Camden Coalition
of Healthcare Providers

Building Collaborations in Healthcare

HASC Annual Meeting
May 1, 2019

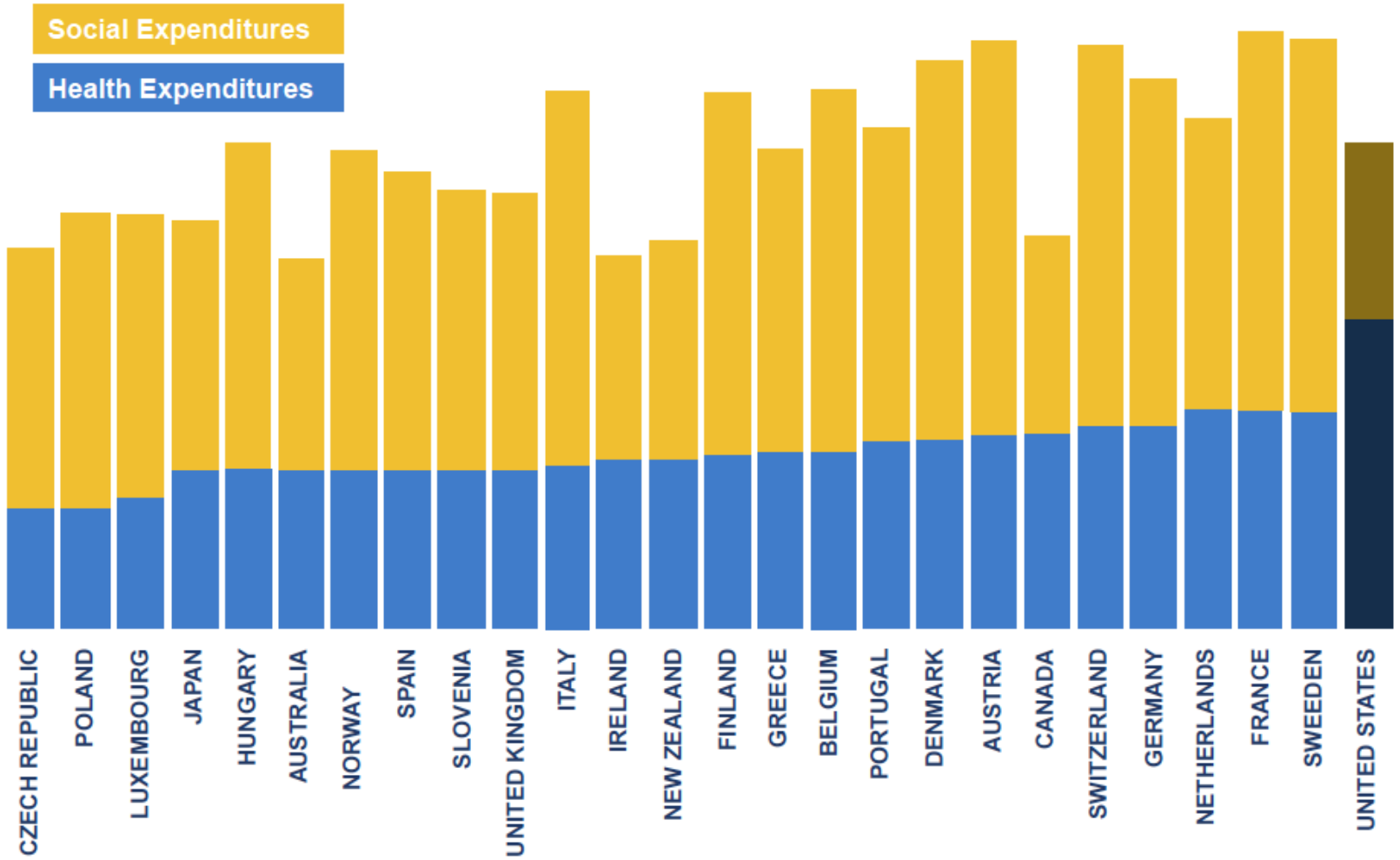
Victor Murray
Director of Care Management Initiatives

The healthcare paradox that exists in Camden is also evident on the national level. The US spends more money than any other OECD country on healthcare & still has poor health outcomes.

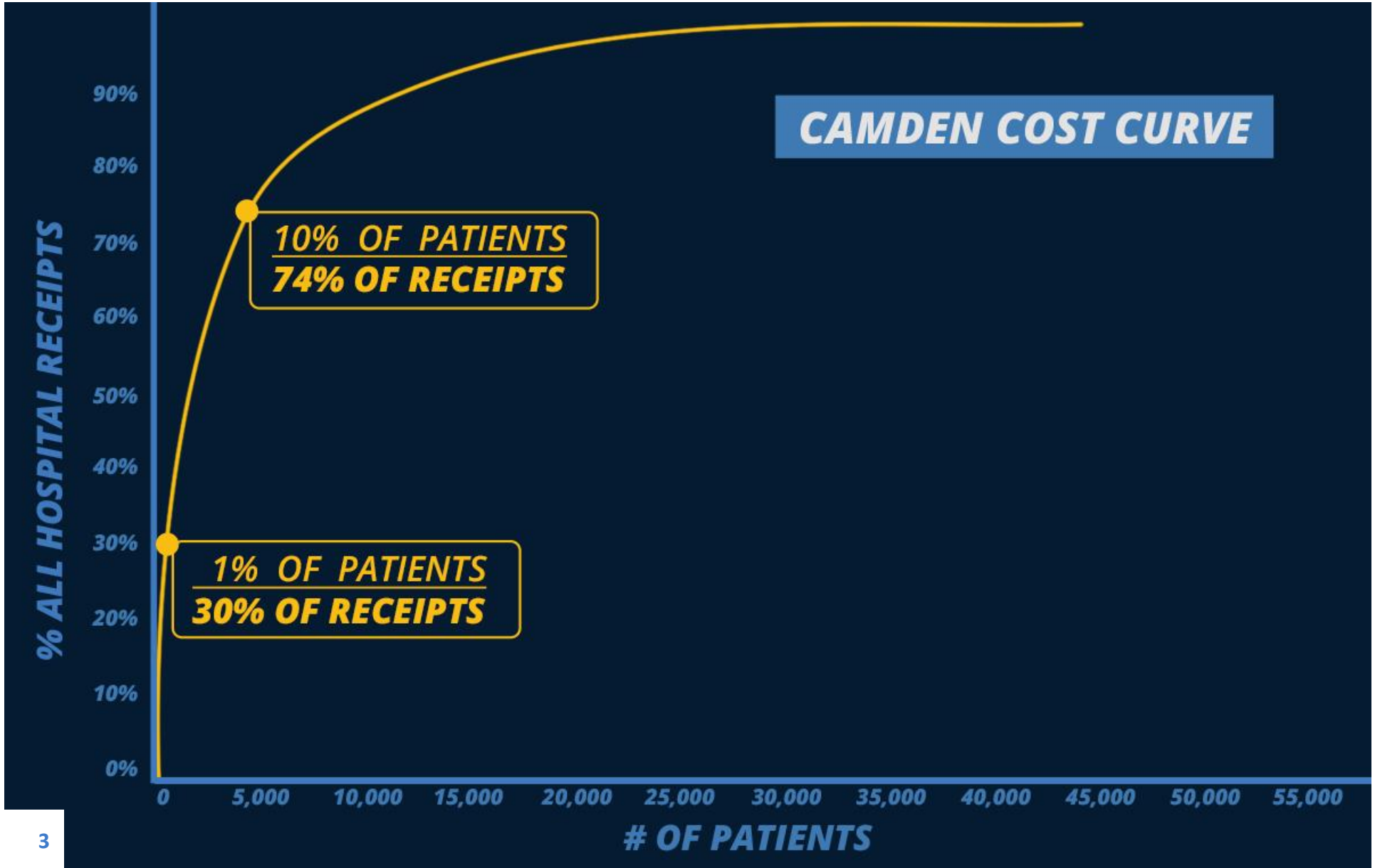
Countries ranked by amount spent on health expenditures

2009 United States spends the most (out of top 26 countries)

Source: American Healthcare Paradox



Compared to New Jersey residents as a whole, Camden residents experience worse health outcomes despite disproportionate spending on healthcare.



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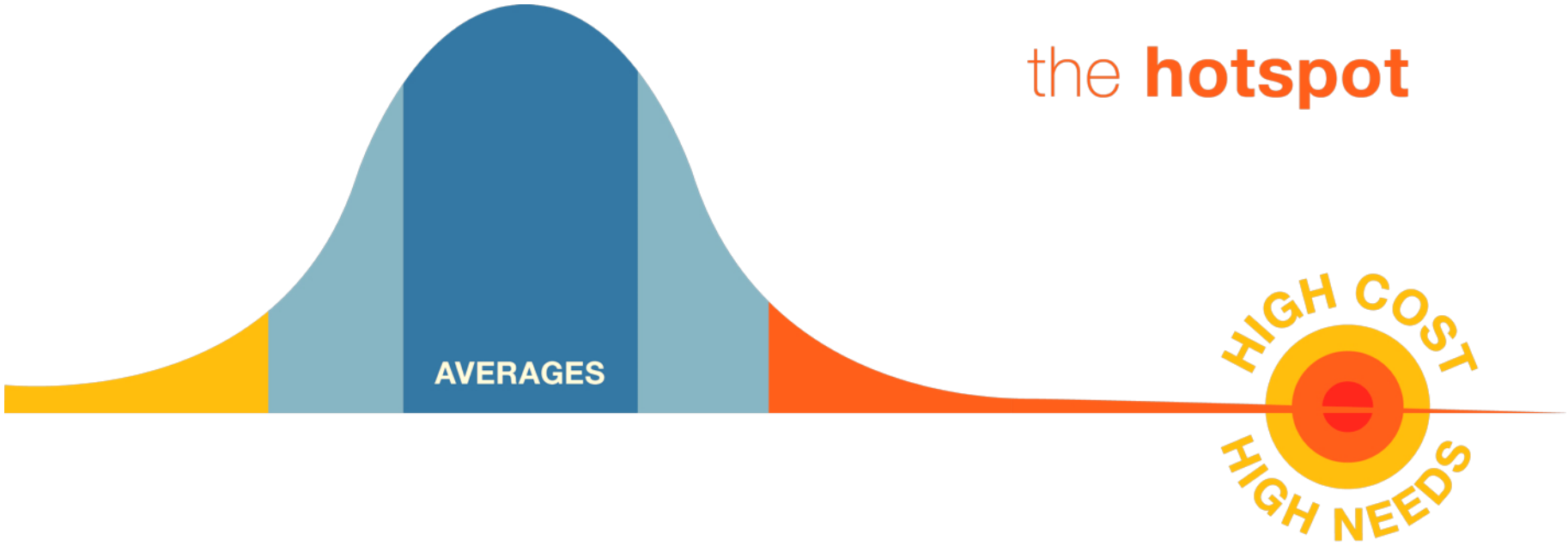
In Camden & across the country a small number of outlier individuals account for a disproportionate amount of healthcare costs & utilization.



- **Healthcare hotspotting** is the strategic use of data to target evidence-based services to complex patients with high utilization.
- These patients are experiencing a mismatch between their needs and the services available.

Our Vision & Mission describe our goal of a transformed healthcare system rooted in Camden and spreading across the country.

VISION

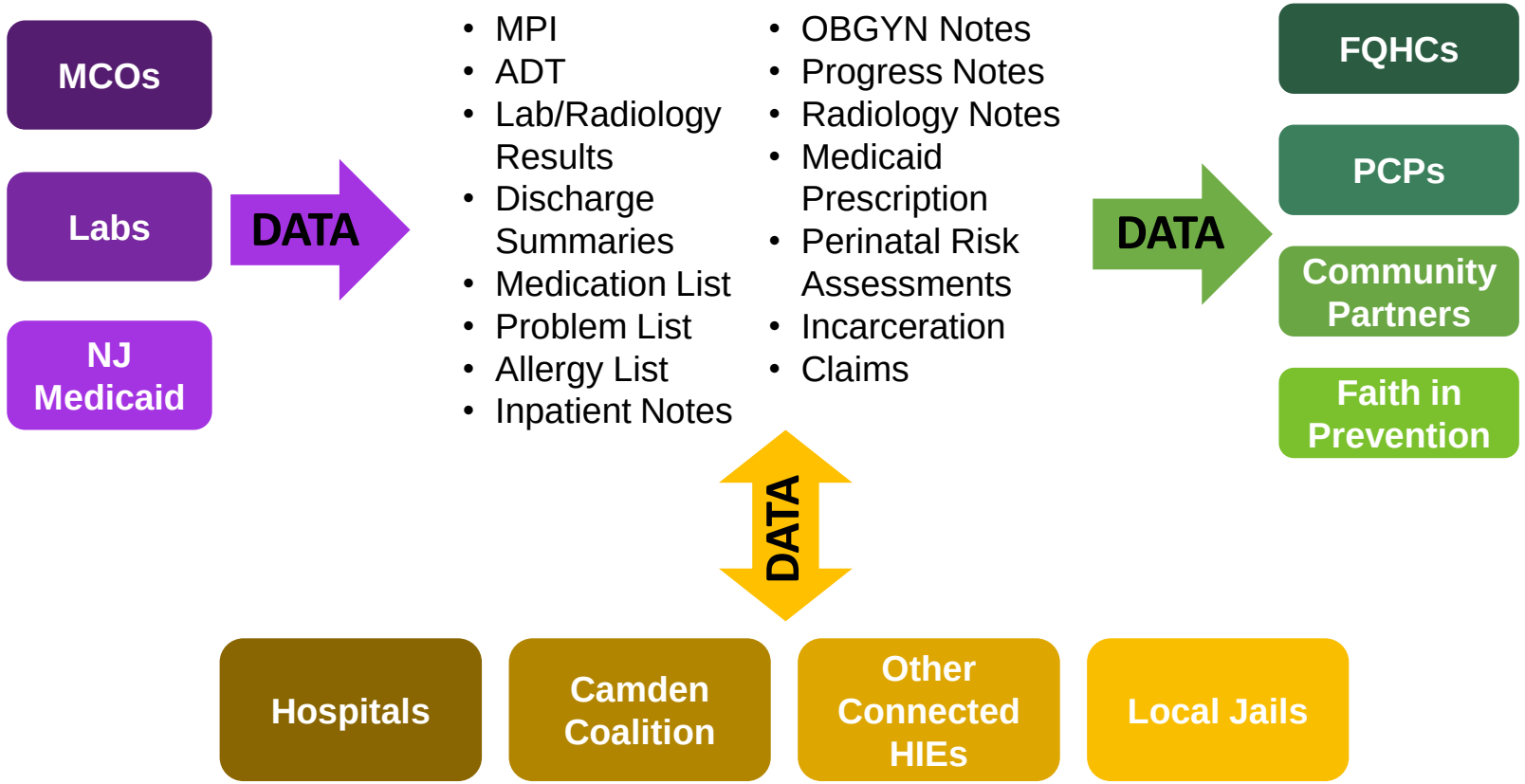
A transformed healthcare system that ensures every individual receives whole-person care rooted in authentic healing relationships.

MISSION

Spark a field and movement that unites communities of caregivers in Camden and across the nation to improve the wellbeing of individuals with complex health and social needs.

Our **Health Information Exchange** (HIE) is a secure way to share medical records. The HIE is also used to identify individuals for interventions & provide real-time patient status alerts to care teams.

DATA POINTS



INTERVENTIONS	DATA	SYSTEMS

Our data sharing relationships began with the three hospital systems in the City of Camden. Being good stewards of shared data has enabled us to build and maintain a robust data infrastructure.

camden county
Correctional Facility

Existing Data Sharing

- Hospital claims from 5 regional health systems
- Camden County Police Department (arrest, call-for-service, & overdose)
- Camden County Corrections & State Prison data
- Enrollment, truancy, & suspension data
- Property Data
- Perinatal Risk Assessment data
- Medicaid Claims data

INTERVENTIONS | DATA | SYSTEMS

The Camden Coalition's data-driven approach is an essential component to transformation at the individual, institutional and systems levels.

Individual

Our data infrastructure allows us to find patients who qualify for our interventions, measure individual health outcomes and patient progress towards their own goals, and identify and assess individual gaps in care.

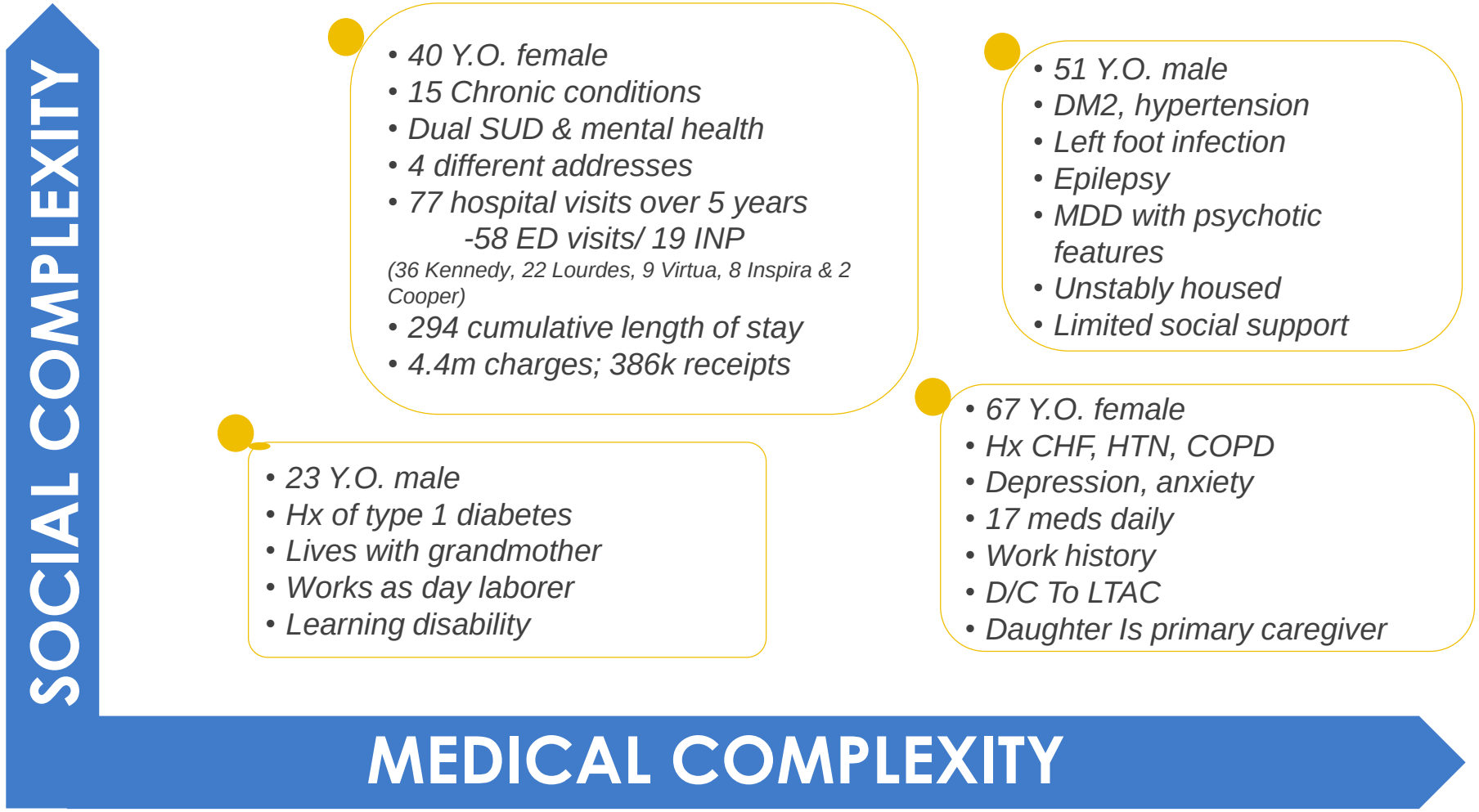
Institutional

Our data infrastructure allows us to track, evaluate and optimize our care interventions, assist other medical and social service providers in monitoring patients' care, and identify gaps in care that could be solved through collaboration and institutional improvements.

Systemic

Our data infrastructure allows us to identify systemic issues that could be fixed through administrative, regulatory or legislative reform, evaluate our programs to build the business case for investment in complex care, and better understand the education needs of the field.

a social complexity and medical complexity spectrum to identify patients' r
em gaps.



INTERVENTIONS | **DATA** | **SYSTEMS**

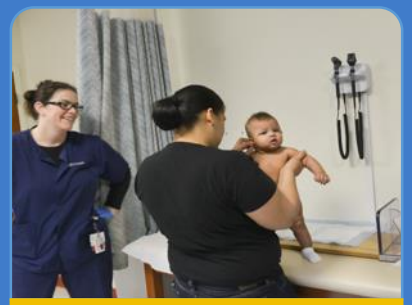
Camden Coalition works to improve the health & well-being of individuals with complex health & social needs in the Camden region.

Camden Core Model

Connection to Primary Care

Housing First

Reentry Program



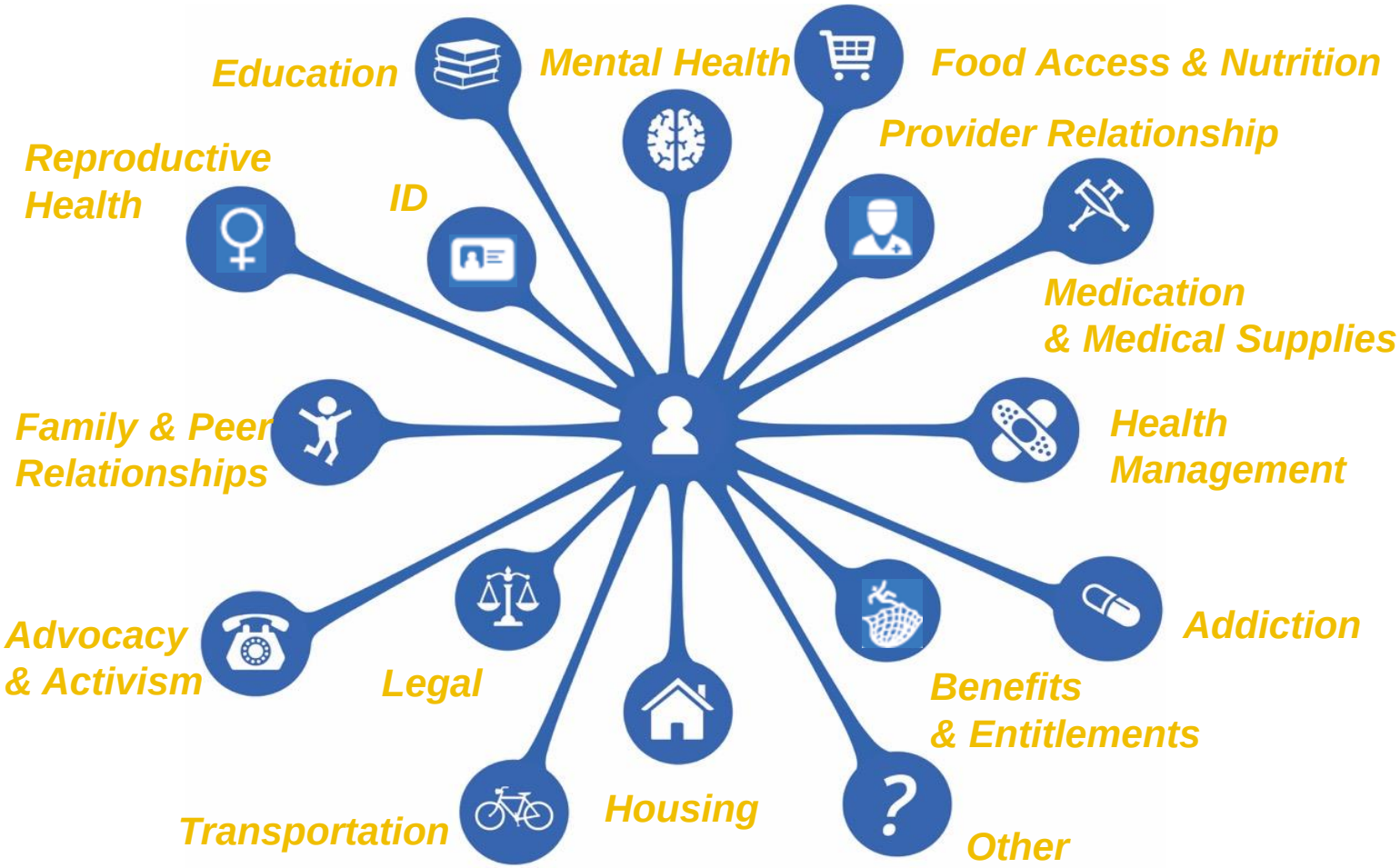
Maternal Health

Addiction Treatment

Medical-Legal Partnership

INTERVENTIONS	DATA	SYSTEMS

ixteen domains to engage individuals in bedside care planning. **Most of the dical.**



INTERVENTIONS | **DATA** | **SYSTEMS**

As neutral conveners, Camden Coalition works regionally & nationally to transform systems of care through advocacy, field development, training & technical assistance.

SOUTH JERSEY
BEHAVIORAL HEALTH
INNOVATION COLLABORATIVE

Cooper University Health Care · inspira HEALTH NETWORK · KENNEDY HEALTH · LOURDES HEALTH SYSTEM · Virtua · NJHA New Jersey Hospital Association · Camden Coalition of Healthcare Providers

The Camden Coalition's data-driven approach is an essential component to transformation at the individual, institutional and systems levels.

Data Analysis
Understand the Population and the opportunity.

Asset Mapping
Understand the strengths in the organization, the possibilities for partnership and the opportunities to build something new.

Design
Informed by data and asset mapping – answer the question "What is the problem we are trying to solve?"

INTERVENTIONS | DATA | SYSTEMS

Data analysis is an opportunity to understand the problem more deeply.

- **Community health needs assessment performed by hospitals in Burlington, Camden and Gloucester counties**
- **Qualitative Stakeholder Interviews**
- **Quantitative data from clinical delivery sites**

What are the top 5 health issues you see in your community?

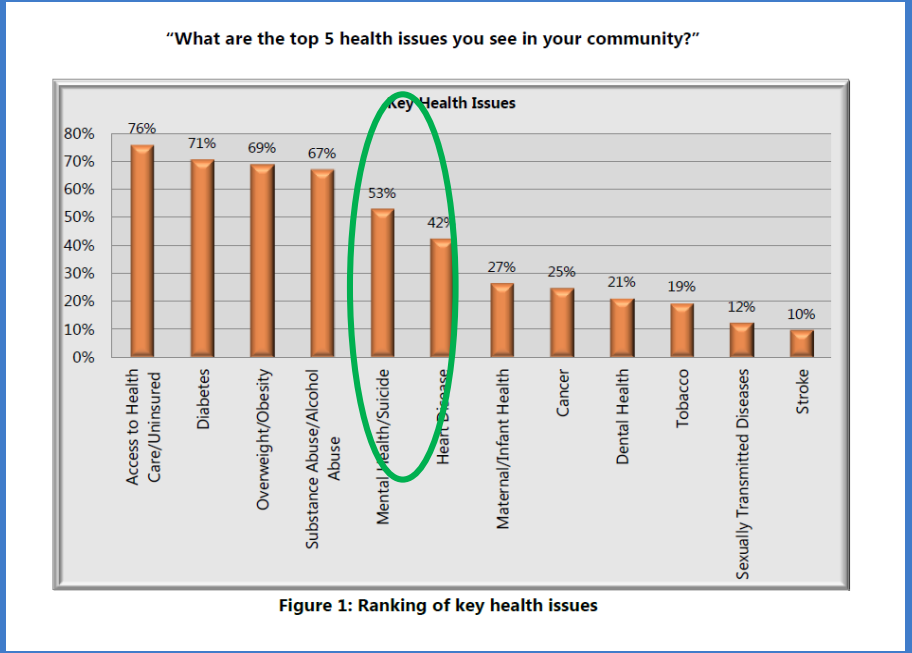
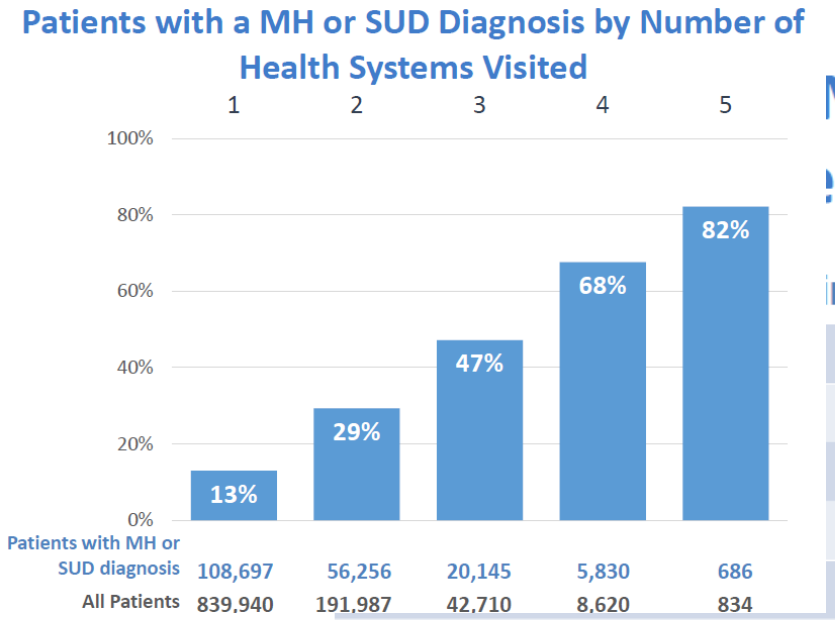


Figure 1: Ranking of key health issues

Data analysis is an opportunity to understand the problem more deeply.



MH or SUD Diagnosis
Five Health Systems

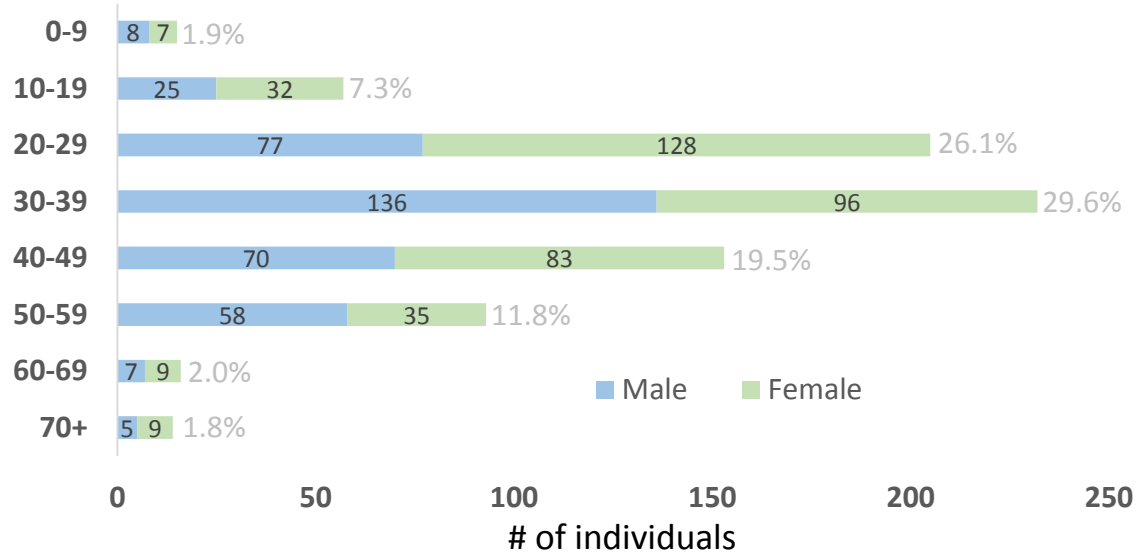
	mum	Average	Maximum
	2	**36 years**	94
	5	**43 visits**	434
	2	**40 visits**	431
	0	**3 stays**	61
	0	**68 days**	404
Stay Length	0	**4 days**	64
Days Spent in the Hospital	0	**33 days**	402
Charges	$6,928	**$378,732**	$4,432,220
Hospitals' Payments	$0	**$45,849**	$641,620
Municipalities inhabited	1	**7**	18
Chronic Conditions	1	**7 conditions**	23

786 five-hospital utilizers

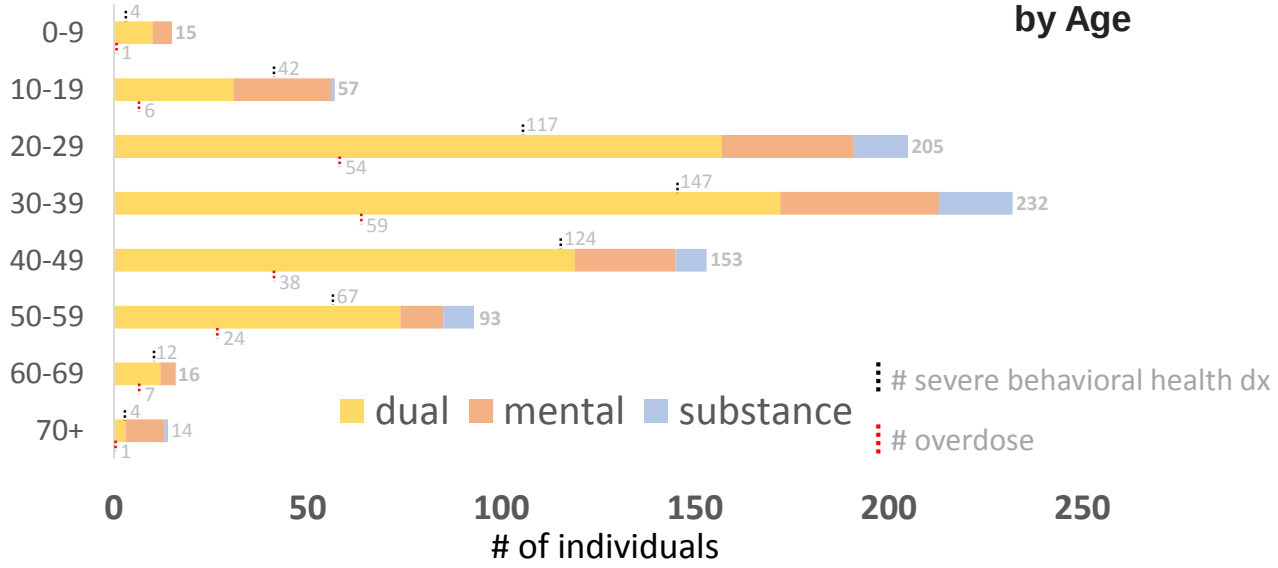
total hospital visits: **31,777**
- ED: **29,414**
- Inpatient: **2,364**
- Total LOS: **22,651**
- Total Charges: **$262m**
- Total Receipts: **$32m**

Top Residential Cities	Count	%
Camden	138	17.6%
Gloucester City	55	7.0%
Clementon	39	5.0%
Sicklerville	35	4.5%
Bellmawr	26	3.3%
Woodbury	24	3.1%
Blackwood	23	2.9%
Cherry Hill	23	2.9%
Williamstown	23	2.9%
Glassboro	16	2.0%
Vineland	16	2.0%

Age & Gender Breakdown



Behavioral Health Breakdown by Age



INTERVENTIONS | DATA | SYSTEMS

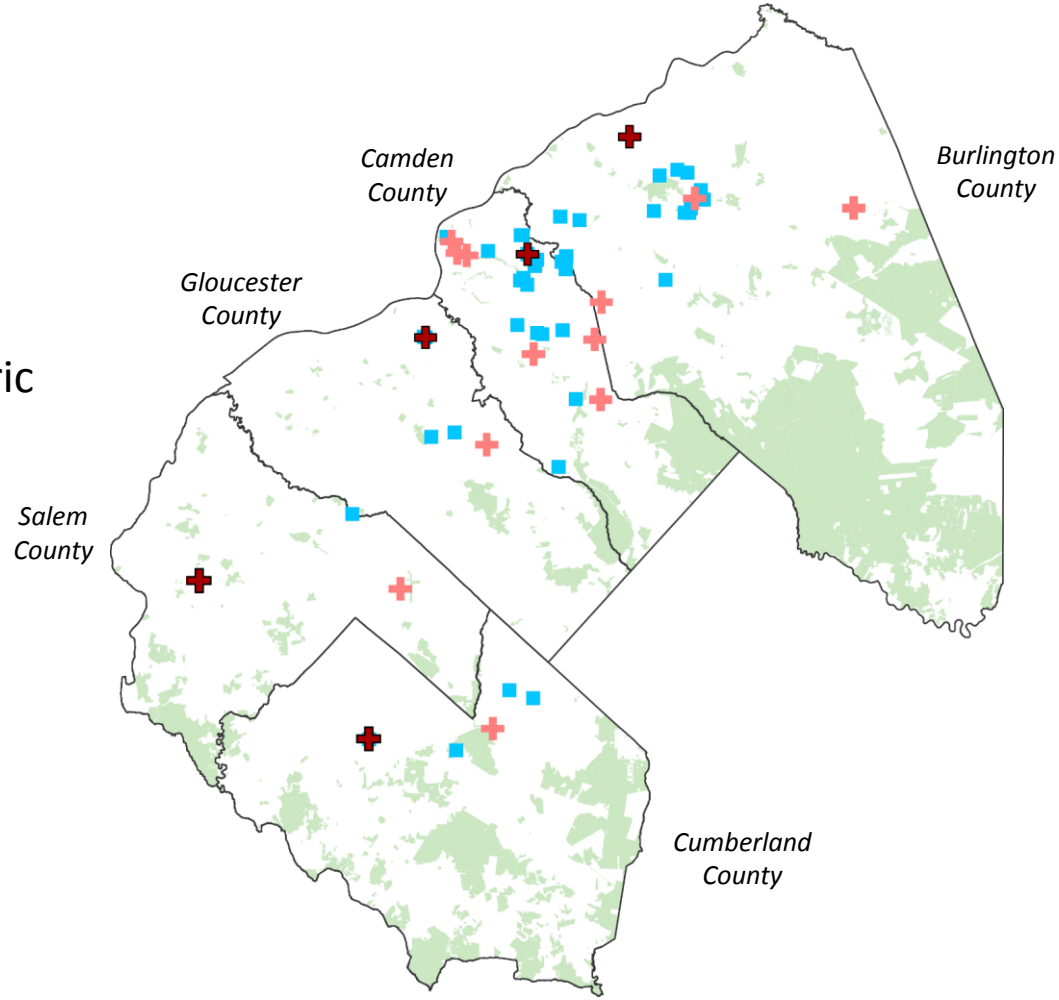
We heard a range of opinions with regards to the current state of New Jersey's behavioral health system.

On one end of the spectrum, the system was described as "abysmal" and "broken and chaotic." Others stated that while there are a "tremendous amount of services out there," these services are "disjointed," "not applied well," and many consumers "lack access to services" for a host of reasons. Other informants describe the system in a better light, stating "Over the same years that states have lost funding (New Jersey) has always received growth…when you look at the system as a whole, it really is a much different system than it was, even five years ago" and "I think that the continuum of service that the state has in place are pretty darn good. It's just that they're not adequately funded to meet the demands placed on them."

Community Asset Mapping helps understand the strengths in the region, the possibilities for partnership and the opportunities to build something new.

Service Locations

- Hospital with psychiatric screening center
- Hospital without psychiatric screening center
- Community partner location



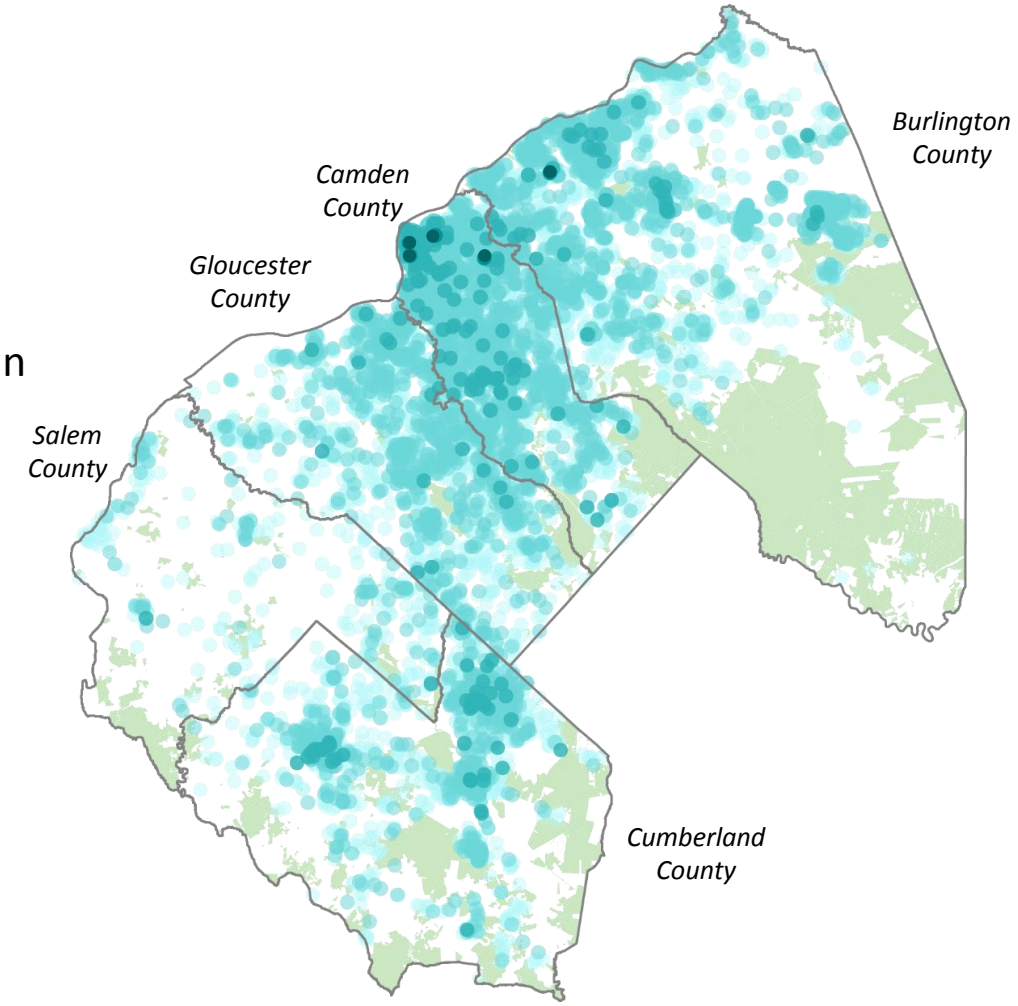
Community Asset Mapping helps understand the strengths in the region, the possibilities for partnership and the opportunities to build something new.

Density of visits with primary behavioral health dx

Visit =

- To SJBHIC partner hospital in 2014
- Includes all admit types (examples: ED only, ED to Inpatient, straight to Inpatient)

- 1 visit
- 2 - 10 visits
- 11 – 100 visits
- 101 – 203 visits



INTERVENTIONS | DATA | SYSTEMS

SJBHIC strategy is rooted data in coalition-building and working towards shared goals.

Where we came from:

- *Measuring Consistency*
  Alongside improved capacity and competency, the Regional Dashboard will enable the SJBHIC to monitor consistency throughout the system.
- *Improving Competency*
  While increasing access to treatment is important, level setting and providing opportunities for new learnings among those delivering care is also vital towards achieving system-wide, person-centered care.
- *Increasing Capacity*
  An important component of the SJBHIC's work thus far has been building the capacity of our region to serve the growing behavioral health patient population.

Where we are going:

- *Stakeholder Engagement*
  Build relationships among stakeholders in the behavioral health community focused on increasing connections, building collaborations, and identifying strategic partnerships required to move innovations forward.
- *Regional Model Feasibility Study*
  Explore the feasibility of a regional psychiatric emergency center as an alternative to the ED for patients in need of mental health services.
- *Regional Behavioral Health Case Conferencing Pilot*
  Pilot a regional intervention focused on developing care plans for complex behavioral health patients and sharing care plans via a regional Health Information Exchange (HIE) and multi-health system case conferencing.

INTERVENTIONS	DATA	SYSTEMS

SJBHIC strategy is rooted data in coalition-building and working towards shared goals.

Regional BH Case Conferencing "Golden Ticket"

Goals:

- Engage patient care & Care team via evidence-based individualized clinical approaches
- Streamline treatment processes reducing time consuming steps that do not add value clinical quality

Short-term:

- Reduction in ED visits, admissions & LOS with each admission
- Decreased allocation of resources ERP care/ Nursing Care/1:1/Social Work
- Decreased episodes of violence

Long-term:

- Replicable Multidisciplinary Treatment Planning Model as a best practice
- Re-allocation of resources to ensure to "right care/ right place/ right time"
- Patient & community partner engagement & participation
- Improved behavioral functioning of individual patients

INTERVENTIONS | DATA | SYSTEMS

Every year the National Center hosts a conference, **Putting Care at the Center,** in a new city to grow our reach. This year's conference will be held in **Memphis, Tennessee, November 13-15**.

INTERVENTIONS | DATA | SYSTEMS

THANK YOU

SJBHIC Quantitative Data

1,629,845 unique identifier combinations (Name, DOB, Gender, MRN, SSN) across 5 hospitals through 2010-2014

Deterministic Match:
1) SSN, **2)** Name (Fuzzy) & DOB & Gender **3)** MRN

786 individuals with visits at all five health systems

- May increase as we continue to clean data and conduct probabilistic match
- There are *many more* four-health system utilizers

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Case Study 1

~40 y/o female

Medicare A/B

Dual Substance-Abuse & Mental Health

- alcohol, anxiety, depression (severe), drug

15 chronic conditions

4 different addresses

77 hospital visits over 5 years

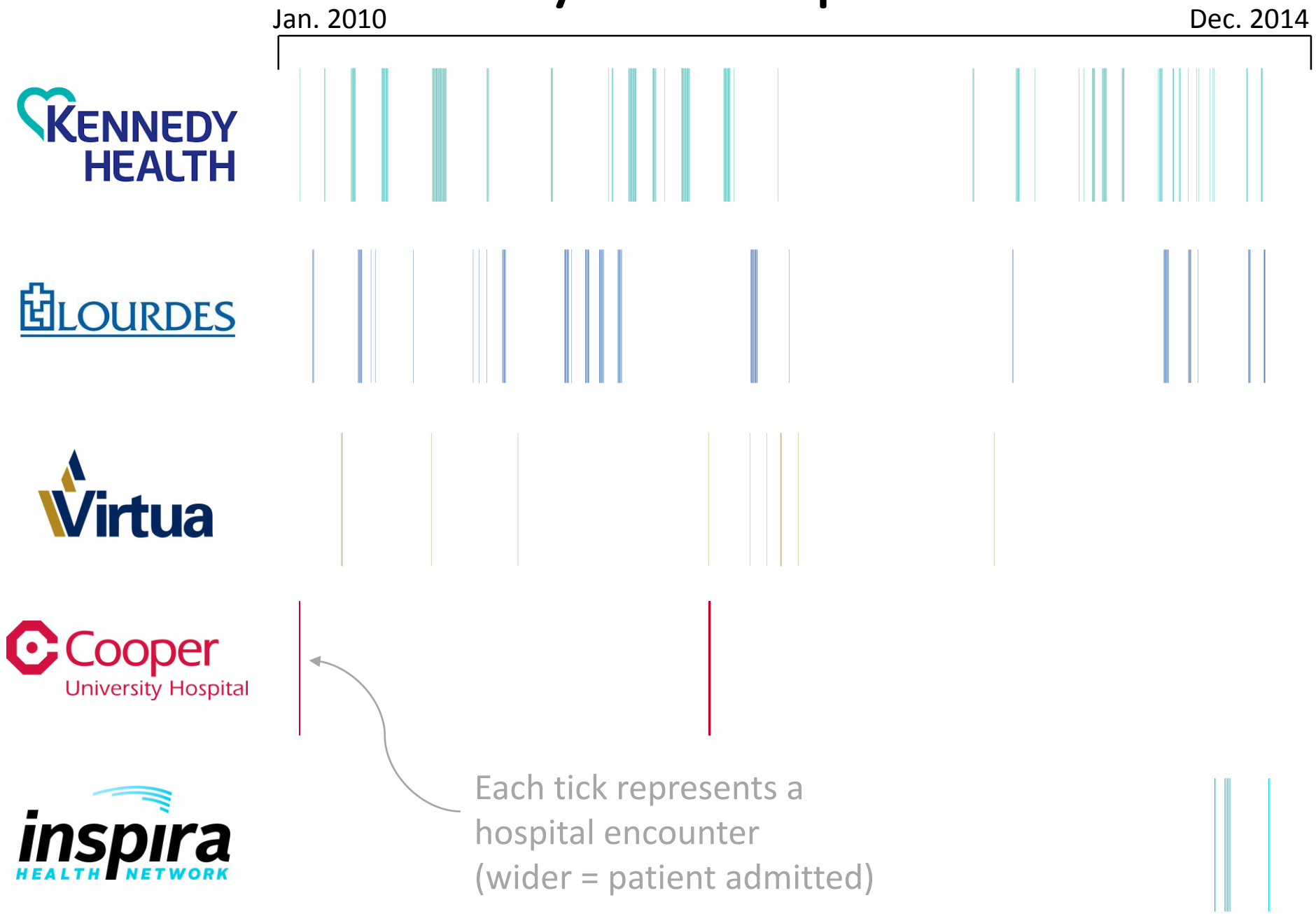
- 58 ED, 19 INP
  - 36 Kennedy; 22 Lourdes; 9 Virtua; 8 Inspira; 2 Cooper
  - 294 cumulative length of stay
  - $4.4m charges; 386k receipts

Case Study 1

Clinical Classifications Across 5 years

unspecified benign neoplasm liver diseases gastrointestinal disorders heart valve disorders
diseases of white blood cells rheumatoid arthritis pulmonary heart disease nutritional deficiencies bacterial infection esophageal disorders **mood disorders** other diseases of kidney and ureters acute cerebrovascular disease **congestive heart failure** gout and other crystal arthropathies spondylosis; other back problems **chronic obstructive pulmonary disease** and bronchiectasis
nervous system disorders cardiac dysrhythmias other circulatory disease ill-defined heart disease nausea and vomiting urinary tract infections pneumothorax; pulmonary collapse **diabetes mellitus with complications** gastritis and duodenitis other connective tissue disease regional enteritis and ulcerative colitis blindness and vision defects genitourinary symptoms and ill-defined conditions late effects of cerebrovascular disease coagulation and hemorrhagic disorders skin and subcutaneous tissue infections **acute and unspecified renal failure** deficiency and other anemia
respiratory failure; insufficiency; arrest (adult) complications of surgical procedures or medical care peri-; endo-; and myocarditis; cardiomyopathy **diabetes mellitus without complication** biliary tract disease disorders of lipid metabolism hemorrhoids malaise and fatigue **substance-related disorders** administrative/social admission **chronic kidney disease** **hypertension with complications and secondary hypertension** fluid and electrolyte disorders
conduction disorders headache; including migraine intestinal obstruction without hernia **alcohol-related disorders** disorders of teeth and jaw coronary atherosclerosis and other heart disease **anxiety disorders** other lower respiratory disease phlebitis; thrombophlebitis and thromboembolism nonspecific chest pain systemic lupus erythematosus and connective tissue disorders acute myocardial infarction e codes: adverse effects of medical drugs septicemia
gastrointestinal hemorrhage peripheral and visceral atherosclerosis acute posthemorrhagic anemia **screening and history of mental health and substance abuse** other ear and sense organ

Case Study 1 – Hospital Utilization



Case Study 1 – Hospital Utilization

Mental Health
Substance Abuse

Jan. 2010 Dec. 2014

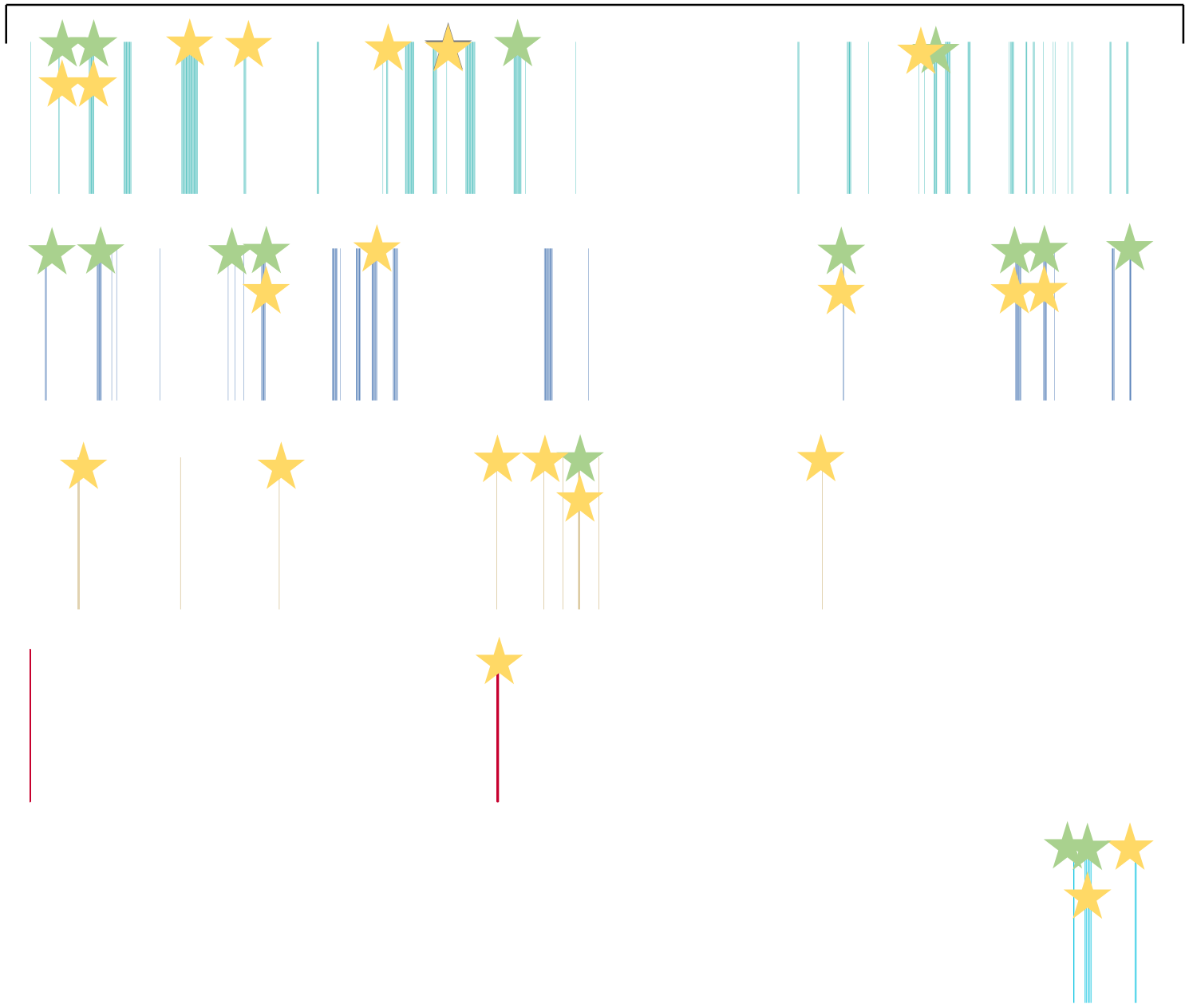
KENNEDY HEALTH

LOURDES

Virtua

Cooper University Hospital

inspira HEALTH NETWORK



Pilot Project: Alcohol Withdrawal Protocol

Goals:

- Establish work team to assess protocols & recommend changes in key areas:
  - Drafting of protocols & review/approval processes
  - Documentation, compliance monitoring, evaluation & measures
  - Training & communication to hospital staff

- Identify screening tools/protocols & reviewed for variation of practices.

- Share discussions on tools & protocols to promote best practices

Potential Impact:

- Decreased **Average length of stay (ALOS)**
- Decreased **Use of restraints**
- Decreased **Code Grey**
- Decreased **Patient/staff injury**

Pilot Project: Integration of Psychiatric APNs into Emergency Departments

Goal:

- Develop model for integrating Psych. APNs into ED treatment teams

Planned Impact:

- Decreased **ED ALOS for BH patients**
- Enhanced **overall ED throughput**
- Decreased **number of restraints of BH patients in ED**

South Jersey Behavioral Health Innovations Collaborative

- Community health needs assessment performed by hospitals in Burlington, Camden and Gloucester counties
- Camden Coalition of Health Care Providers convenes the CEOs for a roundtable discussion
    - CEOs decide to pursue joint initiatives to improve the behavioral health system

What are the top 5 health issues you see in your community?

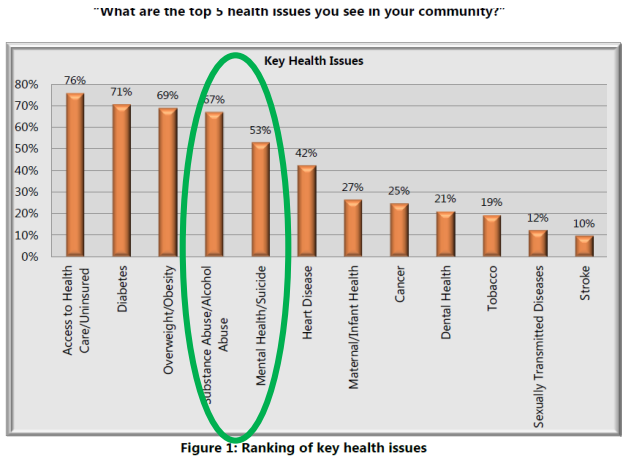
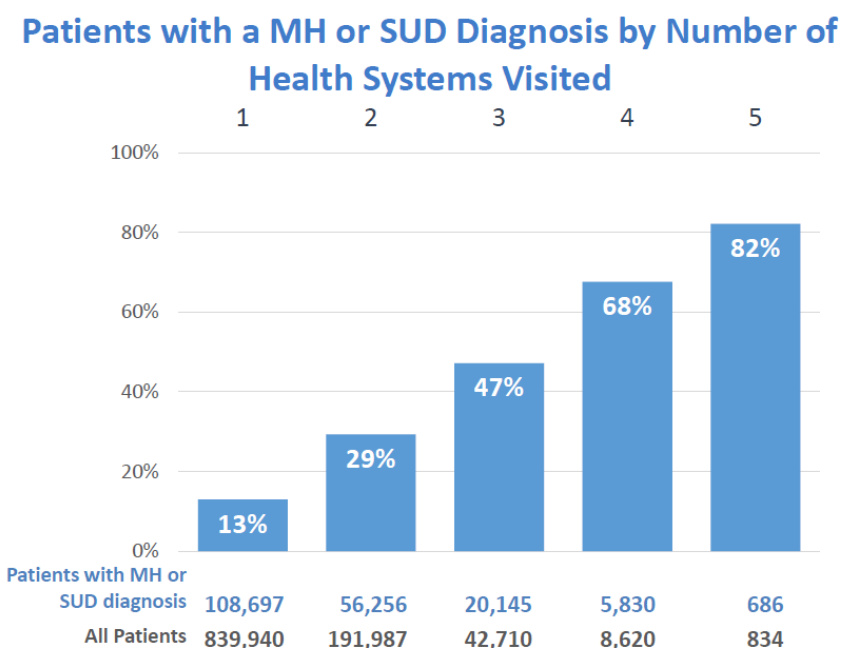


Figure 1: Ranking of key health issues

Data Analysis



CASE STUDY: *Jane

- About 40 years old, female
- Insured by Medicare parts A and B
- Dual substance use disorder and mental health issues: alcohol, anxiety, severe depression and drug use
- Has 15 chronic conditions
- Lived at 4 different addresses from 2010-2014
- 77 hospital visits spanning all 5 hospitals in 5 years: 58 emergency department, 19 inpatient
- Accumulated 294 days in the hospital, $4.4 million in charges during those 5 years
- Hospitals reimbursed $386,000 for her care

**Jane is a real person, whose name has been changed and data anonymized to prevent identification.*

Data Analysis

Patients with a MH or SUD Diagnosis Who Visited the Five Health Systems

	Minimum	Average	Maximum
Age	2	**36 years**	94
Hospital Visits	5	**43 visits**	434
ED Visits	2	**40 visits**	431
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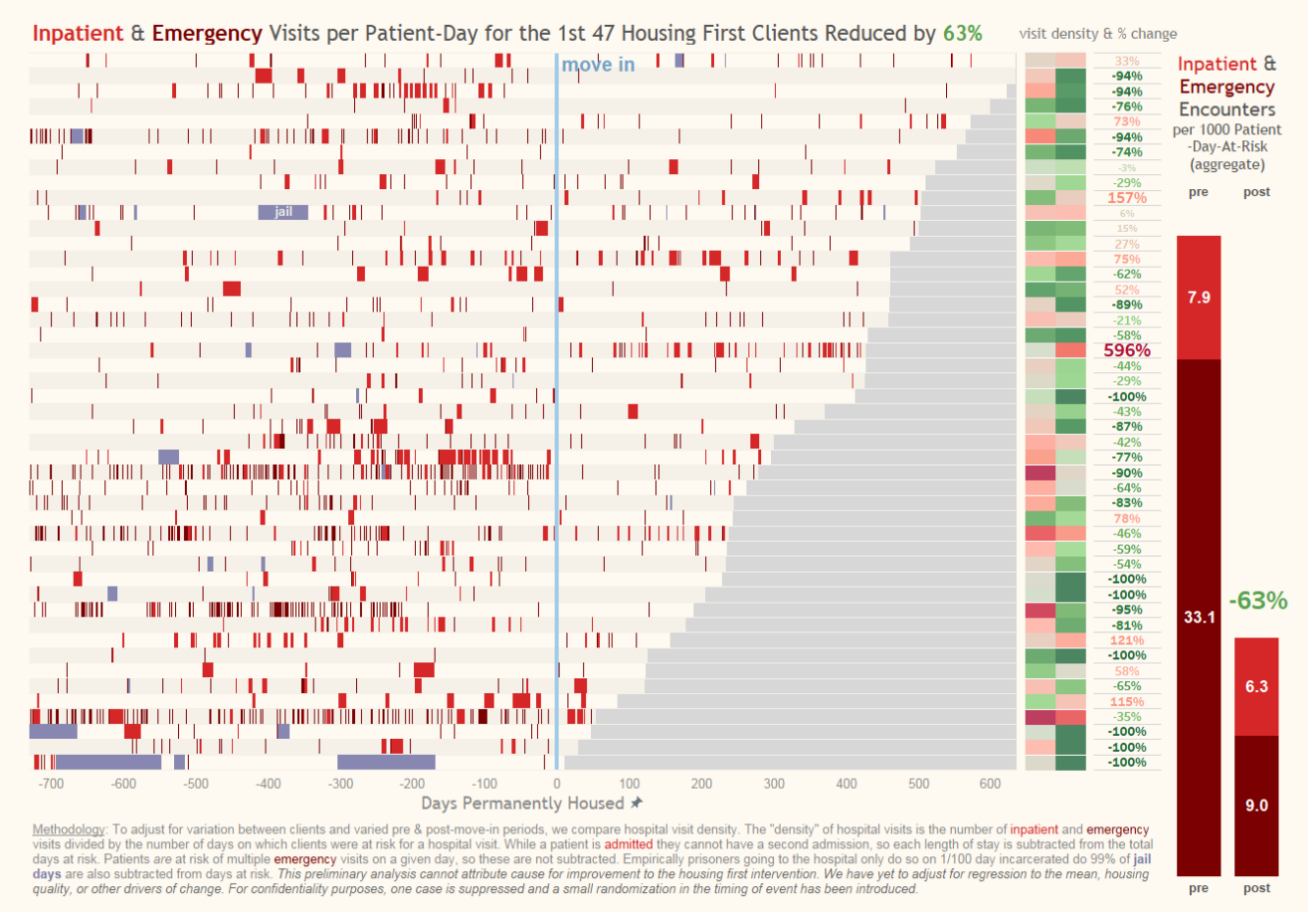
Housing First Scorecard – Q3 2017 Update



Regional Behavioral Health Dashboard