DUFF & PHELPS

Industry Insights: Behavioral Health

Past to Present: A Primer on Inpatient Behavioral Health Facilities

December 2016

Highlights

Over the last 50 years, deinstitutionalization and the IMD Exclusion, which prior to 2016, excluded Medicaid reimbursement for most inpatient treatment of substance abuse and mental health, have significantly changed the behavioral healthcare landscape – from inpatient to outpatient facilities and from institutions to community-based treatment programs.

The 2016 IMD Exclusion official rule, which now provides Medicaid reimbursement for 15-day inpatient mental health and addiction services for enrollees aged 21-64, could pave the way for increasing reimbursement and investment in freestanding inpatient psychiatric facilities.

Large strategic acquirers and private equity investors continue to invest in inpatient psychiatric hospitals and substance abuse treatment facilities to penetrate new geographies and capitalize on industry fragmentation.

BY THE NUMBERS

93%

In 1955 there were 558,239 public psychiatric beds available, or 340 beds per 100,000 people. By 2012 only 40,305 public psychiatric beds remained a 93% reduction in bed capacity to 13 beds per 100,000 people.

25%

Thirteen states closed 25% or more of their total state hospital beds from 2005 to 2010[1].

26%

In 2012 the U.S. provided only 26% of the minimum number of public psychiatric beds deemed necessary for adequate psychiatric services (50/100,000)[2].

[1] No Room at the Inn, Treatment Advocacy Center (http://www.tacreports.org/storage/documents/no_room_at_the_inn-2012.pdf)
[2] The Shortage of Public Hospital Beds, Treatment Advocacy Center (http://www.treatmentadvocacycenter.org/storage/documents/the_shortage_of_publichospital_beds.pdf)

Historical Inpatient Behavioral Health Trends and the Evolution of Reimbursement

Since the 1960s, the number and capacity of inpatient psychiatric hospital facilities, mostly state operated, has fallen sharply. Deinstitutionalization and the Medicaid Institutions for Mental Disease Exclusion (the "IMD Exclusion") have been the two primary factors affecting inpatient psychiatric hospitals over the last 50 years. Although deinstitutionalization and the IMD Exclusion have curtailed the reimbursement available to and ultimately the use of inpatient psychiatric hospitals both public and private, these facilities remain a critical part of the behavioral healthcare delivery network serving patients with severe chronic and forensic mental illnesses. As the shift toward value-based healthcare models continues, the utility and perception of inpatient psychiatric hospital facilities are now being reexamined.

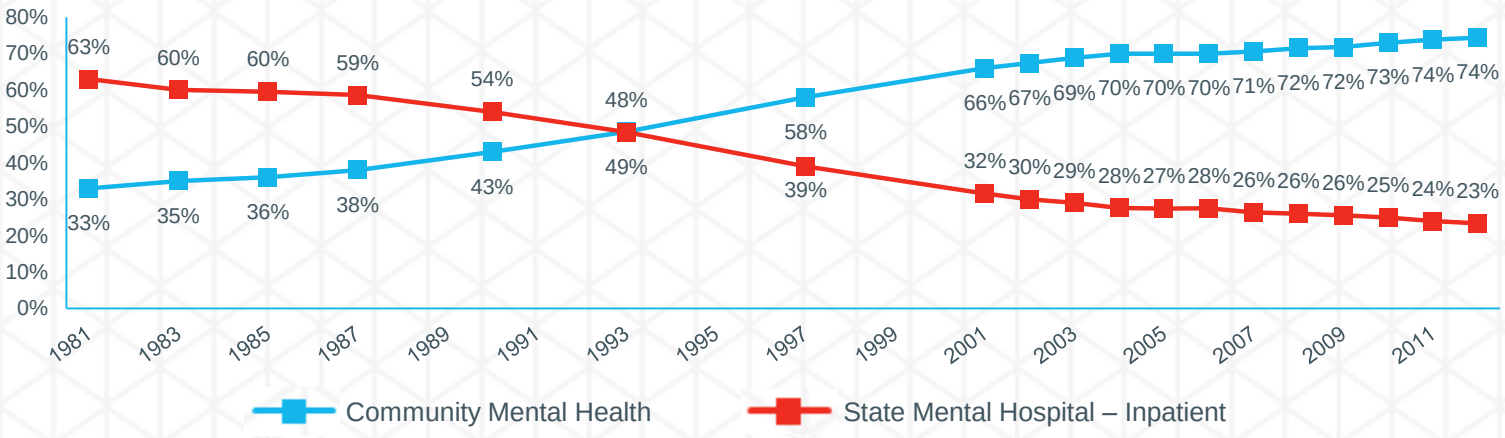
Deinstitutionalization

Inpatient psychiatric facilities, especially state-run facilities, primarily serve two needs: i) they act as the provider of last resort for patients with severe and chronic mental illness who cannot seek care in other settings and ii) they protect the public safety by providing care for patients with a forensic mental illness.

In the 1950s, there were over 320 state run psychiatric hospitals serving approximately 339 people per 100,000, or 0.3%, of the U.S. population. State governments have historically funded and operated psychiatric hospitals, constituting a significant portion of the mental healthcare system. However in the 1960s, public awareness began to grow regarding the unreasonable standards of care at state run psychiatric hospitals. Reports of patient abuse and poor conditions in these facilities prompted a desire to move patients out of inpatient facilities and into less-restrictive and inexpensive outpatient community-based treatment programs.

In 1963, the Community Mental Health Act was passed to provide federal funding for community-based mental health centers across the United States, shifting the cost of care from state resources to federal dollars and significantly contributing to the deinstitutionalization trend. As a result, states became incentivized to move patients to community-based treatment settings as increased federal reimbursement led to lower costs for states. This change signaled a large shift in state government expenditures away from psychiatric hospital inpatient services and towards community-based mental health services[3]. As shown in the chart below, 74% of state mental health expenditures in 2012 were allocated towards community-based mental health services, while only 23% were devoted to state mental hospital inpatient services, down from 63% in 1981[4].

State Mental Health Agency Controlled Expenditures for State Psychiatric Hospital Inpatient and Community-Based Services as a Percent of Total Expenditures: 1981 – 2012



Source: http://www.nasmhpd.org/sites/default/files/The%20Vital%20Role%20of%20State%20Psychiatric%20HospitalsTechnical%20Report_July_2014.pdf

[3] The Vital Role of State Psychiatric Hospitals, National Association of State Mental Health Program Directors (NASMHPD) (http://www.nasmhpd.org/sites/default/files/The%20Vital%20Role%20of%20State%20Psychiatric%20HospitalsTechnical%20Report_July_2014.pdf)

[4] The Vital Role of State Psychiatric Hospitals, National Association of State Mental Health Program Directors (NASMHPD) (http://www.nasmhpd.org/sites/default/files/The%20Vital%20Role%20of%20State%20Psychiatric%20HospitalsTechnical%20Report_July_2014.pdf)

Historical Inpatient Behavioral Health Trends and the Evolution of Reimbursement (Continued)

At the same time, the development of pharmacological drugs such as chlorpromazine and non-selective monoamine oxidase inhibitors for the treatment of psychosis and depression provided new treatment options. The introduction and growth in psychotropic drug treatments allowed previously institutionalized patients to be treated effectively in low-acuity, community-based outpatient programs. Progress related to mental health patients' rights further supported the move toward deinstitutionalization. In certain cases, patients' rights lawsuits have been used by mental health administrators to support deinstitutionalization efforts. Deinstitutionalization has greatly affected the number of inpatient psychiatric beds operated by both state and private facilities. Intensive community-based treatment that utilizes case management, medication management and residential treatment centers continue to contribute to the reduction in populations treated within dedicated inpatient psychiatric facilities.

The IMD Exclusion

Established in 1965, the IMD Exclusion originated when the treatment of mental illness was primarily performed in large state-operated psychiatric facilities and patients were typically admitted for long-term stays. The IMD Exclusion was designed to ensure that states have primary financial responsibility for funding long-term institutionalization of behavioral health patients in large IMD facilities. The IMD Exclusion is one of the few instances in which federal Medicaid law prohibits federal contribution to the cost of medically necessary care delivered by licensed medical providers to enrolled program beneficiaries.

An IMD facility is defined as a hospital, nursing facility or other institution containing more than 16 beds that is primarily engaged in diagnosing and treating people with mental diseases. IMD facilities do not include facilities with less than 17 beds, facilities that do not institutionalize their patients or that provide out-patient day treatment programs and facilities where less than half of the beds are not focused on behavioral healthcare (such as a traditional hospital where only a minority of its beds are dedicated to psychiatric treatment).

Along with facility type, patient age plays a significant role in determining IMD Exclusion reimbursement. While Americans ages 21-64 are subject to the IMD Exclusion, several amendments to Medicaid permit reimbursement for patients 65 years and older and patients 21 years and younger who are treated in an IMD facility. However, according to the Centers for Medicare and Medicaid Services ("CMS"), 7.1% of adults currently meet the criteria for a serious mental illness and an estimated 13.6% of uninsured adults within the Medicaid expansion population have a substance use disorder. This data underscores the need to improve Medicaid reimbursement for inpatient psychiatric and substance abuse disorder treatment[5].

As intended over the last 50 years, limiting Medicaid reimbursement via the IMD Exclusion has diminished the role of inpatient psychiatric facilities in providing behavioral healthcare.

[5] Capitol-to-Capitol, Metrochamber (https://metrochamber.org/wp-content/uploads/2016/04/02_Healthcare-Mental-Health...pdf)

The Impact of Deinstitutionalization and the IMD Exclusion on Inpatient Behavioral Health Facilities

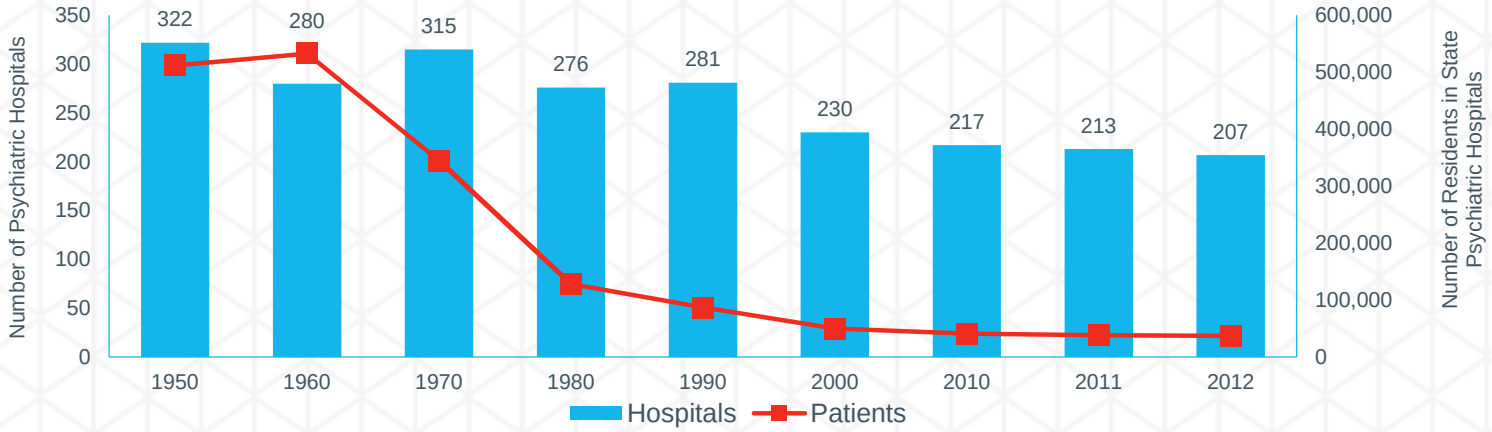
As a result of deinstitutionalization and the Medicaid IMD Exclusion, the number of state run psychiatric hospitals and beds has fallen sharply. In 1955, there were 558,239 state hospital beds available in the United States dedicated to acutely ill psychiatric patients. In 2005, a total of only 52,539 public psychiatric beds remained, representing more than a 90% reduction in psychiatric hospital bed capacity since 1955 The number of public psychiatric hospital beds continues to fall. During the five-year period from 2005 to 2010, 38 states reduced the number of beds available, 10 states added beds and two states remained unchanged. The total public psychiatric hospital bed count fell an additional 14% to 43,318 during the same period[6].

Concurrent with the dramatic decline in the number of hospital beds, the number of state psychiatric hospitals has declined by 56% during the period from 1950 to 2012, from 322 to 207 facilities. While the reduction in state psychiatric hospital facilities (and, as a result, the number of beds) has been driven by economic forces (limitations on reimbursement and the emphasis on community-based programs), the clinical demands of the severely mentally ill remain high. Although psychotropic drug treatments and community-based programs have been effective, some patients require hospitalization but lack access to adequate facilities. Out of necessity, many acute-care hospitals have dedicated beds to behavioral health patients to fill the void from disappearing dedicated inpatient psychiatric hospitals and to meet the need of Medicaid beneficiaries seeking psychiatric care in overcrowded emergency departments. These facilities are not subject to the IMD Exclusion given the fact that only a minority of their beds are used for behavioral health diagnosis and treatment.

The increase in general hospital beds dedicated to behavioral health was a result of the supply/demand imbalance for inpatient psychiatric hospital beds. The number of psychiatric beds in general hospitals increased over twofold, from approximately 22,000 in 1970 to just over 54,000 by 1998. However, during this same period, public psychiatric beds declined by 85%, from 400,000 to 63,000. And while private psychiatric hospital beds more than doubled, from over 14,000 to 33,000 in this 28-year period, the number of private psychiatric facilities decreased by 27% between 1992 and 1998.

California is an example of a state with significant undersupply of inpatient behavioral health beds. In California about 16% of the adult population, or approximately four million people, suffer from behavioral health issues[7]. However, the state continues to experience a comprehensive lack of mental healthcare treatment services. From 1995 to 2013, the state sustained a significant decline in the number of inpatient psychiatric facilities and available beds. During this period, the state closed 43, or 24% of, facilities, and 2,673 beds, representing a 29% decrease in beds[8].

Number of State Psychiatric Hospitals and Resident Patients at End of Year: 1950 – 2012[(9)]



[6] The Shortage of Public Hospital Beds, Treatment Advocacy Center (http://www.treatmentadvocacycenter.org/storage/documents/the_shortage_of_publichospital_beds.pdf)
[7] Public Mental Health Delivery and Financing in California, California Healthcare Foundation (http://www.chcf.org/~/media/MEDIA%20LIBRARY%20Files/PDF/PDF%20C/PDF%20ComplexCaseMentalHealth.pdf)
[8] California Hospital Association. California's Acute Psychiatric Bed Loss, 2015.
[9] The Vital Role of State Psychiatric Hospitals, National Association of State Mental Health Program Directors (NASMHPD) (http://www.nasmhpd.org/sites/default/files/The%20Vital%20Role%20of%20State%20Psychiatric%20HospitalsTechnical%20Report_July_2014.pdf)

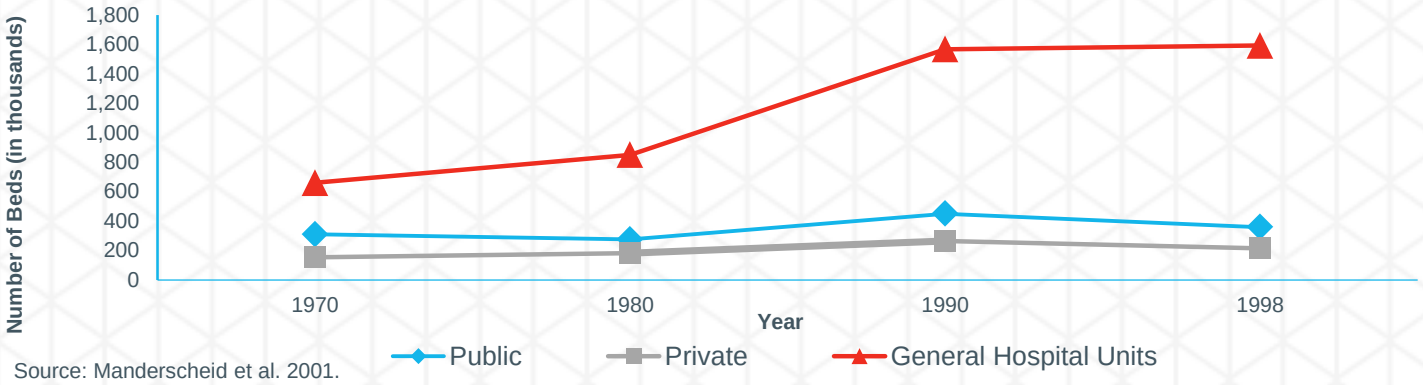
The Impact of Deinstitutionalization and the IMD Exclusion on Inpatient Behavioral Health Facilities (Continued)

A study in California concluded that 50 public psychiatric beds per 100,000 individuals is the absolute minimum number required to meet current needs[9]. Yet, according to the California Hospital Association, the state has consistently been far behind this target and the national average. In 1995 the state had only 29.5 beds per 100,000 residents and in 2013 the state had less than 50% of the minimum number required beds per capita (17.4 beds per 100,000 residents). These results represent a loss of approximately 40% of the beds per capita since 1995.

California's large unmet need for behavioral health services has been guided by state and federal legislative enactments altering the fiscal relationship between California's state and local governments. These policy changes fueled the state's movement away from institutional settings and have created inadequate numbers of inpatient psychiatric beds and facilities for the state's growing demand for mental health services.

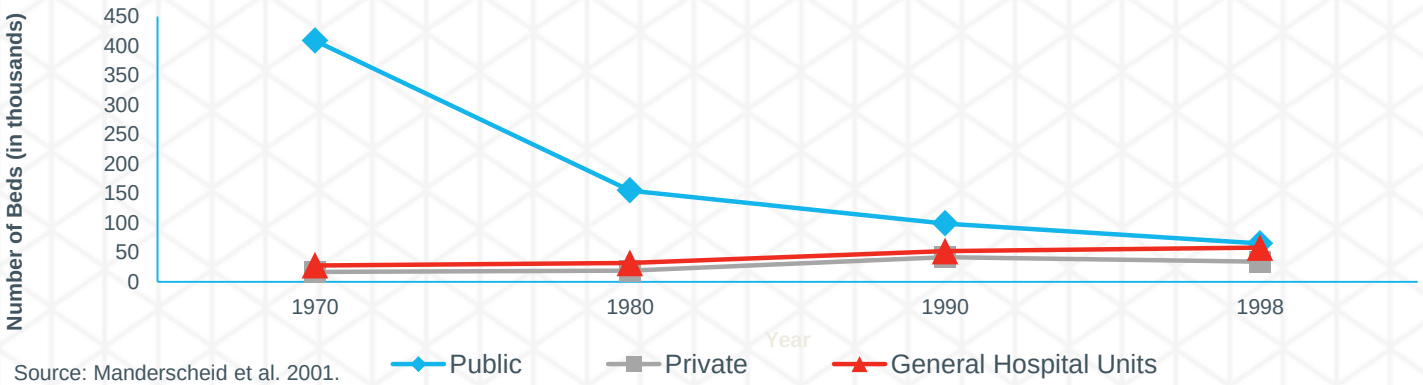
In summary, issues regarding access to adequate behavioral healthcare continue to persist. The psychiatric units in general hospitals have too few beds to support patients needing extended or specialty treatment. The reduction of approximately 350,000 public psychiatric hospital beds was only partially offset by the combined increase in the number of private and general hospital psychiatric beds (approximately 50,000)[10]. Not only does the declining number of beds create a supply/demand imbalance, but the geographic proximity of these facilities to the patient population continues to present core access challenges. The geographic disparity increases the cost and complexity of providing care to patients at these facilities and emphasizes the demand for inpatient behavioral health services in local communities.

Number of Psychiatric Hospitals by Ownership Type, 1970 – 1998



Source: Manderscheid et al. 2001.

Number of Psychiatric Hospital Beds by Ownership Type, 1970 – 1998



Source: Manderscheid et al. 2001.

[9] California's Acute Psychiatric Bed Loss, California Hospital Association (http://www.calhospital.org/sites/main/files/file-attachments/6_-_psychbeddata.pdf)
[10] Medicaid Financing of State and Country Psychiatric Hospitals, Substance Abuse and Mental Health Services Administration (SAMHSA) (https://store.samhsa.gov/shin/content/SMA03-3830/SMA03-3830.pdf)

Recent Legislation Regarding the IMD Restriction

On April 25, 2016, the CMS issued a long-awaited official rule meaningfully changing the IMD Exclusion provisions in response to access concerns over inpatient psychiatric and substance use disorder services. For the first time ever, the final rule allows for managed care organizations under Medicaid to pay for short-term inpatient treatment in a facility with more than 16 beds (however, the IMD Exclusion has not changed with respect to fee-for-service Medicaid payments). As a result of the IMD changes, managed Medicaid plans may now cover 15-day inpatient mental health and addiction services for enrollees aged 21-64 years[11].

For patients in need of inpatient psychiatric treatment who may have historically turned to general hospital emergency departments, the IMD Exclusion change is expected to have a positive impact on utilization rates at inpatient treatment facilities, including freestanding psychiatric hospitals, notes Mark J. Covall, President and CEO of the National Association of Psychiatric Health Systems (NAPHS)[12]. Stand-alone short and long-term psychiatric facilities, which have never received Medicaid reimbursement in the past, may likely expected to attract investment as a result. This radical break for Medicaid may increase access to acute mental-health and substance-abuse services for low-income adults, who historically used general hospital emergency departments for treatment.

While the rule limits coverage of adult IMD stays to no more than 15 days, CMS indicates that patients could receive two payments for consecutive months if the length of stay exceeded 15 days, with no more than 15 days occurring in each month. However, the 15-day limit is still inconsistent with prevailing parity laws – a patient with Medicaid coverage who is admitted for cancer treatment would not have a 15-day limit on inpatient treatment.

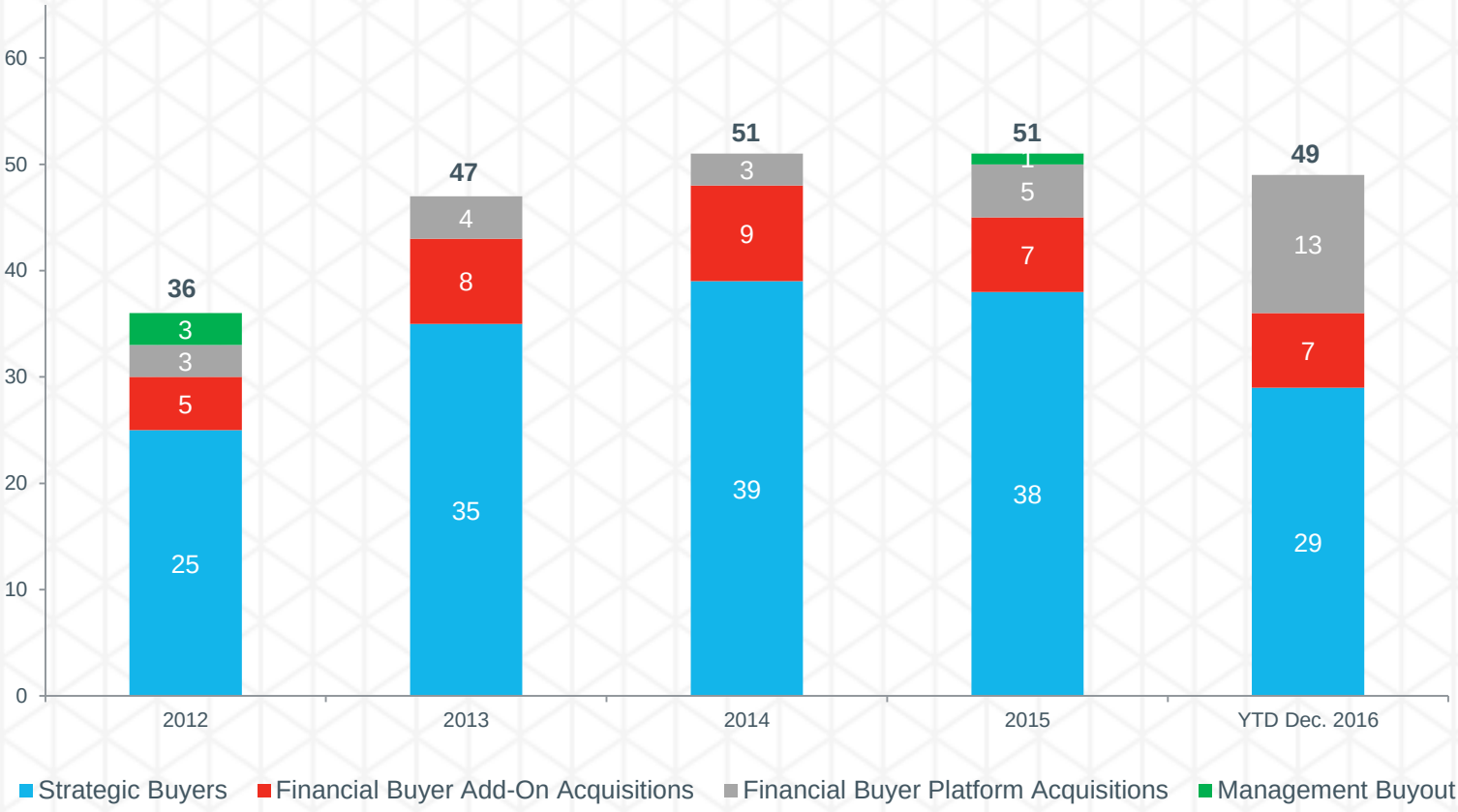
This rule is likely only the beginning of additional changes to the IMD Exclusion and Medicaid expansion of behavioral health services. For example, potential changes in fee-for-service Medicaid payments could further improve the access to inpatient behavioral health services for many Americans.

[11] Medicaid Rule Puts IMD Exclusion in Better Context, Behavioral Healthcare Executive (http://www.behavioral.net/article/medicaid-rule-puts-imd-exclusion-better-context)
[12] Medicaid Rule Puts IMD Exclusion in Better Context, Behavioral Healthcare Executive (http://www.behavioral.net/article/medicaid-rule-puts-imd-exclusion-better-context)

M&A Activity 2016*

49 behavioral health transactions were announced through December 1, 2016, putting the sector on track to surpass record deal volume levels set in 2015. Strong M&A activity has been fueled by large, well-capitalized strategic operators driving growth through international geographic expansion (i.e., behavioral health assets in the UK) and inpatient behavioral health facility acquisitions. Deal volume has also been supported by financial sponsors capitalizing on the fragmented inpatient hospitalization, residential treatment and intensive outpatient addiction treatment market. For the first 11 months of the year, strategic buyers have accounted for 59% of transactions, compared to 75% through the same period of 2015. Financial sponsor platform and add-on acquisitions represented 41% of announced deals, compared to 22% in 2015.

Facility Operators by Owner Type



Source: S&P Capital IQ (as of December 1, 2016)
*Source: Company press statements and Capital IQ

M&A Case Studies*

Acadia Healthcare Company, Inc. (NasdaqGS:ACHC)

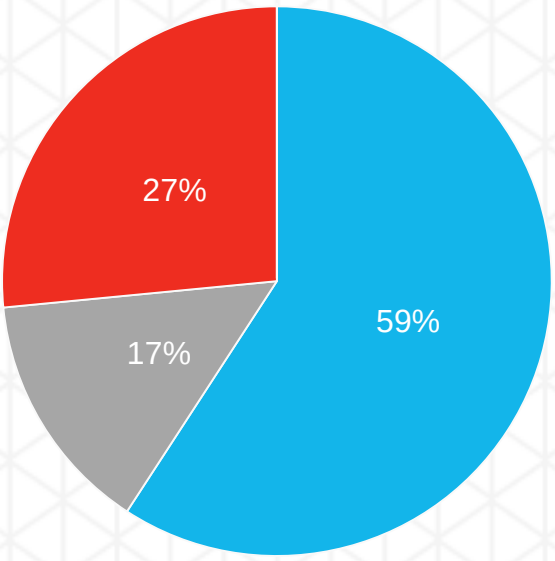
Acadia Healthcare Company, Inc. (“Acadia”) is a premier pure-play behavioral health service provider. The company provides behavioral health and addiction services to its patients in a variety of settings, including inpatient psychiatric hospitals, residential treatment centers, outpatient clinics and therapeutic school-based programs. Acadia was established in 2005 to acquire, develop and operate behavioral healthcare facilities. Acadia’s M&A strategy has created significant momentum, with 591 facilities and approximately 17,800 beds in 39 states, the UK and Puerto Rico.

Since 2011, the company has spent $5.3 billion on acquisitions. In 2016 alone, Acadia has completed four inpatient behavioral health acquisitions, totaling approximately $2.3 billion. The company’s most significant acquisition includes the $2.2 billion purchase of Priory Group, representing 10.3x Priory’s 2015 estimated adjusted EBITDA of $216 million. Priory is a leading provider of behavioral healthcare services in the U.K with revenues of $1.3 billion, 381 locations and 9,300+ beds. Joey Jacobs, CEO of Acadia, remarked, “This transaction strongly validates our strategic decision to enter the UK 18 months ago and our ongoing investment in the country, which has expanded our current presence to 54 inpatient facilities with approximately 2,200 beds. We believe the favorable industry dynamics that support this strategy – in particular, a long-term increase in the need for independent sector support for inpatient behavioral health.” On a pro forma basis, for the year ended December 31, 2015, including all acquisitions completed in 2014 and 2015, and the Priory Group acquisition completed in February 2016, the UK accounts for approximately 45% of Acadia's revenue.

Acadia has also driven strong growth through the first three quarters of 2016 by acquiring three U.S.-based inpatient psychiatric facilities. On June 1, 2016, the company completed the acquisition of Pocono Mountain Recovery Center, an inpatient psychiatric facility with 108 beds located in Henryville, Pennsylvania, for total consideration of approximately $25.2 million. On May 1, 2016, the company completed the acquisition of TrustPoint Hospital, an inpatient psychiatric facility with 100 beds located in Murfreesboro, Tennessee, for cash consideration of approximately $62.7 million. On April 1, 2016, the company completed the acquisition of Serenity Knolls, an inpatient psychiatric facility with 30 beds located in Forrest Knolls, California, for cash consideration of approximately $9.7 million.

Acadia expects to continue building on its acquisition-driven growth strategy, focusing on strengthening its UK and U.S. in-patient behavioral health facility acquisitions.

YTD December 2016 Transactions by Acquirer Type



Source: S&P Capital IQ (as of December 1, 2016)
*Source: Company press statements and Capital IQ

M&A Case Studies* (Continued)

Universal Health Services, Inc. (NYSE:UHS)

Universal Health Services, Inc. ("UHS") is one of the largest behavioral health and hospital management companies in the U.S. and UK The company operates more than 240 behavioral health, acute-care hospitals, surgical hospitals, surgery centers and ambulatory centers. UHS's behavioral health segment alone operates 213 inpatient and 16 outpatient facilities throughout the U.S. and UK Net revenues from the company's behavioral health facilities have accounted for approximately 50% of consolidated revenues each year over the past four years.

UHS has actively sought to expand its behavioral health operations through acquisitions. UHS's 2015 acquisition of Alpha Hospitals Holdings and 2014 purchase of Cygnet Health Care have established the company's presence in the UK Additionally, the company has focused on acquiring inpatient behavioral health facilities and adding beds to existing facilities – UHS's inpatient admissions have increased 27% from 2011 to 2015.

In 2015, the company spent a collective $534 million to acquire Foundations Recovery Network consisting of four inpatient facilities (322 beds) as well as eight outpatient centers, Alpha Hospitals Holdings consisting of four behavioral health care hospitals (305 beds) in the U.K and a 46-bed inpatient behavioral health care facility in the UK In response to UHS's acquisition of Alpha Hospitals, Alan Miller, CEO of UHS, stated, "We are pleased to announce the acquisition of Alpha and welcome them into our growing system in the UK The facility locations are an excellent geographical fit and their services are complementary to Cygnet Health Care's existing portfolio."

In September 2014, UHS acquired Cygnet Health Care, one of the largest independent providers of behavioral health services in the U.K, for $335 million. The acquisition added 17 facilities located throughout the U.K, including 15 inpatient behavioral health hospitals and two nursing homes, with a total of 723 beds. With the addition of Cygnet Health Care, UHS's U.K behavioral health division now operates a total of 21 hospitals and approximately 1,100 beds in the country. In addition to acquiring Cygnet, UHS acquired two U.S.-based facilities in 2014, including Psychiatric Institute of Washington, a 124-bed freestanding psychiatric hospital in the District of Columbia, and Palo Verde Behavioral Health, a 48 bed adult inpatient psychiatric facility.

In addition to UHS's growth through acquisitions, in 2015 the company responded to the continuing demand for more acute inpatient beds by adding 344 beds to existing facilities and converting existing residential treatment beds. In 2014, the behavioral health division added more than 600 new acute inpatient psychiatric beds to existing facilities through expansion projects and conversion of existing residential beds to acute psychiatric inpatient beds.

The company is expected to continue pursuing acquisitions that may help expand its international footprint, particularly in the UK, going forward. The company is also expected to sustain its growing number of inpatient facilities through both acquisition and the addition of beds to existing facilities.

M&A Case Study - US HealthVest

On June 30, 2016, Oak HC/FT, a leading growth equity fund investing in healthcare services and technology companies, led a $50 million equity investment in US HealthVest ("USHV") alongside existing investors Polaris Partners and F-Prime Capital Partners, for the new development and coverage expansion of behavioral healthcare and psychiatric hospitals.

US HealthVest is an innovative behavioral healthcare company that is redefining the psychiatric hospital sector, providing specialized psychiatric care to patients with a full range of inpatient and day hospital services for children, adolescents, adults and seniors. Oak HC/FT noted, "USHV operates in a $16 billion sub-segment of behavioral health with meaningful supply-demand imbalance due to a 42% decline in psychiatric hospital beds over the last two decades." USHV identifies underserved communities with unmet demand and/or Certificate of Need processes and seeks to acquire undermanaged, or build de-novo, inpatient psychiatric hospitals.

"Expanded mental health coverage due to the ACA and CMS's recent decision to lift the IMD Exclusion are increasing demands," according to Andrew Adams, General Partner at Oak HC/FT. US HealthVest currently operates Chicago Behavioral Hospital and is developing hospitals near Atlanta and Seattle.

Source: Company press statements and Capital IQ

Recent Transaction Activity Within Inpatient Behavioral Health Services

Notable Strategic M&A Activity

Date Announced	Target	Target Country	Acquirer	Target Business Description
Aug-16	Highland Hospital Association Inc.	United States	Acadia Healthcare Company, Inc.	Inpatient psychiatric hospital and psychiatric residential treatment facility
Jun-16	Pocono Mountain Recovery Center	United States	Acadia Healthcare Company, Inc.	Standalone inpatient substance abuse facility
May-16	Trustpoint Hospital (Polaris Hospital Company)	United States	Acadia Healthcare Company, Inc.	Inpatient and outpatient psychiatric hospital and rehabilitation services
Apr-16	Serenity Knolls	United States	Acadia Healthcare Company, Inc.	Standalone inpatient substance abuse facility
Dec-15	Priory Group Limited	United Kingdom	Acadia Healthcare Company, Inc.	Mental healthcare hospitals ranging from intensive inpatient care to outpatient treatment
Dec-15	Medical Management Options, Inc.	United States	Acadia Healthcare Company, Inc.	Inpatient psychiatric hospitalization and hospital-based outpatient services
Sep-15	Providence Human Services (nka Pathways)	United States	Molina Healthcare, Inc.	Acute behavioral health residential inpatient treatment
Sep-15	Foundations Recovery Network, LLC	United States	Universal Health Services Inc.	Residential inpatient addiction treatment and outpatient services
Aug-15	Alpha Hospitals Limited	United Kingdom	Cygnet Health Care (Universal Health Services)	Network of acute inpatient mental health hospitals
Jun-15	Belmont Behavioral Hospital	United States	Acadia Healthcare Company, Inc.	Freestanding inpatient behavioral health hospital with outpatient services
May-15	The Oxford Centre, Inc.	United States	American Addiction Centers, Inc.	Inpatient medical detox, extended substance abuse and outpatient treatment
May-15	Care UK Limited, Behavioral Health Operations and Mental Health Services	United Kingdom	Acadia Healthcare Company, Inc.	Inpatient behavioral health facilities and adolescent eating disorder services
Apr-15	Pastoral Care Group	United Kingdom	Acadia Healthcare Company, Inc.	Inpatient behavioral health and comprehensive treatment facilities
Apr-15	St. Louis Regional Psychiatric Stabilization Center	United States	BJC Health System, Inc.	Acute inpatient psychiatric and addiction treatment center
Mar-15	Sunrise House Foundation, Inc.	United States	American Addiction Centers, Inc.	Inpatient medical detox, residential and outpatient treatment
Dec-14	Hanley Center, Inc.	United States	Origins Behavioral Healthcare, LLC	Long-term residential treatment and inpatient hospital detoxification
Oct-14	CRC Health Group, Inc.	United States	Acadia Healthcare Company, Inc.	Inpatient rehab and detoxification, and intensive outpatient care
Sep-14	Cygnet Health Care Limited	United Kingdom	Universal Health Services Inc.	Network of 20 acute inpatient mental health hospitals

Source: S&P Capital IQ as of December 1, 2016

Recent Transaction Activity Within Inpatient Behavioral Health Services (Continued)

Notable Strategic M&A Activity (Continued)

Date Announced	Target	Target Country	Acquirer	Target Business Description
Jun-14	Partnerships in Care Limited	United Kingdom	Acadia Healthcare Company, Inc.	Inpatient psychiatric and rehabilitation hospitals
Feb-14	Palo Verde Mental Health	United States	Universal Health Services Inc.	Psychiatric hospital operating 48 adult inpatient psychiatric beds
Apr-14	Psychiatric Institute of Washington, D.C., Inc. And Arbor Group, L.L.C.	United States	Universal Health Services Inc.	Free standing inpatient psychiatric hospital
Jan-14	Highline Medical Center, Acute Inpatient Psychiatric Facility	United States	Acadia Healthcare Company, Inc.	Acute inpatient psychiatric treatment facility
Nov-12	Behavioral Centers of America, LLC	United States	Acadia Healthcare Company, Inc.	Inpatient psychiatric facilities and hospitals
Nov-12	Park Royal Hospital	United States	Acadia Healthcare Company, Inc.	Free standing inpatient psychiatric hospital with outpatient treatment
Oct-12	WakeBrook Campus	United States	UNC Health Care System	Inpatient psychiatric hospital and residential treatment facility

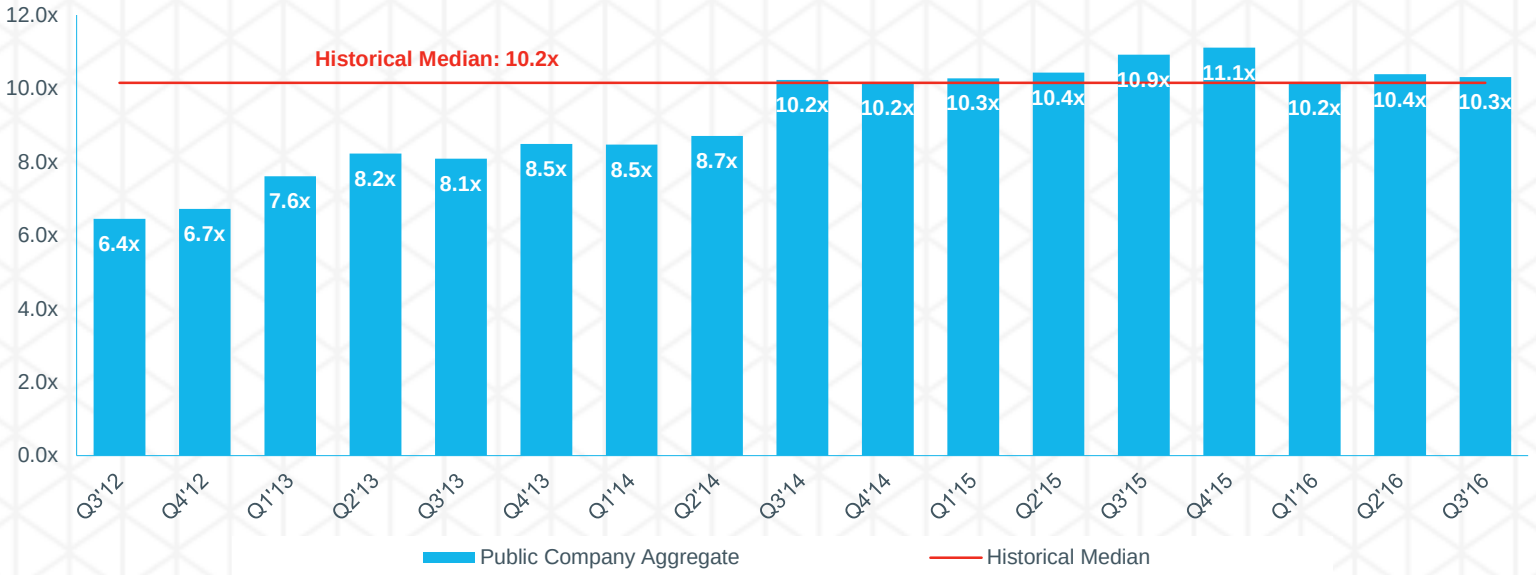
Notable Financial Sponsor Investments

Investment Date	Ownership	Portfolio Company	Business Description
Sep-16	Ridgemont Equity Partners	Perimeter Healthcare	Inpatient psychiatric residential treatment facilities and acute hospital programs
Jun-16	Centre Partners	Bradford Health Services	Inpatient medical detox and residential services, and outpatient treatment
Jun-16	F-Prime Capital Parkers; Polaris Partners; Oak HC/FT	US HealthVest	Inpatient and intensive outpatient psychiatric and substance abuse hospitals
Apr-16 Jun-15	Kohlberg & Company, L.L.C.	Meadows Behavioral Healthcare; Sunspire Health	Inpatient medical detox and residential services, and outpatient treatment
Dec-15	Audax Group, Inc.	Meridian Behavioral Health LLC	Inpatient and residential substance abuse treatment, and intensive outpatient services
Aug-15	Levine Leichtman Capital Partners	Monte Nido & Affiliates	Inpatient and residential treatment programs for eating disorders
Mar-15	Flexpoint Ford	Summit Behavioral Healthcare	Inpatient medical detox and residential services and outpatient treatment
Aug-14	Duke Street; Tikehau Capital	Voyage Healthcare Group	Inpatient and residential mental health services, as well as outpatient treatment
Jan-14	Pharos Capital Group	Seaside Healthcare	Acute mental health and substance abuse inpatient and outpatient hospitals
Jan-13	Lee Equity Partners	Eating Recovery Center	Eating disorder recovery services, including inpatient, residential and outpatient care
Mar-14 Dec-12	Trinity Hunt Partners	Lakeview Health Systems	Inpatient, residential and outpatient substance abuse treatment centers
Dec-11	Cressey & Company	InnerChange	Long term residential treatment programs
Sep-11	Clearview Capital	Pyramid Healthcare	Inpatient medical detox and residential services and outpatient treatment
Nov-10	Welsh, Carson, Anderson & Stowe	Springstone	Inpatient and outpatient psychiatric and substance abuse hospitals
Jan-08	Frazier Healthcare Partners; New Enterprise Associates	Elements Behavioral Health	Inpatient residential substance abuse programs, and outpatient treatment

Source: S&P Capital IQ as of December 1, 2016

Behavioral Health Index Quarterly Multiples

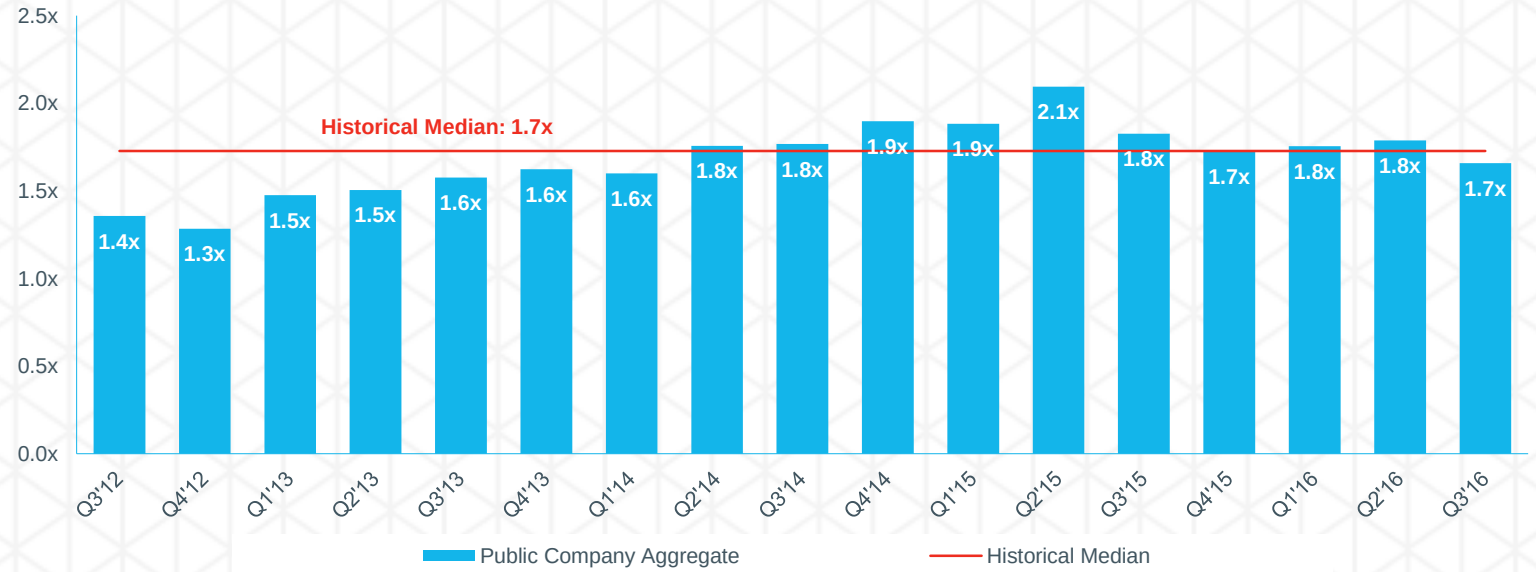
Behavioral Health Index Quarterly LTM EBITDA Multiples (Q3 2012 – Q3 2016)



Note: EBITDA multiples greater than 100.0x are deemed not meaningful.
Multiples calculated based on the average daily LTM EBITDA multiple for the preceding fiscal quarter. As such, the multiples presented herein differ from the multiples presented elsewhere in this report.

Source: S&P Capital IQ (as of December 1, 2016)

Behavioral Health Index Quarterly LTM Revenue Multiples (Q3 2012 – Q3 2016)

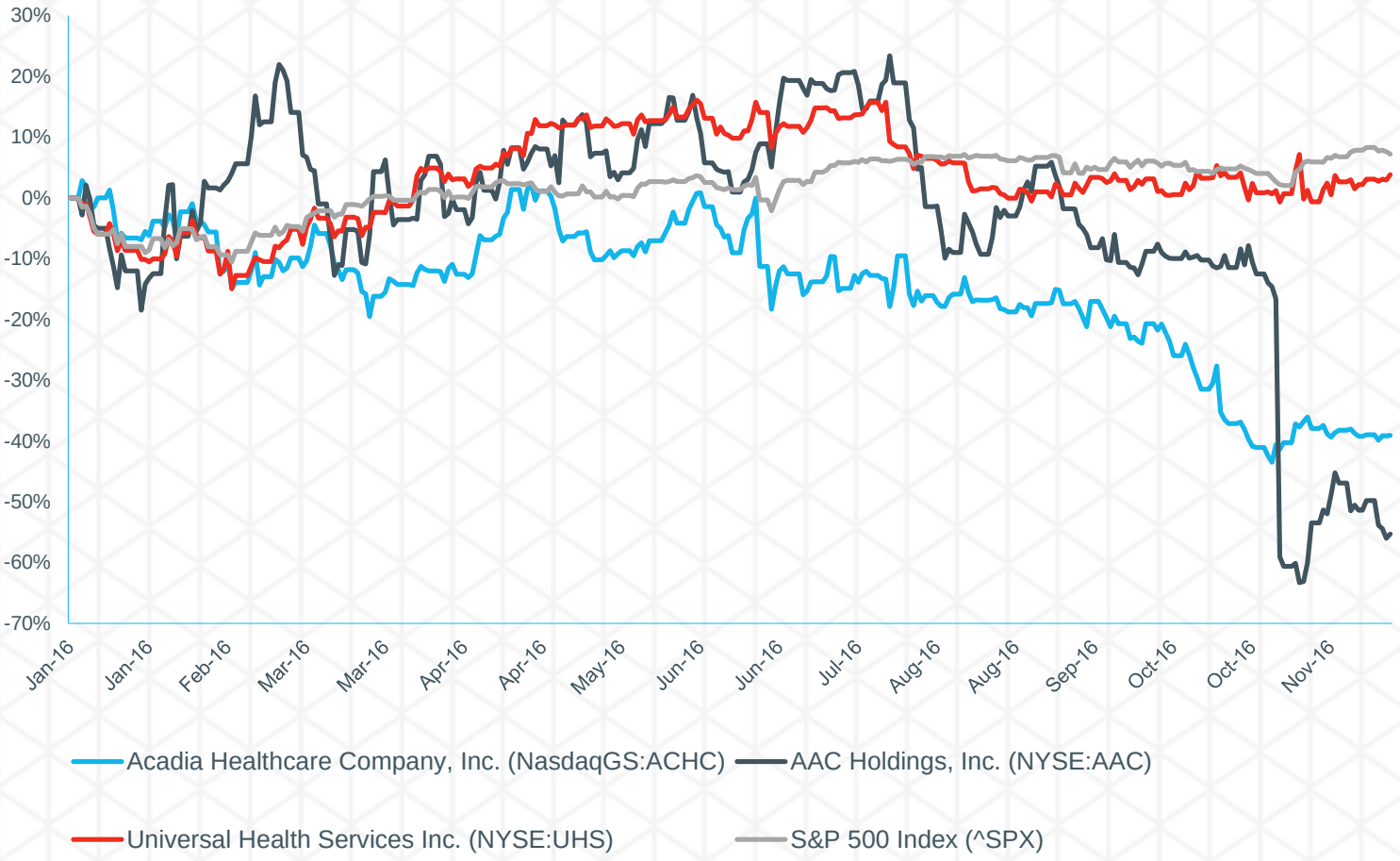


Note: Revenue multiples greater than 10.0x are deemed not meaningful.
Multiples calculated based on the average daily LTM Revenue multiple for the preceding fiscal quarter. As such, the multiples presented herein differ from the multiples presented elsewhere in this report.

Source: S&P Capital IQ (as of December 1, 2016)

Behavioral Health Index Year-to-Date Performance

Year-to-Date Performance



Source: S&P Capital IQ as of December 1, 2016

Behavioral Health Index Spotlight: Acadia Healthcare Company and AAC Holdings*

Acadia's sale of 22 behavioral health facilities to BC Partners in a deal inked at $390 million was overshadowed by the company's lower than expected earnings report. On November 1st, Acadia announced a third-quarter loss of $118M, despite earning a profit over the same period in 2015, which caused shares to slump 9.5%. On a per share basis, the company posted a loss of $1.36 per share. Earnings, adjusted for one-time gains and costs, were $0.58 per share, missing analyst expectations of $0.60 per share. Acadia also noted that growth in same facility revenue had been lower than expected in the U.S. during the first half of the year, and revenue at facilities opened within the last year have not ramped up as fast as expected. Year-to-date, Acadia shares have fallen 39%.

AAC posted disappointing third quarter results with revenues of $70.5 million and net earnings of ($2.5) million. Gross margins and EBITDA margins narrowed (15.7%) and (8.1%), respectively. AAC had a federal securities law investigation opened against the company and certain of its officers in September, continuing the fallout from this summer's indictment of company executives. On July 1, a federal court denied a motion to dismiss a securities fraud class action. According to the complaint, AAC deceived investors about an active criminal investigation by the California Department of Justice. The California DOJ's investigation ultimately materialized into an indictment against AAC for second-degree murder of an AAC patient. On October 21, the Attorney General of the State of California dismissed all criminal charges against AAC subsidiaries. Year-to-date, shares have declined 55.3%.

*Source: Company press statements and Capital IQ

Selected Publicly Traded Companies

Company Name	Ticker	Price 12/1/2016	% Change 1/1/2016	LTM Multiples (as of 12/1/2016) Rev	LTM Multiples (as of 12/1/2016) EBITDA	LTM Multiples (as of 1/1/2016) Rev	LTM Multiples (as of 1/1/2016) EBITDA	Change in Multiples Rev	Change in Multiples EBITDA
Behavioral Health									
AAC Holdings, Inc.	AAC	$ 8.52	(55.3%)	1.5x	15.9x	3.0x	16.5x	(50.5%)	(3.4%)
Acadia Healthcare Company, Inc.	ACHC	38.08	(39.0%)	2.7x	12.8x	4.1x	19.2x	(34.9%)	(33.2%)
Civitas Solutions, Inc.	CIVI	16.00	(44.4%)	0.9x	9.1x	1.2x	11.8x	(28.4%)	(22.5%)
HCA Holdings, Inc.	HCA	71.20	5.3%	1.4x	7.3x	1.5x	7.5x	(3.7%)	(3.7%)
Universal Health Services Inc.	UHS	124.09	3.8%	1.6x	9.2x	1.7x	9.2x	(5.4%)	0.8%
Mean			(25.9%)	1.6x	10.9x	2.3x	12.8x	(29.9%)	(15.3%)
Median			(39.0%)	1.5x	9.2x	1.7x	11.8x	(12.6%)	(21.7%)
Market Capitalization Weighted			(1.2%)	1.6x	8.3x	1.8x	9.3x	(13.2%)	(10.6%)

Source: S&P Capital IQ as of December 1, 2016
Note: Revenue multiples greater than 11.0x and EBITDA multiples greater than 100.0x are deemed not meaningful.
Note: Selected index represent s the commonly traded behavioral health services companies.

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