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Assessment # 2

TREND IN PSYCHIATRIC INPATIENT CAPACITY, UNITED STATES AND EACH STATE, 1970 TO 2014

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Tenth in a Series of Ten Briefs Addressing: *What Is the Inpatient Bed Need if You Have a Best Practice Continuum of Care?*

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Trend in Psychiatric Inpatient Capacity, United States and Each State, 1970 to 2014

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Executive Summary

The shortage of psychiatric inpatient beds has become a major national issue, with the lack of availability identified as a major issue by policy makers, states, mental health families, academics, and popular media. Many reports regarding these shortages start with the major decline in inpatient capacity in state psychiatric hospitals—a decrease of over 500,000 beds since the 1950s. However, most analyses fail to include a comprehensive depiction of the total inpatient and other 24-hour mental health residential treatment capacity across the nation or to address the changing trends in the use of psychiatric inpatient services.

Beds available to provide 24-hour mental health treatment to individuals requiring this high level of restrictive and expensive treatment exist in a variety of settings, including specialized public and private psychiatric hospitals, psychiatric inpatient, and licensed residential treatment units in general hospitals and other organizations, non-residential treatment centers (non-RTCs) for children and adults (organizations that provide intensive 24-hour treatment services but that are not licensed as "inpatient" services), Veterans Affairs (VA) Medical Centers, Department of Defense Medical Centers, and psychiatric inpatient units within jails and prisons (these are beds not accessible to the general public). In addition, many general hospitals without special mental health units also provide inpatient treatment for individuals with mental illnesses (in "scatter beds"). Unfortunately, there is no single source of information that documents all psychiatric inpatient capacity across the various types of organizations that are providing these services.

This paper attempts to fill that need, combining information from multiple data sources to estimate the overall inpatient and other 24-hour inpatient capacity in the U.S. in 2014. Trends over the past 44 years in the 24-hour mental health treatment capacity of each setting are examined when comparable historical trend data are available.

As of 2014, the year for which the most recent data on specialty mental health providers are available, there were over 170,000 residents in inpatient and other 24-hour residential treatment beds on any given night, an average of over 53.6 patients per 100,000 population. Although 170,000 residents in 24-hour treatment beds every day may seem a large number, it reflects a 64 percent decrease in psychiatric residents from 1970. When data are adjusted for the growth in the population of the United States since 1970, the decline in beds is an even greater 77.4 percent.

Underlying this decline in psychiatric inpatient capacity are major shifts in the location of where individuals with acute psychiatric needs receive 24-hour care. It is true that state and county psychiatric hospitals and VA Medical Centers have experienced large reductions in psychiatric capacity, while private psychiatric hospitals and general hospital specialty units have increased over time. However, both the state mental health and VA systems have drastically reorganized their approaches to providing care over the past 44 years, shifting resources and workforce to focus on delivering community-based outpatient services that have included intensive evidence-based services, such as Assertive Community Treatment (ACT), designed to reduce the need for intensive inpatient services. In 2014, only two percent of the 7.3 million mental health clients served by State Mental Health Agencies (SMHA) were inpatients in a state psychiatric

hospital and only four percent of the 1.5 million veterans with a mental illness served by the VA received inpatient mental health services in a VA Medical Center.

In addition to changing where psychiatric inpatient services are delivered, there have been historic changes in how state psychiatric hospitals are utilized, the types of patients they serve, and the services they provide. From the 1950s through the 1980s, state psychiatric hospitals provided services to many elderly individuals, many with dementia and other brain disorders no longer the focus of treatment in state psychiatric hospitals. For example, in 1970, patients 65 and older represented 29.3 percent of residents in state and county psychiatric hospitals, and there were 81,621 patients (24 percent) with a diagnosis of organic brain syndrome (of which 45,811 were 65 and older). Individuals with diagnoses of intellectual/developmental disabilities (called mental retardation in the 1970s) were an additional 9 percent of residents.[1]

Today, due to coverage for older adults under the Medicaid and Medicare programs implemented in the late 1960s, many elderly individuals with mental illness receive care in their own homes or in nursing homes or other residential providers that specialize in Alzheimer's and other dementia services. (In 2014, only 8.8 percent of state and county psychiatric hospital patients were 65 and older.) [2] SAMHSA no longer routinely collects detailed diagnosis information on residents in state psychiatric hospitals, but as of 2005, only 3.8 percent of patients in state psychiatric hospitals had an intellectual/developmental disability (formerly termed mental retardation) diagnosis.[3]

The focus of this report is on the total population receiving mental health inpatient and other 24-hour residential treatments. Children and adolescents may have very different patterns of receiving inpatient and other 24-hour treatment than adults. For example, many states no longer provide inpatient services for children in state psychiatric hospitals. However, detailing the differences between inpatient care for children and adults is beyond the scope of this report.

Recommendations for Better Monitoring Psychiatric Inpatient Capacity

Various Federal organizations and associations collect different aspects of information about psychiatric bed availability. However, different groups collect this information using different measures and it is difficult in some cases to combine all the different data in a way that allows us to fully understand the use of psychiatric inpatient and residential treatment services. Some data systems count patients in inpatient and residential treatment beds on a single day while others provide counts of total patients served over a year and others count the number of discharges by mental health diagnoses. Only a few

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[1] Taube C., NIMH Statistical Note #112, *Changes in the Age, Sex, and Diagnostic Composition of the Resident Population of State and County Mental Hospitals, United States 1964-1973* (March 1974).
[2] *National Mental Health Services Survey (N-MHSS): 2014. Data on Mental Health Treatment Facilities.* BHSIS Series S-87, HHS Publication No. (SMA) 16-5000, Substance Abuse and Mental Health Services Administration, Rockville, MD (2016).
[3] *Background Report, Admissions and Resident Patients, State and County Psychiatric Hospitals, United States, 2005*, Substance Abuse and Mental Health Services Administration, Rockville, MD (September 2007)

data sets currently have information about the number of admissions, the length of stay, or legal status of psychiatric patients.

To better understand the availability and use of inpatient beds, it will be important to collect information that:

1. Compiles information across all settings using the same operational definition.

   Currently the Substance Abuse and Mental Health Services Administration (SAMHSA) gathers information on residents on a single day for specialty mental health providers, but does not gather information on general hospital scatter beds, use of nursing homes, crisis residential facilities, respite beds, Department of Defense (DOD) hospitals, etc. Other settings such as jails and prison where psychiatric inpatient capacity has been developed are not currently being counted by any organization.

   AHRQ collects information for community hospitals (public and private) but its collection focuses on discharges and does not readily distinguish specialty units versus scatter beds. AHRQ also does not differentiate by client legal status.

2. Compiles information on the intended and actual treatment use of various beds. Are beds in various settings reserved for forensic patients, sex offenders, children, short-term or long-term care, individuals with dual diagnoses of substance abuse, intellectual disabilities, serious medical issues, etc.?

   Without a better understanding of how inpatient and residential beds are intended to be used, areas that may appear to have adequate overall capacity may have critical shortages or be over capacity in services for specialized services.

3. Better documents the role of emergency departments in a referral source.

   Currently information on emergency room "boarding" of patients awaiting psychiatric beds is largely anecdotal. Data systems that track patients by diagnosis, legal status, and reasons for delay in emergency departments and include the use of EDs within the continuum of mental health care are missing.

4. Includes, in state psychiatric bed registries designed to permit community mental health agencies, emergency rooms, and courts to find available psychiatric beds and thus maximize the efficient use of the limited supply of psychiatric beds, data on access, distance from a patient's home, and other factors that are associated with the provision of quality care.

Advances in heath information technology have the potential to greatly enhance the ability to track the use of emergency departments, and psychiatric inpatient and residential beds. Many state and private psychiatric hospitals have now implemented electronic health records that have the potential to permit development of data systems that can comprehensively document the use of psychiatric beds across systems and can be used to track the movement of patients between settings (for example, from an ED to a general hospital and then on to a state psychiatric hospital). Although many mental health

providers have EHRs capable of sharing electronic heath information data, very few Health Information Exchanges (HIEs) currently include state psychiatric hospitals and other specialty mental health providers.

A case study or pilot study using HIE information that integrates information from mental health providers (community mental health and inpatient) and general hospitals and other general health providers could test and demonstrate the potential for developing systems that provide real time information about psychiatric bed availability and usage.

Overview of the Report

This report is organized into several sections and contains three appendices with additional detailed information for interested users:

- **Introduction/Background:** This section reviews some of the history and trends in psychiatric inpatient and other 24-hour residential mental health treatment over the past half-century and the more recent growing concerns that too much inpatient capacity has been eliminated. This section also discusses how psychiatric inpatient programs are being used differently today than they were historically.
- **Availability of Psychiatric Inpatient Services in 2014:** This section discusses the location, number, and population ratio per 100,000 of mental health inpatient and other 24-hour residential treatment capacity using the most recent data available across multiple settings.
    - This section focuses on information from SAMHSA from specialty mental health providers such as:
        - state and county psychiatric hospitals,
        - private psychiatric hospitals,
        - general hospitals with special mental health inpatient units,
        - VA Medical Centers,
        - residential treatment centers (RTCs), and
        - other mental health programs with inpatient and other 24-hour treatment beds.
    - Estimates of mental health inpatient and other 24-hour residential treatment capacity in:
        - general hospitals without special psychiatric units (scatter beds),
        - DOD hospitals in the U.S.,
        - nursing homes, and
        - other settings.
- **Trends in Psychiatric Inpatient Capacity 1970 to 2014:** This section reviews the trends in the availability of psychiatric inpatient and other 24-hour residential treatment capacity over the past 44 years. Trends by resident patients and ratio of

resident patients per 100,000 are discussed for all beds and by specific types of mental health organizations.

- **Appendix A:** This Appendix provides state-by-state information about the availability of psychiatric inpatient capacity in 2016 and over time.
- **Appendix B:** This Appendix provides detailed information about state psychiatric hospitals in 2016, including state-by-state information about their numbers, size, characteristics, and trends in their financing and services.
- **Appendix C:** This Appendix provides information about current and historic sources of data on inpatient psychiatric service capacity.

Introduction/Background

The availability of a safety net of services for individuals experiencing a psychiatric crisis is a critical need in every state. After a half-century of downsizing of state and other psychiatric hospitals, there is widespread concern that too much of the capacity has been eliminated. An internet search for the phrase "psych bed shortage" returns over 13 million results.

"Amid shortage of psychiatric beds, mentally ill face long waits for treatment"
PBS News Hour, August 2, 2016
"Nation's psychiatric bed count falls to record low"
Washington Post, July 1, 2016
"Psychiatric beds disappear despite growing demand"
USA Today, May 12, 2014
"**A dearth of psychiatric hospital beds for California patients in crisis"**
NPR, April 14, 2016
"**Going, Going, Gone: trends and consequences of eliminating state psychiatric beds, 2016"** Treatment Advocacy Center, June 2016

Reports of shortages of available intensive psychiatric inpatient services were cited by Congress in passing the 21st Century Cures Act, as well as in various academic and advocate reports.[4, 5, 6.]

A 2015 study of SMHAs by the NASMHPD Research Institute (NRI), found that many states (35 of 46) are experiencing shortages of psychiatric hospital beds. Of the states experiencing bed shortages, 20 states reported insufficient acute beds in private psychiatric and general hospitals and 17 states reported experiencing a shortage of short-term beds in state psychiatric hospitals.[7] More states (23) were experiencing a long-term

[4] Fuller D.A., Sinclair E., Geller J., Quanbeck C., & Snook J. *Going, Going, Gone: Trends and Consequences of Eliminating State Psychiatric Beds, 2016*, Treatment Advocacy Center (2016), http://www.treatmentadvocacycenter.org/going-going-gone.
[5] Sharfstein S.S., & Dickerson F.B., Hospital Psychiatry for the Twenty-First Century. *Health Affairs* 28(3), 685-688 (2009).
[6] Appelbaum P.S., The 'Quiet' Crisis in Mental Health Services, *Health Affairs* 22(5), 110-116 (2003).
[7] NRI 2015 State Mental Health Agency Profiles System.

bed shortage in state psychiatric hospitals, and 12 states were experiencing a bed shortage in private psychiatric and general hospitals. Twenty-six states reported a shortage of beds for "forensic status" patients committed by the courts for evaluation or long-term stays.

In 25 of 35 states experiencing a shortage of psychiatric hospital beds, the shortage led to increased waiting lists for state hospital beds. In 16 states, the shortage led to increased waiting lists for beds in private psychiatric hospitals or general hospitals. In eight states, the shortage also resulted in overcrowding in state hospitals, and nine states experienced resistance to the planned closure of additional state hospital beds. In three states, the shortage of psychiatric beds caused an increased dependency on emergency departments, where persons could be kept until a bed becomes available. In three states, the shortage of beds in individuals' communities caused geographic expansion in the search for available beds, resulting in greater average distances between an individual's home community and the hospital where the individual is ultimately served.

The shortage of bed capacity is often attributed to the closure of state psychiatric hospitals. But the data presented in this report show that most of the state psychiatric hospital bed capacity that has been closed was actually closed decades ago, with the rate of downsizing drastically slowed in recent years.

The Federal government and the courts have established a variety of Federal laws and rules—laws and rules that continue to exist today—that strongly direct states to minimize institutional care. The Medicaid Institutions for Mental Disease (IMD) rule limiting the use of Medicaid payment in hospitals for much of the adult population, the prohibition against using Mental Health Block Grant (MHBG) funds for inpatient services in any setting, and Federal disability laws such as the Civil Rights of Institutionalized Persons Act of 1980 (CRIPA) [8] and regulations implementing the Supreme Court's *Olmstead* decision [9] continue to emphasize the development of community-based alternatives to inpatient care.

State governments responding to these incentives have increased their expenditures for community-based mental health services at a rate more than ten times greater than their expenditures for state psychiatric hospitals. During the 35 years between Fiscal Year (FY) 1981 and FY 2015, state hospital expenditures increased 159 percent, an increase dwarfed by the 1,528 percent increase in community mental health expenditures.

The much smaller state psychiatric hospitals of 2017 now focus increasingly on specialized populations that are often difficult to treat or simply cannot be accommodated in other settings. State psychiatric hospitals are increasingly responsible for providing treatment to forensically-involved patients and sex offenders not deemed safe to treat in community settings. Many states have responded by shifting responsibility for some client groups previously provided by state psychiatric hospitals to other settings:

- More than 20 states no longer serve children in their state psychiatric hospitals.
- Many states have adopted policies that require initial admissions for civil status patients in local hospitals and only treat civil status patients for whom it can be

[8] 42 U.S.C. § 1997 *et seq.*
[9] *Olmstead v. L.C.,* 527 U.S. 581 (1999).

demonstrated that continuing inpatient treatment after initial hospitalization is required.

- The large number of elderly patients who were once served in state psychiatric hospitals have largely been shifted to services in community and residential settings that specialize in dementia, Alzheimer's, etc., Moreover, few patients "age in" and become elderly after decades of hospitalization with lengths of stay in state hospitals measured in years.
- Patients with intellectual or developmental disabilities used to fill many beds in state psychiatric hospitals, but with the development of community-based services and supports for individuals with developmental disabilities, states have largely closed state psychiatric hospital units that used to serve these patients. The recently adopted Medicaid home- and community-based services regulations requiring a shift away from isolating and institutional services is hastening that transition even more.[10]

The impetus for closing of many of these state psychiatric hospital beds early on was, in part, based on the availability of alternative acute inpatient beds in other organizations (often, general hospitals that, because they are not defined as IMDs, are able to bill Medicaid for care that would otherwise require state funds if delivered in a state psychiatric hospital). However, the data presented in this report (*see* Tables 8 and 9) show that, despite their ability to bill Medicaid and insurance, the trend in the number of specialty psychiatric beds in general hospitals has been flat for years and has slightly decreased in recent years as general hospitals found that psychiatric units were less profitable than other types of medical units, shifting some psychiatric units to other medical/surgical purposes. Managed care, evident first in the private insurance market and later under Medicaid, has limited admissions and length of stay for psychiatric patients.

In a 2015 survey of state mental health agencies conducted by NRI, although the majority of states identified shortages of acute psychiatric bed capacity, state solutions to these shortages did not involve reopening closed state hospital beds. Instead, the state response was to develop a set community alternatives including: working with general hospitals to open or reopen beds, funding residential crisis beds, funding crisis response teams, and increasing other evidence-based community-based services such as ACT and Supportive Housing, which are designed to minimize institutionalization.

Use of Psychiatric Inpatient Services Today Are Different From Earlier Eras

The decline in psychiatric inpatient capacity over the past 60 to 65 years has been part of a historic transformation of how and where services to individuals with serious mental illness are provided. Until the 1960s, the Federal collection of information about mental health services focused exclusively on psychiatric hospitals, as those were the primary locations where individuals with serious mental illnesses received services.

[10] 42 CFR Parts 430, 431, 435, 436, 440, 441 and 447.

Today, psychiatric beds are used as one part of a continuum of mental health care for individuals in acute crises—individuals with complex needs that are not being met by community services, often with multiple diagnoses—and individuals with criminal justice involvement who are sent to psychiatric institutions by the judicial system for evaluations and treatment. In 2014, state mental health systems provided mental health services to 7.3 million individuals, but only 493,517 (6.8 percent) of those individuals received inpatient psychiatric services during the year (2 percent received mental health services in state psychiatric hospitals and 4.8 percent in other psychiatric inpatient settings).[11] Although less than 2 percent of clients received services in state psychiatric hospitals, states expended $9.4 billion providing those intensive services (23 percent of total State Mental Health Agency (SMHA) expenditures.[12] The average cost per patient day for care in a state psychiatric hospital was $664 in FY 2015 (over $242,000 for a year of care).[13]

The shift of state mental health services from state psychiatric hospitals to community mental health services and supports reflects a transition over 50^{+} years in mental health treatment philosophy and treatment objectives. Several authors[14, 15] have investigated how the development of first-generation antipsychotic and antidepressant medications in the 1950s permitted the movement of patients out of state psychiatric hospitals that had grown into large institutions—some of which were essentially "warehousing" over 10,000 patients with little successful treatment prior to the new medications. In 1963, President Kennedy pushed the adoption of the Community Mental Health Act (CMHA),[16] funding the establishment of comprehensive community mental health centers across the country. One of the explicit goals of the CMHA was to reduce the use of psychiatric hospitals by adopting a philosophy of making community mental health centers the central location for mental health services, including inpatient care as a key service).

Implementation of the CMHA never met the goals originally envisioned and failed to end the need for specialized psychiatric hospitals. In 1982, the CMHA was transitioned into the MHBG.[17] The MHBG directs community mental health funds through each state's SMHA, with the requirement that the state use the MHBG funds to plan and implement comprehensive community-based mental health service systems that would minimize the use of restrictive inpatient care. The MHBG statute requires SMHAs to enable individuals receiving comprehensive community mental health services to function outside of inpatient or residential institutions, to the maximum extent of their capabilities.[18] In implementing the MHBG, SAMHSA also developed and worked with states to implement Community Support Program (CSP) model services that uses trained mental health case managers to help individuals with serious mental illnesses access the

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[11] 2014 SAMHSA Uniform Reporting System. Data available at: http://www.samhsa.gov/data/us_map
[12] NRI 2015 State Mental Health Agency-controlled Revenues and Expenditures Study.
[13] NRI 2015 State Mental Health Agency-controlled Revenues and Expenditures Study.
[14] Frank R., Gleid S., *Better But Not Well, Mental Health Policy in the United States since 1950*, Johns Hopkins University Press, Baltimore, MD (2006).
[15] Parks J., Radke A. & Haupt M, *The Vital Role of State Psychiatric Hospitals*, NASMHPD, Alexandria, VA (July 2014), http://www.nasmhpd.org/content/vital-role-state-psychiatric-hospitals-july-2014-0
[16] Public Law 88-164.
[17] 42 U.S.C. §§290bb-31 *et seq.* and §§300x *et seq.*
[18] 42 U.S.C. § 300x-1.

services and supports necessary to live in their own communities. While appropriations for the MHBG have failed to keep up with inflation and population growth, the MHBG remains a critical source supporting state development of comprehensive community mental health systems designed to minimize the use of hospital level of care.

During the 1980s and 1990s, the National Institute of Mental Health (NIMH), SAMHSA, and others developed evidence-based model community-based mental health treatment options, with the goal of helping individuals with serious mental illness to receive services in their own communities and avoid hospitalizations—services such as ACT, supportive housing, supported employment, Cognitive Behavioral Therapy (CBT), and recovery-focused psychosocial rehabilitation services.

The development of community-based services over the past 50 years was further supported by passage of state and Federal laws that drastically increased financial support for community mental health services, in particular the expansion of Medicaid and Medicare as major sources of reimbursement for community mental health services, and the passage state and Federal mental health parity laws which mandated that private insurance plans reduce restrictions on payment for mental health services that are not on parity with restrictions on payment for analogous medical/surgical services. In the 1990s, the use of managed care for both private insurance and Medicaid increased the potential funding of community mental health services, but also added new levels of oversight/utilization review that limited payments for psychiatric inpatient care.[19]

Finally, since the 1970s, the Federal Government, through a series of laws and court cases has been actively pursuing policies that reduce the use of psychiatric hospitals unless absolutely necessary. Federal policy has challenged inappropriate hospitalizations, incentivized community-based treatments, and supported the development of community-based alternatives to hospitalization such as ACT and SAMHSA's CSPs focus on case management for individuals with serious mental illnesses.

Some of the Federal policies that explicitly limit funding or use of psychiatric inpatient services include:

1. **Federal Medicaid IMD Coverage Limitations (1965)** — When the Social Security Act Amendments of 1965[20] creating the Medicaid program were enacted, they set limits on Medicaid payment for services in IMDs. Over the years, exceptions to the limits were carved out for inpatient services provided to older adults and children. The current Medicaid regulations prohibit Federal Medicaid matching payments for adults' ages 22 to 64 in inpatient and other 24-hour residential treatment settings in institutions with more than 16 beds where more than half the patients have a mental illness.[21] The IMD rule has incentivized states to shift acute psychiatric treatment for adults from state psychiatric hospitals (which are IMDs and thus unable to bill Medicaid) to general hospital psychiatric beds (which are able to bill Medicaid). For example, if a state closes an acute unit in a state hospital that relied on $10 million in

[19] Dickey B., Norton E.C., Normand S.L., Fisher W.H. & Azeni H., Managed Mental Health Experience in Massachusetts, *Paying for Services: Capitation and Managed Behavioral Health Care*, David Mechanic editor, pp. 115-124, San Francisco, CA, Jossey-Bass (1998).
[20] Public Law 89-97 (1965).
[21] 42 C.F.R 441.13(a)(2).

state general revenue funds, the state can use that $10 million as a match for Medicaid billing of acute psychiatric inpatient services in a general hospital. That approach leverages an additional $10 to $20 million of Federal Medicaid funds (the Federal Medical Assistance Percentage (FMAP) match rates range from 50-50 to 18-82 depending on a state's per capita income level).

A recent change to Medicaid managed care regulations[22] also allows coverage of 15 days or less in a month for residential substance use disorder services and psychiatric inpatient services in a hospital providing psychiatric or substance use disorder inpatient care or a sub-acute facility providing psychiatric or substance use disorder crisis residential services through the capitated payments made to Medicaid managed care organizations.[23]

Medicaid Disproportionate Share Payments (DSH) have allowed some states to receive reimbursements from Medicaid for providing services to individuals without insurance. However, while Medicaid DSH has been an important source of funding for some state and private psychiatric hospitals, the use of DSH to cover IMD services varies considerably from state to state.[24] The Affordable Care Act (ACA) has increased the number of individuals with insurance coverage and, as a result, the ACA is scheduled to phase out DSH funding over the next few years. If DSH funds are eliminated, an additional Federal source of support for psychiatric inpatient care will disappear.

2. **Mental Health Block Grant (MHBG) Law** —The MHBG law requires SMHAs to use block grant monies to "enable individuals receiving comprehensive community mental health services to function outside of inpatient or residential institutions, to the maximum extent of their capabilities". The MHBG statute prohibits any expenditures of MHBG funds for inpatient services.[25]
3. **Civil Rights of Institutionalized Persons (CRIPA) —** The Federal law designed to protect the rights of individuals in state and local psychiatric hospitals, nursing homes, institutions for individuals with intellectual/developmental disabilities, or in correctional facilities has been the basis of a number of lawsuits and settlements focusing on overuse and inappropriate care in state psychiatric hospitals. The goal of that litigation is frequently the reduction in use of inpatient care and an expansion of community-based alternatives.
4. **Americans with Disability Act of 1990 (ADA)**[26] – The ADA is a Federal statute that prohibits unjustified segregation of individuals with disabilities. In 1990, the Supreme Court determined in the *Olmstead* decision[27] that the ADA applies to patients in state psychiatric hospitals and that states must undertake reasonable accommodations to

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[22] 81 *Federal Register* 27498 *et seq.* at 27555 to 27557 and 27861.
[23] 42 C.F.R. 438.6(e).
[24] Draper D., McHugh M., Achman L. & Kuo S., *Medicaid Financing of State and County Psychiatric Hospitals: Special Report* (2003).
[25] 42 U.S.C. § 300x-1.
[26] Public Law 101-336; 42 U.S.C. § 12101 *et seq.*
[27] *Olmstead v. L.C.,* 527 U.S. 581 (1999).

support the community integration of individuals with mental illnesses. The *Olmstead* decision has been the focus of much litigation and many settlements that have focused on inappropriate or overuse of institutional care.

5. **Fair Labor Standards Act and the 1973 *Souder v Brennan* Federal Court Decision**[28]-- Although not often cited as a reason for deinstitutionalization, the Federal District Court for the District of Columbia held, in a 1973 decision, that hospital patients who perform work within state institutions are entitled to payment for their labor, even where such employment is considered to be therapeutically advisable for the patient. The result of this decision was that volunteer patient laborers working in state hospitals to maintain the hospital (working in the laundry, kitchen, maintenance or to grow food in rural areas on hospital farms) or in workshops contained within the hospital that produced products for the hospital and outside sale now needed to receive minimum wage for hours worked.[29] An example of the impact of this decision is found in a 1974 Michigan budget document that appropriated $800,000 for wages for patients in state hospitals, citing the *Souder* decision.[30] After the *Souder* decision, the increased costs of having to paying for kitchen, laundry, workshops farms and other state hospital operations led some states to closed their workshops and farms and downsize the hospitals.

Availability of Psychiatric Inpatient Services in 2014

Beds available to provide 24-hour mental health treatment to individuals requiring a high level of restrictive and expensive treatment are available in a variety of settings, including specialized psychiatric hospitals, psychiatric inpatient and licensed residential treatment units in general hospitals and other organizations, RTCs for children and adults (organizations that provide intensive 24-hour treatment services but are not licensed as "inpatient" services), DOD and VA facilities, nursing homes, and psychiatric inpatient units within jails and prisons. Unfortunately, there is no single source of information that documents all psychiatric inpatient capacity across the various types of organizations that are providing these services. This paper combines available information from multiple data sources to estimate the overall inpatient and other 24-hour inpatient capacity in the U.S. in 2014.

The most recent year for which information on psychiatric inpatient capacity is available across multiple settings is 2014. The SAMHSA National Mental Health Service Survey (N-MHSS) documents inpatient and other 24-hour mental health treatment beds in organizations that provide specialized mental health units. Organizations covered by SAMHSA surveys include (1) state and county psychiatric hospitals, (2) private psychiatric hospitals, (3) general hospitals with psychiatric units, (4) VA Medical Centers with psychiatric units, (4) RTCs for Children and Adults, and (5) other mental health treatment organizations that provide inpatient or other 24-hour treatment beds (organizations such as community mental health centers). RTCs are a type of mental

[28] *Souder v. Brennan*, 367 F. Supp. 808 (D.D.C. 1973).
[29] Blaine J. G. & Mason J. H., Application of the Fair Labor Standards Act to Patient Work Programs at Mental Health Institutions: A Proposal for Change. *BCL Rev*, 27, 553 (1985).
[30] Advocate, Michigan Society for Mental Health Inc., Summer Issue 1974, Vol. 1, No. 7.

health treatment provider that provides specialized mental health residential treatment (usually licensed separately from inpatient beds) that has grown rapidly in their capacity over the past decades.

In addition to the organizations surveyed by SAMHSA, a number of other types of organizations provide psychiatric inpatient and residential treatment beds, including (1) general hospitals without specialty psychiatric units (hospitals that provide psychiatric care in "scatter beds"), (2) DOD hospitals, (3) nursing homes, (4) psychiatric treatment units in jails, and (5) psychiatric treatment units in prisons. This paper includes a discussion of both VA and DOD psychiatric inpatient capacity, because although these two Federal agencies served a limited set of eligible individuals, persons with eligible for services from the VA or DOD may show up in other inpatient and residential treatment settings during a psychiatric emergency. In addition, the availability of inpatient and residential mental health treatment capacity from these specialized Federal programs may help reduce demand on civilian population providers.

Psychiatric Inpatient Capacity in Mental Health Specialty Organizations

SAMHSA and its predecessor agency, the Alcohol, Drug Abuse, and Mental Health Administration, have been routinely conducting surveys of all specialty mental health providers since the 1970s. These surveys, called the Inventory of Mental Health Organizations (IMHO) in the 1980s and 1990s and recently revised into the National-Mental Health Services Survey (N-MHSS), compile information on the number of specialty mental health providers that provide psychiatric inpatient and residential services and information on the number of residents in these facilities on the last day of the year.

The 2014 N-MHSS documents that 170,200 individuals were patients in specialty psychiatric beds at the end of the year (*see* Table 1). Sixty percent of those individuals were residents in licensed inpatient beds at the end of the year, and 40 percent were residents in other types of 24-hour residential beds at the end of the year.

Table 1: Number and Rate per 100,000 population of psychiatric inpatients and other 24-hour residential treatment patients at end of year 2014

	Patients in Inpatient Settings at End of Year			Patients in Other 24-Hour Residential Treatment at End of Year			Patients in Inpatient and Other 24-Hour Residential Treatment at End of Year		
Type of Organization	Residents	Percent	Rate Per 100,000 Population	Residents	Percent	Rate Per 100,000 Population	Residents	Percent	Rate per 100,000 Population
State & County Psychiatric Hospitals	37,209	37%	11.7	2,698	4%	0.8	39,907	23%	12.6
Private Psychiatric Hospitals	24,804	24%	7.8	3,657	5%	1.2	28,461	17%	9.0
General Hospital with Separate Psychiatric Units	30,864	30%	9.7	589	1%	0.2	31,453	18%	9.9
VA Medical Centers	3,124	3%	1.0	3,886	6%	1.2	7,010	4%	2.2
Residential Treatment Centers (RTCs)	1,851	2%	0.6	41,079	60%	12.9	42,930	25%	13.5

Other Specialty Mental Health Providers with Inpatient/Residential Beds	3,499	3%	1.1	16,940	25%	5.3	20,439	12%	6.4
Total in specialty MH Provider Organizations	101,351	100%	29.7	68,849	100%	21.7	170,200	100%	53.6

Source: Table compiled by NRI from SAMHSA 2014 N-MHSS Tables 2.3 and 2.5

Among specialty inpatient providers, state and county psychiatric hospitals were the largest single source of beds, with 37,209 patients on the last day of the year, followed by general hospitals with separate psychiatric units. Among specialty mental health providers with residential treatment beds, RTCs (with 41,079 patients on the last day of the year) and other specialty mental health providers (such as community mental health centers), were the second largest setting for other 24-hour psychiatric treatment patients Since many other specialty providers are in some cases part of the state's public mental health system, either through direct operation by the SMHA or through contractual arrangements of various kinds, combining these other specialty providers with state psychiatric hospitals leaves the public system as still the largest provider of 24-hour psychiatric services.

Rates of Psychiatric Inpatient Capacity and 24-Hour Treatment Capacity per 100,000 Population

In analyzing the use of psychiatric inpatient capacity between states and over time, it is important to factor in the differences in the size of individual state populations and populations over time. A standard method used to adjust for variation in population size and growth over time is to calculate a ratio per 100,000 population (dividing the number of patients by the relevant population number and then multiplying by 100,000).

Using this approach, in 2014, there were a total of 29.7 psychiatric inpatient residents per 100,000 population in specialty mental health providers and an additional 21.7 patients per 100,000 in 24-hour residential treatment beds. A total of 53.6 residents per 100,000 were in various specialty psychiatric treatment beds on the last day of 2014.

Voluntary vs. Involuntary Status of Inpatients in Specialty Programs, 2014

Psychiatric patients may enter inpatient and other 24-hour residential treatment facilities either on a voluntary basis or involuntarily, under their state's civil commitment statute, if they are determined by a court to be at risk to harming themselves or others as a result of the symptoms of their mental illness. There are two types of involuntary admissions that are tracked in the SAMHSA datasets: "involuntary, non-forensic" (persons civilly committed) and "involuntary, forensic" (individuals ordered by a criminal court to evaluation or treatment). Classes of forensic patients include individuals sent to hospitals for assessment of competency to stand trial (CST), competency restoration before trial for individuals found incompetent to stand trial (IST), Not Guilty by Reason of Insanity (NGRI), Guilty but Mentally Ill (GBMI), patients transferred from jail or prisons for

psychiatric treatment not available in those settings, and, in some states, convicted sexual offenders requiring psychiatric treatment.

In 2014, just under half (46 percent) of psychiatric inpatients in specialty settings were voluntary patients, while 34 percent were "involuntary, non-forensic" and 19 percent were "forensic" patients.

Table 2: Patients in 24-hour psychiatric inpatient settings in specialty mental health organizations, by legal status, 2014

	Voluntary Patients		Involuntary, non-Forensic		Involuntary, Forensic	
	Number	Percent	Number	Percent	Number	Percent
State And County Psychiatric Hospitals	6,523	18%	13,640	37%	17,046	46%
Private Psychiatric Hospitals	15,691	63%	7,876	32%	1,237	5%
General Hospitals With Separate Psychiatric Units	18,801	61%	11,278	37%	785	3%
VA Medical Centers	2,501	80%	476	15%	147	5%
RTC For Children	370	81%	60	13%	28	6%
RTC For Adults	578	55%	289	27%	189	18%
Other facilities providing specialized psychiatric inpatient care	2,545	66%	1,197	31%	94	2%
Total	47,009	46%	34,816	34%	19,526	19%

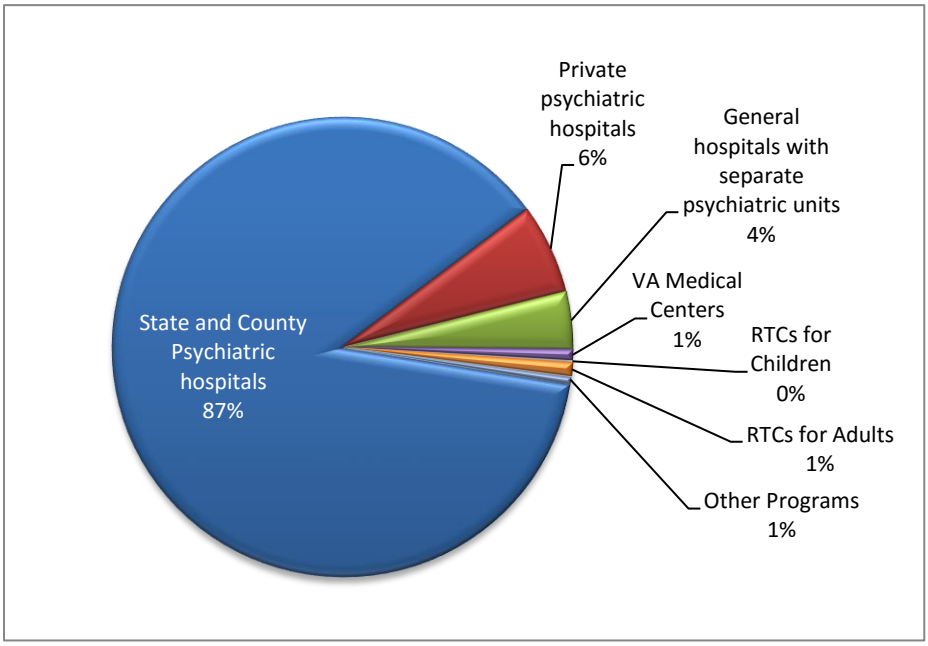
Source: Table compiled by NRI from SAMHSA 2014 N-MHSS Tables 3.1a and 3.2a.

Table 2 shows that the legal status of patients differs significantly by type of treatment setting. Forensic status patients were the largest patient group (46 percent) in state and county psychiatric hospitals, but were 18 percent or less of every other psychiatric inpatient setting.

Patients voluntarily admitted comprised the largest groups in all settings other than state and county psychiatric hospitals. However, only 18 percent of patients in state and county psychiatric hospitals had a voluntary legal status. The low percentage of voluntary patients in state and county psychiatric hospitals may reflect policies developed in some states that reserve state psychiatric hospital beds for involuntary civil and forensic admissions and direct persons seeking voluntary admission into other settings.

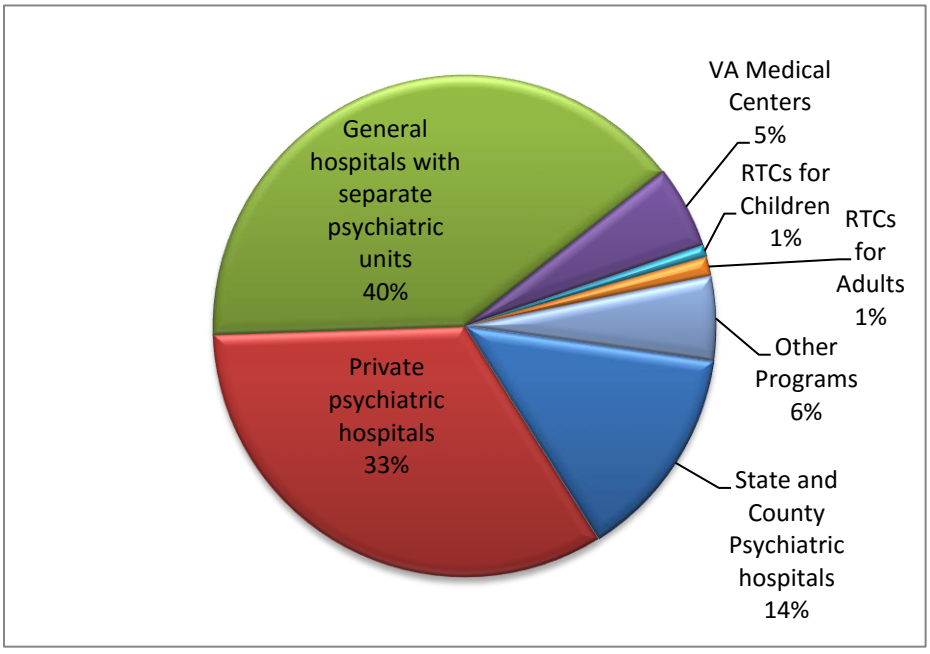
The majority of involuntary, forensic legal status patients (87 percent) were patients in state and county psychiatric hospitals. Only six percent were residents in private psychiatric hospitals and four percent were in general hospital special psychiatric inpatient units (*see* Figure 1).

Figure 1: Inpatient Settings Where Involuntary-Forensic Patients Were Served, 2014



Inpatients with voluntarily admitted in psychiatric inpatient beds were most frequently served in general hospitals with separate psychiatric units (40 percent) and in private psychiatric hospitals (33 percent). Only 14 percent of patients voluntarily admitted were in state and county psychiatric hospitals.

Figure 2: Inpatient Settings Where Voluntary Patients Were Served, 2014



Number of Organizations with Specialized Inpatient and Other 24-Hour Residential Mental Health Treatment Programs

In 2014, there were 1,986 different mental health organizations nationally providing psychiatric inpatient services and, nationally, 2,573 mental health organizations providing 24-hour residential (i.e., non-hospital) mental health treatment. General hospitals were the most frequent setting providing psychiatric inpatient care, representing 55 percent of organizations providing inpatient treatment and 30 percent of psychiatric inpatients. Private psychiatric hospitals were the second largest group of providers of inpatient care, with 21 percent of psychiatric inpatient organizations serving 24 percent of psychiatric inpatients. State and county psychiatric hospitals represented only 10 percent of the organizations providing psychiatric inpatient care, but since they were the largest organization in terms of beds, they served 37 percent of psychiatric inpatients in 2014.

RTCs were the most common type of organization providing other non-inpatient 24-hour treatment services in 2014 — 79 percent of all organizations providing other 24-hour treatment serving 60 percent of residents — followed by other specialty mental health organizations (12 percent of organizations serving 25 percent of residents) and private psychiatric hospitals (4 percent of organizations, representing 5 percent of residents).

Table 3: Number of Organizations Providing Psychiatric Inpatient Services or Other 24-hour Residential Treatment, 2014

Year/Setting	Patients in Inpatient Settings at End of Year			Patients in Other 24-Hour Residential Treatment at End of Year		
	Number of Organizations	Number Residents	Average Residents Per Organization	Number of Organizations	Number Residents	Average Residents Per Organization
State & County Psychiatric Hospitals	202	37,209	184.2	35	2,698	77.1
Private Psychiatric Hospitals	420	24,804	59.1	96	3,657	38.1
General Hospital with Separate Psychiatric Units	1,097	30,864	28.1	32	589	18.4
VA Medical Centers	91	3,124	34.3	67	3,886	58.0
Residential Treatment Centers (RTCs)	58	1,851	31.9	2,026	41,079	20.3
Other Specialty Mental Health Providers with Inpatient/Residential Beds	118	3,499	29.7	317	16,940	53.4
Total Specialty MH Providers	**1,986**	**101,351**	**367.3**	**2,573**	**68,849**	**265.3**

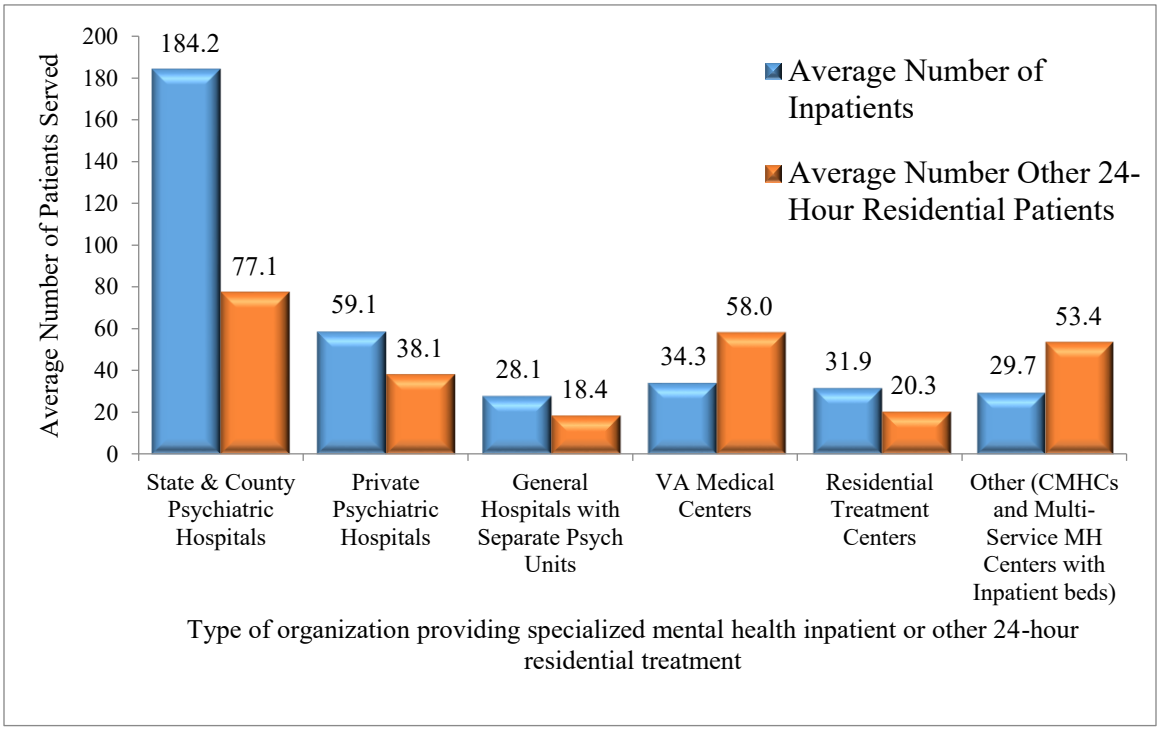
Note, Many organizations provide both inpatient and other 24-hour residential treatment services. ***Source: 2014 SAMHSA N-MHSS***

Table 3 and Figure 3 show that, on average in 2014, state and county psychiatric hospitals have the largest capacity for psychiatric inpatient services, averaging 184 patients per hospital, followed by private psychiatric hospitals with an average of 59 patients per hospital. VA Medical Centers averaged 34 patients per hospital, and general hospitals with separate psychiatric units averaged 28 inpatients per hospital

Among other 24-hour mental health residential treatment providers, state and county psychiatric hospitals had the largest patient populations—with an average of 77.1 patients per state and county hospital providing this service—followed by VA Medical Centers with 58 patients per hospital, and other specialty mental health providers (53.4 patients per organization).

Other sources of mental health inpatient capacity, such as general hospital scatter beds and DOD facilities, will be discussed in the next section.

Figure 3: Average Number of Inpatients and Other 24-Hour Residential Treatment Services, by Type of Mental Health Organization, 2014



Other Settings with Psychiatric Inpatient and 24-hour Residential Treatment in 2014

In addition to the specialty mental health organizations that are included in the SAMHSA surveys, patients needing psychiatric treatment often receive intensive 24- hour services in several other settings that do not have a primary focus of mental health treatment (and thus are not the focus of SAMHSA surveys). These include general hospitals without specialty psychiatric units, DOD medical centers, and nursing homes, as well as specialty psychiatric units being operated by jails and state prisons to address the needs of incarcerated patients with major mental illnesses.

General Hospitals Providing Mental Health Services In Non-Specialty Units

In 2014, there were 4,999 community (general) hospitals in the United States,[31] of which 1,167 had specialty psychiatric units that reported to SAMHSA.[32] In some areas of the country—particularly rural and frontier areas—there may be no specialized psychiatric beds available, and in other areas the limited number of available psychiatric beds may

[31] *Facts on U.S. Hospitals*, American Hospital Association (2014), http://www.aha.org/research/rc/stat-studies/fast-facts2014.shtml.
[32] SAMHSA N-MHSS 2014.

all be filled when a person is needs admission for intensive psychiatric services. Most general hospitals provide acute inpatient services to patients with mental health disorder; when these services are provided in general hospitals without special psychiatric units these are often labeled psychiatric "scatter beds".[33]

No routine data collection exists that identifies "scatter beds" in general hospitals, but the Federal Agency for Health Care Research and Quality (AHRQ) produces annual reports through its Healthcare Cost and Utilization Project (HCUP) that allows identification of patients discharged from all general hospitals through various diagnostic groupings. This database has been used by other researchers to estimate the use of general hospital scatter beds to provide mental health inpatient care. Using HCUP data, SAMHSA researchers found that scatter beds accounted for 36 percent of general hospital mental health expenditures in 2014 (*see* Table 4 below).[34]

Table 4: Mental Health Spending by Provider and Setting: Levels and Percent Distribution, Selected Years

	Expenditures in Millions						Hospital Percent Distribution					
	1986	1992	1998	2004	2009	2014	1986	1992	1998	2004	2009	2014
All Hospitals	$13,527	$20,354	$22,056	$29,217	$37,732	$49,414	100%	100%	100%	100%	100%	100%
General Hospitals	$5,276	$8,621	$12,024	$16,284	$22,124	$32,226	39%	42%	55%	56%	59%	65%
General Hospitals, Specialty Units	$3,053	$6,197	$8,696	$10,919	$15,308	$20,714	23%	30%	39%	37%	41%	42%
General Hospitals, non-specialty Units	$2,223	$2,425	$3,328	$5,365	$6,816	$11,513	16%	12%	15%	18%	18%	23%
Specialty Hospitals	$8,251	$11,733	$10,032	$12,932	$15,608	$17,188	61%	58%	45%	44%	41%	35%

Substance Abuse and Mental Health Services Administration. Behavioral Health Spending and Use Accounts, 1986–2014. HHS Publication No. SMA-16-4975. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2016.

For this report, NRI utilized the AHRQ HCUPnet system to query 2014 data on general hospitals to identify all discharged patients with an ICD-10 diagnosis in AHRQ's "mental health" cluster of diagnoses. Because data comparable to the SAMHSA surveys of residents in psychiatric inpatient beds on a single day are not available from the HCUP data, NRI used HCUP data on total discharges by diagnosis throughout the year, along with average length of hospital stay for each diagnosis, to calculate total patient days during the year and then divided that number by 365 days a year to estimate a proxy of how many mental health patients were in served in general hospitals on a single day. To calculate how many of those mental health patients in general hospitals were in scatter beds, as opposed to psychiatric units in general hospitals with data already collected by SAMHSA, NRI then subtracted this estimate from the SAMHSA reported 30,864 patients in general hospitals with special psychiatric units.

Table 5 below shows there were a total of over two million patients with a mental health diagnosis discharged from community hospitals in 2014. Mood disorders (39.9 percent

[33] Slade E.P. & Goldman H.H., "The Dynamics of psychiatric bed use in general hospitals," *Administration and Policy in Mental Health/Mental Health Services Research,* 2015 March 42(2): 139-146 (2015).

[34] *Behavioral Health Spending and Use Accounts, 1986–2014,* HHS Publication No. SMA-16-4975, Substance Abuse and Mental Health Services Administration, Rockville, MD (2016).

of discharges) and schizophrenia and other psychotic disorders (28.7 percent of discharges) were the most frequently identified diagnoses. Persons with discharge diagnoses of schizophrenia also had the longest average length of stay of any of the mental health diagnostic groups.

Applying the NRI approach to estimating average daily census for this diagnostic group, the 2,024,853 reported discharges translated into an average of 38,870 patients on a single day. When NRI subtracted the 38,870 total general hospital mental health patients from SAMHSA's estimate of 30,864 patients in general hospitals with separate psychiatric units, NRI calculated there would be an average of 8,006 patients with mental illness being served in general hospital scatter beds on an average day. The 8,006 mental health patients per day would be a ratio of 2.52 patients per 100,000 population. (*See* Table 2 above).

Table 5: Discharges from Community Hospitals by Mental Health Diagnoses, Average Length of Stay, and Calculated Residents on a Single Day, 2014 HCUP Data

AHRQ Mental Health Diagnosis Groups	Total number of discharges: N	LOS (length of stay), days (mean)	Estimated patients on single day (Discharges x LOS / 365)	Estimated % of Patients
Adjustment disorders	36,465	3.554	355.0	0.91%
Anxiety disorders	39,205	4.873	523.4	1.35%
Attention-deficit, conduct, and disruptive behavior disorders	11,715	7.914	254.0	0.65%
Delirium, dementia, and amnestic and other cognitive disorders	110,265	9.986	3,016.8	7.76%
Developmental disorders	1,910	7.044	36.9	0.09%
Disorders usually diagnosed in infancy, childhood, or adolescence	4,605	8.826	111.3	0.29%
Impulse control disorders, NEC	9,240	8.115	205.4	0.53%
Mood disorders	851,074	6.655	15,518.5	39.92%
Personality disorders	6,215	6.208	105.7	0.27%
Schizophrenia and other psychotic disorders	388,835	10.485	11,169.5	28.74%
Alcohol-related disorders	344,395	4.825	4,552.2	11.71%
Substance-related disorders	217,050	4.986	2,965.1	7.63%
Suicide and intentional self-inflicted injury	2,665	3.789	27.7	0.07%
Screening and history of mental health and substance abuse codes	1,215	8.477	28.2	0.07%
Total of any Mental Health Diagnosis	**2,024,853**		**38,870**	**100.00%**

U.S. Department of Defense (DOD) Facilities

The Department of Defense operates 18 hospitals in the United States that provide services to 72,440 patients in 2014. Patients with "mental disorders" (identified by using ICD 10 diagnosis codes) were the largest single diagnostic group of all patients served in 2014, with 15,931 patients (*see* Table 6. The data in Table 6 also allows a comparison of the ratio of hospital use for mental disorders and other medical conditions.)

Table 6: Hospitalizations, ICD-10 Diagnostic Categories, Active Component, U.S. Armed Forces, 2012, 2014, and 2016

Major diagnostic category (ICD-10)	2012			2014			2016		
	No.	Rate[a]	Rank	No.	Rate[a]	Rank	No.	Rate[a]	Rank
Mental disorders (ICD-10: F01–F99)	20,690	14.9	(1)	15,931	11.9	(1)	16,563	12.9	(1)
Pregnancy and delivery (ICD-10: O00–O99, relevant Z-codes)[b]	17,277	12.4	(2)	15,554	11.6	(2)	15,219	11.8	(2)
Injury and poisoning (ICD-10: S00–T98)	10,684	7.7	(3)	7,415	5.5	(3)	6,752	5.2	(3)
Musculoskeletal system (ICD-10: M00–M99)	7,232	5.2	(5)	6,128	4.6	(5)	5,929	4.6	(4)
Digestive system (ICD-10: K00–K95)	7,907	5.7	(4)	6,540	4.9	(4)	5,677	4.4	(5)
Signs, symptoms, and ill-defined conditions (ICD-10: R00–R99)	4,550	3.3	(6)	3,298	2.5	(7)	3,241	2.5	(6)
Other (ICD-10: V00–V98, except pregnancy-related)	3,789	2.7	(7)	3,559	2.7	(6)	2,171	1.7	(7)
Genitourinary system (ICD-10: N00–N99)	2,632	1.9	(9)	2,216	1.7	(9)	2,041	1.6	(8)
Respiratory system (ICD-10: J00–J99)	2,521	1.8	(10)	1,862	1.4	(10)	1,972	1.5	(9)
Circulatory system (ICD-10: I00–I99)	2,743	2.0	(8)	2,295	1.7	(8)	1,852	1.4	(10)
Nervous system and sense organs (ICD-10: G00–H95)	2,222	1.6	(11)	1,745	1.3	(12)	1,729	1.3	(11)
Neoplasms (ICD-10: C00–D49)	2,102	1.5	(12)	1,803	1.3	(11)	1,655	1.3	(12)
Skin and subcutaneous tissue (ICD-10: L00–L99)	1,804	1.3	(13)	1,467	1.1	(13)	1,174	0.9	(13)
Infectious and parasitic diseases (ICD-10: A00–B99)	1,408	1.0	(14)	1,240	0.9	(14)	1,055	0.8	(14)
Endocrine, nutrition, immunity (ICD-10: E00–E89)	903	0.6	(15)	727	0.5	(15)	622	0.5	(15)
Congenital anomalies (ICD-10: Q00–Q99)	426	0.3	(16)	353	0.3	(16)	278	0.2	(16)
Hematologic disorders (ICD-10: D50–D89)	374	0.3	(17)	307	0.2	(17)	259	0.2	(17)
Total	89,264	64.2		72,440	54.1		68,189	52.9	

In response to an NRI request for information about the number of patients with mental illnesses who are in a bed in a DOD military health facility on a single day, the Deployment Health Clinical Center developed a report that lists the number of inpatient stays during the first six months of 2017 and the number of mental health beds available in each hospital under normal operating conditions (*see* Table 7). The DOD analysis identified a regular capacity to serve an average 289 mental health inpatients per day in the 18 military health facilities located in the U.S.

Table 7: Military Health Facilities under Normal Operating Conditions Have Accounted for 7,742 Stays to Date in FY 2017 (Excludes Substance Abuse inpatient)[35]

Facility Name	City	State	# MH Inpatient Stays (to June 2017)	# of MH Inpatient Beds Available under Normal Operating Conditions
AF-H-673rd-ELMENDORF	ELMENDORF AFB	AK	98	6
AF-MC-60th MED GRP-TRAVIS	TRAVIS AFB	CA	190	7
NMC SAN DIEGO	SAN DIEGO	CA	1,137	42
ACH EVANS-CARSON	FT CARSON	CO	377	14
AMC EISENHOWER-GORDON	FORT GORDON	GA	199	16
ACH MARTIN-BENNING	FT BENNING	GA	306	16
ACH WINN-STEWART	FT STEWART	GA	217	6
AMC TRIPLER-SHAFTER	HONOLULU	HI	718	14
WALTER REED NATL MIL MED CNTR	BETHESDA	MD	389	16
ACH LEONARD WOOD	FT LEONARD WOOD	MO	199	10
AMC WOMACK-BRAGG	FT BRAGG	NC	293	12
NH CAMP LEJEUNE	CAMP LEJEUNE	NC	486	20
AMC WILLIAM BEAUMONT-BLISS	EL PASO	TX	435	18
AMC BAMC-FSH	FORT SAM HOUSTON	TX	453	16
AMC DARNALL-HOOD	FT HOOD	TX	558	18
FT BELVOIR COMMUNITY HOSP-FBCH	FORT BELVOIR	VA	329	12
NMC PORTSMOUTH	PORTSMOUTH	VA	897	32
AMC MADIGAN-LEWIS	TACOMA	WA	461	14
			7,742	***289***

Use of Nursing Homes to Serve Individuals with Mental Illnesses

With support from Medicaid, Medicare, and private health insurance, nursing homes have become one of the major sites for long-term health care, not only for elderly individuals, but also for patients with complex health conditions who do not need intensive inpatient level care but are unable to live independently and need active nursing and other services. Nursing home residents may have a variety of mental health-related diagnoses, including major mental illnesses such as schizophrenia, depression, and bipolar disorders, as well as other brain diseases related to aging such as Alzheimer's disease and other dementias.

The Centers for Medicare and Medicaid (CMS) maintain a Minimum Data Set (MDS) that includes information about major diagnoses of patients in nursing homes. Since most state psychiatric hospitals currently focus on serving persons with major psychiatric illnesses, and have ceased to focus on Alzheimer's and dementia disorders for elderly individuals,[36] for purposes of this estimate of psychiatric bed capacity, we have limited the count of nursing home capacity to residents with schizophrenia or bipolar disorders. (In 2015, 38 SMHAs reported responsibility for Alzheimer's services are no longer a responsibility of the SMHA and are instead the responsibility of a different state government agency.)

[35] *Psychological Health Analytics Information Paper: Inpatient Mental Health Beds within the Military Health System,* Deployment Health Clinical Center, Defense Health Agency, Falls Church, VA Deployment Health Clinical Center (June 2017).
[36] NRI 2015 State Mental Health Agency Profiles System

In 2014, there were 183,534 individuals with a diagnosis of schizophrenia or bipolar disorders residing in nursing homes (11 percent of nursing home residents).[37] The MDS system identifies much higher numbers of residents with other mental disorders—620,245 residents (48 percent) had a diagnosis of depression and 381,265 residents (29.6 percent) had a diagnosis of anxiety disorders).[38]

But we advise caution: while this report identifies more than 180,000 patients with serious mental illnesses in nursing facilities, it is not possible to determine from the MDS database if a patient is residing in a nursing facility due to a mental health diagnosis or due to other health conditions that require nursing facility level of care.

Inpatient Psychiatric Units in Jails and Prisons

The level of mental illness among inmates in prisons and jails is enormous, with estimates ranging from 15 percent to 20 percent of inmates in prison and up to 44 percent of individuals in jails having a mental illness.[39] Many of the inmates in jails and prisons do not require the intensive level of mental health treatment of an inpatient psychiatric unit. Only a portion of the population of inmates with mental illness requires intensive inpatient psychiatric treatment and, for most of these patients, the need for inpatient psychiatric treatment is likely short-term acute care to stabilize their illnesses. In a few states, inmates with mental illness who need an inpatient level care may be transferred to a state psychiatric hospital to receive intensive inpatient services. (The companion Forensic Trends White Paper details some of the number of patients transferred from jails and prisons to state psychiatric hospitals.)

To meet the acute psychiatric inpatient needs of inmates with mental illnesses, some jails and prisons have opened and staffed inpatient mental health units within their correctional facilities. Unfortunately, these units are not subject to the routine SAMHSA data collection efforts and no comprehensive and historical data on the treatment capacity of these units has been identified. The Federal Bureau of Justice Statistics (BJS) indicates it is planning to include identification of such resources in its 2019 cycle of surveys of jails and prison.

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[37] The number of residents in nursing facilities with an active diagnosis of schizophrenia or bipolar disorders was calculated by NRI using MDS data made available from Brown University's Long-Term Care Focus system. http://ltcfocus.org/ "Shaping Long Term Care in America Project at Brown University, funded in part by the National Institute on Aging (1P01AG027296)."

[38] *CMS MDS 3.0 Frequency Report: Residents on April 1, 2014,* CMS MDS Data System, Source Queried 6/11/17, https://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/Minimum-Data-Set-3-0-Public-Reports/Minimum-Data-Set-3-0-Frequency-Report.html.

[39] Bronson J., Ph.D. & Berzofsky M. D.P.H.. *Indicators of Mental Health Problems Reported by Prisoners and Jail Inmates, 2011-12,* Office of Justice Programs, U.S. Department of Justice (June 2017), https://www.bjs.gov/content/pub/pdf/imhprpji1112.pdf.

Summary: All Psychiatric Inpatient and Other 24-Hour Capacity

Despite the lack of inventory data for mental health inpatient beds in jails and prisons, the addition of psychiatric inpatients in general hospital scatter beds and DOD health facilities add an additional 8,295 inpatient beds being used by mental health patients in 2014 to the 101,351 inpatient beds identified by the SAMHSA N-MHSS survey, a total of 109,646 inpatient beds serving patients. This equates to a ratio of 32.2 inpatient psychiatric beds occupied per 100,000 population serving mental health patients in 2014. (Note that total bed capacity is larger, as not all beds in hospitals are filled every night.)

In addition to the inpatient psychiatric beds, estimates of the number of individuals with serious mental illnesses (schizophrenia and bipolar disorders) served in nursing homes add an additional 183,534 residential treatment patients to the 68,849 mental health patients identified by the SAMHSA N-MHSS study. Therefore, an estimated 252,383 patients with mental illness were in a 24-hour residential treatment bed in 2014 (a ratio of 79.5 per 100,000 population).

Table 8, below, shows the combined estimate that 362,029 individuals with mental illness were in either an inpatient or other 24-hour residential treatment bed during a day in 2014. The 362,029 mental health patients in a mental health inpatient or other 24-hour residential treatment bed when adjusted for the U.S. population means there were 114.0 patients per 100,000 population in an overnight bed on a single day in 2014.

Table 8: Psychiatric Inpatients and Other 24 Hour Patients in Non-Specialty Psychiatric Organizations, 2014

Year/Setting	Patients in Inpatient Settings at End of Year		Patients in Other 24 hour Residential Treatment at End of Year		Patients in Inpatient and Other 24 hour Residential Treatment at End of Year	
	Residents	Rate Per 100,000 Population	Residents	Rate Per 100,000 Population	Residents	Rate per 100,000 Population
General Hospitals without Specialty Psychiatric Units	8,006	2.52			8,006	2.52
Department of Defense Hospitals	289	0.09			289	0.09
Nursing Homes - patients with diagnosis of schizophrenia or bipolar disorders			183,534	57.78	183,534	57.78
Psychiatric Treatment Units in Jails	Estimate Not Available				Estimate Not Available	
Psychiatric Treatment Units in Prisons	Estimate Not Available				Estimate Not Available	
Total non-specialty MH Providers	**8,295**	**2.61**	**183,534**	**57.78**	**191,829**	**60.39**
Total Specialty Providers from the SAMHSA N-MHSS	**101,351**	**31.9**	**68,849**	**21.7**	**170,200**	**6.4**
Total Known Psychiatric Inpatient/Residential	**109,646**	**34.5**	**252,383**	**79.5**	**362,029**	**114.0**

Trends in Psychiatric Inpatient and Other 24-Hour Treatment Since 1970

Since 1970, the number of individuals resident in a psychiatric inpatient or other 24-hour residential treatment bed on any given day has decreased by over 300,000 (a decrease of 63.9 percent). Most of this decline has been observed in state and county psychiatric hospitals, where patient census decreased by 89 percent, and VA Medical Center psychiatric units, with decreases of 86 percent. However, some of the other types of specialty mental health providers increased the number of inpatient and other 24-hour residential treatment patients they served in that time. Private psychiatric hospital inpatient census increased by 17,498 or 159.6 percent. Patients in general hospitals with separate psychiatric units increased by 13,645 (76.6%). RTCs increased by 29,441 (218.3 percent). And other specialty mental health providers increased by 12,913, or 171.6 percent (*see* Table 9).

Table 9: Trends Over Time in Psychiatric Inpatients and Other 24-Hour Treatment Residents in Specialty Mental Health Organizations, 1970 to 2014 ***(Resident Patients in the Facility on a Given Day)***

Year/Setting	State & County Psychiatric Hospitals	Private Psychiatric Hospitals	General Hospitals with Separate Psych Units	VA Medical Centers	RTCs	Other (Inpatient & Residential Treatment beds)	Total psychiatric Inpatient & Residential Care
1970	369,969	10,963	17,808	51,696	13,489	7,526	471,451
1975	193,436	11,576	18,851	31,850	16,307	12,138	284,158
1979	140,355	12,921	18,753	28,693	18,276	11,188	230,186
1983	117,084	16,079	32,127	20,187	15,791	23,079	224,347
1986	111,135	24,591	34,474	24,322	23,171	20,152	237,845
1988	100,615	29,404	34,858	19,499	23,301	20,186	227,863
1990	90,572	32,268	38,327	17,233	27,785	20,768	226,953
1994	72,096	26,519	35,841	18,019	29,493	54,142	236,110
1998	63,765	20,804	37,053	14,329	29,049	56,216	221,216
2000	56,716	16,113	27,385	8,228	30,272	38,746	177,460
2002	52,612	17,858	28,460	8,386	35,709	37,518	180,543
2010	43,854	24,025	32,395	5,602	41,536	12,845	160,257
2014	39,907	28,461	31,453	7,010	42,930	20,439	170,200
Percent Change Over Time							
1970 to 1979	-62.1%	17.9%	5.3%	-44.5%	35.5%	48.7%	-51.2%
1979 to 1990	-35.5%	149.7%	104.4%	-39.9%	52.0%	85.6%	-1.4%
1990 to 2000	-37.4%	-50.1%	-28.5%	-52.3%	9.0%	86.6%	-21.8%
2000 to 2010	-22.7%	49.1%	18.3%	-31.9%	37.2%	-66.8%	-11.7%
2010 to 2014	-9.0%	18.5%	-2.9%	25.1%	3.4%	59.1%	6.2%
1970 to 2014	**-89.2%**	**159.6%**	**76.6%**	**-86.4%**	**218.3%**	**171.6%**	**-63.9%**
Annualized Percent Change							
1970 to 1979	-10.2%	1.8%	0.6%	-6.3%	3.4%	4.5%	-7.7%
1979 to 1990	-3.9%	8.7%	6.7%	-4.5%	3.9%	5.8%	-0.1%
1990 to 2000	-4.6%	-6.7%	-3.3%	-7.1%	0.9%	6.4%	-2.4%
2000 to 2010	-2.5%	4.1%	1.7%	-3.8%	3.2%	-10.5%	-1.2%
2010 to 2014	-2.3%	4.3%	-0.7%	5.8%	0.8%	12.3%	1.5%
1970 to 2014	**-4.9%**	**2.2%**	**1.3%**	**-4.4%**	**2.7%**	**2.3%**	**-2.3%**

Source: Table created by NRI using historical data from NIMH, SAMHSA, and SAMHSA N-MHSS 2014

Due to the growth in the population in the United States since 1970, the decrease in psychiatric bed capacity as a ratio of patients per 100,000 population (*see* Table 10) showed

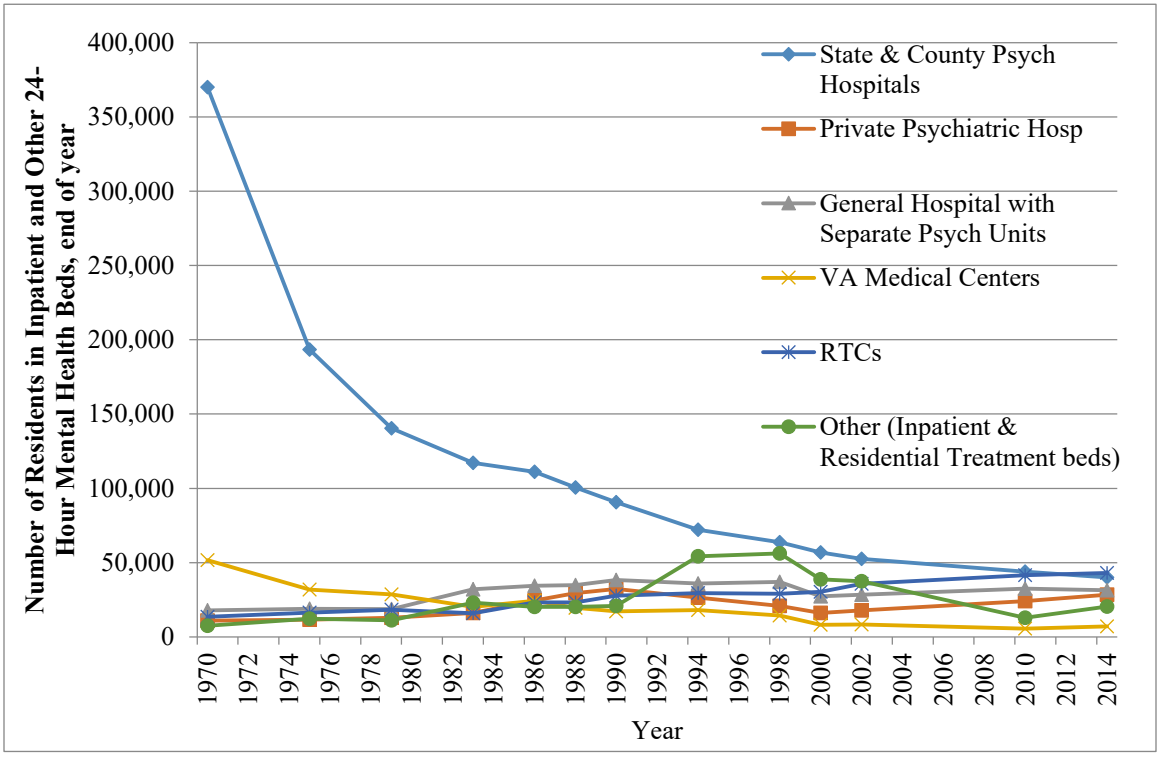
an even greater total capacity decline than the decline in the total number of patients in Table 8. From 1970 to 2014, the number of patients in psychiatric beds in specialty providers declined from 236.8 patients per 100,000 population to 53.8 patients in beds per 100,000 population (a total reduction of 77 percent—an average annual drop of 3.3 percent per year).

Table 10: Trends over Time in Residents per 100,000 Population, Residents in Psychiatric inpatients and Other 24-Hour Treatment Beds in Specialty Mental Health Organizations, 1970 to 2014

Year/ Setting	State & County Psychiatric Hospitals	Private Psychiatric Hospitals	General Hospital with Separate Psychiatric Units	VA Medical Centers	RTCs	Other (Inpatient & Residential Treatment beds)	Total psychiatric Inpatient & Residential Care
Rate per 100,000 population							
1970	185.80	5.50	8.90	26.00	6.80	3.80	236.80
1975	91.50	5.50	8.90	15.10	7.70	5.70	134.40
1979	63.00	5.80	8.60	13.30	8.20	5.00	103.90
1983	50.40	6.90	13.80	8.70	6.80	9.90	96.50
1986	46.50	10.30	14.40	10.20	9.70	8.50	99.60
1988	41.20	12.00	14.30	8.00	9.50	8.30	93.30
1990	37.10	13.20	15.70	7.10	11.40	8.50	93.00
1994	27.80	10.20	13.80	7.00	11.40	20.90	91.10
1998	23.70	7.70	13.80	5.30	10.80	20.90	82.20
2000	20.10	5.70	9.70	2.90	10.70	13.70	62.80
2002	18.30	6.20	9.90	2.90	12.40	13.00	62.70
2010	14.23	7.80	10.51	1.82	13.48	4.17	52.01
2014	12.56	8.96	9.90	2.21	13.52	6.43	53.58
Percent Change Over Time							
1970 to 1979	-66.1%	5.5%	-3.4%	-48.8%	20.6%	31.6%	-56.1%
1979 to 1990	-41.1%	127.6%	82.6%	-46.6%	39.0%	70.0%	-10.5%
1990 to 2000	-45.8%	-56.8%	-38.2%	-59.2%	-6.1%	61.2%	-32.5%
2000 to 2010	-29.2%	36.8%	8.4%	-37.3%	26.0%	-69.6%	-17.2%
2010 to 2014	-11.7%	14.9%	-5.8%	21.4%	0.3%	54.4%	3.0%
2010 to 2014	-93.2%	62.9%	11.3%	-91.5%	98.8%	69.3%	-77.4%
Annualized Percent Change							
1970 to 1979	-11.3%	0.6%	-0.4%	-7.2%	2.1%	3.1%	-8.7%
1979 to 1990	-4.7%	7.8%	5.6%	-5.5%	3.0%	4.9%	-1.0%
1990 to 2000	-5.9%	-8.1%	-4.7%	-8.6%	-0.6%	4.9%	-3.9%
2000 to 2010	-3.4%	3.2%	0.8%	-4.6%	2.3%	-11.2%	-1.9%
2010 to 2014	-3.1%	3.5%	-1.5%	5.0%	0.1%	-3.1%	0.7%
1970 to 2014	**-5.9%**	**1.1%**	**0.2%**	**-5.5%**	**1.6%**	**-5.9%**	**-3.3%**

Source: Table created by NRI using historical data from NIMH, SAMHSA, and SAMHSA N-MHSS 2014

Figure 4: Number of Residents in Psychiatric Inpatient and Other 24-Hour Residential Treatment Beds at End of Year, 1970 to 2014



Tables 9 and 10 and Figure 4 show that not all types of organizations experienced changes in psychiatric bed inventory at the same rates or in the same direction. While state and county psychiatric hospitals and VA Medical Centers both display long-term reductions in inpatient census, other types of organizations providing specialized mental health beds experienced much more complicated bed inventory patterns over time.

Trend in State and County Psychiatric Hospital Capacity

In 1970, state and county psychiatric hospitals provided 78 percent of the psychiatric inpatient and other 24-hour mental health residential treatment capacity. Since 1970, state and county psychiatric hospital case load on a single day has decreased by over 330,000 patients. However, most of the decrease in state and county psychiatric hospitals beds occurred over 30 years ago—during the 1970s, with a decrease of 229,600 patients between 1970 and 1979, a reduction of 62 percent. The rate of downsizing of state and county psychiatric hospitals has drastically slowed in the last 15 years. From 2001 to 2010, state and county hospital census declined by 2.5 percent per year. From 2010 to 2014, state and county hospital census declined by an even slower 2.4 percent per year.

It is important to note that the role of state psychiatric hospitals has changed greatly since 1970. NIMH data from the 1970s shows that, in that era, state psychiatric hospitals had large numbers of patients age 65 and older, and that many patients had diagnoses of dementia or developmental/intellectual disorders (conditions not the focus of treatment in state psychiatric hospitals today). In 1970, patients age 65 and older—some of whom had been hospitalized for decades—represented 29 percent (99,087) of the residents in

state and county psychiatric hospitals.[40] Elderly patients in 1970 represented over three times the 2014 capacity of state and county psychiatric hospitals. In 2014, the number of patients age 65 and older had dropped by over 96 percent from 1970; only 9 percent (3,630 residents in inpatient or other 24-hour residential treatment beds in state and county psychiatric hospitals were 65 and older.[41]

In the 1970s and previously, state and county psychiatric hospitals also provided beds for substance use disorder and developmental disability patients—services that now are often provided in other community-based settings outside of psychiatric hospitals. In 1971, NIMH identified "alcohol disorders" as the second most frequent diagnosis for male residents in state and county psychiatric hospitals (second only to schizophrenia disorders).[42]

NIMH data on admissions to state and county psychiatric hospitals in 1969 indicated that 25.7 percent of admissions were for alcohol disorders and an additional 2.9 percent were for drug disorders. In addition, 2.7 percent of admissions were for mental retardation and 10.8 percent were for organic brain syndromes (58.1 percent of admissions for patients 65 and older were with diagnoses of organic brain syndrome).[43] In total, 42.1 percent of state and county psychiatric hospital admissions in 1969 were for diagnoses not typically reasons for admission to state psychiatric hospitals today.

In 2014, many states restricted access to their state psychiatric hospitals to involuntary patients or patients who have already had an initial psychiatric hospitalization at a general hospital or private psychiatric hospital and, after their initial acute hospitalization, require continuing inpatient treatment. The current mix of patients served in state psychiatric hospitals by legal status is very different from years ago. An NIMH Statistical Note with data from 1972 found that 48.6 percent of inpatient admissions to state and county mental hospitals were voluntary admissions.[44]

Trend in Private Psychiatric Hospital Capacity

On the last day of 2014, private psychiatric hospitals had the third highest number of psychiatric inpatients, with 28,461 patients. Since 1970, the number of residents in private psychiatric hospitals has increased by 179.6 percent (an average increase of 2.2 percent per year). Table 9 shows that the inpatient capacity of private psychiatric hospitals has fluctuated greatly since 1970.

From 1970 to 1990, the number of residents in private psychiatric inpatient beds increased by 194 percent (from 10,963 patients to 32,268 patients), but during the 1990s the number of patients in private psychiatric hospitals were drastically reduced; half of

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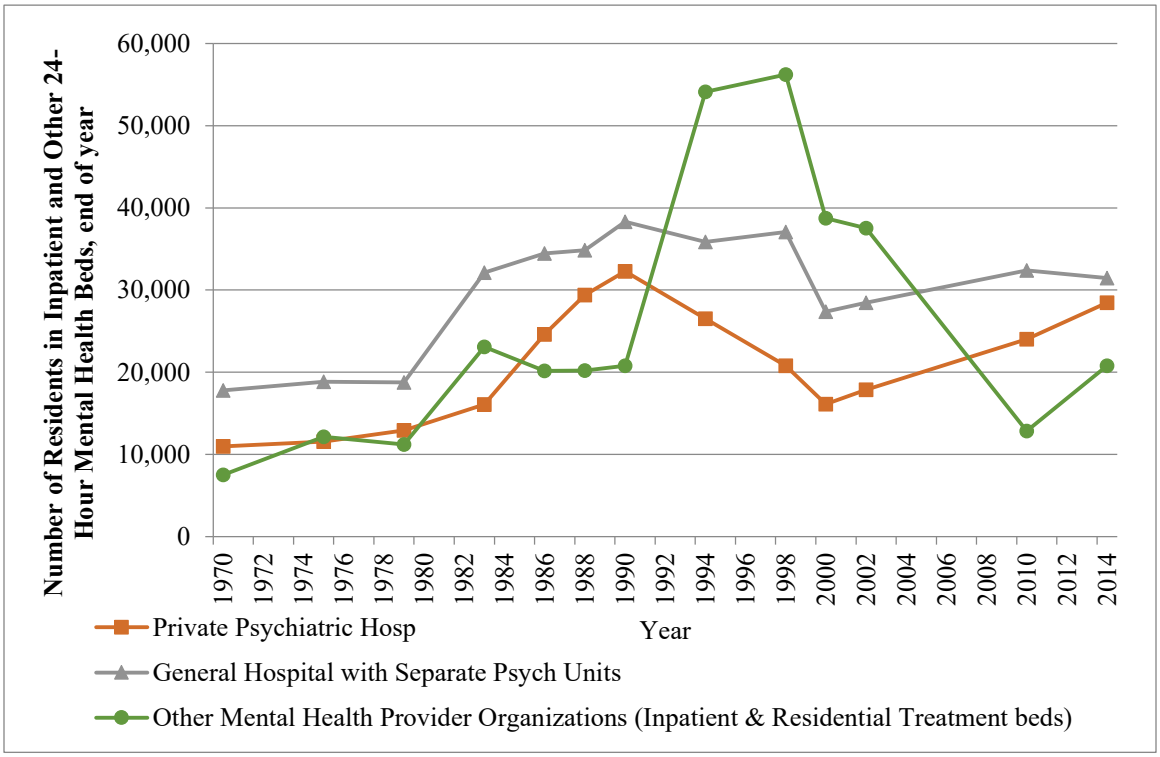
[40] Taub Carl A., *State Trends in Resident Patients – State and County Mental Hospital Inpatient Services 1967-1973*. NIMH Statistical Note 113 (February 1975).
[41] 2014 N-MHSS.
[42] Redick Richard A., *Utilization of Psychiatric Facilities By person Diagnosed with Depressive Disorders,* NIMH Statistical Note 103 (March 1974).
[43] Taub Carl A., *Diagnostic Distribution of Inpatient Admissions to State and County Mental Hospitals 1969,* NIMH Statistical Note 49 (April 1971).
[44] Meyer N., *Legal Status of Inpatient Admissions to State and County Mental Hospitals, United States 1972.* NIMH Statistical Note 105 (May 1974).

the 1990 patient load was eliminated by 2000. However, since 2000, the number of patients in private psychiatric hospitals has again increased (up 77 percent since 2000).

Figure 5, below, focuses on the trend in private psychiatric hospitals, general hospitals, and other mental health settings from 1970 to 2014 and shows how each of these three types of organizations had a growth in psychiatric patient population during the 1980s, experienced a reduction in capacity during the 1990s, and then experienced growth again since 2000.

Figure 5: Number of Residents in Psychiatric Inpatient and Other 24-Hour Residential Treatment Beds at Private Psychiatric Hospitals, General Hospitals with Separate Psychiatric Units, and Other Mental Health Providers at End of Year, 1970 to 2014



Much of the growth of psychiatric inpatient capacity during the 1980s has been attributed to states eliminating certificate-of- need (CON) laws that required review and approval by state governments for hospitals to open or close beds.[45] Dr. Jeffrey Geller, in one of the very few published histories of private psychiatric hospitals,[46] found that, by the end of the 1980s, "states without certificate of need laws had an average 33 percent more for-profit psychiatric beds than did regulated states."[47]

[45] Frank R.G., & Garfield R.L., Managed Behavioral Health Care Carve-Outs: Past Performance and Future Prospects, *Annual Review of Public Health* 28, 303-320 (2007).
[46] Geller J.L., A History of Private Psychiatric Hospitals in the USA: From Start to Almost Finished *Psychiatric Quarterly* 77:1 (March 2006), https://link.springer.com/article/10.1007%2Fs11126-006-7959-5.
[47] *Ibid.*

After the rapid growth in private psychiatric bed capacity during the 1980s, there was a rapid reduction during the 1990s. Dr. Geller describes the 1990s as the settings' "nadir." Geller identified several major reasons for the reduction in private psychiatric hospitals during the 1990s, including a previous rate of expansion by several large hospital chains that led to a surplus of private psychiatric beds, which in turn led to financial losses due to an inability to fill those beds.

In addition, Dr. Geller cites the following factors:

1. The widespread introduction of managed care in the early 1990s, with utilization management that required approval of inpatient psychiatric stays, leading to large reductions in insurance coverage for psychiatric inpatient stays.
2. A scandal involving several large private hospital chains recruiting patients, which led to lawsuits and the closure of several for-profit private psychiatric hospital systems.
3. A focus on providing psychiatric care in the "least restrictive alternative" setting during the 1990s which promoted the development of alternative service modalities to avoid inpatient hospitalization. These alternatives included crisis services and other non-hospital-based acute care and treatment services.

Somewhat surprisingly, however, since the start of the 21st Century, the inpatient treatment capacity of private psychiatric hospitals has been steadily increasing. Potential explanations for this growth include the adoption of mental health parity laws by many states and the 2008 passage of the Federal Mental Health Parity and Addictions Equity Act,[48] the passage of the Affordable Care Act,[49] the reduced capacity of state psychiatric hospitals that have continued to shrink in size and, in many states, an increasing focus on using state psychiatric hospitals to serve the forensic population and/or the patient population needing continuing treatment.

Trend in General Hospital Separate Psychiatric Unit Capacity

General hospitals with separate psychiatric units have followed a pattern similar to private psychiatric hospitals, with major growth during the 1980s (doubling of capacity from 1980 to 1990), during the era of major state hospital downsizing, and then decreased by 28.5 percent from 1990 to 2000. The use of managed care and utilization review

[48] Public Law 104-204.
[49] Public Law 111-148.

during the 1990s is often cited as an explanation for the decrease in general hospital psychiatric beds during the 1990s.[50, 51, 52]

From 2000 to 2001, the capacity of general hospitals with separate psychiatric units grew by 18 percent, but from 2010 to 2014, the capacity of general hospitals declined slightly (down 3.6 percent). There are multiple media reports of hospitals closing psychiatric units due to the psychiatrist shortage because they cannot recruit and retain psychiatrists to provide inpatient treatment.[53]

In his October 2014 article in *Psychiatric Bulletin,* psychiatrist Mark Russakoff described the financial pressures on general hospital psychiatric units—that, despite their ability as non-IMD facilities to bill Medicaid, they have lower profit margins than other medical/surgical units. This has resulted in some general hospitals closing their psychiatric units, even when there is demand for psychiatric beds.

> *In the past, a well-run psychiatric in-patient unit could be a modest profit centre. The landscape has changed dramatically for general hospitals. The chief financial officer will tell you that the psychiatric units do not perform as well as the medical surgical units. The psychiatric unit occupies space where more lucrative medical surgical services, such as invasive cardiology and advanced surgery patients, could be located. A number of hospitals have made the business decision to close their psychiatric units in favour of these more remunerative services. These decisions are not simply evidence of greed. The profit margins of most general hospitals are razor thin, well below what Wall Street would accept for a company. Hospitals need to generate money where they can, and that includes consideration of the opportunity costs of low-performing units.*[54]

Further research into reasons why general hospital psychiatric units have recently declined in capacity is needed, as many states have adopted policies promoting the use of general hospitals to provide psychiatric services as an initial admission site for acute care. These policies both take advantage of the ability of general hospitals to bill Medicaid for psychiatric inpatient care and promote the provision of acute care services closer to a patient's home than state psychiatric hospitals that may be located miles away. In these states, the use of the state psychiatric hospital is reserved for patients who require continuing inpatient care after an

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[50] Foley D.J., Manderscheid R.W., Atay J.E., Maedke J., Sussman J. & Cribbs S., Highlights of Organized Mental Health Services in 2002 and Major National and State Trends. *Mental Health, United States*, 200-236 (2004).
[51] Mechanic D., McAlpine D.D. & Rochefort D.A., *Mental Health and Social Policy: Beyond Managed Care,* Pearson Higher Ed (2013).
[52] Dickey B., Norton E.C., Normand S.L., Fisher W.H. & Azeni H., Managed Mental Health Experience in Massachusetts. *Paying for Services: Capitation and Managed Behavioral Health Care*, David Mechanic (editor), pp. 115-124, San Francisco, Jossey-Bass (1998).
[53] Parks J. *The Psychiatric Shortage: Causes and Solutions* (2017), https://www.thenationalcouncil.org/wp-content/uploads/2017/03/Psychiatric-Shortage_National-Council-.pdf.
[54] Russakoff L.M., Private In-Patient Psychiatry in the USA, *Psychiatric Bulletin* 38(5), 230-235 (October 2014), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4180988/.

initial acute treatment in the general hospital, and/or for forensic patients who require treatment in a specialized secure psychiatric unit at a state hospital.

Data has not been historically available on the use of general hospital scatter beds to serve mental health patients in a non-psychiatric unit of the hospital. However, a report on all general hospital patients (both in specialty psychiatric units and scatter beds) published by the Federal Agency for Healthcare Research and Quality (AHRQ) in June 2017 found that **"**The number of hospital stays for mental health/substance use increased from 2005 to 2014, whereas the number of surgical stays decreased. All other hospitalization types decreased less than 10 percent."[55] The AHRQ report found that general hospital stays for mental health and substance use increased by 12.2 percent between 2005 and 2014.

Trend in VA Medical Center Psychiatric Capacity

In 1970, VA Medical Centers were the second largest system providing psychiatric inpatient and other 24-hour residential treatment, treating more than 51,979 patients on a single day (11 percent of total capacity in 1970). Since the 1970s, over 86 percent of the psychiatric bed capacity of VA Medical Centers has been eliminated due to a substantial shift in the VA system to the provision of community-based mental health care. From 2010 to 2014, the VA increased its inpatient and other 24-hour treatment capacity by 25 percent, to a total of 7,010 patients. In 2014, mental health patients receiving inpatient services in VA Medical Centers were split between inpatient beds (45 percent of patients) and other 24-hour residential treatment beds (55 percent of patients). In addition to inpatient services, the VA in 2014 operated an extensive array of community-based services and supports (including intensive programs based on the ACT model) to minimize the need for psychiatric inpatient care.

VA officials indicate the treatment focus of VA Medical Center psychiatric units has changed in recent years. The major diagnoses of patients being served in VA Medical Centers has shifted from major mental illnesses such as schizophrenia and bipolar disorders to post-traumatic stress disorders (PTSD), traumatic brain injuries (TBI), and substance abuse disorders.

In 2014, the VA healthcare system served almost 5.7 million veterans, of whom 34 percent were identified as potentially having a mental illness and 1.43 million (25 percent) of those receiving services had a confirmed mental illness. Veterans receiving outpatient mental health care totaled 1,533,391, while 62,272 veterans spent at least one night in a psychiatric inpatient unit operated by the VA and an additional 34,381 veterans spent at least one night in a VA Medical Center-operated residential mental health treatment bed (2.2 percent of veterans with a confirmed mental health diagnosis).[56]

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[55] McDermott K.W. (IBM Watson Health), Elixhauser A. (AHRQ) & Sun R. (AHRQ), *Trends in Hospital Inpatient Stays in the United States, 2005–2014,* HCUP Statistical Brief #225, Agency for Healthcare Research and Quality, Rockville, MD June 2017,. www.hcup-us.ahrq.gov/reports/statbriefs/sb225-Inpatient-US-Stays-Trends.pdf.

[56] Greenberg G. & Hoff R., *2014 Mental Health Fact Sheet: National, VISN, and VAMC Tables – All Veterans,* Northeast Program Evaluation Center, West Haven, CT (2010-Present).

Trend in Residential Treatment Center Psychiatric Capacity

An RTC is a 24-hour institution that provides mental health and/or substance abuse services. RTCs are licensed with less intensive staffing requirements than inpatient units, but still provide mental health treatment and other therapeutic services, as well as support services. RTCs for children may also include educational supports, including classroom instruction to permit children and adolescents to continue their educational progress while receiving mental health services.

The number of mental health patients in beds in RTCs has grown faster than at any other type of inpatient site, with an increase of over 218 percent from 1970 to 2014. In 2014, over 25 percent of all patients in an inpatient or other 24-hour residential treatment bed were in an RTC, up from 3 percent in 1970. Nationally, there were 58 RTCs providing inpatient care and 2,206 RTCs providing other 24-hour residential treatment to individuals with mental illness. A total of 41,079 patients were in an RTC in 2014, making RTCs the largest specialty mental health organization type providing inpatient and other 24-hour residential treatment. As Table 7 shows, RTCs are the only setting providing inpatient and other 24-hour residential treatment that had an increase in capacity over each of the decades from 1970 to 2014.

Trend in the Capacity of Other Specialty Mental Health Organizations

Other specialty mental health organizations, including community mental health centers, multi-service mental health programs, and other licensed mental health providers offer both inpatient and other 24-hour residential treatment beds. The bed capacity of these other specialty providers grew substantially from the 1970s through the 1980s. Their capacity as a group peaked in 1996, with an increase of over six-fold from 1970 to 1996. However, since 1996, the bed capacity in these other specialty providers has decreased by 63 percent. The net change from 1970 to 2014 shows an increase of 171 percent (growth from 7,526 patients in 1970 to 20,439 patients in 2014).

APPENDIX A: Variation in Psychiatric Inpatient and Other 24-Hour Capacity by State: 2014

There is considerable variation across the states in their psychiatric inpatient and other 24-hour residential mental health treatment capacity. The 2014 N-MHSS provides state-by-state numbers of total beds offering inpatient or other 24-hour residential treatment. States vary from as few as 353 beds in North Dakota to 17,908 beds in New York.

On average, inpatient beds were 58 percent of the total beds and residential treatment beds were 42 percent of beds. States varied from a mix of 20 percent of psychiatric beds being inpatient and 80 percent other residential beds (South Dakota), to a high of 90 percent of beds being inpatient beds and 10 percent residential treatment beds in Nevada.

To adjust for the variation in the size of state populations, the authors of this paper calculated the ratio of beds per 100,000 state population in Table 9 and Figure 6, which follow.

Figure 6: Psychiatric Beds (Inpatient and Other 24-Hour Residential Treatment, per 100,000 State Population, 2014

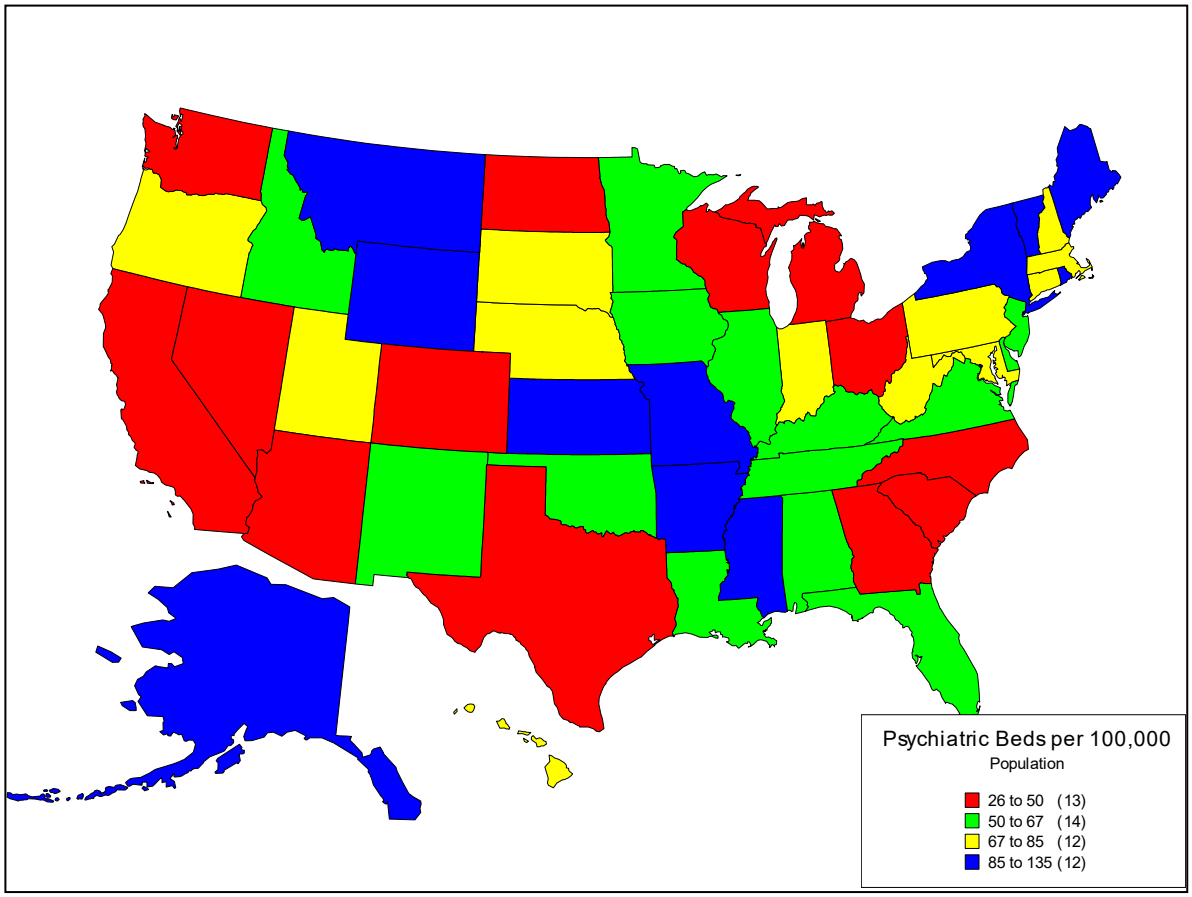


Table 9: Number of Beds in 24-Hour Hospital Inpatient and Residential Treatment Settings, by State/Territory: Number and Rate per 100,000 Population, April 2014

State	Number of Beds (inpatient & Residential)	Total Beds per 100,000 population
U.S. Total	**182,516**	**56.8**
Alabama	3,223	66.7
Alaska	861	120.5
Arizona	3,278	48.8
Arkansas	2,636	89.1
California	14,553	37.7
Colorado	2,292	43.1
Connecticut	2,657	74.0
Delaware	560	60.1
District of Columbia	739	112.7
Florida	10,921	55.1
Georgia	3,149	31.4
Hawaii	1,130	82.3
Idaho	955	58.6
Illinois	6,576	51.2
Indiana	4,974	75.4
Iowa	2,031	65.4
Kansas	3,877	134.6
Kentucky	2,825	64.3
Louisiana	2,330	50.3
Maine	1,218	91.7
Maryland	4,010	67.4
Massachusetts	4,887	72.5
Michigan	4,152	41.9
Minnesota	2,917	53.5
Mississippi	2,787	93.6
Missouri	5,389	89.1
Montana	1,057	103.7
Nebraska	1,410	75.2
Nevada	739	26.1
New Hampshire	1,022	77.1
New Jersey	5,412	60.6
New Mexico	1,312	63.3
New York	17,908	90.8
North Carolina	4,195	42.6
North Dakota	353	48.2
Ohio	5,340	46.1
Oklahoma	2,558	66.3
Oregon	2,717	68.5
Pennsylvania	8,940	70.0
Rhode Island	895	85.1
South Carolina	2,356	49.2
South Dakota	684	80.5
Tennessee	4,112	63.0
Texas	9,387	35.0
Utah	2,309	78.6
Vermont	737	117.7
Virginia	4,220	51.4
Washington	3,114	44.4
West Virginia	1,524	82.4
Wisconsin	2,812	48.9
Wyoming	523	90.0
U.S. territories	1,953	54.3

Table created by NRI from N-MHSS Table 4.7

Table 10 shows that the highest ratio of total mental health beds per 100,000 population (both inpatient and other-24-hour residential treatment) was in Kansas (134.6 beds per 100,000 population) and Alaska (120.5 beds per 100,000 population). The lowest ratio was in Nevada (26.1 beds per 100,000 population) and in Georgia (31.4 beds per 100,000 population).

Inpatient Psychiatric Beds by State

Table 10 and Figure 7, below, show information from the 2014 SAMHSA N-MHSS for psychiatric inpatient beds and patients using per 100,000 state population ratios.

Table 10: Number of Organizations Providing Psychiatric Inpatient Beds, Number of Inpatients and Rate per 100,000 Population, April 2014

State	Number of Facilities	Inpatient	Inpatient clients population	Inpatient Beds	Inpatient Beds population
U.S. Total	**2,032**	**101,351**	**31.6**	**106,236**	**33.1**
Alabama	35	1,116	23.1	1,442	29.8
Alaska	7	243	34.0	278	38.9
Arizona	33	1,398	20.8	1,651	24.6
Arkansas	33	1,166	39.4	1,344	45.4
California	121	13,318	34.5	9,086	23.5
Colorado	21	1,222	23.0	1,217	22.9
Connecticut	29	1,693	47.2	1,530	42.6
Delaware	5	393	42.2	430	46.2
District of Columbia	6	450	68.6	490	74.8
Florida	133	5,950	30.0	6,745	34.0
Georgia	40	1,407	14.0	1,918	19.1
Hawaii	10	321	23.4	381	27.8
Idaho	15	462	28.3	580	35.6
Illinois	84	3,965	30.8	4,361	33.9
Indiana	64	3,385	51.3	2,818	42.7
Iowa	31	671	21.6	814	26.2
Kansas	23	993	34.5	1,156	40.1
Kentucky	32	1,116	25.4	1,665	37.9
Louisiana	56	1,971	42.6	2,204	47.6
Maine	13	411	30.9	537	40.4
Maryland	36	2,060	34.6	2,293	38.6
Massachusetts	66	2,405	35.7	2,463	36.5
Michigan	58	2,441	24.6	2,652	26.8
Minnesota	38	1,445	26.5	1,347	24.7
Mississippi	38	1,352	45.4	1,651	55.4
Missouri	57	3,062	50.6	3,606	59.6
Montana	10	886	86.9	390	38.2
Nebraska	15	632	33.7	797	42.5
Nevada	12	726	25.7	663	23.5
New Hampshire	9	308	23.2	398	30.0
New Jersey	54	3,497	39.2	3,856	43.2
New Mexico	10	591	28.5	787	38.0
New York	166	9,544	48.4	10,906	55.3
North Carolina	51	2,402	24.4	2,651	26.9
North Dakota	7	116	15.8	199	27.2
Ohio	79	2,447	21.1	2,938	25.4
Oklahoma	44	1,454	37.7	1,747	45.3
Oregon	18	888	22.4	964	24.3
Pennsylvania	106	4,976	38.9	5,650	44.2
Rhode Island	8	485	46.1	545	51.8
South Carolina	26	1,274	26.6	1,440	30.1
South Dakota	4	105	12.4	136	16.0
Tennessee	44	1,773	27.2	2,239	34.3
Texas	95	5,691	21.2	6,310	23.5
Utah	15	580	19.7	750	25.5
Vermont	6	154	24.6	169	27.0
Virginia	49	2,081	25.3	2,570	31.3
Washington	30	1,843	26.3	1,922	27.4

State	Number of Inpatient Facilities	Inpatient Clients	Inpatient clients per 100,000 population	Inpatient Beds	Inpatient Beds per 100,000 population
West Virginia	18	818	44.2	931	50.3
Wisconsin	34	1,513	26.3	1,218	21.2
Wyoming	8	187	32.2	214	36.8
U.S. territories	30	1,964	54.6	1,187	33.0

Table created by NRI from SAMHSA 2014 N-MHSS

States varied from a high of 10,906 psychiatric inpatient beds in New York and 9,086 beds in California to a low of 105 psychiatric inpatient beds in South Dakota and 169 beds in Vermont.

When calculated as a ratio of psychiatric inpatient beds per 100,000 state population, states varied from a high of 74.8 beds per 100,000 population in the District of Columbia and 59.6 beds per 100,000 population in Missouri to a low of 16 beds per 100,000 in South Dakota and 19.1 beds per 100,000 in Georgia.

Figure 7: Psychiatric Inpatient Beds per 100,000 State Population, 2014

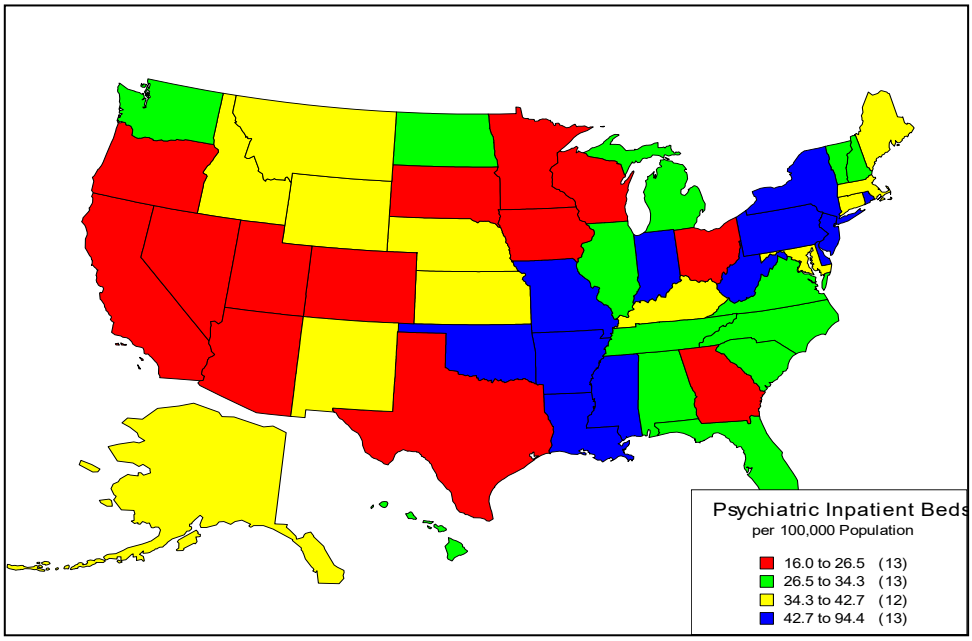
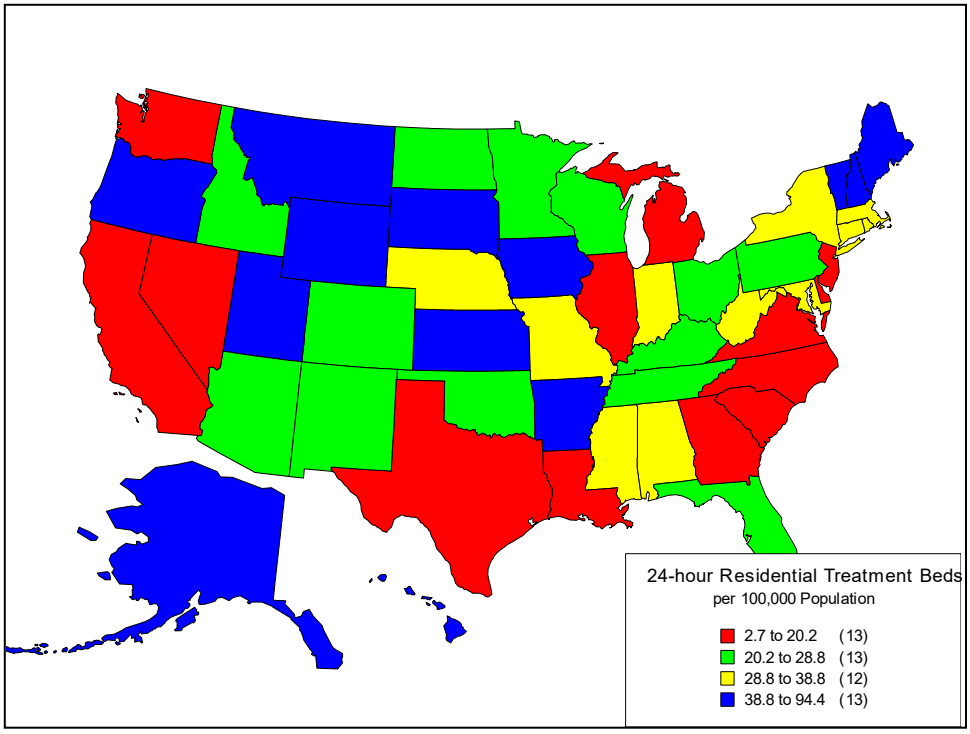


Figure 8: Mental Health Other 24-Hour Residential Treatment Beds per 100,000 State Population, 2014



Other Mental Health 24-hour Residential Treatment Beds by State

Table 11 and Figure 8, which follow, show the number of organizations in each state providing mental health residential treatment, the number of patients receiving mental health residential treatment, the number of residential treatment beds, and the ratio of residential treatment beds per 100,000 state population.

In 2014, states varied from Louisiana and Nevada having a low of four organizations offering residential treatment services for mental health to a high of 184 organizations in California and 180 in New York.

Other 24-hour residential treatment beds for mental health varied from a low of 76 beds in Nevada and 126 beds in Louisiana to a high of 7,002 beds in New York and 5,467 beds in California. The ratio of other 24-hour residential treatment beds per 100,000 state population varied from a low of 2.7 beds per 100,000 in Maine and Nevada to a high of 94.4 beds per 100,000 in Kansas and 90.7 in Vermont.

Table 11: Number of Organizations Providing Mental Health Other 24-Hour Residential Treatment Beds, Number of Patients and Rate per 100,000 Population, April 2014

State	Number of Residential Facilities	Residential Patients	Residential Patients per 100,000 population	Residential Beds	Residential Beds per 100,000 population
U.S. Total	**2,573**	**68,849**	**21.4**	**76,280**	**23.7**
Alabama	60	1,613	33.4	1,781	36.8
Alaska	27	534	74.7	583	81.6
Arizona	114	1,478	22.0	1,627	24.2
Arkansas	36	1,249	42.2	1,292	43.7
California	184	4,824	12.5	5,467	14.1
Colorado	56	1,008	18.9	1,075	20.2
Connecticut	50	1,099	30.6	1,127	31.4
Delaware	14	124	13.3	130	14.0
District of Columbia	^	300	45.8	249	38.0
Florida	115	3,988	20.1	4,176	21.1
Georgia	30	1,197	11.9	1,231	12.3
Hawaii	15	386	28.1	749	54.6
Idaho	9	251	15.4	375	23.0
Illinois	115	2,538	19.7	2,215	17.2
Indiana	74	1,933	29.3	2,156	32.7
Iowa	33	1,023	32.9	1,217	39.2
Kansas	28	1,635	56.7	2,721	94.4
Kentucky	39	1,127	25.6	1,160	26.4
Louisiana	4	125	2.7	126	2.7
Maine	62	564	42.4	681	51.3
Maryland	62	1,831	30.8	1,717	28.9
Massachusetts	90	2,257	33.5	2,424	36.0
Michigan	34	1,444	14.6	1,500	15.1
Minnesota	49	1,201	22.0	1,570	28.8
Mississippi	24	1,139	38.2	1,136	38.1
Missouri	41	1,663	27.5	1,783	29.5
Montana	24	787	77.2	667	65.4
Nebraska	25	570	30.4	613	32.7
Nevada	4	64	2.3	76	2.7
New Hampshire	24	493	37.2	624	47.1
New Jersey	40	1,585	17.8	1,556	17.4
New Mexico	15	472	22.8	525	25.3
New York	180	6,517	33.0	7,002	35.5
North Carolina	158	1,312	13.3	1,544	15.7
North Dakota	12	187	25.5	154	21.0
Ohio	101	2,384	20.6	2,402	20.7
Oklahoma	22	694	18.0	811	21.0
Oregon	73	1,613	40.7	1,753	44.2
Pennsylvania	102	2,852	22.3	3,290	25.7
Rhode Island	24	368	35.0	350	33.3
South Carolina	30	722	15.1	916	19.1
South Dakota	12	533	62.7	548	64.5
Tennessee	57	1,649	25.3	1,873	28.7
Texas	57	2,750	10.2	3,077	11.5
Utah	27	1,112	37.9	1,559	53.1
Vermont	44	545	87.1	568	90.7
Virginia	48	1,327	16.2	1,650	20.1
Washington	41	1,272	18.1	1,192	17.0

State	Number of Residential Facilities	Residential Patients	Residential Patients per 100,000 population	Residential Beds	Residential Beds per 100,000 population
West Virginia	17	360	19.5	593	32.1
Wisconsin	29	1,071	18.6	1,594	27.7
Wyoming	11	276	47.5	309	53.2
U.S. territories	30	803	22.3	766	21.3

Table developed by NRI from N-MHSS Table 4.8

Change in Psychiatric Inpatient Capacity over time, by State, 1982 to 2010

States vary widely in how the number of residents in inpatient and other 24-hour residential treatment has changed over the past 20 years. Table 12, below, shows information by state for the years where state-level data are available (1982 to 2010).

Table 12: Number of Residents in Inpatient and Other 24-Hour Residential Treatment Beds on the Last Day of Year, 1982 and 2010

	Residents in State and County Psychiatric Hospitals				Residents in All other Specialty Psychiatric Organizations				Residents in Any Psychiatric Inpatient and other mental health 24-hour Treatment Bed			
State	1982	2010	Change	% Change	1982	2010	Change	% Change	1980	2010	Change	% Change
Alabama	2,209	1,381	-828	-37%	1,839	2,167	328	18%	4,048	3,548	-500	-12%
Alaska	188	64	-124	-66%	45	412	367	816%	233	476	243	104%
Arizona	350	283	-67	-19%	1,420	1,772	352	25%	1,770	2,055	285	16%
Arkansas	386	221	-165	-43%	973	1,361	388	40%	1,359	1,582	223	16%
California	6,699	3,772	-2,927	-44%	10,069	7,956	-2,113	-21%	16,768	11,728	-5,040	-30%
Colorado	1,007	502	-505	-50%	1,579	1,089	-490	-31%	2,586	1,591	-995	-38%
Connecticut	2,431	622	-1,809	-74%	2,461	2,464	3	0%	4,892	3,086	-1,806	-37%
Delaware	620	210	-410	-66%	202	410	208	103%	822	620	-202	-25%
District of Columbia	2,090	314	-1,776	-85%	605	229	-376	-62%	2,695	543	-2,152	-80%
Florida	5,259	2,169	-3,090	-59%	3,826	7,266	3,440	90%	9,085	9,435	350	4%
Georgia	4,810	1,082	-3,728	-78%	2,466	3,217	751	30%	7,276	4,299	-2,977	-41%
Hawaii	232	222	-10	-4%	103	225	122	118%	335	447	112	33%
Idaho	262	128	-134	-51%	126	459	333	264%	388	587	199	51%
Illinois	4,064	1,392	-2,672	-66%	4,794	5,608	814	17%	8,858	7,000	-1,858	-21%
Indiana	3,151	1,022	-2,129	-68%	1,787	2,952	1,165	65%	4,938	3,974	-964	-20%
Iowa	1,107	210	-897	-81%	1,343	1,781	438	33%	2,450	1,991	-459	-19%
Kansas	1,339	732	-607	-45%	1,608	751	-857	-53%	2,947	1,483	-1,464	-50%
Kentucky	897	388	-509	-57%	1,483	2,767	1,284	87%	2,380	3,155	775	33%
Louisiana	2,255	996	-1,259	-56%	1,059	1,138	79	7%	3,314	2,134	-1,180	-36%
Maine	669	142	-527	-79%	847	758	-89	-11%	1,516	900	-616	-41%
Maryland	3,647	1,081	-2,566	-70%	1,969	2,369	400	20%	5,616	3,450	-2,166	-39%
Massachusetts	2,950	399	-2,551	-86%	4,796	4,610	-186	-4%	7,746	5,009	-2,737	-35%
Michigan	4,602	822	-3,780	-82%	4,056	3,196	-860	-21%	8,658	4,018	-4,640	-54%
Minnesota	2,334	232	-2,102	-90%	2,534	2,162	-372	-15%	4,868	2,394	-2,474	-51%
Mississippi	2,122	1,110	-1,012	-48%	870	1,708	838	96%	2,992	2,818	-174	-6%

	Residents in State and County Psychiatric Hospitals				Residents in All other Specialty Psychiatric Organizations				Residents in Any Psychiatric Inpatient and other mental health 24-hour Treatment Bed			
Missouri	2,455	1,360	-1,095	-45%	2,298	3,134	836	36%	4,753	4,494	-259	-5%
Montana	351	155	-196	-56%	204	584	380	186%	555	739	184	33%
Nebraska	738	434	-304	-41%	426	817	391	92%	1,164	1,251	87	7%
Nevada	133	300	167	126%	151	314	163	108%	284	614	330	116%
New Hampshire	639	150	-489	-77%	254	778	524	206%	893	928	35	4%
New Jersey	5,347	2,604	-2,743	-51%	2,443	2,856	413	17%	7,790	5,460	-2,330	-30%
New Mexico	212	85	-127	-60%	390	804	414	106%	602	889	287	48%
New York	26,520	3,959	-22,561	-85%	10,561	10,560	-1	0%	37,081	14,519	-22,562	-61%
North Carolina	3,714	817	-2,897	-78%	2,274	1,649	-625	-27%	5,988	2,466	-3,522	-59%
North Dakota	765	305	-460	-60%	137	470	333	243%	902	775	-127	-14%
Ohio	5,551	1,032	-4,519	-81%	4,392	4,021	-371	-8%	9,943	5,053	-4,890	-49%
Oklahoma	1,728	397	-1,331	-77%	888	1,629	741	83%	2,616	2,026	-590	-23%
Oregon	1,156	645	-511	-44%	862	1,542	680	79%	2,018	2,187	169	8%
Pennsylvania	10,898	1,841	-9,057	-83%	5,782	7,244	1,462	25%	16,680	9,085	-7,595	-46%
Rhode Island	695	112	-583	-84%	384	706	322	84%	1,079	818	-261	-24%
South Carolina	3,556	443	-3,113	-88%	520	1,152	632	122%	4,076	1,595	-2,481	-61%
South Dakota	476	198	-278	-58%	485	834	349	72%	961	1,032	71	7%
Tennessee	2,581	493	-2,088	-81%	1,438	1,808	370	26%	4,019	2,301	-1,718	-43%
Texas	6,754	3,502	-3,252	-48%	5,791	4,561	-1,230	-21%	12,545	8,063	-4,482	-36%
Utah	323	409	86	27%	609	1,546	937	154%	932	1,955	1,023	110%
Vermont	269	50	-219	-81%	333	737	404	121%	602	787	185	31%
Virginia	5,066	1,561	-3,505	-69%	2,840	2,716	-124	-4%	7,906	4,277	-3,629	-46%
Washington	1,208	1,955	747	62%	1,169	2,459	1,290	110%	2,377	4,414	2,037	86%
West Virginia	1,643	248	-1,395	-85%	536	1,172	636	119%	2,179	1,420	-759	-35%
Wisconsin	1,332	527	-805	-60%	2,844	1,571	-1,273	-45%	4,176	2,098	-2,078	-50%
Wyoming	350	122	-228	-65%	262	505	243	93%	612	627	15	2%
Grand Total	**140,140**	**43,200**	**-96,940**	**-69%**	**101,133**	**114,996**	**13,863**	**14%**	**241,273**	**160,257**	**-81,016**	**-34%**
Average	2,748	847	-1,901	-56%	1,983	2,255	272	70%	4,731	3,102	-1,629	-10%
Median	1,643	443	-897	-65%	1,343	1,629	352	36%	2,695	2,098	-590	-23%
Minimum	133	50	-22,561	-90%	45	225	-2,113	-62%	233	447	-22,562	-80%
Maximum	26,520	3,959	747	126%	10,561	10,560	3,440	816%	37,081	14,519	2,037	116%

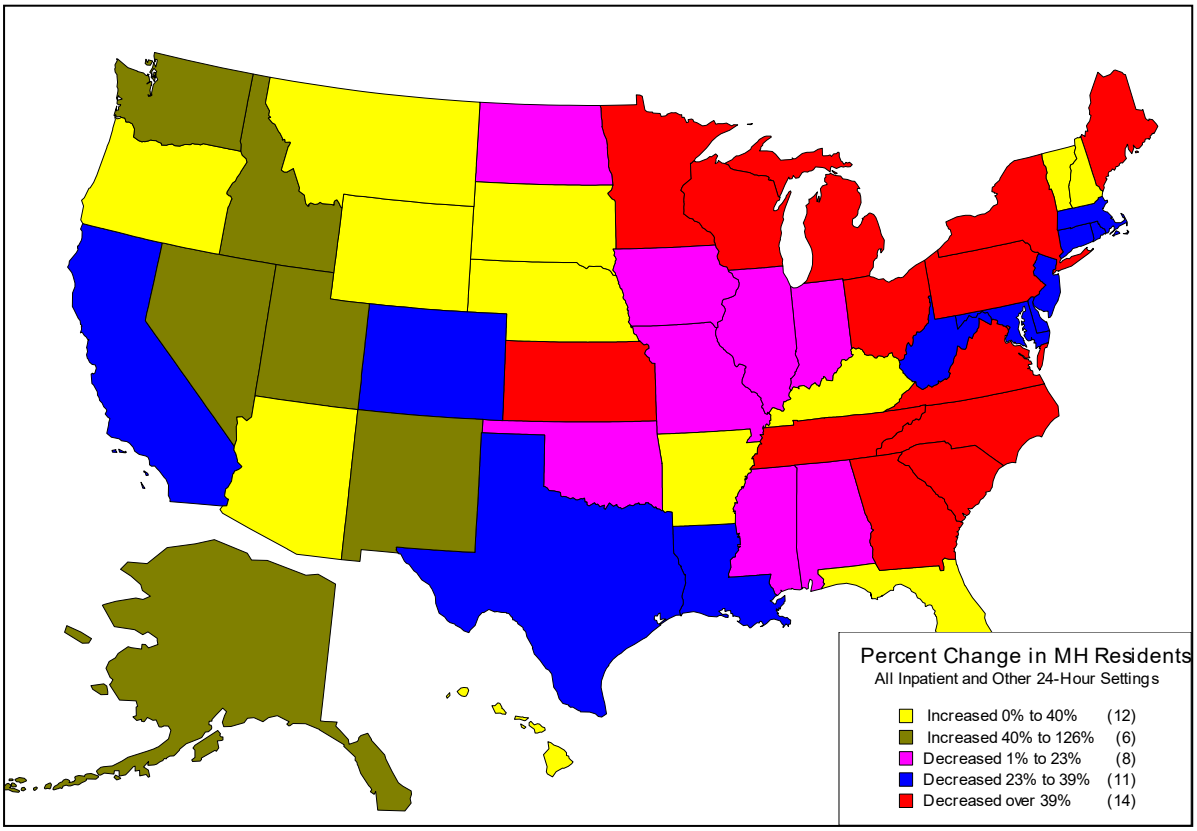
Source: SAMHSA 1982 IMHO and 2010 N-MHSS

From 1982 to 2010, nationally there was a 34 percent decrease in mental health residents in inpatient and other 24-hour residential treatment beds, but there was a major difference between state and county hospitals and other types of mental health organizations. During this time period, there was a 69 percent decrease in the number of residents in state and county psychiatric hospitals, while all other mental health and other 24-hour residential treatment organizations had a 14 percent increase.

From 1982 to 2010, the average state had a 56 percent decrease in residents in state and county psychiatric hospitals, but across states this varied from an increase of 126 percent in Nevada (which built a new state hospital in Las Vegas to meet the needs of growing population in that city), to a decrease of 90 percent in Minnesota (which completed a major reorganization of their state hospital system that involved closing large institutions and opening seven 16-bed acute inpatient programs around the state).

Figure 9 shows that Eastern states experienced the largest decrease in patients in inpatient and other 24-hour residential treatment from 1982 to 2010, while mountain states and Alaska experienced the largest increase in resident patients.

Figure 9: Percent Change in Total Mental Health Residents in Inpatient and Other 24-Hour Treatment Beds, 1982 to 2014



APPENDIX B: Focus on Care in State and County Psychiatric Hospitals

Public psychiatric hospitals have been providing services to individuals with serious mental illness since before the founding of the United States, with the Colony of Virginia opening what is now Eastern State Hospital in 1773. For most of American history, state psychiatric hospitals were the primary source of psychiatric inpatient care in the U.S. and as a result, much more historical information exists about their services and clientele.

Dr. Jeffrey Geller, in his history of private psychiatric hospitals, reports data on the number of patients in public psychiatric hospitals and private psychiatric hospitals dating back to 1922 (*see* Table 13). In 1922, public hospitals (largely state psychiatric hospitals) were serving 95.9 percent of all patients in mental hospitals. While the percentage of patients in state hospitals has steadily declined since then, Geller found that, even in 1969, 75 percent of patients were in public psychiatric hospitals. In contrast, only 37 percent of psychiatric inpatients were in state and county psychiatric hospitals in the 2014 SAMHSA's N-MHSS.

Table 13: Patients in Residence in Mental Hospitals (Year End) 1922-1969, from Geller, 2006 [57]

	Public hospitals [b]		*Private hospitals*	
Year	*No. of Patients*	Percent of Total	*No. of Patients*	Percent of Total
1922	256,683	95.9	9,231	3.4
1934	375,324	93.0	10,301	2.6
1938	420,553	91.9	10,831	2.4
1942	453,806	90.9	11,784	2.4
1946	468,711	88.6	12,301	2.3
1948	488,740	87.8	13,095	2.4
1950	512,504	87.4	15,463	2.6
1953	545,045	87.2	15,949	2.8
1954	553,979	87.4	15,771	2.7
1955	558,922	87.5	16,468	2.8
1956	551,390	87.2	15,773	2.7
1957	548,626	87.2	15,013	2.4
1960	535,540	86.6	15,645	2.5
1962	515,540	86.1	15,833	2.6
1965	475,202	85.1	14,614	2.6
1969	369,969	75.0	10,963	2.4

a 1920's–1940's: U.S. Department of Commerce 1940's–1960's: NIMH.
b Excludes Veterans Hospitals

Until the passage of the Community Mental Health Act in 1963, community mental health programs had been initiated in a few states, but in most states, "SMHA" meant "state hospital." The vast majority of state expenditures and services for individuals with mental illness was devoted to state psychiatric hospitals. Similarly, data collection on public mental health systems was largely focused on measuring care in state hospitals.

[57] Geller, 2006.

Efforts to recreate the functions of state hospitals in community-based settings has been the cornerstone of public mental health policy for more than 50 years. However, these efforts have been only partially successful, and state hospitals, while diminished in number and bed capacity, retain a significant niche in the larger mental health system.[58, 59]

In 2016, there were 188 state psychiatric hospitals that served 40,845 patients on the first day of the year and had 109,269 admissions during the year. Table 14 shows that states varied from having as few as one state hospital (in 16 states) to as many as 25 in New York. The number of residents in state psychiatric hospitals ranged from a low of 22 patients in Vermont to a high of 6,663 patients in California. Residents per 100,000 state population ranged from a low ratio of 2.5 per 100,000 population in New Mexico to a high ratio of 54.2 patients in Mississippi.

It is important to understand that the functions and populations being served in state psychiatric hospitals today are very different from those of 50 years ago, when state hospitals were much larger, but comprehensive recovery-oriented community services were not readily available and evidence-based practices such as ACT, Supported Employment, Supportive Housing, Coordinated Specialty Care for First Episode Psychosis, Crisis Intervention Teams, etc., had not been developed or widely implemented.

In 2016, more than 80 percent of state psychiatric hospitals were accredited by the Joint Commission and the hospitals that were not accredited tended to be stand-alone forensic psychiatric hospitals. CMS-certified hospitals totaled 138. This was very different from the 1960s, when only 33 percent (97 out of 292 state psychiatric hospitals in 1966) were accredited.[60]

Number of State Hospitals, Residents, Admissions, and Forensic Focus: 2016

Table 14 shows that many states now reserve their state hospitals for particular service client groups or for long- or short-term care. Twenty-two states report they no longer provide any inpatient services to children and six states limit their children's inpatient care in state psychiatric hospitals to short-term acute services.

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[58] Fisher W.H., Geller J.L., Pandiani, J. Assessing the Role of State Psychiatric Hospitals in Contemporary Mental Health Systems, *Health Affairs* 28:676-684 (2009).

[59] Fisher W.H., Geller J.L., McMannus D.L., Same Problem, Different Century: Issues in Recreating the Functions of State Psychiatric Hospitals in Community-Based Settings, *Fifty Years After Deinstitutionalization: Mental Illness in Contemporary Communities. Advances in Medical Sociology*, 17, 3-25, Perry, B.L. (ed.), Emerald Publishing LTD (2016).

[60] 2016 accreditation status from *NRI State Profiles, 1966 data from NASMHPD Study #35, "Accreditation of Public Institutions for the Mentally Ill and Mentally Retarded, Feb 2, 1966.*

Table 14: Number of State Psychiatric Hospitals, Residents at End of Year, Admissions, Forensic Population, and Intended Use, 2016

State	Number of State Hospitals (2015)	Number of Residents (Start of 2016)	Residents per 100,000 population (2016)	State Population: 2016	State Hospital Admissions (2016)	Admissions per 100,000 Pop (2016)	Forensic Percent of Admissions (FY 2014)	Forensic Percent of Residents (end of FY2014)	Hospitals are used for Short or Long-Term Care		
									Children & Adolescents	Adults/Elderly	Forensic Patients
Alabama	3	604	12.4	4,863,300	495	10.2	14.1%	42.7%	Acute & Long	Acute & Long	Acute & Long
Alaska	1	63	8.5	741,894	1,432	193.0	0.3%	15.5%	Acute	Acute & Long	Acute & Long
Arizona	1	215	3.1	6,931,071	74	1.1	62.0%	50.5%	Not Used	Not Used	Not Used
Arkansas	1	204	6.8	2,988,248	613	20.5	50.0%	59.0%	Acute & Long	Acute & Long	Acute & Long
California	5	6,663	17.0	39,250,017	3,899	9.9	NR	92.0%	NR	NR	NR
Colorado	2	494	8.9	5,540,545	1,112	20.1	54.5%	60.8%	Acute & Long	Acute & Long	Acute & Long
Connecticut	4	527	14.7	3,576,452	839	23.5	35.1%	35.6%	Acute & Long	Acute & Long	Acute & Long
Delaware	1	132	13.9	952,065	368	38.7	100.0%	100.0%	Not Used	Acute & Long	Acute & Long
District of Columbia	1	275	40.4	681,170	411	60.3	5.0%	32.0%	Not Used	Long Term	Acute & Long
Florida	7	2,657	12.9	20,612,439	2,516	12.2	66.0%	69.0%	Not Used	Long Term	Acute & Long
Georgia	5	991	9.6	10,310,371	3,319	32.2	8.2%	69.9%	Not Used	Acute & Long	Acute & Long
Hawaii	1	115	8.1	1,428,557	549	38.4	95.0%	88.0%	Not Used	Acute & Long	Acute & Long
Idaho	2	142	8.4	1,683,140	1,038	61.7	8.3%	9.0%	Intermediate	Acute & Long	Acute & Long
Illinois	7	1,261	9.9	12,801,539	5,254	41.0	10.2%	0.4%	Not Used	Acute & Long	Acute & Long
Indiana	6	728	11.0	6,633,053	408	6.2	23.9%	14.1%	Long Term	Long Term	Acute & Long
Iowa	3	81	2.6	3,134,693	593	18.9	NR	1.0%	NR	NR	NR
Kansas	2	542	18.6	2,907,289	2,407	82.8	9.8%	23.6%	Not Used	Acute & Long	Acute & Long
Kentucky	3	400	9.0	4,436,974	8,568	193.1	8.2%	12.1%	Not Used	Acute	Acute & Long
Louisiana	2	604	12.9	4,681,666	999	21.3	25.2%	75.0%	Not Used	Acute & Long	Acute & Long
Maine	2	115	8.6	1,331,479	376	28.2	54.0%	53.0%	NR	Acute & Long	Acute & Long
Maryland	5	982	16.3	6,016,447	783	13.0	75.5%	75.3%	Acute & Long	Acute & Long	Acute & Long
Massachusetts	2	571	8.4	6,811,779	1,085	15.9	60.0%	26.0%	Intermediate	Acute & Long	Acute & Long
Michigan	5	414	4.2	9,928,300	687	6.9	37.0%	39.0%	Acute & Long	Acute & Long	Acute & Long
Minnesota	8	204	3.7	5,519,952	1,245	22.6	0.2%	2.2%	Acute	Acute & Long	Acute & Long
Mississippi	4	1,621	54.2	2,988,726	1,812	60.6	1.2%	1.0%	Acute	Acute	NR
Missouri	6	1,133	18.6	6,093,000	590	9.7	43.7%	43.0%	Acute & Long	Acute & Long	Acute & Long
Montana	1	237	22.7	1,042,520	768	73.7	29.0%	25.0%	Not Used	Acute & Long	Acute & Long
Nebraska	4	302	15.8	1,907,116	212	11.1	18.0%	22.0%	Not Used	Acute & Long	Acute & Long
Nevada	4	223	7.6	2,940,058	3,615	123.0	4.0%	7.0%	Not Used	Acute	Acute & Long

State	Number of State Hospitals (2015)	Number of Residents (Start of 2016)	Residents per 100,000 population (2016)	State Population: 2016	State Hospital Admissions (2016)	Admissions per 100,000 Pop (2016)	Forensic Percent of Admissions (FY 2014)	**Forensic Percent of Residents (end of FY2014)**	**Hospitals are used for Short or Long-Term Care**		
									Children & Adolescents	**Adults/Elderly**	**Forensic Patients**
New Hampshire	1	143	10.7	1,334,795	1,930	144.6	0.0%	0.0%	Acute	Acute & Long	Acute & Long
New Jersey	4	1,599	17.9	8,944,469	2,065	23.1	4.1%	11.4%	Not Used	Acute & Long	Acute & Long
New Mexico	1	53	2.5	2,081,015	579	27.8	15.0%	36.0%	NR	Acute & Long	Acute & Long
New York	25	4,076	20.6	19,745,289	6,389	32.4	19.9%	28.0%	Acute & Long	NR	NR
North Carolina	3	804	7.9	10,146,788	1,872	18.4	2.0%	1.3%	Acute & Long	Acute & Long	Acute & Long
North Dakota	1	137	18.1	757,952	652	86.0	7.0%	35.0%	Not Used	Acute & Long	Acute & Long
Ohio	6	1,028	8.9	11,614,373	6,933	59.7	15.0%	66.0%	Not Used	Acute & Long	Acute & Long
Oklahoma	2	385	9.8	3,923,561	1,285	32.8	10.8%	54.3%	Acute	Acute & Long	Acute & Long
Oregon	1	594	14.5	4,093,465	919	22.5	40.0%	40.0%	Not Used	Long Term	Acute & Long
Pennsylvania	6	NA	NA	12,784,227	NA	NA	47.0%	15.0%	Not Used	Acute & Long	Acute & Long
Rhode Island*	1	119	11.3	1,056,426	62	5.9	79.0%	29.0%	NR	NR	NR
South Carolina	4	657	13.2	4,961,119	1,145	23.1	11.3%	26.2%	Acute & Long	Acute & Long	Acute & Long
South Dakota	1	213	24.6	865,454	1,742	201.3	0.4%	0.0%	Acute & Long	Acute & Long	Acute
Tennessee	4	478	7.2	6,651,194	9,281	139.5	0.8%	13.2%	Not Used	Acute & Long	Acute & Long
Texas	11	2,351	8.4	27,862,596	14,317	51.4	45.2%	48.5%	Acute & Long	Acute & Long	Acute & Long
Utah	1	303	9.9	3,051,217	321	10.5	34.7%	32.1%	Long Term	Acute & Long	Acute & Long
Vermont	1	22	3.5	624,594	60	9.6	3.0%	3.0%	Not Used	Acute & Long	NR
Virginia	9	2,799	33.3	8,411,808	6,083	72.3	31.0%	37.0%	Acute & Long	Acute & Long	Acute & Long
Washington	3	1,207	16.6	7,288,000	1,898	26.0	46.0%	30.0%	Acute & Long	Acute & Long	Acute & Long
West Virginia	2	261	14.3	1,831,102	1,062	58.0	14.0%	44.0%	Not Used	Acute & Long	Acute & Long
Wisconsin	2	992	17.2	5,778,708	4,397	76.1	8.2%	1.6%	Acute	Acute & Long	Acute & Long
Wyoming	1	124	21.2	585,501	210	35.9	29.0%	30.0%	Not Used	Acute & Long	Acute & Long
Total	188	40,845	12.6	323,127,513	109,269	33.8	28%	**34%**	**14 = Both**	**39 = Both**	**43 = Both**
Median	3	446	11.1	4,436,974	1,074	28.0	18%	**30%**	**6 = Acute**	**3 = Acute**	**1 = Acute**
Maximum	25	6,663	54.2	39,250,017	14,317	201.3	100%	**100%**	**2 = Long**	**4 = Long**	**0 = Long**
Minimum	1	22	2.5	585,501	60.0	1.1	0%	**0%**	**22 = Not Used**	**1 = Not Used**	**1 = Not Used**
									5 = No Response	**4 = No Response**	**6 = No Response**

Number of Admissions and Residents from 2016 URS Table 6 *Short Term-Acute is defined as less than 30 day length of stay*

Number of State Psychiatric Hospitals, Percent Forensic, and Use of State Hospitals from 2015 State MH Profiles

** Rhode Island has state-operated psychiatric inpatient beds that are part of a general hospital*

Note: State Hospital Admissions & Discharges can be duplicated (e.g., one client can have multiple admissions/discharges during the year)

A few states focus their adult state psychiatric hospital services on short-term (less than 30 day) acute services, but most states currently use their psychiatric hospitals for both short- and long-stay adult patients. Twelve states now have policies for civil status patients requiring public general and local hospitals to be used as an initial admission site for psychiatric inpatient treatment before utilizing state hospital facilities.

To control admissions to state psychiatric hospitals, 20 states give community mental health providers some control over admissions. Community mental health providers may conduct pre-admission examinations and, in some states, have financial incentives to minimize unnecessary use of state psychiatric hospitals.[61]

As discussed in the section of this paper on trends over time, state psychiatric hospitals in 2016 are focused very differently than they were 40 to 50 years ago. In the 1970s and in earlier eras, state psychiatric hospitals served large numbers of:

- elderly patients, many with diagnoses of dementia;
- individuals with intellectual/developmental disorders (what was then called mental retardation); and
- long-stay patients who had been in the hospital for years because comprehensive community-based services and housing supports had not been developed and medications were not as effective in permitting movement into community-based settings.

From 1981 to today, state governments have drastically changed where they provide mental health services and where their financial support is spent for services. As discussed earlier, only 2 percent of the 7.3 million mental health consumers served by state mental health systems in FY 2015 received even one day of care in a state psychiatric hospital. However, the care those patients received was very expensive care. States expended $9.7 billion providing inpatient services in state psychiatric hospitals.

Expenditures for State Psychiatric Hospitals

Advocates sometimes charge that states have reduced funding of state psychiatric hospitals, but states were expending $5.8 billion more on state psychiatric hospitals in FY 2015 than they were in 1981 (an increase of 143 percent).[62] What states have done is drastically increase their funding for community mental health services over this same time period. Community mental health expenditures by SMHAs systems increased from $2 billion in 1981 to $32.6 billion in FY 2015, an increase of 1,427 percent. The result of the much slower increase in state psychiatric hospital expenditures and huge growth in community mental health expenditures has resulted in a major shift in the focus of care of state systems (see Figure 10).

[61] NRI 2015 State Profiles.
[62] NRI FY 2015 State Mental Health Agency Revenues and Expenditures Study.

Figure 10: SMHA-Controlled Expenditures for Inpatient Mental Health Services in State Hospitals and Community-Based Mental Health Services, FY 81 - FY15

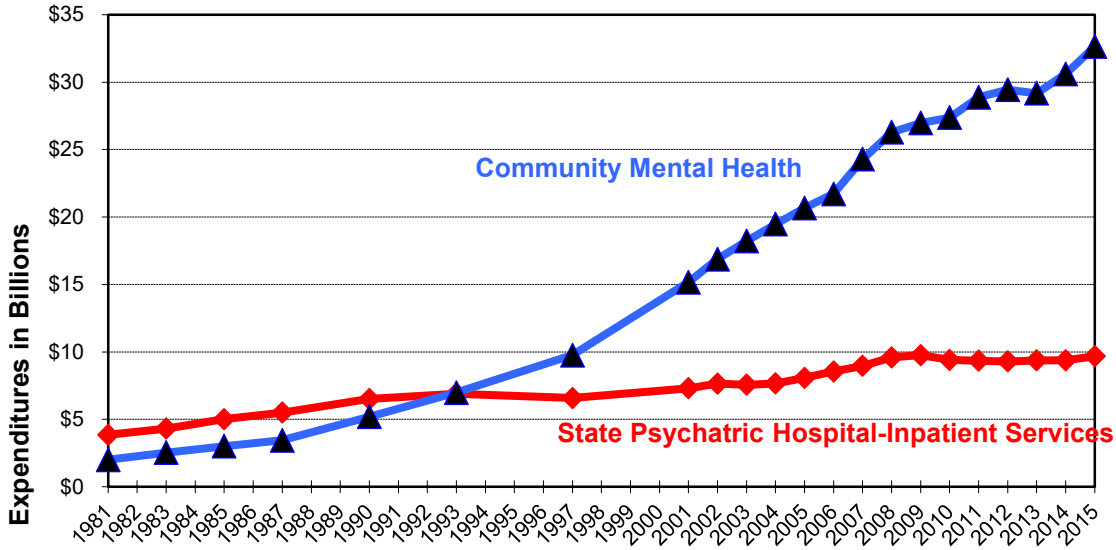


Figure 11 shows that state psychiatric hospitals have decreased from 63 percent of total SMHA expenditures in FY 1981 to only 22 percent of SMHA expenditures in FY 2015. During this same time, the percent of SMHA budgets devoted to community-based mental health treatment has increased from 33 percent to 75 percent. The balance (3 percent) of SMHA spending is for central office administration.

Figure 11: State Mental Health Agency Controlled Expenditures for State Psychiatric Hospital Inpatient and Community-Based Services as a Percent of Total Expenditures, FY 81 to FY 15

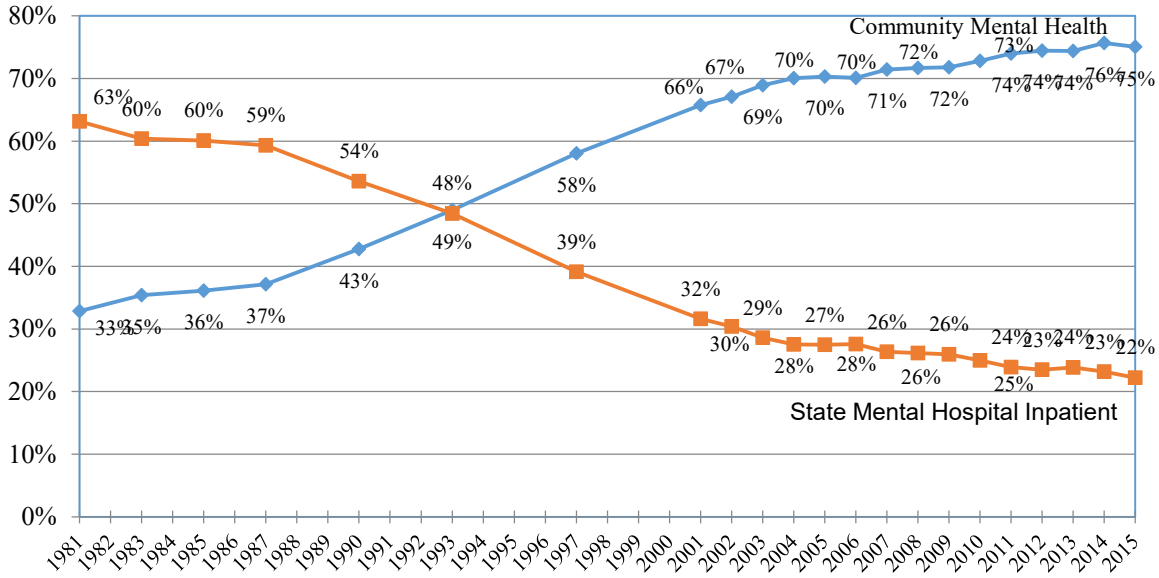
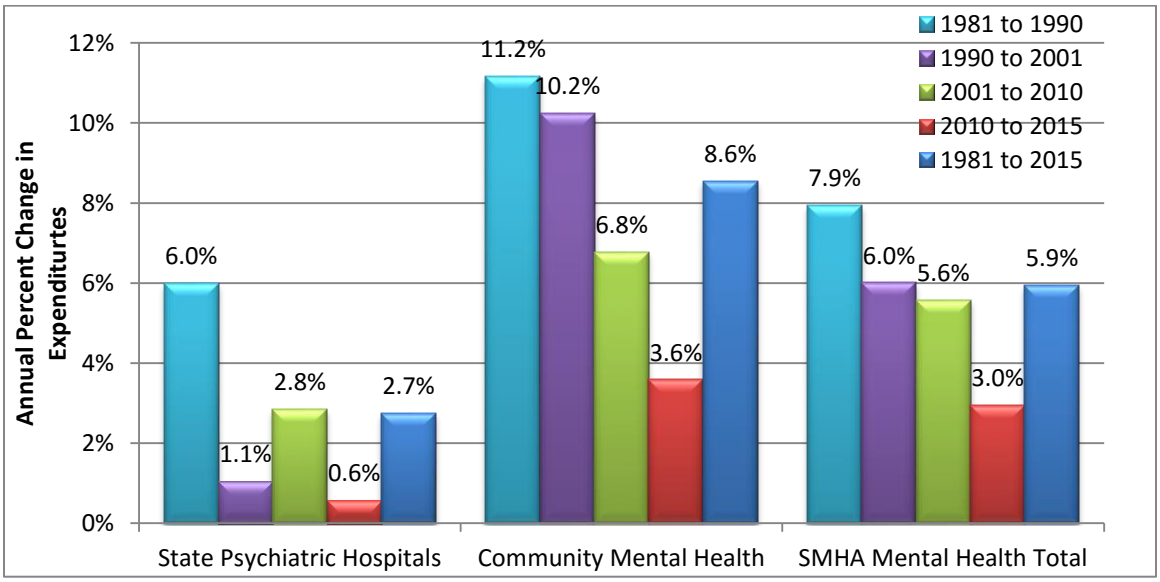


Figure 12 shows the change in SMHA-controlled expenditures for mental health by decade, from 1981 to 2015. Expenditures for state psychiatric hospitals increased in every

decade and averaged a 2.7 percent per year growth across the last 35 years. During the most recent five years (from 2010 to 2015) state psychiatric hospitals have experienced the slowest expenditure growth of any time period.

Community mental health expenditures and total SMHA expenditures have grown much faster than state hospital expenditures during each decade. There is also a trend of a decreased growth in expenditures for both community mental health and total SMHA expenditures over each of the past 4 decades.

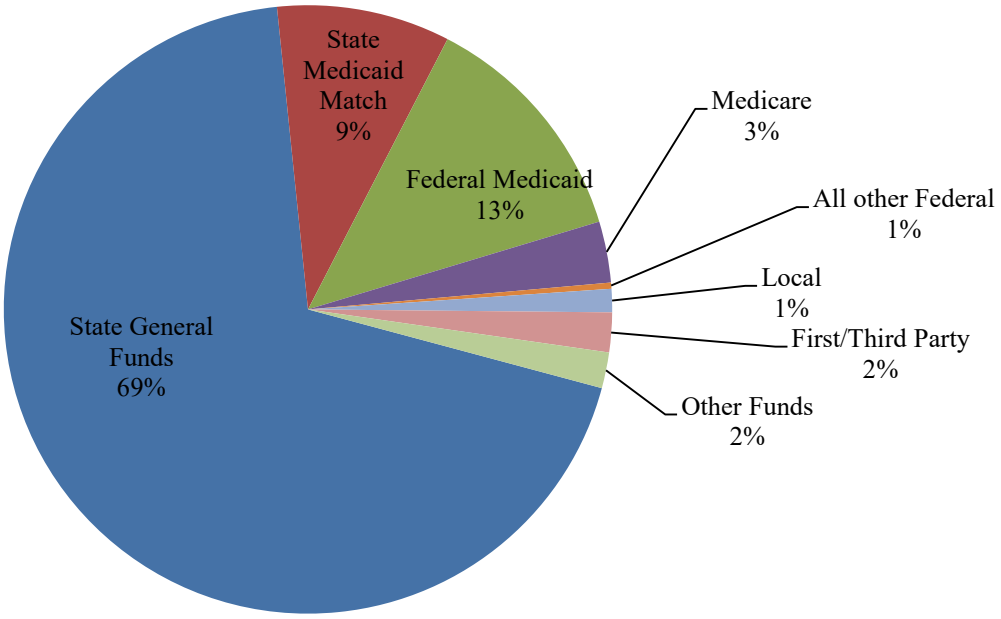
Figure 12: Annual Percent Change in State Mental Health Authority Expenditures for Mental Health Services in State Psychiatric Hospitals, Community Mental Health, and Total SMHA System, FY 81 to FY 15



Funding Sources for State Psychiatric Hospitals

State government tax revenues (primarily general fund appropriations by state legislatures) comprise the major source of funding for SMHAs. Public and private insurance plans have had a limited role in reimbursing state psychiatric hospitals for mental health treatments. In FY 2015, more than $7.4 billion in state general and special funds were expended for state psychiatric hospitals, representing 69 percent of total state hospital expenditures (see Figure 13). By comparison, state general and special funds represented only 27 percent of SMHA-controlled community mental health expenditures and Medicaid paid for 61 percent of community mental health services.

Figure 13: Funding Sources for State Psychiatric Hospitals, FY 2015



State Psychiatric Hospital Revenues: $10.7 billion

The Medicaid restriction on paying for services in IMDs limits the ability of both state and private psychiatric hospitals to bill for services for adults ages 22 to 64 (services in an IMD for children 21 and younger and older adults age 65 and older can be billed to Medicaid). The IMD restriction is likely a major reason for the disparity in Medicaid reimbursements for state psychiatric hospitals (22 percent vs 61 percent for community mental health programs).

Forensic Services within State Psychiatric Hospitals

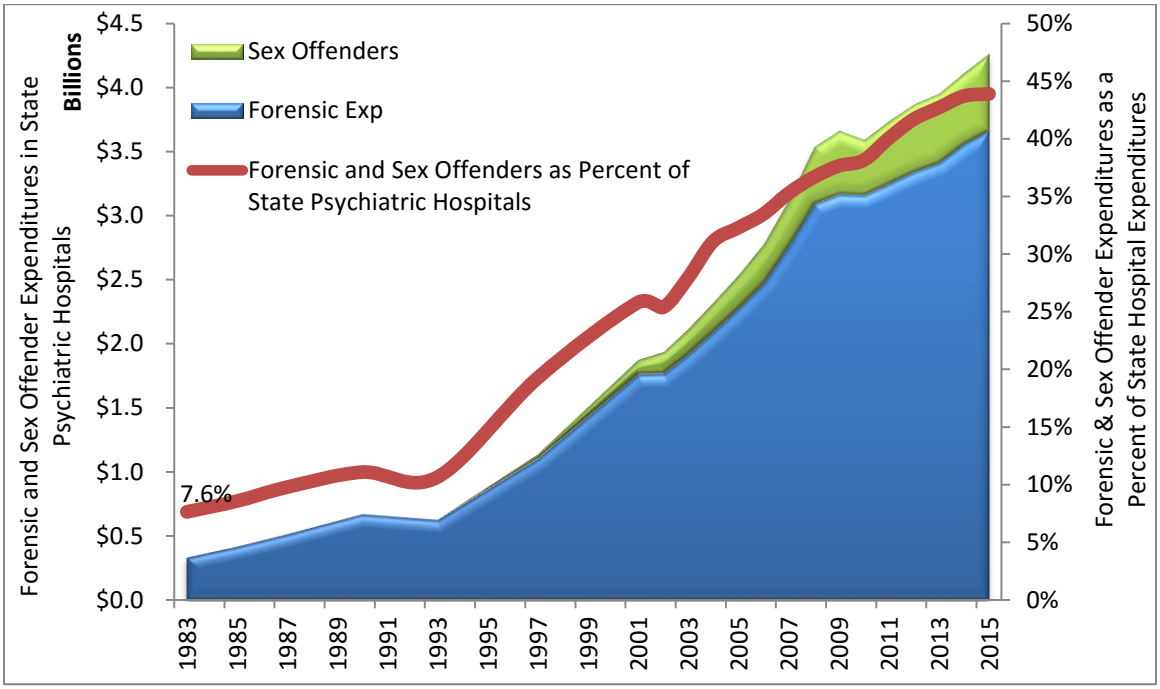
While overall state mental health expenditures have grown over time, there has been a shift within state psychiatric hospitals in most states to emphasize services for persons admitted under a forensic status — i.e., criminal court-ordered evaluations and treatment. State psychiatric hospital expenditures for forensic services have increased from $333 million in FY 1983 (7.6 percent of state psychiatric hospital expenditures), to 4.26 billion in FY 2015 (43.9 percent of state psychiatric hospital expenditures). In five states, 70 percent of expenditures are now spent on services for forensic patients.

Figure 14 shows the growth in expenditures for forensic services since fiscal year 1983 (when NRI began collecting forensic expenditure data), both in expenditure amounts and as a percentage of total state psychiatric hospital expenditures. From FY 1983 to FY 2015, expenditures for forensic and sex offender services in state psychiatric hospitals

grew at an annual rate of 8.3 percent while expenditures for civil status (non-forensic patients) grew at only 0.9 percent per year.

Treatment of sex offenders in state psychiatric hospital began to grow after 1997, following the U.S. Supreme Court decision in *Kansas v Hendricks* that the civil commitment of violent sex offenders to psychiatric hospitals was constitutional.[63] As of 2016, 20 states have enacted laws permitting the civil commitment of sex offenders.[64]

Figure 14: State Psychiatric Hospital Expenditures for Forensic and Sex Offender Services and Percent of State Hospital Expenditures for Forensic and Sex Offender Services, FY 1983 to FY 2015



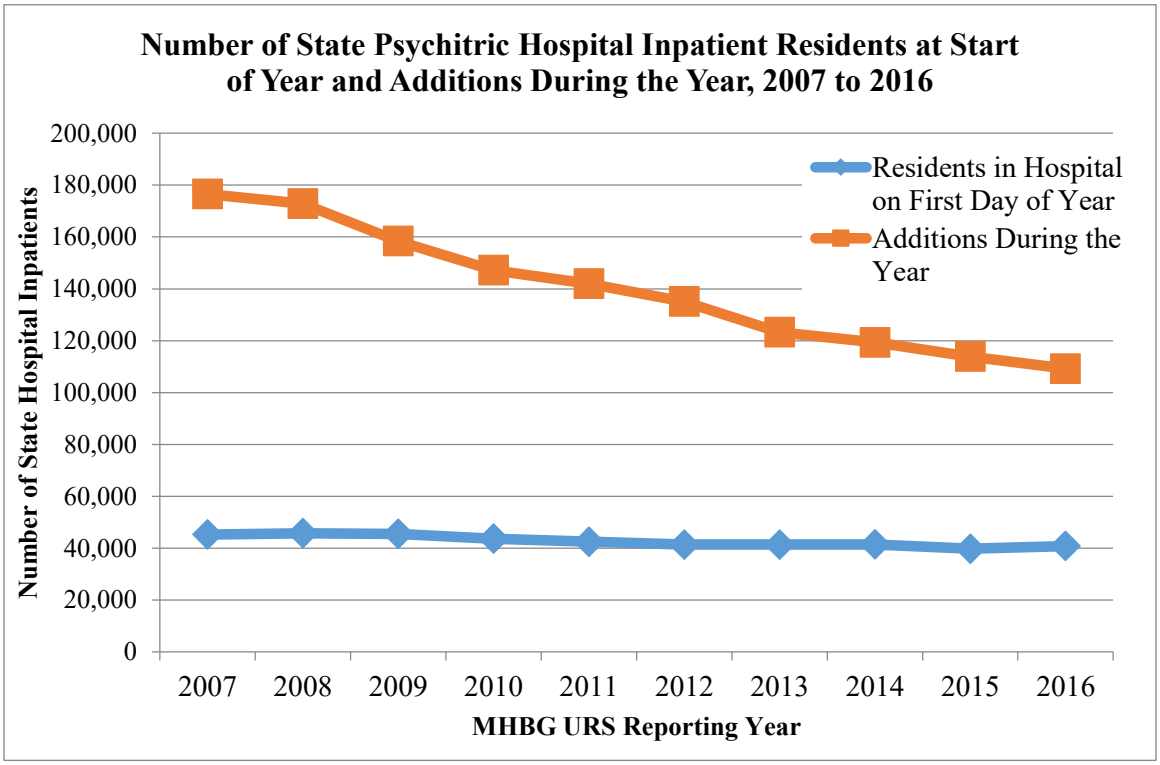
The increased use of state psychiatric hospitals to serve forensic and sex offender populations has grown to represent almost half of state psychiatric hospitals expenditures nationally; the vast majority of forensic patients receive inpatient services in state psychiatric hospitals. Figure 14 shows that 86 percent of forensic status inpatients were in state psychiatric hospitals. A 2014 report by NASMHPD noted that the provision of highly secure specialized forensic and sex offender services is becoming a service type unique to state psychiatric hospitals and is meeting increasing demand from court systems.[65]

[63] *Kansas v. Hendricks*, 521 U.S. 346 (1997).
[64] NRI 2015 State Profiles.
[65] Parks J., Radke A., and Haupt M, *The Vital Role of State Psychiatric Hospitals*, NASMHPD, Alexandria, VA (July 2014), http://www.nasmhpd.org/content/vital-role-state-psychiatric-hospitals-july-2014-0.

Recent Trend in Patients Served in State Psychiatric Hospitals

SAMHSA's Uniform Reporting System (URS) now collects annual information on the number of "additions" (additions are both admission and readmissions) during the year and the number of residents in state psychiatric hospitals on the first day of the year. The inclusion of additions data (no longer collected in SAMHSA's N-MHSS provider survey) provides information beyond the information about current hospital census and bed capacity. Figure 15 shows that while the number of residents in state psychiatric hospitals declined slightly from 2007 to 2016, there has been a much larger decrease in the number of additions to state psychiatric hospitals over that time period.

Figure 15: Number of Residents in State Psychiatric Hospitals and Number of Additions, 2007 to 2016



From 2007 to 2014, the URS data shows a 9 percent drop in the number of residents in state psychiatric hospitals on the first day of the year (a reduction from 44,995 residents in 2007 to 40,845 in 2016). During this same time, the number of additions to state psychiatric hospitals decreased by 41 percent (from 184,174 additions in 2007 to 109,269 in 2016).[66]

[66] SAMHSA Uniform Report System Data Accessed on the SAMHSA Website, https://www.samhsa.gov/data/reports-by-geography?tid=673&map=1.

Appendix C: Data Sources Containing Information about Psychiatric Inpatient and Other 24-Hour Residential Treatment Capacity

As discussed previously, no single source of data exists that addresses all of the various sources of mental health inpatient and other 24-hour treatment capacity. This paper makes use of a variety of data sources from SAMHSA, AHRQ, CMS, and national associations. Below is a brief descriptions of the content of various data sources used in this report:

AHRQ Healthcare Utilization Project HCUP, 1997 to Present: The Agency for Healthcare Research and Quality (AHRQ), established in 1989, is a Federal agency charged with improving the healthcare system's safety and quality. The Healthcare Cost and Utilization Project (HCUP) is a comprehensive, nationwide, source of data on hospital care with data as far back as 1997. HCUP is produced through a Federal, state, and industry partnership. Because data comparable to the SAMHSA surveys on residents in psychiatric inpatient beds on a single day are not available from the HCUP data, the authors of this report used HCUP data on total discharges by diagnosis throughout the year, along with average length of hospital stay for each diagnosis to calculate total patient days during the year, then dividing that by 365 days a year to estimate a proxy of how many mental health patients were in served in general hospitals on a single day. To calculate how many of these mental health patients were in scatter beds, as opposed to psychiatric units in general hospitals with data already collected by SAMHSA, the authors then subtracted this estimate from the SAMHSA-reported 30,864 patients in general hospitals with special psychiatric units.

Bureau of the Census -- Census of Patients in Mental Institutions, 1840-1946: The Bureau of the Census began collecting data on mental institutions on a decennial basis in 1840 and continued until 1900. In 1904, a census was conducted, but it was not until 1923 that a second one was undertaken. Beginning that year and continuing until 1946, the Bureau of the Census conducted an annual census of mental health facilities. In some years (1926 to 1930) the Census focused only on patients in state psychiatric hospitals. However, beginning in 1931, the annual census covered state, county and city, VA, and private psychiatric hospitals. Psychiatric wards in general hospitals were included annually beginning in 1939. The 1947 census was conducted by the Federal Security Agency of the Public Health Service, which established NIMH in 1949.

Census of State and County Mental Hospitals, 1949 to 1980, conducted by NIMH and the Center for Mental Health Services of SAMHSA: The Federal government has been conducting censuses of mental institutions since 1840. NIMH was established in 1949 and took over the census from the Bureau of the Census. There were a number of iterations of the census. From 1949 to 1966, censuses were conducted annually. From 1969 to 1980, NIMH conducted a census of state and county hospitals. When SAMHSA was created, it assumed responsibility of for the annual census of state and county mental hospitals. Results were published by SAMHSA each year in the report *Additions and Resident Patients at End of Year, State and County Mental Hospitals, by Age and Diagnosis, by State, United States*. The annual report includes detailed national and state data about admissions and residents in state and county psychiatric hospitals each year by

14 different diagnostic groups, by age (0-18, 18-24, 25-44, 45-64, 65 and over) and by race. Each state table shows number of patients in each cell, percent of patients, and rate per 100,000 population. NRI has hard copies of these reports for selected years from 1980 to 2005.

CMS Nursing Home Minimum Data Set (MDS), 1991 to Present: The Nursing Home Minimum Data set was established by legislation in 1987. By 1991, most states required nursing homes to begin implementing the MDS. The earliest version, MDS 1.0, was phased out by 1999 and supplanted by MDS 2.0 which in turn was supplanted by MDS 3.0 in 2010. MDS has data about major diagnoses of patients in nursing homes. Since most state psychiatric hospitals currently focus on serving patients with major mental illnesses and have ceased to focus on dementia and other disorders for elderly individuals, for the purpose of this estimate of psychiatric bed capacity, we have limited the nursing home capacity count to residents with schizophrenia or bipolar disorders. MDS data used in this report were acquired from Brown University, where it is available to researchers with information about (1) total patients and (2) percent of patients with a diagnosis of schizophrenia and bipolar disorders.

DOD: 2017: The Department of Defense's Defense Health Agency tracks information about hospitalizations in DOD Medical Centers by diagnoses. Mental Health diagnoses are identified in DOD reports as the leading causes of inpatient stays in DOD Medical Centers in the US. Standard DOD reports show the number of hospitalizations during a 12-month period, but do not provide information on bed capacity on a single day. (*See* Medical Surveillance Monthly Report).

To develop an estimate of mental health bed capacity, NRI staff reached out to staff at the Department of Defense. Justin Curry, PhD, Associate Director, PH Performance & Analytics Deployment Health Clinical Center Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury was very helpful. DOD conducted an analysis for us that identified the number of beds available for mental health patients under usual conditions (noting that in emergency situations, the number of beds count does not include substance use disorder inpatient stays).

Inventory of Mental Health Organizations (IMHO), 1980 to 2008: The IMHO was a biennial national survey of specialty mental health providers conducted by ADAMHA from 1980 to 1990 and by SAMHSA from 1992 to 2008. The Inventories collected information about: the number of inpatient beds; the number of inpatient, outpatient, and partial care admissions; average daily census; end of year census; staffing; and, in some years, revenues by source. The types of organizations included in the inventories were the following:

- Psychiatric hospitals (public and private), which were facilities primarily concerned with providing inpatient care to people with a mental illness (there was no distinction made at the time between hospitals and 24-hour residential treatment facilities;
- RTCs for children;
- Mental Health Partial Care Providers, which were free-standing and offered only day or night partial care;

- Multiservice Mental Health Providers, which provided services in two or more program elements in a setting that was not a psychiatric hospital, general hospital, or RTC;
- Community Mental Health Centers (CMHCs); and
- General hospitals with separate psychiatric services, which were hospitals that had separate psychiatric units or provided outpatient care.

Results are available in two NIMH and SAMHSA publication series *Mental Health United States,* and *Mental Health Statistical Notes*.

National Mental Health Services Survey (N-MHSS), 2010 to Present: SAMHSA's National Mental Health Services Survey (N-MHSS) collects information on the numbers and characteristics of all mental health facilities in the United States and its territories annually. The N-MHSS is the only source of state- and national-level data on publicly- and privately-operated specialty mental health providers, including public and private psychiatric hospitals, non-Federal general hospitals with separate psychiatric units, VA Medical Centers, RTCs for children and adults, outpatient facilities, partial hospitalization facilities, and multi-setting facilities. N-MHSS compiles information on the number of specialty mental health providers that provide psychiatric inpatient and residential services, as well as information on the number of residents in a bed in these facilities on the last day of the year. N-MHSS cycles with data about inpatient and other 24-hour residential patients are available for 2010 and 2014.

National Spending Estimates, 1984 to Present: SAMHSA has collected data on expenditures for mental health and substance use disorder treatment services since 1984 and has published the data annually since 1985. Behavioral health expenditures are also compared to overall health care expenditures. The National Spending Estimate uses HCUP data from AHRQ to estimate general hospital expenditures for mental health, including both specialty mental health and substance use disorder expenditures and scatter bed mental health and substance use disorder expenditures.

State Mental Health Agency Revenues and Expenditures Study, 1981 to Present, Annually since 2001: NRI has collected data on the revenues and expenditures of state mental health agencies since FY 1981 using a standardize methodology. Detailed funding sources and expenditure information is depicted in three major categories (1) state psychiatric hospitals, (b) community mental health services, and (3) SMHA central office and administrative expenditures. Information was compiled every two to three years from 1981 to 2001 and the study has been conducted annually since 2001.

Uniform Reporting System (URS), 2002 to Present: The URS includes data collected from SMHAs as part of their annual MHBG reporting requirements. The data are collected annually and cover all persons served by the SMHAs and in every service setting. States report the data based upon their state fiscal year.

State Profiles System, 1994 to 2015: Through the State Profiles System (Profiles), NRI has tracked SMHA initiatives in prevention and treatment of mental disorders. The Profiles databases provide descriptions of each SMHA's organization and structure, service systems, eligible populations, emerging policy issues, numbers of consumers served, fiscal resources, consumer issues, information management structures, and

research and evaluation initiatives. Questions within each of these categories are designed to address specific needs of behavioral health leadership and other stakeholders interested in public behavioral health systems, and support decision making, policy analysis, and research and evaluation initiatives.

VA, 2005 to 2014: The VA produces the National Mental Health Fact Sheet that report data on mental health service capacity, amount of services provided, and service settings from 2005 to 2014.

Publication Sources Available by Year by Type of Data

Residents at End of Year in Psychiatric Hospitals and Residential Treatment Beds at end of year

Year	State & County Psychiatric Hospitals	Private Psychiatric Hospitals	General Hospitals with separate Psychiatric Units	VA Medical Centers	RTCs	Other (CMHCs and Multi-Service MH Centers with Inpatient & Residential Treatment beds)	Source
1970	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS 1992, Table 1.5 (page 27)
1975	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS 1992, Table 1.5 (page 27)
1979	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS 1992, Table 1.5 (page 27)
1983	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS 1992, Table 1.5 (page 27)
1986	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS 1992, Table 1.5 (page 27)
1988	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS 1992, Table 1.5 (page 27)
1990	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS 2004, Table 19.5 (page 208)
1994	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS 2004, Table 19.5 (page 208)
1998	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS 2004, Table 19.5 (page 208)
2000	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS 2004, Table 19.5 (page 208)
2002	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS 2004, Table 19.5 (page 208)
2010	N-MHSS	N-MHSS	N-MHSS	N-MHSS	N-MHSS	N-MHSS	N-MHSS* 2010, SAMHSA report Table 2.2, VA
2014	N-MHSS	N-MHSS	N-MHSS	VA	N-MHSS	N-MHSS	N-MHSS* 2014, SAMHSA report Table 2.3, VA
1970	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS 1992, Table 1.3 (page 25)
1976	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS 1992, Table 1.3 (page 25)
1979	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS 1992, Table 1.3 (page 25)
1983	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS 1992, Table 1.3 (page 25)

Publication Sources Available by Year by Type of Data (cont'd)

Residents at End of Year in Psychiatric Hospitals and Residential Treatment Beds at end of year

	State & County Psychiatric Hospitals	Private Psychiatric Hospitals	General Hospitals with separate Psychiatric Units	VA Medical Centers	RTCs	Other (CMHCs and Multi-Service MH Centers with Inpatient & Residential Treatment beds)	Source
1986	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS 1992, Table 1.3 (page 25)
1988	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS 1992, Table 1.3 (page 25)
1990	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS 2004, Table 19.3 (page 205)
1994	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS 2004, Table 19.3 (page 205)
1998	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS 2004, Table 19.3 (page 205)
2000	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS* 2004, Table 19.3 (page 205)
2002	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS	MHUS* 2004, Table 19.3 (page 205)

* Note, N-MHSS data are "Inpatient Residents" (excludes Residential beds)

Acknowledgement

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