



Ohio Department of Mental Health and Addiction Services

**Seclusion and Restraint Results:
Inpatient Psychiatric Service Providers
January through December 2016**

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A Note about Ohio's Trauma-Informed Care Initiative

Individual trauma results from an event, series of events, or a set of circumstances that is experienced by an individual as physically or emotionally harmful or threatening and that has lasting adverse effects on the individual's functioning and physical, social, emotional or spiritual well-being. (SAMHSA, 2012)

OhioMHAS recognizes that hospitalization for mental health disorders, in and of itself, can be a traumatizing event. Therefore, the agency is working with the Ohio Department of Developmental Disabilities to encourage all providers to adopt "Trauma-Informed Care." This approach explicitly acknowledges the role trauma plays in peoples' lives and develops an organizational and clinical culture that considers and addresses its impact on the person's disease and recovery. Through regional collaboratives, OhioMHAS and its partners provide technical assistance to help providers avoid re-traumatizing an individual in their care. A reduction in seclusion and restraint can be an indicator of trauma-informed care implementation.

Summary

For private hospitals serving adults:

- While stable between reporting periods, the annual seclusion rate increased among private adult providers for the third consecutive year. Mechanical restraint occurrence rates and average lengths both decreased between the January to June and July to December reporting periods. This trend was seen among both private and Ohio Regional Psychiatric Hospitals (RPHs).
- Few trends were seen among adult providers. Particularly, several of the patterns often seen in past reports with regards to census and capacity groups were not found within the 2016 data. The one exception occurred within Length of Adult Seclusions: No outliers were reported, and patterns were comparable to past reports.
- In addition, the impact of the presence of an active psychiatric intensive care unit (PICU Status) upon seclusion and restraint rates was inconsistent, and is in need of further research. The presence of outliers often made it difficult to accurately identify and analyze these relationships.

For hospitals serving children and youth:

- Generally, youth-serving hospitals reported using a higher total number of Physical Restraints, a slightly smaller number of Seclusions, and a lower number of Mechanical Restraints when compared with adult providers. When averaging the frequency per 1000 patient days for all youth-serving hospitals there was a higher number of Seclusions, followed by Physical Restraints.
- Due in part to the small number of youth providers, outliers with longer average durations for one to two-month periods created large jumps between reporting periods within average length of seclusions and physical restraints.

Comparing hospitals serving adults to hospitals serving children and youth:

- Hospitals serving children and youth reported fewer total Seclusions and Restraints. When looking at frequencies per 1000 Patient Days, compared with hospitals serving adults, hospitals serving youth report higher rates of seclusions and mechanical restraints. An outlier within the adult physical restraints group made it impossible to compare the two groups over time. For the January-June reporting period, youth and adult providers had about the same number of mechanical restraints.
- When compared with adult hospitals, child and adolescent providers reported higher rates of mechanical restraints across both reporting periods. In contrast, adult providers had longer average duration mechanical restraints throughout the analysis period. However, this point should be viewed with caution, as the increase within average length of adult mechanical restraints was due to an outlier.
- The longest average duration of any of the Seclusions and Restraint types are Mechanical Restraints in adult-serving hospitals.

Methods

Ohio Department of Mental Health and Addiction Services (OhioMHAS) OAC 5122-14-14 requires that inpatient hospital providers report certain incident data every six months (January – June, and July – December). Mental health providers that are required to report incidents include Type 1 Residential Facilities, Inpatient Psychiatric Service Providers, and Community Mental Health Agencies.

Hospital providers are comprised of psychiatric inpatient units within general hospitals and freestanding psychiatric hospitals in Ohio. OhioMHAS licenses acute inpatient beds on these units for adults, adolescents, and children; some adult licensed units have programming specific to the geriatric population. All acute inpatient units and/or hospitals provide programming and treatment for individuals who are experiencing an acute psychiatric crisis and require hospitalization.

Hospitals were required to report their service utilization. Patient days¹, number and minutes of Seclusion², Physical Restraints³, Mechanical Restraints⁴, number of patient injuries or illnesses, and number of injuries to staff resulting from Seclusion and Restraint. The number of licensed facilities may differ between months and/or reporting periods. Therefore, aggregate data displayed over 12 months only includes those providers that were both open for service for all twelve months and provided data for both reporting periods. All data from the remaining providers have been included within this report⁵.

Comparisons: In order to compare across organizations of varying size, frequencies were calculated on both the number of Seclusions and Restraints per 1000 patient days and the average duration per Seclusion and Restraint.

$$\text{Seclusion/Restraints per 1000 Patient Day} = \frac{\text{Total \# of Seclusions/Restraints}}{\text{Total \# of Patient Days}} \times 1000$$

$$\text{Avg. Duration per Seclusion/Restraint} = \frac{\text{Total mins of Seclusion/Restraint}}{\text{Total \# of Seclusions/Restraints}}$$

For example, if an organization reported 600 patient days, 15 incidents of Seclusion, and 500 total minutes of Seclusion, the Seclusions per 1000 patient days would be 25 ($15/600=25$) and the average duration would be 33.3 minutes ($500/15=33.3$).

Geographic Areas Served

Table 1 (See Appendix) reports the total number of hospitals serving adults and youth for the state as well as within each geographical area served by the Regional Public Hospitals (RPHs). The county map below shows the geographical referral regions for the RPHs.

¹ Patient days are the sum of all census days less the sum of all leave days.

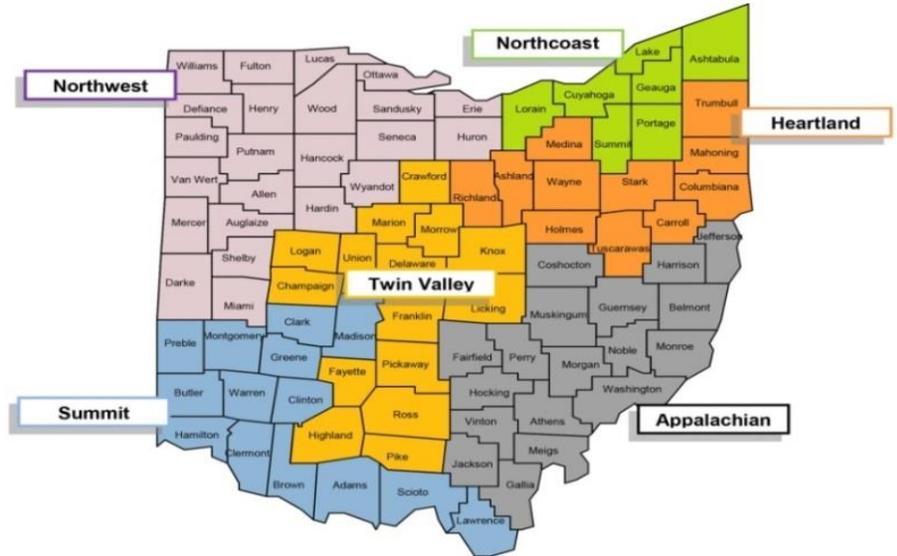
² Seclusion means a staff intervention that involves the involuntary confinement of a patient alone in a room where the patient is physically prevented from leaving.

³ Physical Restraint, also known as Manual Restraint, means a staff intervention that involves any method of physically/manually restricting a patient's freedom of movement, physical activity, or normal use of his or her body without the use of Mechanical Restraint devices.

⁴ Mechanical Restraint means a staff intervention that involves any method of restricting a patient's freedom of movement, physical activity, or normal use of his or her body, using an appliance or device manufactured for this purpose.

⁵ Outlier data from agencies have been verified and included within the report. In addition, all branch offices have reported data separately, thereby increasing the January-June 2016 sample size. Therefore, results seen here may vary from previous releases of Jan-June 2016 data.

- The Northeast region had the highest number of hospitals for adults in 2016 (N=20, 27.8%). The Northeast and Southwest regions each had 4 child and adolescent providers, totaling half of the State’s providers.
- As of December 2016, the Southeast and Southwest regions held the smallest percentage of adult-serving hospitals (N=8, 11.1%). Those regions also had the smallest percentage of child/adolescent providers (N=1, 6.3%).



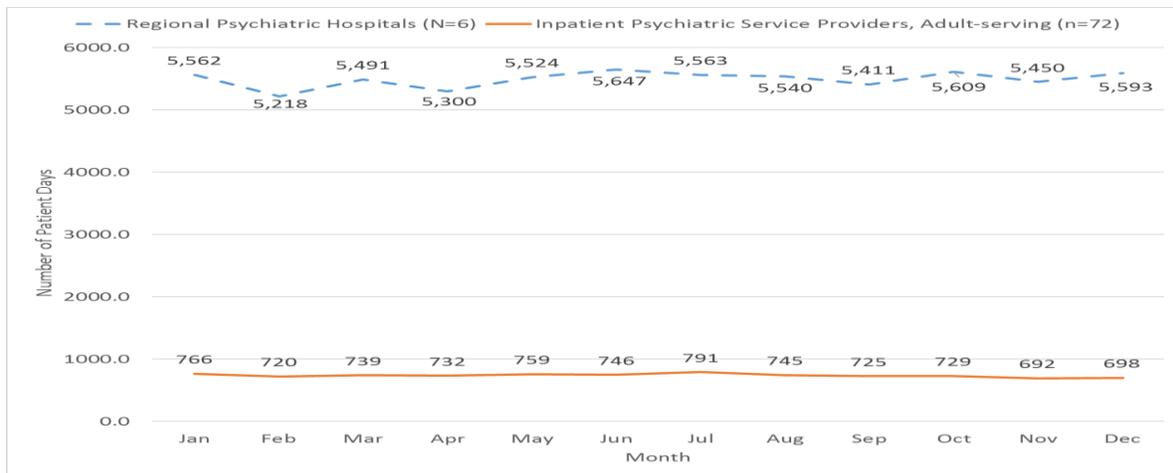
Results will be reported by region only for hospitals serving adults; the subsample size was too small to report results by region for the child and youth-serving hospitals.

Inpatient Psychiatric Hospitals Serving Adults

Service Utilization: Patient Days

Patient days⁶ summarize hospital service utilization. Table 2 below reports the monthly averages and six-month total patient days for the RPHs and the inpatient psychiatric service providers serving adults (Please see Appendix). On average, private inpatient hospitals reported 743.3 patient days per month January-June, and 730.0 days per month July-December 2016. Public hospitals reported an average of 5,457.0 patient days per month January-June, and 5,527.7 during the July-December 2016 reporting period⁷.

Average Number of Adult Patient Days per Month: Private vs. State Psychiatric Hospitals, Jan-Dec 2016



⁶ Patient days are the sum of all census days less the sum of all leave days.

⁷ Outlier data from agencies have been verified and included within the report. In addition, all branch offices have reported data separately, thereby increasing the January-June 2016 sample size. Therefore, results seen here may vary from previous releases of Jan-June 2016 data.

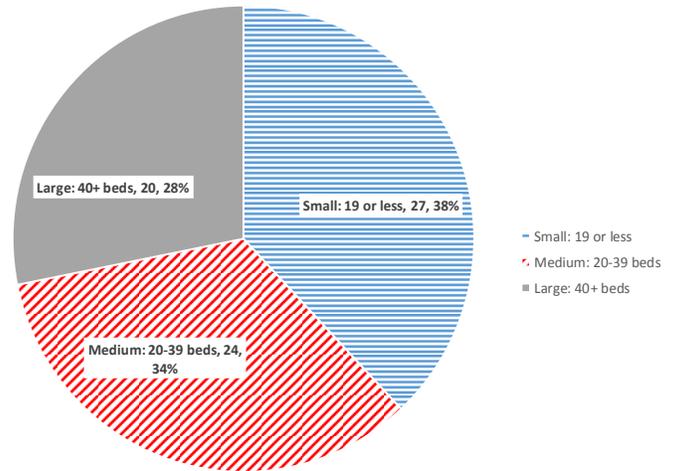
Capacity

Private psychiatric units/hospitals are licensed annually and full licensure renewal requires an on-site survey every three years. Among private hospitals that provided data for all of 2016, the minimum number of licensed beds by a hospital was 6, and the maximum number of licensed beds by a hospital was 130. The average number of licensed beds was 32.72 (sd=24.17).

Seclusion and restraint results will be reported by hospital capacity groups. Based on the number of licensed beds, hospitals were grouped in to 3 capacity groups:

- less than 20 beds (N=27, 38%)
- 20-39 beds (N= 24 34%)
- 40 or more beds (N=20, 28%)

Adult Private Hospitals by Capacity Group, 2016



Occupancy

Occupancy was calculated for each hospital. The formula used to calculate occupancy was:

$$\text{Occupancy} = \frac{\text{Total \# of Patient Days}}{\text{\# of licensed beds * \# days within the reporting period}}$$

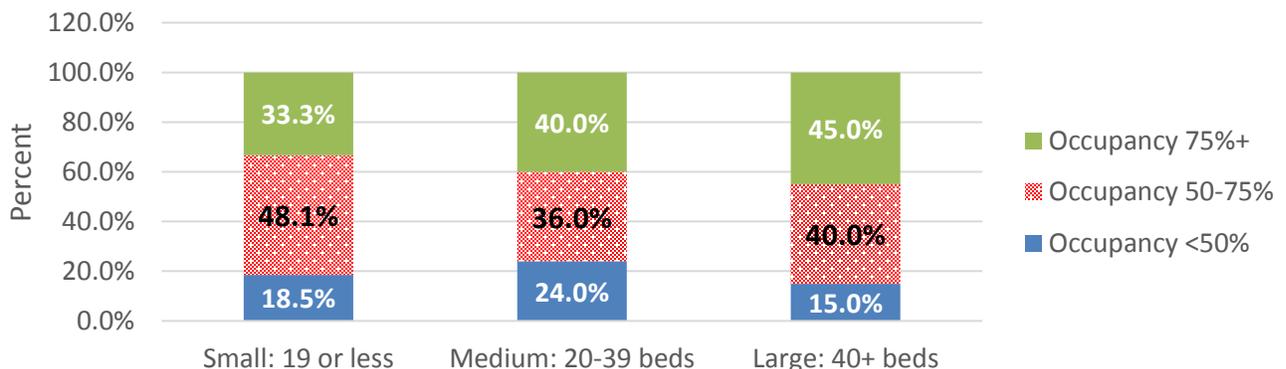
The minimum occupancy rate rose from 8.79% during the second half of 2015 to 22.02% in Annual 2016. Likewise, the average occupancy rose from 68.3% (sd=23.0%) in July-December 2015 to 70.80% (sd 25.9%) for all of 2016.

Based on the occupancy percentages of past years, hospitals were grouped in to 3 occupancy groups:

- less than 50% occupancy (N = 14, 19.4%)
- 50–75% occupancy (N = 30, 41.7%)
- Over 75% occupancy (N = 28, 38.9%)

The figures below demonstrate the relationship between capacity and occupancy. Among private hospitals that provided twelve months of data, small capacity hospitals (Less than 20 beds) had the largest percentage of all hospitals in the 50-75% occupancy category (n = 5, 48.1%).

Adult Occupancy by Capacity, 2016



Upon comparing the July-Dec 2015 and Annual 2016 data, some noticeable pattern changes are seen, particularly among large facilities. During that time, the percentage of large capacity hospitals (40 or more beds) within the lowest occupancy group (less than 50%) decreased from 22.2 percent to 15.0 percent. In addition, the proportion of medium-sized facilities with occupancy rates of 75 percent or higher decreased from 44.0 to 40.0 percent. Finally, the percentage of facilities within the 50-75 percent occupancy group decreased between the reporting periods for both medium and large facilities.

Average Daily Census

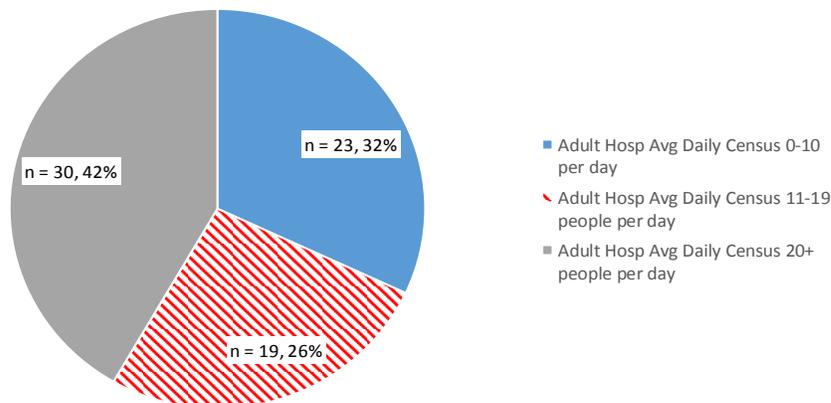
The Average Daily Census (ADC) was calculated for each hospital. The formula used to calculate ADC was:

$$ADC = \frac{\text{Total \# of Patient Days}}{\text{\# of days within the reporting period}}$$

Among private providers with twelve months of data, the minimum ADC for 2016 was 3.70. The annual average ADC among private hospitals was 24.22. In comparison, RPHs reported a higher average ADC, at 180.57. The minimum ADC within the RPH group was also higher, at 83.71. This relationship was consistent with past years' findings.

Seclusion and Restraint results will be reported below by hospital ADC groups.

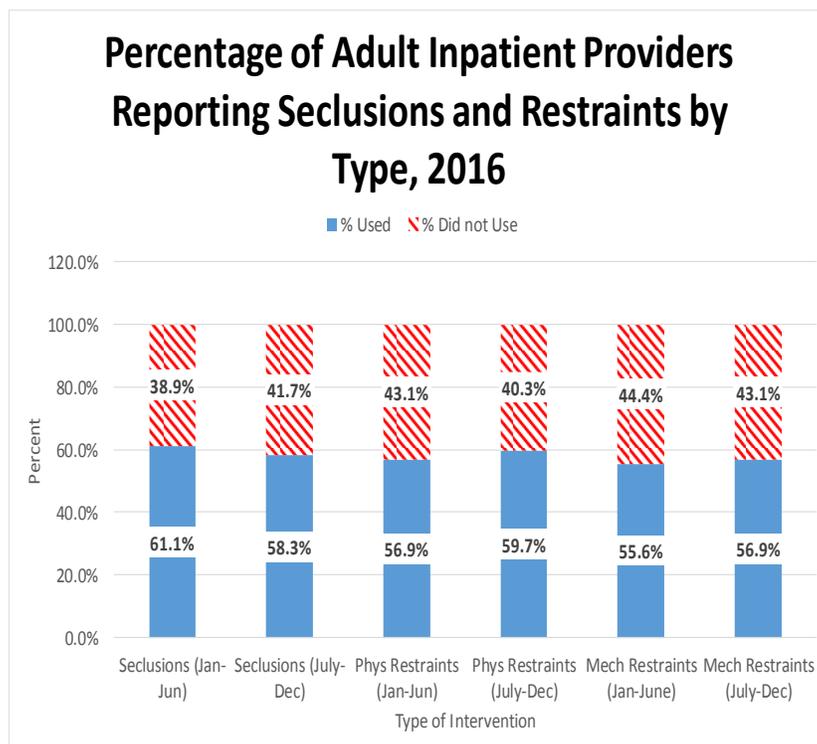
Adult Private Hospitals by Average Daily Census Group, 2016



Adult Providers: Utilization of Seclusion or Restraint

In an effort to better understand the data, OhioMHAS analysts calculated the frequency data three ways. First, the frequencies were calculated by each Seclusion/Restraint type only for hospitals that used that type:

- Annually, about 60 percent of adult hospitals with twelve months of data reported Seclusions (N=44 January-June, N=42 July-December).
- The number of adult hospitals reporting Physical Restraints and Transitional Holds increased slightly from Jan-June (N = 41) to July-December (N = 43). Specifically, the increase was due to 2 additional providers reporting transitional holds.
- And the number of adult hospitals reporting Mechanical Restraints increased from January-June (N=40) to July-December (N=41).



Next, frequencies were calculated by the number of adult hospitals that reported any of the three types of Seclusion or Restraint (January-June: N = 58; July-December: N = 60). Because the data reporting form does not ask about hospital policy allowing or prohibiting the use of Seclusion or Restraint, this frequency is a proxy measure of adult hospitals that allow Seclusion/Restraint. A few hospitals serving adults (January-June: N = 14; July-December N = 12) did not utilize any type of Seclusion or Restraint.

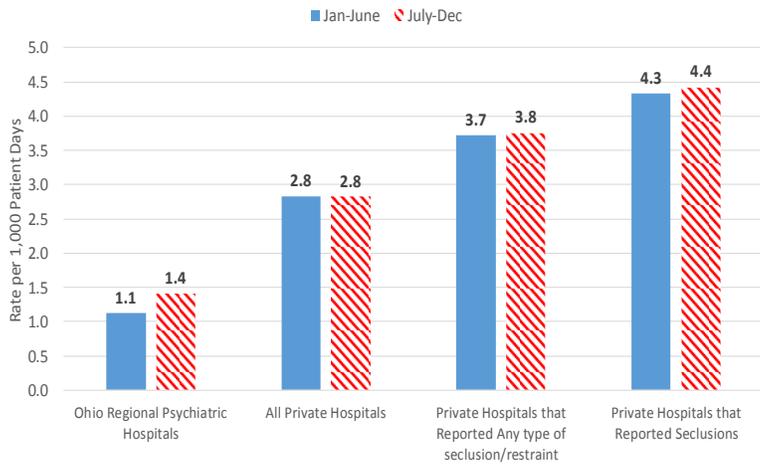
Finally, frequencies of each type of intervention were calculated for all adult hospitals (N = 72). As the denominator increases across each of these calculation methods, the average frequency scores decrease. Additionally, private hospitals were compared with the RPHs in regards to their use of Seclusions and Restraints. As a result, the Seclusions and Restraints cases for the six RPHs have been aggregated and included.

Adult Seclusions

Frequency of Adult Seclusions

Table 3 reports the frequency of Adult Seclusions, while Table 5 includes the frequency of Adult Seclusions by Geographical Area, by Capacity, and by Average Daily Census (Please see Appendix). Among providers with twelve months of data, the total number of Adult Seclusions reported in 2016 was 2,724 (N=1,152 in January-June and N=1,572 in July-December).

Average Number of Adult Seclusions per 1,000 Patient Days by Agency Type and Reporting Period, 2016



- When viewing all private hospitals as a group, the average number of Seclusions per 1000 patient days only rose above 3.0 during the month of May.
- The six RPHs reported a slight increase in average Seclusions per 1000 patient days between reporting periods (M=1.1 January-June; M=1.4 July-December). The highest average seclusions were reported in September, October, November and December.

○ Of the hospitals that did report seclusions, the maximum number reported by a hospital decreased between January-June (N=225) and July-December (N=207). The average number of Seclusions within this group decreased slightly between January-June (M=24.34) and July-December (M=22.60).

○ When standardizing across hospitals by patient days, the average number of Seclusions per 1000 patient days for all private hospitals remained relatively stable between reporting periods (January-June M=2.83; July-December M=2.82).

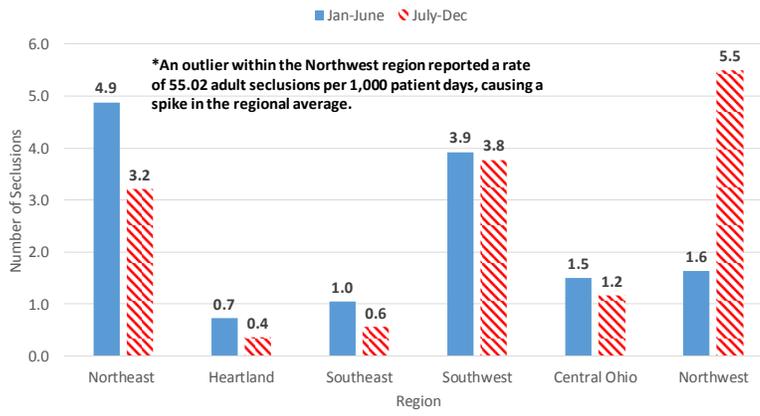
○ The average number of Seclusions per 1000 patient days was stable between reporting periods (M= 3.7 January-June; M=3.8 July-December) for hospitals that reported any type of Seclusion or Restraint in 2016. Within this group, the averages for both reporting periods were higher than the previous year. This trend has continued since 2014.

By Geographical Area:

○ Due to an outlier, hospitals in the Northwest region reported a 243.8 percent increase of in seclusion rates between the January-June (M =1.6) and July-December (M =5.5) reporting periods. In contrast, all other regions reported at least a slight decrease during the second half of the year.

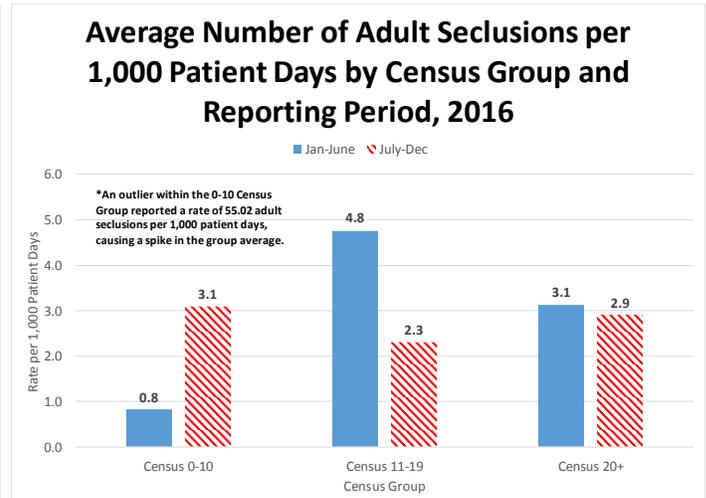
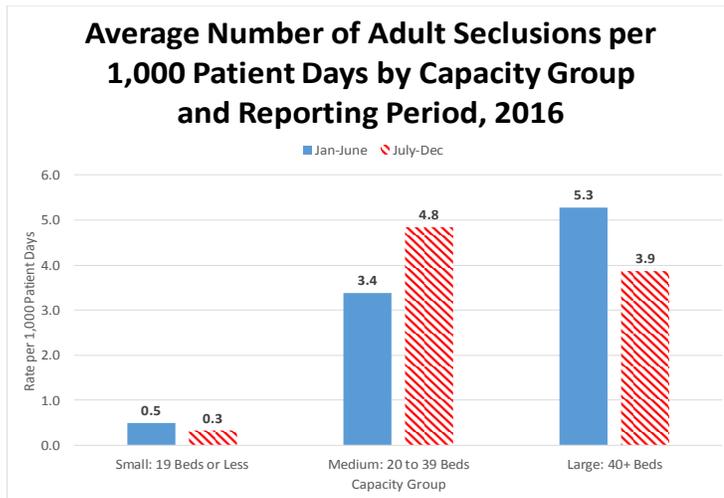
○ Hospitals within the Southwest region reported relatively stable average frequencies of Seclusions per 1000 patient days between the January-June and July-December reporting periods. All other regions reported an increase between reporting periods. While among the higher rates, providers within the Northeast region reported a 34.7 percent decrease during the July-December period.

Average Number of Adult Seclusions per 1000 Patient Days by Region and Reporting Period, 2016



By Capacity and Average Daily Census

- The average number of Seclusions per 1000 patient days increased with capacity during the January-June reporting period, from a low of 0.5 for hospitals with less than 20 beds, to a high of 5.3 for hospitals with more than 40 beds. No pattern was seen within the July-December report.
- No pattern was seen within Adult Seclusions when analyzed by Average Daily Census group. Specifically, the 20+ Census group was stable between reporting periods, while rates spiked within the 0-10 and 11-19 Census groups at conflicting times.



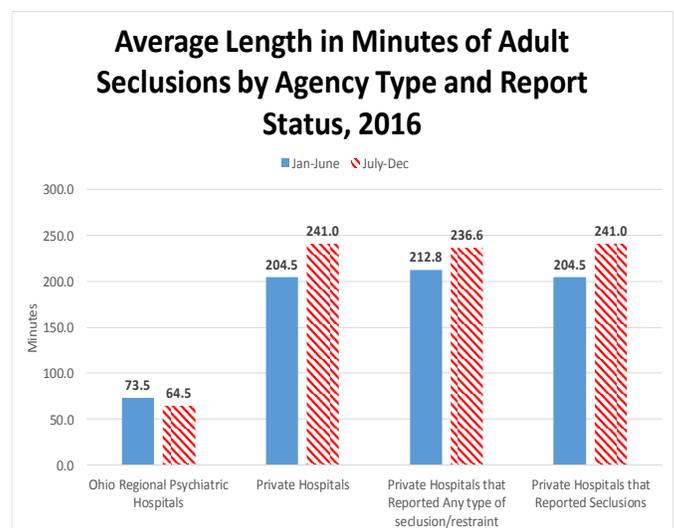
By PICU Status

Next, providers were separated and analyzed based upon whether they had a Psychiatric Intensive Care Unit (PICU) available. Within the report, this variable will be referred to as PICU Status. Within the January-June reporting period, an outlier reported a high rate of Adult Seclusions, causing a spike among facilities with a PICU. No pattern was seen within the July-December reporting period with regard to PICU Status. PLEASE NOTE: As this data is not reported directly within WEIRS, and PICU status may change between reporting periods, the data should be viewed with caution.

Duration of Adult Seclusion

Hospitals reported on the duration of seclusions by number of minutes. Private hospitals remained well above Ohio MHAS hospitals. Table 4 reports the average duration of Seclusions, while Table 5 includes the average duration of Seclusions by Geographical Area, by Capacity, and by Average Daily Census (Please see Appendix). Among providers that reported seclusions, the minimum seclusion reported by a hospital increased slightly between reporting periods, from 30 minutes January-June to 33 minutes July-December. The maximum number of minutes decreased from 119,558 in January-June to 115,228 July-December.

- The average number of minutes per hospital increased from 7,090 in January-June to 7,829 in July-December.
- Average duration was computed to standardize across hospitals, using only the hospitals that reported incidents (see calculation above). The minimum average duration remained stable across reporting periods, at 1.5 minutes. The maximum average

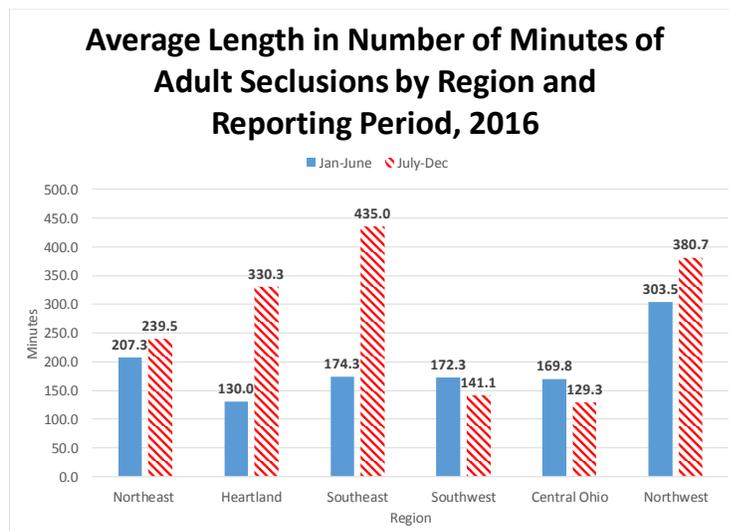


duration decreased from 1787 minutes in January-June to 1502 minutes in July-December. Finally, the average duration of Seclusions increased from 204 minutes in January-June to 241 minutes in July-December.

- Among private hospitals, the shortest average duration of Seclusions (below 190 minutes) occurred in February, March, August and September. The longest average duration occurred in October (315 minutes).
- The six RPHs reported an average seclusion duration of 73.5 minutes from January to June, decreasing to 64.5 minutes during the July to December reporting period. Among RPHs, the longest average durations occurred in January (M=74.1 minutes), June (M=73.0 minutes) and October (M=90.2 minutes).

By Geographical Area

- From January to June, hospitals in the Northwest region had the longest average duration of seclusions (M=303.5 minutes). Despite an increase within the Heartland region, hospitals within the Southeast region reported the longest average seclusions from July to December (M = 435 minutes).

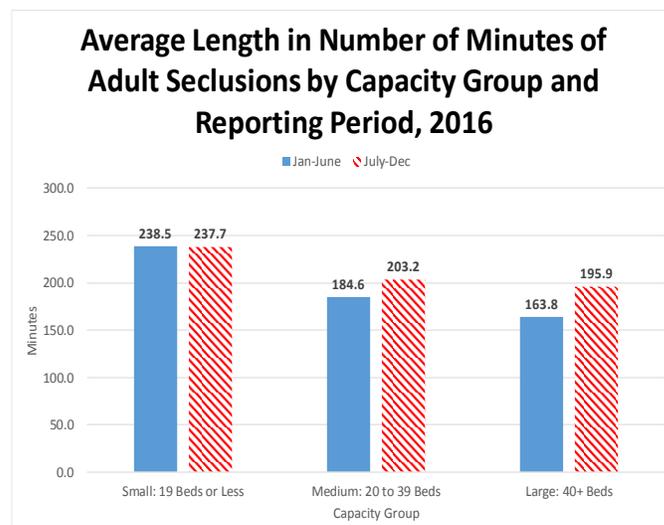
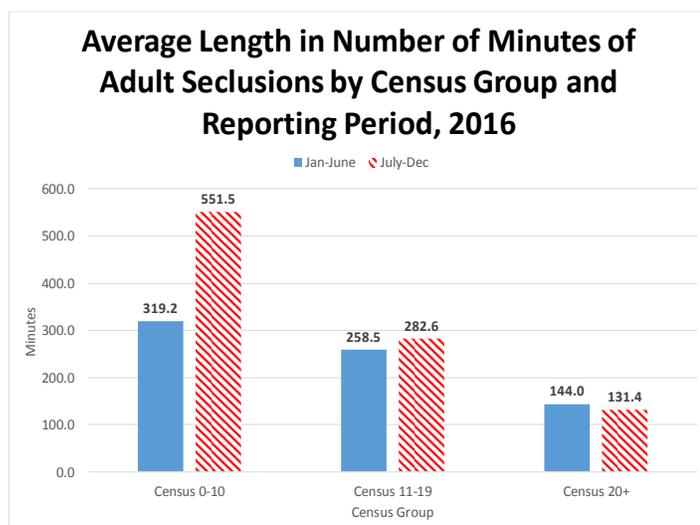


- Within the January-June reporting period, hospitals in the Heartland region had the shortest average duration (M= 130 minutes). Providers within the Central region reported the lowest July-December average, at 129.3 minutes. The average length of seclusions

increased between the two reporting periods for the Northeast, Heartland, Southeast and Northwest regions, while the Southwest and Central regions both saw reductions in average length. Finally, the average length of seclusions within the Heartland region reported the largest change, increasing by 154.1% between the two reporting periods.

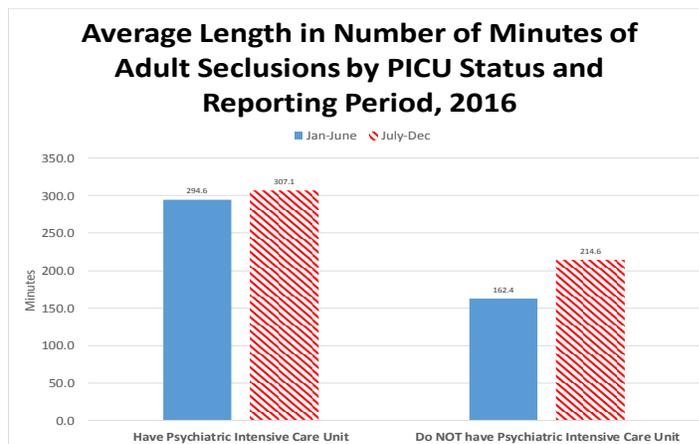
By Average Daily Census and Capacity

- Within each reporting period, the average length of seclusions demonstrated a reverse relationship to census group. Although less pronounced, this relationship also existed among capacity groups.



By PICU Status

- Adult Seclusion rates increased between the January-June and July-December reporting periods for both groups.
- When examined more closely, providers with no PICU reported a 32.1 percent increase in Adult Seclusion rates between the January-June and July-December reporting periods. This rate change was much larger than that of providers with a PICU ($M\Delta = +4.24\%$).

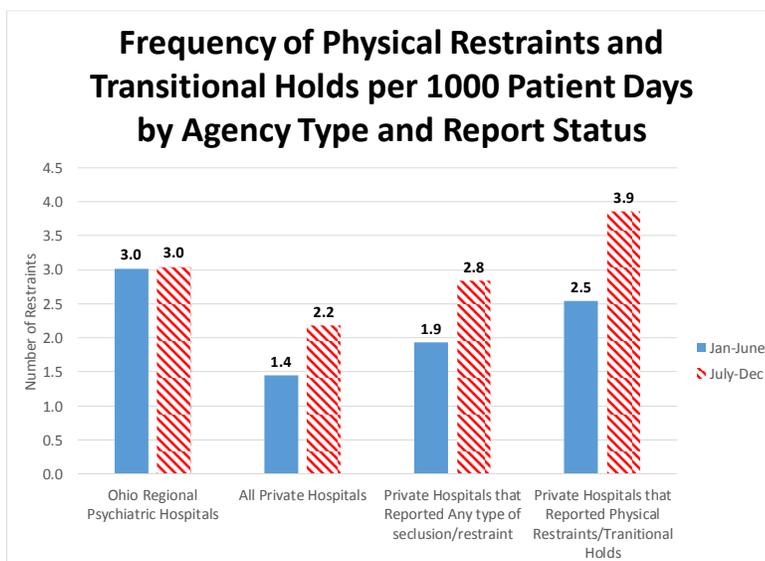


Adult Physical Restraints and Transitional Holds

Frequency of Adult Physical Restraints and Transitional Holds

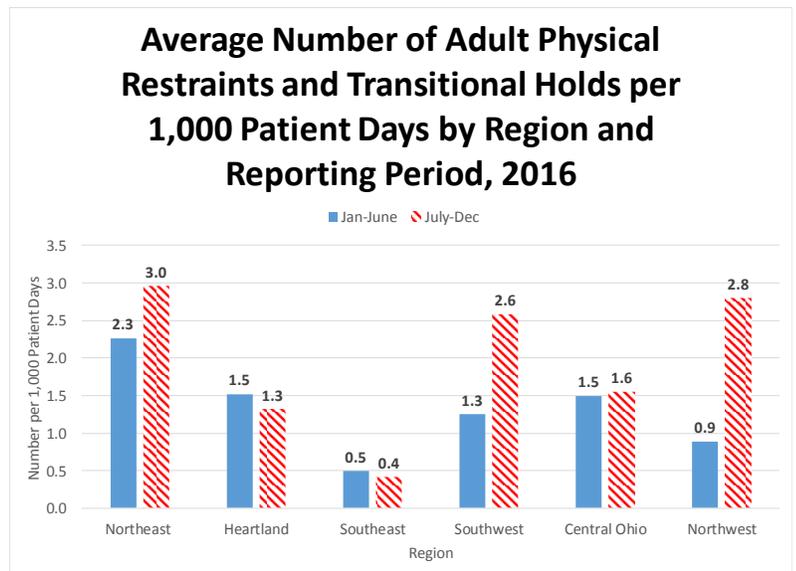
Table 6 reports the frequency of Adult Physical Restraints and Transitional Holds, while Table 8 includes the frequency of Adult Physical Restraints and Transitional Holds by Geographical Area, by Capacity, and by Average Daily Census (Please see Appendix). In 2016, the total number of Adult Physical Restraints reported by all hospitals was 1129 (N= 497 January-June; N=632 July-December).

- Among hospitals that reported Physical Restraints and/or Transitional Holds, the maximum number reported by a hospital decreased from 83 in January-June to 72 in July-December. The average total number reported increased from 10.18 in January – June to 11.2 in July–December.
- The average number of Physical Restraints per 1000 patient days among hospitals that reported at least one case increased from January-June (M=2.54) to July-December (M=3.86).
- The average number of Physical Restraints per 1000 patient days increased from 1.92 in January-June to 2.83 in July-December among hospitals that reported any type of Seclusion or Restraint.
- The average number of Physical Restraints per 1000 patient days for all private hospitals increased from 1.45 in January–June to 2.18 in July–December.
- Among private hospitals, the average number of Physical Restraints per 1000 patient days was highest in July (M=3.01), October (M=2.21) and December (M=2.18). All other monthly averages remained at or below 1.87 restraints per 1,000 patient days.
- The six RPHs reported similar Physical Restraint and Transitional Hold rates across reporting periods (M=3.01 January-June; M=3.05 July-December). Among RPHs, the lowest average Physical Restraint and Transitional Hold rates were reported in May (M=2.31) and October (M=2.48). The highest averages were reported in February (M=4.18) and November (M=3.78).



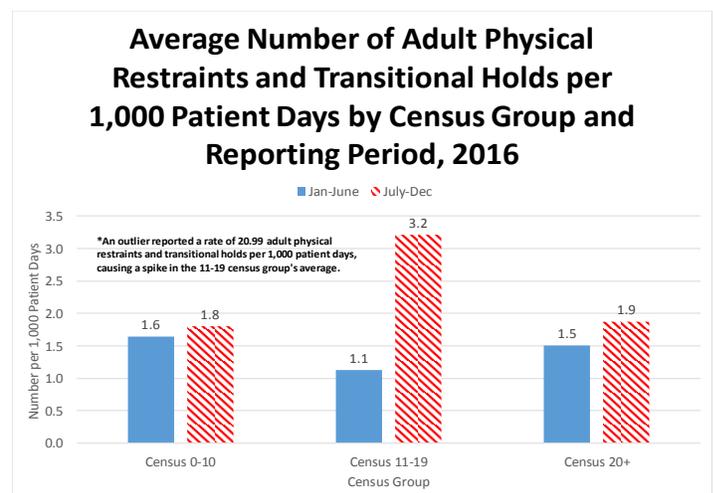
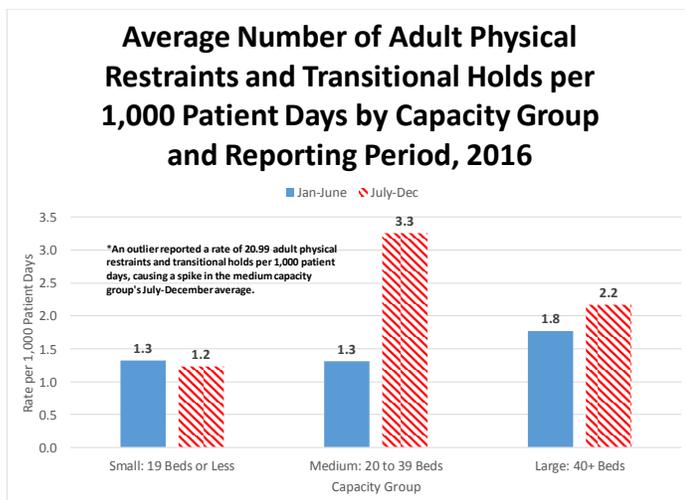
By Geographical Area

- Hospitals within the Southeast region reported the lowest average frequencies for Adult Physical Restraints and Transitional Holds within each reporting period.
- Adult Physical Restraints increased in the second half of 2016 for hospitals within four of the six regions. The largest increase occurred among hospitals within the Northwest region (MA=211%).
- The frequency of Adult Physical Restraints remained relatively stable among hospitals within the Southeast, Central and Heartland regions, and increased across reporting periods for hospitals within the Northeast, Southwest, and Northwest Ohio regions.



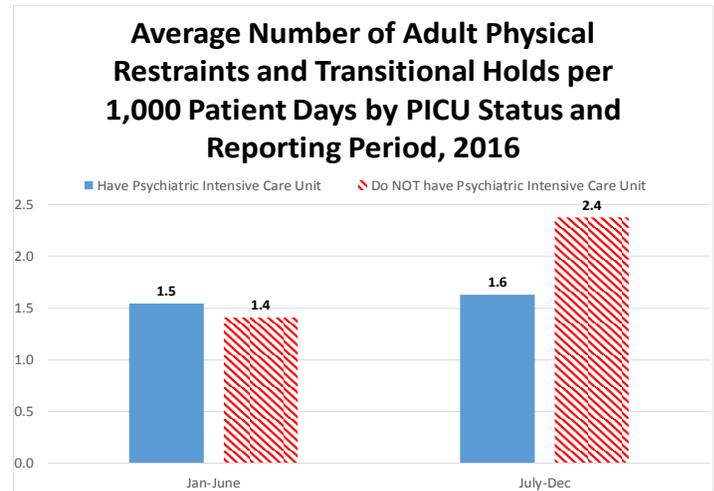
By Capacity and Average Daily Census

- Due to an outlier within the July-December reporting period, the average frequency of Adult Physical Restraints per 1000 patient days by Average Daily Census varied between the two reporting periods, with no repeating pattern. The outlier had a similar effect upon capacity group comparisons. Within the January-June reporting period, there was no difference between small and medium facilities with regard to average number of adult physical restraints and transitional holds.



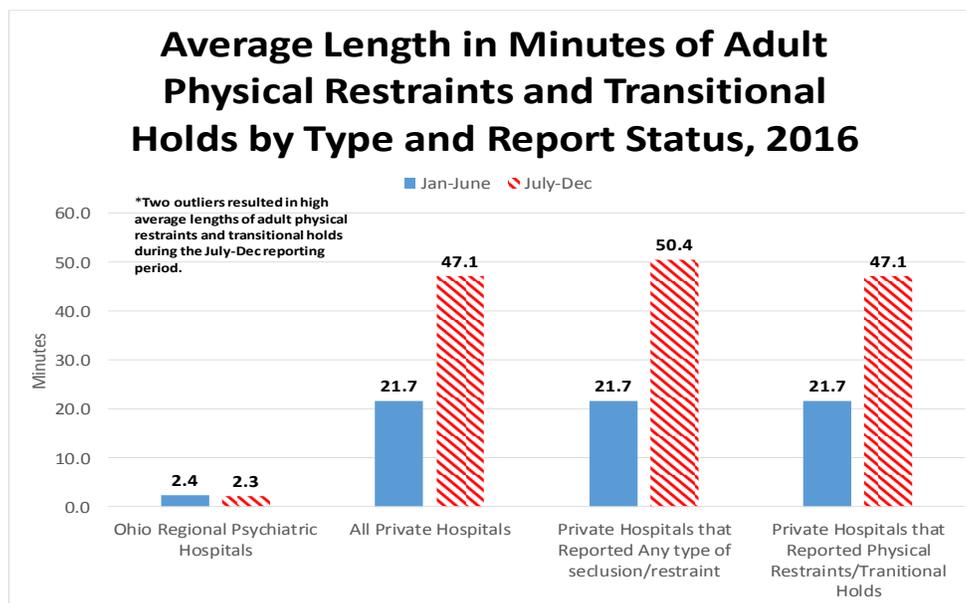
By PICU Status

- Among agencies that have a PICU, the rates of Adult Physical Restraint and transitional holds remained relatively stable across reporting periods. Agencies without a PICU reported a 71.4 percent increase in Adult Physical Restraints and Transitional Holds between the January-June and July-December reporting periods.



Duration of Adult Physical Restraint

Hospitals reported on the minutes of Physical Restraint per month. Table 7 reports the average duration of Adult Physical Restraints and Transitional Holds, while Table 8 includes the average duration of Adult Physical Restraints and Transitional Holds by Geographical Area, by Capacity, and by Average Daily Census (Please see Appendix). The minimum number of minutes of Physical Restraint or transitional hold reported by a private hospital remained stable (1 minute) between the January-June and July-December reporting periods. The maximum number of minutes for a single private hospital increased from 6,752 in January-June to 18,285 in July-December.

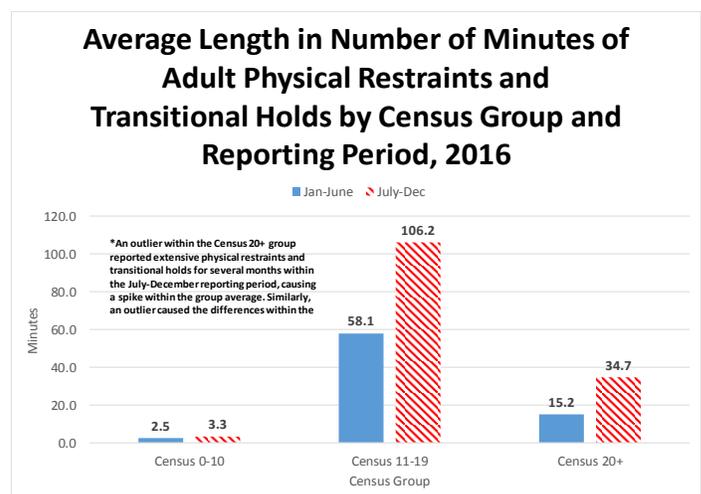
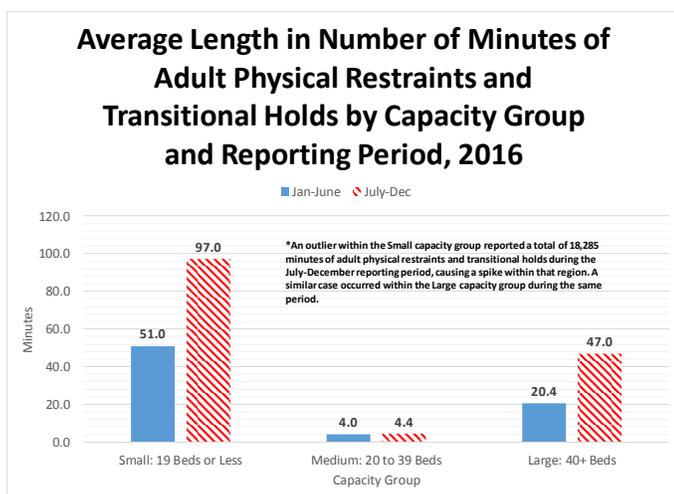
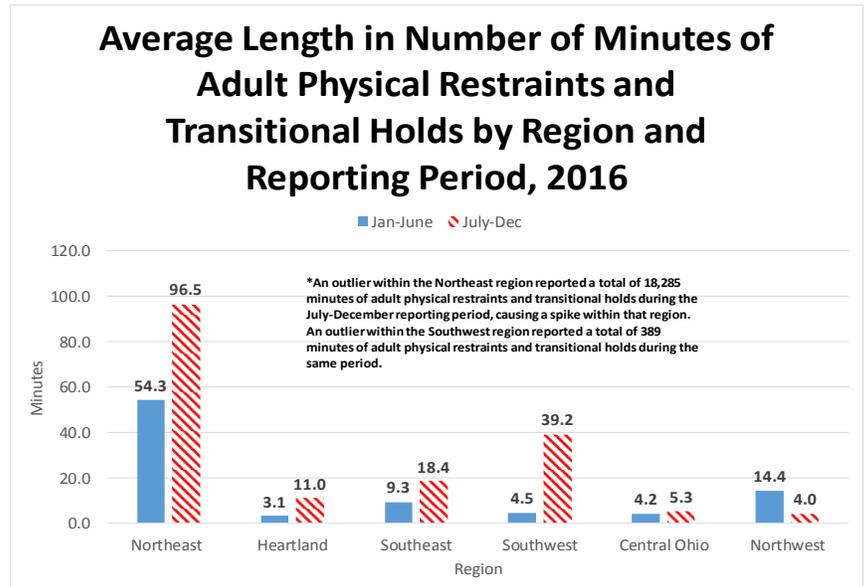


- Average duration was computed to standardize across private hospitals, using only the hospitals that reported incidents. Within this group, the minimum average duration decreased slightly from .50 minutes in January-June to .45 minutes in July-December. The average duration of Adult Physical Restraints and transitional holds increased from 21.72 minutes in January-June to 47.12 minutes in July-December. This 116.9 percent increase could be explained by a single outlier reporting an average length of 720 minutes. The presence of outliers is also supported by the high standard deviations within several of the monthly durations.
- Among private hospitals, the average duration of Physical Restraints varied between months; the shortest average durations were in March (M=7.14 minutes), February (M=7.96 minutes), and January (M=11.91 minutes). The longest average durations occurred in July (M=66.99 minutes) and October (M=44.47 minutes).

- When compared with private hospitals, the six RPHs reported much shorter average durations across the two reporting periods (2.38 and 2.28 minutes) and the average duration remained fairly stable across the twelve months, with slight increases in June (M=2.56 minutes) and October (M=2.91 minutes).

By Geographical Area

- From January to June, the average length of adult physical restraints and transitional holds remained low. The Northeast region was the exception, with an average duration of Physical Restraints of 54.3 minutes. A provider within the region reported an average of 440.8 minutes. The region’s high standard deviation (sd=133.52) also suggests the presence of an outlier. Therefore, the data should be viewed with caution.
- From July to December, the Northeast region had the longest average duration of Physical Restraints and transitional holds (M=96.5 minutes). During that time, a provider within the region reported a six-month average length of 720 minutes. In addition, the region’s percent change between reporting periods (a 77.7 percent increase), and high standard deviation (sd=217.58) suggest that the region’s data should be viewed with caution.
- The Northwest region reported the shortest average length (M=4.0 minutes). In addition, the Northwest region was the only area to report a decrease in average length of Physical Restraint and transitional hold between the January-June and July-December reporting periods.

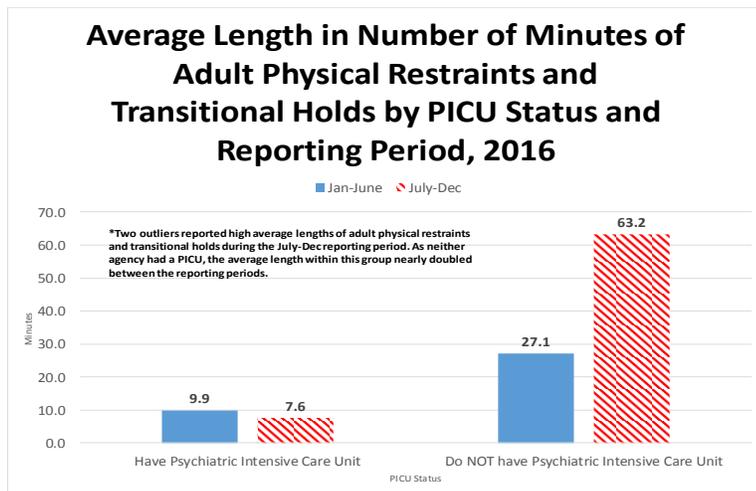


By Capacity and Average Daily Census

- While the average duration of Physical Restraints was high, there was no apparent relationship between a provider’s capacity and the average length of Physical Restraint. Similarly, no relationship was seen between length of Adult Physical Restraint and Census Group. However, a single outlier reported high average lengths, making it difficult to discern patterns within the data.

By PICU Status

The average length of adult physical restraints by PICU status are displayed below. The averages suggest a spike within the July-December reporting period. However, as two separate providers (each without a PICU) reported lengths well above others within the July-December sample, the figures reported here should be viewed with caution.



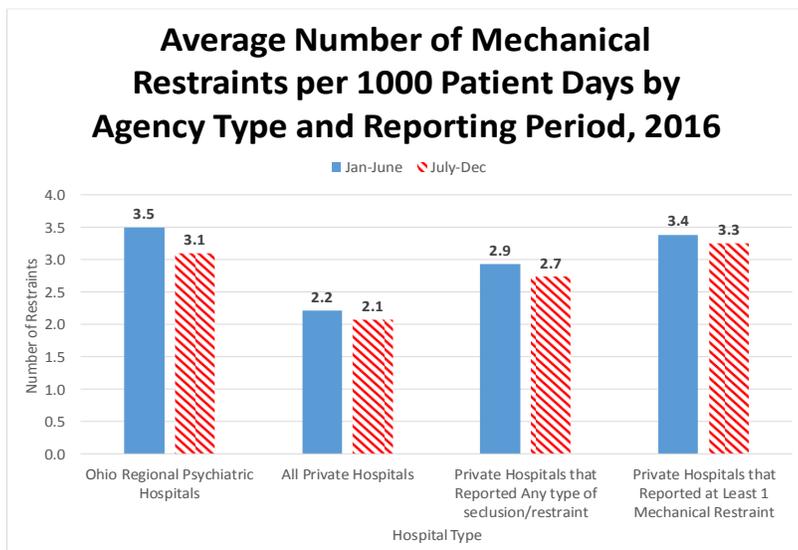
Adult Mechanical Restraints

Table 9 reports the frequency of Adult Mechanical Restraints, Table 10 reports the average duration of Mechanical Restraints, and Table 11 reports the frequency and duration of Mechanical Restraints by Geographical Area, by Capacity, and by Average Daily Census (Please see Appendix).

Frequency of Adult Mechanical Restraints

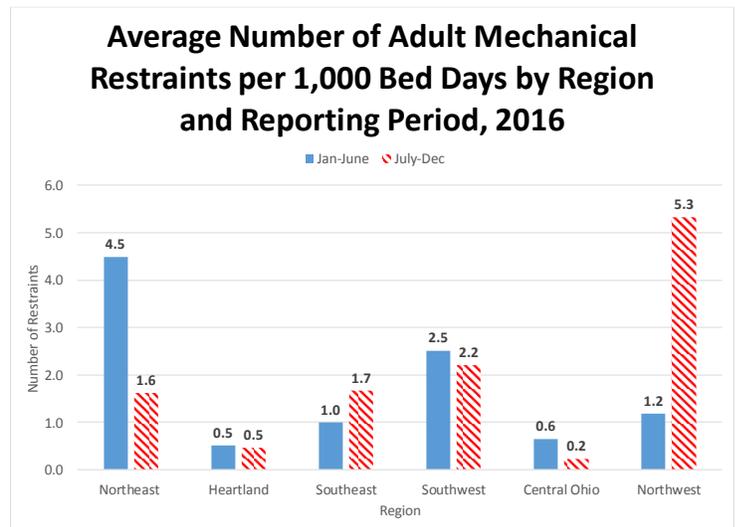
Table 9 reports the frequency of Adult Mechanical Restraints, while Table 11 includes the frequency of Seclusions by Geographical Area, by Capacity, and by Average Daily Census (Please see Appendix). The total number of adult Mechanical Restraints reported in 2016 by all hospitals was 1,472 (N=856 in January-June, and N=616 in July-December).

- Among the hospitals that did report Mechanical Restraints, the maximum number of restraints reported by a hospital decreased from January-June (N=236) to July-December (N=168). As one would expect, the average total number of Mechanical Restraints per hospital also decreased from January-June (M=18.21) to July-December (M=13.11).
- When standardizing across hospitals by patient days, the average number of Mechanical Restraints per 1000 patient days for all adult hospitals decreased from January-June (M=2.21) to July-December (M=2.08).
- The average number of Mechanical Restraints per 1000 patient days decreased between reporting periods (M=2.93 January-June; M=2.74 July-December) for hospitals that reported any type of seclusion or restraint.
- The six RPHs reported an average of 3.50 Mechanical Restraints per 1000 patient days from January-June. The rate decreased to 3.10 during the July-December reporting period. The highest rates within this group occurred in January (M=3.70), February (M=4.39), October (M=3.70), November (M=3.87) and December.



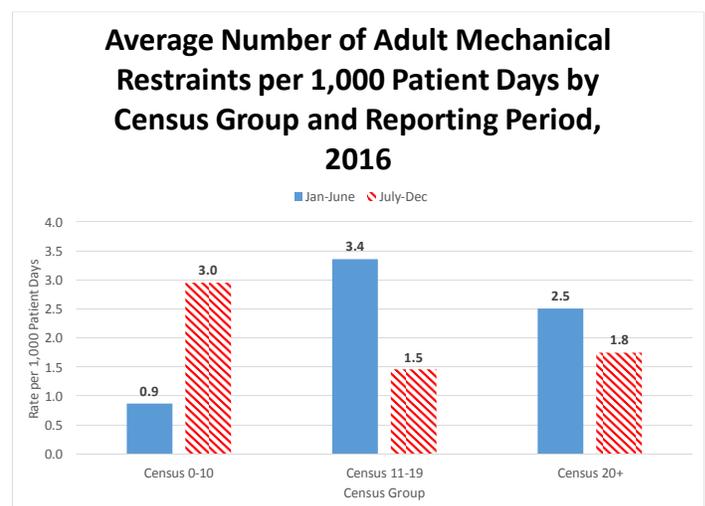
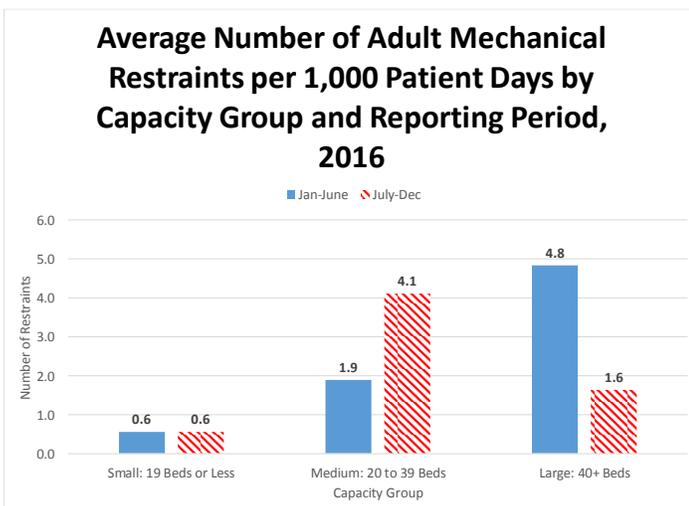
By Geographical Area

- January-June: across most regions, the hospitals average frequency of Mechanical Restraint per 1000 patient days was somewhat similar (Means ranged from 0.3 to 1.6). In contrast, the Northeast reported higher restraint rates during this time period (M=4.5).
- No pattern was seen when compared between reporting periods. Adult Mechanical Restraints remained relatively stable within the Heartland and Southwest regions. In addition, the Northeast, Southwest and Central Ohio regions all reported decreases in average frequency of mechanical restraints between the two reporting periods. Hospitals within the Northeast region reported the largest percent decrease between reporting periods ($M\Delta = -64.4\%$). This change was in contrast to 2015, when the Northeast region saw a 75 percent increase between reporting periods.
- The Northwest region saw the largest increase between reporting periods. As shown here, Adult Mechanical Restraints within this region increased by over 340 percent between the January to June and July to December reporting periods.



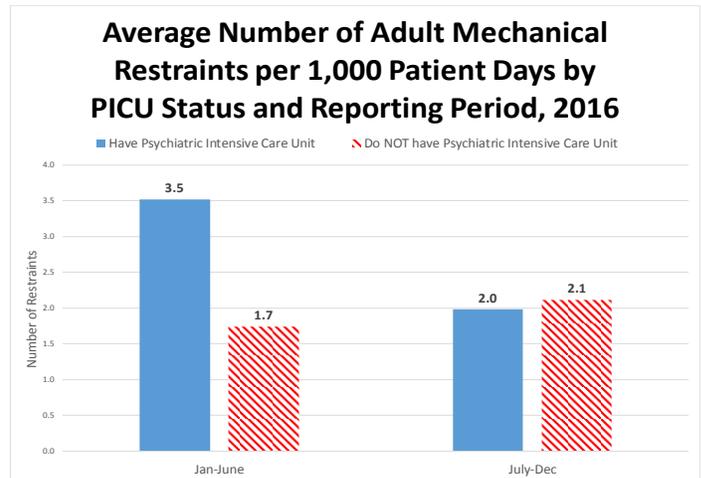
By Capacity/Census Group

- For the average frequency of Mechanical Restraints per 1000 patient by Capacity Groups, the restraint frequency increased with capacity group within the January to June reporting period. No patterns were seen within the July to December reporting period.
- No patterns were found when comparing Mechanical Restraints by Census Group.



By PICU Status

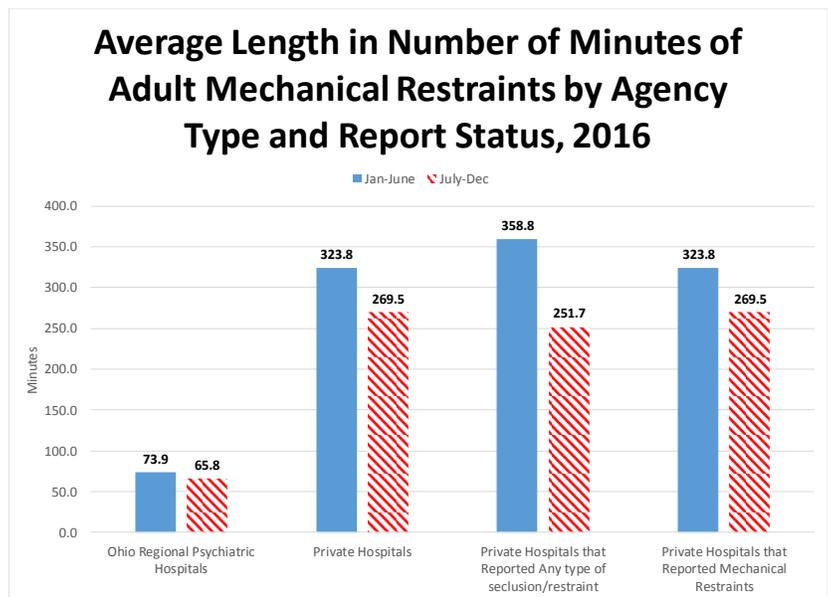
- Within the January-June reporting period, providers with a PICU had over twice as many Adult Mechanical Restraints than those without a PICU. However, the rates evened out within the July-December reporting period, suggesting a need for further data collection and analysis.



Duration of Adult Mechanical Restraints

Hospitals reported on the minutes of Mechanical Restraint per month. Table 10 reports the average duration of Adult Mechanical Restraints, while Table 11 includes the average duration of Adult Mechanical Restraints by Geographical Area, by Capacity, and by Average Daily Census (Please see Appendix).

- Among providers that reported incidences, the minimum length of Mechanical Restraint was 25 minutes in January-June, and increased to 43 minutes in July-December. The maximum number of minutes decreased from 66,666 in January-June to 60,605 in July-December. The average total number of minutes decreased from 4,130 in January-June to 3,687 in July-December.

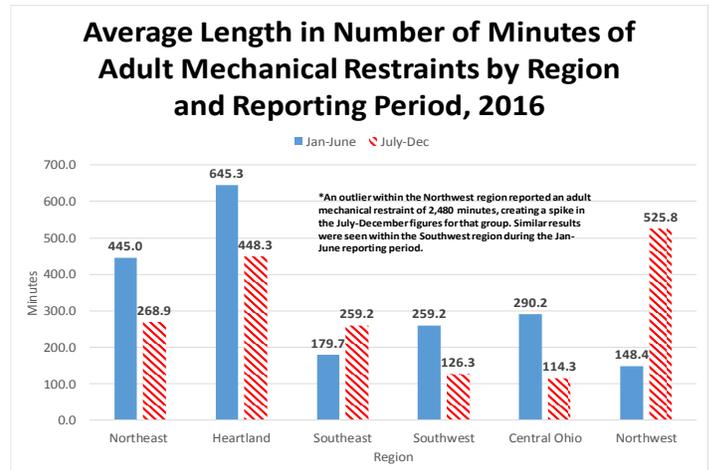


- Average duration was computed to standardize across hospitals, using only the hospitals that reported incidents (see calculation above). Among private hospitals that utilized seclusion and restraint, the minimum average duration increased from 25 minutes January-June to 43 minutes July-December. The maximum average length decreased from 2,762 minutes January-June to 2,480 minutes July-December. The average duration of Mechanical Restraints decreased from 323.8 minutes January-June to 269.5 minutes July-December. For all private hospitals, the average duration of mechanical Restraints was longer during January through June (M=323.8) than in July through December (M=299.56), with the longest average duration in February (M=269.5 minutes).
- The six RPHs reported a decrease in the average duration of mechanical restraints between the two reporting periods (73.91 minutes January-June, 65.79 minutes July-December). The average length rose above ninety

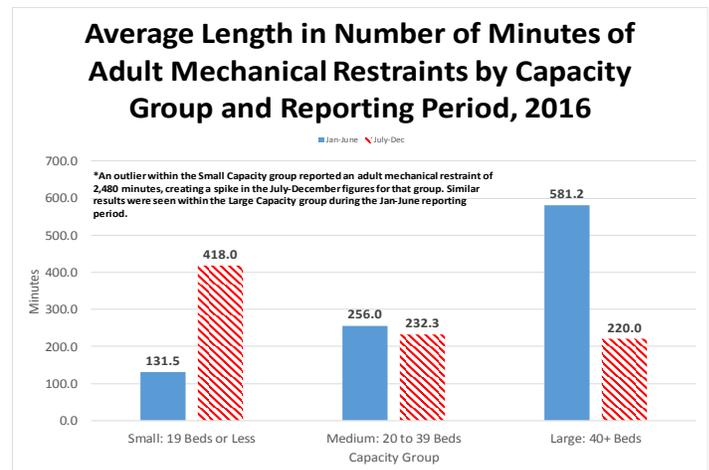
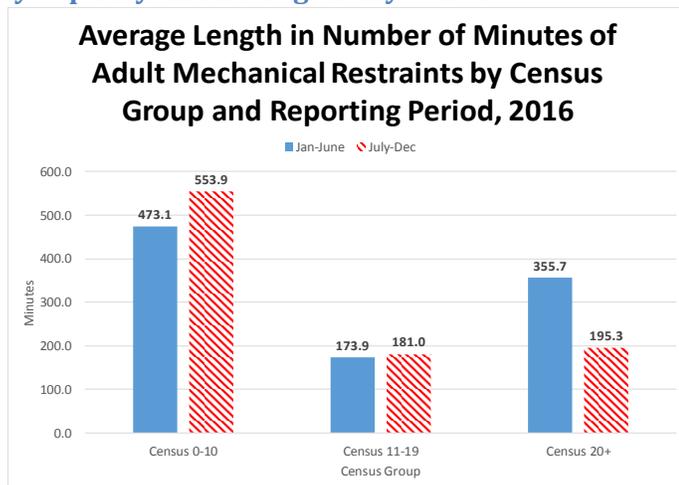
minutes once, in May (93.52 minutes). Additional spikes in length of adult mechanical restraints occurred in January (74.8 minutes), February (76.4 minutes), and July (74.0 minutes).

By Geographical Area

- Hospitals within the Southeast and Northwest regions saw an increase in average duration of Adult Mechanical Restraints between the two reporting periods. Hospitals within the Northwest region reported the largest increase (MΔ=377.4 minutes, a 254% increase). However, the presence of an outlier within this region suggests that the data should be viewed with caution.
- Hospitals in the Northeast, Heartland, Southwest and Central Ohio regions reported decreases in average duration of Adult Mechanical Restraints between the two reporting periods. Hospitals within the Central Ohio region reported the largest decrease (175.9 minutes, MΔ=-60.6%). Again, the presence of an outlier within this region suggests that the data should be viewed with caution.



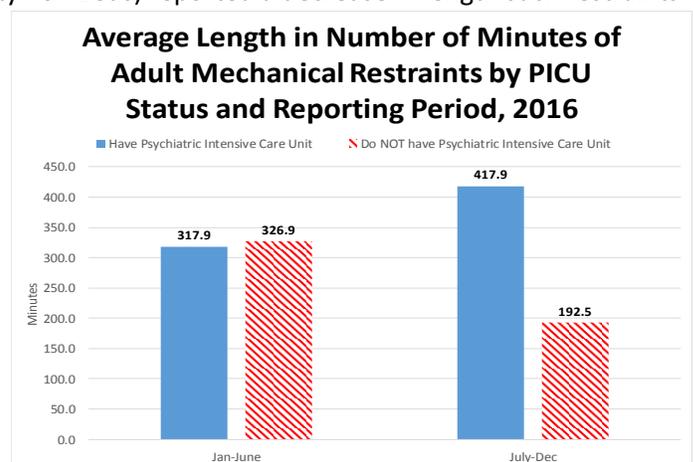
By Capacity and Average Daily Census



- When adult-serving hospitals were grouped by Average Daily Census and Capacity, the Medium Capacity and Middle Census groups reported relatively stable rates of Adult Mechanical Restraint across reporting periods. Members of the larger groups (Census 20+ and Capacity 40+ Beds) reported a decrease in length such restraints between the January- June and July-December reporting periods. No other patterns emerged.

By PICU Status

- Within the January-June reporting period, the two groups were closely related in their average lengths of Adult Mechanical Restraints. However, during the July-December reporting period, PICU status seemed to be related to length of Adult Mechanical restraint. Specifically, providers with a PICU reported a 31.5% increase in average length of such restraints, while rates among those without a PICU decreased by 41.1 percent during the same time period.



Inpatient Psychiatric Hospitals Serving Children and Adolescents⁷

Patient Days

Patient days summarize hospital service utilization. Table 12 reports the monthly average and six-month average patient days for the inpatient psychiatric service providers serving children and youth (Please see Appendix). On average, private inpatient hospitals serving children and adolescents reported more patient days during the January-June (M=474.8) than the July-December (M=418.9) reporting period. There was lower utilization during the months of June (M=348.2), July (M=326.1) and August (M=341.6).

Capacity

Private psychiatric units/hospitals licenses are renewed annually and full licensure renewal requires an on-site survey every three years. The minimum number of children/youth licensed beds by a hospital was 10. The maximum number of licensed beds by a hospital was 84. The average number of licensed beds (M=25.0) was stable across reporting periods. Because of the small number of hospitals serving children and youth, capacity groups were not used in subsequent analyses.

Average Daily Census

The Average Daily Census (ADC) was calculated for each hospital. The formula used to calculate ADC was:

$$ADC = \frac{\text{Total \# of Patient Days}}{\text{\# of days in the reporting period}}$$

The minimum ADC for hospitals serving children and youth was 5.40 for January-June and .13 for July-December. The maximum ADC increased slightly from January-June (59.99) to July-December (61.13). The average ADC increased slightly from January-June (M=13.89) to July-December (M=14.14). Due to the small number of hospitals serving children and youth, census groups were not created.

Occupancy

Occupancy was calculated for each hospital. The formula used to calculate occupancy was:

$$\text{Occupancy} = \frac{\text{Total \# of Patient Days}}{\text{\# of licensed beds * \# of days in the reporting period}}$$

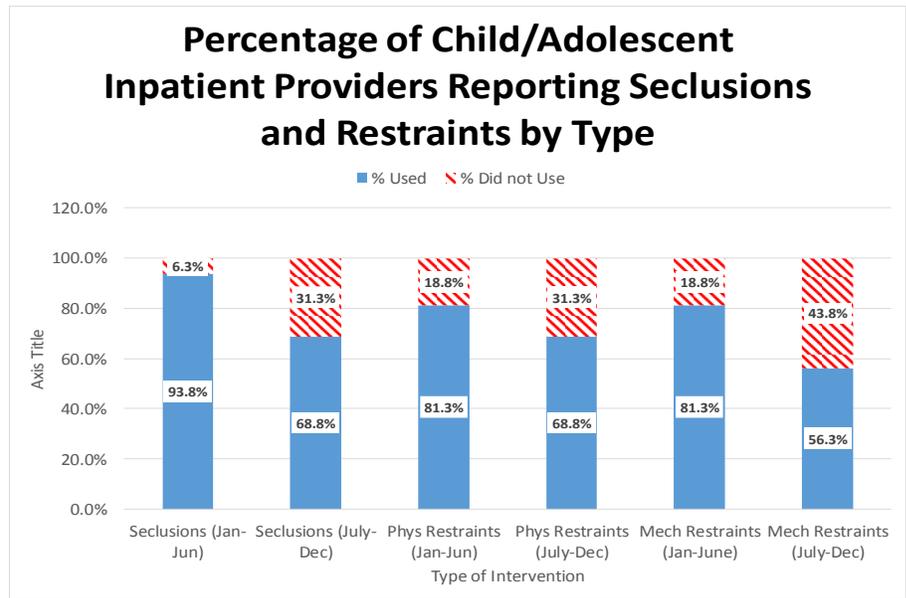
Annually, the minimum occupancy for hospitals serving children and youth increased from 34.21. The maximum occupancy was 92.55. Among child and adolescent providers, the minimum occupancy rate fluctuated between reporting periods (35.63 January-June; .79 July-December). The average occupancy rate also decreased slightly across reporting periods (60.97 January-June, 52.33 July-December). Because of the small number of hospitals serving children and youth, occupancy groups were not created.

⁷Data from outlier agencies have been verified and included within the report. In addition, all branch offices have reported data separately, thereby increasing the January-June 2016 sample size. Therefore, results seen here may vary from previous releases of Jan-June 2016 data. One hospital was removed from the sample due to insufficient data. Frequencies and rates were calculated for the remaining sixteen providers.

Child and Adolescent Providers: Utilization of Seclusion or Restraint

In an effort to better understand the data, OhioMHAS has calculated the frequency data two ways. First, the frequencies were calculated by each Seclusion/Restraint type only for hospitals that used that type. The rates were then calculated using the sample as a whole. Additional indicators such as PICU status were not included within the analysis.

- During the January-June reporting period, 93.8% of child/adolescent providers utilized seclusion. Approximately two-thirds (N=11, 68.8%) of child/adolescent hospitals reported using Seclusions during the July-December reporting period.
- Over 80 percent of private hospitals with child/adolescent beds reported Physical Restraints in January–June (N=13, 81.3%) and over two-thirds reported cases during the July-December reporting period (N=11, 68.8%).
- The number of hospitals serving children and adolescents that reported Mechanical Restraints decreased between the January-June (N=13, 81.3%) and July-December (N=9, 56.3%) reporting periods.



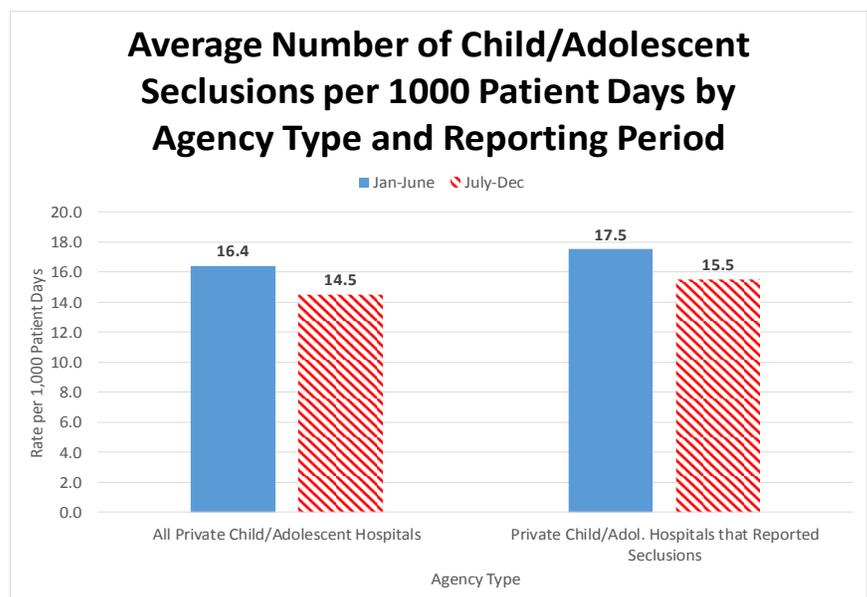
Because the data reporting form does not ask about hospital policy allowing or prohibiting the use of Seclusion or Restraint, a proxy measure of hospitals that allow Seclusion/Restraint would be frequencies reported by the number of hospitals that reported any of the three types of Seclusion or Restraint. Within 2016, all youth-serving hospitals reported a case of at least one of the three types of Seclusion and Restraint.

Table 13 reports the frequency of Seclusions and Restraints, and Table 14 reports the average duration of Seclusions and Restraints (See Appendix). As the denominator increases across each of these calculation methods, the average frequency scores decrease. Although seclusions and restraints for the six RPHs were included within the adult hospital analyses above, there are no RPHs serving children and youth.

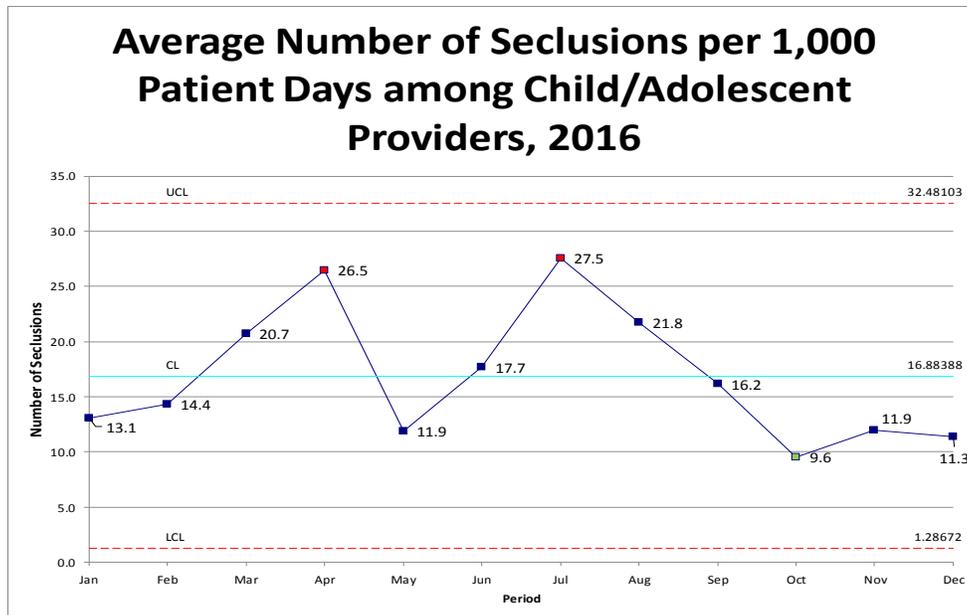
Child and Adolescent Seclusions

Frequency of Seclusion: Child and Adolescent Providers

Table 13 includes the frequency of Child and Adolescent Seclusions (Please see Appendix). The total number of Seclusions reported in 2016 for hospitals serving children and adolescents was 1,550 (785 January-June, 765 July-December).



- Of the hospitals that did report Seclusions (January-June N=15; July-December N=11), the minimum number of cases increased slightly from January-June (N=1) to July-December (N=3). The maximum number reported increased from January-June (N=265) to July-December (N=345). The average total number reported decreased slightly from January-June (M=52.3) to July-December (M=51.0).
- When standardizing across hospitals by patient days, the average number of Seclusions per 1000 patient days decreased between reporting periods (M=17.5 January-June; M=15.5 July-December).
- Among child/adolescent providers who reported seclusions, the monthly average Seclusion rate per 1000 patient days rose above 25 cases during the months of April and July.



Duration of Seclusion: Child and Adolescent Providers

Hospitals reported on the minutes of Child and Adolescent Seclusion per month. Table 14 includes the average length of Child and Adolescent Seclusions (Please see Appendix).

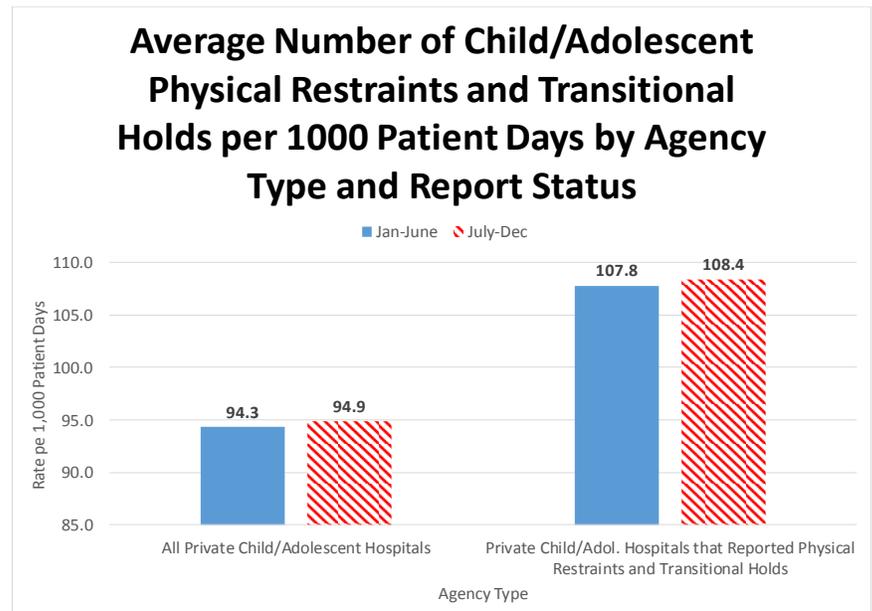
- The minimum number of minutes of Child and Adolescent Seclusion reported by a hospital increased from January-June (N=2.0) to July-December (N=99). The maximum number of minutes reported by a hospital decreased between the January-June (N=6,779) and July-December (N=11,301) reporting periods. The average total number of minutes increased from January-June (M=1,541.40) to July-December (M=2,715.45).
- Average duration was computed to standardize across hospitals, using only the hospitals that reported incidents. The minimum average duration increased from January-June (N=1.56 minutes) to July-December (N=18.17 minutes). The maximum average duration also increased from January-June (N=65.56 minutes) to July-December (N=98.20 minutes). Finally, the mean average duration of Seclusions across hospitals decreased from January-June (M=30.86 minutes) to July-December (M=48.02 minutes).
- The average duration of child seclusions exceeded 50 minutes only once, in July (56.48 minutes); the shortest average duration reported was in February, at M=30.01 minutes.

Child Physical Restraints

Frequency Physical Restraints and Transitional Holds: Child and Adolescent Providers

Table 13 includes the frequency of Child and Adolescent Physical Restraints and Transitional Holds (Please see Appendix). The total number of Physical Restraints reported in 2016 by all youth-serving hospitals was 3,028 (N=1,510 January-June; N=1,518 July-December).

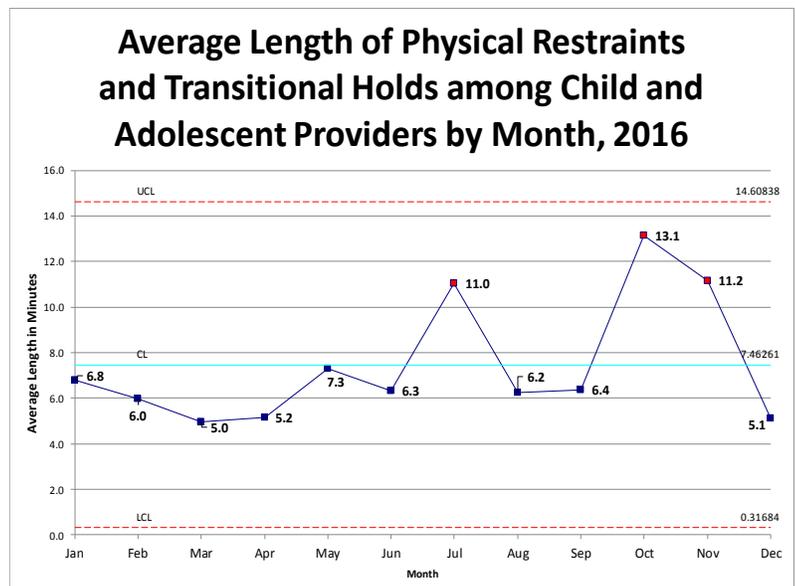
- Of the hospitals that did report Physical Restraints (Jan-June N=13; July-December N=11), the maximum number reported increased from January-June (N=560) to July-December (N=657). The average total number reported remained relatively stable between January-June (M=107.79) and July-December (M=108.43) reporting periods.
- When standardizing across hospitals by patient days, the average number of Physical Restraints and transitional holds per 1000 patient days for hospitals that reported such restraints increased from January-June (M=26.86) to July-December (M=28.04).
- Among child and adolescent providers, the rates of physical restraints and transitional holds remained relatively stable over time. The monthly averages for Physical Restraints per 1000 patient days ranged from 21.17 to 39.14 across the twelve months, with the highest average frequencies in March, July and August. The lowest average frequencies for physical restraints were reported in April, June and September.



Duration of Child and Adolescent Physical Restraints and Transitional Holds

Hospitals reported on the length in minutes of Physical Restraints and Transitional Holds per month. Table 14 includes the average length of Child and Adolescent Physical Restraints and Transitional Holds (Please see Appendix).

- The minimum total duration of child or adolescent Physical Restraint reported by a child or adolescent provider with reported cases increased from January-June (2 minutes) to July-December (20 minutes). The maximum number of total minutes also increased from January-June (N=2,592 minutes) to July-December (N=4,263 minutes). Finally, the average total number of minutes nearly doubled between the January-June (M=540.15 minutes) and July-December (M=917.45 minutes) reporting periods.



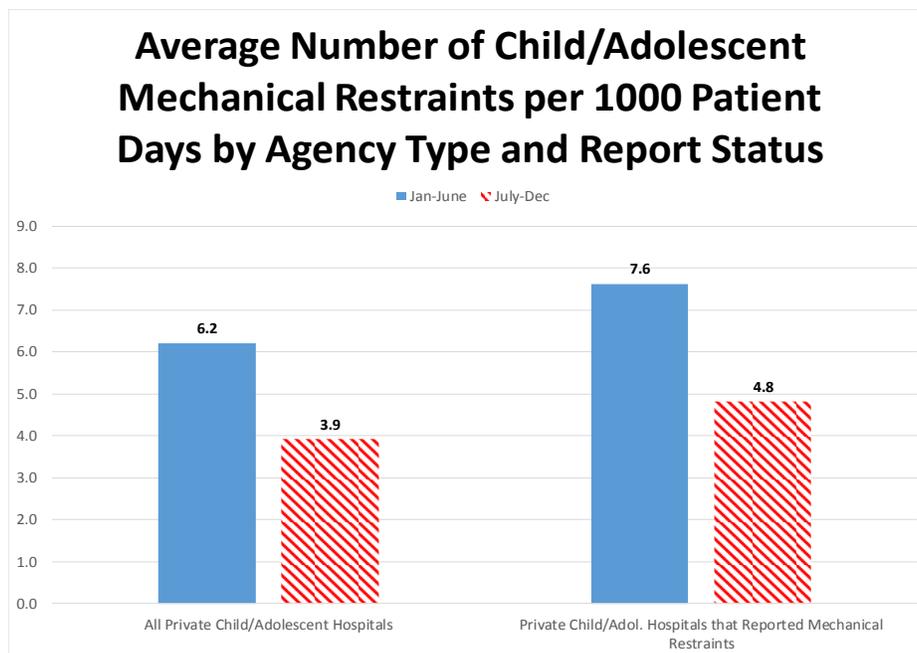
- Average duration was computed to standardize across hospitals, using only the hospitals that reported incidents. The minimum average duration increased between the January-June (M=1.33 minutes) and July-December (M=2.95 minutes) reporting periods. The maximum average duration increased from January-June (N=14.30 minutes) to July-December (N=29.75 minutes). Finally, the average duration of Physical Restraints among child and adolescent providers increased between the January-June (M=6.15 minutes) and July-December (M=10.81 minutes) reporting periods. This increase was most likely due to the outlier that reported the 29.75 minute average.
- Among child and adolescent providers, the average duration of Physical Restraints spiked three times within the twelve-month period. All other averages remained within the expected range.

Child Mechanical Restraints

Frequency of Mechanical Restraints: Child and Adolescent Providers

Table 13 includes the frequency of Child and Adolescent Mechanical Restraints (Please see Appendix). The total number of Mechanical Restraints reported in 2016 by youth-serving hospitals was 532 (304 in January-June, and 228 in July-December).

- Of the hospitals that reported Mechanical Restraints, the maximum number reported by a hospital decreased from January-June (N=141) to July-December (N=113). The average total number reported decreased from January-June (M=23.38) to July-December (M=17.15).
- Within that same group, when standardizing across hospitals by patient days, the average number of Mechanical Restraints per 1000 patient days decreased between January-June (M=7.62) and July-December (M=4.82) reporting periods. Among child and adolescent providers, there was a 37.3% decrease in mechanical restraints between reporting periods.
- The average rate of child and adolescent Mechanical Restraints per 1000 patient days varied across the twelve months. The highest rates were seen within the months of April (M=10.95) and May (M=12.32), with lower rates reported during January, August, October and December.

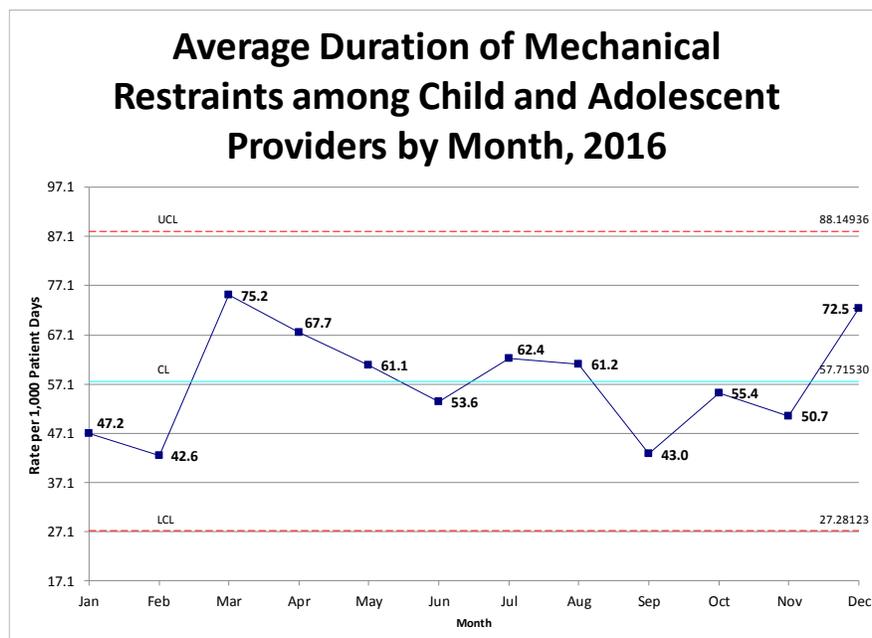


Duration of Mechanical Restraints: Child and Adolescent Providers

Hospitals reported on the length in minutes of Mechanical Restraint per month. Table 14 includes the average length of Child and Adolescent Mechanical Restraints (Please see Appendix).

Private hospitals remained well above Ohio MHAS hospitals.

- Of the hospitals that did report Mechanical Restraints, the minimum number of minutes of Mechanical Restraint decreased from January-June (N=61 minutes) to July-December (N=25 minutes). The maximum number of minutes decreased from January-June (N=7,551 minutes) to July-December (N=6,670 minutes). And the average total number of minutes increased slightly from January-June (M=1,288.77 minutes) to July-December (M=1,297.30 minutes).
- Average duration was computed to standardize across hospitals, using only the hospitals that reported incidents. The minimum average duration decreased from January-June (N=30.50 minutes) to July-December (N=25.00 minutes). Next, the maximum average duration of Mechanical Restraints decreased from January-June (M=140.00 minutes) to July-December (M=102.40 minutes). In contrast, the difference within average duration of mechanical restraints was less pronounced (January-June= 78.06 minutes; July-December= 78.53 minutes).
- The average duration of Mechanical Restraints fluctuated over the twelve-month period, but all changes remained within the expected range. More specifically, the average length rose above 75.0 minutes only once, within the month of March (M=75.2 minutes). In contrast, the shortest average lengths were reported during the months of February (M=42.6 minutes) and September (M=43.0 minutes).



Injury or Illness

Hospitals reported on the number of patient-related injuries and illness (injury and illnesses are reported for both adult and youth-serving hospitals combined). An injury is an event requiring medical treatment that is not caused by a physical illness or medical emergency, and does not include scrapes, cuts or bruises. An illness is a sudden, serious or abnormal medical condition of the body that requires immediate or unplanned admission to a hospital medical unit for treatment. Table 15 (see Appendix) reports the number of patient and staff injuries and illnesses reported.

- The total number of patient injuries requiring emergency/unplanned medical treatment or hospitalization for 2016 was 1,716 (Jan-June N=1,270 July-Dec N=446).
 - The number of hospitals that reported injuries requiring emergency/unplanned treatment increased from January-June (N=16) to July-December (N=25).
 - For the hospitals that reported injuries, the average number of injuries per hospital decreased from January-June (M=2.06) to July-December (M=1.03).
- The total number of patient illness/medical emergency requiring immediate and/or unplanned admission to a hospital medical unit for 2016 was 106.
 - The number of hospitals that reported such patient illnesses/emergencies increased from January-June (N=59) to July-December (N=129). One provider accounted for over half of the total illnesses/injuries within the July-December reporting period.
 - For the hospitals that reported illnesses, the average number of patient illnesses and medical emergencies decreased from January-June (M=14.9) to July-December (M=10.4).

Staff Injuries Related to Seclusion and Restraint

Hospitals also reported on the number of injuries to staff members related to Seclusion and Restraint (adult and youth-serving hospitals data are combined).

- Within the January-June reporting period, 32.8% of providers reported at least one incident of staff injury related to Seclusion and Restraint. During the second reporting period, the rate increased to 36.8%.
- Within 2016, there were N=242 cases of Seclusion and Restraint-related injuries to staff requiring first aid. The reported annual average was M = 9.68. In addition, there were N=33 cases of staff injuries which required unplanned medical intervention. Finally, N =1 Seclusion and Restraint-related injury required hospitalization of a staff member.
 - For the hospitals that reported injuries, the annual average number of injuries requiring first aid was 3.61.
 - For hospitals that reported injuries, the average number of injuries requiring emergency/ unplanned medical intervention was higher during the second reporting period (Jan-June 1.15; July-December 3.25).
 - An outlier agency reported a total of N = 75 cases requiring an unplanned admission to a hospital within the January-June reporting period. In contrast, the highest reported total within the July-December report (M=10.39) was N = 46 cases.

Appendix: Tables

Table 1. Inpatient Private Psychiatric Service Hospitals by Population, Geographical Region and Reporting Period, 2016

	Adult Private Inpatient		Child/Youth Private Inpatient	
	N	%	N	%
TOTAL	72		16	
Northcoast (Northeast)	20	27.8	4	25.0
Heartland	8	11.1	1	6.3
Appalachian (Southeast)	8	11.1	1	6.3
Southwest	15	20.8	4	25.0
Twin Valley (Central Ohio)	9	12.5	3	18.8
Northwest	12	16.7	3	18.8

Table 2. Total Number of Adult Patient Days per Month

		Jan-Jun Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jul-Dec Total
Inpatient Psychiatric Service Providers, Adult-serving (n=72)	Mean	743.3	765.6	719.5	738.5	731.8	758.6	745.9	790.7	744.9	724.9	729.3	692.3	697.7	730.0
	SD	655.4	684.6	622.8	659.0	641.9	670.4	653.6	871.5	729.6	696.8	702.1	665.9	677.6	723.9
	Min	1.0	3.0	1.0	1.0	2.0	4.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Max	2828.0	3077.0	2734.0	2910.0	2764.0	2732.0	2751.0	5150.0	3286.0	3040.0	2963.0	2829.0	3031.0	3383.2
Regional Psychiatric Hospitals (N=6)	Mean	5457.0	5561.7	5218.2	5491.3	5299.7	5524.0	5647.3	5562.5	5540.3	5410.8	5609.3	5450.0	5593.4	5527.7
	SD	2537.9	2545.9290	2389.3550	2558.5351	2436.3015	2515.9099	2781.4083	2590.342	2605.378	2475.919	2572.488	2476.798	2531.915	2542.1
	Min	2495.3	2535.0	2445.0	2455.0	2464.0	2568.0	2505.0	2675.0	2692.0	2619.0	2568.0	2488.0	2540.0	2597.0
	Max	8552.0	8774.0	8219.0	8764.0	8415.0	8654.0	8486.0	8750.0	8757.0	8436.0	8746.0	8533.0	8695.0	8652.8

Table 3. Number of Adult Seclusions per 1,000 Patient Days (Means across Hospitals)

			Jan-Jun Avg.	Jan	Feb	Mar	Apr	May	Jun	Jul-Dec Avg.	Jul	Aug	Sep	Oct	Nov	Dec
Private Hospitals	Hospitals that reported seclusions	Mean	4.3	3.5	4.5	4.4	4.4	5.3	3.8	4.4	3.8	3.8	3.8	4.2	3.3	3.4
		SD	6.6	6.2	7.2	7.6	10.4	10.2	7.3	9.5	7.4	7.1	8.4	9.1	7.5	5.9
	Hospitals that reported any Seclusion/Restraint	Mean	3.7	3.1	3.8	3.7	3.8	4.6	3.3	3.8	3.1	3.3	3.3	3.5	2.7	2.8
		SD	6.4	5.9	6.9	7.2	9.8	9.7	6.9	8.9	6.9	6.7	7.9	8.6	7.0	5.6
	All Private Adult Hospitals	Mean	2.8	2.3	2.9	2.9	2.9	3.5	2.5	2.8	2.4	2.5	2.4	2.6	2.1	2.1
		SD	5.7	5.3	6.2	6.5	8.6	8.6	6.2	7.8	6.1	5.9	6.9	7.5	6.1	4.9
Regional Psychiatric Hospitals		Mean	1.1	0.9	1.3	1.2	1.3	1.0	1.0	1.4	1.2	0.8	1.6	1.4	2.0	1.4
		SD	0.9	1.2	1.3	0.8	1.3	1.2	0.9	0.7	1.1	0.3	0.9	0.9	2.0	0.5

Table 4. Average Length in Minutes of Adult Seclusions (Means Across Hospitals)

Provider Type			Jan-Jun Avg.	Jan	Feb	Mar	Apr	May	Jun	Jul-Dec Avg.	Jul	Aug	Sep	Oct	Nov	Dec
All Private Hospitals	N		27.0	27.0	30.0	26.0	29.0	28.0	22.0	26.0	25.0	29.0	25.0	25.0	25.0	27.0
	Mean		210.7	194.3	140.8	164.3	297.9	203.6	263.3	247.2	244.9	183.3	160.9	315.8	269.9	308.4
	SD		299.8	275.3	98.7	107.5	645.1	221.0	451.4	356.1	222.9	162.5	109.9	403.0	362.5	876.0
Regional Psychiatric Hospitals	N		4.8	4.0	4.0	5.0	5.0	5.0	6.0	5.7	5.0	6.0	6.0	6.0	5.0	6.0
	Mean		61.4	74.1	43.9	68.0	59.2	50.4	73.0	62.7	59.8	52.8	51.7	90.2	65.5	56.1
	SD		36.9	49.3	6.2	27.0	24.1	24.5	90.3	24.9	24.8	29.5	7.9	42.7	31.7	13.1

Table 5. Average Adult Seclusion Frequency and Duration

		Frequency per 1000 Patient Days			Average Duration (Minutes)	
		Annual Total	January-June	July-December	January-June	July-December
		N	Mean	Mean	Mean	Mean
Geographical Area	Northeast	20	4.9	3.2	207.3	239.5
	Heartland	8	0.7	0.4	130.0	330.3
	Southeast	8	1.0	0.6	174.3	435.0
	Southwest	15	3.9	3.8	172.3	141.1
	Central Ohio	9	1.5	1.2	169.8	129.3
	Northwest	12	1.6	5.5	303.5	380.7
Capacity	Small: 19 or Less	27	0.5	0.3	238.5	237.7
	Medium: 20 to 39	24	3.4	4.8	184.6	203.2
	Large: 40+	20	5.3	3.9	163.8	195.9
Avg Daily Census	Census 0-10	23	0.8	3.1	319.2	551.5
	Census 11-19	19	4.8	2.3	258.5	282.6
	Census 20+	30	3.1	2.9	144.0	131.4
PICU Status	Have Psychiatric Intensive Care Unit	19	3.5	1.5	294.6	307.1
	Do NOT have Psychiatric Intensive Care Unit	53	1.5	3.3	162.4	214.6

Please note: The formula for computing duration only includes hospitals that reported seclusions for that period. Therefore, the N changes based upon the number of providers that report during a given month.

Table 6. Frequency of Adult Physical Restraints and Transitional Holds per 1000 Patient Days (Means Across Hospitals)

		Jan-Jun Avg	Jan	Feb	Mar	Apr	May	Jun	Jul-Dec Avg	Jul	Aug	Sep	Oct	Nov	Dec	
Private Hospitals	Private Hospitals that reported physical restraints, transitional holds	Mean	2.6	2.2	2.8	2.5	3.1	2.2	2.5	3.7	5.4	2.5	3.3	3.9	3.2	3.9
		SD	5.0	5.8	5.4	5.0	5.4	3.9	4.4	6.5	11.7	4.3	5.9	5.8	6.1	5.0
	Private Hospitals that reported any Seclusion/Restraint	Mean	1.9	1.7	2.1	1.9	2.4	1.7	1.9	2.7	4.1	1.9	2.5	2.8	2.3	2.6
		SD	4.4	5.1	4.8	4.4	4.9	3.5	4.0	5.8	10.4	3.9	5.4	5.3	5.5	4.3
	All Private Hospitals	Mean	1.5	1.3	1.6	1.4	1.8	1.3	1.4	2.1	3.0	1.4	1.9	2.2	1.8	2.2
		SD	3.9	4.5	4.3	3.9	4.3	3.1	3.5	5.2	9.1	3.5	4.7	4.8	4.8	4.2
Regional Psychiatric Hospitals	Mean	3.0	2.8	4.2	2.9	2.6	2.3	3.4	3.1	3.0	2.5	3.3	2.5	3.8	3.2	
	SD	2.5	3.1	5.0	2.3	1.1	1.0	2.4	1.7	1.5	0.7	1.5	2.3	1.6	2.7	

Table 7. Average Length in Minutes of Adult Physical Restraints (Means Across Hospitals)

		Jan-Jun Avg	Jan	Feb	Mar	Apr	May	Jun	Jul-Dec Avg	Jul	Aug	Sep	Oct	Nov	Dec
All Private Hospitals	N	21	18.0	20.0	21.0	23.0	22.0	20.0	23	24.0	19.0	22.0	23.0	26.0	24.0
	Mean	23	11.9	8.0	7.1	37.5	12.1	59.1	35	67.0	15.6	17.7	44.5	39.0	27.5
	SD	71	31.8	14.7	15.9	122.1	30.7	211.2	110	206.2	32.5	42.3	150.0	140.5	91.0
Regional Psychiatric Hospitals	N	6	6.0	6.0	6.0	6.0	6.0	6.0	6	6.0	6.0	6.0	6.0	6.0	6.0
	Mean	2	2.0	2.3	2.4	2.4	2.3	2.6	2	2.2	2.0	2.1	2.9	2.1	2.1
	SD	1	1.1	1.2	0.7	1.1	1.0	1.5	1	1.2	0.5	0.7	1.8	0.6	0.9

Please note: The formula for computing duration only includes hospitals that reported physical restraints for that period. Therefore, the N changes based upon the number of providers that report during a given month.

Table 8. Adult Physical Restraints and Transitional Holds: Average Frequency and Duration

		Frequency per 1000 Patient Days			Average Duration (Minutes)	
		Annual Total	January-June	July-December	January-June	July-December
		N	Mean	Mean	Mean	Mean
Geographical Area	Northeast	20	4.9	3.2	207.3	239.5
	Heartland	8	0.7	0.4	130.0	330.3
	Southeast	8	1.0	0.6	174.3	435.0
	Southwest	15	3.9	3.8	172.3	141.1
	Central Ohio	9	1.5	1.2	169.8	129.3
	Northwest	12	1.6	5.5	303.5	380.7
Capacity	Small: 19 or Less	27	0.5	0.3	238.5	237.7
	Medium: 20 to 39	24	3.4	4.8	184.6	203.2
	Large: 40+	20	5.3	3.9	163.8	195.9
Avg Daily Census	Census 0-10	23	0.8	3.1	319.2	551.5
	Census 11-19	19	4.8	2.3	258.5	282.6
	Census 20+	30	3.1	2.9	144.0	131.4
PICU Status	Have Psychiatric Intensive Care Unit	19	3.5	1.5	294.6	307.1
	Do NOT have Psychiatric Intensive Care Unit	53	1.5	3.3	162.4	214.6

Please note: The formula for computing duration only includes hospitals that reported seclusions for that period. Therefore, the N changes based upon the number of providers that report during a given month.

Table 9. Frequency of Adult Mechanical Restraints per 1000 Patient Days (Means across Hospitals)

			Jan-Jun Avg	Jan	Feb	Mar	Apr	May	Jun	Jul-Dec Avg	Jul	Aug	Sep	Oct	Nov	Dec
Private Hospitals	Hospitals that reported mechanical restraints	Mean	3.4	4.2	3.0	2.8	4.3	3.2	2.9	2.3	3.3	2.5	2.7	2.1	1.8	1.5
		SD	7.5	11.0	5.1	5.7	10.1	8.2	4.9	5.5	8.6	6.3	6.1	5.4	3.4	3.4
	Hospitals that reported any Seclusion/Restraint	Mean	2.9	3.6	2.5	2.4	3.8	2.8	2.5	1.9	2.8	2.1	2.2	1.8	1.3	1.3
		SD	7.1	10.3	4.9	5.4	9.5	7.7	4.6	5.1	8.0	5.9	5.7	5.0	3.1	3.2
	All Private Hospitals	Mean	2.2	2.7	2.0	1.8	2.8	2.1	1.9	1.5	2.1	1.6	1.7	1.3	1.2	1.0
		SD	6.3	9.1	4.4	4.8	8.4	6.8	4.2	4.5	7.0	5.1	5.0	4.4	2.8	2.8
Regional Psychiatric Hospitals	Mean	3.5	3.7	4.4	3.1	3.7	3.4	2.7	3.1	3.3	2.2	2.7	3.7	3.9	2.9	
	SD	2.6	2.0	3.9	1.7	2.9	3.4	2.0	2.0	1.9	0.9	1.6	2.6	3.0	1.9	

Table 10. Average Length in Minutes of Adult Mechanical Restraints (Means across Hospitals)

		Jan-Jun Avg	Jan	Feb	Mar	Apr	May	Jun	Jul-Dec Avg	Jul	Aug	Sep	Oct	Nov	Dec
All Private Hospitals	N	23	25	20	19	23	25	23	19	23	25	22	14	18	14
	Mean	179.4	146.4	200.9	190.7	176.5	228.3	133.6	207.0	236.1	145.4	213.1	134.9	297.3	215.2
	SD	127.7	110.8	131.2	142.8	77.6	227.0	77.1	223.9	200.2	112.6	174.5	71.7	555.0	229.7
Regional Psychiatric Hospitals	N	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	Mean	73.2	74.8	76.4	62.0	70.2	93.5	62.5	65.9	74.0	66.0	71.5	61.7	62.2	60.0
	SD	26.7	38.2	32.3	9.5	19.8	50.0	10.2	14.6	19.4	13.4	15.6	13.4	14.8	10.9

Please note: The formula for computing duration only includes hospitals that reported mechanical restraints for that period. Therefore, the N changes based upon the number of providers that report during a given month. One outlier was removed from the analysis.

Table 11. Adult Mechanical Restraint: Average Frequency and Duration

		Annual Total	Frequency per 1000 Patient Days		Average Duration (Minutes)	
			January-June	July-December	January-June	July-December
		N	Mean	Mean	Mean	Mean
Geographical Area	Northeast	20	4.5	1.6	445.0	268.9
	Heartland	8	0.5	0.5	645.3	448.3
	Southeast	8	1.0	1.7	179.7	259.2
	Southwest	15	2.5	2.2	259.2	126.3
	Central Ohio	9	0.6	0.2	290.2	114.3
	Northwest	12	1.2	5.3	148.4	525.8
Capacity	Small: 19 or Less	27	0.6	0.6	131.5	418.0
	Medium: 20 to 39	24	1.9	4.1	256.0	232.3
	Large: 40+	20	4.8	1.6	581.2	220.0
Avg Daily Census	Census 0-10	23	0.9	3.0	473.1	553.9
	Census 11-19	19	3.4	1.5	173.9	181.0
	Census 20+	30	2.5	1.8	355.7	195.3
PICU Status	Have Psychiatric Intensive Care Unit	19	3.5	1.5	317.9	417.9
	Do NOT have Psychiatric Intensive Care Unit	53	2.6	3.3	326.9	192.5

Table 12. Total Number of Patient Days per Month, Child/Adolescent Providers

		Jan-Jun Avg.	Jan	Feb	Mar	Apr	May	Jun	Jul-Dec Avg.	Jul	Aug	Sep	Oct	Nov	Dec
Inpatient Psychiatric Service Providers	Mean	474.8	479.4	492.6	500.3	522.8	505.4	348.2	418.9	326.1	341.6	451.9	500.4	458.3	435.1
	SD	422.8	406.9	405.6	427.5	479.0	469.9	348.2	433.1	330.9	365.9	460.3	503.7	492.8	445.2
	Min	157.7	141.0	180.0	185.0	163.0	170.0	107.0	3.8	0.0	12.0	2.0	8.0	0.0	1.0
	Max	1819.7	1743.0	1760.0	1866.0	2036.0	1983.0	1530.0	1864.5	1413.0	1600.0	2006.0	2160.0	2108.0	1900.0

Table 13. Frequency of Seclusions and Restraints per 1000 Patient Days among Child and Adolescent Providers (Means across Hospitals)

			Jan-Jun Avg.	Jan	Feb	Mar	Apr	May	Jun	Jul-Dec Avg.	Jul	Aug	Sep	Oct	Nov	Dec
Seclusions	Hospitals that reported Seclusions	Mean	17.5	13.1	14.4	20.7	26.5	11.9	17.7	15.5	27.5	21.8	16.2	9.6	11.9	11.3
		SD	26.3	31.3	33.3	36.4	59.8	15.6	21.5	21.2	67.3	34.7	22.9	14.3	20.8	25.4
	All Private Hospitals	Mean	16.4	12.3	13.5	19.4	24.8	11.2	16.6	14.5	25.7	20.4	15.1	9.0	11.2	10.6
		SD	25.8	30.4	32.4	35.5	58.1	15.4	21.2	20.9	65.2	34.0	22.5	14.1	20.3	24.7
Physical Restraints	Hospitals that reported Physical Restraints	Mean	107.8	26.0	28.0	35.3	21.2	28.1	21.2	108.4	29.0	39.1	22.3	28.9	22.8	23.4
		SD	192.6	61.5	61.9	79.7	39.6	50.9	27.0	205.3	52.5	69.7	43.1	40.1	43.5	53.7
	All Private Hospitals	Mean	23.5	22.8	24.5	30.9	18.5	24.5	18.6	24.5	25.2	34.2	19.5	25.3	19.8	20.5
		SD	50.7	58.0	58.4	75.2	37.6	48.4	26.1	44.2	49.7	66.3	40.8	38.6	41.1	50.6
Mechanical Restraints	Hospitals that reported Mechanical Restraints	Mean	7.6	3.4	5.5	7.2	11.0	12.3	6.1	4.8	6.2	4.9	7.9	3.5	4.7	2.3
		SD	10.1	6.6	12.9	10.6	16.9	22.3	12.2	6.9	10.0	7.3	16.8	5.8	14.2	5.2
	All Hospitals	Mean	6.2	2.8	4.5	5.9	8.9	10.0	4.9	13.9	5.0	4.0	6.4	2.9	3.8	1.8
		SD	9.6	6.0	11.7	9.9	15.7	20.5	11.2	30.5	9.3	6.8	15.4	5.3	12.7	4.7

Table 14. Average Length in Minutes of Seclusion and Restraint among Child and Adolescent Providers (Means across Hospitals)

		Jan-Jun Avg	Jan	Feb	Mar	Apr	May	Jun	Jul-Dec Avg	Jul	Aug	Sep	Oct	Nov	Dec
Seclusions	N	8.2	10.0	9.0	8.0	11.0	11.0	0.0	8.2	10.0	9.0	9.0	6.0	8.0	7.0
	Mean	30.5	36.1	30.0	45.1	39.2	32.8	0.0	44.0	56.5	45.5	44.0	38.4	38.5	41.0
	SD	21.5	27.8	17.3	28.2	26.9	28.7	0.0	27.2	41.4	25.6	23.9	18.0	26.8	27.3
Physical Restraints	N	10	9	11	10	11	12	9	8.8	9.0	9.0	9.0	10.0	9.0	7.0
	Mean	6.1	6.8	6.0	5.0	5.2	7.3	6.3	8.8	11.0	6.2	6.4	13.1	11.2	5.1
	SD	4.7	6.2	4.3	3.2	4.8	6.9	3.0	9.7	16.2	4.9	3.1	17.1	13.9	2.7
Mechanical Restraints	N	5.8	4	4	7	9	6	5	5.0	7.0	6.0	7.0	5.0	2.0	3.0
	Mean	57.9	47.2	42.6	75.2	67.7	61.1	53.6	57.5	62.4	61.2	43.0	55.4	50.7	72.5
	SD	21.6	11.4	15.2	43.1	28.5	14.7	16.8	30.3	57.4	15.3	13.5	31.8	22.4	41.3

Please note: The formula for computing duration only includes hospitals that reported seclusions for that period. Therefore, the N changes based upon the number of providers that report during a given month.

Table 15. Frequency of Patient Injury or Illness Related to Seclusion and Restraint

	Patient Injury or Illness			
	Injuries requiring emergency/unplanned medical treatment or hospitalization		Illness/Medical emergency requiring immediate admission to a hospital	
	Jan-June	July-Dec	Jan-June	July-Dec
# Hospitals reporting injuries	16	25	41	28
Mean	2.06	1.98	14.89	10.39