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Bamboo Health's Behavioral Health Update

Nishi Rawat, M.D.

Chief Clinical Officer

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Agenda

- State of behavioral health in the US

- Trends in integration of behavioral health with physical health

- Our solutions and their impact

- Where we are heading

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Section 1

Current State of Behavioral Health

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Mental Health Crisis

1 in 4

Adults Have Mental Illness
*National Institute of Mental Health

Up 4%
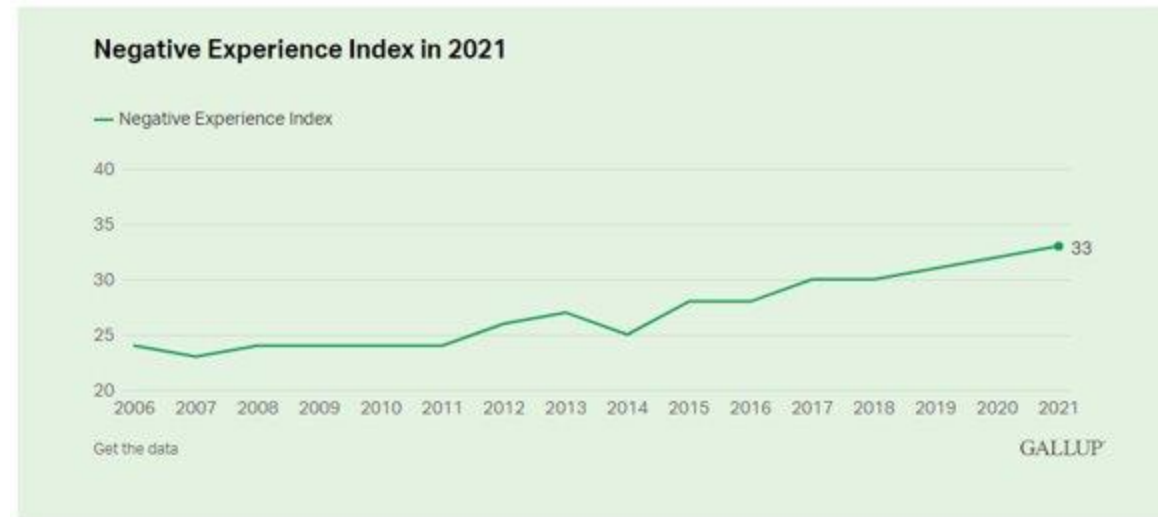
Suicide Rate Increase
*Provisional data from CDC and
American Foundation for Suicide Prevention

Alert

**U.S. Surgeon General issues
advisory on youth mental health**
*December 2021

Negative Experience Index in 2021

— Negative Experience Index

Get the data

GALLUP

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World Unhappier, More Stressed Out Than Ever (gallup.com)

Substance Use Crisis

109,000+
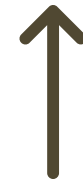Drug Overdose Deaths
Jan 2022 – Jan 2023
*Provisional data from CDC

$1.5 trillion
Economic toll of opioid crisis in 2020
*Sept. 2022 Joint Economic Committee
Congressional Report

↑ Up $486 billion
from 2019

"There is almost no other area today, where it affects our public health, national security and economic prosperity, than the opioid crisis," Rahul Gupta, Director of the White House Office of National Drug Control Policy,

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jec-cost-of-opioids-issue-brief.pdf (senate.gov)

Trends in Behavioral Health Care Delivery

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Access to appropriate care for mental health and substance use disorders is limited

Of the 14.1 million adults with SMI...

- 65.4% received mental health services in the past year

- 51.5% perceived an unmet need for mental health services in the past year

- 39.7% did not receive any mental health services in the past year

Of the 46.3 million individuals with SUD...

- 6.3% reported any substance use treatment in the past year

Of those with unmet SUD treatment needs...

- 17.9% reported not knowing where to go for treatment

- 15.8% reported not finding a program that offered the type of treatment they wanted

Relationship between Behavioral & Physical Health

Parity for Physical & Behavioral Health Coverage

- 1996: Mental Health Parity Act

- 2008: Mental Health Parity and Addiction Treatment Equity Act

- Required health insurers and group health plans to cover mental health and substance use treatment on par with medical and surgical benefits

- Recent report to Congress revealed patients are STILL being denied access to evidence-based treatment for conditions like
  - Autism
  - Opioid-use disorder
  - Eating disorders

A bifurcated system cannot address the significant overlap between physical and behavioral health. According to the Substance Abuse and Mental Health Services Administration (SAMHSA), "the solution lies in integrated care – the coordination of mental health, substance abuse, and primary care services. Integrated care produces the best outcomes and is the most effective approach to caring for people with complex healthcare needs."

SAMHSA
Substance Abuse and Mental Health
Services Administration

https://www.chiamass.gov/assets/docs/r/pubs/2022/Behavioral-Health-Readmissions-2022-Report.pdf

A healthcare system geared towards physical health leads to ED boarding for behavioral health events

The Problem

- ED boarding occurs when there isn't an available bed at the right level of care
- **Psychiatric patients are ~4x more likely to board** in the ED that non-psychiatric patients
- Published average ED Boarding times for psychiatric patients range from 6.8 - 34 hours. **It is not uncommon for a BH patient to board for days**

The Impact

- EDs are unable to free up beds & resources for new emergent patients
- **Patients receive sub-optimal care while in the ED and delayed connection to treatment**
- Contributes to lost hospital revenue and staff burnout

Medical facilities sent the majority of BH referrals, and psychiatric inpatient facilities received the majority (Q1 2023)[1]

Medical Facilities (acute hospitals) were responsible for sending 58% of all referrals

Referring Organization Type	% Total
Medical Facility	58%
OP Treatment Facility	20%
Psychiatric IP	8%
Crisis Service	8%
Justice System	3%

2% or less: IP Treatment Facility, Substance Use Inpatient, MH and SUD Assessment Center, Primary Care

Psychiatric Inpatient providers received 62% of all referrals

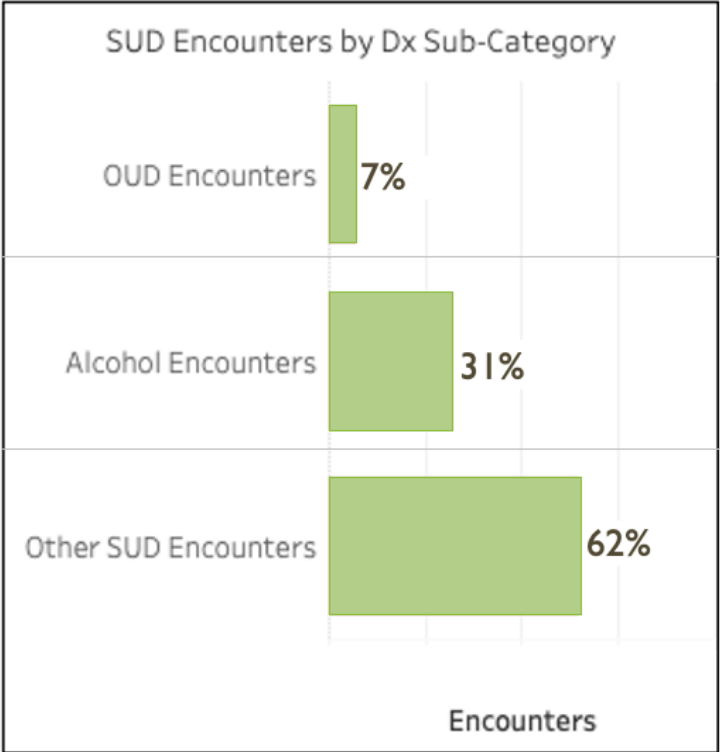| Receiving Organization Type	% Total
Psychiatric IP	62%
Crisis Stabilization	14%
IP Withdrawal Management	10%
OP Counseling	9%
Residential Substance Use Treatment	6%
MAT OTP	5%
Recovery Support Services	5%
Sober Living	4%

2% or less: Peer Support, IOP, Primary Care, Partial Hospitalization, MAT non-OTP, ACT, Targeted Case Management

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1. Based on Referrals requested via the Bamboo OpenBeds platform in 1 state in Q1 2023

7% of all acute ADT encounters have at least 1 BH diagnosis[1]. 61% of these had a Mental Health diagnosis; 39% had a SUD diagnosis

Of encounters with a MH diagnosis[1],
63% were for Mood disorders
*(depression, bipolar disorder, anxiety)*
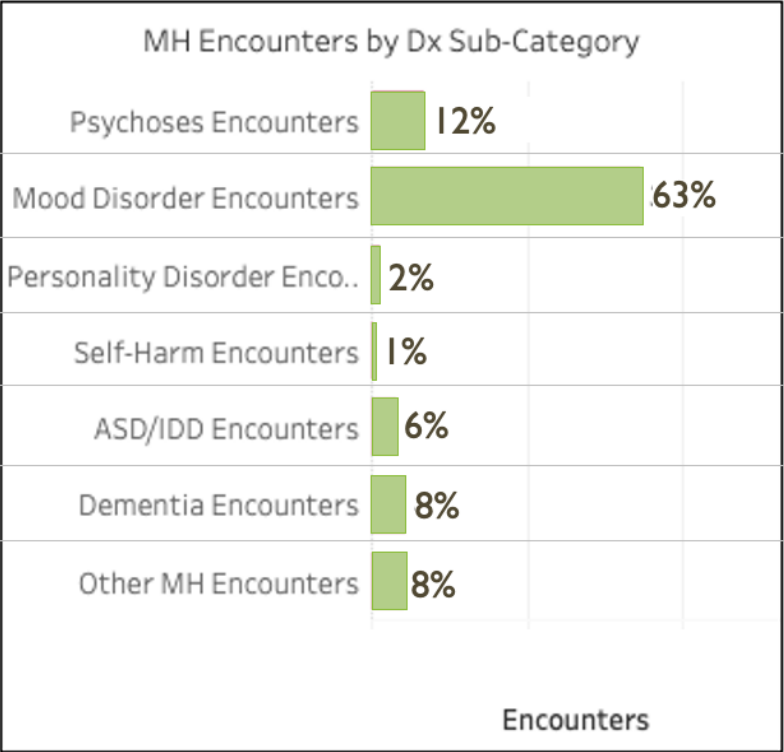
Of encounters with a SUD diagnosis[1],
62% were for a substance other than Opioids or Alcohol

MH Encounters by Dx Sub-Category

- Psychoses Encounters: 12%
- Mood Disorder Encounters: 63%
- Personality Disorder Enco..: 2%
- Self-Harm Encounters: 1%
- ASD/IDD Encounters: 6%
- Dementia Encounters: 8%
- Other MH Encounters: 8%

Encounters

SUD Encounters by Dx Sub-Category

- OUD Encounters: 7%
- Alcohol Encounters: 31%
- Other SUD Encounters: 62%

Encounters

1. Based all on Q1 2023 ADT encounters at at Acute Hospital across Bamboo's national network

The majority of acute encounters[1] with a BH diagnosis are ED-only and do not result in an IP admission

Acute encounters with any BH diagnosis by Encounter type
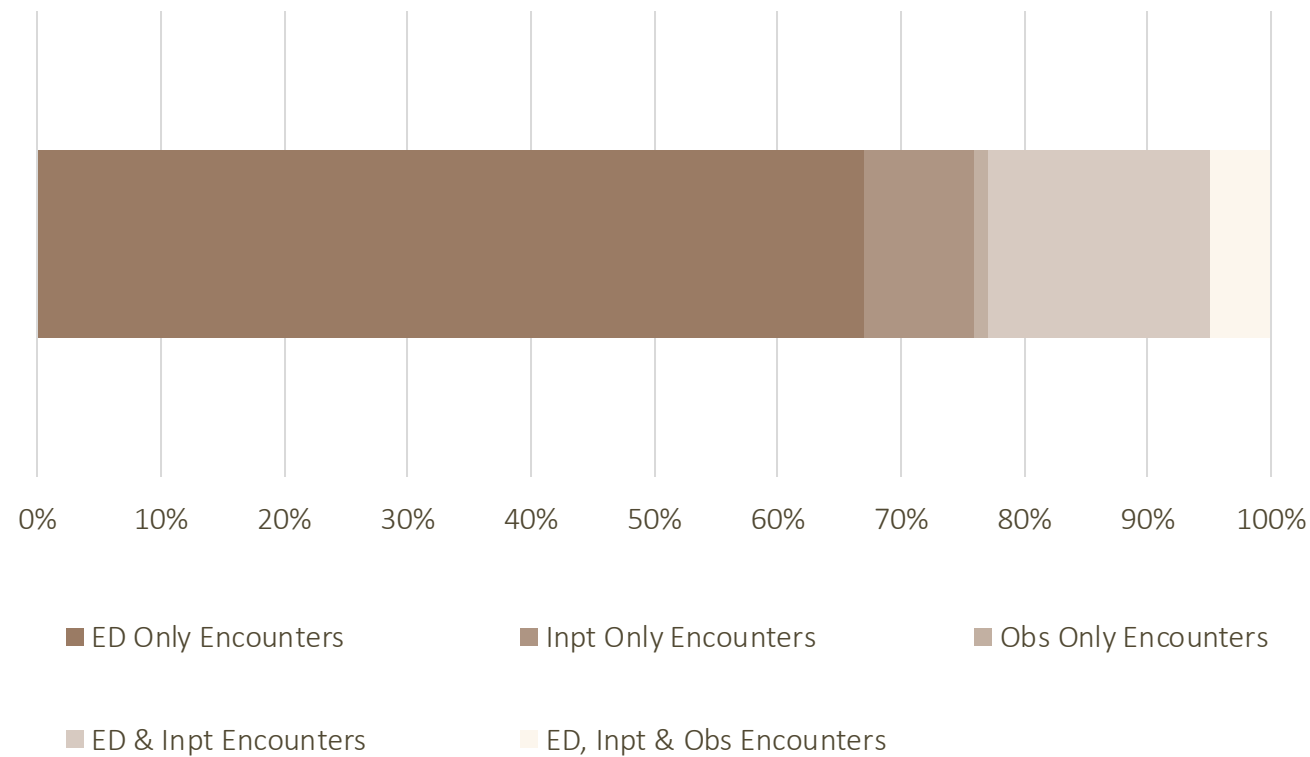
Encounter type	% Total
ED Only[2]	67%
IP Only	9%
Obs Only	1%
ED to IP[2]	18%
ED, IP, Obs[2]	5%

- ED Only Encounters
- Inpt Only Encounters
- Obs Only Encounters
- ED & Inpt Encounters
- ED, Inpt & Obs Encounters

1. *Based all on Q1 2023 ADT encounters at at Acute Hospital across Bamboo's national network*
2. *Within the same facility*

HHS Roadmap for Behavioral Health is intended to create new policies addressing this crisis

President's Strategy

- *Strengthen System Capacity*

- *Connect Americans to Care*

- *Supports Americans by Creating Healthy Environments*

HHS Strategy

1. Expand access to BH by integrating into primary care settings

2. Recruit, train, and support a diverse BH workforce

3. Strengthen the implementation and enforcement of BH parity

4. Engage several of the highest-risk populations

5. Integrate promotion and prevention programs in community-based settings for youths

6. Test models of care integration through value-based payment and emerging technologies

7. Drive resources into integrated care through pay-for-reporting and P4P mechanisms

HHS Roadmap for Behavioral Health Integration

Roadmap Strategic Objective

Example Initiativest

1	Expand access to BH by integrating into primary care settings	▶ Medicare policy to allow payment for integrated BH services provided by clinical psychologists/social workers
2	Recruit, train, and support a diverse BH workforce	▶ Medicare policy to relax restrictions for type of care provider (general vs. direct physician supervision)
3	Strengthen the implementation and enforcement of BH parity	▶ CMS to develop ways to expand timely access to BH services and address "ghost networks" with network adequacy
4	Engage several of the highest-risk populations	▶ Updated HIS Trauma-Informed Care policy to provide care that is patient-focused, recovery-oriented, and integrates cultural humility
5	Integrate promotion and prevention programs in community-based settings for youths	▶ CMS implementing activities to support schools to deliver and claim for Medicaid services including BH
6	Test models of care integration through value-based payment and emerging technologies	▶ New policies, research, and interoperability standards to ensure systems and providers can communicate
7	Drive resources into integrated care through pay-for-reporting and P4P mechanisms	▶ HHS to ill develop BH integration quality measures and incentivize greater investment

States are investing to improve BH treatment systems and overall public health

> "…we are mending the fractured behavioral health system in Delaware, so people can get access to treatment and on the path to recovery.…
>
> Newsweek recently recognized Delaware in November 2021 as one of only four states that the CDC reported as having a decrease in the annual percentage rate of opioid deaths. DTRN was a significant tool contributing to this reduction."
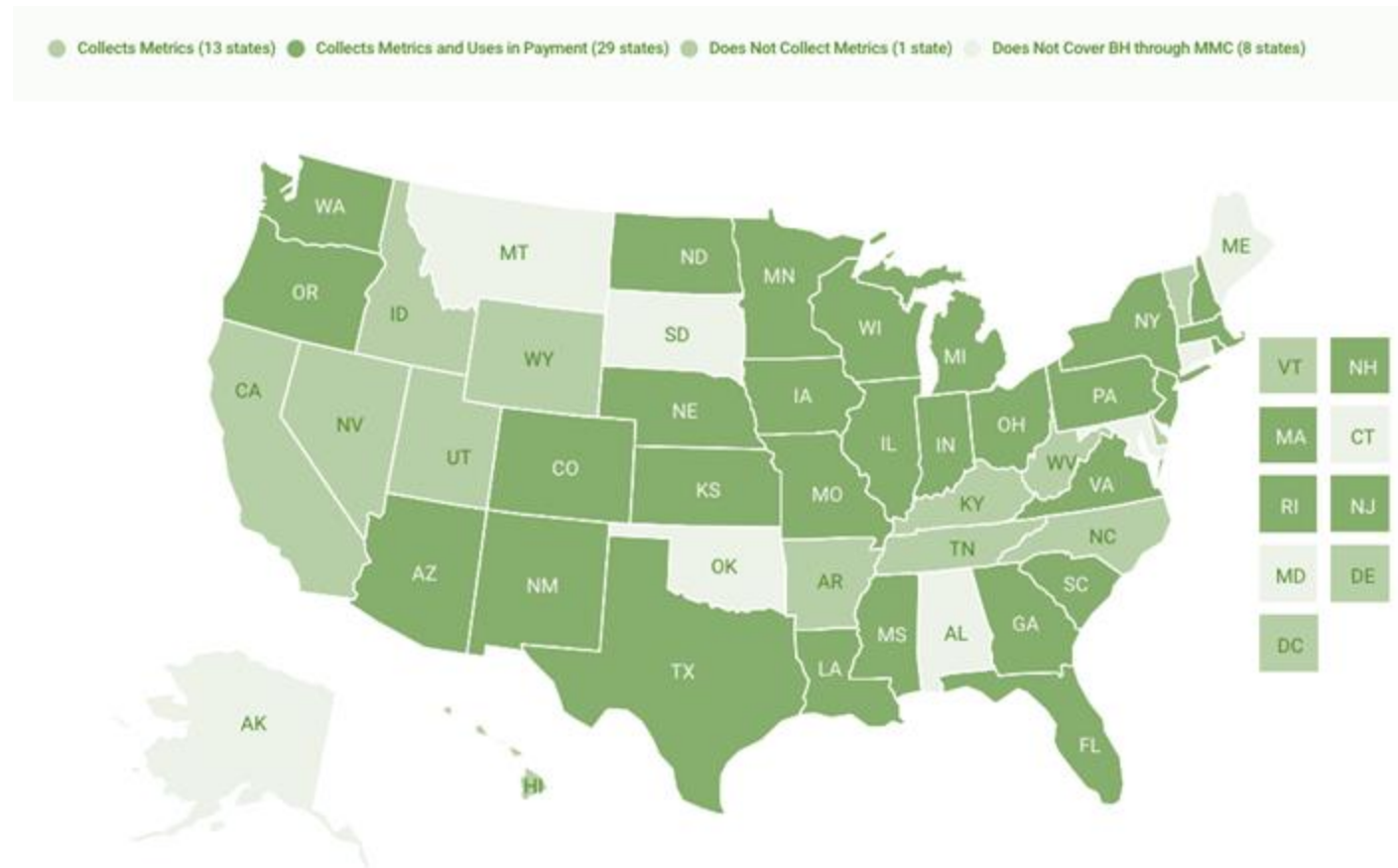>
> *Delaware Lieutenant Governor Bethany Hall-Long, Ph.D., RN*

In 2021, Massachusetts introduced a roadmap for behavioral health reform with **$200M of planned investments over 3 years**

In 2023, North Carolina legislature **proposed $1B investment to strengthening the mental health system** alongside Medicaid expansion

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States are measuring and incentivizing Medicaid Managed Care performance on key behavioral health quality measures
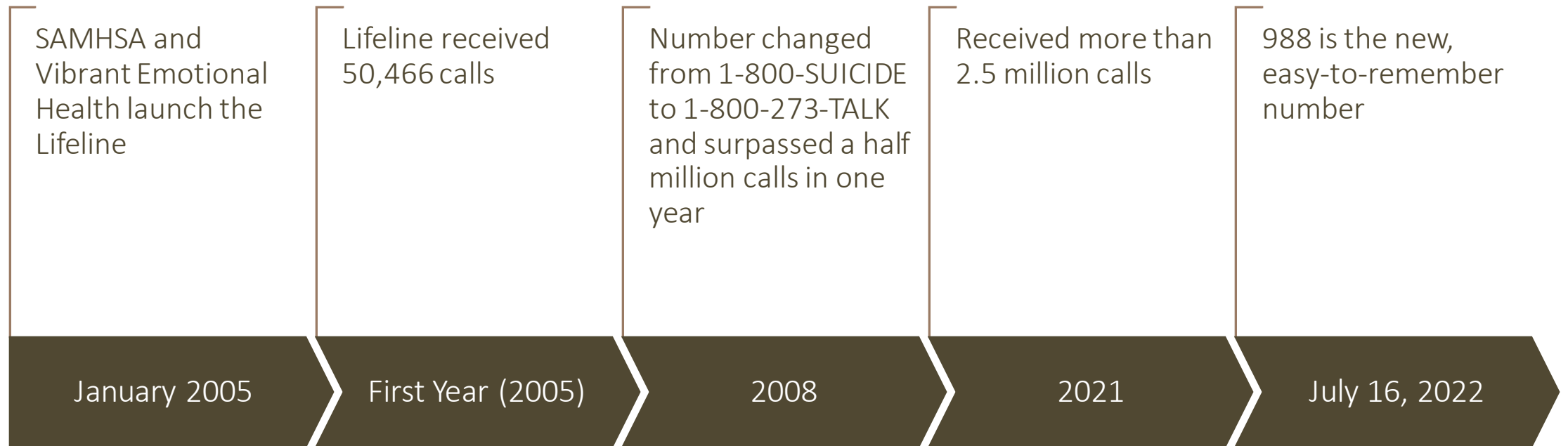
States Collecting and Paying on Behavioral Health Quality Measures in 2022

Collects Metrics (13 states) ● Collects Metrics and Uses in Payment (29 states) ● Does Not Collect Metrics (1 state) ● Does Not Cover BH through MMC (8 states)

- 42 Medicaid agencies collect at least 1 measure

- 29 states factor performance on at least 1 BH clinical or utilization measure into plan payment

- Incentives around these measures is typically in the form of a 1-5% capitation withhold and P4P

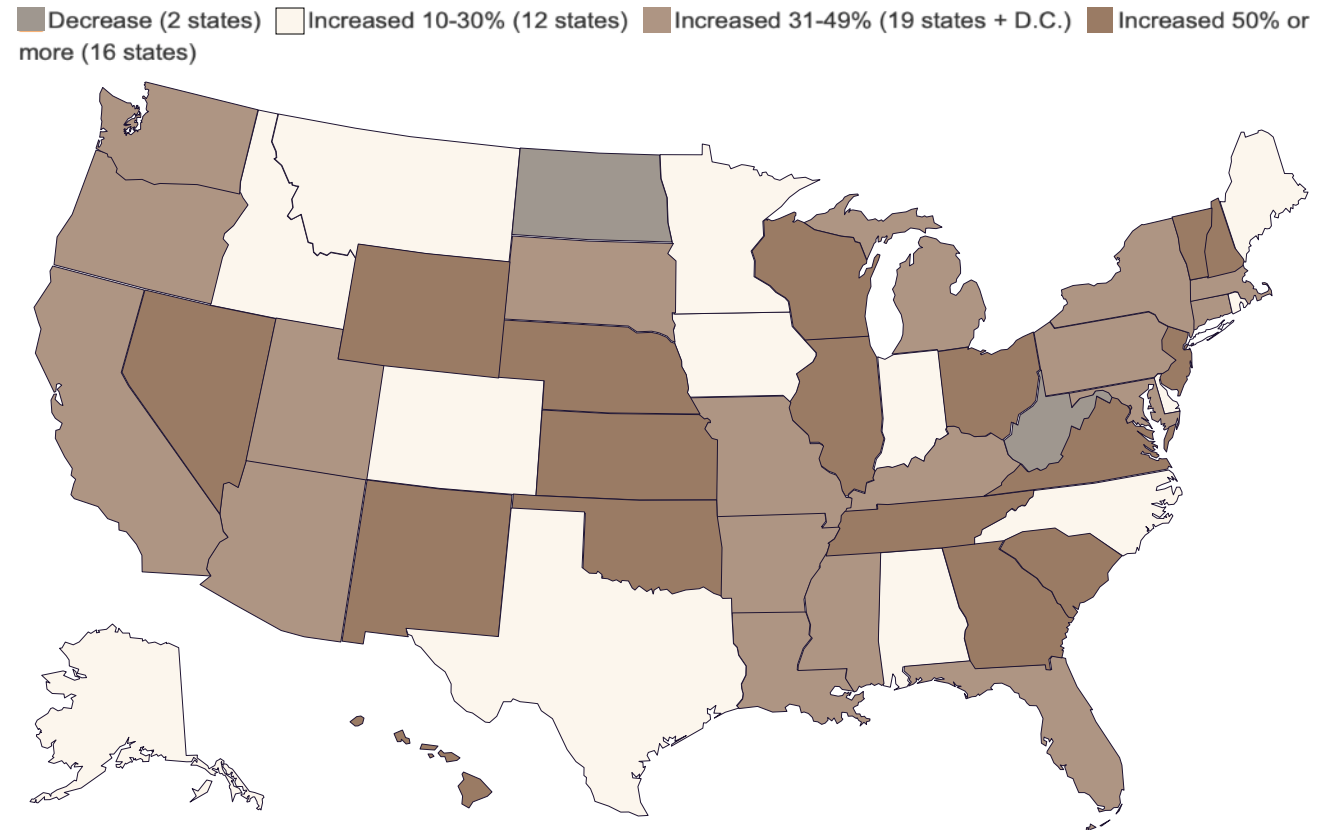- Top 5 measures used in payment (HEDIS): FUH, FUM, IET, FUA, AMM

Sources: NASHP

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Timeline

SAMHSA and Vibrant Emotional Health launch the Lifeline

Lifeline received 50,466 calls

Number changed from 1-800-SUICIDE to 1-800-273-TALK and surpassed a half million calls in one year

Received more than 2.5 million calls

988 is the new, easy-to-remember number

| January 2005 | First Year (2005) | 2008 | 2021 | July 16, 2022 |

National Launch of 988

The federally mandated National Suicide & Crisis Lifeline (988) launched in July 2022.

This line (*fka the National Suicide Prevention Lifeline*) connects people in crisis with suicide prevention and mental health crisis counselors

Since launch, there has been a positive impact on call volumes, indicating adoption of the line

BUT a 3-digit number alone will not solve the problem

% difference in number of routed calls for BH crises
(August 2021 vs August 2022)

Decrease (2 states) ☐ Increased 10-30% (12 states) Increased 31-49% (19 states + D.C.) Increased 50% or more (16 states)

NOTE: Percent difference in routed calls from August 2022 compared to August 2021. For state metrics, Lifeline defines "routed calls" as the number of calls where the caller listens to the greeting and is routed to the call center, including those that abandon quickly after routing. Maine was excluded due to data quality issues. State-level analyses only include data for calls because text and chat data are unavailable by state.
SOURCE: KFF Analysis of Lifeline Performance Metrics (Vibrant Emotional Health's 988 Lifeline Data) • PNG

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One-year in: States are still struggling to implement comprehensive crisis solutions

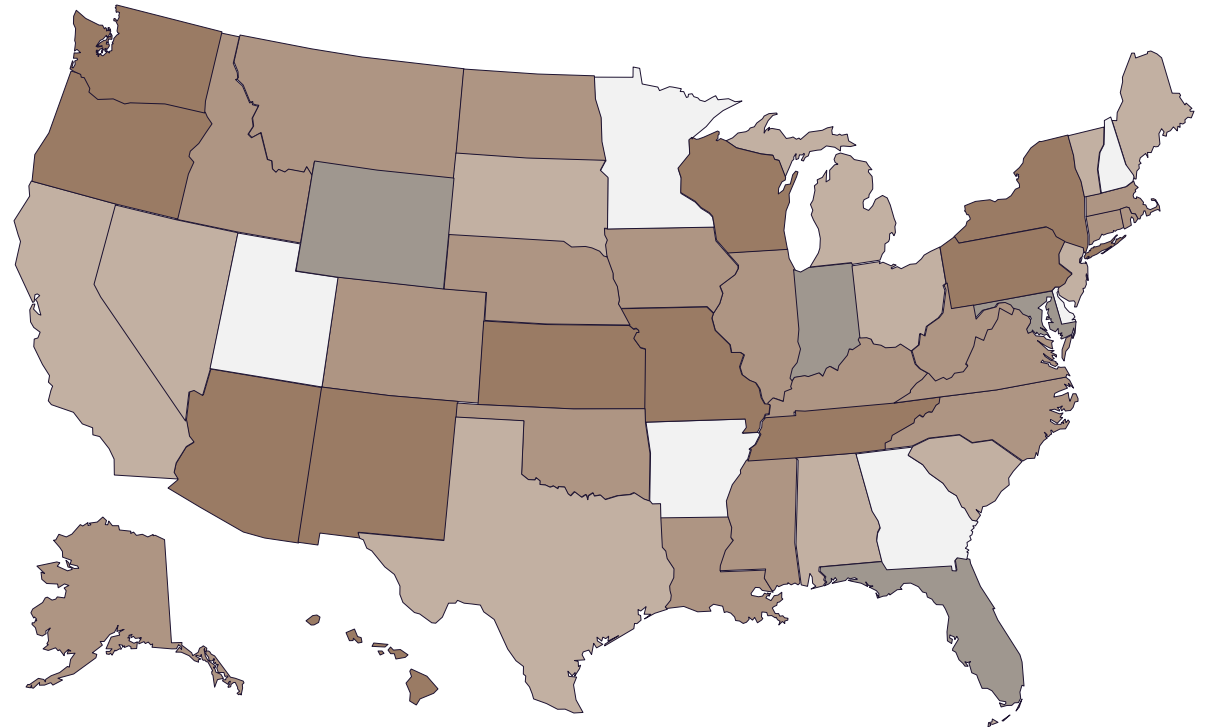SAMHSA Core Crisis Elements:

1. Regional Crisis Call Center

2. Crisis Mobile Team Response

3. Crisis Receiving and Stabilization Facilities

~75% of states do not cover all three core crisis elements via Medicaid

# of Core Crisis Services Covered

- All Three Core Crisis (12 states including D.C.)
- Two Core Crisis (18 states)
- One Core Crisis (11 states)
- None (4 states)

NOTE: Crisis hotline services are available to anyone free of charge across all states, but some Medicaid programs help to finance crisis hotlines by reimbursing crisis hotline services, which might include 988 or other hotlines. SOURCE: Behavioral health supplement to the annual KFF survey of state Medicaid officials conducted by Health Management Associates, October 2022

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Inbound crisis calls result in a wide range of dispositions

28% of total calls resulted in a referral or connection to OP treatment and/or social services

Disposition	% Total calls
Referred to OP and/or Social Services	28%
Left in care of natural supports	19%
IP Psych referral / placement	14%
Other	14%
Created a safety / crisis plan	6%
MAT OTP	5%
Involuntary Admission	4%
Unable to locate or declined assistance	4%

3% or less:
- De-escalated and resolved
- Mobile crisis deployed
- First responders / law enforcement involved
- Phone consult
- Voluntary medical admission
- Transported to ED
- Follow up scheduled
- Crisis admission

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1. Based on Inbound 988 crisis calls via Bamboo Health Crisis Management System in 3 states in Q1 2023, excluding calls with no recorded disposition

Increased focus on Justice-Involved populations

New or Expanded Medicaid Initiatives to Address Racial/Ethnic Health Disparities, FY 2022-2023

n = 46 states

- New/expanded in FY 2022
- New/expanded in FY 2022 & planned for FY 2023
- Planned for FY 2023

# of States with ANY Specified Equity Initiative

Any Specified Equity Initiative: 6 | 28 | 7 → 41

# of States with Equity Initiatives in Specified Areas

Area				Total
Maternal Health	12	13	10	35
Behavioral Health	9	9	7	25
COVID-19	14	3		17
Cancer	4			7
Chronic Conditions	5	4	10	19
Justice-Involved Population	5	8		14
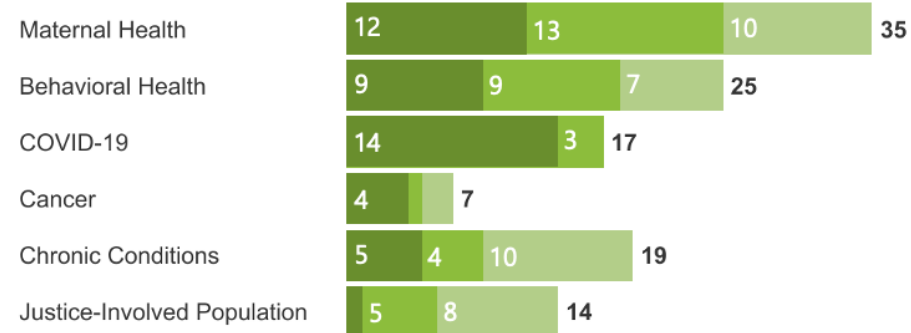
SOURCE: Annual KFF survey of state Medicaid officials conducted by Health Management Associates, October 2022

KFF

~30%

of states have new or expanding Medicaid initiatives for Justice-Involved populations

New Guidance around Section 1115 Waivers to Encourage Demonstrations for Care for the Justice-Involved

Press release

HHS Releases New Guidance to Encourage States to Apply for New Medicaid Reentry Section 1115 Demonstration Opportunity to Increase Health Care for People Leaving Carceral Facilities

Apr 17, 2023 | Coverage, Medicaid & CHIP

Demonstrations would partially waive the statutory Medicaid inmate exclusion policy (prohibits Medicaid from paying services, other than IP, during incarceration)

1115 Waiver Demonstrations: California approved; 14 additional states pending

Key Elements	CA Example
Pre-release coverage period	90 days before release
Eligibility criteria	All youth inmates; adult Medicaid-eligible inmates that meet health criteria (BH needs or other chronic conditions)
Benefits / Services provided	Limited package of reentry services (case management, clinical consultations, lab / radiology, medications & administration, MAT, CHW)

■ Approved (inmates that meet health criteria)   ■ Pending (all Medicaid-eligible inmates)
■ Pending (inmates that meet health criteria)
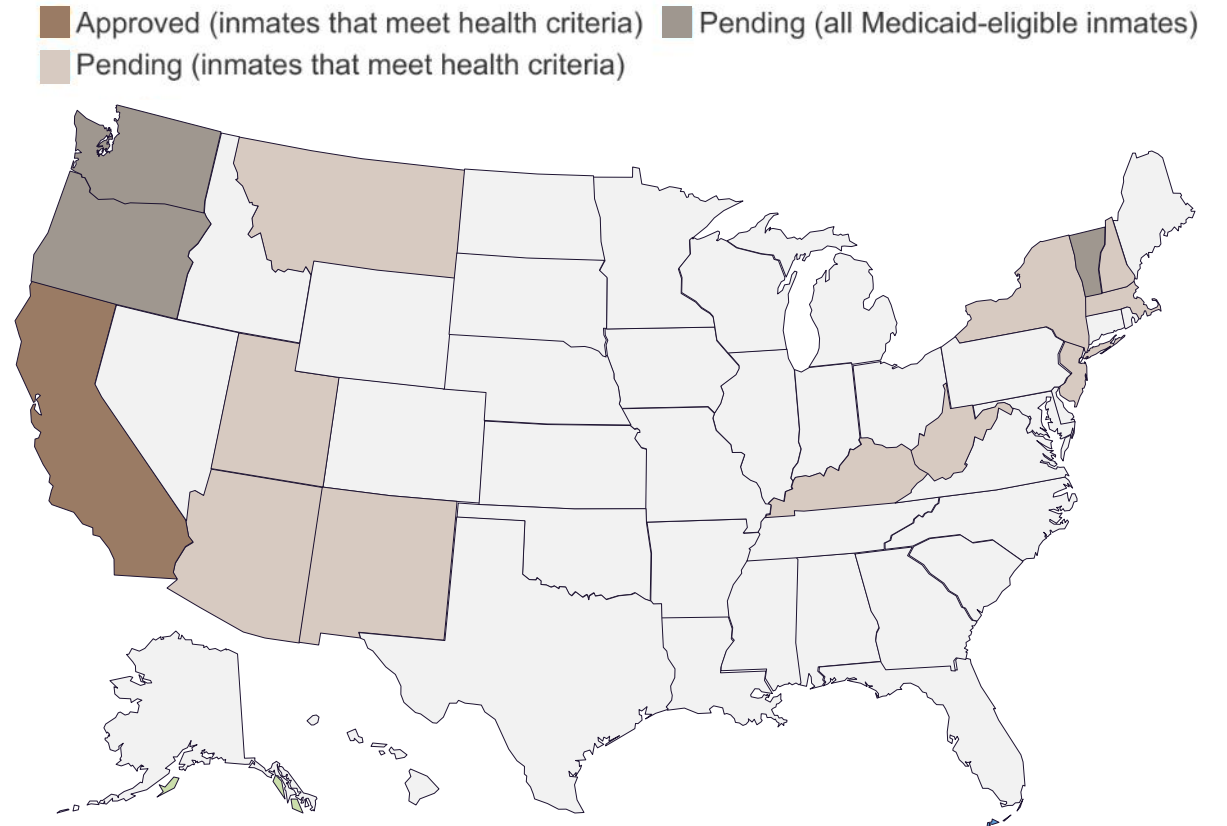
NOTE: In Massachusetts, adult inmates who meet health criteria and ALL youth inmates would be eligible for pre-release services.
SOURCE: KFF analysis of Section 1115 waivers posted to Medicaid.gov.

KFF

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While progress has been made for Behavioral Health Care Delivery, challenges remain:

Behavioral Health and Physical Health remain siloed

There are few outcomes measures that are consistently tracked and care models vary

Finding and engaging complex members with BH needs is resource intensive

Accessing the right level of care at the right time can be near impossible

New providers entering the market struggle to gain sufficient patient volume

Many patients with MH and SUD needs still end up in the ED, where they board for days

Where do we go from here?

How Bamboo Health helps with Behavioral Health Care Delivery

Recent and upcoming developments from Bamboo Health

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Combining Behavioral Health & Physical Health Solutions Help Foster Whole Person Care

PREVENTION

Prescription Monitoring

Prescription Drug Monitoring (PMP AWARxE)
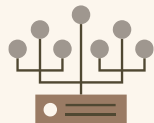
PDMP Integration (PMP Gateway)

SUD Prevention (NarxCare)

COORDINATION

Care Coordination

Real-Time E-Notifications (Pings)

Risk Reduction (Rising Risk)

Care Gaps Closure (Care Gaps)

+ Route, Stories, and Callouts

ACCESS

Behavioral Health

Capacity & Referral Management (OpenBeds)

Crisis Management

Behavioral Health Care Coordination

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Controlled Substance Solutions

AWARxE technology enables state prescription drug monitoring programs (PDMP) and can be accessed via web portal.

Gateway is an integration tool used to seamlessly bring state PDMP data into electronic health records (EHRs) and pharmacy management systems.

NarxCare provides a graphical representation of PDMP data, along with patient-level analytics and an overdose risk assessment.

JAMA Network Open

Original Investigation | Health Policy

Systematic Evaluation of State Policy Interventions Targeting the US Opioid Epidemic, 2007-2018

Byungkyu Lee, PhD; Wanying Zhao, MS; Kai-Cheng Yang, MS; Yong-Yeol Ahn, PhD; Brea L. Perry, PhD

Abstract

IMPORTANCE In response to the increase in opioid overdose deaths in the United States, many states recently have implemented supply-controlling and harm-reduction policy measures. To date, an updated policy evaluation that considers the full policy landscape has not been conducted.

OBJECTIVE To evaluate 6 US state-level drug policies to ascertain whether they are associated with a reduction in indicators of prescription opioid abuse, the prevalence of opioid use disorder and overdose, the prescription of medication-assisted treatment (MAT), and drug overdose deaths.

DESIGN, SETTING, AND PARTICIPANTS This cross-sectional study used drug overdose mortality data from 50 states obtained from the National Vital Statistics System and claims data from 23 million commercially insured patients in the US between 2007 and 2018. Difference-in-differences analysis using panel matching was conducted to evaluate the prevalence of indicators of prescription opioid abuse, opioid use disorder and overdose diagnosis, the prescription of MAT, and drug

Key Points

Question Are US state drug policies associated with variation in opioid misuse, opioid use disorder, and drug overdose mortality?

Findings In this cross-sectional study of state-level drug overdose mortality data and claims data from 23 million commercially insured patients in the US between 2007 and 2018, state policies were associated with a reduction in known indicators of prescription opioid misuse as well as deaths from prescription opioid overdose and
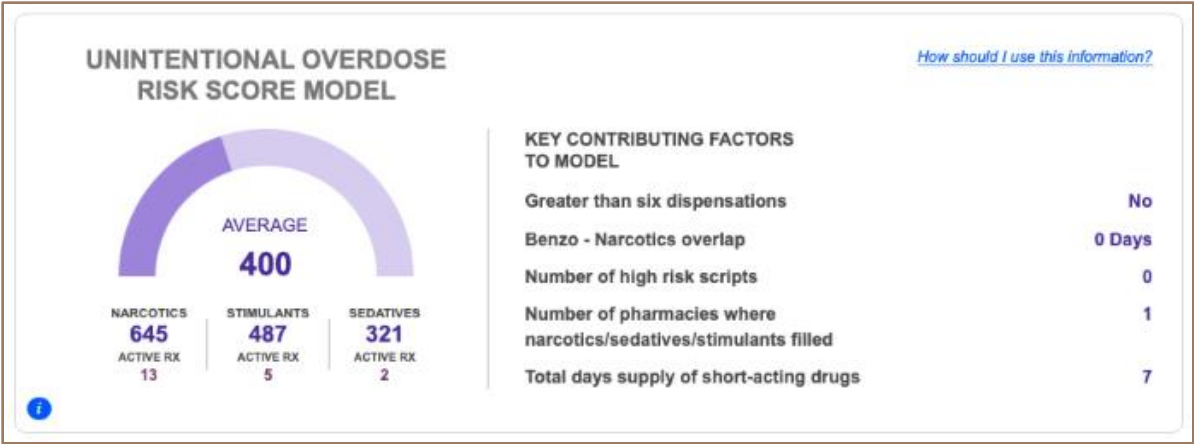
Refining our models: adjusting and improving Bamboo's solutions to reflect provider & patient needs

Limited pilot with two organizations to evaluate prospective updates to NarxCare

ORS v1.0
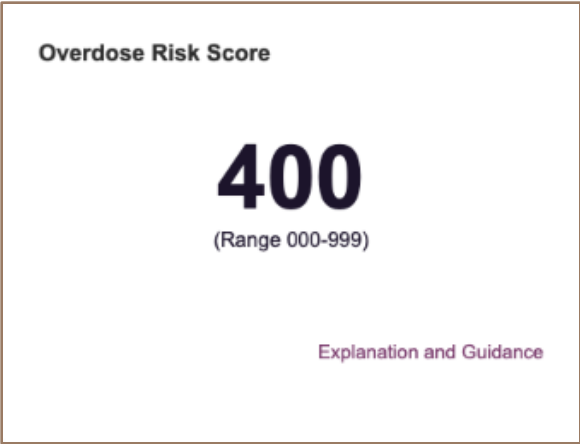
ORS v2.0

Behavioral Health Solutions

OpenBeds: Facilitates decision support, rapid digital referrals, and collaboration among behavioral health providers.
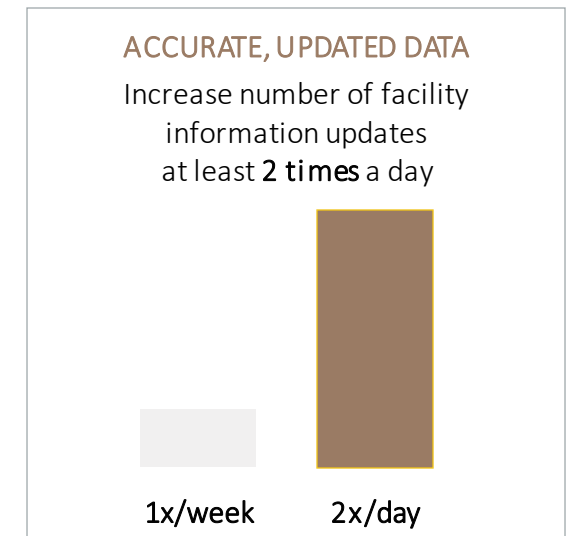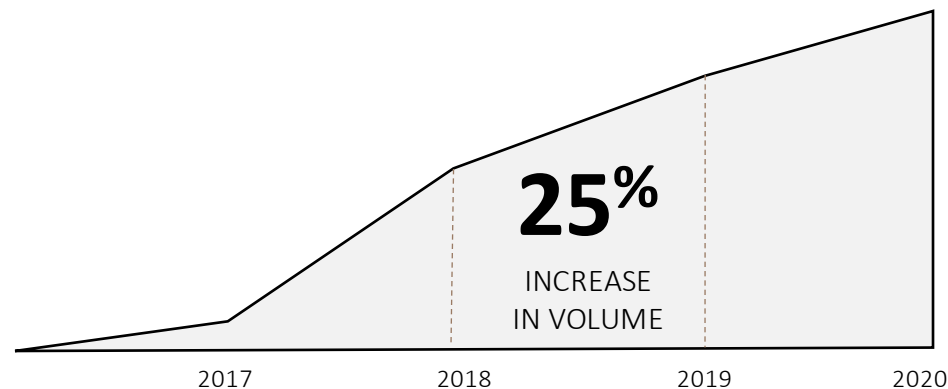
Identifies, unifies, and tracks all behavioral health treatment and support resources in a trusted network.

Crisis Management Module: Threads together the crisis care continuum for call centers, mobile crisis teams and crisis stabilization units.

OpenBeds In Delaware

" The 100,000 referrals through DTRN demonstrates that we are mending the fractured behavioral health system in Delaware, so people can get access to treatment and on the path to recovery....*Newsweek recently recognized Delaware in November 2021 as one of only four states that the CDC reported as having a decrease in the annual percentage rate of opioid deaths. DTRN was a significant tool contributing to this reduction.*

25%

INCREASE IN VOLUME

2017   2018   2019   2020

ACCURATE, UPDATED DATA

Increase number of facility information updates at least **2 times** a day

1x/week   2x/day

Updating Bamboo's OpenBeds & Crisis solutions to reflect provider & patient needs

Enhanced Reporting

Follow-up Module

Longitudinal Record

Crisis Launcher API

Pings
Care Coordination and Value-Based Care

Pings: Delivers real-time notifications whenever your patients experience care events – whether they are at a hospital, ED, or post-acute setting.

Stories: Delivers additional contextual information regarding a care event

Route: Helps hospital comply with e-notification regulatory and data-sharing requirement

Spotlights: Reporting dashboard

PINGS HELPS WITH TIMELY MENTAL HEALTH FOLLOW-UP CARE

Monarch
4,893 followers
3d

Michelle Lowder isn't sure where she would be without the #Pings patient notification used by our behavioral health outpatient clinics through Bamboo Health. Learn how consistent, scheduled #MentalHealth services are helping her through the grief she experienced from her son's death and overcome other obstacles. http://ow.ly/WOhl50IE7p1 #CareCoordination #CareCollaboration

970%
INCREASE IN PATIENTS TRACKED ON PINGS SINCE 2019

"The Pings service, to sum it up, is the only reason that I am able to sit here with you and chat with you this very moment."
- Monarch Patient

CONE HEALTH AVOIDS UNNECESSARY INPATIENT ADMISSIONS AND SAVES $1.2M+ IN A 9-MONTH PERIOD USING STORIES

20-30mins
SAVED ON AVERAGE PER PATIENT ASSESSMENT

100+
READMISSIONS AVOIDED

$1.2M+
SAVED

PING HELPS CLIENT WITH SUD REENGAGE IN THEIR CARE

"[We] received a Ping and when one our staff reached out, the member told them that they weren't going to let Eleanor know [they relapsed] because they felt ashamed...The member felt incredibly cared for and the best part is that this member reengaged in their care with us after we reached out!"

REDUCED ED UTILIZATION & FEWER PREVENTABLE ADMISSIONS

40%
REDUCTION IN HIGH UTILIZER ED USE

7%
REDUCTION IN PREVENTABLE ADMITS

INCREASED IN-NETWORK CARE

54%
INCREASE IN PREFERRED NETWORK UTILIZATION

What you need to deliver whole-person care on the ground – where it happens
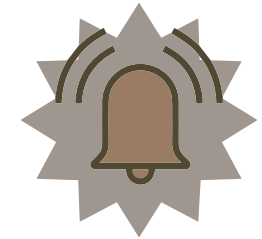
Encounter Details

Behavioral health encounter and controlled substance prescription data directly accessible by providers in the EHR at the point of care so they can make informed clinical decisions
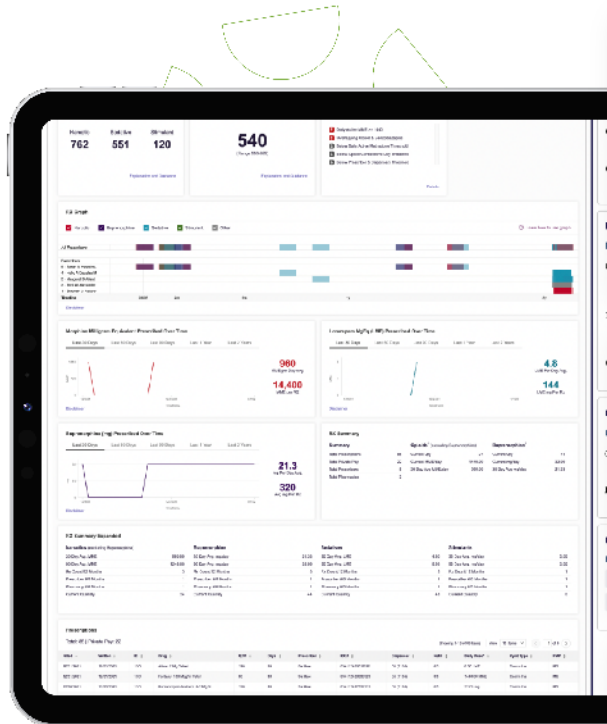
BEHAVIORAL HEALTH

PHYSICAL HEALTH

Real-Time Alerts
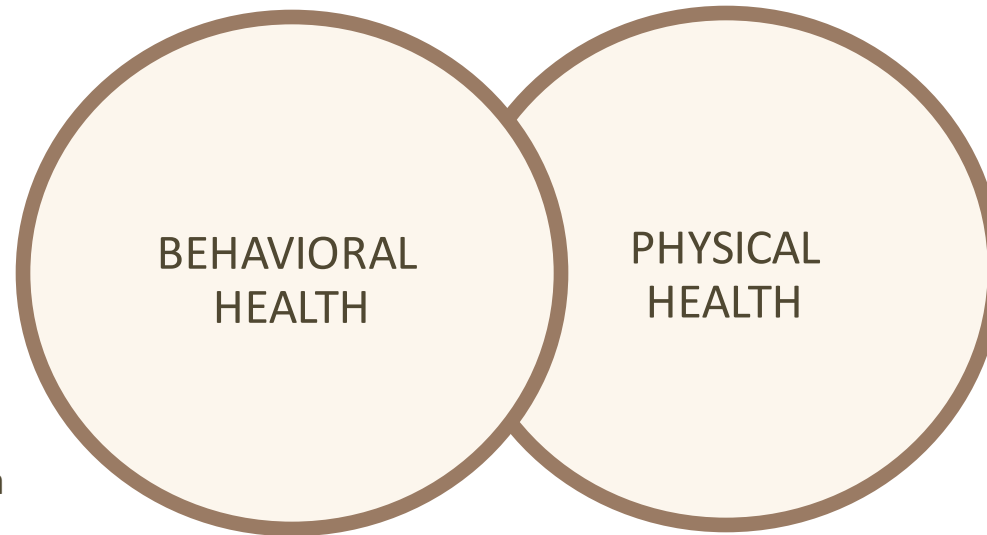
Real-time notifications of patient care encounters for providers across the care continuum

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At the point of care

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Questions?

THANK YOU!

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Questions?

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Questions?

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Questions?

THANK YOU!

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