



# Data Driven Needs Assessment

BHCIP Planning Grantees

- Advocates for Human Potential
- Manatt Health Strategies
- RAND

March 30, 2022

*"The California way means...finding new solutions to big problems."*

Governor Gavin Newsom  
State of the State Address



# Welcome

Introductions and Agenda

1

## Using Data to Inform Program Planning

*Tina Willson*

Instructional Designer, Advocates for Human Potential

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## Assessing the Continuum of Care for Behavioral Health Services in CA

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Manager, Manatt Health Strategies

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## Introduction of RAND Report

*Michael Helmick*

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## Psychiatric Bed Capacity & Need in CA

*Nicole Eberhart, Ph.D.*

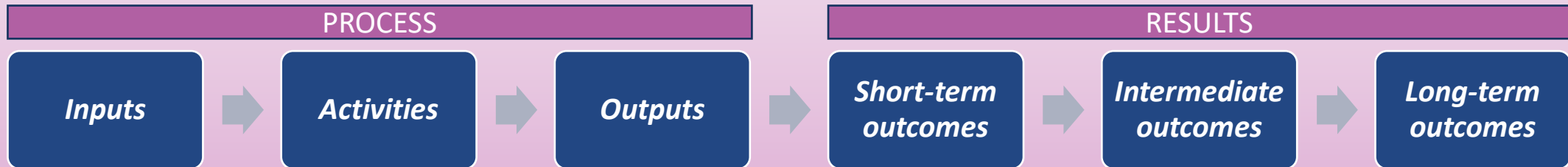
Senior Behavioral Scientist, RAND



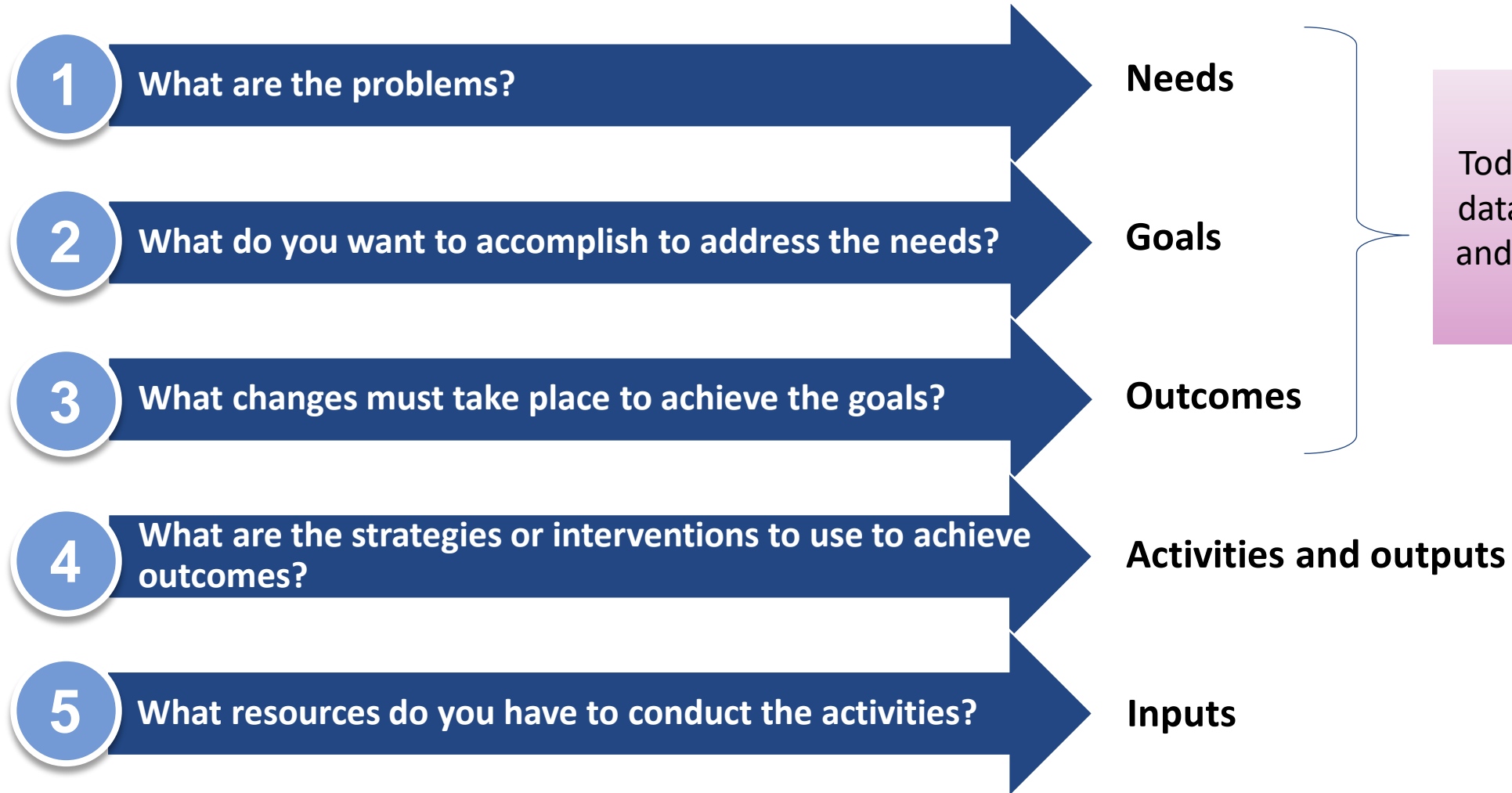
# Action Planning: A Framework



## LOGIC MODEL



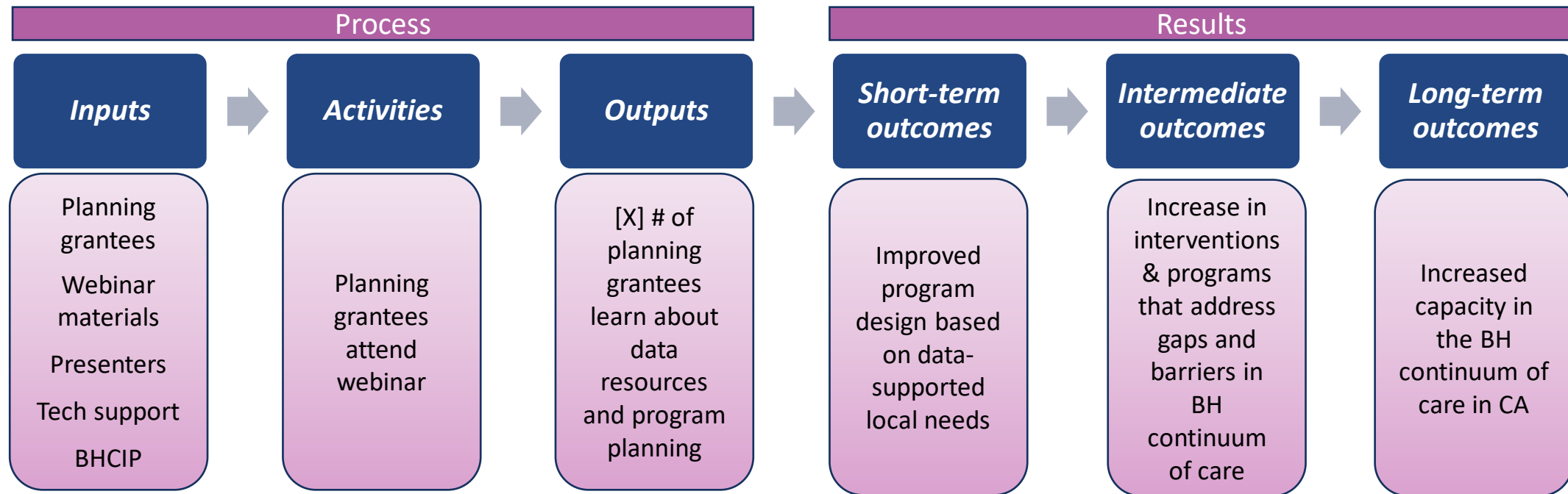
# Action Planning: Five Questions (in this order)



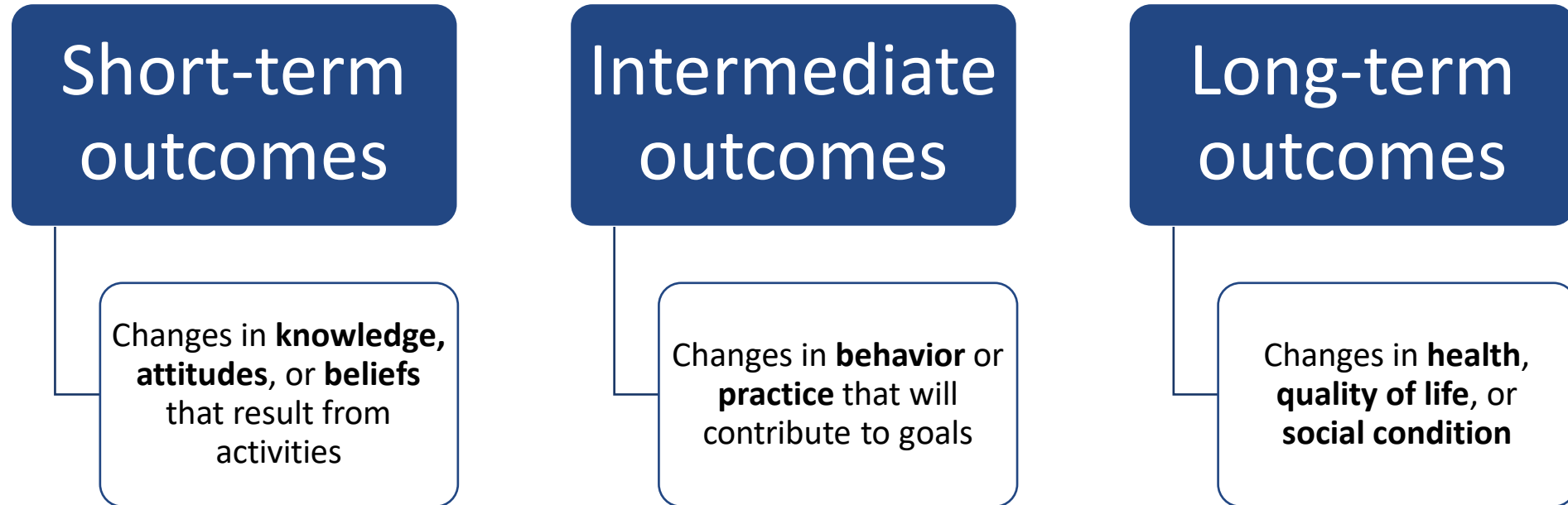
Today's focus: Finding data to identify needs and inform outcomes.

# A Simple Logic Model: Why Are We Here Today?

- **Need:** Know how to access and interpret data that reflects local behavioral health (BH) needs to inform program planning efforts
- **Target Population:** Planning grantees
- **Goal:** Prepare planning grantees to develop effective programs build capacity in the BH continuum of care in CA



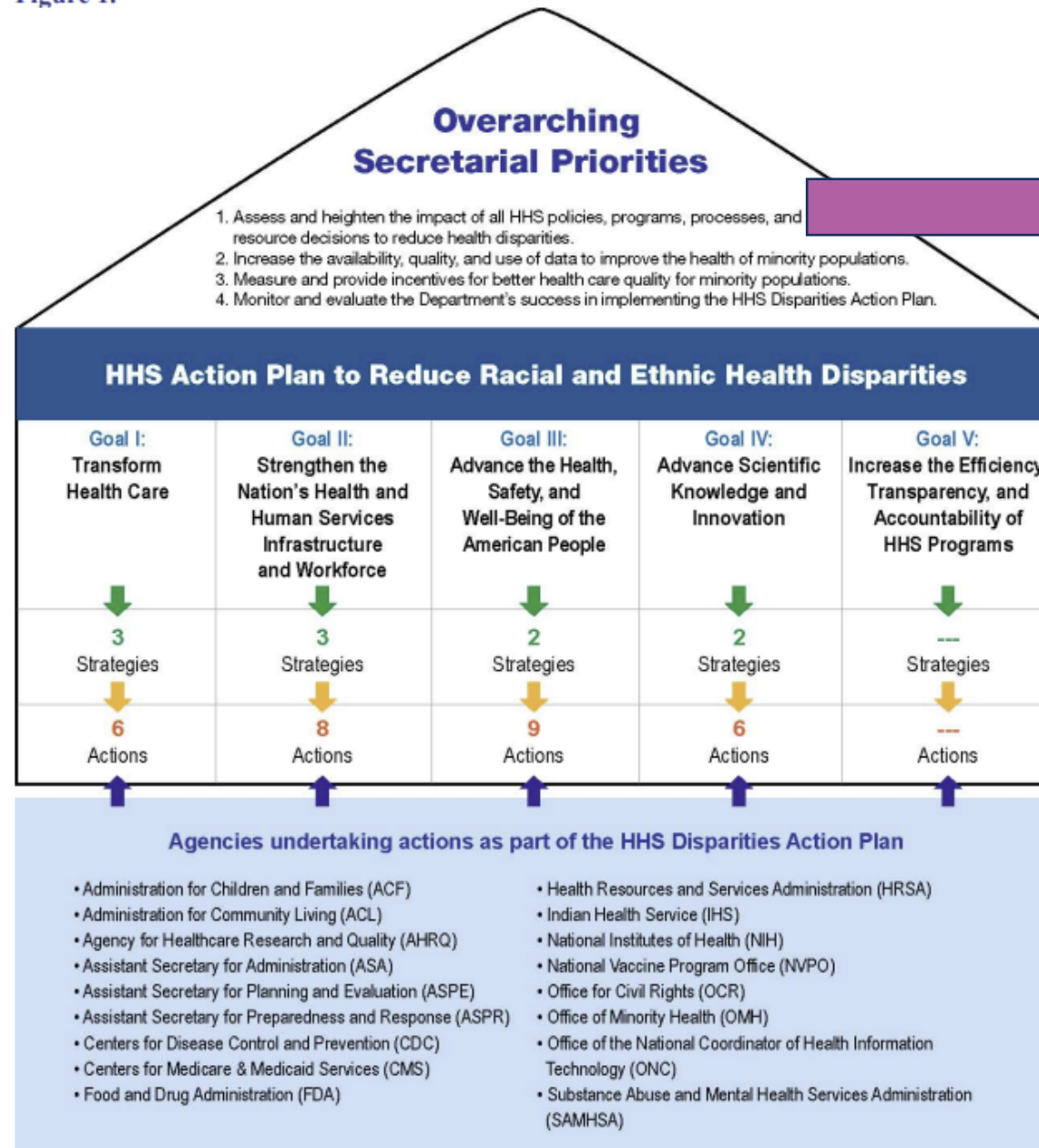
# Types of Outcomes



Outcomes and Objectives: What is the difference?

# Example: Priorities

Figure 1.



1. Assess and heighten the impact of HHS policies, programs, processes, and resource decisions to reduce health disparities.
2. Increase the availability, quality, and use of data to improve the health of minority populations.
3. Measure and provide incentives for better health care quality for minority populations.
4. Monitor and evaluate HHS's success in implementing its disparities Action Plan.

**HHS Action Plan to Reduce Racial and Ethnic Health Disparities: Implementation Progress Report 2011-2014**

U.S. Department of Health and Human Services  
Office of Minority Health

November 2015





# Example: Outcomes

Short Communication  
iMedPub Journals  
http://www.imedpub.com

Health Systems and Policy Research  
ISSN 2254-9137

DOI: 10.21767/2254-9137.100053

**“The Department of Health and Human Services Action Plan to Reduce Racial and Ethnic Health Disparities: A Commentary on Data Needs to Monitor Progress Toward Health Equity”**

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Citation: Dorsey R, Petersen D, Schottenfeld L. “The U.S. Department of Health and Human Services Action Plan to Reduce Racial and Ethnic Health Disparities: A Commentary on Data Needs to Monitor Progress Toward Health Equity.” *Health Systems and Policy Research*, 3(4). 2016.

Keywords: Health disparities, Health services, health equity, Racial and Ethnic Health Disparities

Received: November 04, 2016; Accepted: November 12, 2016; Published: November 15, 2016

Dorsey, R., Petersen, D. M., & Schottenfeld, L. (2016). The Department of Health and Human Services action plan to reduce racial and ethnic health disparities: A commentary on data needs to monitor progress toward health equity. *Health Systems and Policy Research*, 3(4). <https://doi.org/10.21767/2254-9137.100053>

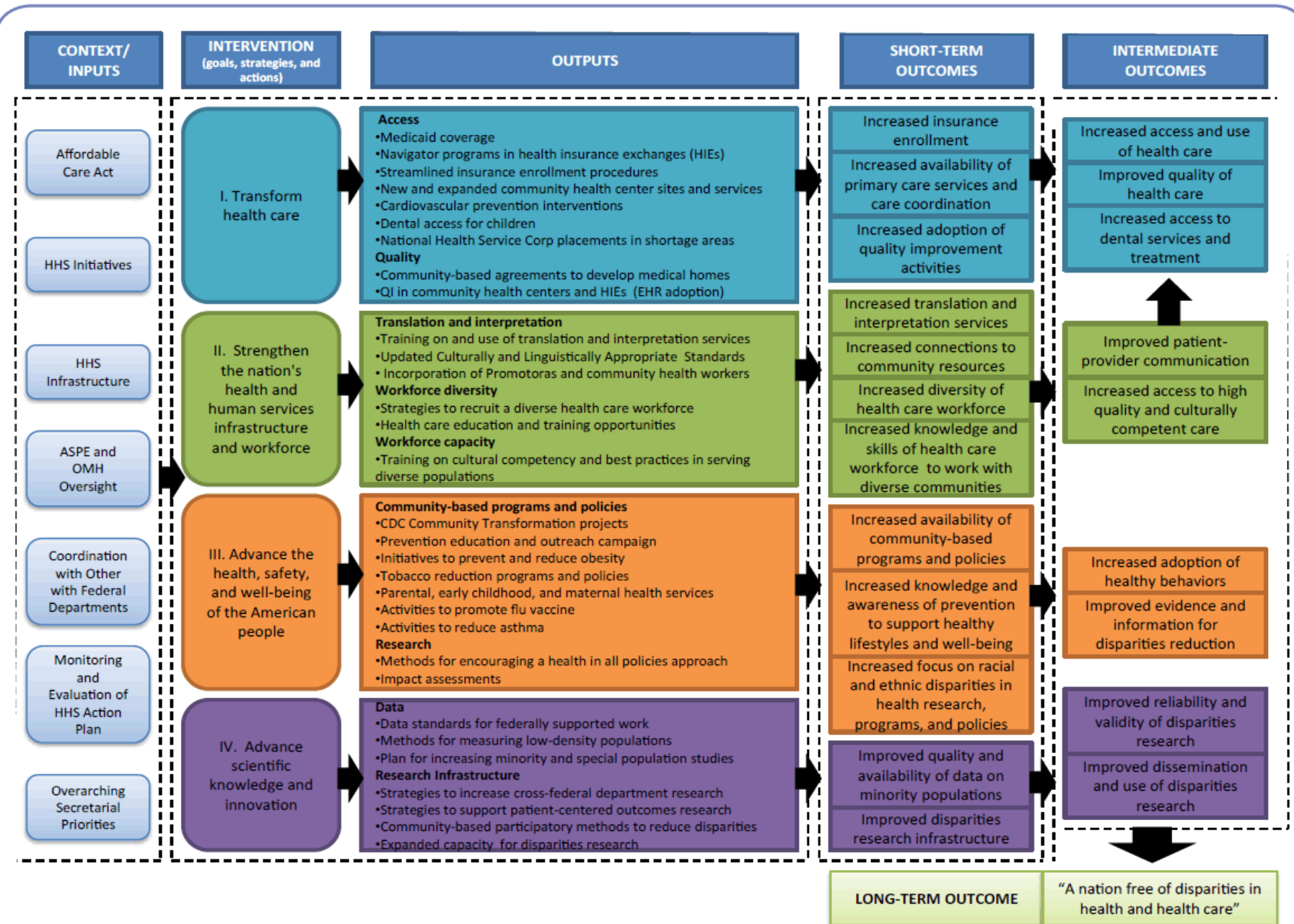


Figure 1 Action plans, goals, outputs, and outcomes.



# State of California Priorities

Invest	Invest in behavioral health and community care options that advance racial equity
Seek	Seek geographic equity of behavioral health and community care options
Address	Address urgent gaps in the care continuum for people with behavioral health conditions, including seniors, adults with disabilities, and children and youth
Increase	Increase options across the life span that serve as an alternative to incarceration, hospitalization, homelessness, and institutionalization
Meet	Meet the needs of vulnerable populations with the greatest barriers to access, including people experiencing homelessness and justice involvement
Ensure	Ensure care can be provided in the least restrictive settings to support community integration, choice, and autonomy
Leverage	Leverage county and Medi-Cal investments to support ongoing sustainability
Leverage	Leverage the historic state investments in housing and homelessness



# Finding Data: Getting Started

## Mental Health

- [Mental Health Services Act \(MHSA\) County Performance Outcomes](#)
- [Specialty Mental Health Services Program \(SMHS\) Mental Health Reports](#)
- County Mental Health Departments

## Substance Use

- [Drug Medi-Cal \(DMC\) County Performance Reports](#)
- County Substance Use Departments

## Others

- [Continua of Care](#)
- [California Health and Human Services Open Data Portal](#)
- Healthcare Providers Community Health Needs Assessments
- Medi-Cal Claims Data

# Assessing the Continuum of Care for Behavioral Health Services in California

Data, Stakeholder Perspectives, and Implications

March 30, 2022

Nathan Pauly, Ph.D.



# Agenda

**About the Behavioral Health Continuum Assessment**

**Service Challenges Across the Behavioral Health Continuum of Care**

**Key Issues and Opportunities**



# About the Assessment

The assessment defines the elements of a strong and effective behavioral health system that is person centered, offers a full array of services, focuses on equity, and is culturally competent and evidence based.

The purpose of the assessment is to:



**Provide a framework** to describe the core continuum of behavioral health care services.



**Review available data and gather insights from stakeholders and experts** on the need for and supply of key behavioral health services in California.



**Support the design and implementation of behavioral health initiatives**, including the applications for an SMI/SED 1115 demonstration and the Behavioral Health Continuum Infrastructure Program.



**Explore issues and opportunities for specific populations:** children, adolescents, and youth; American Indian/Alaska Native (AI/AN) individuals; and individuals who are justice-involved.

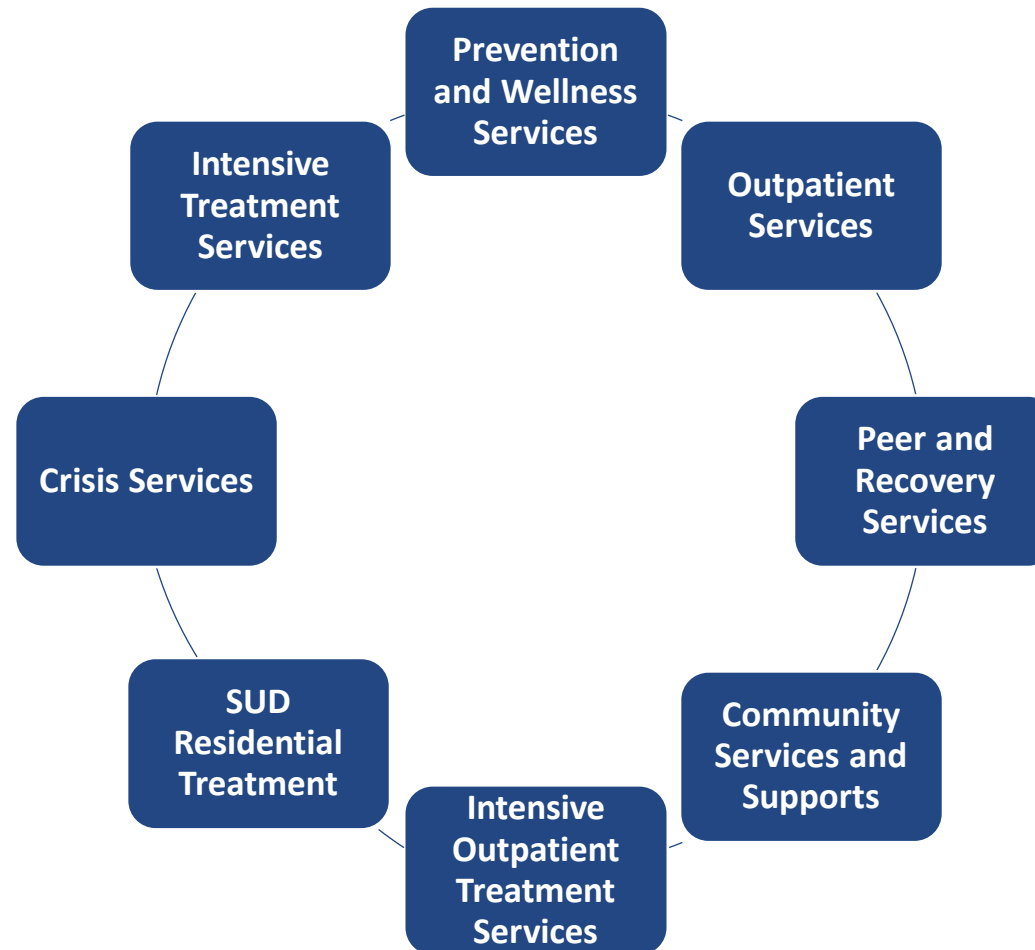


**Discuss the implications for DHCS' work** and for California's broader efforts to strengthen the behavioral health system.



# Envisioning a Core Continuum of Care

The assessment defines a core continuum of behavioral health services, identifying the elements of a strong and effective behavioral health system.







# Agenda

**About the Behavioral Health Continuum Assessment**

**Service Challenges Across the Behavioral Health Continuum of Care**

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# Outpatient Services

There is a shortage of psychiatrists and other individual practitioners, particularly in the Medi-Cal program. Smaller counties report greater shortages of outpatient services, especially mental health clinics.

## Data Example: Psychiatrists

- There is a **shortage and maldistribution of psychiatrists** across the state.
- **Eight counties do not have any psychiatrists.**
- Psychiatrists per 100,000 residents ranges **from 1.7 in San Benito County to 68.1 in Marin County.**
- The state has **536 designated mental health professional shortage areas** (areas with a shortage of psychiatrists) as of September 2020.

## Success Story

During the COVID-19 pandemic, telehealth services emerged as an important option for patients unable to access in-person outpatient services. One study of California community health centers found that total behavioral health visits remained stable during the pandemic because telehealth visits—specifically, audio or telephone visits—fully replaced in-person appointments. Contra Costa County has successfully piloted and rolled out telepsychiatry for all county mental health clinics. Ventura County also expanded telehealth services to support triage and assessment of new clients.



# Community Services and Supports

Community services and supports are a top priority of counties and other stakeholders; most urgently, affordable housing, housing support, and supported employment are needed to support community living.

**Supported employment** programs for individuals with behavioral health needs are available in many California counties. Focus group participants emphasized the importance of building in social supports, including supported employment, that link individuals to job and employment connections in the community, alongside housing supports.

The county survey identified some barriers that people face when trying to use **housing supports**:

93% of respondents

Additional permanent supportive housing options for adults that provide wraparound behavioral health services, such as recovery services

83% of respondents

Additional general housing with access to county-run supports, such as adult Full-Service Partnerships that provide intensive services and supports and coordinate access to housing, education, and employment

82% of respondents

Additional capacity in longer-term adult residential facilities, including board-and-care models.

71% of respondents

Additional sober living or recovery residences for individuals living with SUD



# Crisis Services

Despite pockets of innovation, California can do more in crisis services to reduce avoidable ED visits, hospitalizations, and incarceration.

Even where crisis services are available, there is strong interest in improving connections to ongoing care.

## Crisis Services Continuum of Care



Crisis call centers

Mobile crisis teams

Crisis stabilization units (CSUs)

Crisis respite services

Sobering centers

Crisis residential services



“Mobile crisis services are needed, but they are ineffective unless they have somewhere to take the individual. There is a huge shortage in acute inpatient beds and board-and-cares.”

*Drug/Alcohol Program  
Association*





# Agenda

**About the Behavioral Health Continuum Assessment**

**Service Challenges Across the Behavioral Health Continuum of Care**

**Key Issues and Opportunities**





# Key Issues and Opportunities

The assessment describes existing challenges and key opportunities across the state to improve prevention services and treatment options. Many already are a focus of DHCS' behavioral health agenda.



It is critical to have a **comprehensive approach to crisis services** that emphasizes community-based treatment and prevention and connects people to ongoing services.



**Community-based living options are essential** for people living with serious mental illness and/or a substance use disorder.



**More treatment options are vital for children and youth** living with significant mental health and substance use disorders.



**Prevention and early intervention** are critical for children and youth, especially those who are at high risk.



# Key Issues and Opportunities

The assessment describes existing challenges and key opportunities across the state to improve prevention services and treatment options. Many already are a focus of DHCS' behavioral health agenda.



Behavioral health services should be designed and delivered in a way that **advances equity and addresses disparities in access to care** based on race, ethnicity, and other factors.



More can be done to ensure that **evidence-based and community-defined practices** are used consistently and with fidelity throughout California's behavioral health system.



More effectively addressing the behavioral health issues—and related housing, economic and physical health issues—of **individuals who are justice involved** is critical.



# How Should BHCIP Grantees Use Information in the Behavioral Health Assessment?

The Behavioral Health Assessment presents a wide variety of data and stakeholder perspectives that may be useful to BHCIP grantees as they refine objectives and consider priorities for grant applications. Grantees may use information in this assessment to:

- Support and justify objectives and approaches described in grant applications
- Understand the behavioral health services and providers that are necessary to support the core continuum of care
- Identify local gaps in the core continuum of care
- Understand baseline data on availability of key services and providers at the county level
- Consider stakeholder perspectives on current successes and challenges of the behavioral health treatment system in California
- Leverage success stories and lessons learned described in the assessment to develop novel approaches to strengthening the core continuum of care

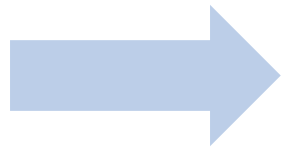
# Psychiatric Bed Capacity & Need in CA

## Overview

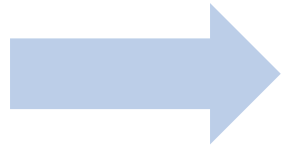
Ryan K. McBain, Ph.D., M.P.H.  
Nicole Eberhart, Ph.D.  
Jonathan H. Cantor, Ph.D.

## Our Goals

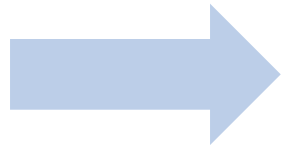
### Determine regional psychiatric bed capacity, need, and shortages



We examined estimates at a regional level (n = 10) because individuals often access care outside their county of residence.



Shortage = need – capacity.



We examined three levels of care: acute, subacute, community residential.

# Three Vantage Points

## Approach #1:

- Survey of psychiatric facilities

## Approach #2:

- Expert consensus

## Approach #3:

- Population health assessment

Levels of Care and Corresponding Adult Psychiatric Bed Infrastructure	
Level of Care	Types of Facilities Included
<b>Acute (Level 3)</b>	Acute psychiatric hospitals; psychiatric health facilities; general acute care hospitals with psychiatric wards; acute beds at state hospitals
<b>Subacute (Level 2)</b>	General or specialized subacute facilities; MHRCs; SNFs with specialized treatment programs; institutions for mental disease; subacute beds at state hospitals
<b>Residential (Level 1)</b>	Adult residential treatment facilities; enhanced or augmented board-and-care facilities; social rehabilitation facilities

*\*Our primary analyses excluded state hospital beds when measuring capacity*

JAMA Psychiatry article on our approach published February 2022.

**Note:** We also spoke with county leaders to get a broad understanding of the major issues they were confronting, as well as the terminology and nomenclature they used when discussing different types of facilities and beds.





# Step #1

## #1 SURVEY OF FACILITIES

**Observed outcomes:** bed occupancy, average length of stay, wait list volume, desired transfers to higher and lower levels of care.

$$\sum_{f=1}^n \left( \frac{UC_{fl}}{0.85} \right) + W_{fl} - H_{fl} - K_{fl} + \sum_{f=1}^n \left( H_{f[l-1]} + K_{f[l+1]} \right)$$

### Utilized capacity + waitlist volume

- Ideal bed occupancy varies by facility size and complexity, but 85% is a standard rule of thumb.

### Transfers to higher and lower levels of care

- Subtract patients from the levels of care that they shouldn't be, then add them back in at the appropriate levels of care.

# Steps #2 and #3

## #2 EXPERT CONSENSUS

**Technical Expert Panel:** Hosted local and international experts on psychiatric bed needs to generate a “top down” estimate.

## #3 POPULATION HEALTH

**CHIS & NSDUH:** State and national surveys to examine (1) prevalence of SMI and (2) relationship between prevalence of SMI and need for psychiatric beds.



## PROJECTED NEED

**2021 - 2026.** Based on regional demographic trends from the U.S. Census Bureau.

- Population growth
- Age/sex distribution
- Racial/ethnic composition

# Top Level Estimates

## CAPACITY

- 14,571 psychiatric beds
  - 5,975 acute (7,679)
  - 4,724 subacute (9,168)
  - 3,872 residential

## NEED

- 22,300 psychiatric beds
  - 7,945 acute
  - 7,518 subacute
  - 6,837 residential

## SHORTAGE

- 7,730 psychiatric beds
  - 1,971 acute (266)
  - 2,796 subacute
  - 2,963 residential

- **Observed outcomes:** Estimated need is 25.95 acute beds per 100K, 24.56 subacute beds
- **Expert consensus:** Estimated need is 25 - 30 acute beds per 100K, 20 - 30 subacute beds

# Hard-to-Place Populations

Population #1

Dementia & TBI (~2 in 3)

Population #2

Requires oxygen or non-ambulatory (~3 in 4)

Population #3

Prior arson or sex offense conviction (~2 in 3)

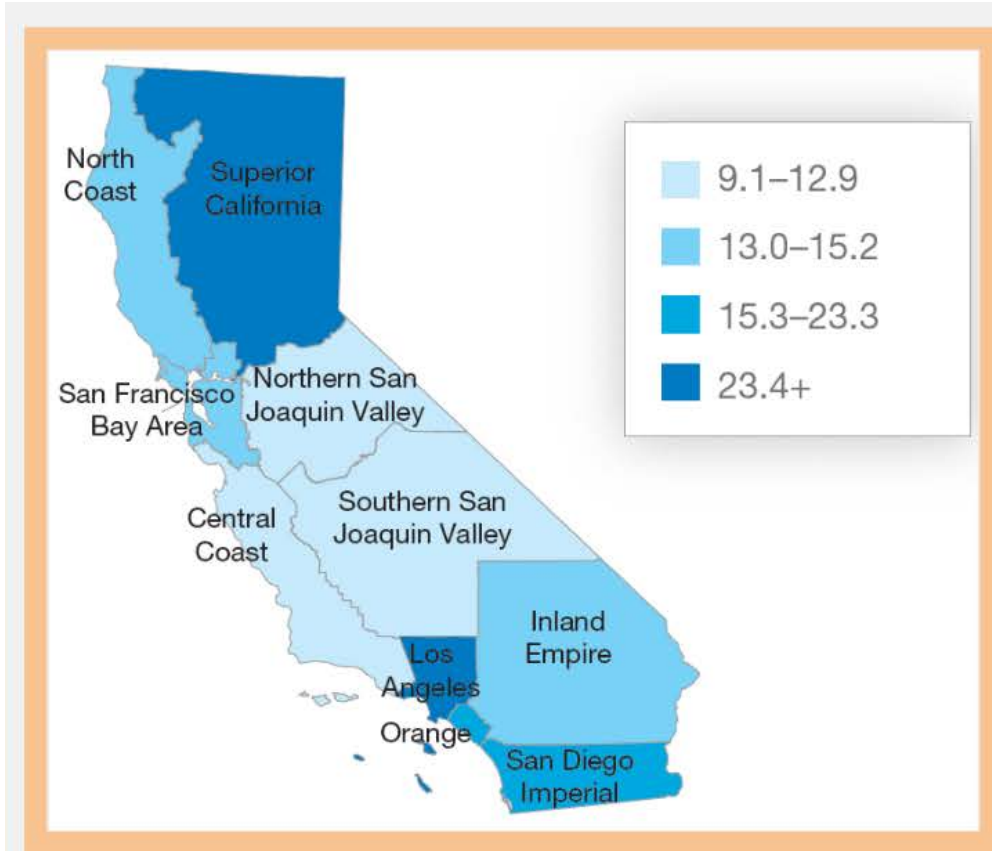
Population #4

Infected with COVID-19 (~3 in 4)

Percentage of Psychiatric Facilities Unable to Place Specific Populations

Population Characteristic	Acute (%) (n = 20)	Subacute (%) (n = 17)	Community Residential (%) (n = 106)
<b>Co-occurring conditions</b>			
Dementia	80.0	64.7	75.5
Traumatic brain injury	65.0	29.4	64.2
Eating disorder	60.0	35.3	44.3
Co-occurring ID	50.0	23.5	24.5
Co-occurring SUD	25.0	5.9	38.7
Co-occurring health issues	40.0	23.5	44.3
<b>Justice system involvement</b>			
Arson conviction	25.0	35.3	68.9
Sex offense conviction	25.0	41.2	67.0
Other forensic category <sup>a</sup>	35.0	35.3	54.7
Incompetent to stand trial	40.0	17.7	36.8
History of violence	15.0	11.8	39.6
Murphy's conservatees <sup>b</sup>	25.0	17.7	32.1
<b>Other characteristics</b>			
Large size (BMI > 45kg/m <sup>2</sup> )	40.0	35.3	28.3
Requiring oxygen	85.0	82.4	69.8
Nonambulatory	70.0	70.6	71.7
COVID-19 positive	95.0	76.5	68.9
Monolingual, Spanish-speaking	10.0	0.0	16.0
Monolingual, non-English-speaking (other) <sup>c</sup>	10.0	11.8	38.7
Insured by Medi-Cal	15.0	5.9	4.7

# Regional Variation (capacity)



**ACUTE**



**SUBACUTE**

# Largest Regional Shortages

## ACUTE

1,971 total

- SF Bay Area: 687
- Inland Empire: 372
- Central Coast: 291

## SUBACUTE

2,796

- SF Bay Area: 643
- LA County: 510
- Superior: 388

## RESIDENTIAL

2,963

- LA County: 913
- Inland Empire: 563
- S. San Joaquin Valley: 345

Which areas have the most significant shortages can be viewed in absolute terms (total number of beds) and proportional terms (beds per 100,000 adults).



# Projected Shortfall

Estimated Shortfall of Psychiatric Beds in California, 2021 Versus 2026

Region	2021–2026 % Change in Adult Pop	2021–2026 % Change in Pop: Male	2021–2026 % Change in Pop: Black	2021–2026 % Change in Pop: Hispanic	2021–2026 % Change in Pop: Age 65+	% Change in Psychiatric Bed Need
Central Coast	+1.9	0.0	+0.1	+1.0	+3.3	+0.8
North Coast	+1.4	0.0	+0.1	+0.8	+3.5	+0.3
Superior	+3.9	+0.1	+0.3	+0.8	+2.9	+2.9
San Francisco Bay Area	+3.3	+0.1	+0.2	+0.5	+3.3	+2.1
Northern San Joaquin Valley	+4.8	+0.1	+0.5	+1.1	+2.8	+4.0
Southern San Joaquin Valley	+4.5	+0.1	+0.4	+0.9	+2.2	+3.9
Inland Empire	+5.1	0.0	+0.5	+0.8	+3.4	+4.0
Los Angeles County	+0.8	0.0	+0.4	+0.8	+3.2	-0.3
Orange County	+1.6	+0.1	+0.2	+0.9	+3.3	+0.5
San Diego County	+2.2	0.0	+0.3	+0.9	+3.1	+1.2
Total	+2.7	0.0	+0.3	+0.8	+3.1	+1.7

NOTE: Pop = population.

# Key Takeaways

## Shortfalls and Projections

There is a sizable shortfall of psychiatric beds throughout the state: 7,730 beds. The magnitude of these shortfalls vary across (i) levels of care and (ii) regions.

### Example Contrast

LA has sufficient acute beds; however, it requires >500 subacute beds and >900 community residential beds.

N. San Joaquin Valley has a shortfall of >200 acute beds but has sufficient subacute beds.

## Traffic Jams

To solve for these shortages, you cannot simply examine current bed occupancy rates at each level of care and build more beds where occupancy rates are highest.

You need to understand what drives occupancy rates at each level of care, including unsuccessful transfers and hard-to-place populations.

## Information Quality

We triangulated estimates (in part) to help deal with data quality challenges.

### Sample Data Quality Issues

County points of contact requested removal of 1,799 facilities from licensure data files.

We excluded 26,554 community residential beds that weren't for psychiatric care.

Thank you!

## UP NEXT BHCIP Planning Grantee Office Hours

### REFERENCES AND RESOURCES

#### ***Program Planning and Logic Models***

Centers for Disease Control and Prevention. (2020). *Developing a logic model*.

[https://www.cdc.gov/tb/programs/evaluation/Logic\\_Model.html](https://www.cdc.gov/tb/programs/evaluation/Logic_Model.html)

Dorsey, R., Petersen, D., & Schottenfeld, L. (2016). The Department of Health and Human Services action plan to reduce racial and ethnic health disparities: A commentary on data needs to monitor progress towards health equity. *Health Systems and Policy Research*, 3(4).

<https://doi.org/10.21767/2254-9137.100053>

U.S. Department of Health and Human Services. (2015). *HHS action plan to reduce racial and ethnic health disparities implementation progress report 2011-2014*.

[https://aspe.hhs.gov/sites/default/files/migrated\\_legacy\\_files//151711/DisparitiesActionPlan.pdf](https://aspe.hhs.gov/sites/default/files/migrated_legacy_files//151711/DisparitiesActionPlan.pdf)

W. K. Kellogg Foundation. (2004). *Logic model development guide*.

<https://ag.purdue.edu/extension/pdehs/Documents/Pub3669.pdf>

#### ***Reports***

McBain, R., Cantor, H., Eberhart, M., Huilgol, S., & Estrada-Darley, I. (2022). *Adult psychiatric bed capacity, need, and shortage estimates in California—2021*. RAND Corporation.

[https://www.rand.org/pubs/research\\_reports/RRA1824-1-v2.html](https://www.rand.org/pubs/research_reports/RRA1824-1-v2.html)

Manatt Health Strategies. (2022). *Assessing the continuum of care for behavioral health services in California: Data, stakeholder perspectives, and implications*. State of California Department of Health Care Services.

<https://www.dhcs.ca.gov/Documents/Assessing-the-Continuum-of-Care-for-BH-Services-in-California.pdf>

