Research Report

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Psychiatric and Substance Use Disorder Bed Capacity, Need, and Shortage Estimates in Santa Clara County, California

Summary

Psychiatric and substance use disorder (SUD) treatment beds provide essential support for treating individuals with behavioral health disorders. Psychiatric beds are available in facilities including, but not limited to, acute inpatient hospitals, institutions of mental diseases, and community residential facilities, where care is provided at multiple levels of patient need acuity. SUD treatment beds are available in facilities providing treatment services at a range of intensities and durations as necessary to address patient conditions. Patient placement into different settings depends on the facility's alignment with patient needs. For example, some patients may have high-acuity, short-term needs; other patients may require longer-term accommodation and recurrent episodic care.

Although there is a general lack of supply to meet demand for psychiatric and SUD treatment beds, the extent of these gaps at the local and state levels is opaque,[1] thus warranting the need for additional analyses at local levels. Therefore, the County of Santa Clara, which has declared a public health crisis for those with

KEY FINDINGS

- Santa Clara County has a shortage of subacute psychiatric beds for adults.
- Children and adolescents in Santa Clara County are experiencing modest shortages of acute inpatient and crisis residential psychiatric beds.
- The county will need approximately 3.6 percent more adult psychiatric beds over the next five years.
- Two of four estimates suggest that Santa Clara County is experiencing a shortage of SUD treatment beds for adults.
- Several populations were disproportionately hard to place in psychiatric and SUD treatment beds.
- High-need patients in Santa Clara County may be underserved and in need of new facilities with beds that specifically address their needs.

mental illness and SUDs,[2] was interested in evaluating the capacity and need for psychiatric and SUD treatment beds to understand gaps at different types of facilities and levels of care. Some of the strategies that the County of Santa Clara Behavioral Health Services has been using to address this crisis include operating their own facilities, contracting with other facilities within and outside the geographic bounds of the county for dedicated psychiatric or SUD treatment beds, and placing county residents at facilities in their dedicated beds or others that may be available. These *county-accessible beds* ensure access for residents of the county who are enrolled in Medi-Cal or are uninsured, because other facilities in this region may accept patients with cash payments or private insurance only.

This report builds off of three previous RAND Corporation reports: one that examined California's statewide and regional adult psychiatric bed needs; another that examined the specific adult and adolescent psychiatric and SUD bed need in Sacramento County; and another that examined these same bed needs in Merced, San Joaquin, and Stanislaus Counties.[3] As a result, this report draws heavily from text that was used in these reports without attribution.

In this report, we assess psychiatric bed capacity and needs across facilities providing acute inpatient, crisis residential, subacute, or community residential care services. We also assess SUD treatment bed capacity and needs across multiple American Society of Addiction Medicine (ASAM) clinical guideline service categories, such as high-intensity residential (ASAM level 3.5), population-specific high-intensity residential (ASAM level 3.3), residential withdrawal management (ASAM level 3.2), and low-intensity residential (ASAM level 3.1). We considered two measures of capacity: beds located within the geographic bounds of the County of Santa Clara and county-accessible beds as defined by the county.

Abbreviations

ASAM	American Society of Addiction Medicine
BMI	body mass index
CHIS	California Health Interview Survey
LOCUS	Level of Care Utilization System
N-SSATS	National Survey of Substance Abuse Treatment Services
SNF	skilled nursing facility
SPD	serious psychological distress
STP	special treatment program
SUD	substance use disorder

Approach

In this study, we assessed the landscape of psychiatric and SUD treatment bed capacity and need in the County of Santa Clara. With an interest in both adult and child populations within the county, we sought to conduct phone surveys with administrators of all facilities with psychiatric and SUD treatment beds providing inpatient or residential services.

We estimated bed capacity through two primary mechanisms. First, we compiled publicly available licensure data from state agencies across California. Second, we collaborated with the County of Santa Clara Behavioral Health Services to ensure the accuracy of an inventory of relevant facilities across the county. This effort led to the development of two capacity measures: (1) total capacity within the geographic bounds of the County of Santa Clara and (2) capacity of county-accessible beds, both within and outside the county. We then conducted phone surveys to obtain additional information, including psychiatric and SUD treatment bed occupancy rates and waitlist volume at these facilities.

We triangulated estimates from several approaches to estimate psychiatric and SUD treatment bed need. We looked at survey data to compute the number of beds required at each level of care, and we calculated the number of additional beds that would be needed to reduce bed occupancy rates in the county to 85 percent, which is a standard ceiling. Additionally, we conducted an environmental scan of both academic and gray literature to identify normative and descriptive benchmarks for psychiatric and SUD treatment bed capacity and need. These two approaches allowed us to compare the *bottom-up* estimates of need, based on observed outcomes at facilities in the county, with the *top-down* estimates of need, based on thresholds outlined by experts or otherwise established in various jurisdictions at local, national, and international levels. We estimated need

only at the population level for all beds within the County of Santa Clara, because it was not possible to accurately estimate need limited to the population target of county-accessible beds, which are made available for Medi-Cal enrollees and individuals who are uninsured.

Key Findings

Psychiatric Bed Capacity

We estimated that the County of Santa Clara has a total of 304 adult beds at the acute inpatient level (20.5 per 100,000 adults), 92 beds at the crisis residential level (6.2 per 100,000 adults), and 216 adult beds at the subacute level (14.5 per 100,000 adults). At the community residential level, we estimated that the county has a total of 602 adult beds (40.5 per 100,000 adults). We also estimated there to be 319 acute inpatient adult beds, 82 crisis residential beds, 201 subacute adult beds, and 132 community residential adult beds that are county-accessible. For children, we found 17 acute inpatient beds (4.3 per 100,000 children) and zero beds at the crisis residential level.

SUD Treatment Bed Capacity

We identified 351 SUD treatment adult beds in the County of Santa Clara. This count included 304 available for clinically managed high-intensity care (20.5 per 100,000 adults; ASAM level 3.5), 210 available for clinically managed population-specific high-intensity care (14.1 per 100,000 adults; ASAM level 3.3), 304 available for withdrawal management services (20.5 per 100,000 adults; ASAM level 3.2), and 339 available for clinically managed low-intensity care (22.8 per 100,000 adults; ASAM level 3.1).[4] We also identified 225 SUD treatment beds to be county-accessible, of which 210 were available for clinically managed high-intensity care (56.8 per 100,000 adults; ASAM level 3.5), 210 were available for clinically managed population-specific high-intensity care (56.8 per 100,000 adults; ASAM level 3.3), 210 were available for withdrawal management services (56.8 per 100,000 adults; ASAM level 3.2), and 225 were available for clinically managed low-intensity care (60.9 per 100,000 adults; ASAM level 3.1). For children, we estimated that there are 47 child and adolescent SUD treatment beds.

Psychiatric Bed Need

From the facility survey responses, we estimated that the County of Santa Clara requires 251 adult acute inpatient psychiatric beds (16.9 per 100,000 adults), 90 adult crisis residential beds (6.1 per 100,000 adults), and 372 beds at the subacute level (25.0 per 100,000 adults). At the community residential level, we estimated a need of 525 beds (35.3 per 100,000 adults). From our review of the literature, we estimated a combined need of 386 adult acute inpatient psychiatric and crisis residential beds (26.0 per 100,000 adults), 365 subacute beds (24.6 per 100,000 adults), and 332 community residential beds (22.3 per 100,000 adults). Although we did not have a sufficient number of responses to estimate child and adolescent psychiatric bed need, our review of descriptive benchmarks of bed capacity indicated a range from 32 to 72 combined acute inpatient and crisis residential beds (8.1 to 17.9 per 100,000 children and adolescents).

SUD Bed Need

From the facility survey responses, we estimated that the County of Santa Clara requires 172 adult SUD treatment beds (11.6 per 100,000 adults). From our review of the literature, we found that reference benchmarks for adult SUD treatment beds were considerably greater: about 591 to 660 beds (39.7 to 44.4 per 100,000 adults). Among children- and adolescent-servicing facilities, we did not receive enough responses to directly estimate SUD treatment bed needs. However, on the basis of our review of the literature, we found reference benchmarks of 22 to 53 SUD treatment beds (5.4 to 13.4 per 100,000 children and adolescents).

Psychiatric Bed Gap Analysis

We estimated that the County of Santa Clara has a consistent shortage of beds at the subacute level of between 150 and 156 beds. From our survey data, we also estimated surpluses of 53 acute inpatient beds, 2 crisis residential beds, and 77 community residential beds. Using expert consensus estimates, we

The most difficult-to-place populations at psychiatric facilities were individuals with dementia, those who require oxygen, those who are nonambulatory, those with an arson or sex offense conviction, Murphy conservatees, and those without funding sources.

observed a more modest surplus of 10 beds (across both acute inpatient and crisis residential beds) but a substantially larger surplus of 271 community residential beds. On the basis of statewide and international reference points for child and adolescent psychiatric beds, we observed moderate shortages of between 15 and 55 combined acute inpatient and crisis residential child and adolescent beds.

SUD Treatment Bed Gap Analysis

We estimated that the County of Santa Clara has a shortage of 309 adult SUD beds. This shortage is 20.8 beds per 100,000 adults shy of California's average SUD bed capacity rate of 44.4 beds per 100,000 adults. This number also represented a shortage of 240 adult SUD beds compared with the U.S. national average (16.1 beds per 100,000 adults below the national average capacity rate of 39.7 beds per 100,000 adults). From facility survey responses, we estimated a surplus; however, this direct estimate is based on a small sample size and likely underestimates need, because some facilities do not accept patients with co-occurring conditions or prior involvement in the criminal justice system. Both of these factors could be contributors to our results.

Among children and adolescents, we found that the California benchmark indicated a surplus of 20 beds (5.1 per 100,000 children and adolescents), while the national benchmark indicated a shortage of 12 SUD treatment beds (2.9 per 100,000 children and adolescents).

Hard-to-Place Populations

From our survey results, we found that the most difficult-to-place populations at psychiatric facilities were individuals with dementia, those who require oxygen, those who are nonambulatory, those with an arson or sex offense conviction, Murphy conservatees, and those without funding sources. The most difficult-to-place populations at SUD treatment facilities were individuals with dementia; those with co-occurring health issues; those with a conviction for arson, a sex offense, or in another forensic category; those who are incompetent to stand trial; those who require oxygen; those who are nonambulatory; and those without funding sources.

Out-of-County Residents

For adult psychiatric facilities, survey respondents reported there to be 32 percent of out-of-county residents in acute inpatient facilities, zero out-of-county residents in crisis residential facilities, 45 percent in subacute facilities, and 15 percent in community residential facilities.

Recommendations

On the basis of these findings, we offer the following recommendations:

Increase psychiatric bed infrastructure at the subacute level and for hard-to-place populations—including those with dementia and those without funding sources. The County of Santa Clara has a consistent shortage of psychiatric beds at the sub-

acute level of care for adults, as well as a shortage of acute inpatient and crisis residential care for children and adolescents. One potential solution to the shortages is to increase the number of beds at the subacute level by expanding infrastructure either through building new facilities or adding beds to current facilities. Expanding infrastructure can help remove the bottleneck of transfer requests identified from acute to subacute care. Whether such investments bear fruit would also depend on the flexibility of this infrastructure to place populations that currently are turned away from many psychiatric facilities, including those with comorbid dementia or those without funding sources.

Increase the availability of SUD treatment beds for Santa Clara County residents who are currently hard to place—including nonambulatory individuals, those with involvement in the criminal justice system, those with co-occurring health issues, and those without funding sources. If the County of Santa Clara were to expand its number of county-accessible SUD beds, then it would need to make sure these additional beds were accessible to their target populations, both in terms of their location within the county and the populations who are eligible to use them. Ensuring access to the populations in need of these beds can help improve bed occupancy rates and service utilization, which will better enable their continued operation.

Track outcomes of investments in bed capacity over time, including bed occupancy rates, waitlist volume, and bottlenecks that inhibit transfers to higher and lower levels of care. Given that the county is expanding the number of beds through additional contracting within the county and the creation of a new facility with beds for children and adolescents, the county should monitor how this expansion, as well as any other potential expansions at lower levels of care, are associated with changes in outcomes that suggest whether the supply is meeting bed need. Some of these metrics include bed occupancy rates, waitlist volume, bottlenecks that inhibit transfers to higher and lower levels of care, and the proportion of residents using out-of-county facilities.

Introduction

Function and Shortfall of Psychiatric Beds

Psychiatric beds provide necessary behavioral health support for individuals across the lifespan experiencing a range of acuity of health needs (acute, crisis residential, subacute, and community residential), and are available in a multitude of settings from acute inpatient hospitals to community residential centers.[5] These facilities all provide patient supervision in safe and stable environments, but the intensity of that supervision and independence of patients vary based on the acuity of health needs. The Level of Care Utilization System (LOCUS) uses such patient factors as illness and acuity to match individuals to the appropriate level of care.[6] The functional role of facilities varies across the behavioral health care continuum. For example, 24-hour supervised acute care for crisis stabilization over brief intervals (one to two weeks, on average) is provided at hospitals and psychiatric health facilities. In contrast, subacute facilities—such as mental health rehabilitation centers or skilled nursing facilities (SNFs) with special treatment programs (STPs) in mental health—offer longer-term recovery-oriented services for months at a time that bridge the transition into community placement.[7] Community residential facilities provide individuals with a home-like environment that supplies ongoing clinical and rehabilitative supports over an extended length of stay that may continue for years.

As an unintentional consequence of California deinstitutionalizing psychiatric services, psychiatric bed capacity has decreased by almost 30 percent over a 20-year period (1995–2016).[8] This shift away from inpatient care most significantly affected those with the highest acuity needs, including individuals experiencing serious mental illnesses.[9] Psychiatric bed shortages create bottlenecks, particularly for hard-to-place patients who face a gap between treatment needs and corresponding bed availability.[10] In response to these shortages, localities have had to consider other mechanisms to provide behavioral health services.[11] Outpatient settings can offer upstream behavioral health services that lessen the acuity of patient needs through early intervention,

filling important gaps in the behavioral health landscape and potentially reducing the need for some psychiatric beds.[12] One mechanism for doing so is using crisis outreach programs.[13] For example, the County of Santa Clara leverages five mobile response program teams to provide "effective and compassionate crisis intervention," which can ultimately divert individuals away from the health (e.g., emergency departments) and criminal justice systems, among other benefits.[14] Although the use of outpatient care and crisis management may help prevent some patients from needing psychiatric beds later on, these other services cannot solve the unmet need resulting from a psychiatric bed shortage. To the contrary, insufficient mental health care infrastructure leaves vulnerable persons with serious mental illnesses without recourse, pushing the criminal justice system and unhoused services to act as de facto substitutes for institutional psychiatric care. A shortage of alternative resources also results in the "boarding" of psychiatric patients in emergency department settings.[15]

Function and Shortfall of SUD Treatment Beds

SUD treatment facilities offer residential behavioral health services to individuals with acute needs who have either an SUD or co-occurring psychiatric disorders and SUDs. These facilities vary in terms of the length of treatment and types of SUD treatments provided, including, but not limited to, medication-assisted treatment for opioid use and misuse, withdrawal or maintenance management, individual and group psychological support, mutual self-help, and peer therapeutic communities.[16] There are few residential youth or adolescent SUD treatment programs, which require substantively more resources to carry out than adult programs.[17]

Similar to the growing rates of consequential SUD-related outcomes,[18] there has been an increase in the number of SUD treatment facilities in California in recent years.[19] SUD treatment providers often rely on the ASAM criteria,[20] which are similar to the LOCUS for patients with mental health needs, to link patients with an appropriate level of care. SUD treatment facilities can provide services across multiple levels of care, whereas mental health facilities are usually licensed to provide care at a single level. An adequate SUD treatment care continuum landscape implies that there are sufficient SUD treatment beds within facilities that provide a range and intensity of services. It also implies that this system is extended to outpatient and community-based supports, such as counselors, social workers, peer supports, and physicians.[21]

There remains a shortage of SUD treatment beds in many localities across California. Overall, California had 1,797 SUD treatment facilities in 2019, with a total capacity of 12,955 residential beds (roughly 33 beds per 100,000 individuals).[22] However, these facilities are widely dispersed geographically: 22 counties do not have any residential SUD treatment facilities, and 45 counties lack any residential beds for youth.[23] A 2022 report by the California Health Care Foundation found that, on average, there were 3.5 residential detoxification beds (ASAM level 3.2-WM [withdrawal management]) and 5.8 residential treatment beds (ASAM levels 3.1, 3.3, 3.5, and 3.2-WM) per 10,000 adult individuals in California.[24] This is an increase from 2015, when the state had roughly 5.4 beds per 10,000 adults.[25] The County of Santa Clara is among the majority of counties in California (34 of 58) that have at least one licensed narcotic treatment program.[26] Notably, the county also has youth and young adult substance use treatment services available for free at 23 unique sites, which together offer inpatient and outpatient treatment services.[27]

Measuring Gaps for Psychiatric and SUD Treatment Beds

Despite evidence demonstrating a general lack of supply to meet demand for psychiatric and SUD treatment beds, the extent of the gaps at the local and state levels is not apparent. A recently published study by Burman and colleagues underscores this problem, finding that mental health provider directories in California were highly inaccurate, particularly for plans issued through Covered California and Medi-Cal.[28] Thus, conducting a gap analysis that compares psychiatric and SUD treatment bed capacity with need will enable the County of Santa Clara to understand strengths and areas necessary to address

in the behavioral health service delivery landscape. This analysis is essential in informing the county's ability to address its public health crisis, declared in January 2022, for those with mental illness and SUDs. However, conducting gap analyses for psychiatric and SUD beds is difficult given the lack of a standardized or best practice approach in the field for estimating bed need.[29] We offer three approaches to support these analyses:

- **Observed outcomes:** The observed outcomes approach leverages variation in estimated bed capacity across the County of Santa Clara to understand impacts on many outcomes.[30] These outcomes include, but are not limited to, bed occupancy, average length of stay, and waitlist volume. It is presumed that localities with higher bed capacity will demonstrate better outcomes, and accordingly, these analyses can support projections of bed capacity expansion needs in localities with lower bed capacity.
- **Expert consensus:** Consensus-gathering techniques, such as deliberative consensus, can support the identification of estimates for psychiatric and SUD treatment bed needs. In a prior RAND report, a technical expert panel determined a range of 25–30 acute psychiatric beds per 100,000 adults (which includes crisis residential) and 20–30 subacute beds per 100,000 adults.[31] The results of this approach correspond with other findings from similar exercises, both within the United States and internationally.[32] Fewer studies contain estimates for children and adolescent psychiatric beds,[33] as well as SUD treatment beds.[34]
- **Reference approach:** The reference approach assumes that localities, domestically and abroad, with similar population characteristics will have similar psychiatric and SUD treatment bed needs. With this approach, alternative jurisdictions can be used as a reference point to determine the comparative level of infrastructure within a region of interest. Both the World Health Organization and the Organisation for Economic Co-operation and Development have employed this approach to engage in comparative health systems analyses.[35]

The estimates from these above approaches will then be compared with estimates of bed capacity to determine the magnitude of the shortage or surplus. In a 2022 publication, we advocated for a synergistic approach using permutations of the above strategies.[36] These approaches were used in and build off of those in our three previous reports, which assess California's statewide and regional adult psychiatric bed needs; examine the specific adult and adolescent psychiatric and SUD bed need in Sacramento County; and, in our most recent report, examine Merced, San Joaquin, and Stanislaus Counties.[37] To augment the observed outcomes approach, we also quantified beds for hard-to-place populations—such as individuals with comorbid dementia or patients insured through Medi-Cal—because these populations can provide greater insight to barriers and scarcities for patient placement. Because psychiatric beds are not interchangeable within and between service levels, local governments need situational awareness into how the needs of the local community compare with service provision.

State and Local Investments in Behavioral Health Infrastructure

The state of California has elevated the importance of improving the availability and delivery of behavioral health services, including psychiatric and SUD treatment bed capacity.[38] The California Mental Health Services Act (MHSA), since 2004, allocates state tax revenue to counties to support such improvements with a focus on cultural competence and collaboration. Only recently, California has allowed MHSA funds to include services and systems support for co-occurring psychiatric disorders and SUDs.[39] The County of Santa Clara has received MHSA funds since 2006 to support improvements in their behavioral health service landscape, aiming to serve individuals across the lifespan and the continuum of psychiatric disorders and SUDs.[40]

In 2021, the Department of Health Care Services established the California Behavioral Health Continuum Infrastructure Program, which allocated more

than $2 billion to support behavioral health service priorities and investments, including improvements for behavioral health facilities, such as renovations and the purchase of new facilities to augment capacity.[41] The County of Santa Clara was awarded $54.1 million through this program.[42] Through this grant and other funds, the county has been investing in a multitude of programs aimed at strengthening stakeholder representation in addressing the needs of individuals with psychiatric disorders and SUDs. Some of these strategies involve operating its own facility (Barbara Arons Pavilion), contracting with facilities within and outside the geographic bounds of the county for dedicated mental health and SUD treatment beds, and placing Medi-Cal and uninsured patients in beds beyond those that are dedicated for the county. We consider all three of these types of beds to be *county-accessible beds*, which ensure access to residents of the county who are enrolled in Medi-Cal or are uninsured, because other beds at facilities in this region are also used to treat patients with cash payments, private insurance, and other payers. The county is also in the process of building a new acute facility aiming to serve both adults and children, with an expected opening by fall 2025.[43]

Purpose of This Report

This report provides estimates of real-time psychiatric and SUD treatment bed capacity in the County of Santa Clara. We then compare these capacity measures with measures of need to estimate potential shortages or surpluses of beds. The computations for these estimates were implemented separately for children and adolescents and for adults. We also identify hard-to-place populations for psychiatric and SUD facilities and project the need of psychiatric beds over the next five years.

We develop a series of recommendations that are based on the combined results. The recommendations include an expansion of behavioral health bed capacity to address existing gaps. They are situated in the context of ongoing legislative efforts that establish a comprehensive continuum of care for behavioral health problems.

Methods

Population and Scope

The populations of interest in this study are adults and children currently located in Santa Clara County, California. We identified 310 facilities within the county as potentially having a psychiatric bed or SUD bed. We also identified 22 facilities outside Santa Clara County that the county reported as county-accessible.

Psychiatric Beds

Facilities potentially having psychiatric beds (N = 307) were categorized by type and assigned to levels of care, drawing from the County Behavioral Health Directors Association of California's conceptual model.[44] There are three major levels of adult care: (1) acute inpatient and crisis residential, (2) subacute, and (3) community residential. These levels are determined by both the urgency of patients' health needs and the average length of stay. They range from acute care, which consists of 24/7 inpatient care, to residential care, where patients are able to live somewhat independently in the community (often outside health system settings) but still require oversight and support. Although we consider crisis residential facilities to be at the same major level of adult care as acute inpatient, we produced separate estimates of capacity, need, and shortages for this type of facility.

Table 1 provides an overview of the facility types for adult psychiatric beds across Santa Clara County and the level of care each type provides. The assigned facility types and levels of care provided are based on facility licensure information; notably, facilities providing acute care are not limited to those providing health care services only to psychiatric patients.

Our analyses of psychiatric beds for children were limited to level 3 of acute inpatient and crisis residential facilities. Children are not typically placed in subacute facilities in Santa Clara County, because the standard of care for children who need longer-term psychiatric support is for them to receive intensive service delivery in noninstitutional settings, either through therapeutic foster homes or short-term residential therapeutic programs (STRTPs). These STRTPs tend to be at the commu-

nity residential level, even though an STRTP can be licensed to operate as a Children's Crisis Residential Program. Although there are STRTPs located in and near the county, only the Social Services Agency and the Santa Clara County Probation Department are currently able to place patients in these types of facilities. Because of data limitations, we could not appropriately estimate needs specific to STRTPs, so we were unable to implement a gap analysis for this type of facility.

SUD Treatment Beds

Facilities potentially having SUD beds ($N = 25$) were categorized by level of care based on ASAM guidelines. These levels of care, in order from highest to lowest, were high-intensity residential (ASAM level 3.5), population-specific high-intensity residential (ASAM level 3.3), residential withdrawal management (ASAM level 3.2), and low-intensity residential (ASAM level 3.1). Notably, these four types of care all function at an acute level of care (or level 3 as shown in Table 1). Other ASAM levels (2 and 4) and recovery residences were not included in this analysis.

Table 2 provides an overview of the facility types across Santa Clara County, level of care provided, and representation in the overall sample.

Several types of beds were excluded from the analysis because they are not specifically limited to individuals with mental health conditions or SUDs; these exclusions include beds in county jail facilities.

TABLE 1

Levels of Care and Corresponding Adult Psychiatric Bed Infrastructure

Level of Care	Types of Facilities Included
Acute inpatient and crisis residential (level 3)	Acute psychiatric hospitals; psychiatric health facilities; general acute care hospitals with psychiatric wards; acute beds at state hospitals; crisis residential facilities
Subacute (level 2)	General or specialized subacute facilities; mental health rehabilitation centers, SNFs with STPs; institutions for mental disease; subacute beds at state hospitals
Community residential (level 1)	Adult residential treatment facilities; enhanced or augmented "board and care" facilities; social rehabilitation facilities

SOURCE: Features information from California Department of Health Care Services, *Assessing the Continuum of Care for Behavioral Health Services in California*.
NOTE: For definitions of these types of facilities, click on the Glossary tab of the California Department of Social Services "Care Facility Search" webpage.

TABLE 2

Levels of Care and Corresponding Descriptions for SUD Treatment Beds

Level of Care	Description
High-intensity residential services (ASAM level 3.5)	24-hour care with trained and credentialed personnel providing clinical directed program activities and professionally directed treatments to stabilize and maintain SUD symptoms and to develop and apply recovery skills specific for individuals with co-occurring mental health disorders, similar to ASAM level 3.5.
Population-specific high-intensity residential services (ASAM level 3.3)	24-hour care with trained and credentialed personnel providing clinical directed, less-intense program activities and professionally directed treatments to stabilize and maintain SUD symptoms and to develop and apply recovery skills specific for individuals with cognitive or other functioning impairments, similar to ASAM level 3.3.
Residential withdrawal management (ASAM level 3.2)	24-hour structure and support with trained and credentialed personnel providing organized services in a social setting emphasizing peer support for individuals with moderate risk of withdrawal, similar to ASAM level 3.2.
Low-intensity residential services (ASAM level 3.1)	24-hour structure with trained and credentialed personnel providing clinically directed program activities and professionally directed treatments to stabilize and maintain SUD symptoms, develop and apply recovery skills, and prepare for outpatient treatment, similar to ASAM level 3.1.

SOURCE: Features information from California Department of Health Care Services, Licensing and Certification Division, "DHCS Level of Care Designation Requirements and Definitions."

Procedures

Estimation of Capacity

We calculated capacity for psychiatric and SUD beds through an analysis of relevant, publicly available licensure data from the California Health and Human Services Agency, California Department of State Hospitals, California Department of Health Care Services, and California Department of Social Services.[45] We developed a list of facilities and shared this list with representatives of the County of Santa Clara Behavioral Health Services. They provided feedback and helped address any discrepancies between their estimates and the licensure data included in the inventory. We further confirmed or revised the total capacity estimates with administrators of these facilities. In the process of confirming capacity estimates for licensed community residential beds, we found that only 26 percent of the 91 facilities that we had successfully contacted were offering mental health services in the County of Santa Clara. Thus, we extrapolated this rate to the 164 facilities we were unable to contact to arrive at an estimation for this bed category.

The County of Santa Clara also provided estimates for the number of county-accessible beds among facilities within and outside the county. Our definition of *county-accessible beds* includes beds in facilities that are operated by the county, beds that the county has contracted with at various facilities, and beds that the county reports as having available in which to place Medi-Cal and uninsured patients at any given time. The proportion of county-accessible beds at facilities varies widely. For example, the county reported that all acute inpatient psychiatric beds within Santa Clara County are accessible, including those with which the county does not have contracting arrangements. For crisis residential beds, the county considers the number of beds it has contracted to be the number of county-accessible beds. For acute facilities outside the county, subacute facilities, and community residential facilities, the county reported the average number of beds that are used by county-placed patients over a given period as the number of county-accessible beds. These estimates were all self-reported by the county and not independently verified by us.

Estimation of Need, Approach 1: Survey of Psychiatric and SUD Treatment Facilities

We contacted all facilities in our inventory to understand current psychiatric or SUD bed occupancy; average length of stay; waitlist volume; the number of patients recommended for higher or lower levels of care; and any other relevant information. We attempted to reach the facility administrators and made a minimum of five call attempts to each facility in our inventory. We called facilities throughout March 2023. We imputed estimates based on median values within a facility type for those we failed to contact, weighted by the total number of beds for each facility.

Estimation of Need, Approach 2: Expert Consensus

We also sought expert consensus estimates on psychiatric and SUD bed needs through an environmental scan of relevant academic and gray literature published from 2005 to 2022. Table 3 lists keywords

TABLE 3

Environmental Scan of Normative Estimates for Bed Need

Domain 1: Topical Terms	Domain 2: Analytic Terms	Domain 3: Normative Terms
"Behavioral health" OR "behavioral healthcare" OR "behavioral disorders"	"Shortage" OR "gap" OR "shortfall" OR "deficit"	"Expert" OR "leader" OR "specialist" OR "authority" OR "researcher"
"Mental health" OR "mental healthcare" OR "mental disorders"	"Need" OR "demand" OR "benchmark"	"Panel" OR "consensus" OR "convening" OR "deliberation" OR "summit" OR "opinion"
"Substance use" OR "substance abuse" OR "substance misuse"	"Capacity" OR "supply" OR "availability"	"Levels of care" OR "care continuum" OR "continuum of care" OR "hierarchy"

leveraged in the search, which was carried out on PubMed and Google Scholar.

Estimation of Need, Approach 3: Reference Cases

We conducted an additional search to identify psychiatric and SUD bed capacity and needs in other localities across the country and internationally. These estimates served as additional points of comparison with the County of Santa Clara.

Projection of Need

Furthermore, we projected the expected change in psychiatric bed needs between 2023 and 2028 using demographic and other data from the U.S. Census Bureau to project population changes. Please see the "Analysis" section for more details.

Measures

Psychiatric beds, or mental health beds, were defined as beds primarily serving patients with psychiatric disorders (e.g., schizophrenia, bipolar disorder). This category can also include beds primarily serving patients with comorbid psychiatric disorders and physical health conditions (e.g., developmental disabilities, intellectual disabilities).

SUD treatment beds were defined as beds in treatment facilities supporting substance use and abuse treatment and recovery.

Bed capacity was defined as the total number of beds specifically allocated for patients with psychiatric disorders or SUDs. In the County of Santa Clara, this number was standardized per 100,000 adults or children using data from the U.S. Census Bureau.[46] We also calculated the number of county-accessible beds, which includes beds that are located outside the county.

Bed need was defined as the total number of beds demanded at a given level of care among the entire population in the County of Santa Clara.[47] Optimal bed occupancy rates are typically set at around 85 percent, which enables facilities to respond to more patients whose needs require greater resources, including staffing.[48] Importantly, the bed need estimates for the second approach do account for individuals who need, but do not seek out, psychiatric or SUD treatment, which may be due to multiple factors, including barriers to health care access, such as a lack of transportation options or language barriers.[49] These individuals are not, however, included in the analysis for the first and third approaches described above, where the necessary data are not available. Because of data limitations, we did not generate a separate estimate of need for those who are eligible for county-accessible beds. While the population eligible for these beds is considerably smaller than the overall county population, the need among this subpopulation is likely to be larger.

Analysis

As a first step, we conducted descriptive analyses to summarize the number of psychiatric and SUD treatment beds by the levels of care within the scope of our analysis. Specifically, we quantified total bed capacity, as well as capacity per 100,000 population, alongside measures of dispersion (e.g., standard deviation, range). For SUD treatment beds, we also focused on total bed capacity combined across levels of care, because any given bed within a facility can often serve patients with needs corresponding to multiple levels of care.

As a second step, we estimated bed need based on the information obtained from our telephone survey, including utilized bed capacity, waitlist volume, average length of stay, and requested transfers to higher and lower levels of care. Specifically, the formula for psychiatric bed need, Equation 1, was as follows:

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

where f represents a facility within a level of care (l), UC represents utilized psychiatric bed capacity for a facility (i.e., number of beds occupied), W represents waitlist volume, H represents requested bed transfers to a higher level of care, and K represents requested bed transfers to a lower level of care. Three levels of care are represented (1, 2, 3), with 1 indicating the lowest (e.g., community residential) and 3 indicating the highest (e.g., acute inpatient and crisis residential). For the lowest level of care, the term $[l - 1]$

is fixed to 0 because there is no lower level of care within the continuum; for the highest level of care, the term $[l + 1]$ is likewise set to 0 because there is no higher level of care. For nonrespondent facilities, we imputed missing values based on median respondent values, weighted according to facility size as defined by the number of psychiatric beds.

Descriptively speaking, the first half of Equation 1 sums bed need across all facilities within a level of care based on utilized capacity relative to a benchmark of 85-percent utilized capacity. The equation then adds wait-listed individuals and subtracts individuals currently occupying beds who administrators wish to transfer to a higher or lower level of care. The second half of the equation reallocates these requested transfers to appropriate higher and lower levels of care.

Equation 1, modified to compute SUD treatment need, is reflected in Equations 2a and 2b as follows:

$$\sum_{f=1}^{n}\left(\frac{UC_{fl}}{0.85} + W_{fl}\right)$$

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

Note that Equation 2a, which represents our primary estimate for SUD treatment bed need, does not include transfers to higher and lower levels of care. The reason for this (as noted above) is that residential SUD treatment facilities are collectively represented within a single band of ASAM criteria (level 3); therefore, transfer to a higher or lower level of care is likely to represent a transfer to services outside the scope of our analysis—such as partial hospitalization or intensive outpatient care. If these services are limited in the County of Santa Clara, the implication is that patients will ultimately remain in residential facilities providing ASAM level 3 services, though the intensity of these services may vary (e.g., ASAM level 3.1 to ASAM level 3.7). Equation 2a assumes this is the case, resulting in a greater level of need. Equation 2b represents a scenario in which this infrastructure is in fact present, allowing transfers to occur and resulting in a lower level of need for ASAM level 3 beds.

As a third step, we estimated the difference between total bed capacity and bed need throughout the County of Santa Clara based on Equations 1, 2a, and 2b. Note that, as outlined in the "Results" section, these computations were possible only for facilities that provided services to adults; facilities providing services to children were too few to report on using an observed outcomes approach.

As a secondary gap analysis, we compared capacity with need as represented by expert consensus and prior literature. Lastly, we projected psychiatric bed need over the next five years (2023–2028) based on demographic and population trends at a county level. This analysis involved three steps. First, we used California Health Interview Survey (CHIS) data from 2011 to 2018 (the most recently available year) to estimate the mean prevalence of serious psychological distress (SPD) among Californian adults over this period within three demographic categories: sex (female, male), race/ethnicity (Black, Hispanic, Asian, White non-Hispanic), and age group (under versus over age 65).[50] Second, we used U.S. Census Bureau information to project demographic and population trends in the County of Santa Clara from 2023 to 2028.[51] These data allowed us to compute the expected prevalence of SPD in 2028, based solely on projected demographic trends. Third, we converted expected changes in prevalence of SPD over the five-year period to expected changes in need of psychiatric inpatient services by assuming that changes in need were proportionate to changes in SPD prevalence.

Lastly, we quantified the percentage of facilities, at each level of care, reporting an inability or difficulty placing patients with certain demographic characteristics (e.g., a body mass index [BMI] greater than 45 kg/m^2), behavior patterns (e.g., history of arson), or concurrent diagnoses (e.g., eating disorder). This inventory of populations was based on findings from our statewide report, for which we conducted focus groups with county behavioral health administrators throughout California,[52] as well as discussions with our point of contact with the County of Santa Clara Behavioral Health Services. Additionally, we quantified the percentage of beds occupied, at each level of care, by residents within versus outside the County of Santa Clara. As noted in the "Introduction" section, these secondary analyses will complement the implications of our findings from our shortage estimates when considering strate-

gic investments in infrastructure. On one hand, if the lack of available facilities for hard-to-place populations results in bottlenecks or patients seeking care outside the county, then investments may need to be tailored to accommodate these individuals. On the other hand, if out-of-county residents are occupying beds that might otherwise serve individuals in the local community, new incentives or regulations may be necessary to counterbalance this trend.

Results

Bed Capacity

We estimate that, as of April 2023, there were 1,214 adult psychiatric beds in the County of Santa Clara across all 300 psychiatric facilities. This count includes 304 beds at the acute inpatient level (20.5 per 100,000 adults), 92 beds at the crisis residential level (6.2 per 100,000 adults), 216 beds at the subacute level (14.5 per 100,000 adults), and 602 beds at the community residential level (40.5 per 100,000 adults) (see Table 4). We also estimate 734 county-accessible beds throughout California, both within and outside the county, of which 319 were acute inpatient, 82 were crisis residential, 201 were subacute, and 132 were in community residential facilities, across a total of 39 facilities. We based these estimates on facility licensure information, supplemented by direct inputs from facility administrators, as well as our point of contact for the County of Santa Clara Behavioral Health Services. The capacity estimates for the subacute level of care exclude SNFs that do not have STPs, although the county places patients with mental health conditions in these facilities.

Regarding child and adolescent psychiatric beds, we estimated a total of 17 acute inpatient psychiatric beds (4.3 per 100,000 children and adolescents) and zero crisis residential beds (Table 5).

In terms of SUD treatment beds for adults, we estimated 351 beds across 18 SUD facilities (see Table 6), of which 304 beds could be used for clinically managed high-intensity residential services (ASAM level 3.5), 210 beds could be used for clinically managed population-specific high-intensity residential services (ASAM level 3.3), 304 beds could be used for withdrawal management (ASAM level 3.2), and 339 beds could be used for clinically managed low-intensity residential services (ASAM level 3.1). We also estimated 225 county-accessible beds, of which 210 beds could be used for clinically managed high-intensity residential services (ASAM level 3.5), 210 beds could be used for clinically managed population-specific high-intensity residential services (ASAM level 3.3), 210 beds could be used for withdrawal management (ASAM level 3.2), and

TABLE 4
Adult Psychiatric Treatment Bed Capacity

Facility Type	Population Served	Acute Inpatient Beds (Level 3)	Crisis Residential Beds (Level 3)	Subacute Beds (Level 2)	Community Residential Beds (Level 1)	Total Beds
Psychiatric, adult	1,485,780 adults	20.5 per 100,000 (304 beds)	6.2 per 100,000 (92 beds)	14.5 per 100,000 (216 beds)	40.5 per 100,000 (602 beds)	81.7 per 100,000 (1,214 beds)
Psychiatric, adult, county-accessible	369,450 adults	86.3 per 100,000 (319 beds)	22.2 per 100,000 (82 beds)	54.4 per 100,000 (201 beds)	35.7 per 100,000 (132 beds)	198.7 per 100,000 (734 beds)

TABLE 5
Child and Adolescent Psychiatric Treatment Bed Capacity

Facility Type	Population Served	Acute Inpatient Beds (Level 3)	Crisis Residential Beds (Level 3)
Psychiatric, child and adolescent	399,728 children and adolescents	4.3 per 100,000 (17 beds)	0 per 100,000 (0 beds)

TABLE 6
SUD Treatment Bed Capacity

Facility Type	Population Served	High-Intensity Beds (Level 3.5)	Population-Specific High-Intensity Beds (Level 3.3)	Withdrawal Management Beds (Level 3.2)	Low-Intensity Beds (Level 3.1)	Total Beds[a]
SUD treatment, adult	1,485,780 adults	20.5 per 100,000 (304 beds)	14.1 per 100,000 (210 beds)	20.5 per 100,000 (304 beds)	22.8 per 100,000 (339 beds)	23.6 per 100,000 (351 beds)
SUD treatment, adult, county-accessible	369,450 adults	56.8 per 100,000 (210 beds)	56.8 per 100,000 (210 beds)	56.8 per 100,000 (210 beds)	60.9 per 100,000 (225 beds)	60.9 per 100,000 (225 beds)
SUD treatment, child and adolescent	399,728 children and adolescents	10.5 per 100,000 (42 beds)	0 per 100,000 (0 beds)	1.3 per 100,000 (5 beds)	10.5 per 100,000 (42 beds)	11.8 per 100,000 (47 beds)

[a] SUD facilities supply the same beds for multiple levels of care, so the total number of beds is lower than the sum of beds for each care level.

225 beds could be used for clinically managed low-intensity residential services (ASAM level 3.1). These counts exclude recovery residences in which there are 323 beds located within the county.

In terms of SUD treatment beds for children and adolescents, we estimated 47 SUD treatment beds for children across the four categories of clinically managed high-intensity residential services, clinically managed population-specific high intensity residential services, withdrawal management, and clinically managed low-intensity residential services.

Bed Need

Survey Execution

Callers reached out to every psychiatric (n = 324) and residential SUD treatment (n = 45) facility that was either located in the County of Santa Clara or had county-accessible beds located outside the county. Facilities were identified based on the licensure data from the County of Santa Clara or information provided by the County of Santa Clara Behavioral Health Services. Our overall response rate (i.e., we successfully spoke to a facility administrator) was 36 percent. Nonresponses were primarily due to unsuccessfully connecting with facility administrators. As noted in the "Methods" section, in the event of unsuccessfully connecting with facility administrators or having to leave voicemails for them, we called each psychiatric facility and each SUD facility at least four additional times.

In terms of psychiatric facilities, we successfully contacted and surveyed six facilities at the acute inpatient level of care, five facilities at the crisis residential level, five facilities at the subacute level of care, and 30 facilities at the community residential level. We also contacted administrators at eight facilities who declined to complete our survey and at 72 facilities who reported not offering psychiatric beds.

In terms of SUD treatment facilities, we successfully contacted seven. Of the seven, we found that four offered ASAM level 3.1 services for adults, two offered ASAM level 3.2 services for adults, three offered ASAM level 3.3 services for adults, and four offered ASAM level 3.5 services for adults. Two facilities offered services for children.

Survey Response

Participating facilities reported current bed occupancy rates, current waitlist volume, and whether facilities would transfer patients to a higher or lower level of care if they were able to do so. In Tables 7 and 8, we report estimates for adult psychiatric and SUD treatment facilities. Of note, we found that some SUD treatment facilities have beds that could be flexed to serve multiple ASAM levels of care (e.g., levels 3.1, 3.2, 3.3, and 3.5). As a result, the denominator for bed occupancy rates at SUD treatment facilities included all beds that could *theoretically* be used for a particular level of care. In some instances, these beds were unoccupied for that particular level of care but were occupied by someone receiving a different

TABLE 7

Descriptive Characteristics of Psychiatric Treatment Facilities

	Acute Inpatient Level of Care		Crisis Residential Level of Care		Subacute Level of Care		Community Residential Level of Care		Total	
Facility Characteristic	**Average**	***n***	**Average**	***n***	**Average**	***n***	**Average**	***n***	**Average**	***n***
Bed occupancy rate[a]	96.7%	6	83.1%	5	97.4%	5	76.5%	28	89.2%	49
Waitlist volume[b]	8.6%	4	0.0%	4	13.5%	5	25.1%	15	17.0%	29
Transfer requests, higher LOC[c]	0.0%	6	0.0%	5	0.0%	5	7.5%	28	2.9%	44
Transfer requests, lower LOC[c]	39.7%	4	0.0%	1	32.7%	5	32.2%	27	33.9%	41

NOTE: LOC = level of care. Averages represent mean values, and *n*s represent sample sizes for survey responses. In some instances, facilities were able to provide certain estimates but not others.

[a] Bed occupancy rate is calculated as the percentage of beds occupied at the facility on the night prior to the date of our phone-based survey.

[b] Waitlist volume is represented as a percentage of total beds at the facility.

[c] Transfer requests are represented as a percentage of total beds at the facility. Transfers from acute care to a higher level of care are not applicable because this is the highest level of care available.

TABLE 8

Descriptive Characteristics of SUD Treatment Facilities

	High-Intensity Beds (Level 3.5)		Population-Specific High-Intensity Beds (Level 3.3)		Withdrawal Management Beds (Level 3.2)		Low-Intensity Beds (Level 3.1)		Total	
Facility Characteristic	**Average**	***n***	**Average**	***n***	**Average**	***n***	**Average**	***n***	**Average**	***n***
Bed occupancy rate[a]	66.0%	2	NA	NA	56.0%	2	50.0%	1	62.1%	3
Waitlist volume[b]	0.0%	2	NA	NA	20.0%	2	0.0%	1	3.4%	3
Transfer requests, higher LOC[c]	0.0%	2	NA	NA	0.0%	2	0.0%	1	0.0%	3
Transfer requests, lower LOC[c]	0.0%	2	NA	NA	0.0%	2	0.0%	1	0.0%	3

NOTE: LOC = level of care; NA = not applicable. Averages represent mean values, and *n*s represent sample sizes for survey responses. In some instances, facilities were able to provide certain estimates but not others.

[a] Bed occupancy rate is calculated as the percentage of beds occupied at the facility on the night prior to the date of our phone-based survey.

[b] Waitlist volume is represented as a percentage of total beds at the facility.

[c] Transfer requests are represented as a percentage of total beds at the facility. All levels of care are within ASAM level 3, and we therefore elected to compute total and individual values.

level of care. We therefore elected to also report total occupancy and waitlist volume, as well as transfer requests, among SUD treatment facilities. For facilities that did not respond to our survey, we imputed estimates based on median numbers within a facility type, weighted by the total number of beds for each facility. We were unable to report these estimates for child psychiatric and child SUD facilities, because the number of responses was too small for these estimates to be meaningfully interpreted.

Adult Psychiatric Bed Need

Using Equation 1 (see the "Methods" section), we estimated that the County of Santa Clara requires 16.9 acute inpatient psychiatric beds and 6.1 crisis residential beds per 100,000 adults (see Table 9). In absolute terms, this translates to 251 acute inpatient beds and 90 crisis residential beds for adults. Additionally, we estimated that the county requires 25.0 subacute inpatient psychiatric beds per 100,000 adults (372 beds total). Lastly, we estimated that the county requires 35.3 community residential beds per 100,000 adults (525 beds total).

TABLE 9

Needed Adult Psychiatric Beds, Bed Days, and Beds per 100,000 Adults

	Acute Inpatient Level of Care (Level 3)			Crisis Residential Level of Care (Level 3)			Subacute Level of Care (Level 2)			Community Residential Level of Care (Level 1)		
Estimation Method	Beds	Bed Days	Beds per 100,000	Beds	Bed Days	Beds per 100,000	Beds	Bed Days	Beds per 100,000	Beds	Bed Days	Beds per 100,000
Estimate 1 (Equation 1) based on survey data	251	31,398	16.9	90	2,699	6.1	372	681,197	25.0	525	644,540	35.3
Estimate 2 based on expert consensus estimates[a]	386	59,830	26.0	Included in acute inpatient level of care estimate			365	668,315	24.6	332	407,696	22.3

NOTE: Bed days are estimated as the reported mean length of stay multiplied by the number of beds.

[a] McBain et al., *Adult Psychiatric Bed Capacity, Need, and Shortage Estimates in California—2021*.

The subacute bed need estimate based on the facilities survey data is very close to past need estimates conveyed by content experts, at 20–30 beds per 100,000 adults at the subacute level, and our combined acute inpatient and crisis residential bed need estimate based on the facilities survey data (i.e., 23.0 per 100,000) is only slightly lower than estimates conveyed by content experts at the acute inpatient and crisis residential level, which have typically projected a need of 25–30 beds per 100,000 adults.[53] In a recent statewide report, the authors concluded that California as a whole requires 26.0 beds per 100,000 population at the acute level and 24.6 beds at the subacute level, both of which fall comfortably within the range offered by experts.[54] Given the limitations of survey data, we treated the statewide estimates of need as a reasonable alternative as indicated in Table 9 (estimate 2). However, the estimated need for community residential beds using state-level estimates, at 22.3 per 100,000 adults, is substantially lower than our estimation of need using survey data.

Child Psychiatric Bed Need

As noted above, we did not receive enough responses ($n = 4$) to model estimated need for child psychiatric beds. We therefore directed our attention to normative and reference benchmarks. After our environmental scan, we elected to draw from two datasets to provide lower-bound and higher-bound estimates. First, we identified the prevalence of acute child and adolescent psychiatric beds throughout California, using a 2018 report published by the California Hospital Association. The authors of this report used financial and utilization data from the California Department of Health Care Access and Information to estimate a prevalence of 8.1 acute beds per 100,000 children and adolescents in 2016.[55]

As an additional reference point, we reviewed a survey of 28 European countries, which offered a median number of inpatient child psychiatric beds as 17.95 per 100,000 individuals,[56] as indicated in Table 10 (estimate 2). This figure is consistent with estimates from U.S. states, such as North Carolina, which recently reported 17.0 inpatient child psychiatric beds per 100,000 children and adolescents.[57] We also note from our review of the literature that estimates varied widely across geographic settings—for example, the United Kingdom has reported its inpatient child psychiatric beds as 3.4 per 100,000,[58] while New York state has reported its capacity as 38.2 per 100,000.[59] We considered these estimates to represent the combined need of acute inpatient and crisis residential beds for children and adolescents. Despite differences in these settings, we consider both types of facilities to represent the same level of acute care.

Adult SUD Treatment Bed Need

Using Equation 2a (see the "Methods" section), we estimated that the County of Santa Clara requires 18.1 SUD treatment beds per 100,000 adults. In abso-

TABLE 10

Needed Child Psychiatric Beds and Beds per 100,000 Children and Adolescents

	Acute Inpatient and Crisis Residential Care (Level 3)	
Estimation Method	**Beds**	**Beds per 100,000**
Estimate 1 based on California financial and utilization data[a]	32	8.10
Estimate 2 based on a survey of 28 European countries[b]	72	17.95

[a] California Hospital Association, *California Psychiatric Bed Annual Report*.

[b] Signorini et al., "Architecture and Functioning of Child and Adolescent Mental Health Services."

lute terms, this translates to 268 beds. Given the lack of transfer requests to higher or lower levels of care in our survey responses, we arrive at the same estimate for Equation 2b, which assumes double counting of facilities across ASAM levels.

As shown in Table 11, we generated two additional sets of estimates for adult SUD treatment bed need. On the basis of the 2019 National Survey of Substance Abuse Treatment Services (N-SSATS),[60] we computed SUD treatment bed capacity for all 50 U.S. states to contextualize the County of Santa Clara's capacity relative to California and other states. If the county were to use California as a benchmark (44.4 beds per 100,000 adults), it would require 660 beds to align itself with this statewide capacity. By contrast, if the county strategized to align itself with the U.S. median as a benchmark (39.7 beds per 100,000 adults), it would require 591 beds.

Child SUD Treatment Bed Need

As with child psychiatric facilities, we did not receive enough responses ($n = 2$) to directly model estimated need for child SUD treatment beds across all three levels of care. We therefore focused on a set of reference benchmarks similar to that which we used among adults. Using measures in the 2019 N-SSATS,[61] we computed SUD treatment bed capacity for all 50 U.S. states. If the County of Santa Clara were to use California as a benchmark (5.4 beds per 100,000 children and adolescents), it would require 22 beds to align itself with this statewide capac-

TABLE 11

Needed SUD Treatment Beds, Bed Days, and Beds per 100,000 Population

Bed Category	Beds	Bed Days	Beds per 100,000
Adult SUD treatment beds			
Estimates 1 and 2 (Equations 2a and 2b) based on survey data	268	9,836	18.1
Estimate 3 based on the N-SSATS, using California as a benchmark	660	24,222	44.4
Estimate 4 based on the N-SSATS, using the U.S. median as a benchmark	591	21,690	39.7
Child SUD treatment beds			
Estimate 1 based on the N-SSATS, using California as a benchmark	22	807	5.4
Estimate 2 based on the N-SSATS, using the U.S. median as a benchmark	53	1,945	13.4

SOURCE: N-SSATS data are derived from SAMHSA, "Quick Statistics: National Survey of Substance Abuse Treatment Services, 2019 N-SSATS California."
NOTE: Bed days for all estimates are based on the average length of stay (36.7 days) across all respondent facilities from administered survey interviews.

ity (Table 11, estimate 1). By contrast, if the county sought to align itself with the U.S. median as a benchmark (13.4 beds per 100,000 children and adolescents), it would require 53 beds (estimate 2).

Gap Analysis

Psychiatric Beds

Using Equation 1, we estimated that the County of Santa Clara has surpluses of 53 beds at the acute level, 2 beds at the crisis residential level, and 77 beds at the community residential level; it has an estimated shortage of 156 beds at the subacute level (Table 12, estimate 1). When using statewide psychiatric bed needs as a benchmark (Table 12, estimate 2), we observed a similar shortage of 150 subacute beds. We also observed a more modest surplus of 10 beds for both acute and crisis residential levels but a substantially larger surplus of 271 beds at the community residential level. On the basis of statewide and international reference points for child psychiatric beds, we estimated a combined shortage of between 15 and 55 acute inpatient and crisis residential beds (Table 13).

SUD Treatment Beds

Responses from the facilities survey indicated a surplus of 83 SUD treatment beds for adults (Table 14, estimates 1 and 2). These findings differ considerably when comparing SUD bed capacity in the county with SUD bed capacity at the state and national levels. Relative to California's average rate of 44.4 SUD beds per 100,000 adults, the County of Santa Clara has a shortage of 309 beds. When compared with the national average rate of 39.7 SUD beds per 100,000 adults, the county has a shortage of 240 beds. When examining child SUD treatment beds, we found that the county has a surplus of 20 beds

TABLE 12

Gap Analysis of Adult Psychiatric Beds and Beds per 100,000 Adults

	Acute Inpatient Level of Care (Level 3)		Crisis Residential Level of Care (Level 3)		Subacute Level of Care (Level 2)		Community Residential Level of Care (Level 1)	
Estimation Method	Beds	Beds per 100,000	Beds	Beds per 100,000	Beds	Beds per 100,000	Beds	Beds per 100,000
Estimate 1 (Equation 1) based on survey data	53	3.6	2	0.1	–156	–10.5	77	5.2
Estimate 2 based on expert consensus estimates[a]	10	0.7	Included in acute inpatient level of care estimate		–150	–10.1	271	18.2

NOTE: Negative values (shaded red) represent *shortages* in the number of beds required to meet expected bed need. Positive values (shaded green) represent *surpluses* in the number of beds required to meet expected bed need.

[a] McBain et al., *Adult Psychiatric Bed Capacity, Need, and Shortage Estimates in California—2021*.

TABLE 13

Gap Analysis of Child Psychiatric Beds and Beds per 100,000 Children and Adolescents

	Acute Inpatient and Crisis Residential Level of Care (Level 3)	
Estimation Method	Beds	Beds per 100,000
Estimate 1 based on California financial and utilization data[a]	–15	–3.8
Estimate 2 based on a survey of 28 European countries[b]	–55	–13.6

NOTE: Negative values (shaded red) represent *shortages* in the number of beds required to meet expected bed need.

[a] California Hospital Association, *California Psychiatric Bed Annual Report*.

[b] Signorini et al., "Architecture and Functioning of Child and Adolescent Mental Health Services."

TABLE 14

Gap Analysis of SUD Treatment Beds, Bed Days, and Beds per 100,000 Population

Bed Category	Beds	Bed Days	Beds per 100,000
Adult SUD treatment beds			
Estimates 1 and 2 (Equations 2a and 2b) based on survey data	83	3,032	5.6
Estimate 3 based on the N-SSATS, using California as a benchmark	–309	–11,320	–20.8
Estimate 4 based on the N-SSATS, using the U.S. median as a benchmark	–240	–8,790	–16.1
Child SUD treatment beds			
Estimate 1 based on the N-SSATS, using California as a benchmark	20	749	5.1
Estimate 2 based on the N-SSATS, using the U.S. median as a benchmark	–12	–424	–2.9

NOTE: Bed days for both children and adults are based on the average length of stay (36.7 days) across all respondent facilities from administered survey interviews. Negative values (shaded red) represent shortages in the number of beds required to meet expected bed need. Positive values (shaded green) represent surpluses in the number of beds required to meet expected bed need.

(5.1 beds per 100,000 children and adolescents) compared with the state-level average and a shortage of 12 beds (2.9 beds per 100,000 children and adolescents) compared with the national average.

Secondary Analyses: Projected Need and Hard-to-Place and Out-of-County Populations

Projected Need for Psychiatric Beds

Using CHIS data from 2011 to 2018, we were able to examine the prevalence of SPD across three different demographic categories: age, sex, and race/ethnicity. Throughout the state of California, we found that the prevalence of SPD was higher among women than men (9.9 percent versus 7.3 percent), among those under than over age 65 (10.0 percent versus 5.9 percent), among Hispanic than non-Hispanic residents (9.4 percent versus 8.4 percent), and among Black than White residents (9.6 percent versus 8.4 percent). According to the California Department of Finance, the population of the County of Santa Clara is anticipated to grow by 3.7 percent from 2023 to 2028;[62] the department also predicts a demographic shift of 20.2 percent more adults over age 65. The county will also diversify slightly, with a 5.3-percent increase in Black residents and a 4.5-percent increase in Hispanic residents. Because of these trends, we estimated that the need for adult psychiatric beds would increase by 3.6 percent from 2023 to 2028.

Hard-to-Place Populations

All facility directors with whom we spoke reported on hard-to-place populations, in response to the prompt: "Does your facility place individuals who have . . . ." Each facility director was asked about the list of populations shown in Table 15. Because the number of responses from administrators at child and adolescent facilities was so limited, we elected to combine administrator responses for children and adults.

Overall, we found that the most difficult-to-place populations at psychiatric facilities were individuals with dementia (28 percent of community residential facilities), those who require oxygen (33 percent of acute facilities), those who are nonambulatory (17 percent of acute inpatient facilities and 39 percent of community residential facilities), those with an arson conviction (12 percent of community residential facilities), those with a sex offense conviction (35 percent of community residential facilities), Murphy conservatees (44 percent of community residential facilities), and those without funding sources (28 percent of community residential facilities). The most difficult-to-place populations at SUD treatment facilities were individuals with dementia (29 percent) or with co-occurring health issues (29 percent); those with a conviction in arson (17 percent), sex offense (17 percent), or another forensic category (33 percent); those who are incompetent to stand trial (43 percent); those who require oxygen (14 percent); those who are

TABLE 15

Percentage of Psychiatric and SUD Facilities Able to Place Specific Populations

	Psychiatric Facilities				
Population Characteristic	Acute Inpatient	Crisis Residential	Subacute	Community Residential	SUD Facilities
Co-occurring conditions					
Dementia	67% (6)	0% (5)	100% (5)	28% (25)	29% (7)
Traumatic brain injury	67% (6)	80% (5)	80% (5)	52% (25)	57% (7)
Eating disorder	33% (6)	80% (5)	60% (5)	64% (25)	86% (7)
Co-occurring intellectual disability	67% (6)	80% (5)	100% (5)	70% (27)	57% (7)
Co-occurring SUD or mental illness[a]	100% (6)	80% (5)	100% (5)	52% (25)	71% (7)
Co-occurring health issues	50% (6)	100% (4)	100% (5)	63% (27)	29% (7)
Justice system involvement					
Arson conviction	83% (6)	80% (5)	60% (5)	12% (25)	17% (7)
Sex offense conviction	83% (6)	100% (5)	100% (5)	35% (26)	17% (7)
Other forensic category[b]	83% (6)	100% (5)	100% (5)	50% (28)	33% (6)
Incompetent to stand trial	50% (6)	100% (4)	100% (5)	58% (26)	43% (7)
History of violence	100% (6)	100% (5)	80% (5)	58% (26)	71% (7)
Murphy conservatees[c]	67% (6)	100% (4)	80% (5)	44% (25)	NA
Other characteristics					
Large size (BMI > 45 kg/m^2)	67% (6)	100% (5)	80% (5)	62% (26)	100% (7)
Requiring oxygen	33% (6)	0% (5)	40% (5)	48% (27)	14% (7)
Nonambulatory	17% (6)	0% (5)	80% (5)	39% (28)	14% (7)
Monolingual, Spanish speaking	100% (6)	100% (5)	100% (5)	88% (26)	86% (7)
Monolingual, non-English other[d]	100% (6)	100% (5)	80% (5)	89% (28)	57% (7)
Payer source					
Insured by Medi-Cal	83% (6)	100% (5)	100% (5)	88% (26)	86% (7)
Insured by Medicare	100% (6)	0% (5)	60% (5)	81% (26)	57% (7)
General Assistance Funds	83% (6)	80% (5)	50% (4)	62% (26)	86% (7)
Supplemental Security Income	83% (6)	80% (5)	80% (5)	96% (28)	71% (7)
Out-of-pocket	67% (6)	80% (5)	75% (4)	69% (26)	71% (7)
No funding sources	83% (7)	100% (5)	50% (4)	28% (25)	43% (7)

NOTE: Parenthetical values represent the denominator (number of respondents) for each estimate. NA = not available.

[a] SUD was asked about at psychiatric facilities; mental illness was asked about at SUD treatment facilities.

[b] Other forensic category includes forensic cases other than a conviction of arson or sexual assault.

[c] Murphy conservatees are individuals who have a conservator with the authority to place that individual in a state hospital or psychiatric facility involuntarily.

[d] Monolingual individuals speak a language other than English or Spanish, such as Arabic, Mandarin, or Filipino.

nonambulatory (14 percent); and those without funding sources (43 percent).

Out-of-County Residents

We asked facility directors to report the percentage of individuals who were residents from outside the County of Santa Clara. This analysis was limited to psychiatric facilities placing adults, because we lacked sufficient data to include facilities placing children and SUD facilities. Among psychiatric facilities, we found that 32 percent of patients in acute facilities (n = 4 facility administrator respondents), no patients from crisis residential (n = 5 respondents), 45 percent of patients in subacute facilities (n = 1 respondent), and 15 percent of patients in community residential facilities (n = 25 respondents) were from outside the county.

Discussion and Recommendations

Understanding the Shortages and Surpluses of Psychiatric Beds

Among Adults

We estimate that the County of Santa Clara has a shortage of approximately 153 subacute beds (estimate 1: 156 beds; estimate 2: 150 beds). We also estimate that the county appears to have surpluses of acute inpatient, crisis residential, and community residential psychiatric beds. The magnitudes of these surpluses vary by estimation method: Using facilities survey data, we estimate surpluses of 53 acute beds, 2 crisis residential beds, and 77 community residential beds (estimate 1). However, using our expert consensus estimates of need, we estimate a smaller combined surplus of 10 beds across acute and crisis residential beds, yet a substantially larger surplus of 271 community residential beds.

Our observations derived from estimate 1 were generally supported by the responses from facility administrators in our phone-based survey. While acute inpatient facilities have more than 90-percent occupancy and a 9-percent waitlist volume, they also reported a desire to transfer nearly 40 percent of patients to a lower level of care if they were able. Facilities at the subsequent lower level of care (i.e., subacute) have a higher bed occupancy rate, a larger waitlist volume of approximately 14 percent, and a lower transfer request rate to a lower level of care (33 percent). Community residential facilities have the lowest occupancy rate of 77 percent and the lowest transfer request rate to a lower level of care (32 percent), although they also have the highest waitlist volume of 25 percent. Taken together, it is very likely that patients have become stuck in psychiatric facilities of higher acuity due to shortages at facilities of lower acuity levels.

Although we identified several discrepancies using our expert consensus estimates compared with our survey estimates across multiple levels of care, the discrepancy for community residential beds was especially large. The difference between these two estimates may be attributable to how our estimate of need using survey data is, in part, based on the capacity of these facilities. Given the large number of estimated community residential beds (602 beds), our survey-based estimate of need (estimate 1) extrapolates our observed percentages of occupancy, waitlist volume, and transfer requests across all facilities we identified to be offering community residential beds. Our second estimate of need (estimate 2), however, is based on expert consensus of the overall need rate and, thus, is not affected by capacity or specific to the county's population. Furthermore, our estimate of capacity for this level of care was limited by extrapolating that 25 percent of nonresponsive community residential facilities offered mental health services. Should this extrapolation have been an overestimate of the true capacity, the gap between these two estimates would be smaller.

Situating these results within our prior reports, which used the same methods, we find that the County of Santa Clara has a more modest surplus of acute beds compared with Sacramento County;[63] a larger surplus compared with Merced, San Joaquin, and Stanislaus Counties when using survey estimates;[64] and a greater rate of availability compared with the state as a whole, which is experiencing a shortage. Our shortage estimates of subacute beds were smaller than our shortage estimates for these respective beds in Sacramento County, but roughly in line with the estimates in our statewide

In terms of projected bed need, the County of Santa Clara will need approximately 3.6 percent more adult psychiatric beds over the next five years.

report.[65] Compared with our findings for Merced, San Joaquin, and Stanislaus Counties, the shortages identified for subacute beds in Santa Clara County were more consistent (i.e., in that both methods suggested a shortage). Our estimates of surpluses for community residential beds were consistent with our estimates in Merced, San Joaquin, and Stanislaus Counties: Santa Clara County has a slightly smaller surplus using survey data but a larger surplus using the expert consensus estimates. By contrast, the Sacramento County and statewide reports both identified shortages at this level of care.

In terms of projected bed need, we concluded that the County of Santa Clara will need approximately 3.6 percent more adult psychiatric beds over the next five years. This shift is predominately due to overall population growth. To a lesser extent, increasing racial/ethnic diversity will also contribute to psychiatric bed need, as epidemiological data throughout California indicate that Hispanic and Black residents have modestly higher rates of SPD—and, by extension, use of inpatient psychiatric services—compared with their White counterparts.

Among Children and Adolescents

Using secondary data from California, other parts of the United States, and other parts of the world, we estimate that children and adolescents in the County of Santa Clara are experiencing moderate shortages of acute inpatient and crisis residential beds (estimate 1: 15 beds; estimate 2: 55 beds). Compared with estimates of need for adult psychiatric beds, which were predominately normative in nature (meaning they were based on an analysis of what should be the case), estimates for children and adolescents were based on descriptive benchmarks from other settings. It is an open question whether greater bed capacity in these settings has translated to successfully meeting population needs. However, the County of Santa Clara could consider these benchmarks as a first step in realizing broader coverage for children and adolescents.

Understanding the Shortages and Surpluses of SUD Treatment Beds

Among Adults

Using survey responses from SUD treatment facilities, we estimated that the County of Santa Clara has a surplus of 83 beds for adults. Among the three facilities where we conducted interviews, the average bed occupancy rate was 62 percent, well under the standard threshold of 85 percent—implying that facilities are operating at below-expected levels. However, we did observe longer waitlists for withdrawal management services, at 20 percent of bed capacity.

Interestingly, when we compared the County of Santa Clara's SUD treatment bed capacity for adults with both California and the United States more generally, we found that the county has a large shortage. Using the state of California as a reference point, we would have expected the county to have 309 more SUD treatment beds than it currently has; using median bed capacity in the United States as a reference point, we would have expected the county to have 240 additional SUD treatment beds for adults.

Compared with the results in our other California county reports, we find that the County of Santa Clara has a similar rate of SUD treatment bed surpluses based on survey data, but it has larger shortages when compared with state and U.S. benchmarks.[66] One possibility for the difference between our estimates using survey responses and using the state as a benchmark is that rates of SUDs among adults in the County of Santa Clara may be lower than rates in the rest of California, leading facilities to effectively decrease their supply to more closely meet the demand of SUD services. However,

California data on emergency department visits for alcohol and other drug diagnoses suggest that rates of SUDs in the county are higher than the statewide rate.[67] An alternative and potentially more concerning interpretation is that these facilities maintain stable bed occupancy rates by excluding high-need populations that might otherwise overwhelm their systems—such as those with co-occurring conditions and justice system involvement. We observed that fewer than half of SUD treatment facilities reported accepting patients with dementia or co-occurring health issues, those without funding sources, and those with prior involvement in the criminal justice system. While the county covers the costs of individuals without funding sources, it is possible that facilities are not aware of this when deciding whether to accept these patients.

Among Children and Adolescents

Similar to the available data on psychiatric beds for children and adolescents, the limited number of facilities and survey responses required us to focus on secondary estimates of need based on descriptive benchmarks—in California and nationally. Relative to statewide capacity for child and adolescent SUD treatment beds, we found that the County of Santa Clara has a surplus of roughly 20 beds. Compared with the national capacity, the county has a shortage of 12 beds.

Identifying Hard-to-Place and Out-of-County Populations

We found that several populations were disproportionately hard to place in psychiatric and SUD treatment beds throughout the County of Santa Clara. A majority of psychiatric facilities stated that they were unable to place individuals with dementia, those who require oxygen, those who are nonambulatory, those with an arson or sex offense conviction, Murphy conservatees, and those without funding sources. Likewise, a majority of SUD treatment facilities stated that they were unable to place individuals with dementia or co-occurring health issues; those with a conviction for arson, a sex offense, or in another forensic category; those who are incompetent to stand trial; those who require oxygen; those who are nonambulatory; and those without funding sources. These observations suggest that individuals are likely to find themselves stuck in a facility that provides one level of care when they would be more appropriately served in a different level of care or that they are entirely denied services.

Survey respondents reported a sizable portion of patients at their facilities who were not residents of the County of Santa Clara: Acute facilities reported approximately 32 percent of out-of-county patients, subacute facilities reported 45 percent of out-of-county patients, and community residential facilities reported 15 percent of out-of-county patients. Therefore, it is likely that placements from outside the County of Santa Clara may be driving higher bed occupancy rates, although the survey data may reflect underreporting and misreporting as a function of social desirability bias. Combined with frequent exclusions of clients with co-occurring conditions, justice involvement, and other characteristics, this finding suggests that high-need patients in the County of Santa Clara may be underserved and in need of new facilities with beds that specifically address their needs.

Recommendations

Drawing on the findings described above, we offer three recommendations to the County of Santa Clara.

1. In terms of psychiatric beds, increase psychiatric bed infrastructure at the subacute level and for hard-to-place populations—including those with dementia and without funding sources. The County of Santa Clara has a consistent shortage of psychiatric beds at the subacute level of care for adults, as well as shortages across all levels of care for children and adolescents. Moreover, facilities at all levels of care reported that more than 30 percent of their occupants have requested transfers to a lower level of care, suggesting that the subacute shortage has led to bottlenecks preventing patients from receiving care that is appropriate to their needs. One potential solution to this situation is to increase the number of beds at the subacute care level by expanding infrastructure. Investments in new infrastructure should take into account such factors as construction costs, geographic proximity to populous areas, and

equity considerations regarding the types of communities most likely to be served.[68]

It is possible that removing the bottleneck of transfer requests from acute to subacute care facilities and from subacute to community residential care facilities (either through expansion of infrastructure or through making beds more broadly available to hard-to-place populations) could lead to unsustainably low bed occupancy rates at the acute care level. The County of Santa Clara may therefore want to consider the possibility of converting existing beds to meet needs at these lower levels of care. This strategy has been implemented in other settings, both within and outside the United States,[69] including using swing bed models. However, whether such an approach would be realistic in Santa Clara County would depend on several factors, including how its infrastructure is arranged. Whether such investments bear fruit would also depend on the flexibility of this infrastructure to place populations that currently are turned away from many psychiatric facilities, including those with comorbid dementia or without funding sources.

2. In terms of SUD treatment beds, increase the availability of SUD beds for Santa Clara County residents who are currently hard to place—including nonambulatory individuals, those with involvement in the criminal justice system, those with co-occurring health issues, and those without funding sources. From survey responses from administrators at SUD treatment facilities, we learned that 57 percent of facilities did not accept patients without funding sources, 86 percent did not accept patients who either required oxygen or were nonambulatory, 83 percent did not accept patients with an arson or sex offense conviction, and 71 percent did not accept patients with co-occurring health issues. Despite an average occupancy rate of 62 percent and short waitlist volumes, beds at these facilities may not be available to many high-need individuals who reside in the County of Santa Clara. This observation may also account for the difference in the estimated need for SUD treatment beds in the county based on (1) observed outcomes from survey interviews and (2) the reference benchmarks of statewide and national bed capacity. Although it is not uncommon for regional health facilities to place individuals from multiple counties, there still may be jockeying for a limited number of spaces.

If the County of Santa Clara were to anchor on California as a reference benchmark, this would indicate a shortage of 309 SUD treatment beds for adults. If the county were to expand its number of SUD treatment beds, it would need to make sure these additional beds were accessible to target populations, both in terms of their location within the county and the populations who are eligible to use them. Ensuring access to the populations in need of these beds can help improve facilities' bed occupancy rates and service utilization, which will better enable their continued operation.

3. Track outcomes of investments in bed capacity over time, including bed occupancy rates, waitlist volume, and bottlenecks that inhibit transfers to higher and lower levels of care. Our first two recommendations are based on estimates that were derived from incomplete data. In particular, there was an absence of literature on normative estimates of need for services among children and adolescents. Although we were able to identify substantially more primary and secondary data on psychiatric and SUD treatment beds for adults, the nonresponsiveness of numerous facilities and missing data remain concerns.

By contrast, more-complete data that empirically examine the relationship between changes in bed capacity and changes in other outcomes would provide a more valid estimate for future assessments of whether there are shortages in bed capacity and if expanding the number of beds can alleviate this concern. As the county is already increasing the number of acute and community residential beds through an expansion at San Jose Behavioral Health, the creation of a new facility at Valley Medical Center with beds for children and adolescents, and the creation of a new augmented community residential facility, the county should monitor how these expansions are associated with changes in outcomes that suggest whether the supply is meeting bed need. Some of these metrics include bed occupancy rates, waitlist volume, bottlenecks that inhibit transfers to higher and lower levels of care, and the proportion of residents using out-of-county facilities.

Limitations

Our analysis has several limitations. The state licensure data have various quality issues; they did not contain all the information needed to categorize providers by levels of care or to discriminate between adult and child beds. We used input from behavioral health leadership at Santa Clara County and data from facility administrators to enhance the licensure data. Our surveys of facility administrators revealed additional issues with the state licensure data, such as closed facilities and facilities that do not, in fact, have any psychiatric or SUD treatment beds, suggesting that the licensure data are not updated regularly to accurately reflect the conditions on the ground. Given the relatively low rate of licensed community residential facilities that confirmed via survey that they were providing mental health services to patients (25 percent), we had to extrapolate this rate across the community residential facilities that we were unsuccessful in contacting to estimate capacity. Our estimates of capacity could not incorporate the impending changes in capacity among facilities, such as an upcoming expansion of approximately 50 beds at San Jose Behavioral Health Hospital and the opening of a new augmented community residential facility with 28 beds, all of which are anticipated to be county-accessible. Because our scope was limited to inpatient or residential facilities that provide psychiatric or SUD treatment, our capacity estimates do not incorporate other facilities that are serving individuals with serious mental illness and SUDs, such as recovery residences, SNFs without STPs, and supportive housing.

Our first estimates of bed need in the county, using survey results, were limited by a relatively small sample size because of a low response rate, especially for acute and subacute psychiatric and SUD treatment facilities. Our decision to input weighted medians for facilities with missing observations assumes that those facilities do not systematically differ from the facilities that responded. Our surveys to facilities also could not incorporate Santa Clara County residents on waitlists for state hospitals located outside the county or those on the Jail Assessment Coordination (JAC) list if the facilities surveyed do not have these individuals on their own waitlists. According to the county, there were approximately 35 county residents waiting for placement in state hospitals and 21 individuals on the JAC list in May 2023. Also, to make a more positive impression, respondents may have overstated the availability of beds and their willingness to accommodate certain populations, or they may have underreported the number of beds occupied by out-of-county residents. Because this estimate of need was based on current utilization patterns, it may underestimate need by excluding individuals who needed these services but were unable to access them. We addressed these limitations by triangulating estimates with additional data points. In the case of facilities serving children and adolescents, we chose to use only normative or reference benchmarks, because the sample size was too small to produce a valid estimate.

Another limitation of our results is that our main estimates of bed need are at the population level for individuals residing in the County of Santa Clara. Access to these facilities, however, is a particular challenge for individuals who do not have private insurance or out-of-pocket funds to pay these facilities. Although we had a separate measure of county-accessible beds, we did not have the data to produce an appropriate estimate of need limited to the individuals the county predominately serves (i.e., Medi-Cal enrollees and those who are uninsured). Thus, we could not implement a separate gap analysis limited to county-accessible beds.

Conclusions

We estimate that the County of Santa Clara has a shortage of subacute psychiatric beds. For SUD treatment beds, there is evidence of a general surplus of beds, but there still appears to be a shortage of beds available to certain populations—those who have dementia or are nonambulatory, have prior involvement in the criminal justice system, and have no sources of payment. We hope that this information will guide future investments in infrastructure throughout the County of Santa Clara, and that—with higher-quality information available over time—the county will be able to observe how these investments lead to improved patient outcomes.

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About This Report

This report is intended to provide an evaluation of psychiatric and substance use disorder (SUD) treatment bed needs for the County of Santa Clara in 2023. Like other counties and states, the County of Santa Clara has experienced obstacles in delivering behavioral health services, including the challenge of adequate inpatient care for adults and adolescents. The county sought to understand where gaps exist between psychiatric and SUD treatment bed capacity and needs—at different levels and types of care. This report builds off of three prior RAND reports that examined the same questions and used the same methods for other counties in California and the state overall.

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