

**Ohio Department of Mental Health and Addiction Services**  
**Seclusion and Restraint Six Month Data Report Results**  
**Inpatient Psychiatric Service Providers**  
**January through December 2012**

Ohio Department of Mental Health & 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.

**Inpatient Psychiatric Service Providers**

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 (bed days), number and minutes of Seclusion<sup>1</sup>, Physical Restraints<sup>2</sup>, Mechanical Restraints<sup>3</sup>, number of patient injuries or illnesses, and number of injuries to staff from Seclusion and Restraint.

Comparisons. In order to compare across organizations frequencies were calculated on 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

There were 76 total hospitals operating in January – June 2012, this increased to 80 hospitals operating in July – December 2012. Table 1 below reports the number of hospitals serving adults and youth for the total state as well as within each geographical area. The figure below shows the geographical areas based on referral regions for the six OhioMHAS Regional Psychiatric Hospitals.

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<sup>1</sup> 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.

<sup>2</sup> 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.

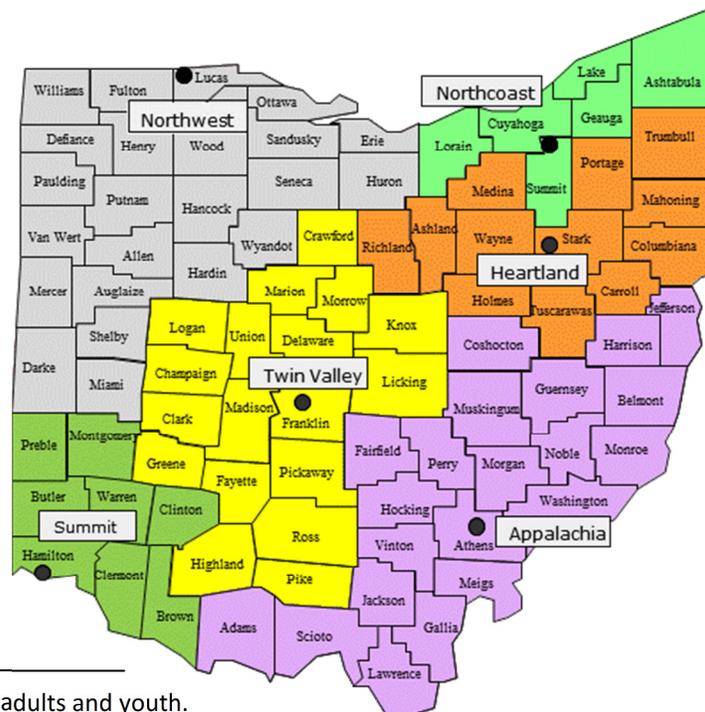
<sup>3</sup> Mechanical Restraint means a staff intervention that involves any method of restricting a patient's freedom of movement, physical activity, or normal use of his or her body, using an appliance or device manufactured for this purpose.

- The Northeast region has the highest number of hospitals for both adults, and children and youth, with no changes between the reporting periods.
- The Southwest region gained two hospitals, and the Northwest region gained one hospital, each region having twenty percent of total number of hospitals serving adults.
- The Central and Southeast regions each gained one additional hospital serving adults.
- The Heartland region had a decrease of one hospital serving adults in July-December 2012.
- The number of hospitals serving youth stayed the same across reporting periods.
- The Heartland, Southeast, and Central regions have smaller percentages of both adult- and youth-serving hospitals.

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

**Table 1. Inpatient Psychiatric Service Providers by Geographical Region.**

	Adult Private Inpatient				Child/Youth Private Inpatient			
	Jan-Jun 2012	Jan-Jun 2012	Jul-Dec 2012	Jul-Dec 2012	Jan-Jun 2012	Jan-Jun 2012	Jul-Dec 2012	Jul-Dec 2012
	N	%	N	%	N	%	N	%
TOTAL	68 <sup>4</sup>		72 <sup>4</sup>		16 <sup>4</sup>		16 <sup>4</sup>	
Northeast/Northcoast	18	26.5	18	25.0	5	31.3	5	31.3
Heartland	8	11.7	7	9.7	2	12.5	2	12.5
Southeast/Summit	7	10.3	8	11.1	1	6.3	1	6.3
Southwest/Appalachia	13	19.1	15	20.8	3	18.8	3	18.8
Central/Twin Valley	8	11.8	9	12.5	2	12.5	2	12.5
Northwest	14	20.6	15	20.8	3	18.8	3	18.8



<sup>4</sup> 8 hospitals serve both adults and youth.

# Inpatient Psychiatric Hospitals Serving Adults

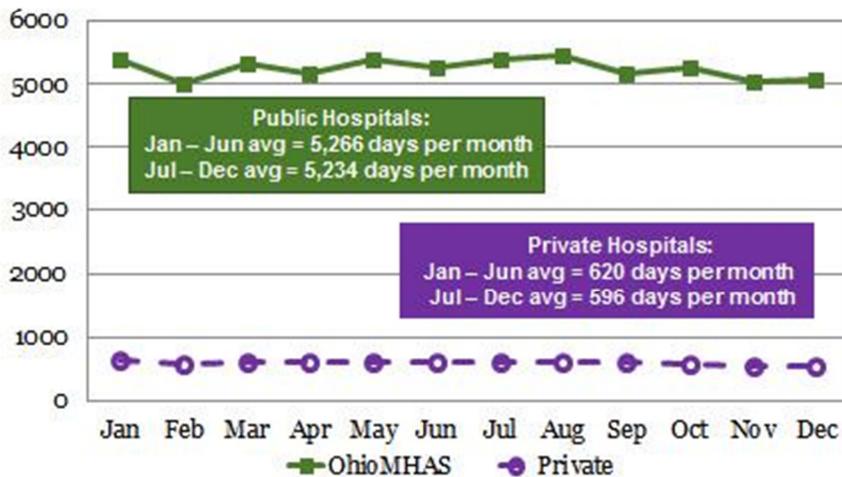
## *Patient Days*

Patient days<sup>5</sup> summarize hospital service utilization. Table 2 below reports the monthly average, and six-month total, patient days for the OhioMHAS hospitals and the inpatient psychiatric service providers serving adults. On average, private inpatient hospitals reported 620 patient days per month January – June, and 596 July – December 2012. On average public hospitals reported 5,266 patient days per month January – June, and 5,234 July – December 2012.

**Table 2. Total number of patient days per month**

		Jan-Jun Total	Jan	Feb	Mar	Apr	May	Jun	Jul-Dec Total	Jul	Aug	Sep	Oct	Nov	Dec
Inpatient Psychiatric Service Providers (Adult-serving)	<b>Mean</b>	<b>3718</b>	<b>635</b>	<b>590</b>	<b>633</b>	<b>606</b>	<b>626</b>	<b>628</b>	<b>3577</b>	<b>616</b>	<b>620</b>	<b>611</b>	<b>600</b>	<b>559</b>	<b>572</b>
	SD	3,102	535	490	530	510	515	539	3,028	538	537	508	506	476	487
	Min	24	7	4	0	7	4	2	36	0	3	6	12	5	6
	Max	12093	2061	1872	2044	2032	2077	2053	12366	2146	2176	2025	1996	2051	2034
OhioMHAS Hospitals (N=6)	<b>Mean</b>	<b>31595</b>	<b>5403</b>	<b>5004</b>	<b>5344</b>	<b>5189</b>	<b>5399</b>	<b>5255</b>	<b>31410</b>	<b>5383</b>	<b>5444</b>	<b>5178</b>	<b>5263</b>	<b>5053</b>	<b>5089</b>
	SD	14118	2426	2261	2440	2336	2374	2294	13365	2392	2351	2229	2197	2123	2107
	Min	14271	2552	2282	2298	2211	2475	2453	14776	2501	2540	2307	2497	2462	2469
	Max	47586	8163	7491	8017	7749	8243	7923	47334	8244	8392	7930	7841	1399	7528

## Total number of patient days per month



<sup>5</sup> Patient days are the sum of all census days less the sum of all leave days.

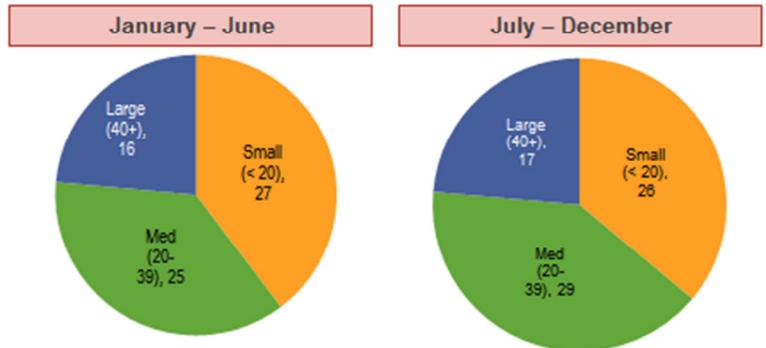
## Capacity

Private psychiatric units/hospitals are licensed annually and full licensure renewal requires an on-site survey every three years. The minimum number of licensed beds by a hospital was 6, and the maximum number of licensed beds by a hospital was 96; this was the same across both reporting periods. The average number of licensed beds was 31.0 (sd=21.7) January – June and increased slightly to 31.5 (sd=21.7) July – December 2012.

Based on the number of licensed beds, hospitals were grouped in to 3 categories:

- Hospitals with less than 20 beds
  - Jan-Jun: N=27, 39.7%
  - Jul-Dec: N=26, 36.1%
- Hospitals with 20-39 beds
  - Jan-Jun: N= 25, 36.8%
  - Jul-Dec: N=29, 40.3%
- Hospitals with 40 or more beds
  - Jan-Jun: N=16, 23.5%
  - Jul-Dec: N=17, 23.6%

### Capacity (Number of Licensed Beds)



Seclusion and Restraint results will be reported by hospital capacity groups.

## Occupancy

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

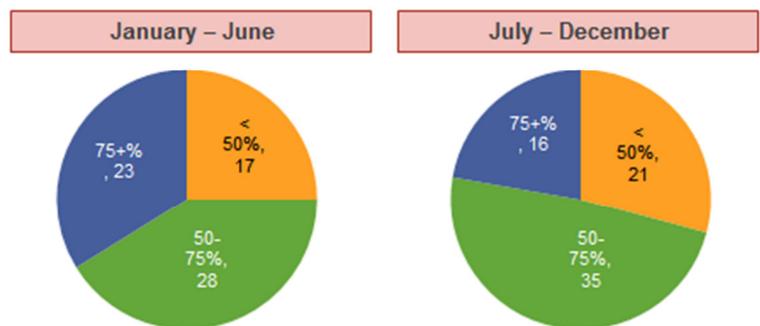
$$\text{Occupancy} = \frac{\text{Total \# of Patient Days}}{\text{\# of licensed beds * \# days in the 6-month period}}$$

The minimum occupancy increased from 0.7% January – June, to 1.1% July – December; the maximum occupancy decreased from 102.1% January – June, to 97.4% July – December. The average occupancy decreased from 63.4% (sd=20.5%) January – June, to 59.6% (sd=20.0%) July – December.

Based on the occupancy percentages, hospitals were grouped in to 3 categories:

- Hospitals with less than 50% occupancy
  - Jan-Jun: N=17, 25.0%
  - Jul-Dec: N=21, 29.2%
- Hospitals with 50 – 75% occupancy
  - Jan-Jun: N=28, 41.2%
  - Jul-Dec: N=35, 48.6%
- Hospitals with over 75% occupancy
  - Jan-Jun: N=23, 33.8%
  - Jul-Dec: N=16, 22.2%

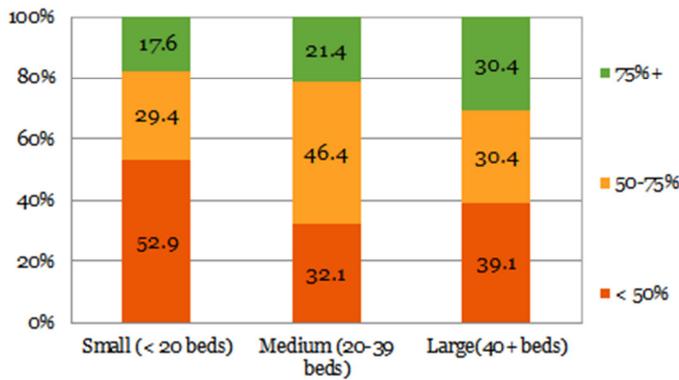
### Occupancy



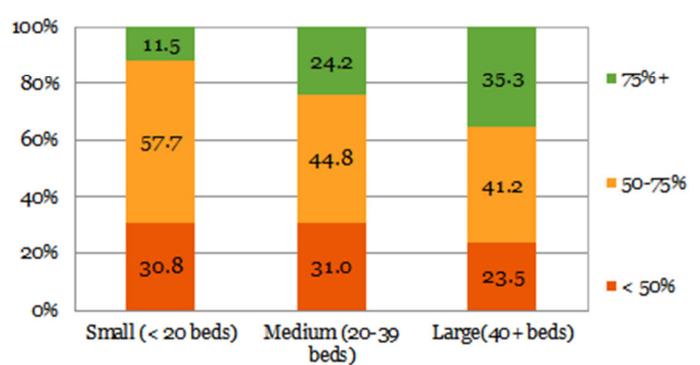
The figures below compare Occupancy by Capacity. In January – June, small capacity hospitals (less than 20 beds) had the largest number of hospitals in the lowest occupancy category, under 50% (52.9%). Medium capacity hospitals (20-39 beds) had the largest number of hospitals at the 50-75% occupancy (46.4%). Large capacity hospitals (with 40 or more beds) had the largest number of hospitals at 75%+ capacity (30.4%).

The pattern changed slightly in June-December, with one-quarter to one-third of hospitals with all capacity types having the lowest occupancy category (below 50%). Small capacity hospitals (less than 20 beds) had the largest number of hospitals in the medium occupancy category, 50-75% (57.7%) and the smallest percentage in the high occupancy category. Medium (20-39 beds) and high capacity (with 40 or more beds) hospitals had similar occupancy percentages with about 40% in the medium occupancy category and one-quarter to one-third in the high-occupancy category.

Occupancy by Capacity (January - June)



Occupancy by Capacity (July - December)



### Average Daily Census

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

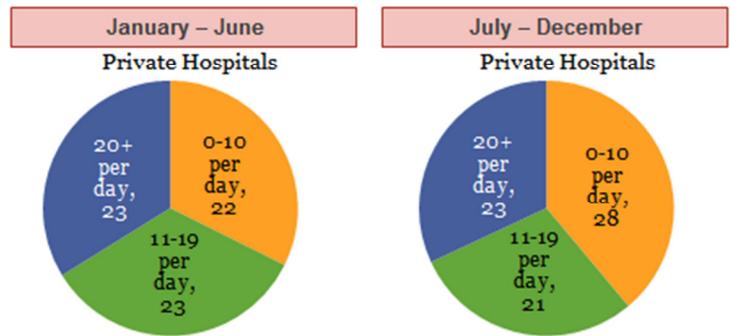
$$ADC = \frac{\text{Total \# of Patient Days}}{182 \text{ (days in the 6-month period)}}$$

The minimum ADC stayed about the same (January to June= 0.1, July – December=0.2); the maximum ADC increased slightly from 66.5 January to June, to 67.2 July – December. The average ADC decreased slightly from January – June (M=20.4, sd=17.1) to July – December (M=19.4, sd=16.5). OhioMHAS hospitals ADC decreased slightly from January – June (M= 173.6) to July – December (M=170.7).

Based on the ADC figures, private hospitals were grouped in to 3 categories:

- Hospitals with ADC 0-10 patients per day:
  - Jan-Jun: N=22, 32.4%
  - Jul-Dec: N=28, 38.9%
- Hospitals with ADC 11-19 patients per day:
  - Jan-Jun: N=23, 33.8%
  - Jul-Dec: N=21, 29.2%
- Hospitals with ADC 20+ patients per day:
  - Jan-Jun: N=23, 33.8%
  - Jul-Dec: N=23, 31.9%

### Average Daily Census



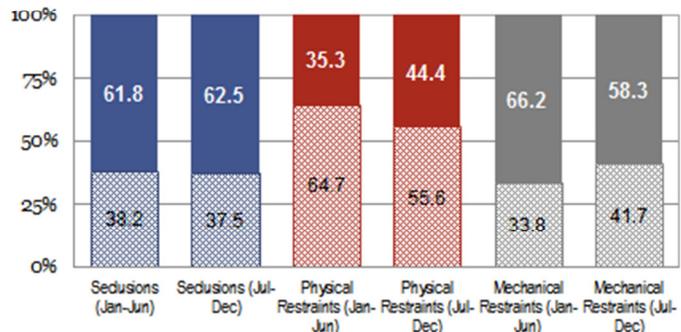
Seclusion and Restraint results will be reported below by hospital ADC groups.

### Utilization of Seclusion or Restraint

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

- About two-thirds of hospitals reported Seclusions (N=42 January – June, N= 45; July – December).
- The number of hospitals reporting Physical Restraints increased from January – June (N=24) to July – December (N=32).
- And the number of hospitals reporting Mechanical Restraints decreased from January – June (N=45) to July – December (N=42).

### Percentage of Inpatient Providers Reporting Seclusions and Restraints



Second, frequencies were calculated by the number of hospitals that reported any of the three types of Seclusion or Restraint (January – June: N=57; 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 hospitals that allow Seclusion/Restraint. A few hospitals (January – June: N=11; July – December N=12) did not utilize any type of Seclusion or Restraint.

Third, frequencies were calculated for all hospitals (January – June: N=68; July – December: N=72). As the denominator increases across each of these calculation methods, the average frequency scores decrease.

Additionally, private hospitals wanted to see how their Seclusions and Restraints compared with the public hospitals. The Seclusions and Restraints for the six public Regional Psychiatric Hospitals have been aggregated and included.

## Seclusions

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.

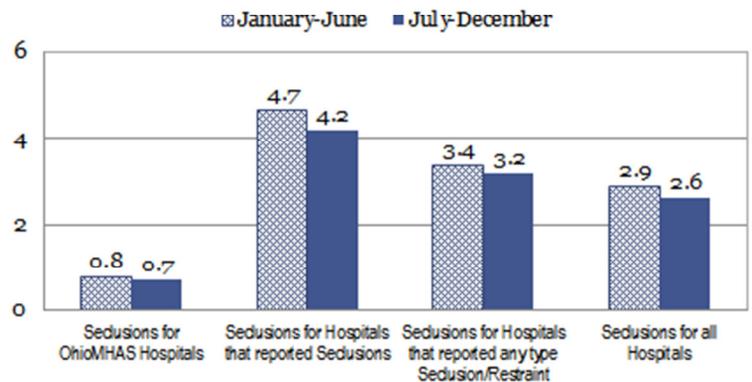
Table 3 reports the frequency of Seclusions, Table 4 reports the average duration of Seclusions, and Table 5 reports the frequency and duration of Seclusions by Geographical Area, by Capacity, and by Average Daily Census.

### Frequency

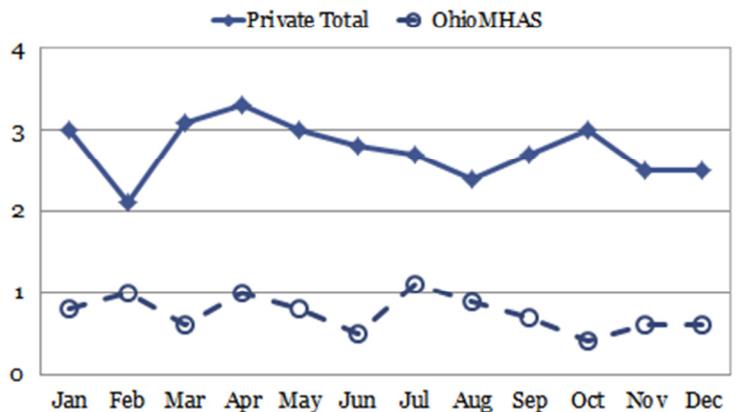
The total number of Seclusions reported in 2012 was 2,108 (1,054 each in January – June and July – December).

- Of the hospitals that did report Seclusions, the maximum number reported by a hospital increased from January – June (N=144) to July – December (N=175). And the average number of Seclusions per hospital decreased slightly from January – June (M=21.4) to July – December (M=20.3).
- When standardizing across hospitals by patient days, the average number of Seclusions per 1000 patient days decreased from January – June (M=4.7) to July – December (M=4.2).
- The average number of Seclusions per 1000 patient days decreases (M=3.4 January – June; M=3.2 July – December) for hospitals that reported any type of Seclusion or Restraint.
- The average number of Seclusions per 1000 patient days decreases (M=2.9 January – June; M=2.6 July – December) for all hospitals.
- For the private hospitals, the average number of Seclusions per 1000 patient days was 3.0 or above in January, March, April, May, and October.
- The six OhioMHAS hospitals reported an average of Seclusions per 1000 patient days similar across reporting periods (M=0.8 January – June; M=0.7 July – December). The highest number of Seclusions reported were in February, April, and July.

Frequency of Seclusions (per 1000 Patient days) 6-month Avg.

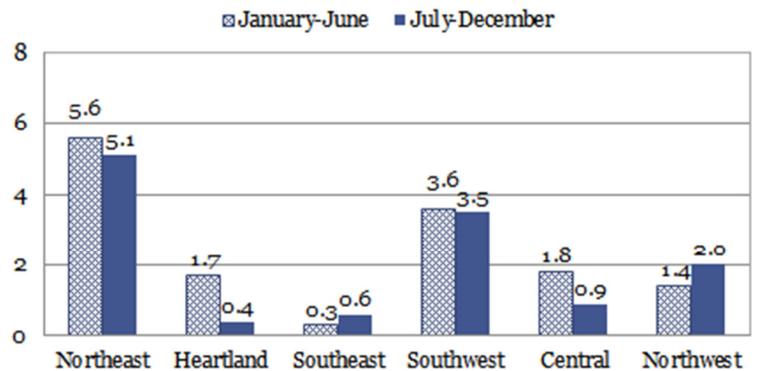


Frequencies of Seclusions (per 1000 Patient Days)

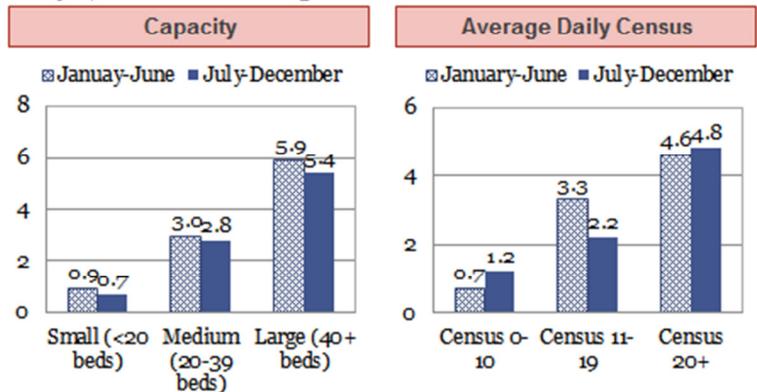


- By Geographical Area:
  - Hospitals in the Northeast region reported the highest average frequency of Seclusion per 1000 patient days (M=5.6 Jan-Jun; M=5.1 Jul-Dec).
  - Hospitals in the Southwest region reported the second highest average frequency (M=3.6 Jan-Jun; M=3.5 Jul-Dec).
  - Hospitals in the Heartland (MΔ -1.3), Central (MΔ -0.9), Northeast (MΔ -0.5), and Southwest (MΔ -0.1) regions had a decrease in the frequency of Seclusions per 1000 patient days.
- The average frequency of Seclusions per 1000 patient days increased with capacity across both reporting periods, from a low of 0.9 and 0.7 for hospitals with less than 20 beds, to a high of 5.9 and 5.4 for hospitals with more than 40 beds.
- The average frequency of Seclusions per 1000 patient days also increased by Average Daily Census group, from a low of 0.7 and 1.2 for hospitals with 0-10 Census days, to a high of 4.6 and 4.8 for hospitals with 20 or more Census days.

Frequency of Seclusion (per 1000 Patient days) 6-month Avg. by Geographic Area



Frequency of Seclusion (per 1000 Patient days) 6-month Avg.



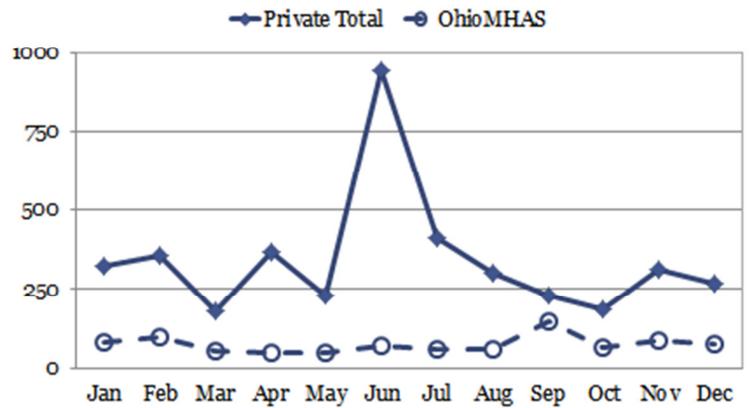
Duration

Hospitals reported on the minutes of Seclusion per month.

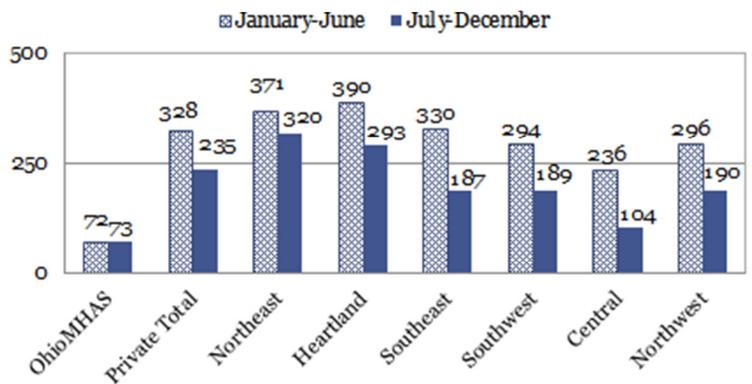
- The minimum number of minutes of Seclusion reported by a hospital increased from 13 minutes January – June, to 19 minutes July – December. The maximum number of minutes decreased from 115,308 January – June, to 88,222 July – December. The average number of minutes per hospital decreased from 7,787 January – June to 5,791 July - December.
- Average duration was computed to standardize across hospitals, using only the hospitals that reported incidents (see calculation above). The minimum average duration increased from 1.6 minutes January – June to 10.7 minutes July – December. The maximum decreased from 2,957 minutes January – June to 2,673 minutes July – December. And the average duration of Seclusions decreased from 328 minutes January – June to 235 minutes July – December.

- For the private hospitals, the shortest average duration of Seclusions (below 250) were in March, May, September, and October. The longest average duration was in June (940 minutes).
- The six OhioMHAS hospitals reported about the same average duration across the two reporting periods (72 and 73 minutes) and the average duration remained fairly stable across the twelve months, with the longest duration in September (147 minutes).
- By Geographical Area:
  - Across all of the regions, there was a decrease in the average duration of Seclusions.
  - For both reporting periods hospitals in the Northeast (371 and 320 minutes) and Heartland (390 and 293 minutes) regions had the longest average duration of Seclusions.
  - For both reporting periods hospitals in the Central region had the shortest average duration (236 and 104 minutes).
- For both reporting periods the average duration of Seclusions varies by capacity; small and large capacity hospitals reported average durations below 200 minutes while the medium capacity hospitals reported a longer average duration.
- While the average duration of Seclusions decreased by Average Daily Census group from January – June, the pattern changed in July – December, with hospitals in the medium census day group having a longer average duration than hospitals with lower or higher census days.

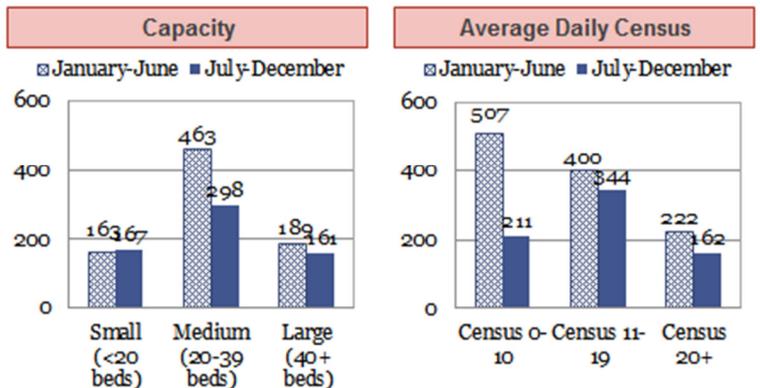
### Duration of Seclusions (Minutes)



### Duration of Seclusion (Minutes) 6-month Avg. by Geographical Area



### Duration of Seclusion (Minutes) 6-month Avg.



**Table 3. Frequency of Seclusions 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 Seclusions	Mean	4.7	4.9	3.4	5.0	5.4	4.9	4.6	4.2	4.4	3.8	4.3	4.8	4.0	4.0
		SD	5.8	6.7	4.8	9.1	10.4	8.6	6.1	5.6	6.8	6.4	7.9	8.5	6.2	5.9
	Hospitals that reported any Seclusion/ Restraint	Mean	3.4	3.6	2.5	3.7	4.0	3.6	3.4	3.2	3.3	2.8	3.2	3.6	3.0	3.0
		SD	5.4	6.1	4.3	8.1	9.2	7.7	5.6	5.2	6.2	5.7	7.1	7.6	5.7	5.4
	All Hospitals	Mean	2.9	3.0	2.1	3.1	3.3	3.0	2.8	2.6	2.7	2.3	2.7	3.0	2.5	2.5
		SD	5.1	5.8	4.1	7.6	8.5	7.2	5.3	4.9	5.8	5.3	6.6	7.1	5.3	5.0
OhioMHAS Hospitals	Mean	0.8	0.9	1.0	0.6	1.0	0.8	0.5	0.7	1.1	0.9	0.7	0.4	0.6	0.6	
	SD	0.7	0.8	0.8	0.7	1.2	1.1	0.3	0.5	1.0	0.6	1.1	0.4	0.5	0.8	

**Table 4. Average Minutes of Duration of Seclusion (Means across hospitals)**

			Jan-Jun Avg	Jan	Feb	Mar	Apr	May	Jun	Jul-Dec Avg	Jul	Aug	Sep	Oct	Nov	Dec
Private Hospitals Seclusions for all Hospitals	Mean	328.3	324.5	356.2	183.0	366.2	232.6	940.5	235.0	413.3	300.8	233.4	186.0	311.2	269.3	
	SD	541.6	439.5	631.9	144.8	441.8	396.5	3122.0	393.5	1025.8	613.1	302.2	126.3	422.8	463.0	
	N	42	30	24	29	20	27	29	45	28	25	25	25	31	26	
OhioMHAS Hospitals	Mean	72.3	83.7	99.2	52.7	48.6	48.2	71.1	73.5	62.3	58.6	147.4	63.9	85.6	76.8	
	SD	36.2	27.8	79.9	52.5	30.1	30.3	43.2	18.2	7.9	29.9	175.1	24.9	40.2	15.7	
	N	6	5	6	4	5	4	6	6	5	6	4	3	5	3	

\*The formula for computing duration only includes reported Seclusions for that period; therefore the N changes based on the number reported each month.

**Table 5. Average (Mean) Seclusion Frequency and Duration**

		Frequency per 1000 patient days				Average Duration (mins)			
		January – June		July – December		January – June		July – December	
		N	Mean	N	Mean	N	Mean	N	Mean
By Geo- graphical Area	Northeast	18	<b>5.6</b>	18	<b>5.1</b>	14	<b>370.7</b>	16	<b>319.9</b>
	Heartland	8	<b>1.7</b>	7	<b>0.4</b>	5	<b>390.4</b>	3	<b>293.3</b>
	Southeast	7	<b>0.3</b>	8	<b>0.6</b>	1	<b>330.0</b>	2	<b>186.5</b>
	Southwest	13	<b>3.6</b>	15	<b>3.5</b>	11	<b>294.5</b>	11	<b>189.2</b>
	Central	8	<b>1.8</b>	9	<b>0.9</b>	3	<b>236.4</b>	4	<b>103.8</b>
	Northwest	14	<b>1.4</b>	15	<b>2.0</b>	8	<b>296.0</b>	9	<b>189.5</b>
Capacity	Small (<20 beds)	27	<b>0.9</b>	26	<b>0.7</b>	7	<b>163.2</b>	9	<b>167.0</b>
	Medium (20-39 beds)	25	<b>3.0</b>	29	<b>2.8</b>	15	<b>463.1</b>	24	<b>297.6</b>
	Large (40+ beds)	16	<b>5.9</b>	17	<b>5.4</b>	13	<b>189.0</b>	12	<b>160.7</b>
Average Daily Census	0-10 per day	22	<b>0.7</b>	28	<b>1.2</b>	5	<b>507.3</b>	11	<b>211.2</b>
	11-19 per day	23	<b>3.3</b>	21	<b>2.2</b>	17	<b>399.6</b>	15	<b>344.3</b>
	20+ per day	23	<b>4.6</b>	23	<b>4.8</b>	20	<b>223.0</b>	19	<b>162.4</b>

## Physical Restraints

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.

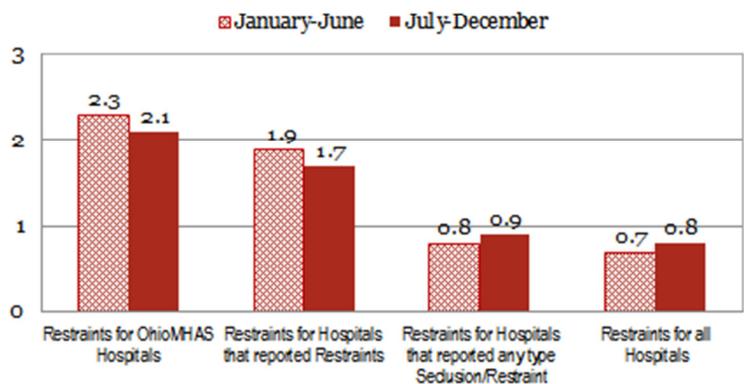
Table 6 reports the frequency of Physical Restraints, Table 7 reports the average duration of Physical Restraints, and Table 8 reports the frequency and duration of Physical Restraints by Geographical Area, by Capacity, and by Average Daily Census.

### Frequency

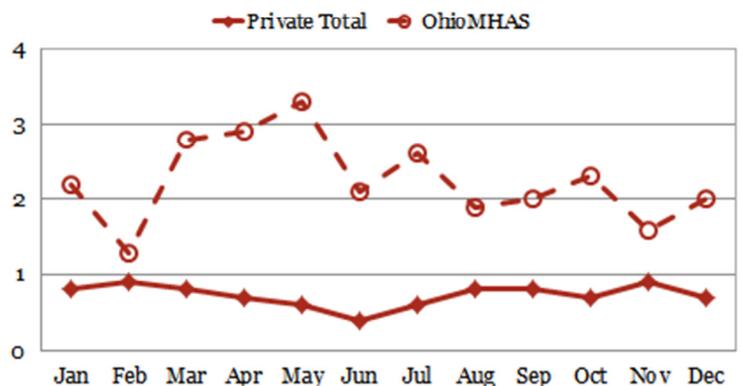
The total number of Physical Restraints reported in 2012 by all hospitals was 1,325 (N=676 January – June; N=649 July – December).

- Of the hospitals that did report Physical Restraints, the maximum number reported by a hospital was 53 for both reporting periods. The average total number reported decreased from was 9.0 (January – June) to 7.8 (July – December).
- When standardizing across hospitals by patient days, the average number of Physical Restraints per 1000 patient days decreased from January – June (M=1.9) to July – December (M=1.7).
- The average number of Physical Restraints per 1000 patient days decreases (M=0.8 January – June; M=0.9 July – December) for hospitals that reported any type of Seclusion or Restraint.
- The average number of Physical Restraints per 1000 patient days decreases (M=0.7 January – June; M=0.8 July – December) for all hospitals.
- For the private hospitals, the average number of Physical Restraints per 1000 patient days was less than 1.0 across all twelve months, January through December 2012.

Frequency of Physical Restraint (per 1000 Patient days) 6-month Avg.



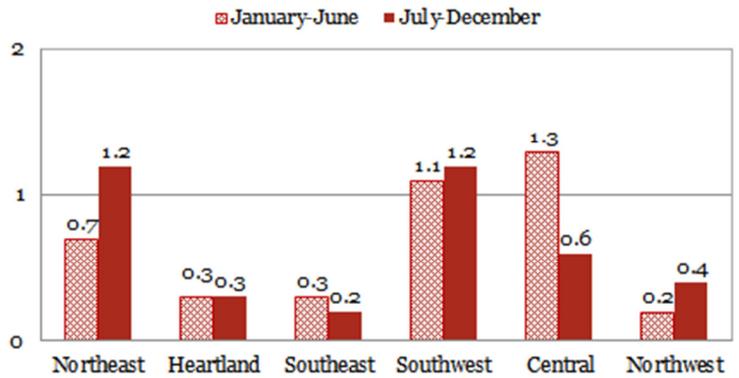
Frequencies of Physical Restraints (per 1000 Patient Days)



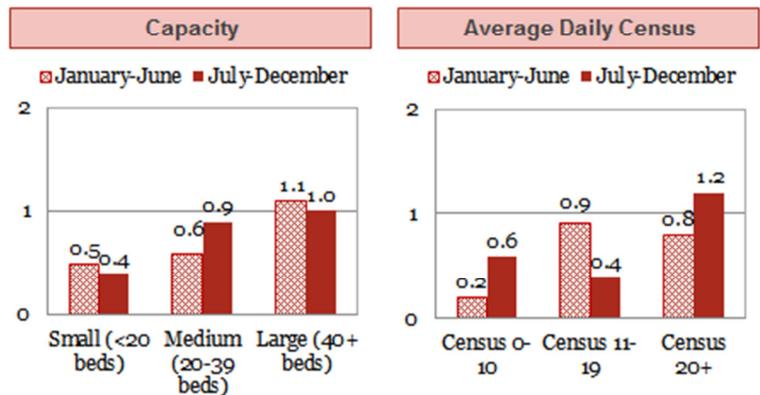
- The six OhioMHAS hospitals reported an average of 2.3 Physical Restraints per 1000 patient days similar across reporting periods (M=2.3 January – June; M=2.1 July – December). The lowest number of Physical Restraints was reported in February, and the highest averages were reported in March, April and May; the averages were generally higher in spring and lower in fall.

- By Geographical Area:
  - Hospitals in the Southwest region had high average frequencies across reporting period.
  - Hospitals in the Northwest region had an increase ( $M\Delta +0.5$ )
  - Hospitals in the Central region ( $M\Delta -0.7$ ) had a decrease in the frequency across reporting periods.
  - Hospitals in the Heartland, Southeast, and Northwest regions had lower frequencies of Physical Restraints across both reporting periods.
- The average frequency of Physical Restraints per 1000 patient days showed a similar trend in both reporting periods, with a low frequency for hospitals with a small capacity and an increasing frequency with increasing capacity.
- The average frequency of Physical Restraints per 1000 patient days by Average Daily Census varied for the two reporting periods, with no repeating pattern.

Frequency of Physical Restraints (per 1000 Patient days) 6-month Avg. by Geographical Area



Frequency of Physical Restraints (per 1000 Patient days) 6-month Avg.

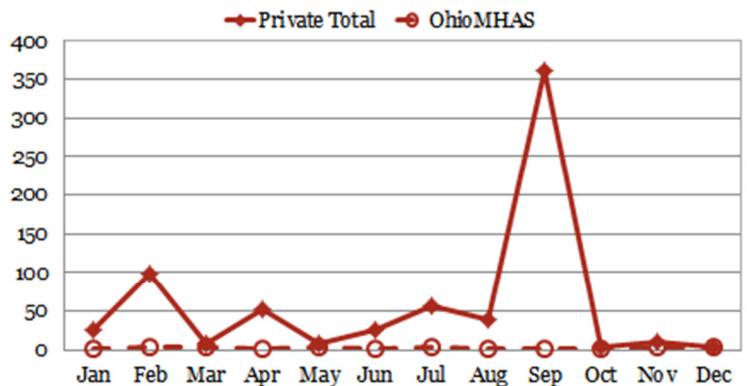


Duration

Hospitals reported on the minutes of Physical Restraint per month.

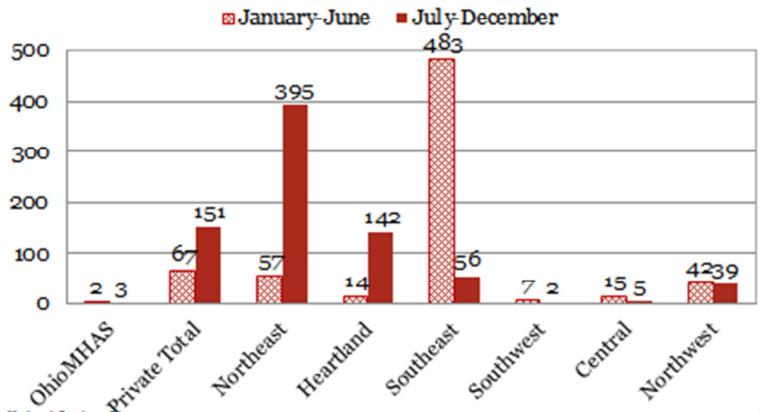
- The minimum number of minutes of Physical Restraint reported by a hospital decreased from January – June (N=2) to July – December (N=1). The maximum number of minutes increased from January – June (N=4,635) to July – December (N=7,845). The average number of minutes decreased from January – June (N=339.0) to July – December (N=330.7).
- Average duration was computed to standardize across hospitals, using only the hospitals that reported incidents (see calculation above). The minimum average duration increased slightly from 0.6 minutes January – June, to 0.9 minutes July – December. The maximum increased from 960.0 minutes January – June, to 3922.5 minutes July – December. The average duration of Physical Restraints increased from 67.0 minutes January – June, to 150.6 minutes July - December.

Durations of Physical Restraints (Minutes)



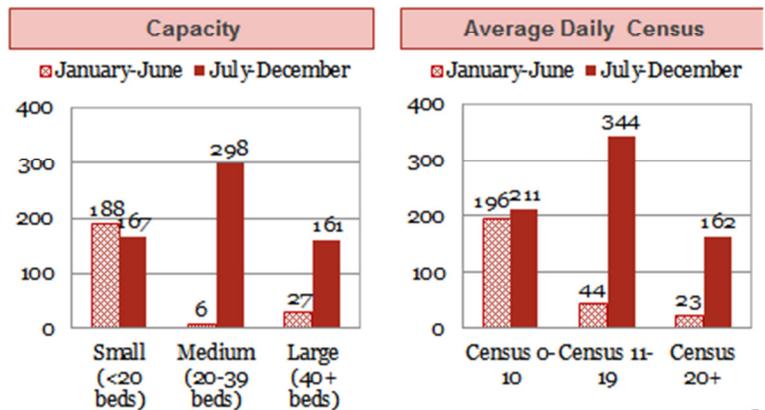
- For the private hospitals, the average duration of Physical Restraints varied somewhat across months; the longest average durations (above 50 minutes) were in February, April, and July, and with the longest duration in September (360 minutes).
- The six OhioMHAS hospitals reported about the same average duration across the two reporting periods (2.4 and 2.6 minutes) and the average duration remained fairly stable across the twelve months.

### Duration of Physical Restraints (Minutes) 6-month Avg. by Geographical Area



- By Geographical Area:
  - In January – June the Southeast region had the longest average duration of Physical Restraints (M=483); the average duration mean dropped by 427 minutes July-December (M=56).
  - In July – December the Northeast region had the longest average duration of Physical Restraints (M=395), an increase of 338 minutes.
  - The Southwest, Central, and Northwest regions had shorter average durations across both reporting periods.

### Duration of Physical Restraints (Minutes) 6-month Avg.



- For both capacity and Average Daily Census, the pattern from January – June was that the smaller capacity/census hospitals reported longer average duration of Physical Restraints than the medium and large capacity/census hospitals. However in July to December the pattern was different, with the medium capacity/census hospitals reporting the longest average duration, small capacity/census hospital duration remained similar, and larger capacity/census hospitals having an increased duration of Physical Restraints.

**Table 6. Frequency of Physical 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 Physical Restraints	<b>Mean</b>	<b>1.9</b>	<b>2.2</b>	<b>2.5</b>	<b>2.2</b>	<b>2.0</b>	<b>1.6</b>	<b>1.0</b>	<b>1.7</b>	<b>1.4</b>	<b>1.7</b>	<b>1.8</b>	<b>1.6</b>	<b>2.1</b>	<b>1.6</b>
		SD	1.8	3.3	3.8	2.8	4.3	2.3	1.8	1.6	3.6	2.5	3.8	2.6	3.6	2.3
	Hospitals that reported any Seclusion/ Restraint	<b>Mean</b>	<b>0.8</b>	<b>0.9</b>	<b>1.0</b>	<b>0.9</b>	<b>0.8</b>	<b>0.7</b>	<b>0.4</b>	<b>0.9</b>	<b>0.8</b>	<b>0.9</b>	<b>1.0</b>	<b>0.8</b>	<b>1.1</b>	<b>0.9</b>
		SD	1.5	2.4	2.7	2.1	2.9	1.6	1.2	1.4	2.7	2.0	2.9	2.0	2.8	1.8
	All Hospitals	<b>Mean</b>	<b>0.7</b>	<b>0.8</b>	<b>0.9</b>	<b>0.8</b>	<b>0.7</b>	<b>0.6</b>	<b>0.4</b>	<b>0.8</b>	<b>0.6</b>	<b>0.8</b>	<b>0.8</b>	<b>0.7</b>	<b>0.9</b>	<b>0.7</b>
		SD	1.4	2.2	2.5	1.9	2.7	1.5	1.1	1.4	2.5	1.8	2.7	1.9	2.6	1.7
OhioMHAS Hospitals		<b>Mean</b>	<b>2.3</b>	<b>1.8</b>	<b>1.3</b>	<b>2.4</b>	<b>2.9</b>	<b>3.3</b>	<b>2.1</b>	<b>2.1</b>	<b>2.6</b>	<b>1.9</b>	<b>2.0</b>	<b>2.3</b>	<b>1.6</b>	<b>2.0</b>
		SD	1.5	1.4	1.2	1.8	2.5	2.1	1.2	1.0	1.3	1.3	1.5	1.3	0.8	1.2

**Table 7. Average Minutes of Duration of Physical Restraints (Means across hospitals)**

		Jan-Jun Avg	Jan	Feb	Mar	Apr	May	Jun	Jul-Dec Avg	Jul	Aug	Sep	Oct	Nov	Dec
Private Hospitals	<b>Mean</b>	<b>67.0</b>	<b>25.5</b>	<b>99.1</b>	<b>9.4</b>	<b>53.0</b>	<b>6.7</b>	<b>15.6</b>	<b>150.6</b>	<b>56.9</b>	<b>37.9</b>	<b>360.6</b>	<b>3.3</b>	<b>9.6</b>	<b>3.5</b>
Physical Restraints for all Hospitals	SD	202.9	67.2	256.3	12.1	151.6	8.0	31.2	691.3	93.3	116.0	1181.3	2.9	31.0	3.3
	N	24	12	14	13	10	11	9	32	11	16	11	12	17	15
Physical Restraints OhioMHAS Hospitals	<b>Mean</b>	<b>2.4</b>	<b>2.2</b>	<b>2.8</b>	<b>2.9</b>	<b>2.5</b>	<b>2.8</b>	<b>1.9</b>	<b>2.6</b>	<b>2.7</b>	<b>2.0</b>	<b>2.2</b>	<b>2.0</b>	<b>2.6</b>	<b>3.6</b>
	SD	0.8	0.5	1.2	1.6	1.5	2.6	0.6	1.0	1.5	0.7	1.0	1.0	1.3	2.2
	N	6	5	6	5	6	6	6	6	6	6	6	6	6	6

\*The formula for computing duration only includes reported Physical Restraints for that period; therefore the N changes based on the number reported each month.

**Table 8. Average (Mean) Physical Restraints Frequency and Duration**

		Frequency per 1000 patient days				Average Duration (mins)			
		January – June		July – December		January – June		July – December	
		N	Mean	N	Mean	N	Mean	N	Mean
By Geo- graphical Area	Northeast	18	<b>0.7</b>	18	<b>1.2</b>	6	<b>57.5</b>	10	<b>394.8</b>
	Heartland	8	<b>0.4</b>	7	<b>0.3</b>	3	<b>14.4</b>	4	<b>142.0</b>
	Southeast	7	<b>0.3</b>	8	<b>0.2</b>	2	<b>483.3</b>	2	<b>56.1</b>
	Southwest	13	<b>1.1</b>	15	<b>1.2</b>	6	<b>7.0</b>	8	<b>1.7</b>
	Central	8	<b>1.3</b>	9	<b>0.6</b>	3	<b>15.0</b>	4	<b>5.5</b>
	Northwest	14	<b>0.2</b>	15	<b>0.4</b>	4	<b>41.8</b>	4	<b>38.8</b>
Capacity	Small (<20 beds)	27	<b>0.5</b>	26	<b>0.4</b>	7	<b>188.7</b>	7	<b>590.2</b>
	Medium (20-39 beds)	25	<b>0.6</b>	29	<b>0.9</b>	8	<b>5.7</b>	14	<b>18.9</b>
	Large (40+ beds)	16	<b>1.1</b>	17	<b>1.0</b>	9	<b>26.9</b>	11	<b>38.4</b>
Average Daily Census	0-10 per day	22	<b>0.2</b>	28	<b>0.6</b>	5	<b>196.0</b>	8	<b>505.7</b>
	11-19 per day	23	<b>0.9</b>	21	<b>0.4</b>	9	<b>44.1</b>	11	<b>52.9</b>
	20+ per day	23	<b>0.9</b>	23	<b>1.2</b>	10	<b>23.2</b>	13	<b>14.7</b>

## Mechanical Restraints

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.

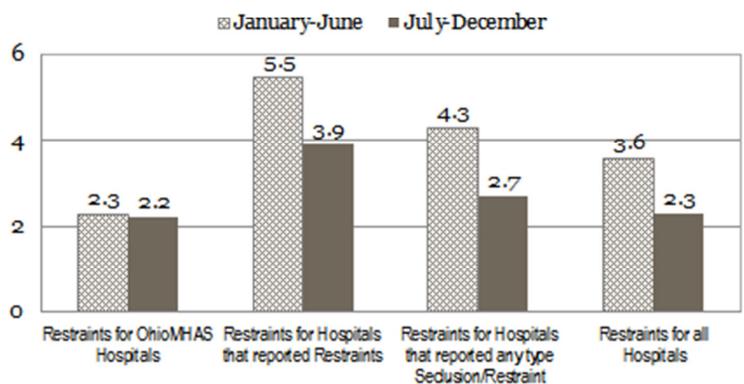
Table 9 reports the frequency of Mechanical Restraints, Table 10 reports the average duration of Mechanical Restraints, and Table 11 reports the frequency and duration of Mechanical Restraints by Geographical Area, by Capacity, and by Average Daily Census.

### Frequency

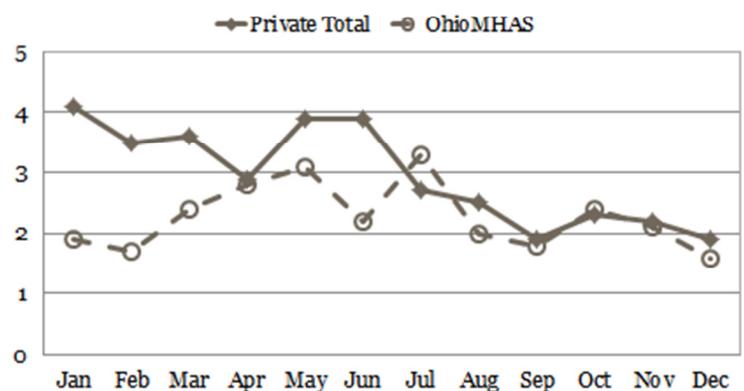
The total number of Mechanical Restraints reported in 2012 by all hospitals was 2,866 (1,734 in January – June, and 1,132 in July – December).

- Of the hospitals that did report Mechanical Restraints, the maximum number reported by a hospital decreased from January – June (N=640) to July – December (N=190). The average total number of Mechanical Restraints per hospital decreased from January – June (M=28.6) to July – December (M=17.5).
- When standardizing across hospitals by patient days, the average number of Mechanical Restraints per 1000 patient days decreased from January – June (M=5.5) to July – December (M=3.9).
- The average number of Mechanical Restraints per 1000 patient days decreases (M=4.3 January – June; M=2.7 July – December) for hospitals that reported any type of Seclusion or Restraint.
- The average number of Mechanical Restraints per 1000 patient days decreases (M=3.6 January – June; M=2.3 July – December) for all hospitals.
- For the private hospitals, the frequencies of Mechanical Restraints per 1000 patient days were lower in July through December.
- The six OhioMHAS hospitals reported an average of Mechanical Restraints per 1000 patient days similar across reporting periods (M=2.3 January – June; M=2.2 July – December). The highest frequencies were in May and July.

Frequency of Mechanical Restraint (per 1000 Patient days) 6-month Avg.

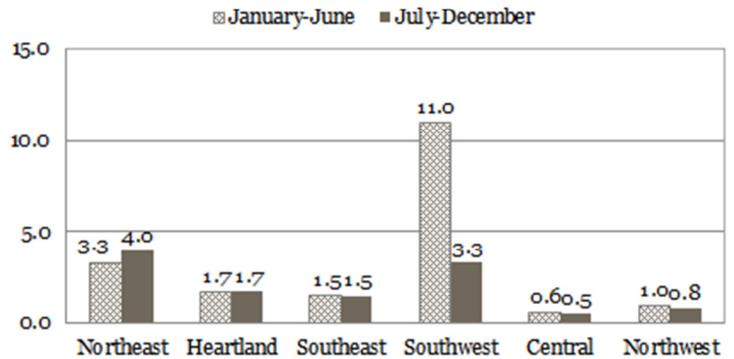


Frequencies of Mechanical Restraints (per 1000 Patient Days)

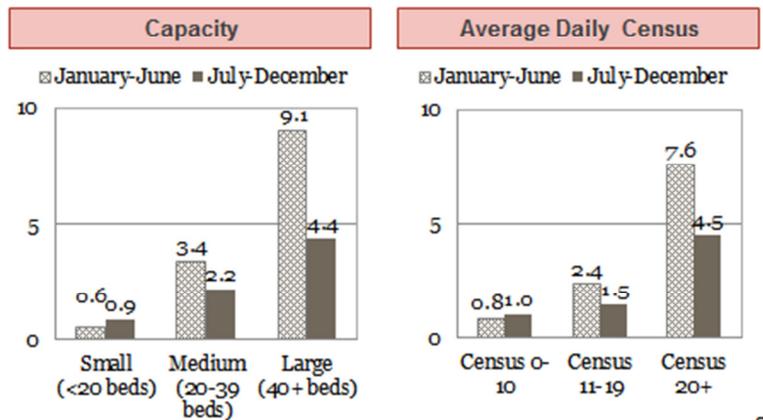


- By Geographical Area:
  - For July-December across regions the hospitals average frequency of Mechanical Restraint per 1000 patient days was somewhat similar (Means ranged from 0.5 to 4.0).
  - Hospitals in the Southwest region showed the largest decrease (MΔ – 7.7).
- For both the average frequency of Mechanical Restraints per 1000 patient by capacity grouping, and by Average Daily Census group, there was a similar pattern, frequency increased with capacity/census group. This pattern was similar across both reporting periods, though there was a smaller total frequency in June – December.

Frequency of Mechanical Restraints (per 1000 Patient days) 6-month Avg. by Geographical Area



Frequency of Mechanical Restraints (per 1000 Patient days) 6-month Avg.

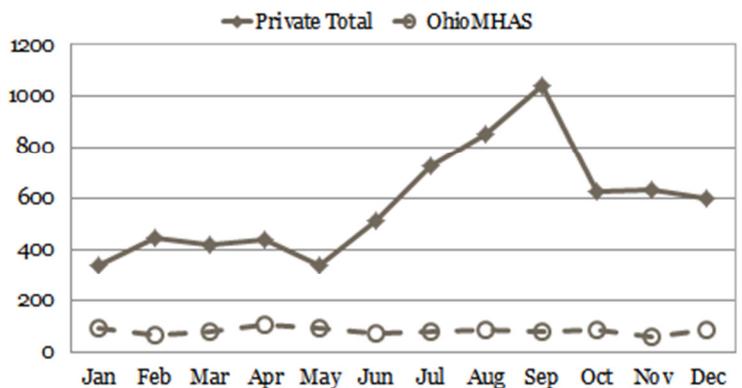


Duration

Hospitals reported on the minutes of Mechanical Restraint per month.

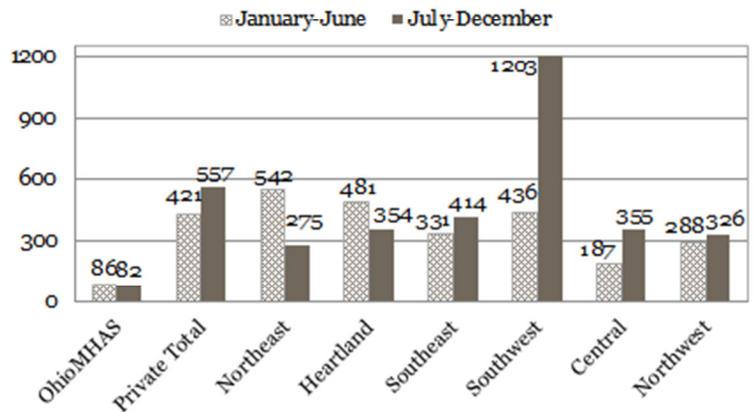
- The minimum number of minutes of Mechanical Restraint reported by a hospital decreased from 32 minutes January – June, to 10 minutes July – December. The maximum number of minutes also decreased from 1,506,242 January – June to 1,111,823 July – December. The average number of minutes decreased from 39,143 January – June, to 31,535 July – December.
- Average duration was computed to standardize across hospitals, using only the hospitals that reported incidents (see calculation above). The minimum average duration decreased from 32 minutes January – June, to 10 minutes July – December. The maximum decreased from 3,060 minutes January – June, to 1,124 July – December. The average duration of Mechanical Restraints increased from 421 minutes January – June to 557 minutes July - December.
- For the private hospitals, the average duration of Mechanical Restraints was shorter January through June and longer July through December, with the longest average duration in September.

Durations of Mechanical Restraints (Minutes)

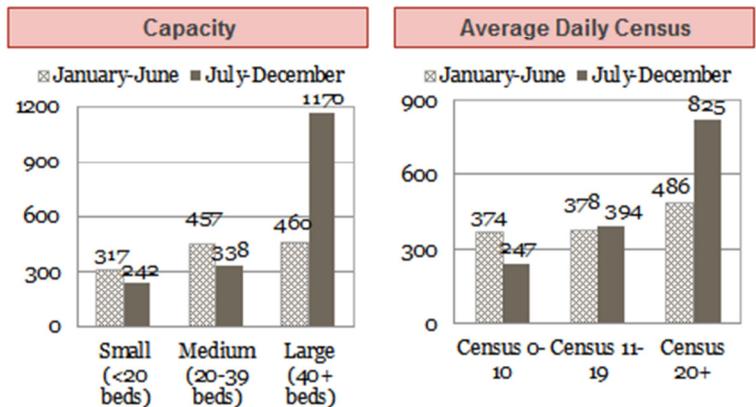


- The six OhioMHAS hospitals reported about the same average duration across the two reporting periods (86 and 82 minutes) and the average duration remained fairly stable across the twelve months.
- By Geographical Area:
  - Hospitals in the Southwest region reported the longest increase in duration of Mechanical Restraints (M=1,203 minutes July – December  $M\Delta$  +767 minutes).
  - Hospitals in the Northwest region showed a shorter average duration between the two reporting periods ( $M\Delta$  –267 minutes).
- For both the average duration of Mechanical Restraints by capacity grouping, and by Average Daily Census group, there was a similar pattern, duration increased with capacity/census group. This pattern was similar across both reporting periods, though there was a longer duration for large capacity/higher census beds in June – December.

### Duration of Mechanical Restraints (Minutes) 6-month Avg. by Geographical Area



### Duration of Mechanical Restraints (Minutes) 6-month Avg.



**Table 9. Frequency of 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	5.5	6.2	5.4	5.3	4.4	5.8	5.9	3.9	4.5	4.3	3.3	4.0	3.8	3.2
		SD	14.5	14.2	15.8	14.6	13.8	16.2	16.8	5.6	8.2	7.5	6.7	6.5	5.4	4.6
	Hospitals that reported any Seclusion/ Restraint	Mean	4.3	4.9	4.2	4.2	3.5	4.6	4.7	2.7	3.2	3.0	2.3	2.8	2.6	2.2
		SD	13.1	12.8	14.2	13.2	12.3	14.5	15.1	5.0	7.2	6.6	5.8	5.7	4.8	4.1
	All Hospitals	Mean	3.6	4.1	3.5	3.6	2.9	3.9	3.9	2.3	2.7	2.5	1.9	2.3	2.2	1.9
		SD	12.1	11.9	13.1	12.2	11.4	13.4	13.9	4.7	6.7	6.1	5.4	5.3	4.5	3.8
OhioMHAS Hospitals		Mean	2.3	1.9	1.8	2.4	2.8	3.1	2.2	2.2	3.3	2.0	1.8	2.4	2.1	1.6
		SD	1.0	1.0	0.8	1.7	1.8	1.7	1.2	0.6	1.4	0.5	1.5	1.9	2.6	0.6

**Table 10. Average Minutes of Duration of Mechanical Restraints (Means across hospitals)**

		Jan-Jun Avg	Jan	Feb	Mar	Apr	May	Jun	Jul-Dec Avg	Jul	Aug	Sep	Oct	Nov	Dec
Private Hospitals Mechanical Restraints for all Hospitals	Mean	420.9	342.0	447.7	416.8	442.4	342.9	509.6	557.2	727.4	853.3	1038.8	624.8	636.5	598.0
	SD	606.3	527.1	695.3	505.9	535.7	471.0	957.1	1706.7	2401.6	2893.5	3322.4	1590.0	1833.1	1187.1
	N	45	28	27	29	21	25	22	42	24	23	21	26	24	23
Mechanical Restraints OhioMHAS Hospitals	Mean	85.9	93.6	64.6	81.0	105.4	37.1	72.6	81.8	80.3	87.0	75.5	85.0	61.2	82.2
	SD	18.3	73.5	13.1	10.2	38.8	23.4	28.5	14.4	30.6	10.3	41.6	26.6	15.6	32.0
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	6

\*The formula for computing duration only includes reported Mechanical Restraints for that period; therefore the N changes based on the number reported each month.

**Table 11. Average (Mean) Physical Restraints Frequency and Duration**

		Frequency per 1000 patient days				Average Duration (mins)			
		January – June		July – December		January – June		July – December	
		N	Mean	N	Mean	N	Mean	N	Mean
By Geo- graphical Area	Northeast	18	<b>3.3</b>	18	<b>4.0</b>	15	<b>542.2</b>	12	<b>274.9</b>
	Heartland	8	<b>1.7</b>	7	<b>1.7</b>	6	<b>481.2</b>	3	<b>354.1</b>
	Southeast	7	<b>1.5</b>	8	<b>1.5</b>	4	<b>331.2</b>	5	<b>413.9</b>
	Southwest	13	<b>11.0</b>	15	<b>3.3</b>	9	<b>436.6</b>	11	<b>1203.1</b>
	Central	8	<b>0.6</b>	9	<b>0.5</b>	5	<b>187.4</b>	5	<b>355.3</b>
	Northwest	14	<b>1.0</b>	15	<b>0.8</b>	6	<b>288.5</b>	6	<b>326.7</b>
Capacity	Small (<20 beds)	27	<b>0.6</b>	26	<b>0.9</b>	12	<b>317.2</b>	8	<b>242.3</b>
	Medium (20-39 beds)	25	<b>3.4</b>	29	<b>2.2</b>	21	<b>457.7</b>	10	<b>241.4</b>
	Large (40+ beds)	16	<b>9.1</b>	17	<b>4.4</b>	12	<b>460.5</b>	12	<b>1169.5</b>
Average Daily Census	0-10 per day	22	<b>0.8</b>	28	<b>1.0</b>	9	<b>374.6</b>	9	<b>246.9</b>
	11-19 per day	23	<b>2.4</b>	21	<b>1.5</b>	18	<b>378.5</b>	14	<b>393.6</b>
	20+ per day	23	<b>7.6</b>	23	<b>4.5</b>	18	<b>486.5</b>	19	<b>824.7</b>

## Inpatient Psychiatric Hospitals Serving Children and Adolescents

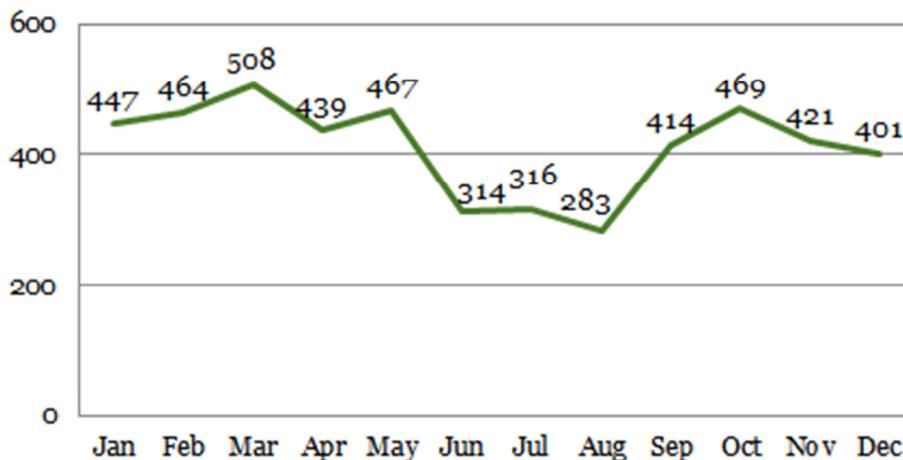
### *Patient Days*

Patient days summarize hospital service utilization. Table 12 below reports the monthly average, and six-month total, patient days for the inpatient psychiatric service providers serving children and youth. On average, private inpatient hospitals serving children and adolescents reported more patient days in January – June (M=440) than in July – December (M=384). There was lower utilization during the summer months of June, July, and August.

**Table 12. Total number of patient days per month**

		Jan-Jun Total	Jan	Feb	Mar	Apr	May	Jun	Jul-Dec Total	Jul	Aug	Sep	Oct	Nov	Dec
Inpatient Psychiatric Service Providers	Mean	2639.0	447.1	463.6	507.9	439.1	466.9	314.4	2304.3	316.3	282.9	413.9	469.3	420.8	401.1
	SD	2812.1	499.2	475.5	520.8	483.1	497.4	351.3	2454.4	378.1	308.0	437.8	475.1	446.5	430.1
	Min	39	3	12	19	5	102	87	29	0	0	0	0	0	2
	Max	11159	1999	1842	1968	1915	1985	1450	10073	1558	1294	1784	1872	1806	1759
	N	16	16	16	16	16	15	15	16	16	16	16	16	16	16

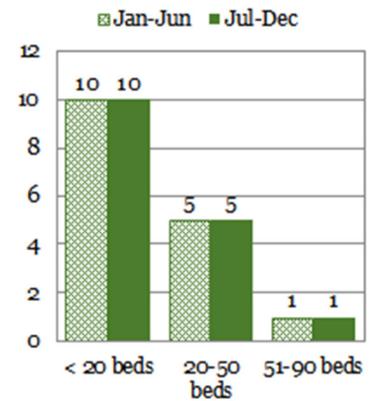
Total number of patient days per month



## 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 8, and the maximum number of licensed beds by a hospital was 85; this was the same across both reporting periods. The average number of licensed beds decreased slightly from January – June (M=24.3) to July – December (M=22.8). Because of the small number of hospitals serving children and youth, capacity groups were not created.

## Capacity



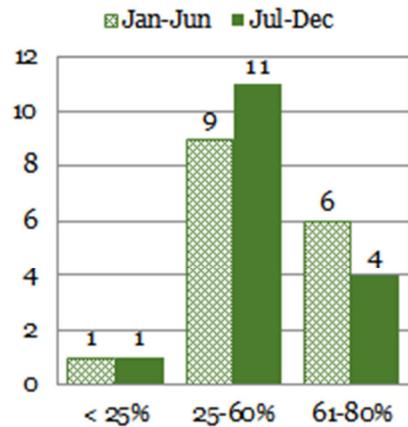
## Occupancy

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

$$\text{Occupancy} = \frac{\text{Total \# of Patient Days}}{\# \text{ of licensed beds} * 182 \text{ (days in the 6-month period)}}$$

The minimum occupancy for hospitals serving children and youth decreased from 2.7% January – June, to 2.0% July – December. The maximum occupancy increased from 78.7% January – June, to 112.4% July – December. The average occupancy decreased slightly from 54.1% January – June, to 50.3% July – December. Because of the small number of hospitals serving children and youth, occupancy groups were not created.

## Occupancy



## Average Daily Census

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

$$\text{ADC} = \frac{\text{Total \# of Patient Days}}{182 \text{ (days in the 6-month period)}}$$

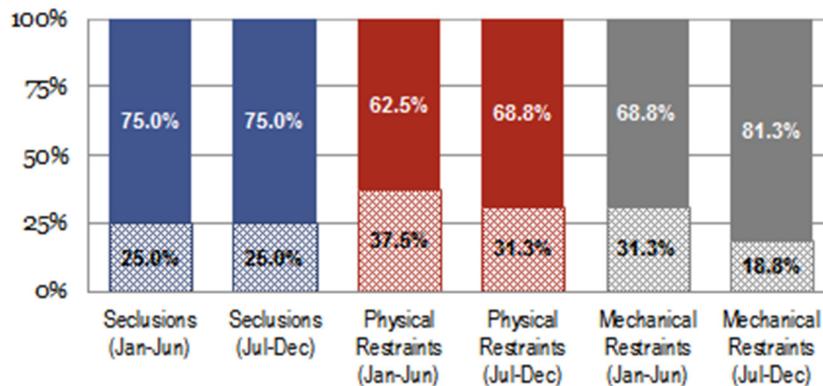
The minimum ADC for hospitals serving children and youth was the same January – June and July – December (N=0.2). The maximum ADC decreased slightly from January – June (N=61.3) to July – December (N=54.7). The average ADC also decreased slightly from January – June (M=14.5) to June – December (M=12.5). Because of the small number of hospitals serving children and youth, census groups were not created.

## 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:

- Three-quarters of hospitals reported using for Seclusions (N=12) in both January – June and July – December.
- About two-thirds of hospitals reported Physical Restraints in January – June (N=10, 62.5%) and over two-thirds in July – December (N=11, 68.8%).
- Over two-thirds of hospitals reported Mechanical Restraints in January – June (N=11, 68.7%); an additional two hospitals reported Mechanical Restraint July – December (N=13, 81.3%).

### Percentage of Inpatient Providers Reporting Seclusions and Restraints



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. However all of the youth-serving hospitals reported at least one of the three types of Seclusion and Restraint.

Second, frequencies were calculated for all hospitals (N=16). As the denominator increases across each of these calculation methods, the average frequency scores decrease.

Additionally, while the private hospitals wanted to see how their Seclusions and Restraints compared with the public hospitals and Seclusions and Restraints for the six public Regional Psychiatric Hospitals were included above, OhioMHAS does not have any public hospitals serving children and youth.

Table 13 reports the frequency of Seclusions and Restraints, and Table 14 reports the average duration of Seclusions and Restraints.

## Seclusions

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.

### Frequency

The total number of Seclusions reported in 2012 for hospitals serving children and youth was 1,144 (582 January – June, 562 July – December).

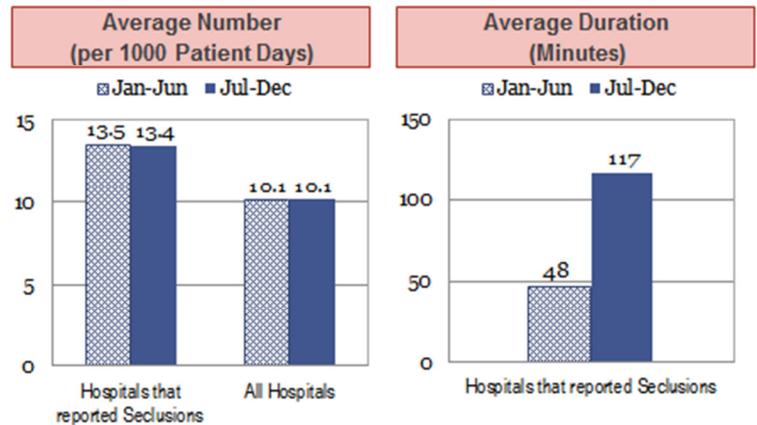
- Of the hospitals that did report Seclusions, the maximum number reported increased from January – June (N=237) to July – December (N=241). The average total number reported decreased from January – June (M=48.5) to July – December (46.8).
- When standardizing across hospitals by patient days, the average number of Seclusions per 1000 patient days was about the same across reporting periods (M=13.5 January – June; M=13.4 July – December).
- The average number of Seclusions per 1000 patient days decreases to 10.1 for all hospitals (for January – June and July – December).
- The average number of Seclusions per 1000 patient days was above 10 January through March, May, July through August, and November.

### Duration

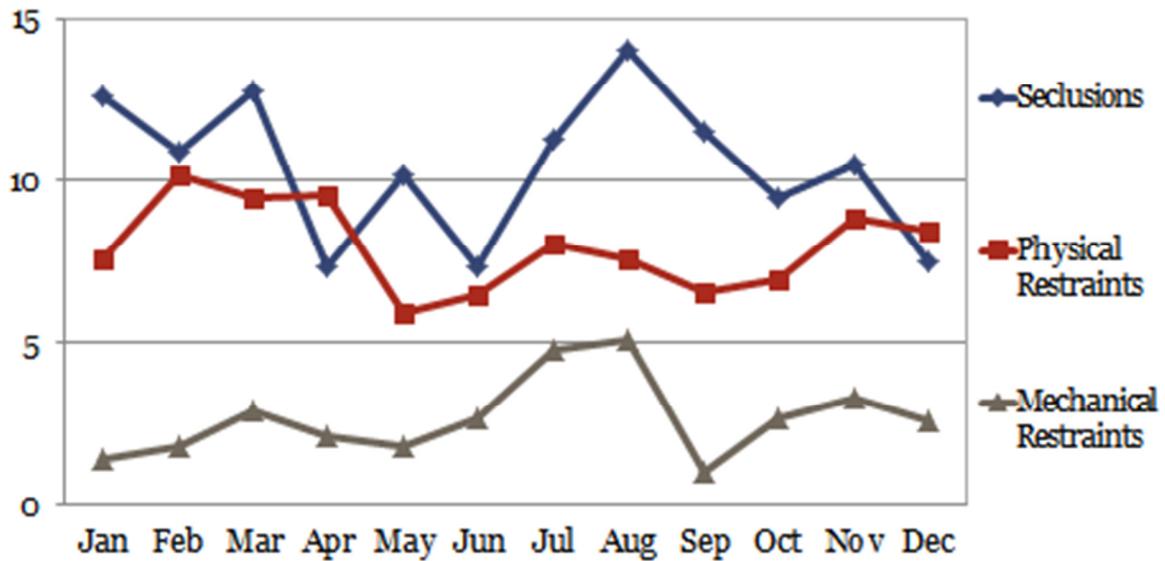
Hospitals reported on the minutes of Seclusion per month.

- The minimum number of minutes of Seclusion reported by a hospital decreased from January – June (N=82) to July – December (N=45). The maximum number of minutes reported by a hospital was about the same January – June (N=8,491) and July – December (N=8,338). The average number of minutes increased slightly from January – June (M=1,690) to July – December (M=2,232).
- Average duration was computed to standardize across hospitals, using only the hospitals that reported incidents (see calculation above). The minimum average duration decreased slightly from January – June (N=16.4 minutes) to July – December (N=15.0 minutes). The maximum average duration increased January – June (N=129 minutes), to July – December (N=960 minutes). The mean average duration of Seclusions across hospitals increased from January – June (M=48 minutes) to July – December (M=117 minutes).
- The average duration of was over 50 minutes in March, June, August, and November; the longest duration reported was in November.

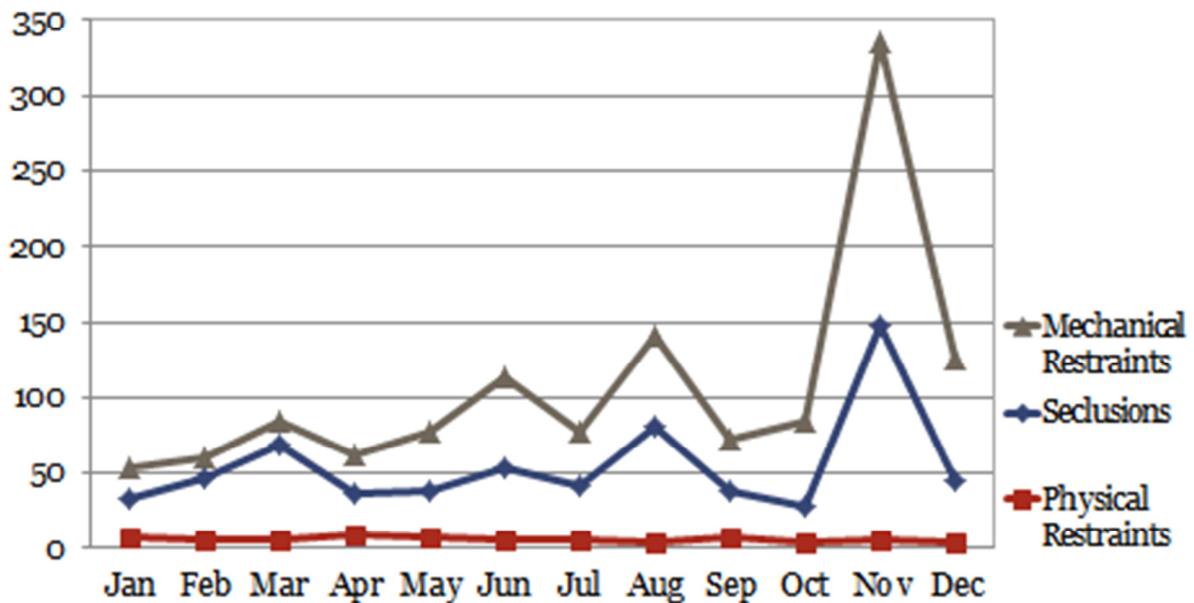
## Seclusions



## Frequencies of Seclusions and Restraints (per 1000 Patient Days) for All Hospitals (N = 16)



## Duration of Seclusions and Restraints (Minutes) (N varies based on number of S/R reported each month)



## Physical Restraints

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.

### Frequency

The total number of Physical Restraints reported in 2012 by all youth-serving hospitals was 1,320 (N=721 January – June; N=599 July – December).

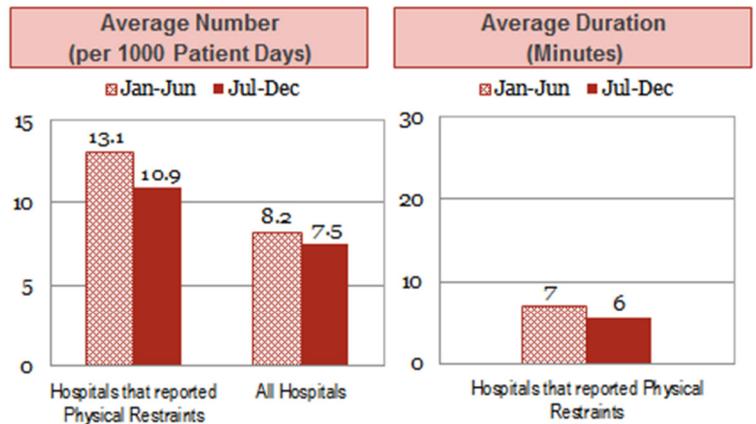
- Of the hospitals that did report Physical Restraints, the maximum number reported decreased from January – June (N=357) to July – December (N=296). The average total number reported decreased from January – June (M=70.1) to July – December (M=54.5).
- When standardizing across hospitals by patient days, the average number of Physical Restraints per 1000 patient days decreased from January – June (M= 13.1) to July – December (M=10.9).
- The average number of Physical Restraints per 1000 patient days decreases (M=8.2 January – June; M=7.5 July – December) for all hospitals serving children and youth.
- The average number of Physical Restraints per 1000 patient days ranged between 5 and 10 across the twelve months, with the highest frequencies in February through April and the lowest frequency in May and June.

### Duration

Hospitals reported on the minutes of Physical Restraints per month.

- The minimum number of minutes of Physical Restraints reported by a hospital decreased from January – June (N=6 minute) to July – December (N=3 minutes). The maximum number of minutes decreased from January – June (N=2,125 minutes) to July – December (N=1,466 minutes). And the average number of minutes decreased slightly from January – June (M=311 minutes) to July – December (M=293 minutes).
- Average duration was computed to standardize across hospitals, using only the hospitals that reported incidents (see calculation above). The minimum average duration was 2.0 minutes for both reporting periods. The maximum average duration decreased from January – June (N=15.8 minutes) to July – December (N=9.3 minutes). And the average duration of Physical Restraints decreased from January – June (M=7.0 minutes) to July – December (M=5.5 minutes).
- The average duration of Physical Restraints remained fairly low and consistent across all twelve months.

## Physical Restraints



## Mechanical Restraints

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.

### Frequency

The total number of Mechanical Restraints reported in 2012 by youth-serving hospitals was 216 (89 in January – June, and 127 in July – December).

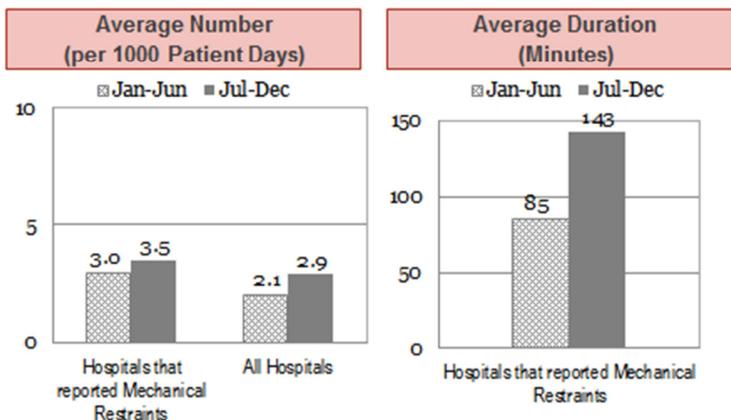
- Of the 11 hospitals that did report Mechanical Restraints, the maximum number reported by a hospital increased from January – June (N=34) to July – December (N=60). The average total number reported increased from January – June (M=8.1) to July – December (M=9.5).
- When standardizing across hospitals by patient days, the average number of Mechanical Restraints per 1000 patient days increased from January – June (M=3.0) to July – December (M=3.5).
- The average number of Mechanical Restraints per 1000 patient days decreases (M=2.1 January – June; M=2.9 July – December) for all hospitals serving children and youth.
- The average number of Mechanical Restraints per 1000 patient days varied slightly across the twelve months with the highest frequencies reported in July and August.

### Duration

Hospitals reported on the minutes of Mechanical Restraint per month.

- The minimum number of minutes of Mechanical Restraint reported by a hospital across the six-month period decreased from January – June (N=101 minutes) to July – December (N=33 minutes). The maximum number of minutes increased from January – June (N=2,029 minutes) to July – December (N=3,752 minutes). And the average number of minutes increased from January – June (M=381.4 minutes) to July – December (M=958.5 minutes).
- Average duration was computed to standardize across hospitals, using only the hospitals that reported incidents (see calculation above). The minimum average duration decreased from January – June (N=33.7 minutes) to July – December (N=28.5 minutes). The maximum average duration increased from January – June (N=236.7 minutes) to July – December (N=493.4 minutes). And the average duration of Mechanical Restraints increased from January – June (M=85.4 minutes) to July – December (M=142.9 minutes).
- The average duration of Mechanical Restraints increases over the twelve-month period, with the average duration above 100 minutes in June, August, November, and December, with the longest average duration in November (N=336 minutes).

## Mechanical Restraints



**Table 13. Frequency of Seclusions and Restraints per 1000 Patient Days (Means across hospitals)**

			Jan-Jun	Jan	Feb	Mar	Apr	May	Jun	Jul-Dec	Jul	Aug	Sep	Oct	Nov	Dec
Seclusions	Hospitals that reported Seclusions	Mean	<b>13.5</b>	<b>16.8</b>	<b>14.5</b>	<b>17.1</b>	<b>9.9</b>	<b>12.7</b>	<b>9.2</b>	<b>13.4</b>	<b>14.1</b>	<b>17.5</b>	<b>14.3</b>	<b>11.9</b>	<b>14.0</b>	<b>10.1</b>
		SD	12.3	18.9	23.9	16.4	9.8	10.8	12.5	12.9	15.6	27.2	14.1	12.0	17.7	11.5
	All Hospitals	Mean	<b>10.1</b>	<b>12.6</b>	<b>10.9</b>	<b>12.8</b>	<b>7.4</b>	<b>10.2</b>	<b>7.4</b>	<b>10.1</b>	<b>11.3</b>	<b>14.0</b>	<b>11.5</b>	<b>9.5</b>	<b>10.5</b>	<b>7.5</b>
		SD	12.2	17.9	21.5	16.0	9.4	11.0	11.7	12.6	15.0	25.1	13.8	11.7	16.4	10.8
Physical Restraints	Hospitals that reported Physical Restraints	Mean	<b>13.1</b>	<b>12.2</b>	<b>16.3</b>	<b>15.3</b>	<b>15.4</b>	<b>9.0</b>	<b>9.7</b>	<b>10.9</b>	<b>11.0</b>	<b>10.4</b>	<b>9.0</b>	<b>9.5</b>	<b>13.0</b>	<b>12.4</b>
		SD	9.9	11.0	12.6	11.0	13.2	11.0	15.8	10.3	13.0	11.7	12.0	10.9	11.4	14.3
	All Hospitals	Mean	<b>8.2</b>	<b>7.6</b>	<b>10.2</b>	<b>9.5</b>	<b>9.6</b>	<b>6.0</b>	<b>6.5</b>	<b>7.5</b>	<b>8.1</b>	<b>7.6</b>	<b>6.6</b>	<b>7.0</b>	<b>8.9</b>	<b>8.5</b>
		SD	10.1	10.5	12.7	11.4	12.8	9.8	13.5	9.9	12.1	10.9	10.9	10.2	11.2	13.1
Mechanical Restraints	Hospitals that reported Mechanical Restraints	Mean	<b>3.0</b>	<b>2.0</b>	<b>2.6</b>	<b>4.3</b>	<b>3.1</b>	<b>2.5</b>	<b>3.7</b>	<b>3.5</b>	<b>5.5</b>	<b>5.9</b>	<b>1.2</b>	<b>3.2</b>	<b>4.0</b>	<b>3.3</b>
		SD	2.1	2.9	2.5	4.2	3.6	3.0	4.6	2.8	8.3	8.1	2.4	4.0	4.7	4.1
	All Hospitals	Mean	<b>2.1</b>	<b>1.4</b>	<b>1.8</b>	<b>2.9</b>	<b>2.1</b>	<b>1.8</b>	<b>2.7</b>	<b>2.9</b>	<b>4.8</b>	<b>5.1</b>	<b>1.0</b>	<b>2.7</b>	<b>3.3</b>	<b>2.6</b>
		SD	2.3	2.6	2.4	4.0	3.3	2.8	4.2	2.9	7.9	7.8	2.2	3.8	4.5	3.9

**Table 14. Average Minutes of Duration of Seclusion and Restraint (Means across hospitals)**

		Jan – Jun	Jan	Feb	Mar	Apr	May	Jun	Jul-Dec	Jul	Aug	Sep	Oct	Nov	Dec
Seclusions	<b>Mean</b>	<b>47.5</b>	<b>33.7</b>	<b>47.6</b>	<b>68.8</b>	<b>37.0</b>	<b>38.1</b>	<b>53.7</b>	<b>117.0</b>	<b>41.9</b>	<b>81.5</b>	<b>38.1</b>	<b>28.6</b>	<b>147.1</b>	<b>45.6</b>
	SD	29.3	16.9	34.2	65.2	27.2	20.2	34.5	265.9	20.3	55.3	16.9	12.6	305.3	20.7
	N	12	10	10	10	10	11	7	12	7	7	9	10	9	8
Physical Restraints	<b>Mean</b>	<b>7.0</b>	<b>7.5</b>	<b>5.0</b>	<b>6.5</b>	<b>9.3</b>	<b>7.1</b>	<b>6.3</b>	<b>5.5</b>	<b>5.4</b>	<b>3.3</b>	<b>7.1</b>	<b>4.1</b>	<b>6.5</b>	<b>4.6</b>
	SD	4.4	5.9	2.4	3.6	4.9	5.7	3.2	2.8	4.1	1.8	6.3	3.1	5.9	3.0
	N	10	8	8	8	8	6	6	11	7	7	6	9	10	7
Mechanical Restraints	<b>Mean</b>	<b>85.4</b>	<b>53.7</b>	<b>60.4</b>	<b>84.4</b>	<b>62.5</b>	<b>77.5</b>	<b>114.2</b>	<b>142.9</b>	<b>78.1</b>	<b>141.0</b>	<b>73.1</b>	<b>84.8</b>	<b>335.7</b>	<b>125.2</b>
	SD	57.7	20.7	21.0	67.4	48.8	51.9	128.6	156.3	23.0	90.8	12.4	70.7	681.6	174.6
	N	11	5	8	9	7	6	5	13	7	7	4	7	7	6

\*The formula for computing duration only includes reported Seclusions for that period; therefore the N changes based on the number reported each month.

**Table 15. Frequency of Injury or Illness**

	Patient Injury/Illness				Injuries to Staff from Seclusions and Restraints			
	Injuries requiring emergency/ unplanned medical treatment or hospitalization		Illness/medical emergency requiring immediate admission to a hospital		Injuries requiring First Aid		Injuries requiring emergency/ unplanned medical intervention	
	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec
# Hospital reporting injuries	25	21	53	56	17	8	13	7
Total # of Injuries	108	56	418	566	91	57	25	11
<b>Mean</b>	<b>4.2</b>	<b>2.7</b>	<b>7.9</b>	<b>10.1</b>	<b>5.4</b>	<b>7.1</b>	<b>1.9</b>	<b>1.6</b>
sd	7.0	3.4	8.1	10.2	8.9	8.3	1.6	0.8
Min	1	1	1	1	1	2	1	1
Max	32	11	43	54	39	27	7	3

## Patient 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 above 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 2012 was 164.
  - The number of hospitals that reported injuries requiring emergency/unplanned treatment decreased from January – June (N=25, 32.9%) to July – December (N=21, 29.2%).
  - For the hospitals that reported injuries, the average number of injuries per hospital decreased from January – June (M=4.2) to July – December (M=2.7).
- The total number of patient illness/medical emergency requiring immediate and/or unplanned admission to a hospital medical unit for 2012 was 984.
  - The number of hospitals that reported such patient illnesses/emergencies increased from January – June (N=53) to July – December (N=56).
  - For the hospitals that reported illnesses, the average number of patient illnesses and medical emergencies increased from January – June (M=7.9) to July – December (M=10.1).

## Injuries to Staff from Seclusions and Restraints

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

- The total number of injuries to staff requiring first aid for 2012 was 148.
  - The number of hospitals that reported injuries to staff requiring first aid decreased January – June (N=17, 22.4%) to July – December (N=8, 10.0%).
  - For the hospitals that reported injuries, the average number of injuries requiring first aid increased from January – June (M=5.4) to July – December (M=7.1).
- The total number of injuries to staff requiring emergency/unplanned medical intervention for 2012 was 36.
  - The number of hospitals that reported injuries to staff decreased from January – June (N=13, 17.1%) to July – December (N=7, 8.8%).
  - For hospitals that reported injuries, the average number of injuries requiring emergency/unplanned medical intervention decreased from January – June (M=1.9) to July – December (M=1.6).

No hospitals reported injuries to staff that required hospitalization.

## Summary

### For private hospitals serving adults:

- Adult-serving hospitals reported using a higher total number of Mechanical Restraints followed by Seclusions and a lower number of Physical Restraints; this pattern was generally true when averaging the frequency per 1000 patient days.
- Average duration per incident was longer for Mechanical Restraints followed by Seclusions, with a lower average duration for Physical Restraints.

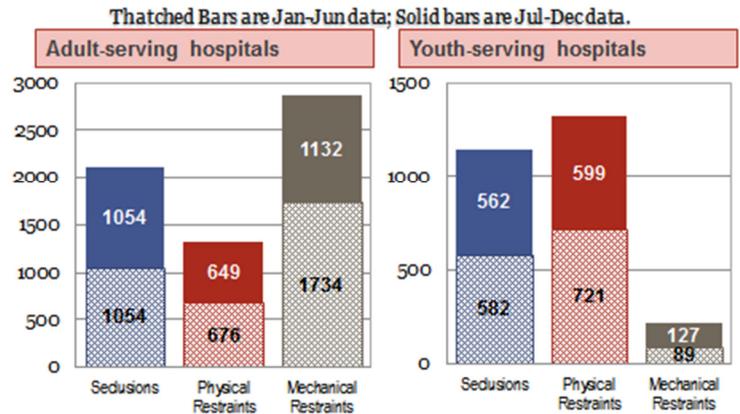
### For hospitals serving children and youth:

- 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 averaging the frequency per 1000 patient days for all youth-serving hospitals there was a higher number of Seclusions, followed by Physical Restraints.
- Average duration per incident was longer for Mechanical Restraints, followed by Seclusions, with a lower average duration for Physical Restraints.

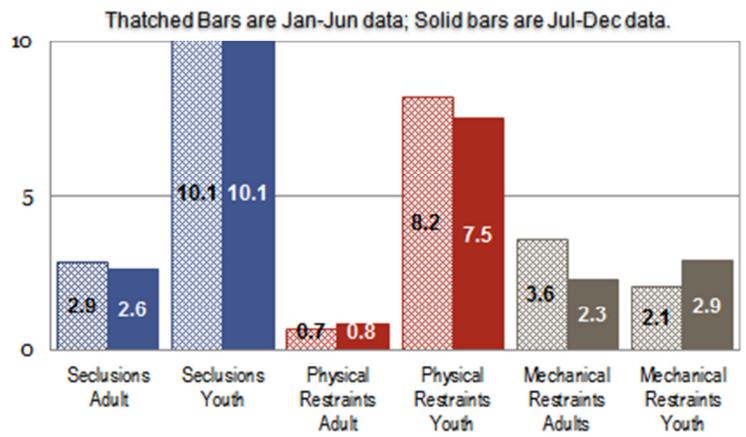
### Comparing hospitals serving adults to hospitals serving children and youth:

- Hospitals serving children and youth report fewer total Seclusions and Restraints. When looking at frequencies per 1000 Patient Days, compared with hospitals serving adults, hospitals serving youth report more Seclusions and more Physical Restraints, they have about the same number of Mechanical Restraints.
- Hospitals serving adults have a longer average duration of Seclusions and Mechanical Restraints.
- The longest average duration of any of the Seclusions and Restraint types are Mechanical Restraints in adult-serving hospitals.

## Total Number of Seclusions and Restraints



## Frequency of Seclusions/Restraints (per 1000 Patient days)



## Duration of Seclusions and Restraints

