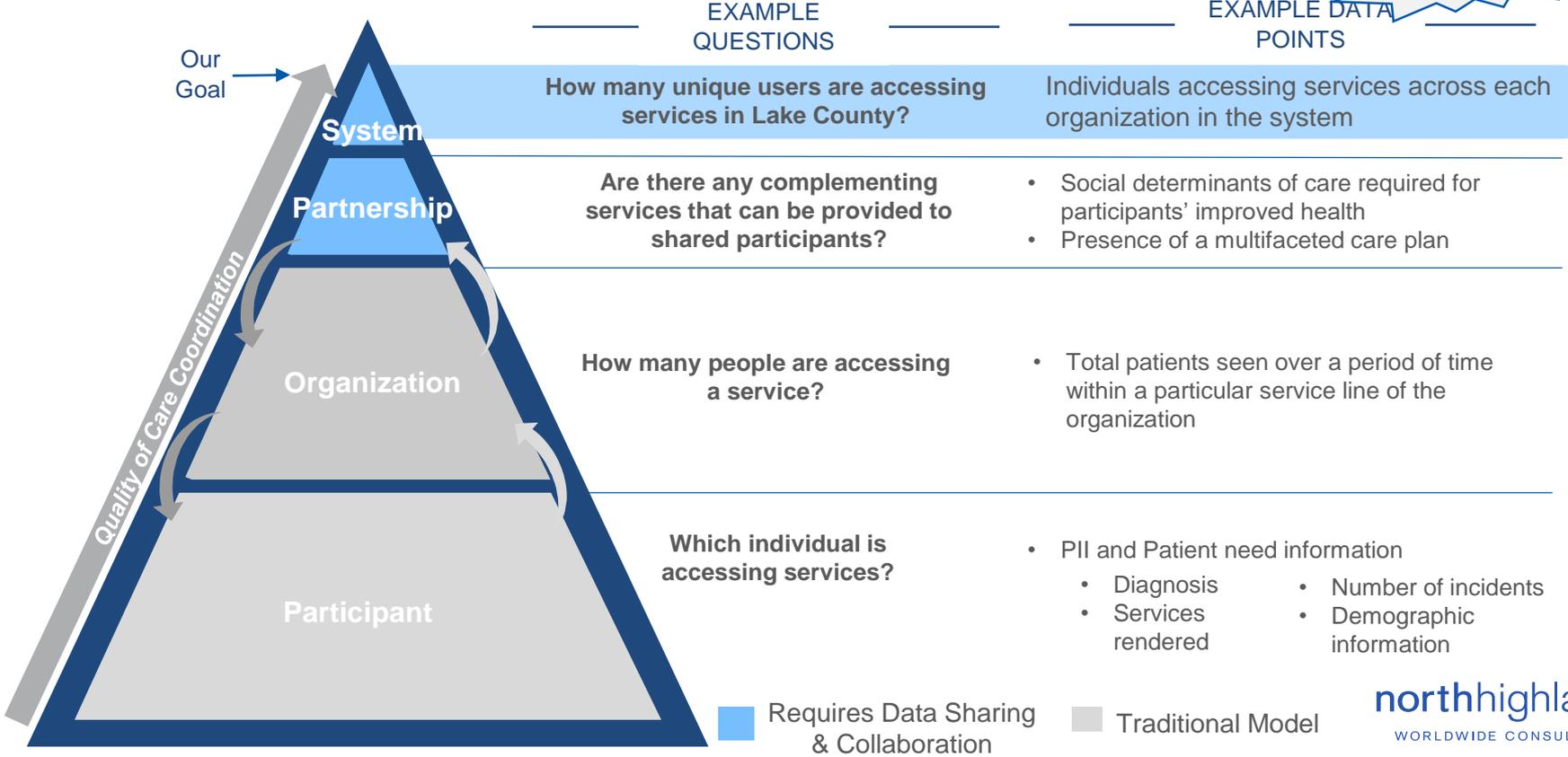
DATA SHARING & ITS IMPORTANCE

Data can exist across the county in four primary levels. Higher-quality, aggregate level data is the result of information moving up the hierarchy, although select data points can be derived from consolidated data at the organizational level.

As data is shared at a partnership or system level, the participant experience of care and the care coordination network improves. When organizations are coordinated, data is available at the system level to answer key questions.

The purpose of this project is to evaluate what data within each level can be shared so the organizations in Lake County can begin or enhance their operations as a systematic, coordinated care network.

Slide # 4



PROGRESS AND DIRECTION OVERVIEW

ESTABLISHING SYSTEMIC DATA SHARING REQUIRES IDENTIFYING THE APPROPRIATE STRUCTURE AND SUPPORT:



September

Current Steps

- Align on key questions/decisions within Lake County
- Align on future data sharing model(s) including metrics
- Begin to solidify a data sharing model and develop an action plan with key action steps for moving forward

August

Preceding Steps

- Interview comparable data sharing models
- Understand the various values, enablers and drawbacks of each model
- Identify legal barriers and best practices per model
- Propose models for Lake County to consider and modify to make evidenced based decisions
- Align on key decisions and model preferences

July

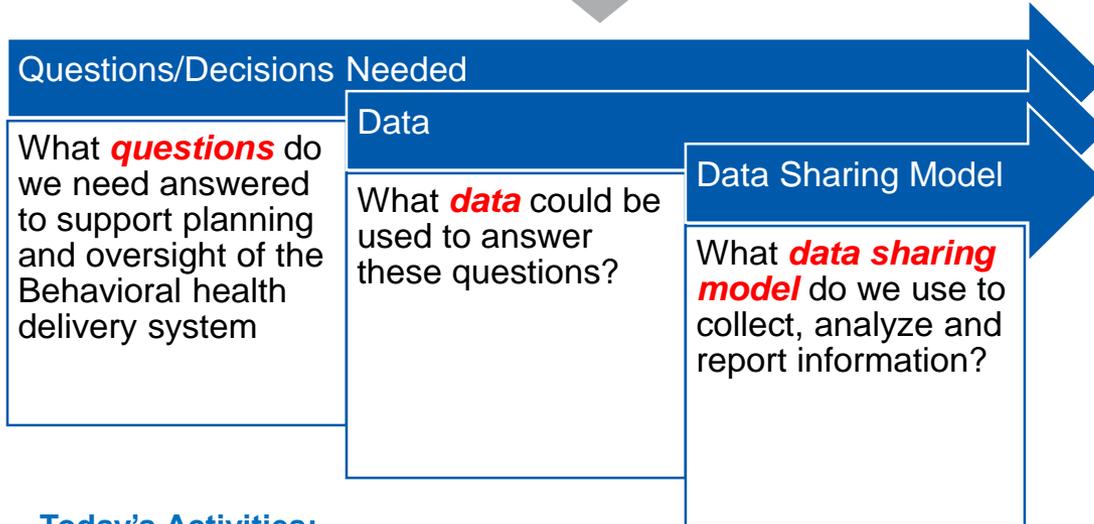
Preceding Steps

- Conduct a gap analysis of data currently shared by the various sectors
- Find cross sector data sharing models

We are Here

WHAT WE ARE DOING TODAY AND IN THE FUTURE

Today we are continuing to align on these questions



Today's Activities:

- Share your preferences based on materials from the last workshop and the homework assignment
- Share your preferences based on a potential approaches we'll share today
- **North Highland will be utilizing your collective input from today to contribute in creating future visioning documents to support the collation members in deciding upon the vision for the future.**

So that we can do this:

- Agree on a **VISION**
- Future Data Sharing Model



Create a detailed implementation plan

A FEW COMMENTS ABOUT OUR WORK TODAY

Continuing to align on a future data sharing model

- Our purpose today is to have more in-depth conversation about what is possible in Lake County **to see what rises up as feasible possibilities.**
- As we consider possibilities today:
 - Keep in mind, we can have a **long term vision** and with **phased approaches**
 - Phased approaches with technology
 - Phased approaches with what data to collect and report on
 - Phased approaches for what sectors or organizations participate
 - Phased approaches to
- We'll need to think about *some* details today but to the extent possible **let's keep the big picture and long term view in mind**, we'll come back to developing a detailed plan later.

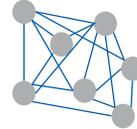
*Review of Our Prior Work
Data Sharing Frameworks*

THEORETICAL MODELS FOR EXPLORATION

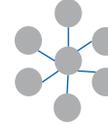
Increasing technology, complexity, communication, and robustness →



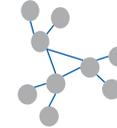
SILOS



POINT TO POINT



CENTRAL REPOSITORY



HYBRID

Definition

<ul style="list-style-type: none"> Limited or no communication externally of data 	<ul style="list-style-type: none"> Entities send information to some other single entity in discrete transactions 	<ul style="list-style-type: none"> All participating orgs contribute to a central data hub and can pull appropriate information as needed 	<ul style="list-style-type: none"> Provides various combinations of the other models
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Pros

<ul style="list-style-type: none"> + Requires no shared governance structure + No reliance on other organizations 	<ul style="list-style-type: none"> + High degree of control of what information is seen and by whom + Low technology cost 	<ul style="list-style-type: none"> + Allows for more sophisticated, cross sector data points + Governance is established at beginning 	<ul style="list-style-type: none"> + Allows for more sophisticated, cross sector data points + Leverages existing infrastructure and technology in place + Model allows flexibility for growth and evolution to future state
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Cons

<ul style="list-style-type: none"> - Long-term economic loss for community - Is not a patient centered approach 	<ul style="list-style-type: none"> - Operation dependencies for submission and receipt processing - Significant limitations for system-wide data 	<ul style="list-style-type: none"> - Most expensive to execute, generally - Requires most buy-in from participants 	<ul style="list-style-type: none"> - Challenges coordinating different technology - Might require on-going data governance
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Potential Methodologies

<ul style="list-style-type: none"> Methodology only dependent on organizations needs 	<ul style="list-style-type: none"> Phone calls Emails Faxes Direct messages Paper 	<ul style="list-style-type: none"> Data warehouse Health Information Exchange (HIE) 	<ul style="list-style-type: none"> Combination / mixture of other methodologies
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Each model has its benefits and challenges and can be blended or customized to meet the needs of Lake County.

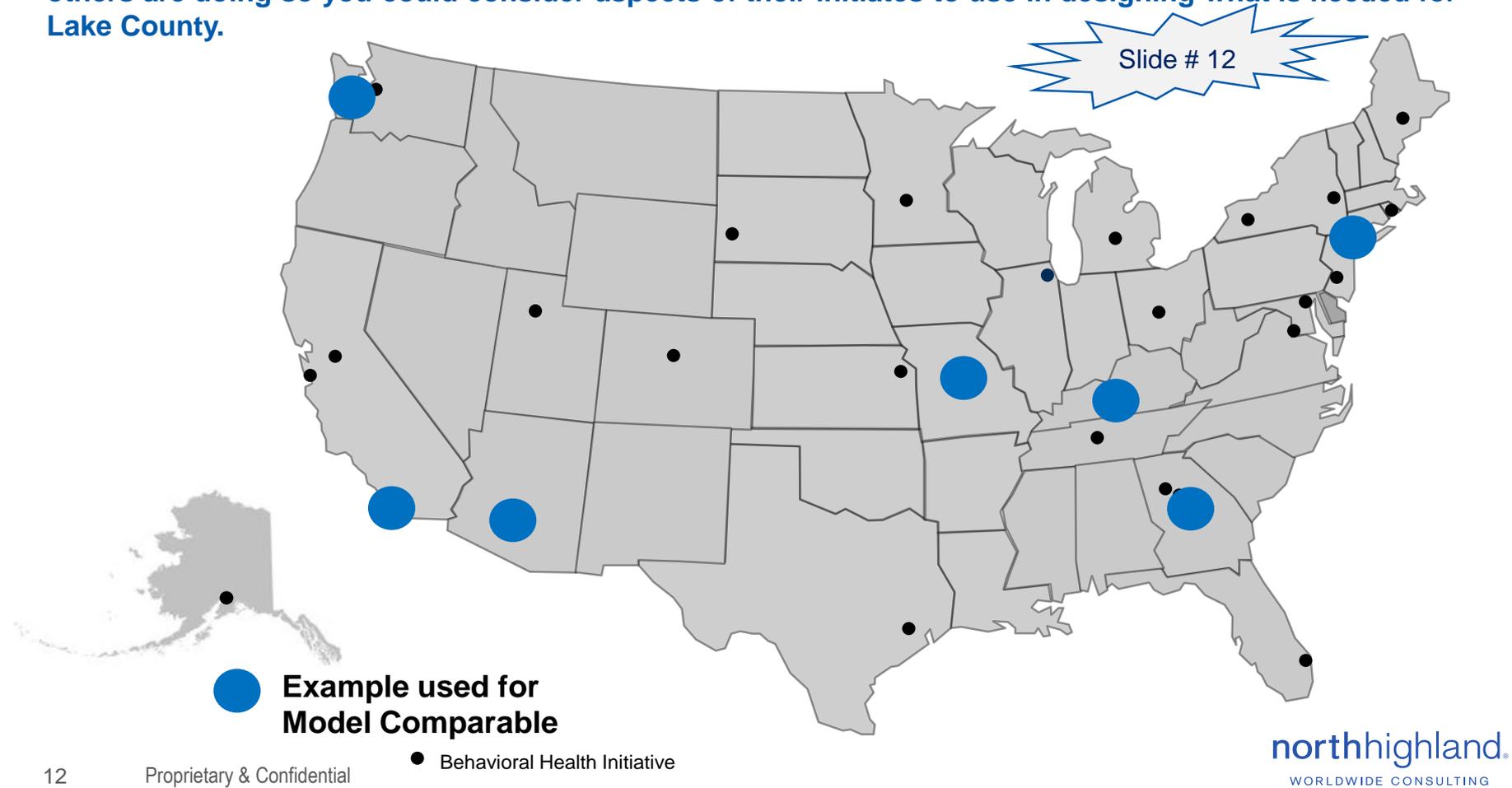
- **Models are not prescriptive across communities** as there is no 'one size fits all' and legal, technical and operational barriers dictate the end architecture of a data sharing program.
- Each program addressed its respective barriers, but early identification of those barriers enables a smoother, faster implementation.
- **Models will evolve over time** and enable programs and services catered to the needs of the community.
- **Most data programs evolve into the hybrid model over time.**
- Initial steps are better than no steps.
- Regardless of the model selected, **data governance rules need to be established and agreed upon across participating entities.**
- A range of technology can help support each program, from excel to an HIE.
- The following example information was pulled from available information and conversations where possible. These examples are provided **for the purposes of brainstorming what could best serve Lake County.**

*Recap of
Cross System Collaboration
Data Sharing Models
We Reviewed in the Last Workshop*

BEHAVIORAL HEALTH INITIATIVES IN THE UNITED STATES

Behavioral Health data initiatives exists across the US in a host of different formats, from small partnerships between a few organizations to state wide HIE networks.

North Highland reviewed several programs and selected a few to share with the Coalition to convey what others are doing so you could consider aspects of their initiatives to use in designing what is needed for Lake County.

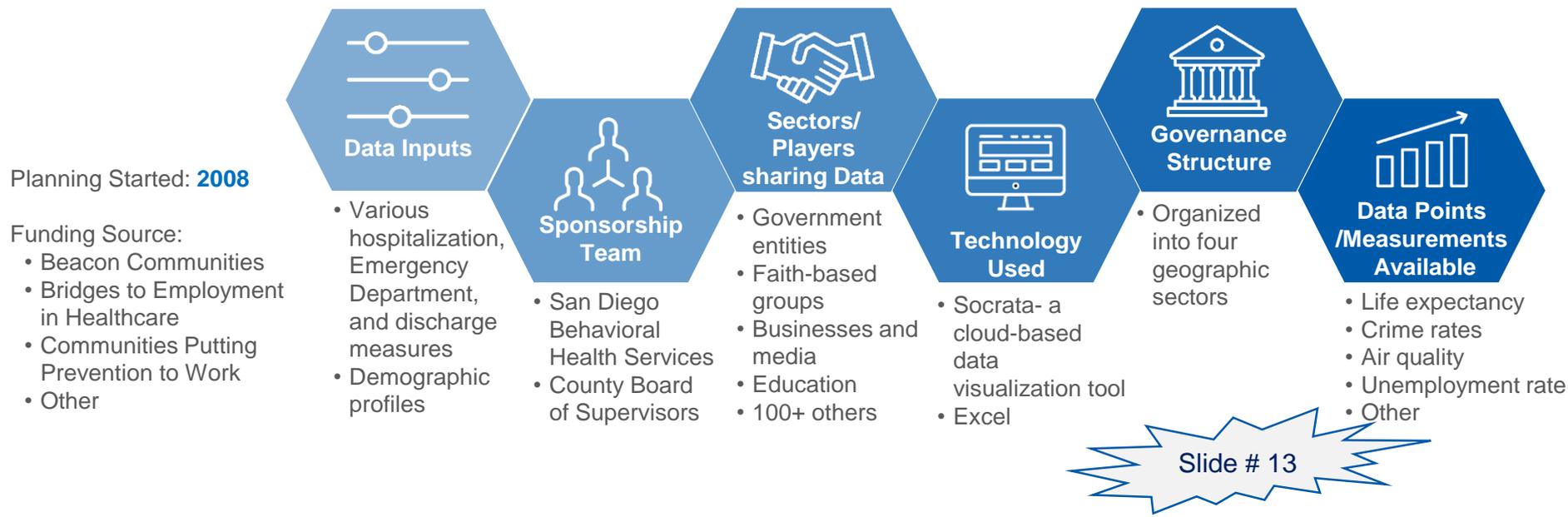


SAN DIEGO, CALIFORNIA

LIVE WELL SAN DIEGO

Why we are showing you this community: Unaffiliated entities came together to collect and use data to determine if they were improving the health of a community. Lake County similarly is trying to use data to know information about a population.

“Live Well San Diego” is a collection of otherwise **unaffiliated entities**, anchored by the County Board of Supervisors, of many disparate community organizations aiming to improve the health, safety, and quality of life of San Diego residents by sharing knowledge and best practices. Their **aim is not mental health specific but rather to improve quality of life** as **measured by ten metrics** contributing to an estimated 50% of deaths in San Diego County.



Programs and Benefits Enabled:

- *The 3-4-50 study*, which surfaced that 3 issues leading to 4 diseases lead to 50% of deaths, gave rise to the 10 health and wellness metrics the county elected to pursue.
- Breadth of partnerships allows for large scale marketing for community events such as a 5K

Key Enablers and Differentiators:

- No HIPAA-protected information is shared- low barriers and risk
- More than 120 organizations contribute to the breadth of information in monthly summit-style meetings

SAN DIEGO, CALIFORNIA

Slide # 15

Live Well San Diego Data Dashboard

  						
<i>Live Well San Diego Expanded Indicators</i>						
October 2016						
		 HEALTH	 KNOWLEDGE	 STANDARD OF LIVING	 COMMUNITY	 SOCIAL
Indicator	Measure	We want to increase this		San Diego	California	United States
		We want to decrease this		Latest Year	Latest Year	Latest Year
HEALTH - Enjoying good health and expecting to live a full life						
Life Expectancy	Measure of length and duration of life expected at birth	↑		82.3 yrs (2013)	81.2 yrs (2012)	78.8 yrs (2013)
Cigarette Smoking	Percent of population who smoked cigarettes in the last 12 months	↓		16.5% (2016)	16.7% (2016)	20.5% (2016)
Exercise	Percent of population spending 2 or more hours exercising per week	↑		56% (2016)	53% (2016)	49.5% (2016)
Doctor Visits	Percent of population having visited a doctor in the last 12 months 6 or more times			28.6% (2016)	27.8% (2016)	29.1% (2016)
Quality of Life	Percent of population that is sufficiently healthy to be able to live independently (not including those who reside in nursing homes or other institutions)	↑		94.9% (2014)	97% (2014)	96.9% (2014)
KNOWLEDGE - Learning throughout the lifespan						
Education: High School Diploma	Percent of population with a High School Diploma or equivalent	↑		85.2% (2014)	82.1% (2014)	86.9% (2014)
Less Than High School Diploma	Percent of population with less than a High School Diploma or equivalent	↓		14.8% (2014)	17.9% (2014)	13.1% (2014)
Bachelor's Degree or Equivalent	Percent of population with a Bachelor's Degree	↑		33.9% (2014)	31.7% (2014)	30.1% (2014)
Graduate or Professional Degree	Percent of population with a Graduate or Professional Degree	↑		12.9% (2014)	11.8% (2014)	11.4% (2014)
School Enrollment	Percent of combined gross enrollment of school aged population	↑		89.6% (2014)	90.4% (2014)	87.9% (2014)

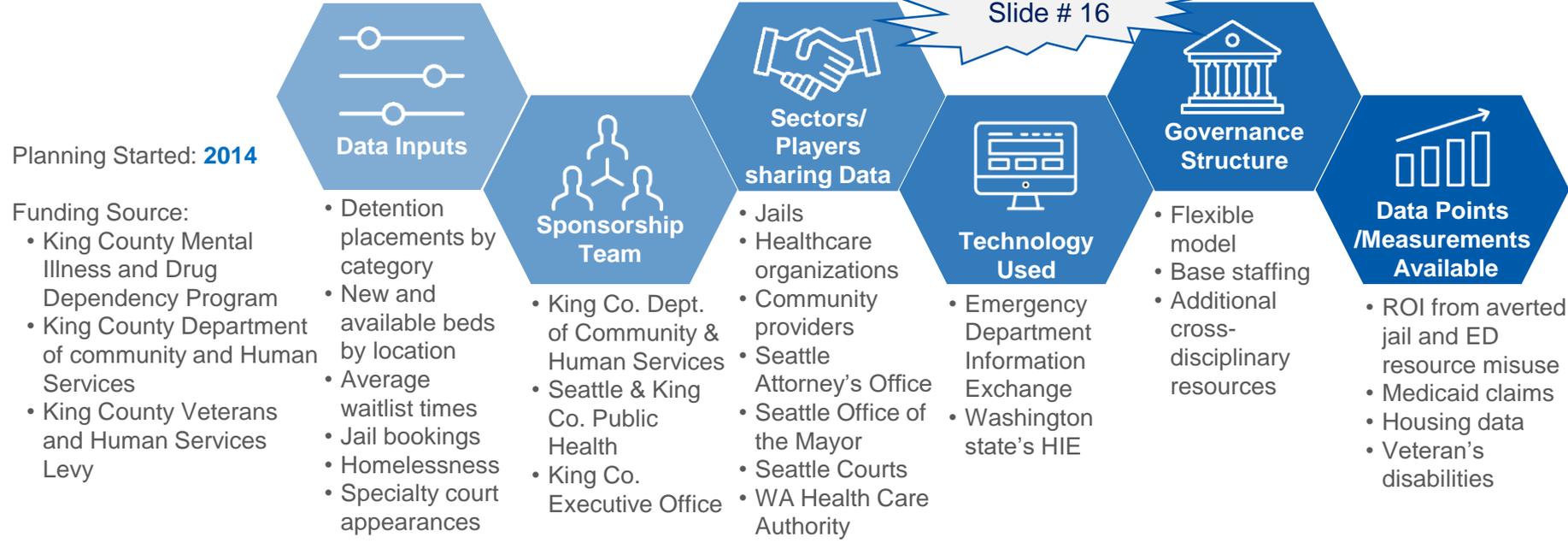
KING COUNTY, WASHINGTON

FAMILIAR FACES

Why we are showing you this community: This community demonstrates how a cross system collaboration can result in developing a bold vision for cross system data sharing and then develop a phased approach to moving towards that vision.

King County has established itself as a pioneer within the mental, emotional and behavioral health care coordination space. One program, "Familiar Faces," acts as a system's coordinator for healthcare, justice, and community organizations to identify and intervene on behalf of heavy consumers of King County's jail and ED resources. The long-term goal is to improve outcomes and reduce costs via an integrated data system by diverting users to the appropriate care when its needed to avoid misuse of high acuity services.

Slide # 16



Programs and Benefits Enabled:

- Intensive Care Management Team provides comprehensive and integrated services for MH adults
- Participation in state-wide Managed Care Organization
- Improved: health status and housing stability
- Reduced: criminal justice involvement, avoidable ED use, and population health disparities

Key Differentiators:

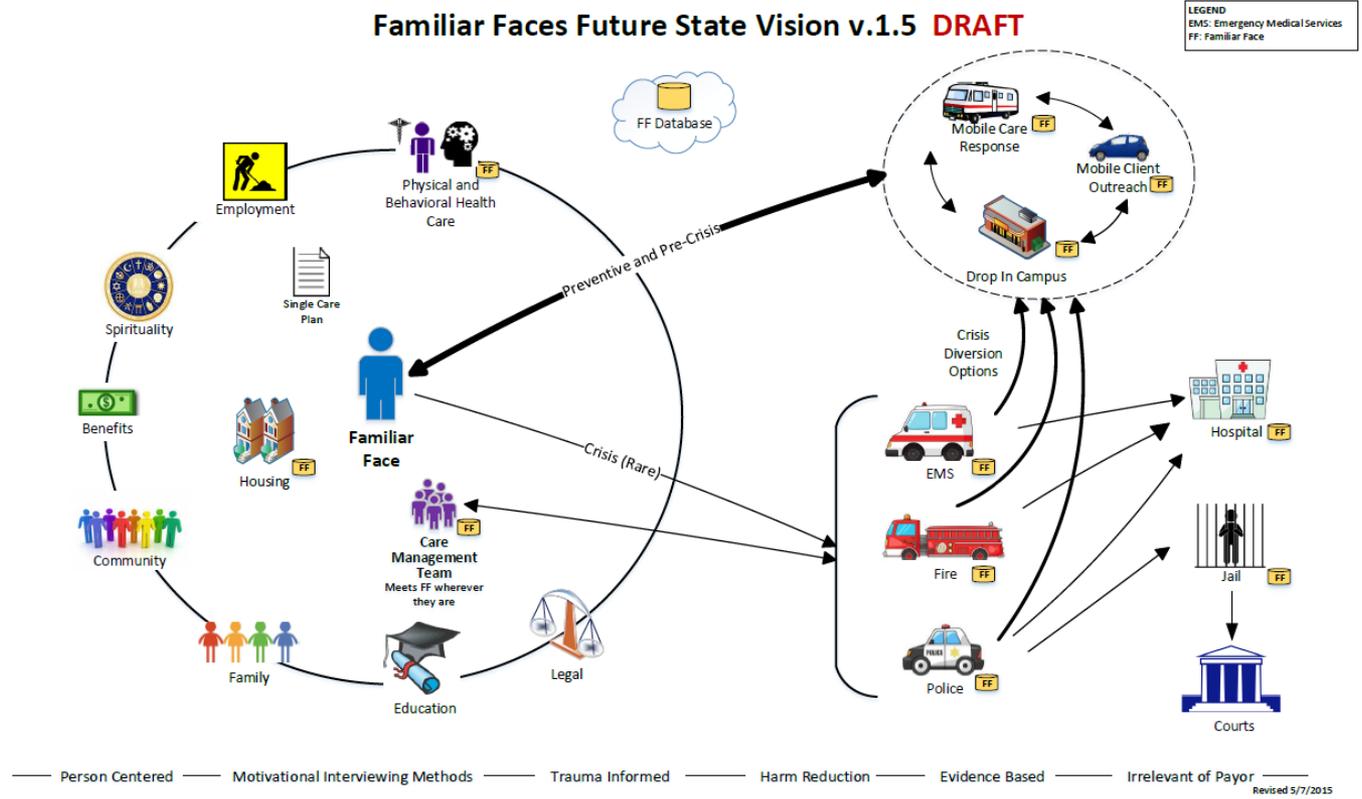
- Used data matching to conclude 94% of all people with 4 or more jail bookings had a behavioral health indicator
- Has flexible staffing model in which only the minimum number of resources are staffed full-time but can be augmented during high volume periods

KING COUNTY, WASHINGTON

FAMILIAR FACES

Slide # 18

Familiar faces is one of King County's programs and the below diagram is a visual depiction of how the county wants to operationalize a person-centric model to improve a variety of outcomes.



Participants include- 28 participating organizations across hospitals, healthcare centers, psychiatric centers, community organizations, care coordinators, homelessness groups, County Offices, Courts, Sheriff, and State Departments

Source: <http://www.kingcounty.gov/elected/executive/health-human-services-transformation/familiar-faces.aspx>

SOME NEW INFORMATION FROM KING COUNTY

- **Some background:**

- Washington State Medicaid contracts with the counties to manage and contract for behavioral health services (however, this is moving to fully integrated MCOs – responsibility for both physical and BH services – similar to LC)
 - They have all the Medicaid claims and extensive data already within their county administrative system. For the Medicaid BH population, they already know key data such as
 - Who is accessing care
 - How fast they are accessing care
 - Where they are accessing care

- **Familiar Faces has a Future Vision for Data Sharing (prior slide)**

- **Familiar Faces has agreed upon several “Go-first strategies”**

- Since the King County has some of the key data points, as a first step the county is integrating what they can within the various systems within County Departments (e.g. Medicaid, housing, employment)
- They are in a planning phase for the data warehouse that will integrate other stakeholders (e.g. first responders, courts)
- Implementing clinical best practices for addressing the needs of the justice involved (e.g. Care Management Team)

- **Other info**

- They have had for many years a daily data feed from the jail to the Medicaid program in the county who then alerts Behavioral Health providers when one of their individuals has been booked into jail.

KING COUNTY, WASHINGTON

PSYCHIATRIC BOARDING PROGRAM REPORT

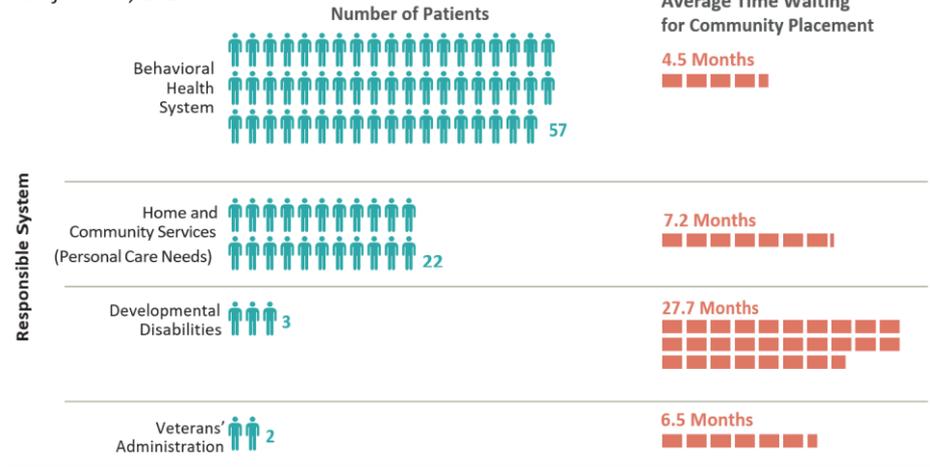
Slide # 19

Among many reports and data outputs, the real time and consolidated data collection efforts King County can produce reports to outline the following:

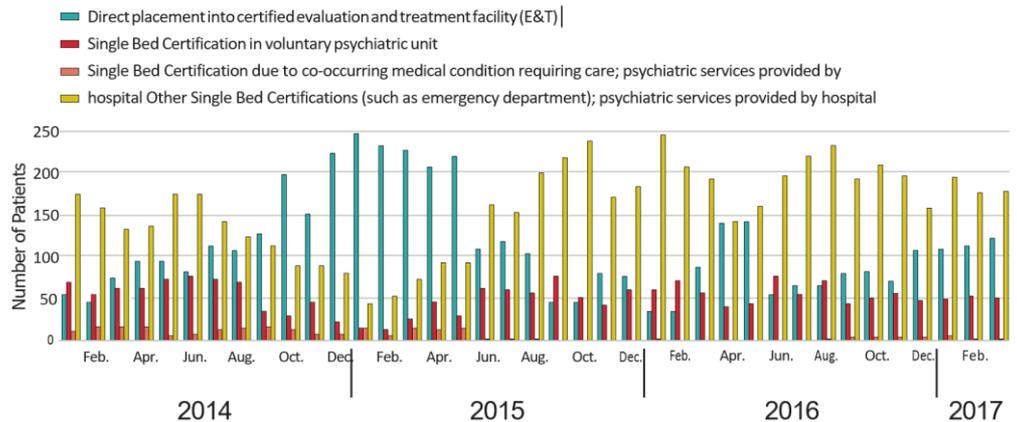
- Number of patients across the responsible system
- Average time patents within each system need to wait for community placement
- Utilization of crisis psychiatric services
- Hospital bed utilization
- Number of patients waiting for a group home
- Average waiting time for a group home
- Openings at group homes
- Patients waiting for supported housing
- Average time waiting for supportive housing
- Openings for supportive housing
- Average number of days on the wait list for state hospitals
- Access to King County E&T beds for acute cate patients by short term and long term orders
- Availability beds from select hospitals
- Estimated number of new E&T beds

King County Patients Ready for Discharge from Western State Hospital (WSH)

As of March, 2017



King County Crisis and Commitment Services Detention Placements by Category

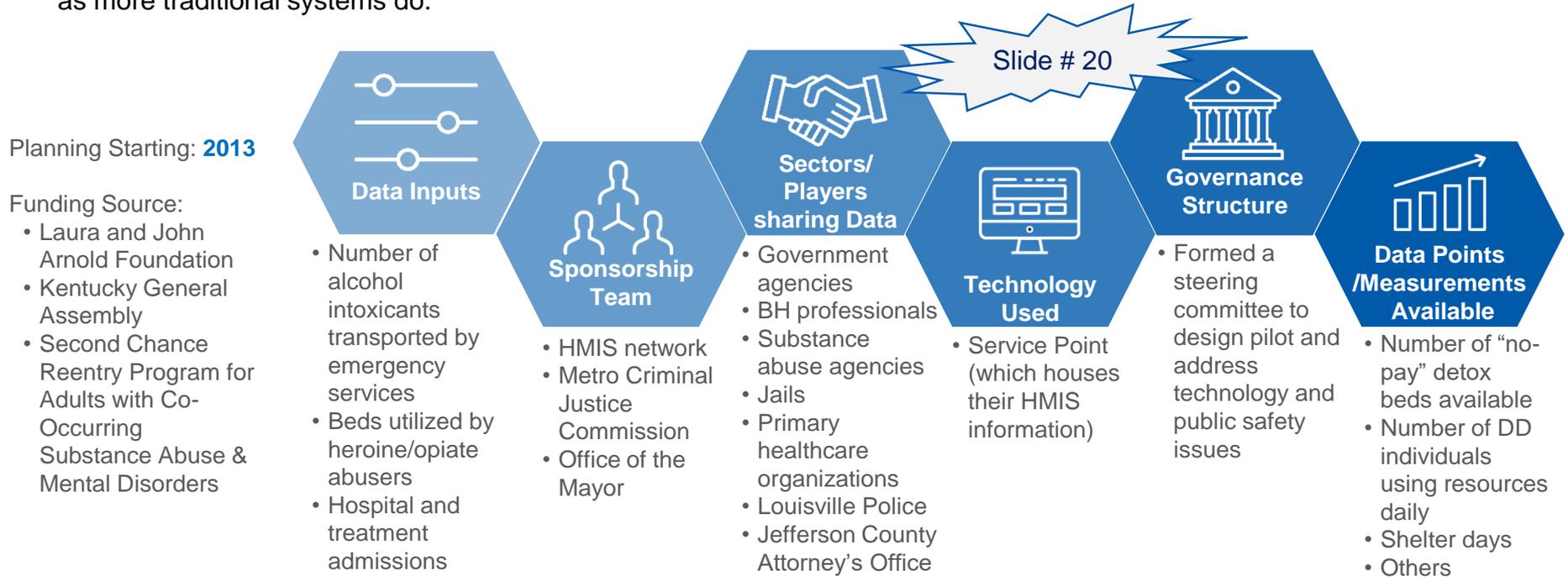


LOUISVILLE, KENTUCKY

COMMUNITY CARE MANAGEMENT NETWORK

Why we are showing you this community: Louisville uses Service Point but in a different capacity and started with a justice driven initiative given that they had access to publicly available information.

The Dual Diagnosis Cross Functional Team (DDCFT) is a collaboration of government agencies, behavioral health professional, and community organizations that came together to create the Community Care Management Network- a coordinated case management super-system. The CCMN taps into existing systems rather than having to be “hard fed” as more traditional systems do.



Programs and Benefits Enabled:

- Reduction of: number of jail admissions and bed days, shelter days, emergency service runs, inpatient psychiatric admissions, percent homeless, in-custody detox, number of ED visits

Key Differentiators:

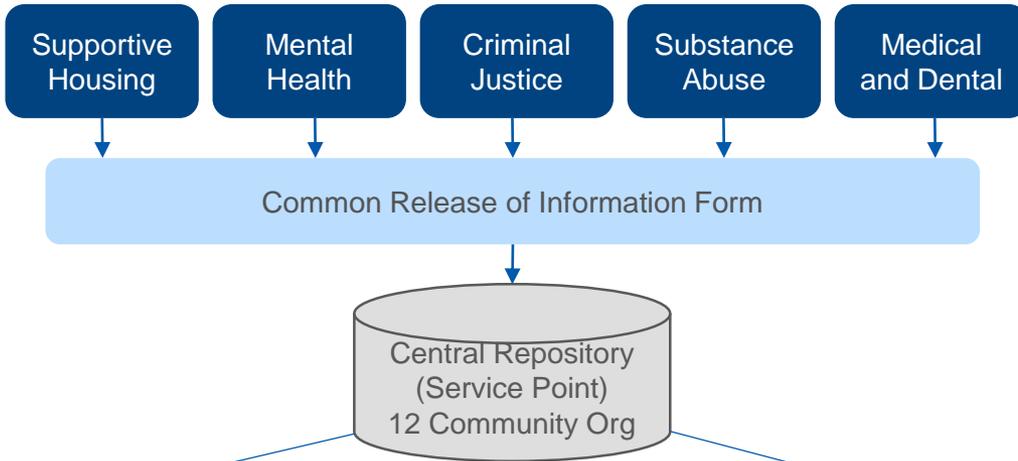
- Ubiquitous use of HMIS allows CCMN to retrieve information more easily
- Common MOU and information releases ease the burden of legal compliance for all involved organizations

LOUISVILLE, KENTUCKY COMMUNITY CARE MANAGEMENT NETWORK



Community Care Management Network Data Process Flow

1. Participant or high utilizer is referred from one of these entities for systemic case management
2. Ask that a release of information be signed
3. Release of information and patient name uploaded into Service Point
4. Ancillary information entered into service point
5. 12 participating organizations track those participants



Outcome Measures

- Reduction in the number of jail admissions and bed days
- Reduction in shelter days
- Increase in mental health/substance abuse treatment retention
- Reduction in numbers of Louisville Metro Emergency Medical System runs
- Reduction in percent homeless
- Reduction in number of inpatient psychiatric admissions and hospital days
- Increased in number of ACA/Medicaid enrollments
- Reduction in the in custody detox population
- Reduction in the number of emergency department visits

Lake County

Several community organization leverage Service Point to track select information on participants. It serves as the central repository for homelessness information and complements a variety of other internal systems for data within the organizations that use the program. Additional fields and reporting capabilities are currently being investigated.

Organizations enter the following data:

1. Household Size
2. Where Housed/Sheltered
3. Homeless Service Treatment Providers
4. Vulnerability Index
5. Sources/amount of Income
6. Primary Care Provider
7. Required Data Fields (name, Gender, Ethnicity, Cell, Birth Date, Race, SSN, Veteran Status)

Aggregated Data

- # Homeless
- # Unsheltered Homeless
- # First Time homeless
- # Increase Income
- Average Time Homeless
- From where enter homelessness
- To where exit homelessness
- Housing Stability
- Who is homeless (Families, Veterans, people with disabling condition)

northhighland.

WORLDWIDE CONSULTING

JOHNSON COUNTY, KANSAS

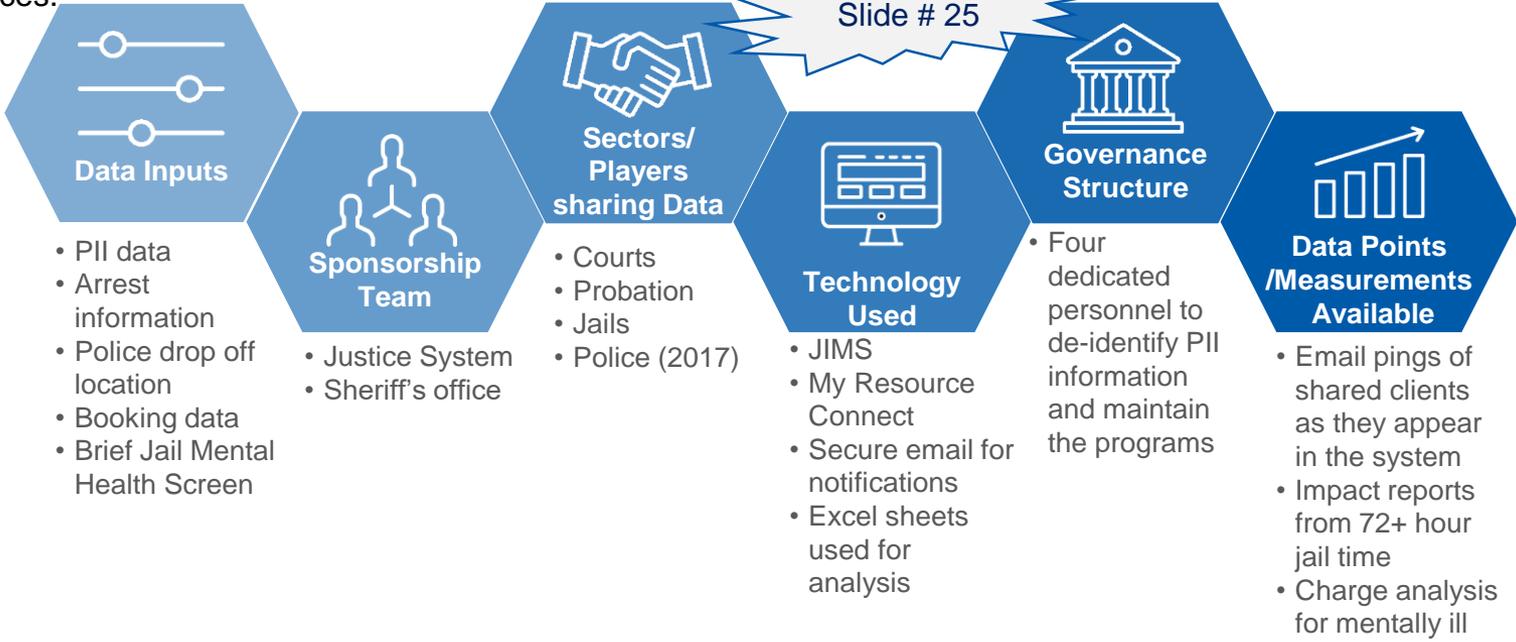
Why we are showing you this community: Johnson County's initiatives are similar to several within Lake County and provide a unique example of how a tool to connect service providers can improve the speed of care coordination.

The Johnson County program exemplifies the power that a single system, improved coordination, and early detection can have on individuals' overall health. Johnson County "Stepping Up" began with all partners in the justice system using their Justice Information management System (JIMS) program and later included My Resource Connect. My resource connect receives a few pieces of identifiable information, de-identifies the information and stores it within a central bus repository that then notifies organizations of a shared client to improve care coordination. This effort has resulted in several data driven programs and services.

Planning Started: **1993**

Funding Source:

- National Association of Counties
- Council of State Governments Justice Center
- American Psychiatric Foundation



Programs and Benefits Enabled:

- Several longitudinal and multiple factor statistical analysis, i.e. Charges for MEB population
- Program in which care coordinators call recently released individuals to assess needs and connect them to services to improve chances of success and lower recidivism

Key Differentiators:

- All participating organizations use JIMS- Justice Information Management System
- Quicker identification of shared patients improves timely access to services
- Brief Jail Mental Health Screen quickly identifies those with sever mental needs

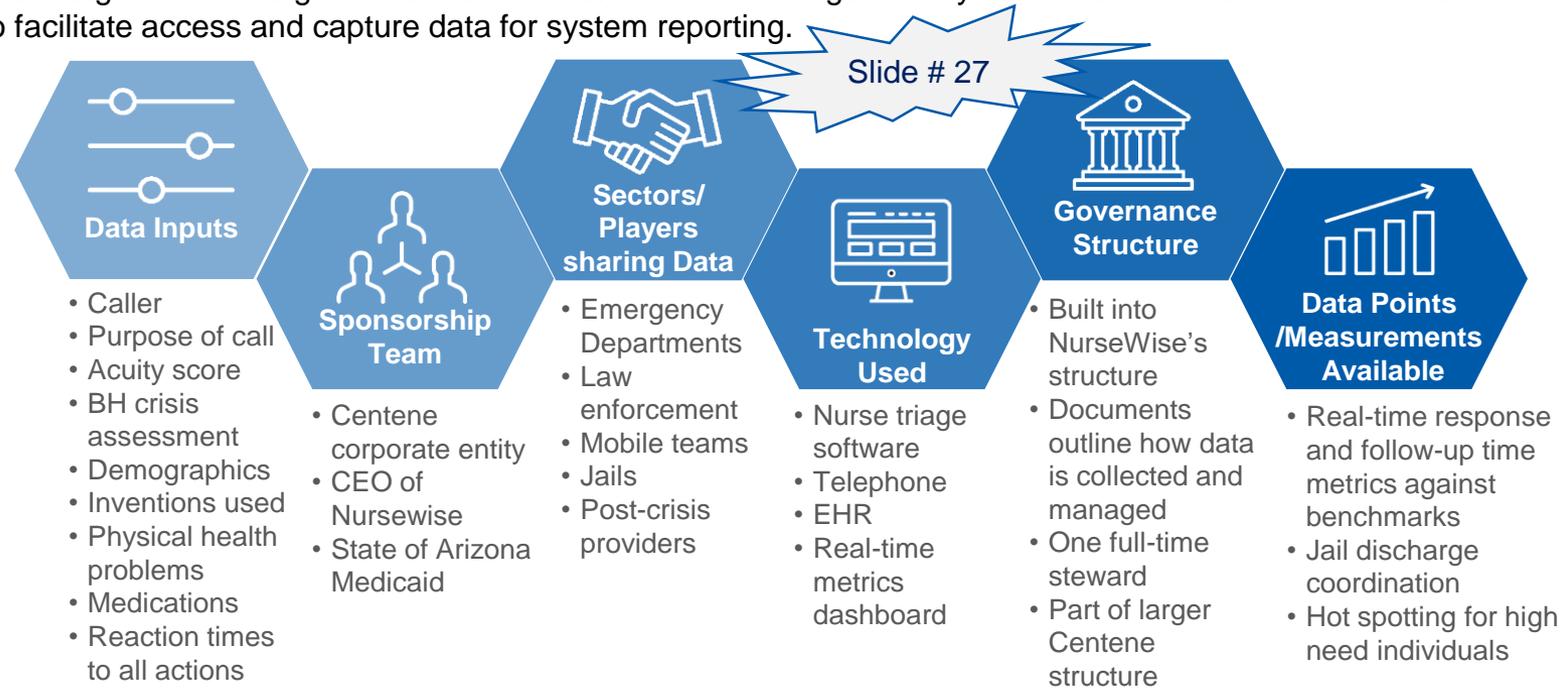
SOUTHERN ARIZONA NURSEWISE

Why we are showing you this community: This approach shows a central repository approach in an unusual way. Operational protocols outline how cross system partners work with a command and control crisis line. The crisis line processes urgent need requests, records data and creates operating reports.

The Arizona State Medicaid program requires in its contacts with managed care organizations to utilize innovative approaches to improve outcomes, reduce costs and be response to individual/families and system partners. Centene corporation has the contract in Southern Arizona and had instituted the use of a “commend and control center” through NurseWise for facilitating access to urgent and routine care. The call management system and electronic health record was developed to facilitate access and capture data for system reporting.

Planning Started: 2015

- Funding Source:
- Service dollars from managed care company
 - Arizona Medicaid
 - Arizona crisis funds



Programs and Benefits Enabled:

- Ability to track data such as call and response times against contractual requirements in real time
- Geo-map capabilities to identify mobile crisis team with shortest response time, real time transmission of clinical data to mobile team
- Centralized scheduling for urgent and routine appts to community providers

Key Differentiators:

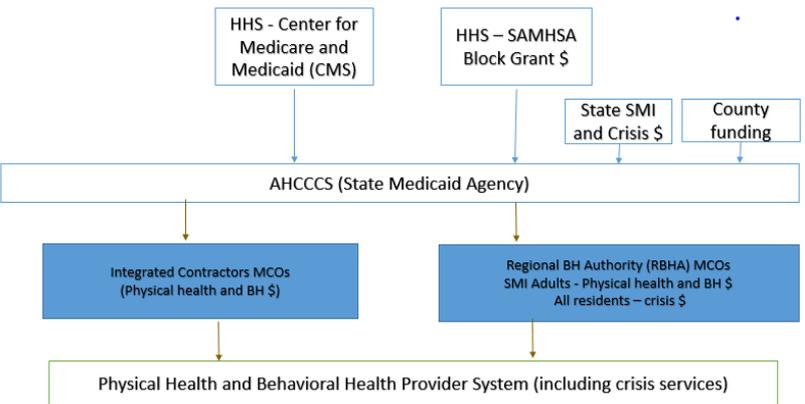
- Acts a central hub connecting in-crisis individuals to mobile teams, access to crisis beds, and follow-up providers
- Protocols for addressing needs of emergency departments, law enforcement, jails, child protective services established – specific data points collected and reported on – e.g. # referrals, timeliness and outcome/dispositions

- The 8 counties within Southern Arizona agreed upon their own protocols and standards across a host of services and partnered with system collaboratives, such as the department of children safety and development disabilities, to establish system wide goals. These protocols also outline Tribal agreements and approve providers.



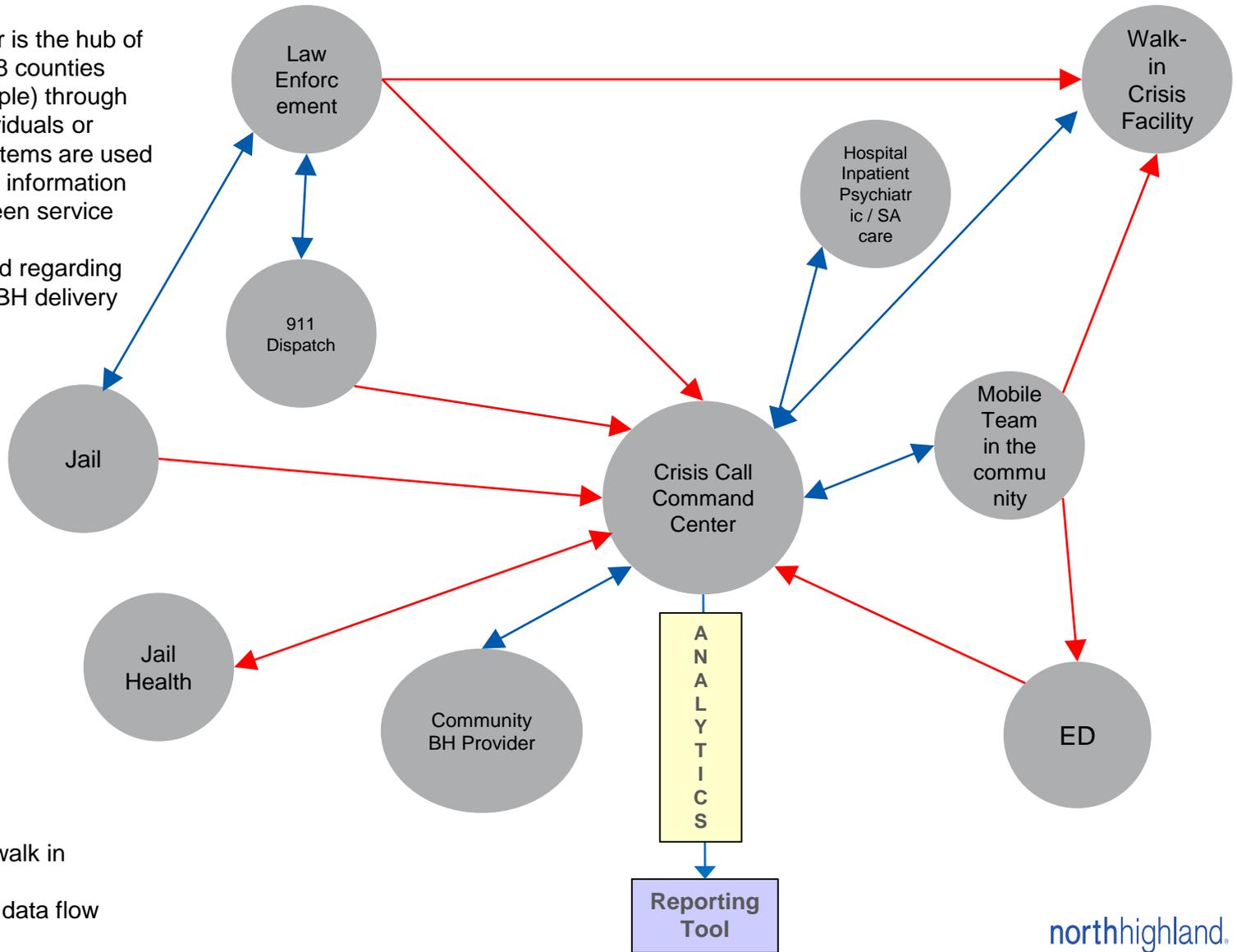
- Protocols include, but are not limited to the following:
- Key definitions for crisis
 - Relationship with Law Enforcement and interactions while on site
 - Crisis line availability
 - Mobile team territories within each county
 - Warm Lines
 - Critical Incident Stress Management involvement,
 - Relationship with and interaction in the Jail or Detention center
 - Emergency admissions into behavioral health inpatient facilities
 - Assistance in emergency rooms as needed

Funding and Sources



- Sources include: AHCCCS's Building a Health Care System: Care Coordination and Integration, <https://www.cenpatointegratedcareaz.com/inthecommunity/crisis-intervention-services.html>, <https://www.cenpatointegratedcareaz.com/inthecommunity/system-partner-resources.html>, <https://www.cenpatointegratedcareaz.com/inthecommunity/system-partner-resources.html>

The Crisis Call Center is the hub of collecting data for all 8 counties (roughly 2 million people) through phone calls from individuals or system partners. Systems are used to facilitate the flow of information and connection between service providers. Reports are developed regarding the operations of the BH delivery system.



Red – phone call or walk in
Blue – data transfer
Arrows – direction of data flow

GEORGIA

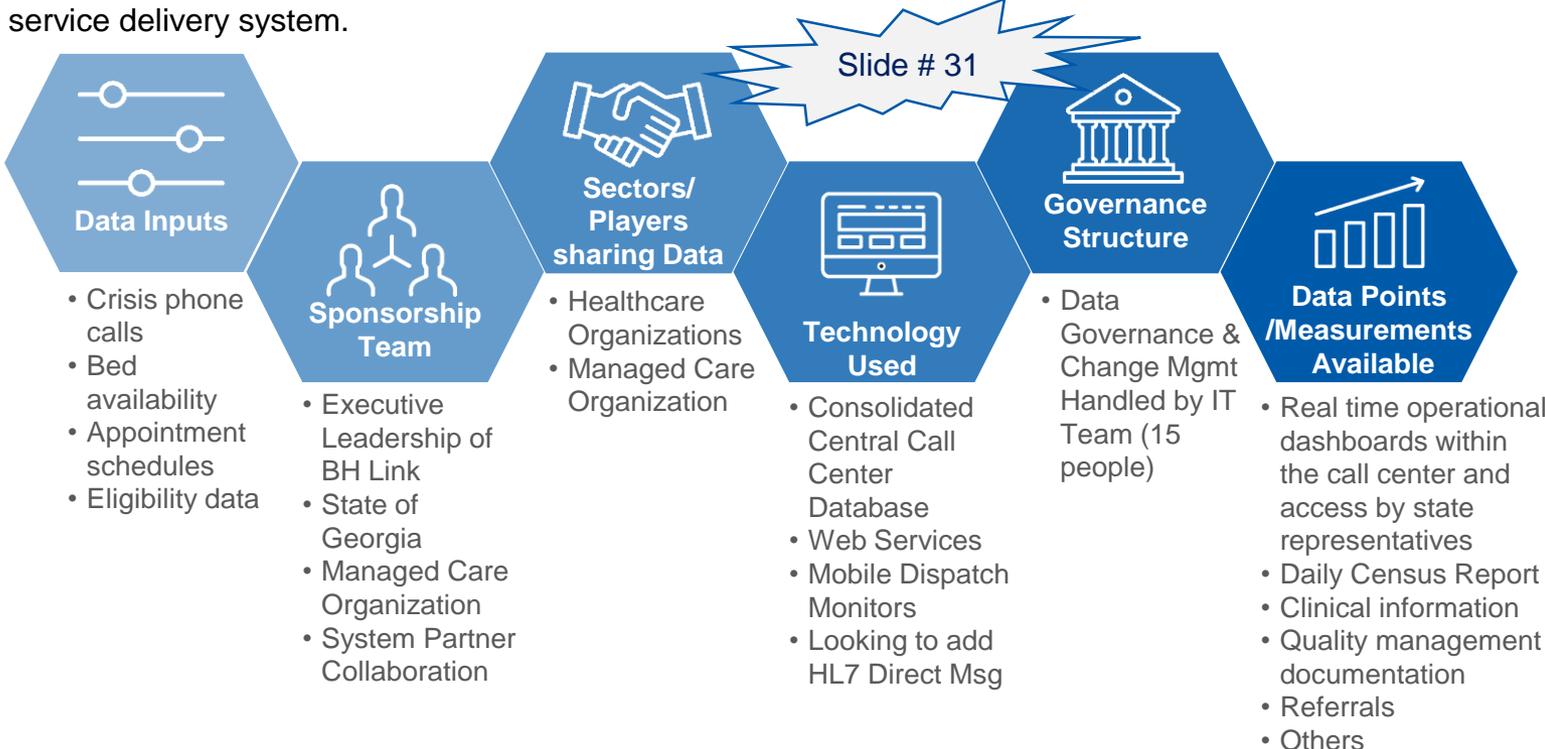
BEHAVIORAL HEALTH LINK

Why we are showing you this community: This community demonstrates a way to collect and report data on a real time basis. Select data elements are provided to the state on a real time basis.

In 2006, BHL began a unique collaboration with the state of Georgia to form the *George Access and Crisis Line*, a single statewide crisis call center to facilitate access to routine care or help in a crisis. The collaborative is intended to serve individuals and families and be responsive to system partners such as law enforcement and emergency departments. A hallmark of the operations is provide real-time and incremental data /reports so there is statewide transparency of the service delivery system.

Planning Started: **1998**

Funding Source:
 • Funding for the technology and reporting is obtained through their overall service funding.



Programs and Benefits Enabled:

- Single number for access to care or help in a crisis
- Mobile clinicians assess more than 600 individuals per month at their residence, in the community (park, social service agency), in the emergency departments to disposition them to the community and meet with law enforcement in the street as needed

Key Differentiators:

- Consolidated database with all necessary data
- Mobile teams are dispatched electronically
- Real-time operational dashboards
 - Mobile team availability, timeliness
 - Beds boards for inpatient / crisis care

Example Monthly report

Behavioral Health Link is a real time dashboard measuring key metrics on the response time and availability of resources across Georgia.

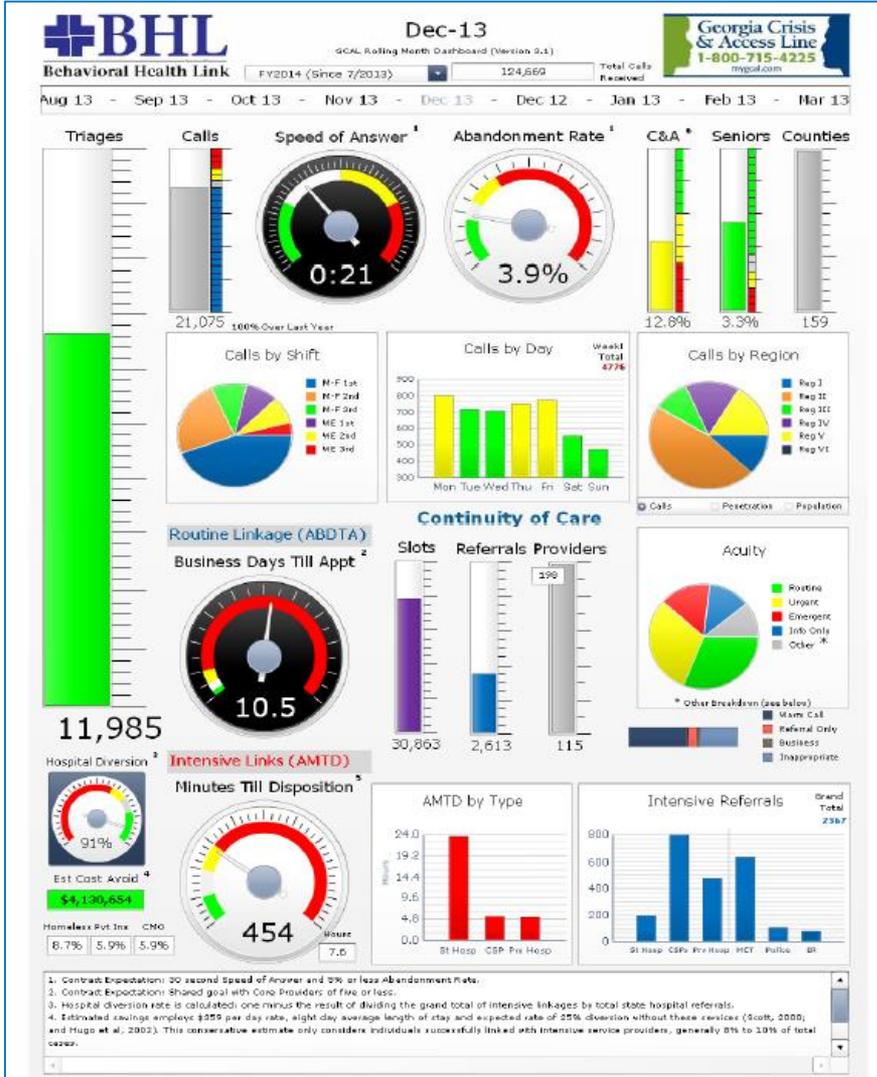
Key metrics include:

- # of triages completed
- # of calls by region
- # of referrals
- % of hospital diversion

Behavioral Health Link then provides reports on a monthly basis regarding their Call Center Operations and performance.

The state also has real time access to the dashboard

Behavioral Health Link also provides a daily census report that includes the number of beds filled daily.



CAMDEN COALITION OF HEALTHCARE PROVIDERS

Why we are showing you this community: Camden Coalition demonstrates a VERY sophisticated approach to data sharing. They use a hybrid approach to integrate cross-system data. They demonstrate the evolving nature of this work.

The Camden Coalition of Healthcare Providers has several models and initiatives for data sharing among its partners that has evolved over time:

Camden Coalition Health Information Exchange (HIE) 2010

- Objective - Linking patient data across systems for improved care delivery. The Camden Coalition HIE is a web-based technology offering participating local and regional health care providers secure, real-time access to shared medical information.
- **Exchange of data is bi-directional**, facilitates sharing of detailed clinical data **among primarily healthcare organizations**: hospitals, physician practices, laboratory and radiology groups, and other health care organizations.
- Currently, there is **no exchange of data to non-healthcare organizations** – organization are able to only view HIE data.

Slide # 34

Camden Administrative Records Integration for Service Excellence (ARISE) 2015

- Objective - Combines information from public data systems to create a multi-dimensional picture of citywide challenges. By linking information from multiple data systems, including criminal justice, health care, and housing, Camden ARISE can help drive better decisions about allocation of resources and address the root causes of recurring public problems.
- **Exchange of data is unidirectional**, project's first phase integrates data from the Camden County Police Department with claims data from regional hospitals to shed light on overlapping issues in health care and public safety.
- Analysis of the combined data will indicate strategic points of intervention that may reduce hospital readmissions, arrests, recidivism, and more.
- **This model does combine healthcare data with non-healthcare data.** Combines hospital claims data with police records.

Camden Behavioral Health Collaborative 2015

- Initially a hospital based driven initiative.
- Objective –Identifying high utilizes of ED services across hospitals.
- **Exchange of data at this point is unidirectional**, hospitals shared 5 years of claims data to identify individuals with behavioral health needs that are high utilizers of ED services.
- Recently prioritized metrics they want for a dashboard.
- Currently building portal in the HIE to document behavioral health care plan for those who utilize ED services.
- Recently added community behavioral health services providers to the collaborative to start exploring how the interface with hospitals and community providers can address the needs of individuals.
- Note- they have interpreted that hospitals are not 42 CFR facilities and therefore share information for service coordination.

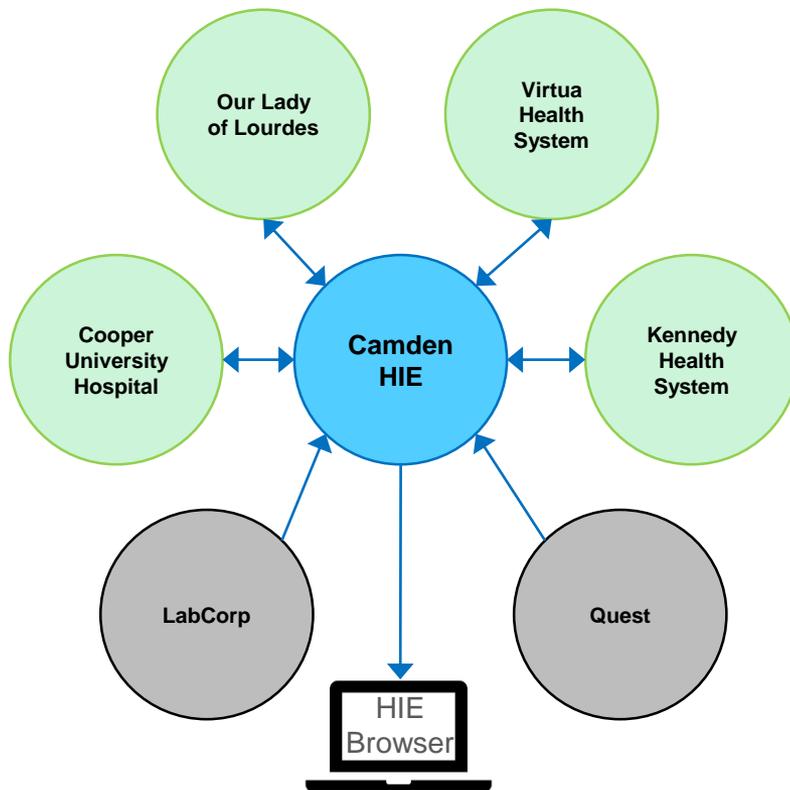
CAMDEN COALITION OF HEALTHCARE PROVIDERS

Slide # 39

The Camden Coalition of Healthcare Providers utilizes **two different models** for data sharing among its partners:

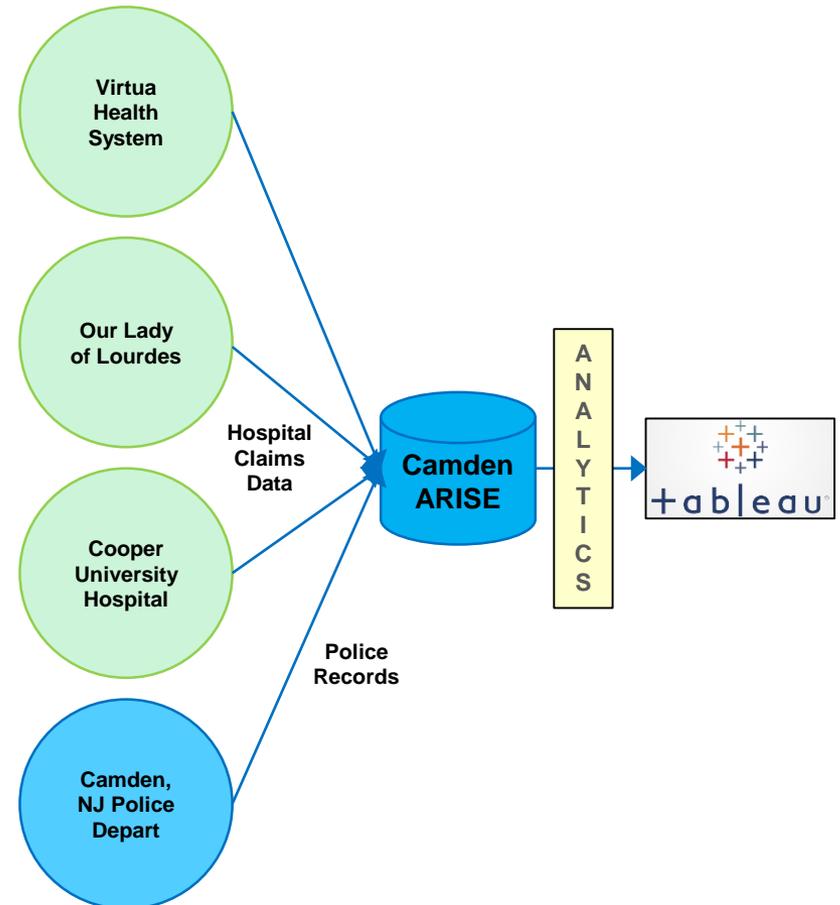
Camden HIE

• Data Sharing Model



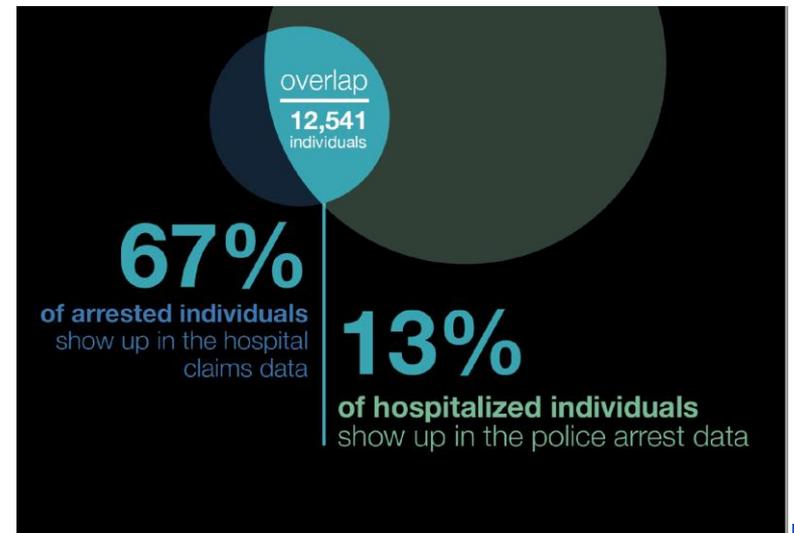
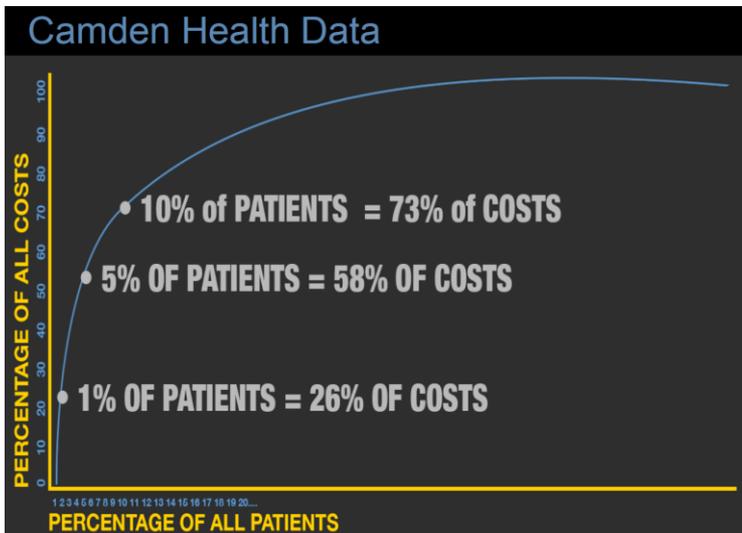
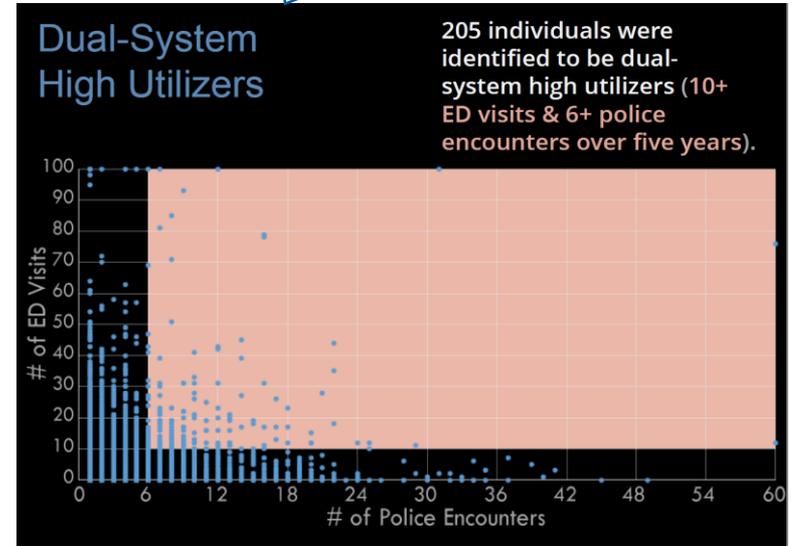
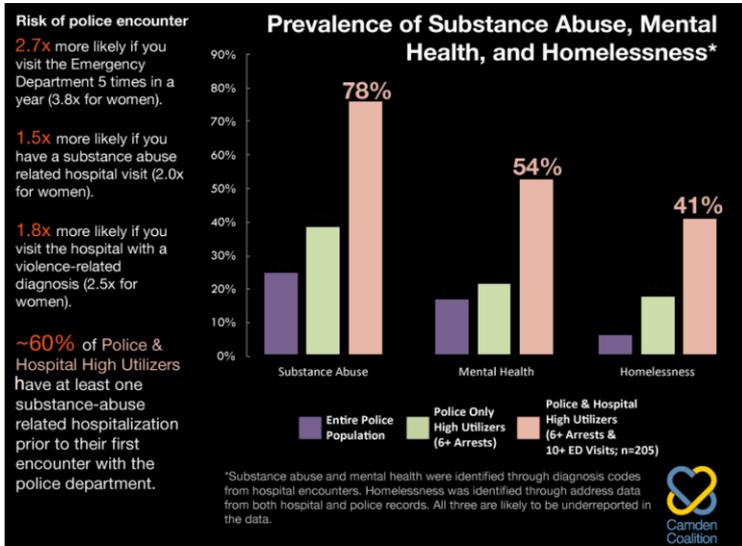
Camden ARISE

• Data Integration Model



DATA AVAILABLE FROM CAMDEN'S ARISE DATA WAREHOUSE

Slide # 40



DISCUSSION – COMPARABLE COMMUNITIES



Please discuss the following with your neighbor

Based on completing your homework of discussions with your team and our recap of the materials today:

- What communities capture your interest the most as it relates to helping us think about a future vision of data sharing for Lake County?
 - What is it about those communities of interest that captures your interest?
 - How could this information be useful for consideration / application for a future vision of data sharing for Lake County?

*Questions/Information about the
behavioral health system
that could be obtained through data*

EXERCISE 1 – DECISIONS/INFORMATION NEEDED

Let's review together the:

- “Using Data to Answer System Questions” handout (version 1 from Workshop 1)

The homework assignment was:

Review documents with your team and come prepared to answer, “*What are the **priority questions we should seek answers for through the use of data?***”

Please discuss the following with your neighbor

- What are the most important questions/information that is needed in order for the coalition to plan for the future and have oversight of the behavioral health delivery system and improve access and care for individuals/families?
- Are there other important questions/information that is needed for the coalition to plan for the future and have oversight of the behavioral health delivery system that are not on the list?



EXERCISE 2 – DECISIONS/INFORMATION NEEDED

Let's review together the:

- “A possible **prioritized list of Questions to Answer Systemic Questions**” handout

Please discuss the following with your neighbor

- Could this be a *starting point* of data to collect?
- What do you think about focusing on the first two themes with more to come with the third theme in a later phase?
- What data points would you add to this list?
- What data points would you remove from this list?



Data Matrix
Using Data to
Answer Questions and Have Information

EXERCISE 1 - USING DATA TO ANSWER QUESTIONS AND HAVE INFORMATION

- Using Data Matrix - (handout from last workshop)
 - Provided an extensive list of potential data points that could be used in Lake County to address systemic questions.

The homework assignment was:

Review documents with your team and come prepared to share your preferences.

Please discuss the following with your neighbor

- **What data points do you prefer to prioritize to address the systemic questions you prioritized in the Questions Handout?**

EXERCISE 2 – USING DATA TO ANSWER QUESTIONS AND HAVE INFORMATION

- One possible approach – Using Data – *condensed list*
 - **Please discuss the following with your neighbor**
- **Would the condensed list of data begin to help us answer the themes of**
 - **Who is in need of or seeking behavioral health services?**
 - **Are the services needs of those accessing behavioral health services being met?**
 - **What might be added or removed from the condensed list to answer these questions?**



EXERCISE – CREATE A DASHBOARD

- **Based on what you know or prefer today, complete the “Ideal System Dashboard.”**
- **After completing your “Ideal System Dashboard,” share your dashboard with your neighbor and why you choose the measurements you selected.**



*Exploring Potential Data Models
for Lake County*

POTENTIAL DATA SHARING MODELS FOR LAKE COUNTY

After looking at comparable data sharing models in other communities, let's take a look at potential data sharing models for Lake County.



Slide # 49

Purpose: To brainstorm the partnerships and data points that can answer crucial questions for Lake County

These models are:

- Hypothetical in nature
- Not representative of what's implemented today
- Only suggestions of what COULD be implemented in the future to provide ideas
- Intended to encourage brainstorming and productive conversations

There are multiple ways (several data sharing models) to generate a metric or report – there is no single right or wrong way.

Often times there will be a progression of implementations (crawl, walk, run) over time

When Reviewing these Models:

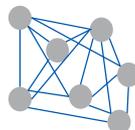
- Focus on **what can be done**
- **Avoid only thinking of the barriers** to implementation (there are barriers in every scenario)
- Consider **which models could lead to populating your dashboard**
- Consider lessons learned from other communities that can be customized for Lake County (Remember, many solutions take a hybrid approach of multiple models)

THEORETICAL MODELS FOR EXPLORATION

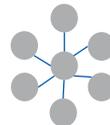
Increasing technology, complexity, communication, and robustness →



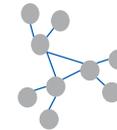
SILOS



POINT TO POINT



CENTRAL REPOSITORY



HYBRID

<p>Definition</p>	<ul style="list-style-type: none"> Limited or no communication externally of data 	<ul style="list-style-type: none"> Entities send information to some other single entity in discrete transactions 	<ul style="list-style-type: none"> All participating orgs contribute to a central data hub and can pull appropriate information as needed 	<ul style="list-style-type: none"> Provides various combinations of the other models
<p>Pros</p>	<ul style="list-style-type: none"> + Requires no shared governance structure + No reliance on other organizations 	<ul style="list-style-type: none"> + High degree of control of what information is seen and by whom + Low technology cost 	<ul style="list-style-type: none"> + Allows for more sophisticated, cross sector data points + Governance is established at beginning 	<ul style="list-style-type: none"> + Allows for more sophisticated, cross sector data points + Leverages existing infrastructure and technology in place + Model allows flexibility for growth and evolution to future state
<p>Cons</p>	<ul style="list-style-type: none"> - Long-term economic loss for community - Is not a patient centered approach 	<ul style="list-style-type: none"> - Operation dependencies for submission and receipt processing - Significant limitations for system-wide data 	<ul style="list-style-type: none"> - Most expensive to execute, generally - Requires most buy-in from participants 	<ul style="list-style-type: none"> - Challenges coordinating different technology - Might require on-going data governance
<p>Potential Methodologies</p>	<ul style="list-style-type: none"> Methodology only dependent on organizations needs 	<ul style="list-style-type: none"> Phone calls Emails Faxes Direct messages Paper 	<ul style="list-style-type: none"> Data warehouse Health Information Exchange (HIE) 	<ul style="list-style-type: none"> Combination / mixture of other methodologies

Each model has its benefits and challenges and can be blended or customized to meet the needs of Lake County.

DATA SHARING – SILOS

Description:

- Organizations stand and function alone, with minimal to no interaction with others
- Collect, store, and use data that the organization captures as it interacts with the public
- Any aggregation of data and reporting is self contained to each organization



Slide # 51

Data Sharing:

- Minimal to no data sharing with other organizations

Technology Used:

- Applications (off the shelf), databases, and reporting tools that each organization decides to buy or build
- There is no leveraging of technologies between organizations

Data Governance:

- Governance is left to each organization to define and use data as they see fit

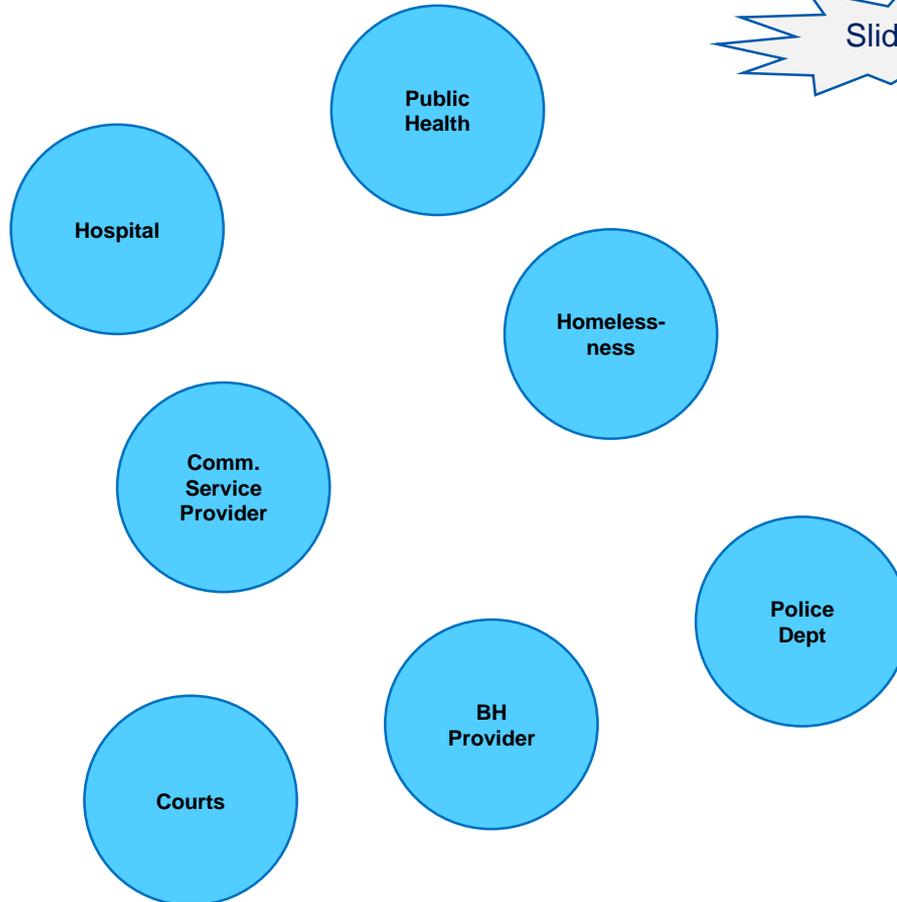
Resources:

- Each organization must support the operations and finances to maintain and support the technology used

DATA SHARING OPTION – SILOS

Lake County Examples – not inclusive all of entities

Slide # 52



System Metrics/Reports Possible:
None - organizational or patient level data

- Organization level aggregated data as of a specific time or internal dashboards
- Grant information and data collection

Services made easier through collaboration:
NA

DATA SHARING – POINT TO POINT

Slide # 53

Description:

- Point to point data sharing involves two organizations who agree to share data with one another. –usually a specific data set that is of value to one or both organizations.
- A given organization can have multiple point to point data sharing agreements in place – often leading to repeated/redundant processes, duplicated for each organization that data is shared with.

Data Sharing:

- Data, as however agreed between two organizations, is shared using varied electronic means.
- Data standardization definitions are defined per relationship and factors in the controls of the two technology systems involved (i.e. name formats between an EMR and Excel program)

Technology Used:

- Electronic communication tools as agreed upon the two organizations involved.
- If an organization has more than 1 agreement additional technologies or translation systems may need to be put into place
- Can be done with relatively low technology using spreadsheets which enables more individuals to take part, but results in greater onus on organizations looking to consolidate received data.

Data Governance:

- Governance is defined by the two organizations involved in terms of content and format.
- Typical structure requires data extraction to be owned by a single person and communicative technologies per system involved. Depending on the number of relationships, this can be costly from an operations and financial standpoint.

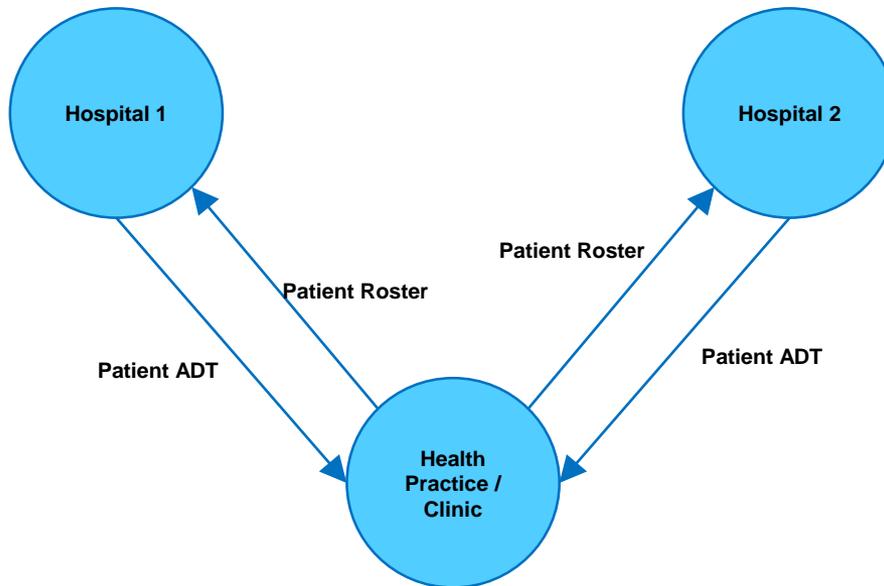
Resources:

- Relatively quick and easy to setup a point to point data sharing agreement and process. Becomes unwieldy and inefficient as the number of point to point agreements grows.

DATA SHARING OPTION – POINT TO POINT

Slide # 54

Lake County Examples – not inclusive all of entities



The Health Practice/ Clinic will inform each hospital, separately, of its patient roster. The hospitals will take that data and notify the health practice / clinic when a patient comes either to the ED or has an inpatient stay.

Decisions Possible

- # of ER visits for the clinic's patients
- # of inpatient stays for the clinic's patients

Considerations:

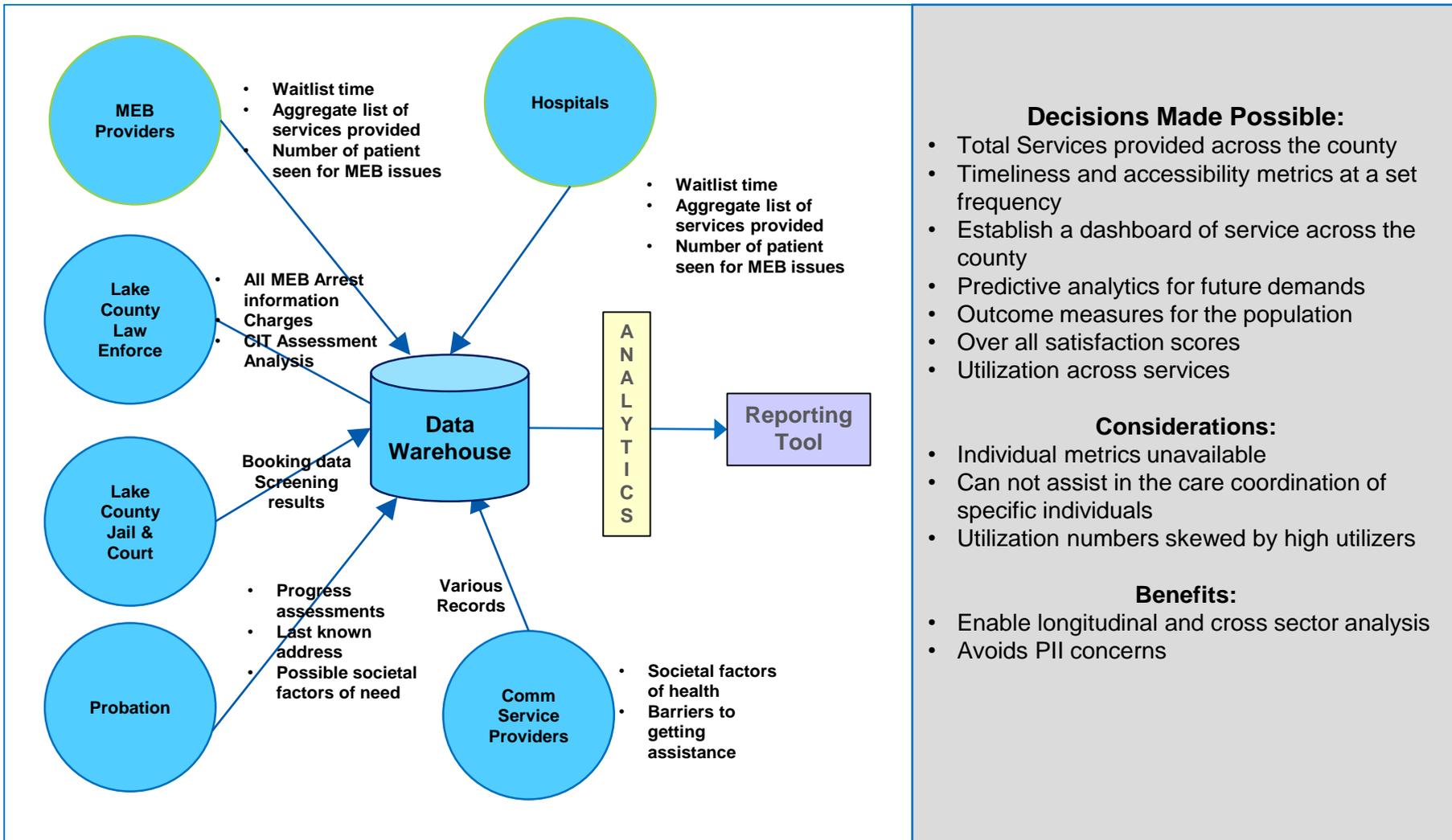
- Requires separate agreement per hospital relationship
- The hospital has to have a record of which outside clinic each patient is associated with within their EMR or a scanning program that aligns PII for an automated process.
- While the clinic is able to calculate the # of ER visits and inpatient stays for its patients (and it would be for only these 2 hospitals), this model does not lend itself to aggregate this metric across all of Lake County.
- In order to aggregate metrics across the entire county, a point to point connection would need to be setup with all similar service providers

DATA SHARING OPTION – CENTRAL DATA REPOSITORY

DATA WAREHOUSE (AGGREGATED DATA)

Lake County Examples – not inclusive all of entities

Slide # 59



Decisions Made Possible:

- Total Services provided across the county
- Timeliness and accessibility metrics at a set frequency
- Establish a dashboard of service across the county
- Predictive analytics for future demands
- Outcome measures for the population
- Over all satisfaction scores
- Utilization across services

Considerations:

- Individual metrics unavailable
- Can not assist in the care coordination of specific individuals
- Utilization numbers skewed by high utilizers

Benefits:

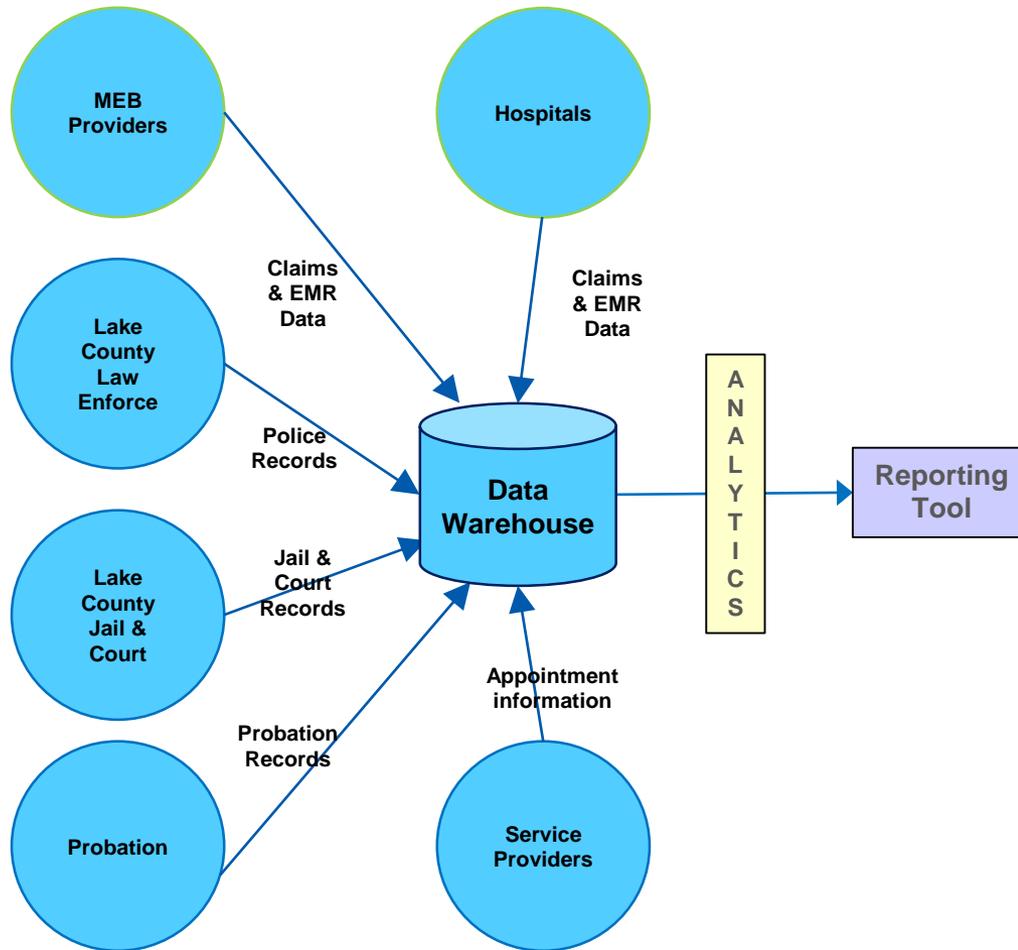
- Enable longitudinal and cross sector analysis
- Avoids PII concerns

DATA SHARING OPTION – CENTRAL REPOSITORY

DATA WAREHOUSE (PARTICIPANT LEVEL)

Slide # 58

Lake County Examples – not inclusive all of entities



Decisions Made Possible:

- Number of unique users
- Participant tracking
- Intervention analysis of treatments or appointment adherence versus recidivism
- Impact on outcome measures per person
- Appropriateness of services accessed
- Impact select individuals have on the system

Considerations:

- Need to set protocols and data standards (time consuming)
- Data access and controls based on data privacy laws (i.e. HIPAA covered entities)
- FTE requirements for operational sustainability and deidentification
- Could be simplified through universal Release forms, which is an initiative in it of itself

Benefits:

- Enable longitudinal and cross sector analysis across many fields
- Can expedite care coordination for shared individuals with mental, emotional, or behavioral health needs
- Improved data accuracy, that can also be rolled up to the aggregate level

DATA SHARING OPTION – CENTRAL DATA REPOSITORY

COMPARISON OF PARTICIPANT LEVEL DATA VS AGGREGATED DATA

Slide # 60

Aggregated data

- Focused on collecting summarized data / reports from entities, avoids the need to provide PII
- Avoids PII concerns
- Smaller volume of data
- Quicker time to stand up
- Can provide insight into operations across organizations (i.e. average wait times for beds, appointments, etc.) within the county
- Can assess overall trends for the services accessed
- Aggregated data / reports would make it more difficult to match up data within a sector or with other entities. At best, provide a side by side comparison of data
- Individual metrics unavailable to measure outcome or progress
- More limited analysis capabilities of the data when compared to patient level information
- Can not assist in the care coordination of specific individuals

Participant level

- Improved data accuracy, that can also be rolled up to the aggregate level
- Enable longitudinal and cross sector analysis across many fields
- Can expedite care coordination for shared 'clients'
- Can track individual outcome and address intervention opportunities
- Data could be sent at the participant level and deidentified
- Data access and controls based on data privacy laws (i.e. HIPAA covered entities)
- Release of information required
- Focused on collecting data at the individual level from all entities, which necessitates passing PII (personally identifiable information) data
- Requires sufficient information / data to match individuals data across different sectors and multiple data source entities
- Larger volumes of data
- Longer time investment to build
- Requires business rules / logic and processing to ensure the correct matching of individuals' data

DISCUSSION – CONTINUING TO ALIGN ON A DATA SHARING VISION FOR LAKE COUNTY

- Continuing to align on a data sharing vision....
 - Based on your homework and consideration of what was presented today, ***what are your preferences*** for a data sharing model for Lake County?
 - What are the assets that would make this possible?
 - What challenges would need to be overcome?
 - What are your thoughts of a ***phased approach*** to developing a future long term vision for a data sharing model for Lake County?
 - What if we ***first*** created the ability to submit agreed upon ***select aggregated data*** so that we have some information for planning purposes?
 - What if ***subsequently*** we then developed the ability to submit participant level data (e.g. Data Warehouse accepting participant level data)?

Data Governance Tutorial

WHAT IS DATA GOVERNANCE?

Data governance (DG) refers to the overall management of the availability, usability, integrity, and security of the data employed in an enterprise or coalition.

- A sound data governance program includes a governing body or council, a defined set of procedures, and a plan to execute those procedures.

It is impossible to get consistent, accurate, reliable data without Data Governance.

What is its value?

- Open communication across coalition entities, processes, and functions
- A common language & definitions around critical information, metrics, & data
- Clear ownership of information, metrics, and data sources
- Increase capability for ensuring Data Quality & Integrity
- A clear understanding of compliance risks and mitigations

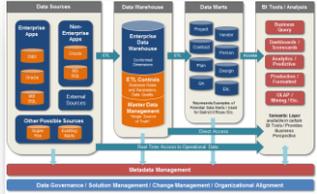
DATA GOVERNANCE APPROACH

Approach to Data Governance needs to address 3 things:

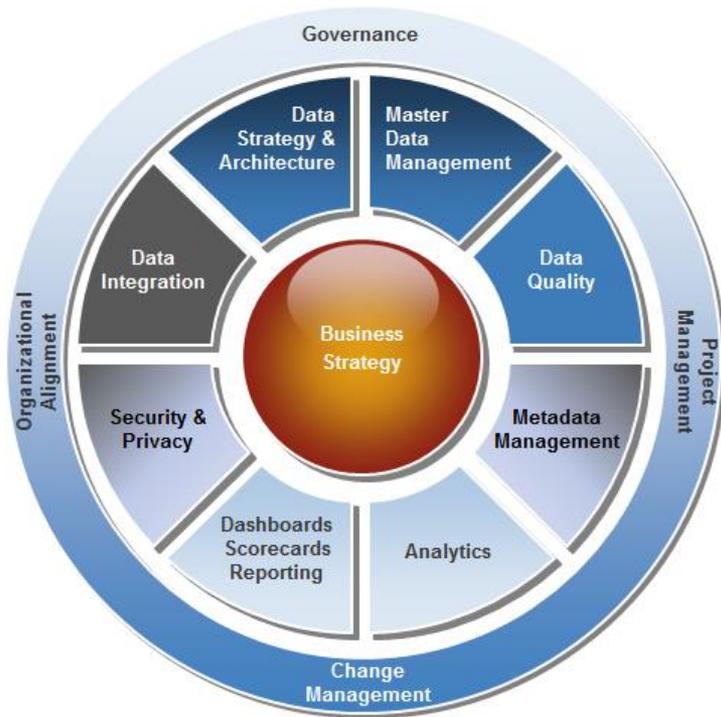
People: Managing a formal Data Governance Structure to make key decisions related to Data / Information.

Process: Training on the Data Governance Component Model and Implementing Standard Processes & Routines to provide a formal approach to Data Governance.

Technology: Providing common standardized Business intelligence and Data Warehouse Tools, Technologies and Frameworks that will be used to make data/information more accessible.



KEY COMPONENTS OF DATA GOVERNANCE



- Consists of various components that **align** your information to the **business strategy** through **people, processes, and technology**
- Governance
- Operational Components
 - Master Data Management
 - Data Quality
 - Metadata Management
 - Analytics
 - Dashboards, Scorecards, and Reporting
 - Security and Privacy
 - Data Integration
 - Data Strategy and Architecture
- Project Execution Components
 - Project Management
 - Change Management
 - Organization Alignment

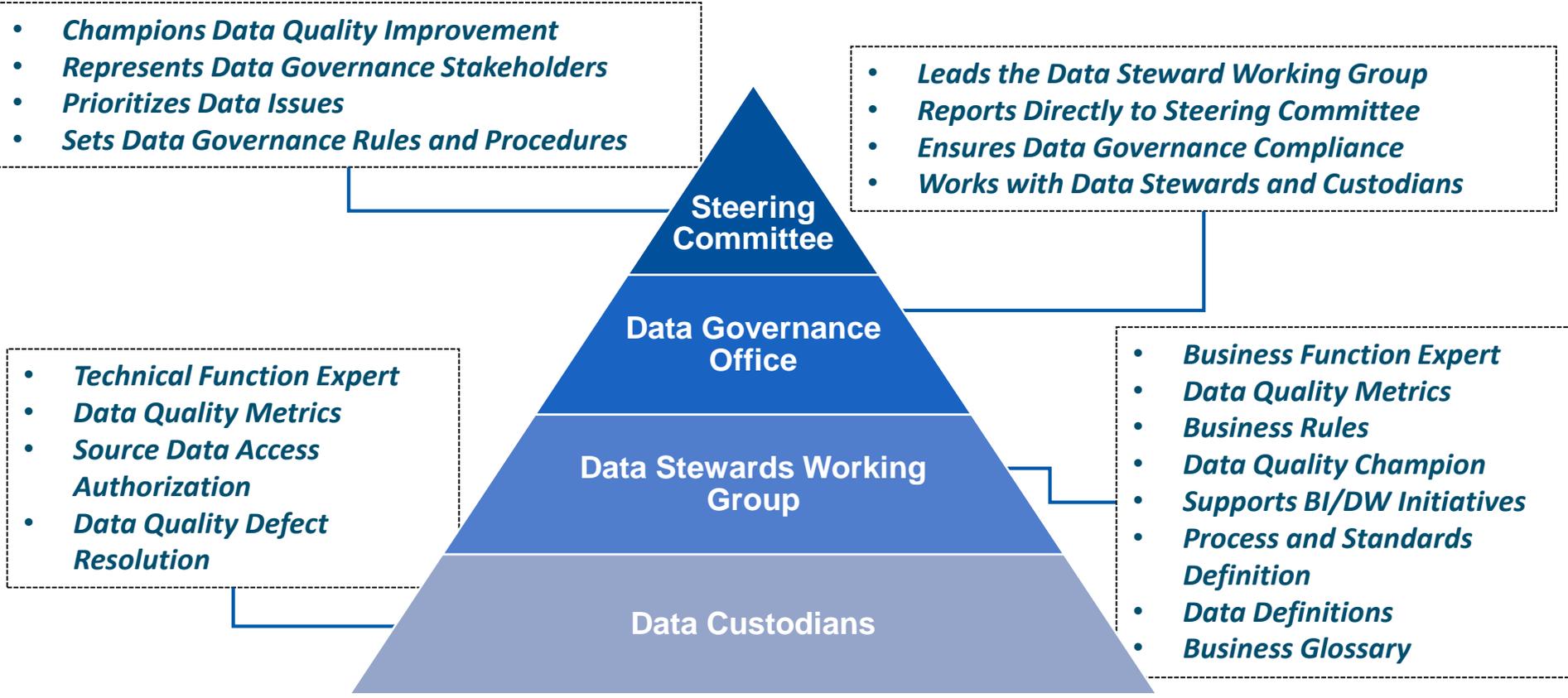
KEY COMPONENTS OF DATA GOVERNANCE

Component	Purpose	Enables Coalition To:
GOVERNANCE	Aligns the coalition members with the overall coalition data sharing strategy and enables prioritization of initiatives as well as a plan for the introduction of processes that will continuously monitor and improve data quality.	<ul style="list-style-type: none"> Establish policies, standards and guidelines for each of the key data management capabilities. Identify stakeholders which are held accountable for decision-making and authority for data-related matters Identify who is “accountable” for what data and implement discipline to draw insights from data.
MASTER DATA MANAGEMENT	The implementation of repeatable sets of business rules as well as supporting data management and data distribution systems that define the value, content, and structure of specific data and data attributes.	<ul style="list-style-type: none"> Define and standardize the data that is common and shared across and entities and IT systems Improve confidence in data provided through reporting and business intelligence solutions Obtain insights from data across the coalition for better and faster decision making Increase business process execution speed and improve quality of outcomes
DATA QUALITY	The processes and tools for verifying data within source systems and following standards so that business rules are in place to govern the usage and movement of data.	<ul style="list-style-type: none"> Have trust in the information provided from the various entities’ operational and analytical systems. Ensure users will be confident in the decisions they make and the manner in which they utilize the data. Free up analyst to spend more time on analyzing data vs. cleaning and “fact checking” the data. Provide the bedrock component of a successful information management solution.
DASHBOARDS, SCORECARDS, REPORTING	The process of converting transaction or production information into useful knowledge via available reporting tools for real-time dashboard), snapshot (scorecard), and detailed data display (reporting).	<ul style="list-style-type: none"> Provide actionable information to decision makers in user friendly format that fits the way they work. Capture real-time status of business execution and performance across the coalition or within a specific area.
SECURITY & PRIVACY	Addressing and maintaining enterprise security and data privacy standards, which are paramount to data management. In addition, assessing the current tools used to access and make reports and information available to users, which is critical to remaining compliant to both internal and external data standards.	<ul style="list-style-type: none"> Set the policy for how data should be classified and managed in a safe and secure manner Maintain compliance with federal and state regulations for specific types of data such as Personal Identifiable Information (PII) Ensure that only the appropriate people and systems have access to marked data Integrate data security into your Cyber Security strategy

DATA GOVERNANCE ORGANIZATION & STRUCTURE OVERVIEW

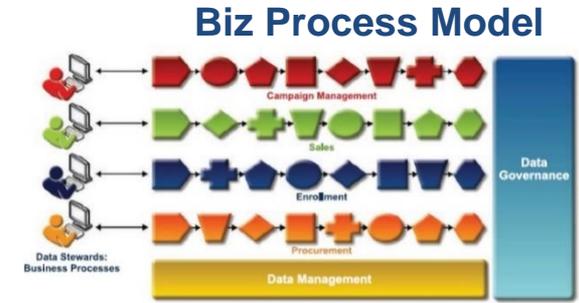
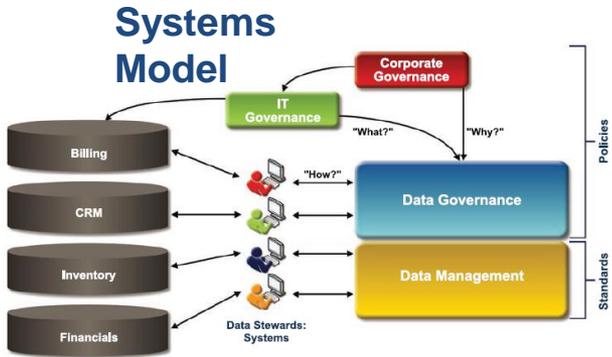
Determining the strategy and model for having an effective data governance team, across the coalition, is the first step in developing a data governance structure.

A sound data governance model and program includes a governing body or council, a defined set of procedures, and a plan to execute those procedures.

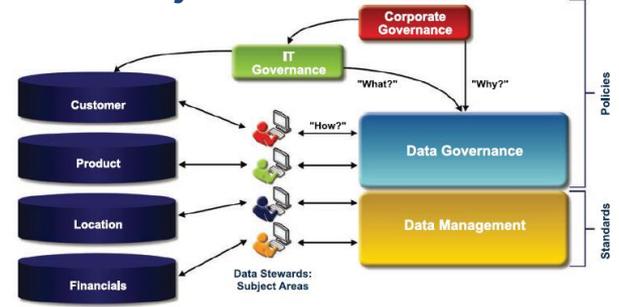


FRAMEWORK OPTIONS FOR THE DATA STEWARD WORKING GROUP

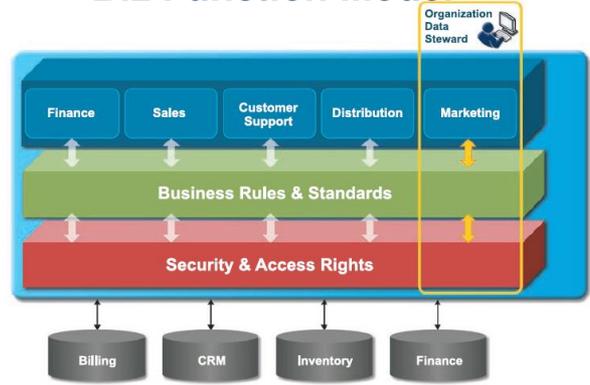
Members of the Data Steward Working Group are manager-level or above people who liaise between business and IT. They drive the data management and data quality for specific subject areas and have subject matter expertise for both business and IT issues.



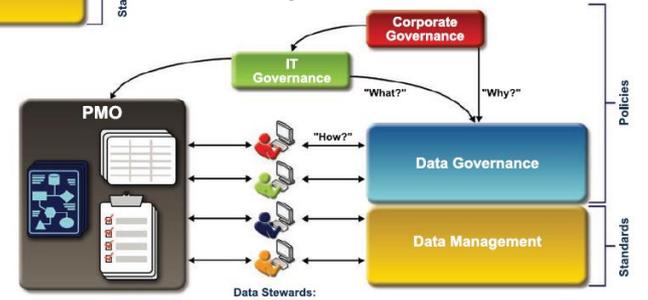
Subject Area Model



Biz Function Model



Projects Model

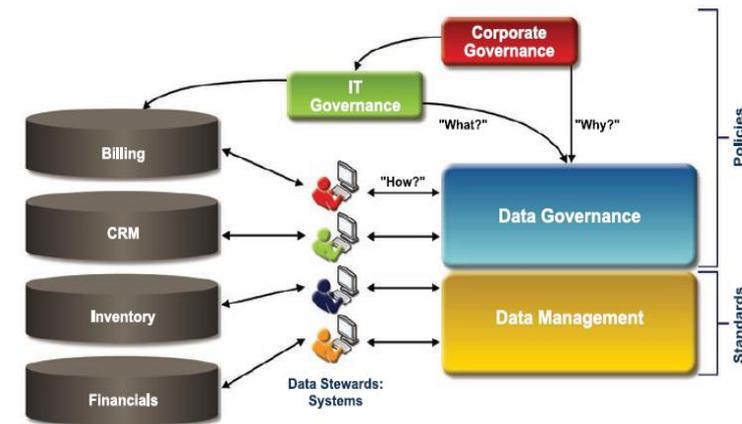


SYSTEMS MODEL

Assigns Stewards to systems that generate the data managed. This is a very IT-centric view. But in most companies, it's the systems of origin that are the culprits of poor DQ.

The benefits of system-oriented data stewardship include:

- IT is able to take a leadership role in data improvements in cases where the business is unfamiliar with data governance and stewardship.
- System-driven data stewardship can also drive data governance from the bottom-up, allowing IT to educate the business about the rules and policies it needs to make the data more useful to the business.
- Assigning multiple data stewards at once is more realistic. The IT edict that “each core system will have a data steward” becomes an established practice, demonstrating a focus on quality that can, in turn, invite closer IT-business alignment.



The risks of system-oriented data stewardship include:

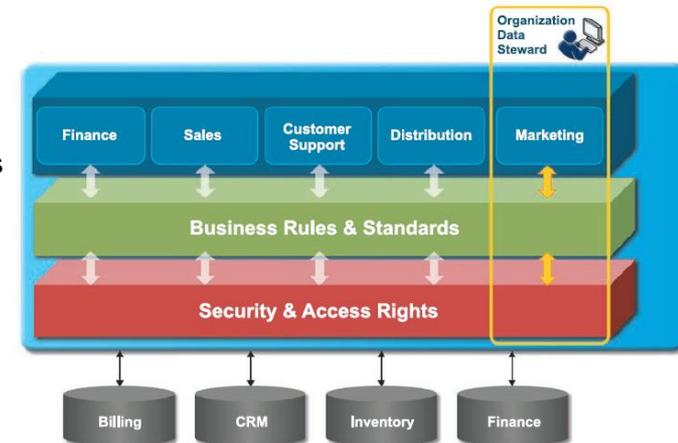
- Business people may equate data ownership with data stewardship, thus assuming stewardship to be “an IT issue” and demurring from conversations about policies and usage.
- Data stewards can become myopic as they maintain the integrity of the data on their systems according to specific processing needs and rules. A business-driven data governance framework is vital.
- A systems orientation doesn't ensure data sharing or reconciliation. Data stewardship at the system level doesn't mitigate the need for data quality, MDM or data integration solutions.

BUSINESS FUNCTIONAL AREA MODEL

The organizational data stewardship - focuses on the individual department or line of business using the data.

The benefits of a functional data stewardship model include:

- A data steward's scope that is bounded by the organization, which makes it easier for the data steward to establish definitions and rules, and mitigates the need for complex workflow.
- It's more likely that a data steward from within an organization will be business savvy and familiar with the data's context of usage.
- Functional data stewards that are naturally affiliated with business objectives of their departments, making it easier to delineate and socialize responsibilities.
- A data steward that is likely to know the business users of the data.



The risks of functional data stewardship include:

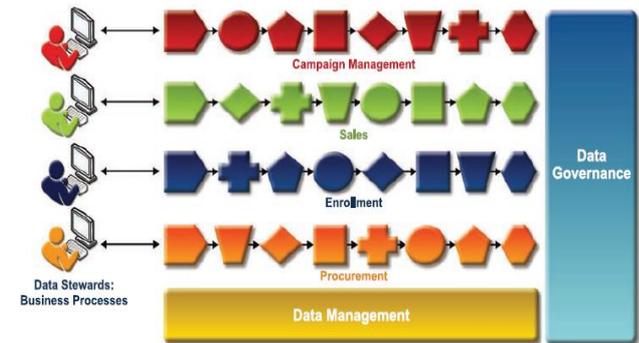
- In immature or political environments, multiple data stewards in different departments may be managing and manipulating the same data. This results in duplication of effort or conflicting policies and definitions.
- The nature of this model means that data stewards are rarely motivated or incented to collaborate with their peers across functional boundaries, thereby creating conflicting or redundant data silos.
- Functional data stewardship won't work in companies that have prioritized enterprise-class "single view" initiatives or consolidation programs. It requires strong differentiation in terms of rules, processes and procedures within individual departments, especially those that are not tied together at the corporate or fiscal level. For this reason, it requires a solid data governance environment.

BUSINESS PROCESS AREA MODEL

A data steward is assigned to a business process. This model is very effective for companies with a solid sense of enterprise-level processes.

The benefits of process-oriented data stewardship include:

- Companies become very comfortable circumscribing their business processes. Data stewardship is therefore seen as a natural extension of process definition.
- Success measurement is more straightforward. Measuring data quality or availability in the context of the business process that consumes the data is a reliable and easy-to-explain benefit of data stewardship.
- Once a company launches data stewardship for business processes, it is easy to justify additional data stewards for other processes. The process-oriented model is a very effective way to entrench data stewardship.



The risks of process-oriented data stewardship include:

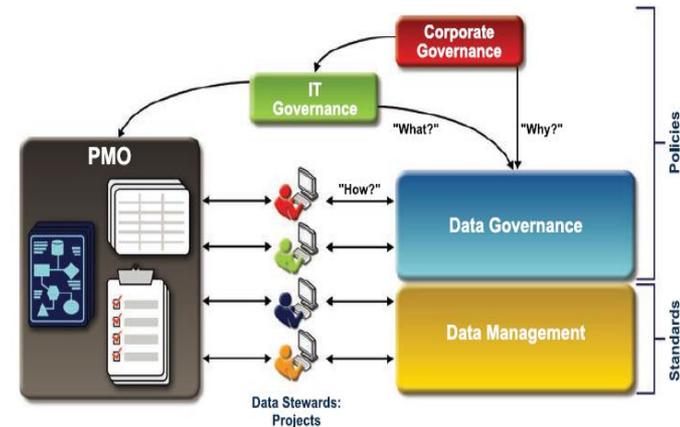
- Data ownership is more difficult to assign. Because multiple processes use common data (or should), multiple process owners may have different definitions or rules for the same data.
- Business constituents can get confused. Just as several business processes can use a single data element, multiple business processes can involve the same business community. Depending on the size of the organization and the complexity of its data, several different data stewards could solicit input from a single end-user.
- In this model, data stewardship is only as effective as the company is clear about its processes. For cultures where processes are non-existent or immature, process-based data stewardship may not be the best choice.
- In the dark of night, most companies will admit that the owners of their operational systems are not accountable for— indeed, many are simply unaware of—the data they generate.

PROJECT ORIENTED MODEL

A project-oriented approach may be a practical and fast way to introduce data stewardship – often a temporary measure.

The benefits of project-oriented data stewardship include:

- Speed. In cultures that take months to justify head count, the role of a project data steward can be introduced quickly without fanfare and job requisitions.
- Initial data stewardship processes can be tailored to the project's desired outcome, then subsequently refined for broader deployment.
- Success of data stewardship can be tied to the success of the project. While this could be seen as both a benefit and a risk, the ability to tell a story about the project's information delivery can be immensely helpful in communicating the value of data stewardship to a broader audience.



The risks of project-oriented stewardship include:

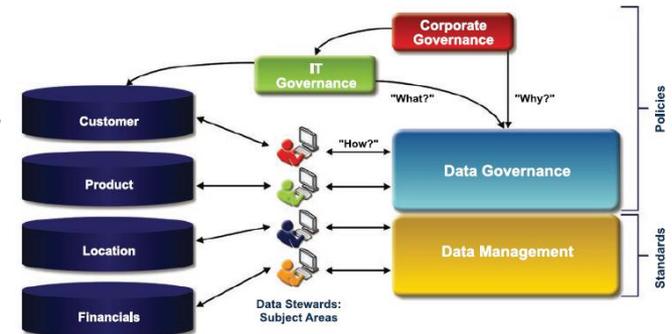
- A “project” implies a finite effort, implying that data stewardship is finished when the project is complete.
- Finding incumbent skills can be challenging. Ironically, it is the companies that use project-oriented data stewardship that lack people who are proficient in solid ‘data skills’. So-called “warm body syndrome” is a big risk here.
- Any data stewardship processes or technologies adopted within the context of project data stewardship may not be valuable to more enterprise-class data stewardship efforts. Positioning project data stewardship as a pilot helps.

SUBJECT AREA MODEL

Data steward owns and manages a discrete data subject area.

The benefits of a data subject area oriented stewardship model include:

- Ownership boundaries that are usually clear.
- The data steward's knowledge of the accompanying business rules and usage environments for her data subject area are likely to increase over time.
- This model is often easy to pitch: we need someone to own customer data.
- Most business people would agree.



The risks of data subject area stewardship include:

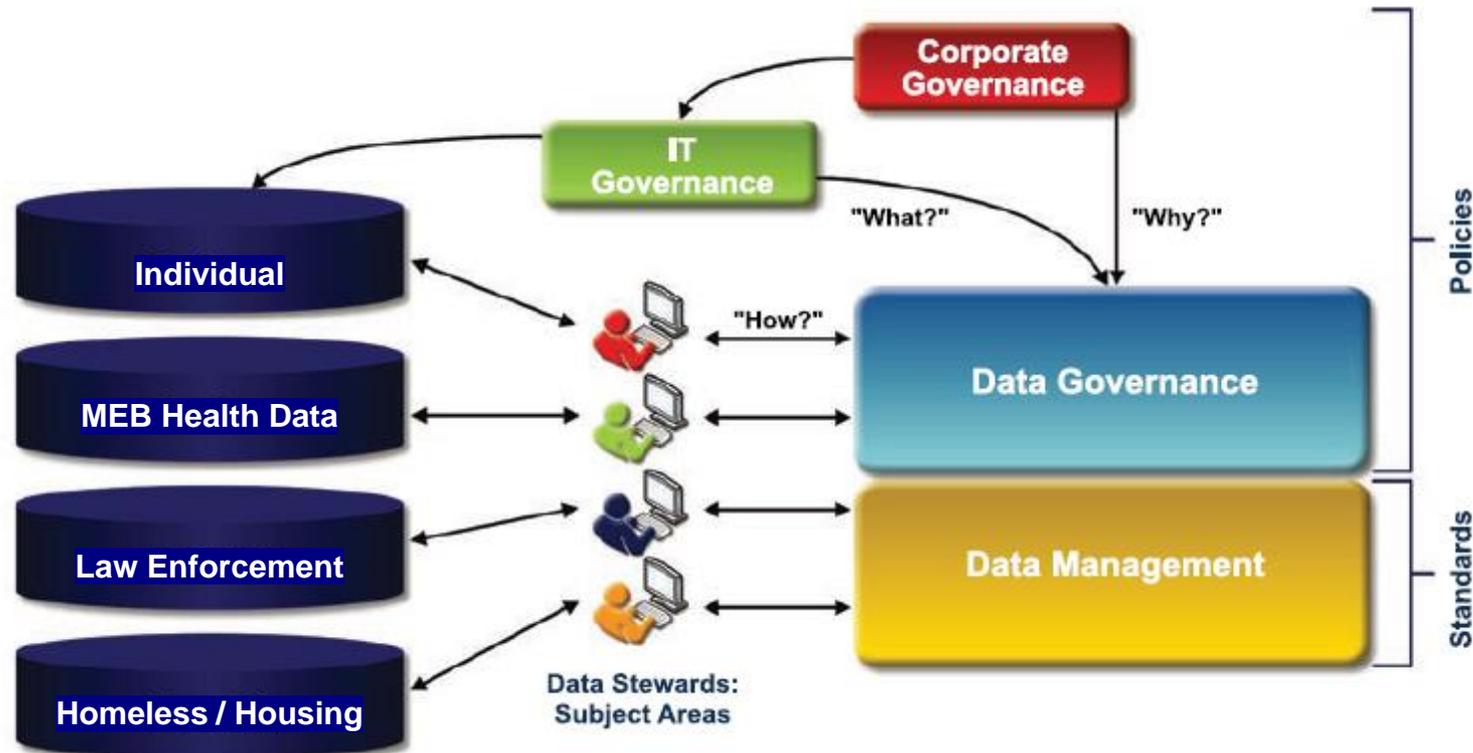
- Measuring the data steward usually focuses on data quality improvements at the expense of broader business benefits like customer retention or consolidated item master.
- The potential size and scope of a given data domain – across multiple organizations, processes, and business applications – may make finding qualified data stewards challenging.
- Subject area data stewardship can be fraught with political landmines. Folks refuse to cede control.
- It can be difficult to tie the data steward to actual business initiatives since the data steward can only be as effective as the business initiatives he supports. Therefore, Model 1 data stewardship calls for tested relationship-building skills.

CONSIDERATION: SUBJECT AREA MODEL

The Subject Area Model is recommended since LCMHC will be bringing data in from many different entities and disparate systems:

- The data will be brought in, integrated, and normalized along key subject areas of interest to all coalition members.
- The coalition will be best served to have Data Stewards who have the knowledge and expertise to provide standards and definitions in each of the subject areas.

Subject Area Model



DISCUSSION – BEGIN TO ALIGN ON A DATA GOVERNANCE & SUBJECT AREAS

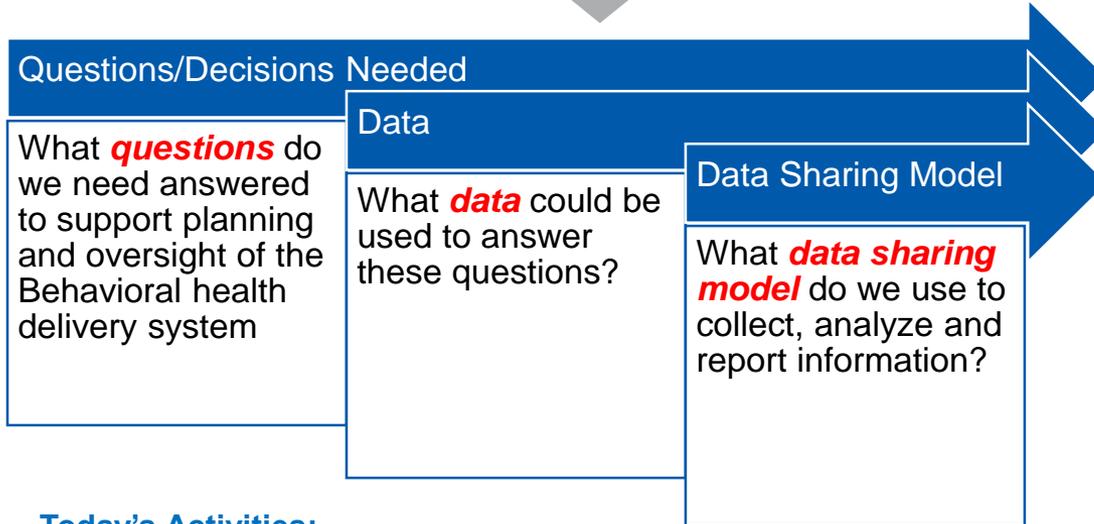
- **Based upon the experiences of your own organization’s data governance programs:**
 - **What Data Governance Organization Structure / Model would work best for the Lake County Mental Health Coalition?**
 - **Based upon your knowledge and experience, what would be the subject areas that should be established for the coalition and have data stewards assigned to?**
 - **If the coalition eventually wants individual level data (PII), discuss whether a subject area around Individual / Participant Master Data Management (MPI – master patient indexing) is needed?**

DISCUSSION – DATA GOVERNANCE APPROACH

- Identify and discuss what might be the potential approach and next steps for Data Governance around the 3 major areas just discussed:
 - People
 - Process
 - Technology

RECAP OF TODAY AND IN THE FUTURE

Today we are continuing to align on these questions



Today's Activities:

- Share your preferences based on materials from the last workshop and the homework assignment
- Share your preferences based on a potential approaches we'll share today
- **North Highland will be utilizing your collective input from today to contribute in creating future visioning documents to support the collation members in deciding upon the vision for the future.**

So that we can do this:

- Agree on a **VISION**
- Future Data Sharing Model



Create a detailed implementation plan

NEXT STEPS

- ***October 9th Coalition Meeting***
 - ***Based on the Current state Assessment and information gathered from the Coalition members and stakeholders North Highland will***
 - Present a Proposed Data Sharing Model Overview of phased approaches
 - Background and “Why” of chosen approach
 - Information on short term wins and long term gains
 - Benefits of each phase
 - Action plan
 - Recommended next steps to pursue a data sharing model
 - Facilitate a discussion round the recommendation to recruit feedback