Data Sharing to End Homelessness – Challenges and Solutions

Corporation for Supportive Housing + American Public Human Services Association

CSH

APHSA
American Public Human Services Association

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Presenters

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Homelessness Initiatives Lead, U.S. State and Local Government

Amazon Web Services (AWS)

Panelists

Marla Sutherland

Housing First Services Director at Homeward Alliance

City of Fort Collins

Erin Dalton

Deputy Director, Department of Human Services

Allegheny County, Pennsylvania

Agenda

1. Objectives
2. Trends in Homeless Data and Sharing
3. Community Examples
    1. City of Fort Collins
    2. Allegheny County, PA
4. Panel Discussion
5. Questions and Answers

Learning Objectives

1. Learn about homeless services data and how integration can help achieve better outcomes in ending homelessness
2. Learn key strategies and use cases from communities that have successfully shared data
3. Generate a sense of excitement about using homeless data to improve the cornerstone of stability of people's lives – housing stability

Survey Reminder

We will distribute a brief survey to attendees after today's webinar to get your feedback on the information and resources you need to scale up data sharing between homelessness and human services systems.

Trends in Homeless Data and Sharing

2019 APHSA Policy & Practice Priorities

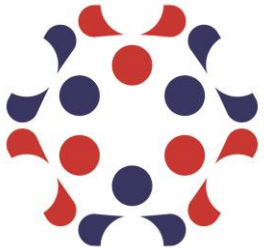
CCFWB Center for Child and Family Well-Being
APHSA American Public Human Services Association
Collaborative Centers

- Family First Implementation
- Child Abuse Prevention & Treatment Act
- CCWIS Data Systems & AFCARS Reporting
- Population Health Strategies in Child Welfare
- Child Care Development Fund Implementation

CEEWB Center for Employment & Economic Well-Being
APHSA American Public Human Services Association
Collaborative Centers

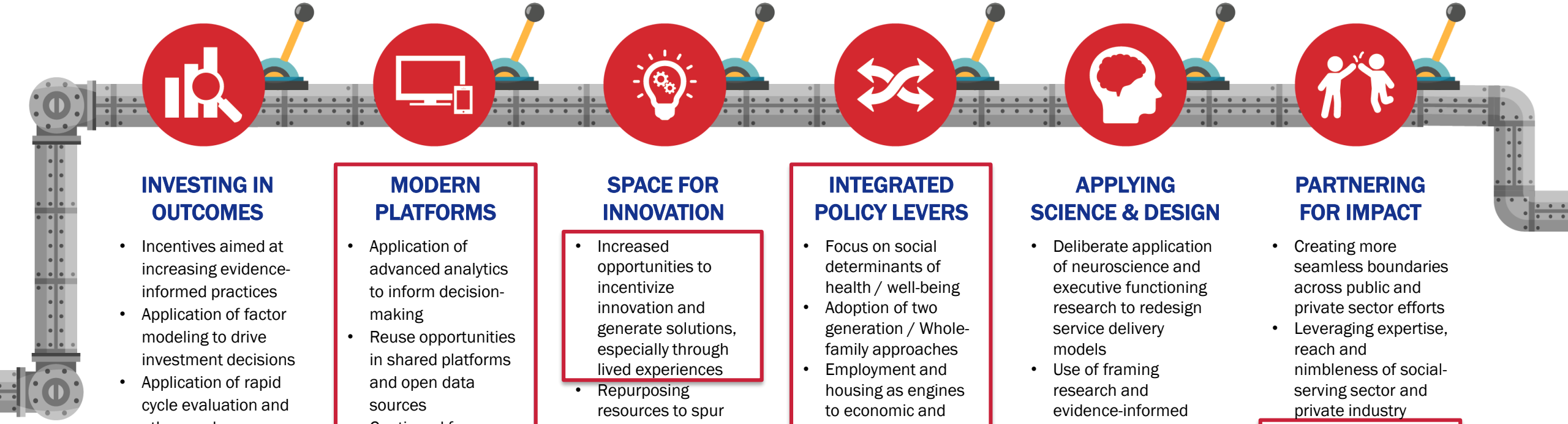
- Temporary Assistance for Needy Families (TANF) Reauthorization
- Farm Bill Implementation
- TANF/WIOA Coordination
- Work Requirements

NATIONAL COLLABORATIVE FOR INTEGRATION OF HEALTH & HUMAN SERVICES
APHSA American Public Human Services Association
Collaborative Centers



- Social Determinants of Health
- Substance Use Disorder and Behavioral Health
- Data Optimization and Interoperability
- Culture of Analytics
- Evidence-based Policymaking

Six Key Levers



INVESTING IN OUTCOMES

- Incentives aimed at increasing evidence-informed practices
- Application of factor modeling to drive investment decisions
- Application of rapid cycle evaluation and other modern approaches to research that accelerates adoption of what works
- Exploration of alternative financing methods

MODERN PLATFORMS

- Application of advanced analytics to inform decision-making
- Reuse opportunities in shared platforms and open data sources
- Continued focus on interoperability and IT support for integrated H/HS systems and Data-sharing

SPACE FOR INNOVATION

- Increased opportunities to incentivize innovation and generate solutions, especially through lived experiences
- Repurposing resources to spur innovation and create a culture that encourages creativity and a safe space for testing new ideas

INTEGRATED POLICY LEVERS

- Focus on social determinants of health / well-being
- Adoption of two generation / Whole-family approaches
- Employment and housing as engines to economic and social mobility
- Modernization of fiscal policy

APPLYING SCIENCE & DESIGN

- Deliberate application of neuroscience and executive functioning research to redesign service delivery models
- Use of framing research and evidence-informed narratives
- Use of Human-centered design principles
- Use of behavioral insights to design and test more effective interventions

PARTNERING FOR IMPACT

- Creating more seamless boundaries across public and private sector efforts
- Leveraging expertise, reach and nimbleness of social-serving sector and private industry
- Application of collective impact strategies
- Contributions from social enterprise

Each lever must be pulled through a race equity lens

ADVANCING HOUSING SOLUTIONS THAT

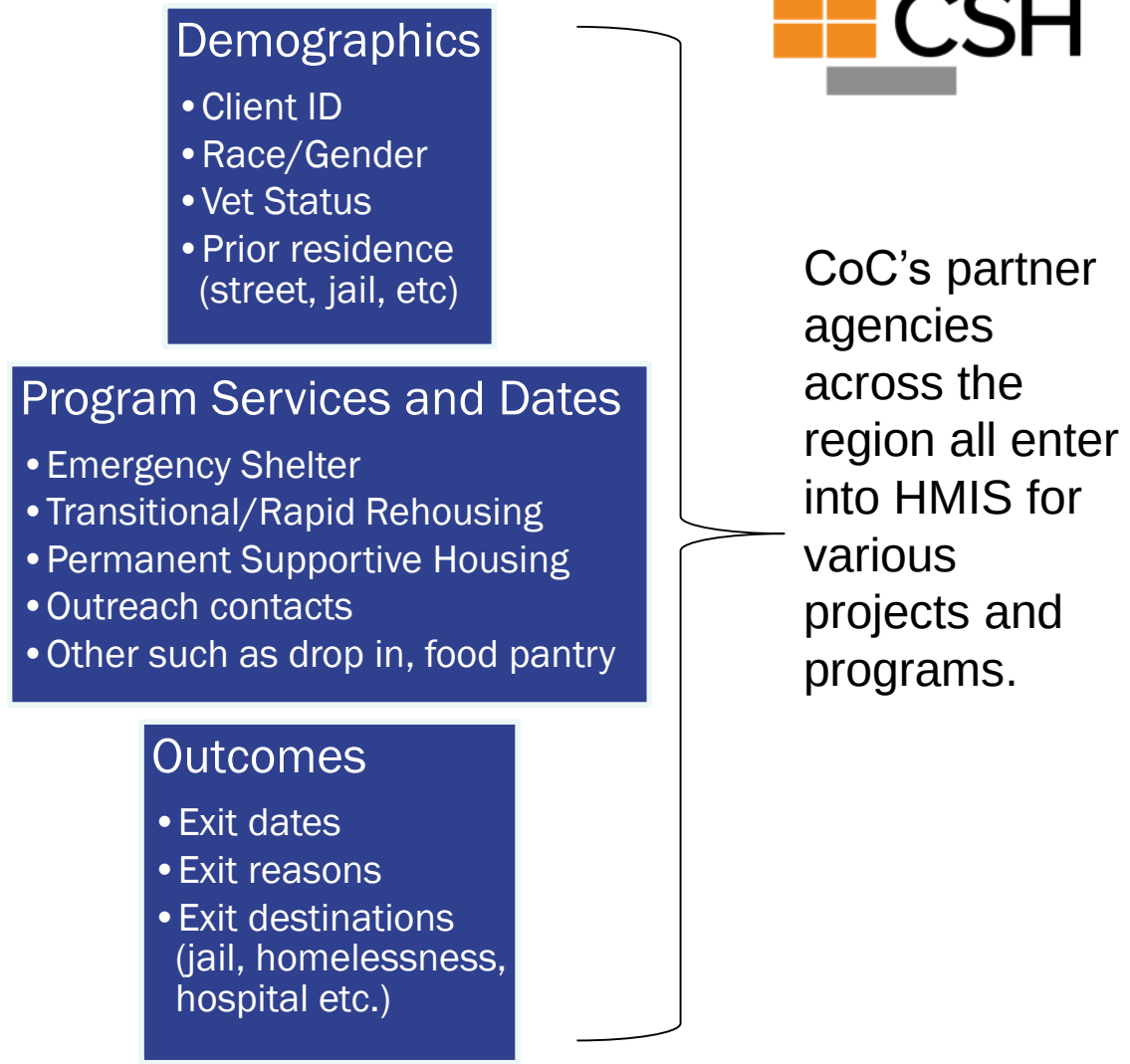
Improve lives of vulnerable people

Maximize public resources

Build strong, healthy communities

Homeless Services Data: What is it? What's in it?

- Homeless Management Information Systems – HMIS
- Each Continuum of Care funded by HUD is comprised of homeless service provider through out a region
  - County
  - City
  - Multi-county/Balance of State
  - State
- Each CoC must have a HMIS system and designated lead



Motivation: HUD Guidance for Coordinated Entry

Assessment

Prioritization

Housing

- Health/Behavioral Health Challenges
- Extent to Which People are Unsheltered
- Vulnerability to illness/death/victimization
- Risk of Continued Homelessness
- High Utilization of Crisis Services

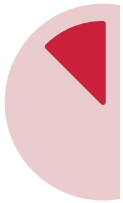
"high utilization of crisis or emergency services to meet basic needs, including but not limited to emergency rooms, jails, and psychiatric facilities; "

HUD Notice CPD-17-01

The Opportunity Across Human Services

Data is the secret sauce that can bring these partners together!

HMIS Data Matching and Exchange Types



One time matches

-Good first step if data is very siloed

-Useful for examining system overlap

-Helps determine target population for a small pilot program

-Best to plan for repeated matching beyond one time exploratory match

Repeated data matching

-Provides a set up for potential scaling up of intervention

-Acclimates unfamiliar systems to one another

-Practice makes perfect! Opportunity to work through technical, privacy-related, and logistical issues

System integration

-Data permanently flows from one system to another in back end technical arrangement (API, bridge)

-People/families can be identified on a rolling basis as people "grow into" eligibility depending on eligibility factors

-Provides opportunity to use data for other use cases, care coordination, further systems change

Real time multi-system data exchange

-Can be local, county, statewide, or other geographic framework

-High-cost clients are more likely to be served in multiple delivery systems

-More costly, time-consuming, and requires/assumes technological infrastructure

-Requires significant leadership

Lower tech — Medium tech — High tech

Community Example

Opening Doors through Data

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Homeward Alliance's Housing First Services Director
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marla@homewardalliance.org

Housing First Initiative (HFI)

Homeward2020

Collaborative, strategic think-tank guiding implementation of Fort Collins' 10-Year Plan to Make Homelessness Rare, Short-Lived and Non-Recurring by setting priorities, developing alignment and action plans, and suggesting policy

Homeward Alliance

Operates a continuum of programs and initiatives, ranging from critical survival gear, to employment services, to homelessness prevention

HFI: Outcomes

Actionable Data

- Point In Time count
- Murphy Center = *the hub of services for people who face homelessness or housing instability—one location in which 20 organizations offer more than 40 services to nearly 3,000 people each year*

Collaboration

- Eliminate silos
- Participation in CoC and Coordinated Assessment and Housing Placement System (CAHPS)
- Build upon existing infrastructure

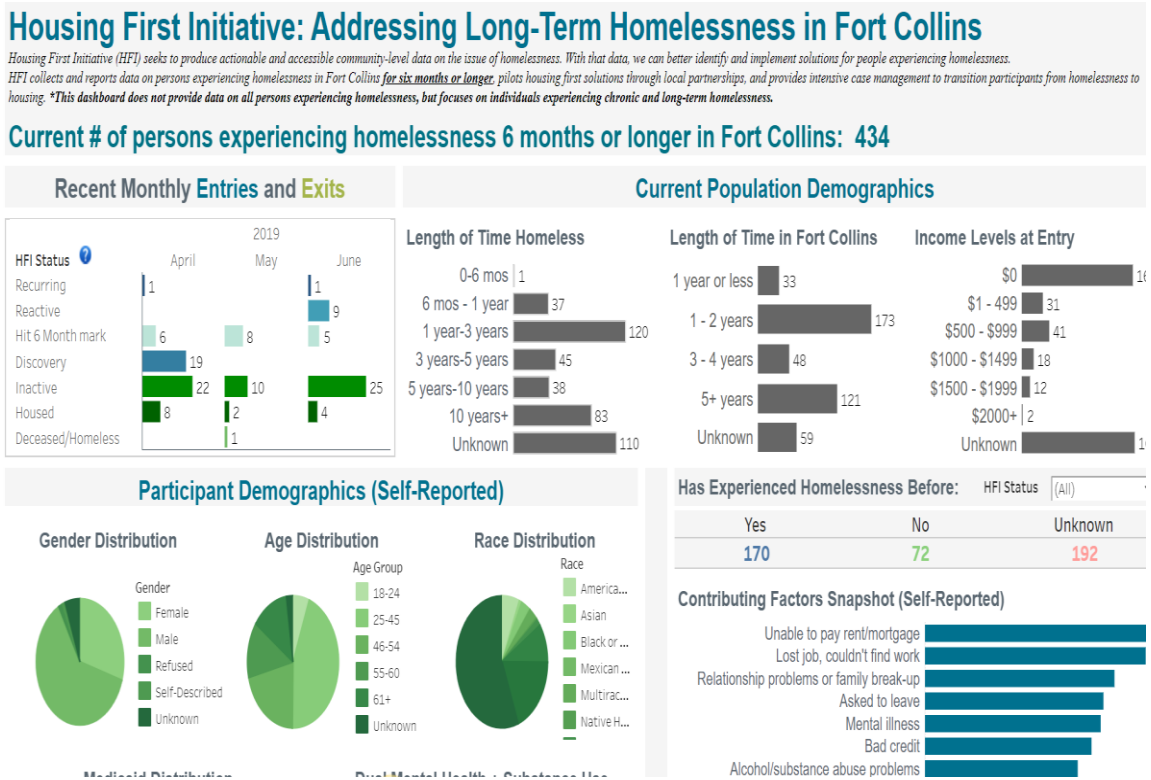
Housing First Services

- Offer intensive case management for housing navigation and housing retention
- Leverage existing services (non-duplication) to fill in systemic gaps

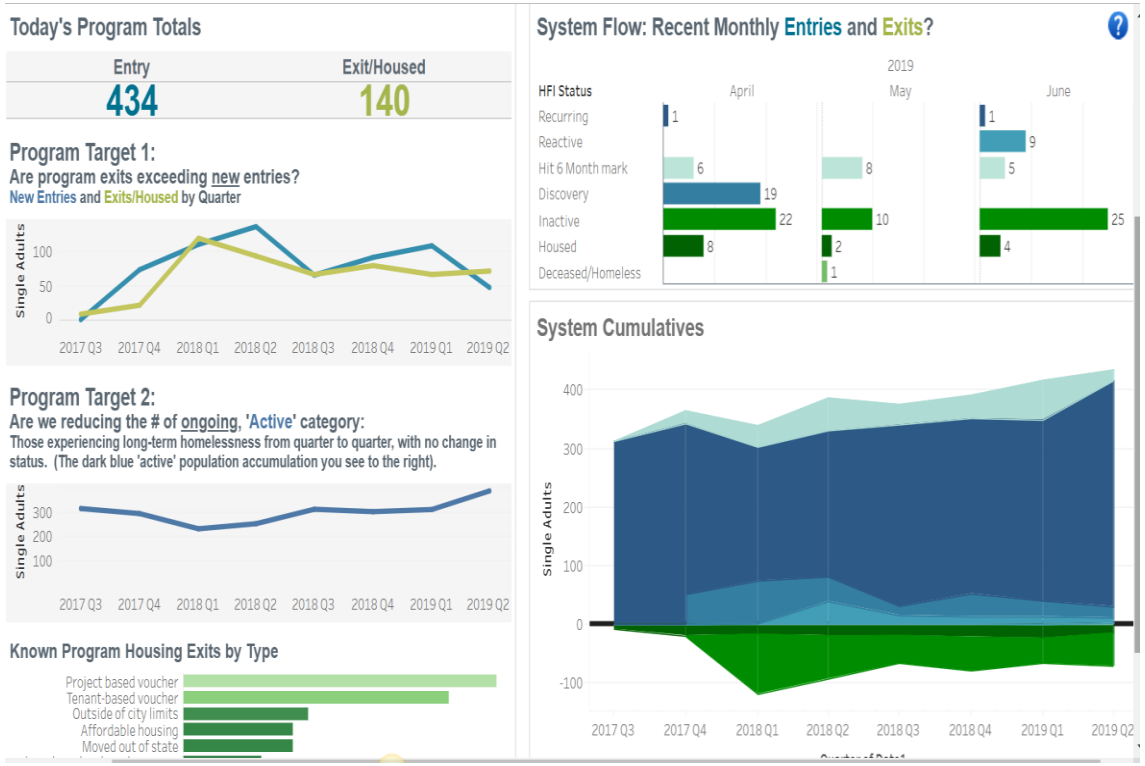
HFI: Interactive Data Dashboard

Population Dashboard

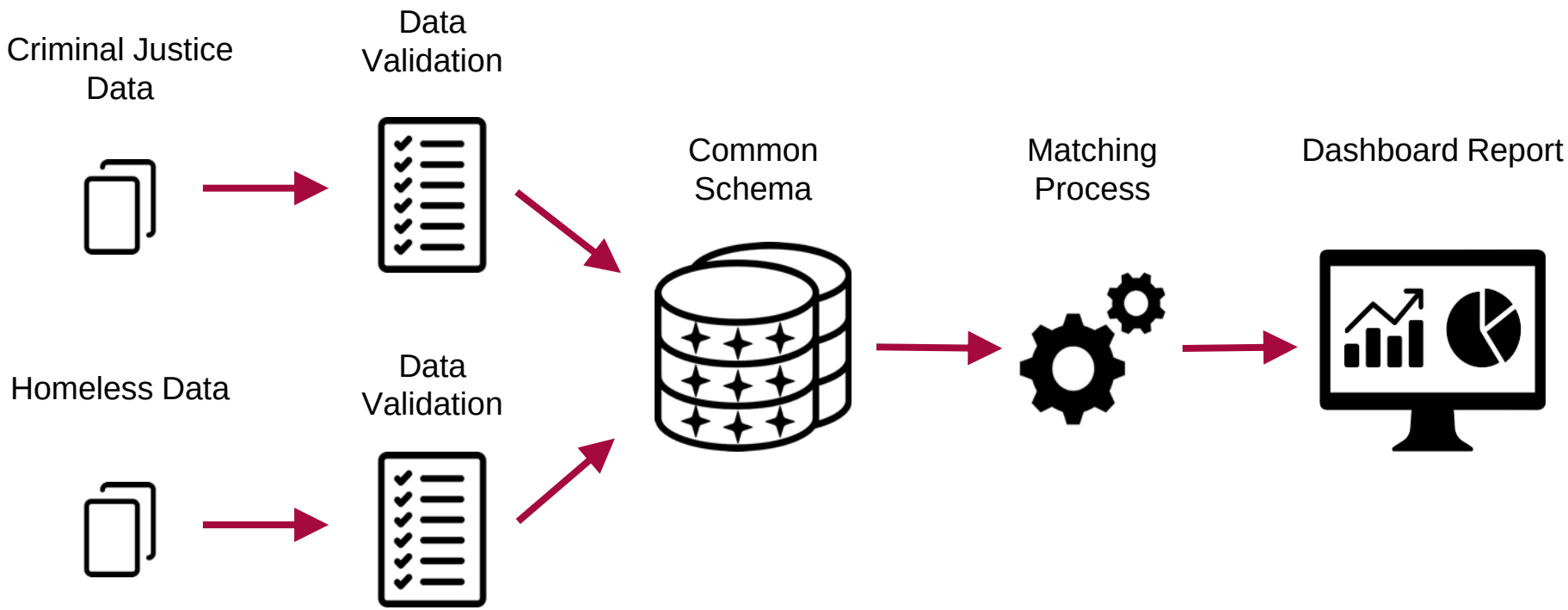
http://www.homeward2020.org/population-dashboard/



http://www.homeward2020.org/system-dashboard/



FUSE: Data matching tool



FUSE in Fort Collins, CO

Funding & Capacity Resources

Colorado's Department of Housing (DOH)

20 Tenant Based Housing Vouchers

FTE for Clinical Case Manager

Colorado State University

1-year Data Analysis and Report

Bridging Systems

Project Managers: Homeward 2020 & Health District of Northern Larimer County

Program Supervision: Homeward Alliance

Business Partner Agreements

Universal Release of Information

Data Use Agreements

Critical Problem Solving

Challenges

- Buy-In from local agencies to participate in HMIS
- CSH's Data Matching Tool required more technical support and staff capacity
- Minimal Staff Capacity/Expertise for Data Analysis and Reporting

Resolution

Homeward Alliance will be the HMIS lead agency in our region

- Access to federal funding
- Ability to maintain customization of data and reporting outcomes
- Local technical support

Community Example

Using Integrated Data to Support Practice

Erin Dalton, Deputy Director
Allegheny County Department of Human Services
Erin.Dalton@alleghenycounty.us

Integrated Data Systems

Childhood & Education Services

Early Intervention
HeadStart
Homevisting
Family Support Centers
Child Welfare
Family Court
Pittsburgh Public Schools + 10 additional School Districts

Basic Needs

Homeless
Housing Supports
Public Benefits
Public Housing
Employment/Unemployment
Transportation (for medically fragile)
Aging services & supports

Physical & Behavioral Health

Mental Health Services (Medicaid & Uninsured)
Substance Use Services (Medicaid & Uninsured)
Physical Health Services (Medicaid)
UPMC Health Plan (Commercial)
Intellectual Disabilities

Juvenile & Criminal Justice

Juvenile Probation
Delinquency
Pittsburgh Bureau of Police
Criminal Court
Allegheny County Jail
911 Dispatches

Vital Records

Birth Records
Autopsy Records

Using Data to Support

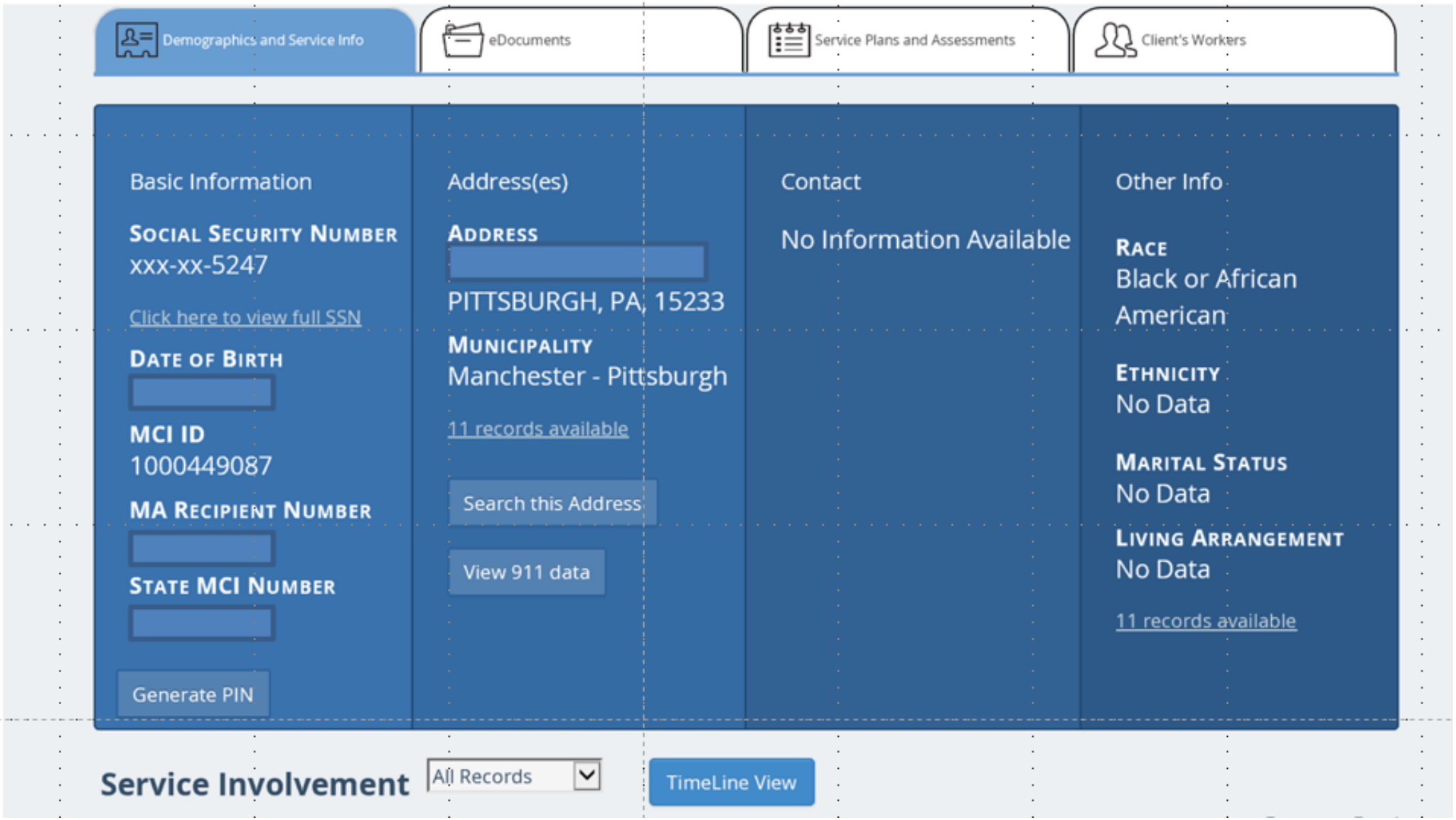
Coordinated Care

Worker Decision Making

Management Decision Making

Community Use / Open Data

Research

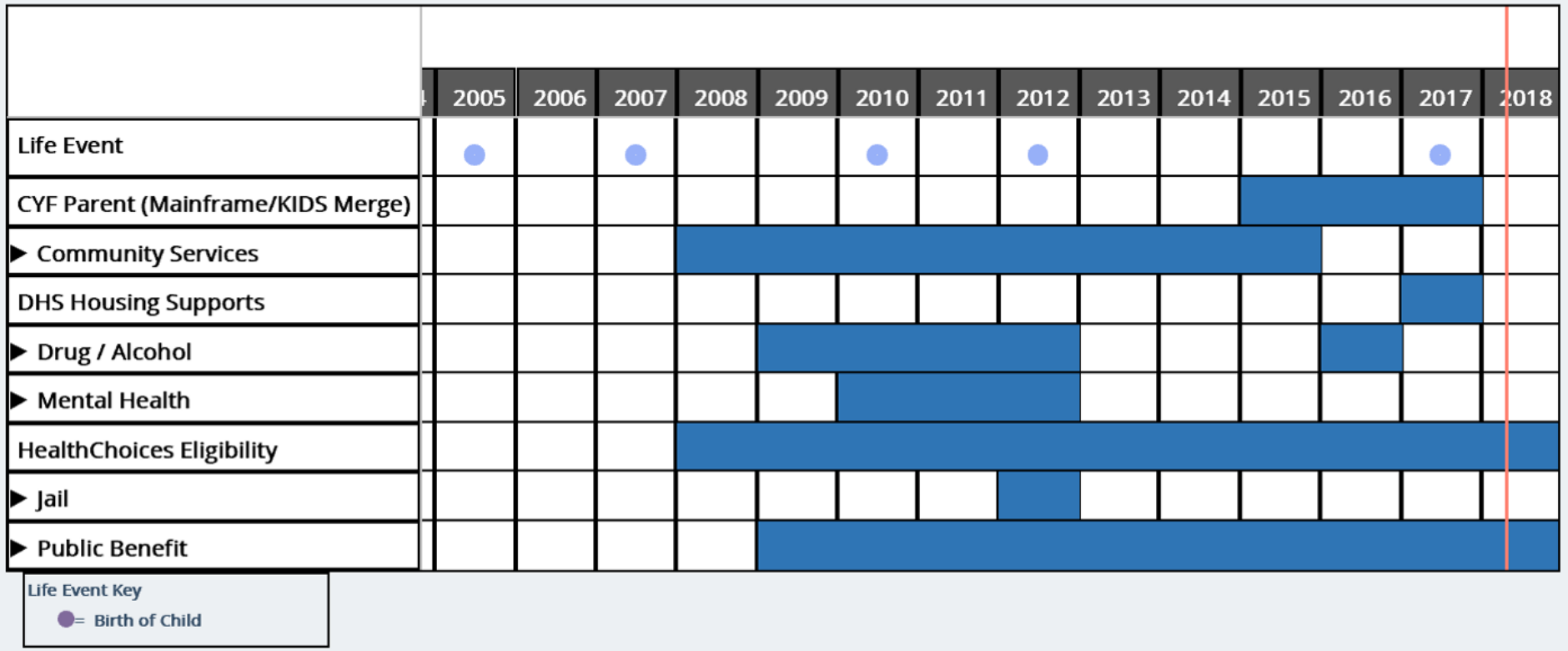

Demographics and Service Info
eDocuments
Service Plans and Assessments
Client's Workers
Basic Information
SOCIAL SECURITY NUMBER
xxx-xx-5247
Click here to view full SSN
DATE OF BIRTH
MCI ID
1000449087
MA RECIPIENT NUMBER
STATE MCI NUMBER
Generate PIN
Address(es)
ADDRESS
PITTSBURGH, PA, 15233
MUNICIPALITY
Manchester - Pittsburgh
11 records available
Search this Address
View 911 data
Contact
No Information Available
Other Info
RACE
Black or African American
ETHNICITY
No Data
MARITAL STATUS
No Data
LIVING ARRANGEMENT
No Data
11 records available
Service Involvement
All Records
TimeLine View

[redacted]

34 years old, Female

Timeline Display Options

View Monthly | View Yearly | View Involved Program Areas | View All Program Areas | Filter Program Areas | Print Timeline



Please Note: Information being displayed is based upon data that is available for this client

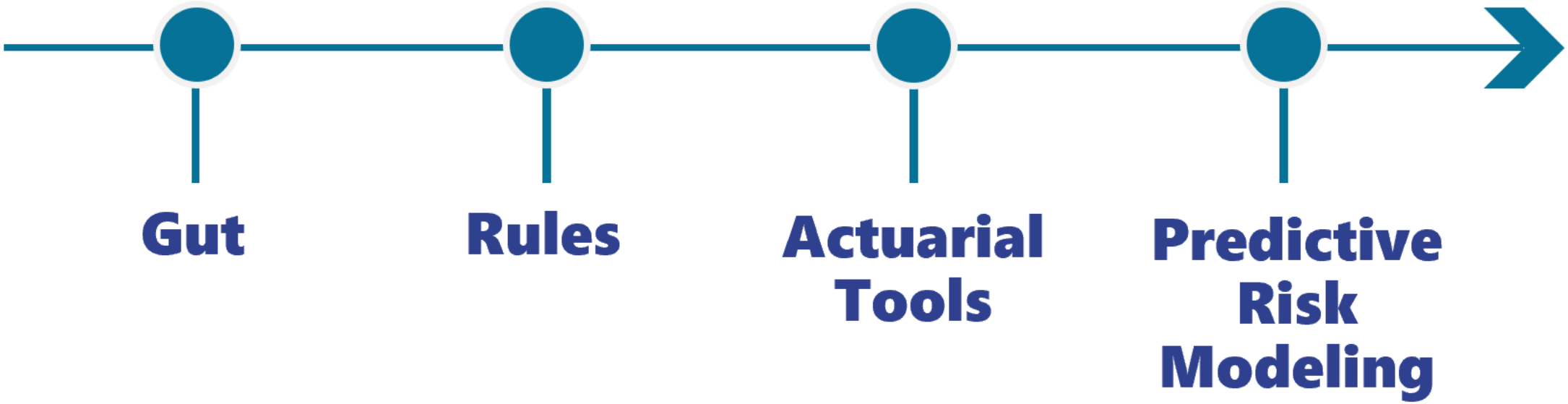
Improving Response to Homelessness

30,000 calls

Today, we use an assessment

What if we use the data we already have

Improving Decision Making



Model Predictors

Demographics (Age & Gender)	Homeless	Child Welfare
Jail	Courts	Probation
Juvenile Probation	Assisted Housing	Behavioral Health

322 predictors for each individual receiving a score

+ 642 household-level predictors aggregated across:

all adults on the household

all children on the household

*Addition of actuarial assessment (VI-SPDAT) responses was also tested

Developing the Model

INPUTS

Client History (admin data)

- Homelessness services
- Child welfare
- Behavioral Health (Medicaid funded)
- Assisted Housing
- Court Activity
- Aging Services
- County Jail
- Juvenile Probation
- Independent Living
- Prescription Medication

PREDICTED OUTCOMES

We built a PRM tool for a variety of outcomes 6 or 12 months after the call to the hotline

- Booking in County Jail
- Substance use diagnosis
- Inpatient Mental Health stay
- Emergency Department encounter

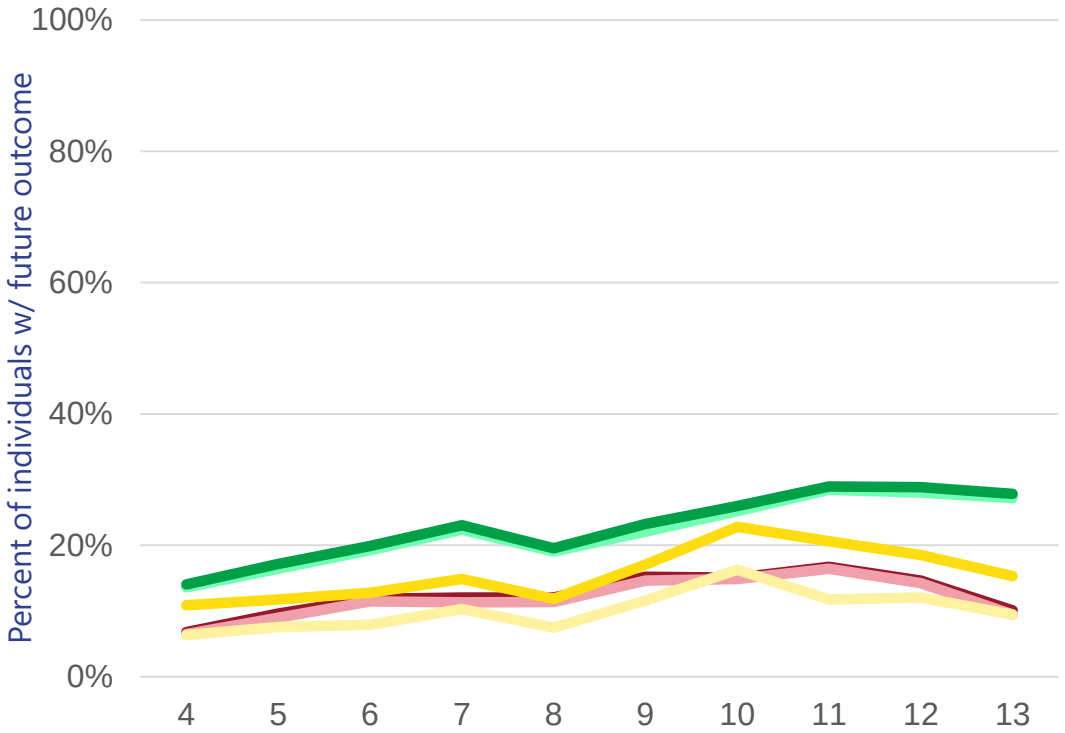
MODELING METHODS

We compared four modeling methods

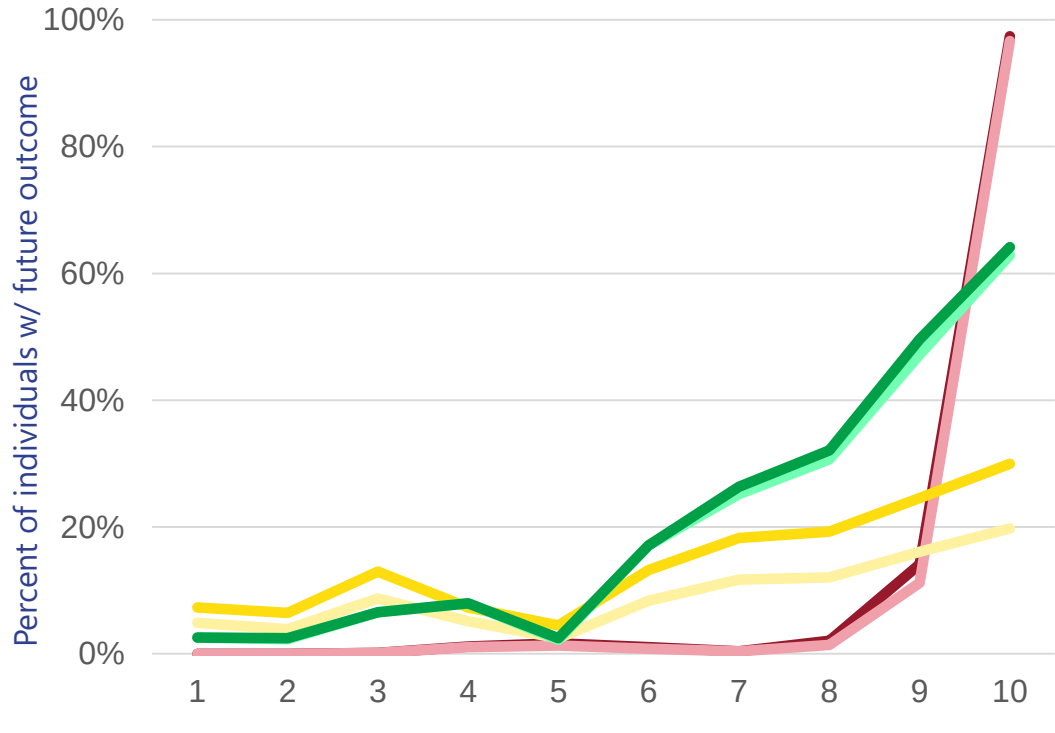
- Logistic Regression
- Random Forest
- XGBoost
- LASSO

Current Assessment Vs Predictive Risk Model

VI-SPDAT SCORE



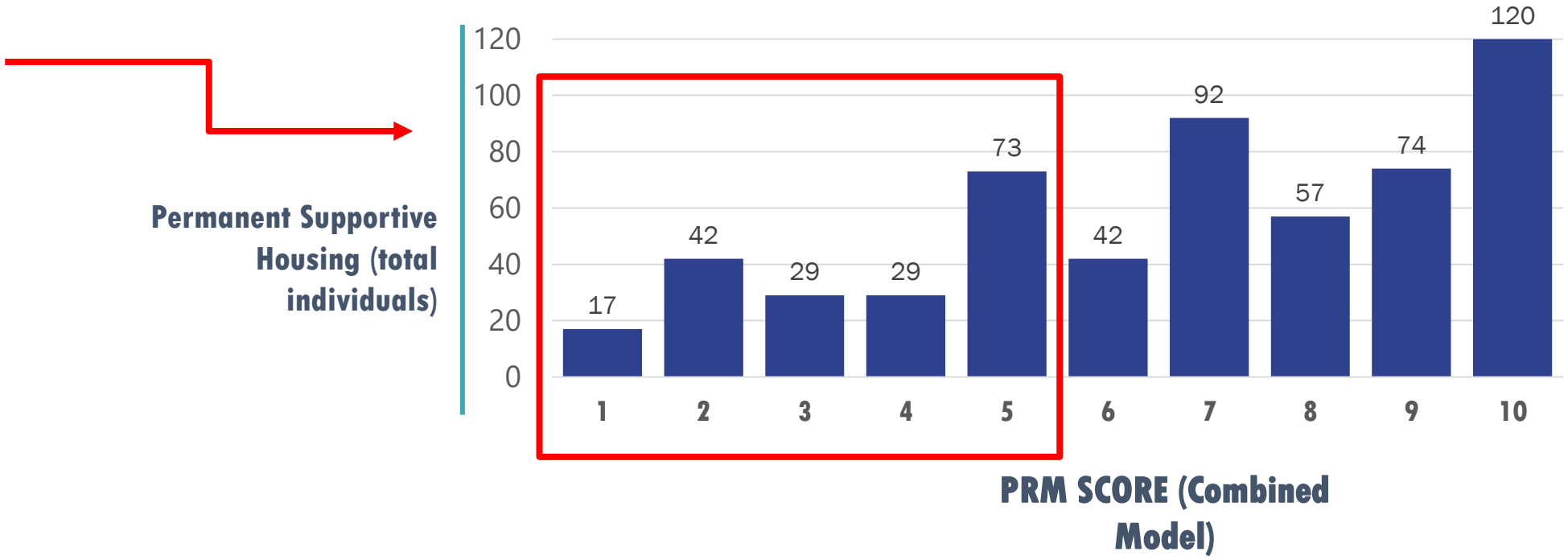
PREDICTIVE RISK MODEL SCORE



Mental Health Inpatient 12 mo
Mental Health Inpatient 6 mo
Jail Booking 6mo
Jail Booking 12mo
Substance Use Svc 6mo
Substance Use Svc 12mo

Current Assessment Vs Predictive Risk Model

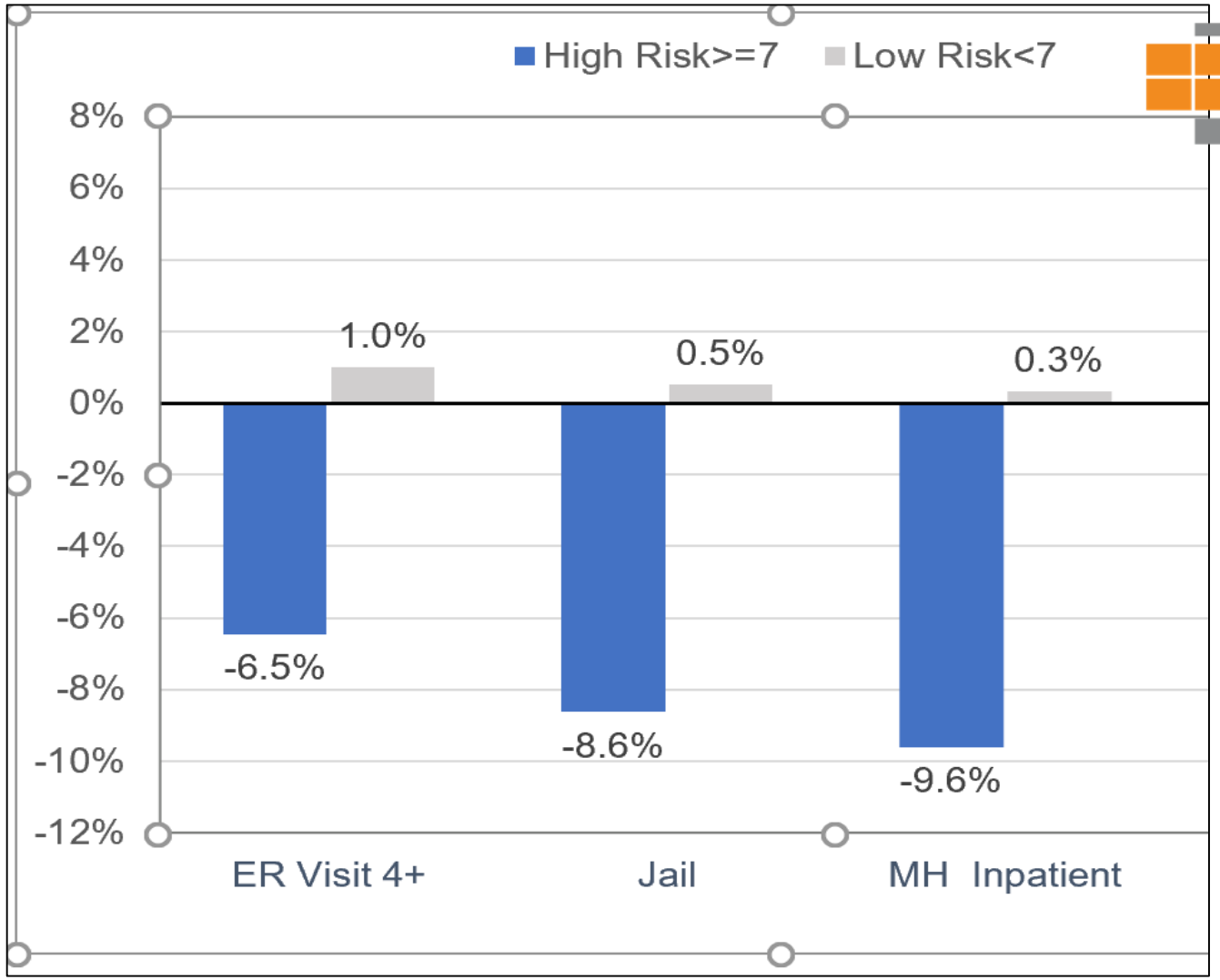
33% of permanent supportive housing beds are given to individuals with a PRM score of 5 or less



Permanent Supportive Housing Works Better for Higher Risk Clients

High Risk Groups who received PSH/RRH/Transitional had lower rates of harm

Low Risk Groups who received PSH/RRH/Transitional had (slightly) higher rates of harm



Enablers and Detractors

Enablers

- Government
- Integrated Department
- Long-term Leadership
- Investment in Tech, Analytics & Innovation
- Community Support
- Willingness to take risks to benefit clients

Detractor

- Current HMIS Marketplace

www.alleghenycountyanalytics.us

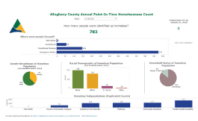
Basic Needs | August 8, 2019

SURVEY OF FAMILIES USING HOMELESSNESS CASE MANAGEMENT PROGRAM FINDS SATISFACTION — AND PREFERENCE FOR TEXTING AS A SURVEY METHOD

TAGS: client perspective, homelessness

The Homeless Services and Supports Coordination (HSSC) program, implemented by the Allegheny County Department of Human Services in 2013, provides comprehensive service coordination for families who use emergency homeless shelters. Upon entering an emergency shelter, participants meet with service coordinators who offer a range of assistance, from accessing public benefits to finding affordable housing, childcare ...

Downloads:

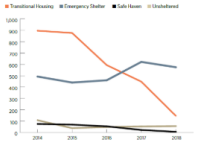


Basic Needs | February 27, 2019

ALLEGHENY COUNTY ANNUAL POINT-IN-TIME HOMELESSNESS COUNT, 2009–PRESENT: INTERACTIVE DASHBOARD

TAGS: homelessness

The dashboard below displays information about County homelessness trends since 2009. Click here to view a related data brief. Use the tabs to view homelessness data for one year (PIT Homeless Demographics) or trends over time (PIT Trends). Data comes from Allegheny County's annual count of the number of people who were homeless on a ...



Basic Needs | February 26, 2019

ALLEGHENY COUNTY 2018 POINT-IN-TIME HOMELESSNESS: DATA BRIEF

TAGS: homelessness

Each year, Allegheny County participates in a national effort required by the U.S. Department of Housing and Urban Development (HUD) to count the number of people who were homeless on a single night in January. Although not required by HUD, Allegheny County also conducts a summer point-in-time (PIT) count to better understand warm weather trends. ...

Downloads:

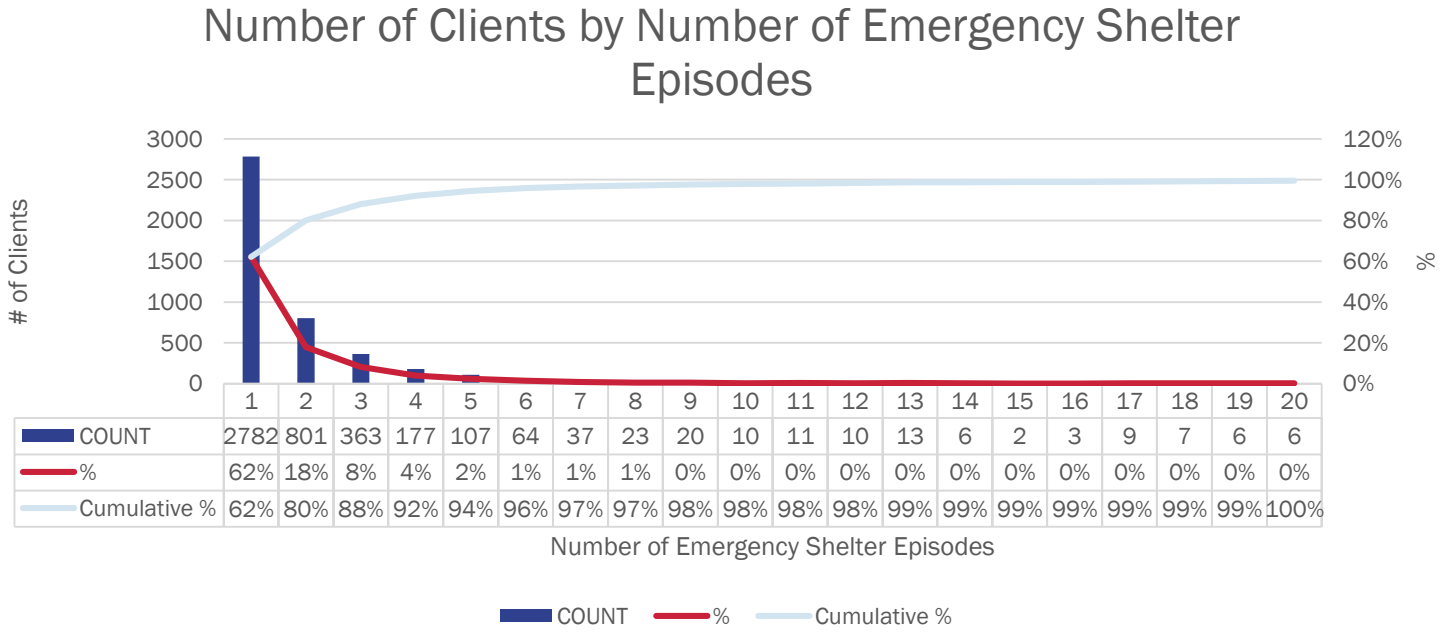
Basic Needs | July 26, 2018

CLIENTS USING ALLEGHENY COUNTY HOMELESSNESS PROGRAMS: INTERACTIVE DASHBOARD

Frequent Utilizers of Homeless Services

FREQUENT UTILIZER DEFINED AS THOSE WHO ACCESSED A SHELTER IN 2016-17, AND HAD 8+ TOTAL STAY INSTANCES

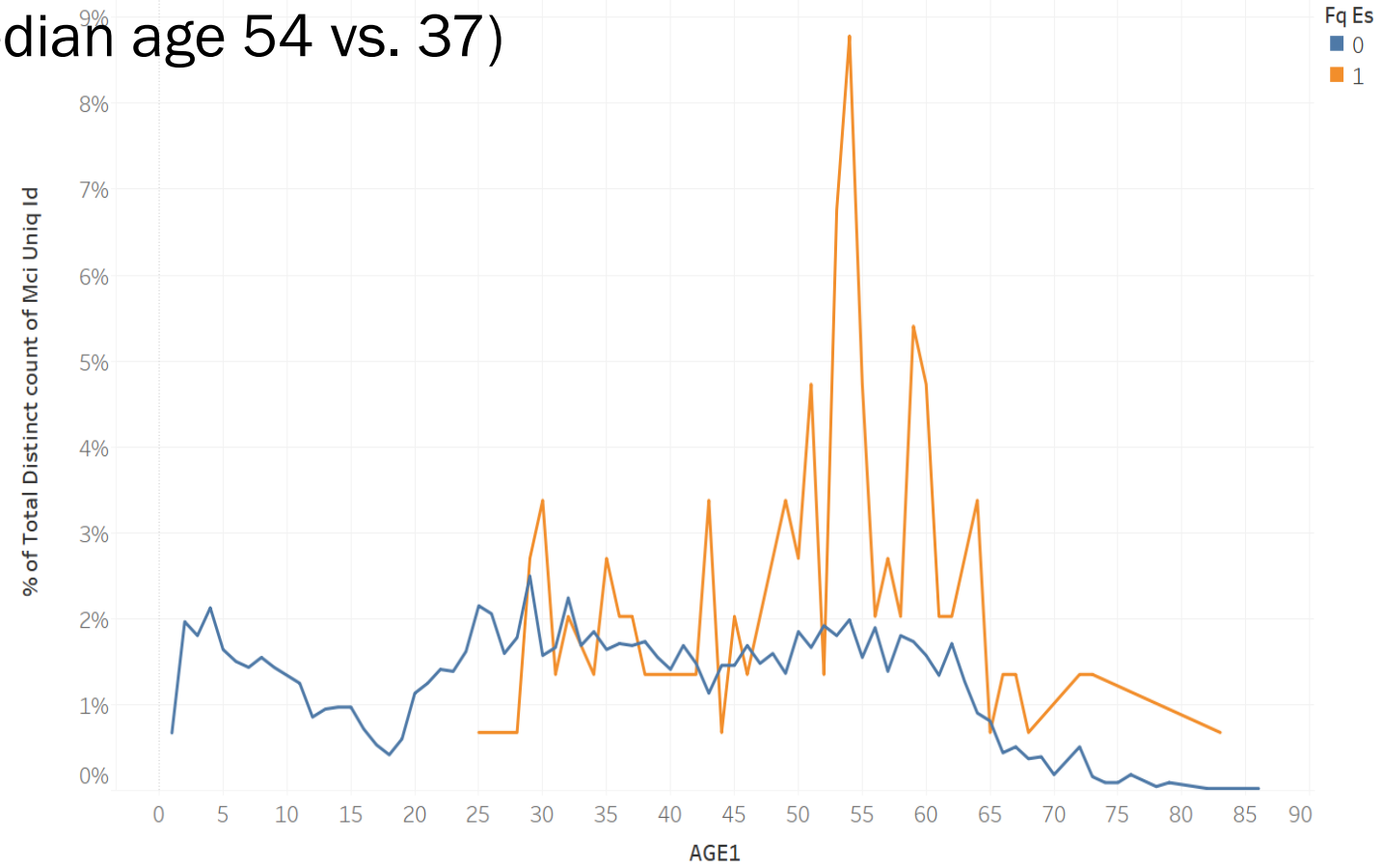
	Overall	Top 4.2% Client
Client	4,479	144
Person-Beds-Days	245,768	27,343 (10%)
Average Total Day Beds	55	**190**



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
COUNT	2782	801	363	177	107	64	37	23	20	10	11	10	13	6	2	3	9	7	6	6
%	62%	18%	8%	4%	2%	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Cumulative %	62%	80%	88%	92%	94%	96%	97%	97%	98%	98%	98%	98%	99%	99%	99%	99%	99%	99%	99%	100%

Homeless Shelter Frequent Utilizers

Frequent utilizers significantly more likely to be male (91% vs. 59%)
Frequent utilizers slightly more likely to be African Americans (63% vs. 59%)
Frequent Utilizers typically older than non-frequent utilizers and have interesting age distribution (median age 54 vs. 37)



Homeless Shelter Frequent Utilizers

- In terms of service utilization, frequent utilizers and non-frequent utilizers are not very different.
- In general, people who use ANY emergency shelter have high rates of service utilization in mental health crisis and emergency room visits, but there doesn't appear to be large differences by frequent utilization
- Frequent utilizers have higher rates of jail bookings than non-frequent utilizers but not of arrests

	1 Year Before				1 Year After			
	<8	8+	Overall	Ratio	<8	8+	Overall	Ratio
Child welfare parent	7%	4%	6%	0.6	9%	7%	9%	0.8
Homeless shelter	5%	39%	6%	7.7	98%	99%	98%	1
Mental health services	38%	47%	38%	1.2	50%	61%	50%	1.2
Mental health crisis	22%	27%	22%	1.2	18%	16%	18%	0.9
Substance use treatment	16%	17%	16%	1.1	19%	26%	20%	1.3
Emergency Department	47%	52%	47%	1.1	53%	63%	53%	1.2
Public Housing	7%	9%	7%	1.3	8%	7%	8%	0.8
Public benefits	72%	86%	73%	1.2	70%	84%	71%	1.2
Arrest	20%	25%	20%	1.3	20%	30%	21%	1.5
Jail Booking	14%	24%	15%	1.6	16%	27%	17%	1.7

alleghenycountyanalytics.us

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Panel Discussion

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Questions & Answers

And don't forget to complete the brief survey after the webinar – link in the chat box!

Survey Reminder & Contact Info

We will distribute a brief survey to attendees after today's webinar to get your feedback on the information and resources you need to scale up data sharing between homelessness and human services systems.

- Kim Keaton: kim.keaton@csh.org
- Matt Lyons: mylons@aphsa.org
- Jessie Metcalf: jessmet@amazon.com
- Marla Sutherland: marla@homewardalliance.org
- Erin Dalton: Erin.Dalton@AlleghenyCounty.US