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# Indiana Council

Data-Driven  
Outcomes



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# Introductions

# Dimitri Cavathas, LCSW-C



- CEO, Lower Shore Clinic, Inc. (November 2015 - present)
- Awarded CCBHC Planning & Development Grant
- Responsible for all operations
  - integrated outpatient mental health
  - addictions
  - primary care clinic
  - psychosocial and residential rehabilitation
  - supported employment
  - health home services

# Melanie Elliott, PhD



- Vice President, Analytics Strategy, Afia, Inc.
- Over 2 decades of experience in Behavioral Health
- Building standardized, flexible multi-source data warehouses
- Measuring outcomes & evaluating progress
- Answering critical industry questions with data

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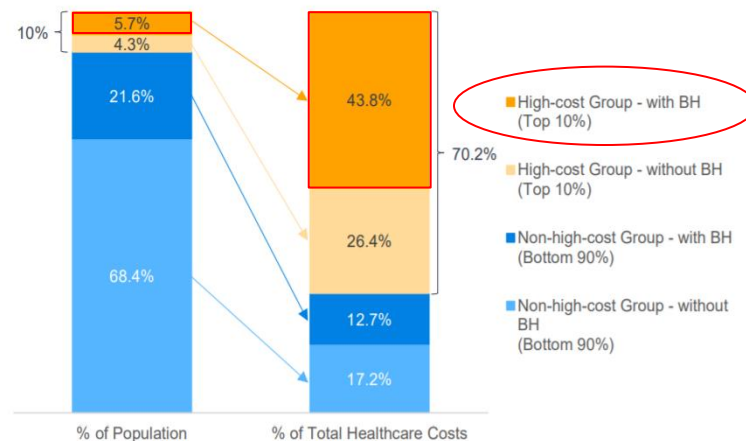
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# The Lower Shore Clinic Integrated Care Model

# The High Cost of Healthcare

- A Milliman study of 21 million insured lives (Davenport, Gray, & Melek, 2020) pointed out:
  - **10% of the population accounts for 70% of the healthcare spend**
  - **57% of this *high-cost group* has both physical and behavioral health conditions**

FIGURE 4: DISTRIBUTION OF THE POPULATION AND TOTAL HEALTHCARE COSTS AMONG COST AND BEHAVIORAL HEALTH GROUPS, 2017



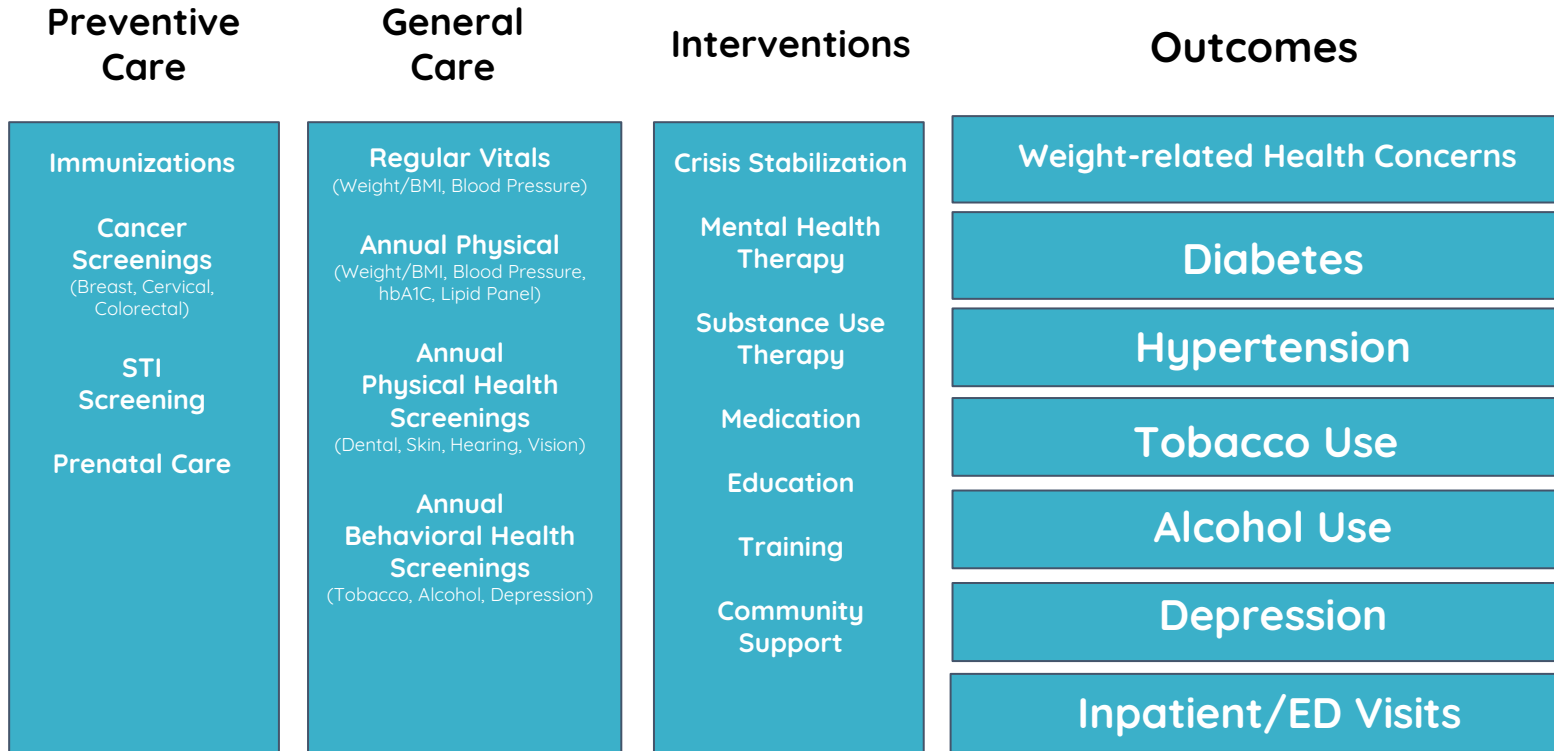
# Integrated Care that Prioritizes SDoH

Primary Care  
Mental Health Care  
Substance Use Care  
Population Health Management  
Crisis Stabilization  
Community Integration  
Medication Adherence



Housing  
Transportation  
Food Security  
Employment/Education  
Financial Security  
Flexible Funding

# Population Health Standards of Care





# Population Health Standards of Care

## Preventive Care

Immunizations

**Cancer Screenings**  
(Breast, Cervical, Colorectal)

STI Screening

Prenatal Care

## General Care

**Regular Vitals**  
(Weight/BMI, Blood Pressure)

**Annual Physical**  
(Weight/BMI, Blood Pressure, hbA1C, Lipid Panel)

**Annual Physical Health Screenings**  
(Dental, Skin, Hearing, Vision)

**Annual Behavioral Health Screenings**  
(Tobacco, Alcohol, Depression)

## SDoH Supports

**Food Security**

**Stable Housing**

**Safe Neighborhood**

**Employment**

**Financial Security**

**Transportation**

**Social Support**

## Interventions

Crisis Stabilization

MH Therapy

**Substance Use Therapy**

Medication

Education/ Training

**Community Support**

## Outcomes

**Weight-related Health Concerns**

**Diabetes**

**Hypertension**

**Tobacco Use**

**Alcohol Use**

**Depression**

**Inpatient/ED Visits**

# Goals of the Lower Shore Integrated Care Model

- 95% of agency **housing will be occupied**
- 100% of housing will **pass safety & occupancy inspections**
- 95% of supportive housing clients will have a **positive home inspection**
- 100% of clients will have **potable water** in their home
- 25% reduction in **preventable ER visits**
- 30% **reduction in Inpatient admissions**
- 100% **reduction in suicide attempts**
- 80% of members **enrolled in medication adherence services**
- 15 or **fewer medication errors** in RRP & RCS
- 40% or more **graduation rate from Substance Use treatment programs**
- **0 overdoses**
- 75% **adherence to Vivitrol injections**
- 25% of tobacco users will participate in **cessation interventions**
- 35% of Supportive Employment clients are **employed**
- 90% of clients have **increased income**
- 15% of clients will use agency **financial management services** (rep payee)
- 40% of clients participate in **group activities**
- **90% of clients have reliable transportation**
- 2% or **fewer incident reports** due to violence
- 100,000 **nutritionally balanced meals** provided annually
- 50% of Diabetic clients have an **hbA1C reduction** of at least 2 points
- 35% of Obese clients have a **decreased BMI**
- 10% of **STI screenings** will be positive
- 50% of clients have **blood pressure below 140/90**

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# Using Business Intelligence To Guide Clinical Decision Making

# Putting the Data To Work To Improve Outcomes

- Monitoring of data collection
  - Who needs to be assessed?
  - When are they coming in next?
  - Did we get the assessment when they came in?
  
- Monitoring progress by Service Providers, not just Program Directors
  - What is the client's current status?
  - How is that compared to Baseline
  - How is that compared to last visit?
  - Are they getting better?
  
- What needs to be done to improve/maintain client's well-being?
  - Data-informed clinical decision making
  - Person-centered intervention effectiveness

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# Progress & Lessons Learned At Lower Shore Clinic

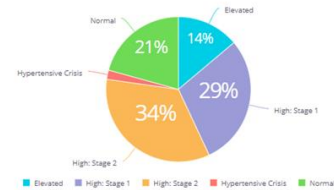
# Monitoring the Most In Need Populations

- Residential Rehabilitation (RRP)
- Psychiatric Rehabilitation (PRP)
- Assertive Community Treatment (ACT)
- Health Homes (HH)

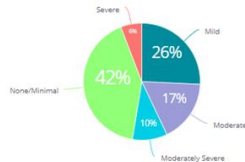
BMI Status  
@ Latest Checkpoint



Hypertension Status  
@ Latest Checkpoint



Depression Score Category  
@ Latest Checkpoint



Percent of Clients Who Use Tobacco  
@ Latest Checkpoint

48.19%

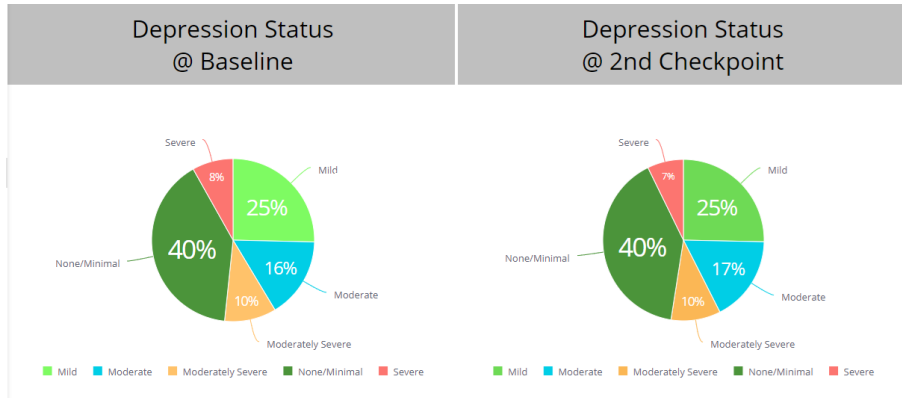
# Hypertension/Diabetes/BMI Interventions

- Monitoring vitals & hbA1C since 2017
- 2017 - 2020:
  - Saw improvement by 2nd post-Baseline checkpoint
  - But, also saw rebounding by 4th post-baseline checkpoint
- 2021-2022
  - Same findings
  - Better compliance with checkpoint data due to in house A1C machine
- Hard to evidence stable outcomes over time

# Depression Intervention

- Monitoring Depression since 2017

## Treatment as Usual 2017 - 2020



Little to No Change by 2nd Post-Baseline Checkpoint

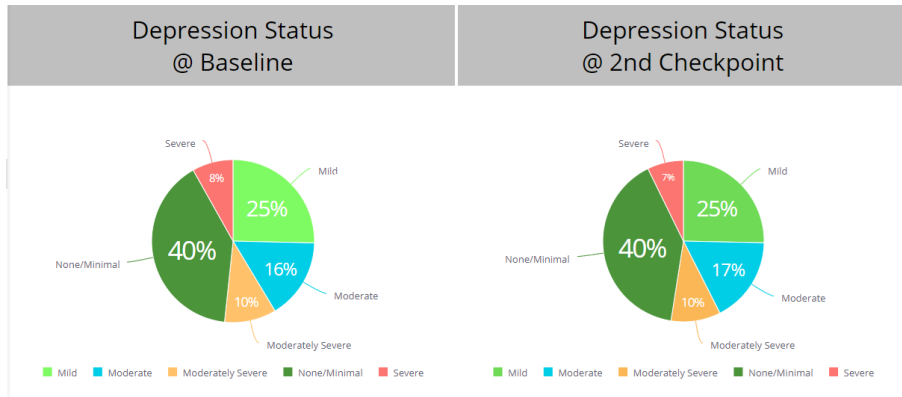
No Meaningful Results until 4th Checkpoint



# Depression Intervention

- Monitoring Depression since 2017

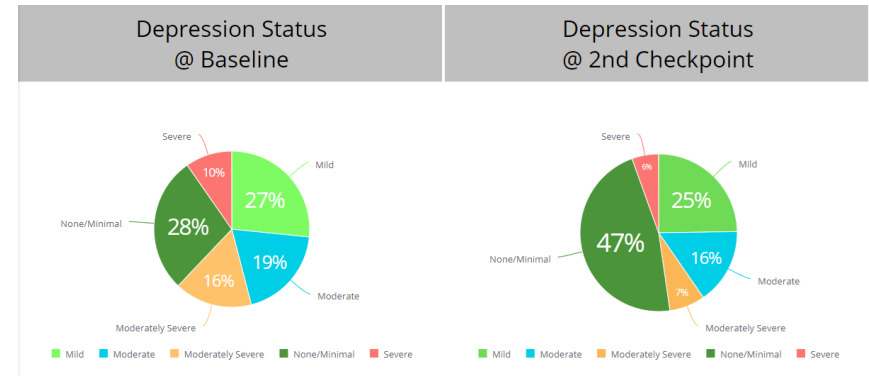
## Treatment as Usual 2017 - 2020



Little to No Change by 2nd Post-Baseline Checkpoint

No Meaningful Results until 4th Checkpoint

## Integrated Care with SDoH 2021 - 2022



By 2nd Checkpoint:

30% Increase in Mild/No Depression

50% Decrease in Severe/Mod. Severe Depression

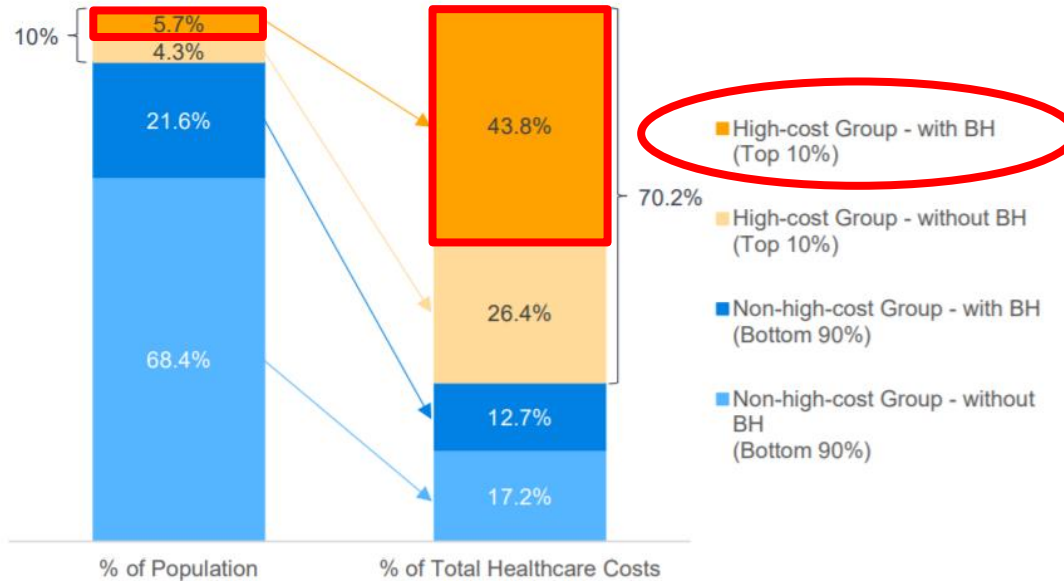
# Behavioral & Physical Health are Inextricably Linked

- **SDoH improvements needed** to make early & meaningful change
- Expect to see **follow on improvements in Physical Health** now that Depression has been reduced



# Behavioral & Physical Health Care Issues Drive Cost

FIGURE 4: DISTRIBUTION OF THE POPULATION AND TOTAL HEALTHCARE COSTS AMONG COST AND BEHAVIORAL HEALTH GROUPS, 2017



# SDoH Lessons Learned

- **Housing First**
  - Permanent supported housing (affordable housing)
- **Employment**
  - Reduce poverty & increase social connectedness
- **Healthy Food**
  - Must be easy and quick to prepare
- **Clinic-administered labs**
  - hbA1C machine & program-administered blood draws with processing by local lab
- **Transportation**
  - 91 vehicles & bus passes
- **Flex Funding**
  - Copays, first month rent, utilities, furniture, clothing, etc.
- **Harm Reduction**
  - Stagewise approach to Substance Use & other unhealthy habits
- **Rapid Access to Primary Care**
  - Primary Care practitioners employed by the agency
- **On-site Pharmacy Integration**
  - Pre-packaging to increase self management & improve adherence

# Measuring Progress

## CCBHC Measures

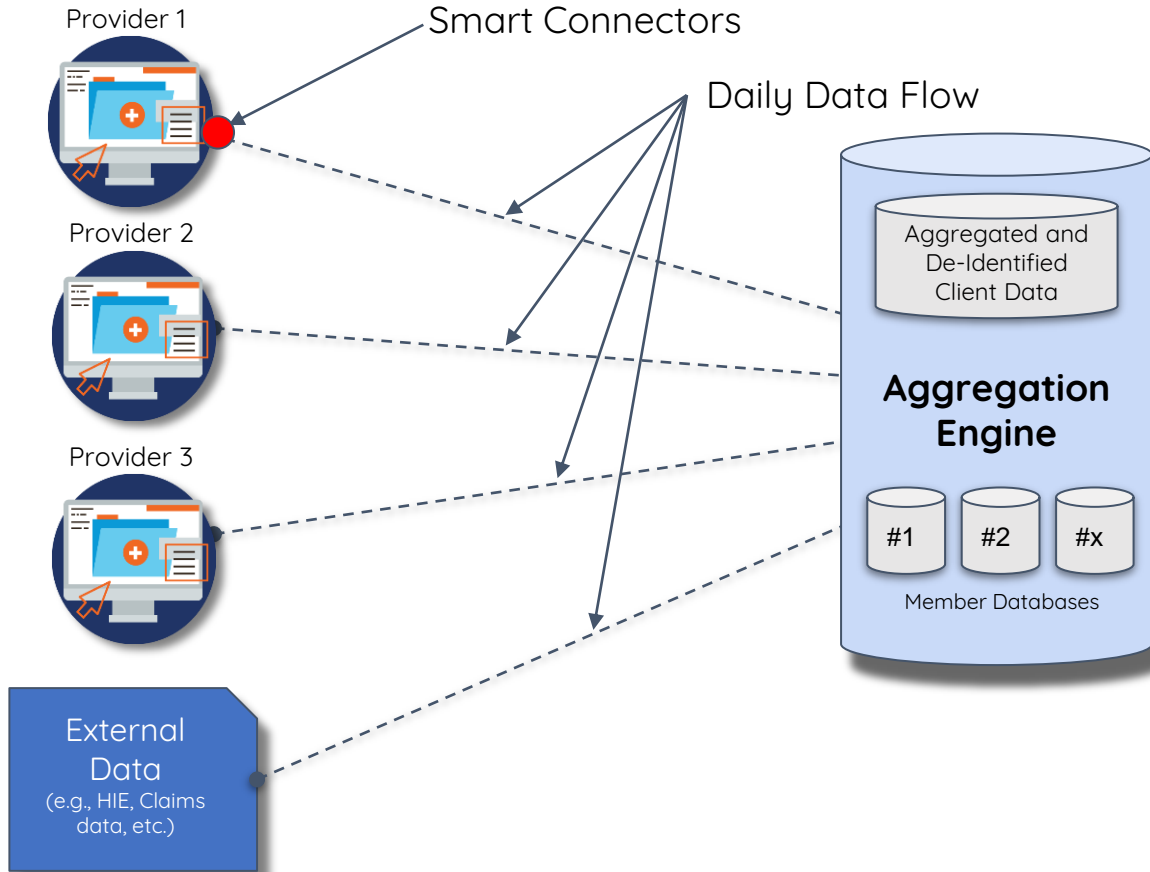
- Preventive Care & Screening: Body Mass Index (BMI) Screening & Follow-Up (BMI-SF)
- Weight Assessment for Children/Adolescents: Body Mass Index for Children/Adolescents (WCC-BH)
- Controlling High Blood Pressure (CBP-BH)
- Preventive Care & Screening: Tobacco Use: Screening & Cessation Intervention (TSC)
- Preventive Care & Screening: Unhealthy Alcohol Use: Screening & Brief Counseling (ASC)
- Child and Adolescent Major Depressive Disorder (MDD): Suicide Risk Assessment (SRA-BH-C)
- Adult Major Depressive Disorder (MDD): Suicide Risk Assessment (SRA-A)
- Screening for Clinical Depression and Follow-Up Plan (CDF-BH)
- Depression Remission at Twelve Months (DEP-REM-12)
- Follow-up after Hospitalization for Mental Illness (FUH)
- Follow-up after Emergency Department Visit for Mental Illness (FUM)
- Follow-up after Emergency Department Visit for Substance or Alcohol Use (FUA)

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# Statewide Monitoring

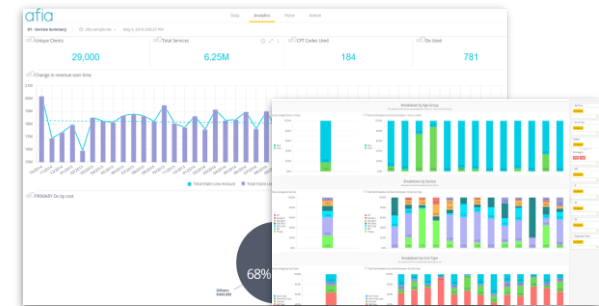
# State Data Aggregation



## Aggregate Dashboards



## Direct-Access Provider Dashboards



# ED Follow-up Monitored at the State Level

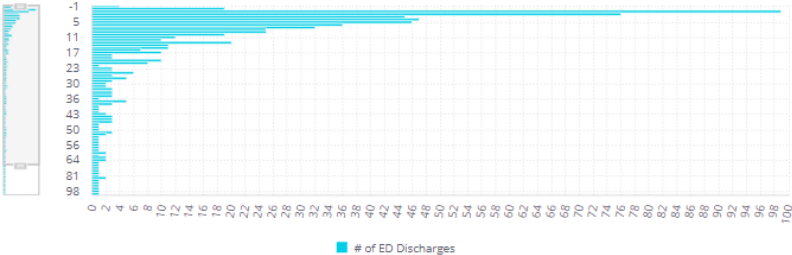
## Maryland Aggregate Dashboard MH/SUD ED Discharge Follow-up

The goal of the measure is to calculate the percent of ED Discharges with a MH/SUD diagnosis that receive a subsequent follow-up service.  
Note: A MH/SUD ED Discharge Follow-up pathway episode is created for a client if the client has a qualifying ED discharge.

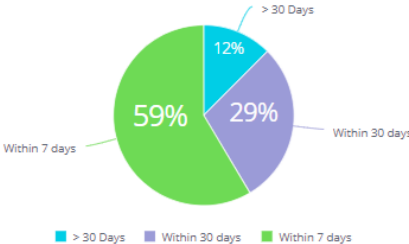
Clients with a MH/SUD ED Discharge

525

Number of Days Between MH/SUD ED Discharge & Follow-up



Number of Days Between MH/SUD ED Discharge & Follow-up





# Inpatient Follow-up Monitored at the State Level

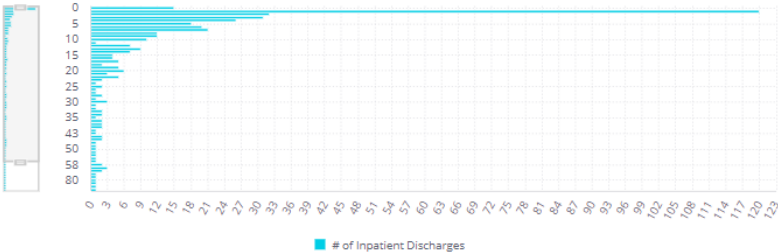
## Maryland Aggregate Dashboard MH/SUD Inpatient Discharge Follow-up

The goal of the measure is to calculate the percent of Inpatient Discharges with a MH/SUD diagnosis that receive a subsequent follow-up service  
Note: A MH/SUD ED Discharge Follow-up pathway episode is created for a client if the client has a qualifying inpatient discharge.

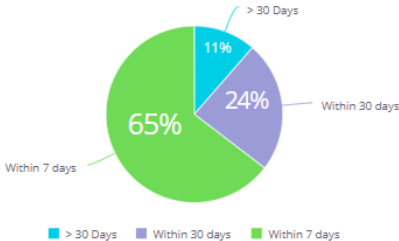
Clients with a MH/SUD Inpatient Discharge

# 381

Number of Days Between MH/SUD ED Discharge & Follow-up



Number of Days Between MH/SUD ED Discharge & Follow-up



# Inpatient Readmission Monitored at the State Level

## Maryland Aggregate Dashboard MH/SUD Readmission

The goal of the measure is to calculate the percent of Inpatient Admissions with a MH/SUD diagnosis that occur after previous MH/SUD Inpatient Discharge (i.e., the client was readmitted to an Inpatient stay).  
Note: A MH/SUD ED Discharge Follow-up pathway episode is created for a client if the client has a qualifying inpatient discharge.

Clients with a MH/SUD Inpatient Discharge

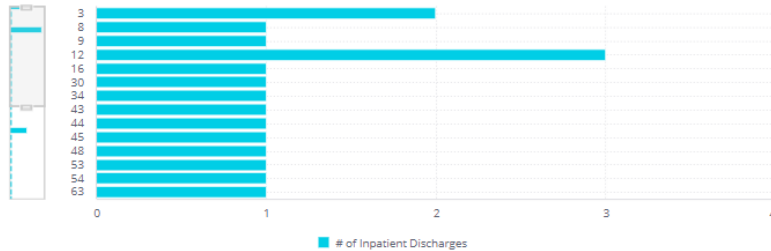
250

Clients with at least one MD/SUD Inpatient Readmission

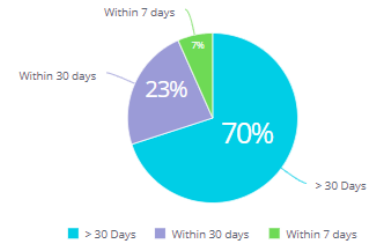
12

Percent of Clients with at least one MH/SUD Readmission 4.80%

Number of Days Between MH/SUD Inpatient Discharge & Subsequent MH/SUD Inpatient Admission



Number of Days Between MH/SUD Inpatient Discharge & Subsequent MH/SUD Inpatient Admission



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# Value-Based Care

# Widely Varied Value-based Payment Definitions

- Agencies should take control of the definition
- Negotiate reasonable rates & payment structures
- Lack of a model for SMI & high Cost/high utilization populations

**Value-based Care =**  
**X** Care  
Over **Y** Timeline  
To Produce **Z** Outcome  
For **A** Population  
At **B** Cost

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Q & A

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Thank you!

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