



STATE OF CONNECTICUT
DEPARTMENT OF MENTAL HEALTH AND ADDICTION
SERVICES
A Healthcare Service Agency

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Evaluation, Quality Management and Improvement Division

Restraint and Seclusion Executive Summary

The Department of Mental Health and Addiction Services (DMHAS) collects monthly data on the frequency of restraint and seclusion use in its state operated inpatient facilities. These data are reported to various DMHAS stakeholders as well as to the National Association of State Mental Health Program Directors (NASMHPD) Research Institute (hereafter, NRI). The NRI collects these data from a number of member states and issues annual trend reports on seclusion and restraint as well as on many other inpatient measures.

This summary report presents analyses by quarter for Fiscal Year 2012. It covers individual facility rates as well as statewide averages, and compares them with the national NRI data released to the public in September of 2012.¹ This report contains two sets of analyses. In the first set of analyses, Connecticut's rates of restraint and seclusion include both mental health and substance abuse bed days during State Fiscal Year 2012. Because the national NRI rates of restraint and seclusion include only mental health bed days, the second set of analyses includes Connecticut's mental health only bed days during State Fiscal Year 2012.

Summary of Findings

Restraint Hours & Rate of Restraint

Statewide, the number of restraint hours decreased by 30% from 910 hours in Fiscal Year 2011 to 641 hours in Fiscal Year 2012. Connecticut's rates of restraint remained lower than the national average in every Quarter of Fiscal Year 2012; however, there was also a substantial change in the pattern of restraint use this year. Unlike the previous two years, the rate of restraint remained relatively stable every Quarter of Fiscal Year 2012.

Seclusion Hours & Rate of Seclusion

Statewide, the number of seclusion hours increased by 16% from 368 hours in Fiscal Year 2011 to 468 hours in Fiscal Year 2012. Although Connecticut's rates of seclusion remained substantially lower than the national average in every Quarter, there was a sharp increase in the number of seclusion hours and the rates of seclusion in Quarter 3 and Quarter 4 of Fiscal Year 2012. The rates of seclusion at all of Connecticut's state-operated inpatient facilities remained well below the national averages for every Quarter of Fiscal Year 2012.

¹ NRI Performance Measurement System National Public Rates. Alexandria, Virginia: National Association of State Mental Health Program Directors Research Institute, as of September 2012. Please note that it is important for facilities to review information from past months, as the NRI averages often change as data are submitted by additional facilities.

Interventions

The following activities oriented towards the reduction of the use of restraint and seclusion took place in Fiscal Year 2012:

- Connecticut Valley Hospital (CVH) formed a Restraint and Seclusion Prevention Project Team, which identified staff training needs, proposed alternatives to mechanical restraints, and reviewed cases.
- CVH also changed policies with regard to the length of physician's orders and assessments during periods of restraint or seclusion.
- Finally, CVH expanded the use of sensory modalities through the use of 22 Comfort Rooms as well as training clients and staff in mindfulness and relaxation techniques.
- Connecticut Mental Health Center (CMHC) continued culture shifting activities and planning initially begun in 2009.
- CMHC has been working with the National Center for Trauma and Justice to identify needs for leadership and workforce development.
- Rates for both restraint and seclusion at CMHC have declined dramatically in the last two years because of these activities.

Conclusion

DMHAS remains committed to reducing restraint and seclusion episodes and implementing trauma-informed approaches to service delivery. This commitment is evidenced by the reduction of restraint and seclusion events in Fiscal Year 2012.

- In comparison to Fiscal Year 2011, there was a 43% decrease in the total number of restraint hours and 29% decrease in the annual rate of restraint in Fiscal Year 2012.
- The rate of restraint remained relatively stable in every Quarter of Fiscal Year 2012 and at its highest was 46% lower than the highest rate of restraint in Fiscal Year 2011.
- Quarter 3 of Fiscal Year 2012 had a rate of restraint (0.09) that was lower than any quarterly rate of restraint in the previous two Fiscal Years.
- Lastly, the number of seclusion hours in Quarter 1 and Quarter 2 were lower than any Quarter of Fiscal Year 2011.

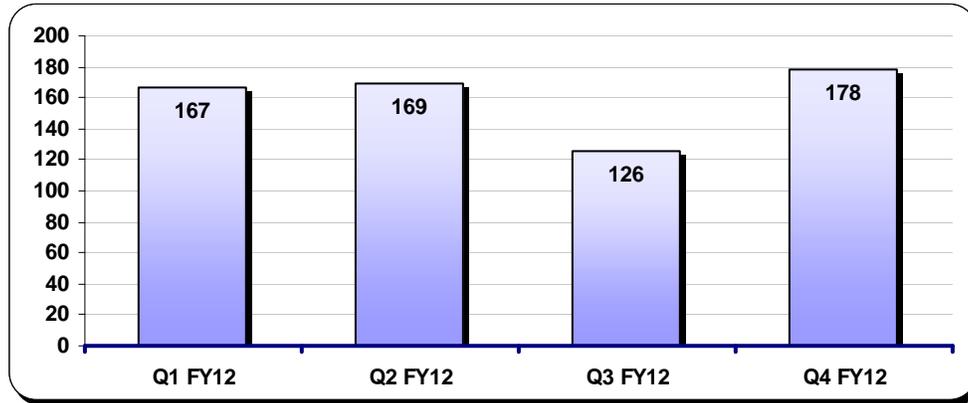
While the rates of restraint and seclusion at Connecticut's state-operated inpatient facilities consistently remained below the national average, DMHAS will continue its effort to develop, implement, and evaluate innovative strategies for reducing incidents of restraint and seclusion in its state operated inpatient facilities.

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Restraint Hours (*Mental Health and Substance Abuse*)

The number of restraint hours remained relatively stable in Quarter 1 and Quarter 2 and then declined to 126 hours in Quarter 3. Quarter 4 had the highest number of restraint hours with 178 hours; however, this represents a 43% decrease from the 313 hours reported in the highest Quarter of Fiscal Year 2011, which was 313 hours. Statewide, the number of restraint hours decreased by 30% with a total of 641 hours in Fiscal Year 2012 when compared to 910 hours in Fiscal Year 2011.

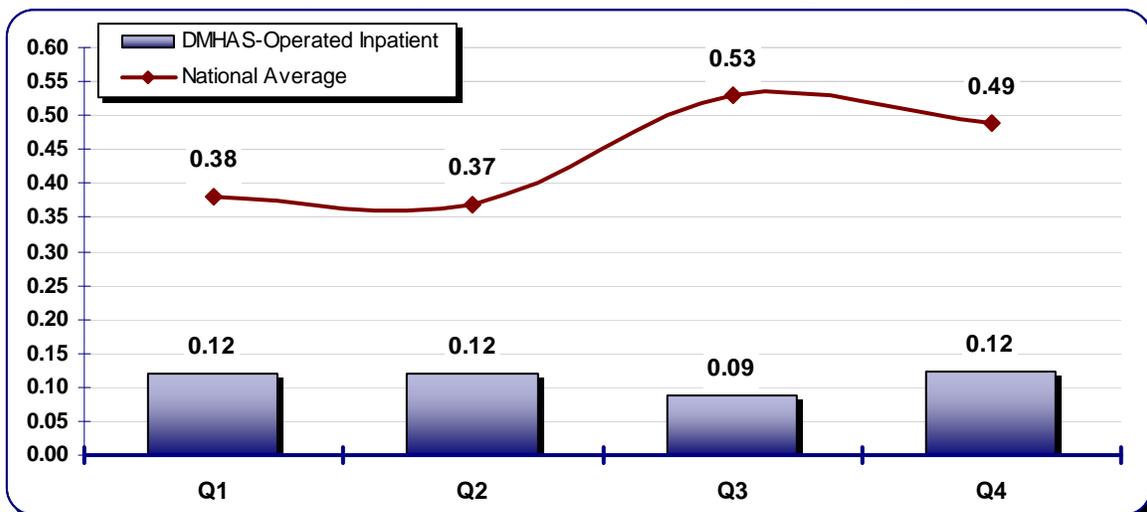
Figure 1. Statewide Restraint Hours (MH & SA) by Fiscal Quarter for FY2012



Rates of Restraint (*Mental Health and Substance Abuse*)

Both Connecticut and NRI calculate a rate of restraint based on the number of hours in restraint per patient hours. This gives a more balanced picture than simple reporting of restraint hours, as this calculation takes the number of patients and their length of stay into account. As illustrated in Figure 2, the rates of restraint in Connecticut's state-operated inpatient facilities remained at 0.12 hours (7 minutes) per 1,000 hours of patient care for every Quarter except Quarter 3, which had a rate of restraint of 0.09 hours (5 minutes) per 1,000 hours of patient care. In comparison, the national rates of restraint during Fiscal Year 2012 were at their lowest in Quarter 2 with 0.37 hours (22 minutes) per 1,000 hours of patient care and at their highest in Quarter 3 with 0.53 hours (32 minutes) per 1,000 hours of patient care.

Figure 2. Connecticut (MH & SA) vs. National Rates of Restraint by Fiscal Quarter for FY2012

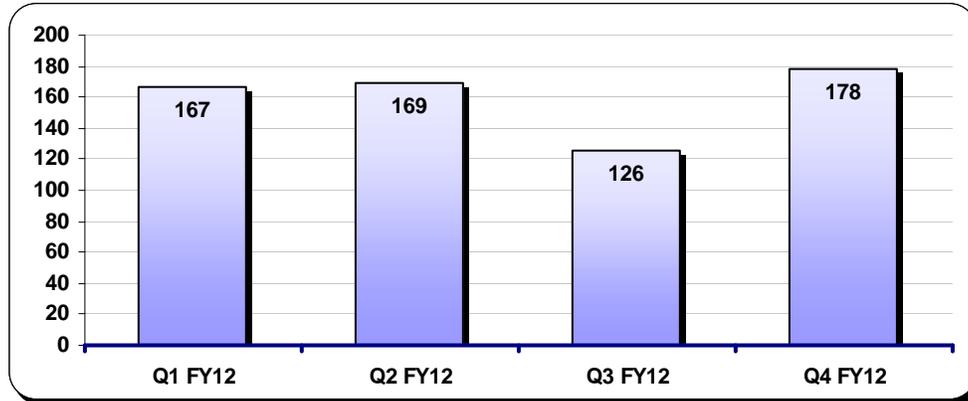


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Restraint Hours (*Mental Health Only*)

As illustrated in Figure 3, when substance abuse bed days were excluded from the analysis, there was no change in the number of restraint hours for each Fiscal Quarter of Fiscal Year 2012.

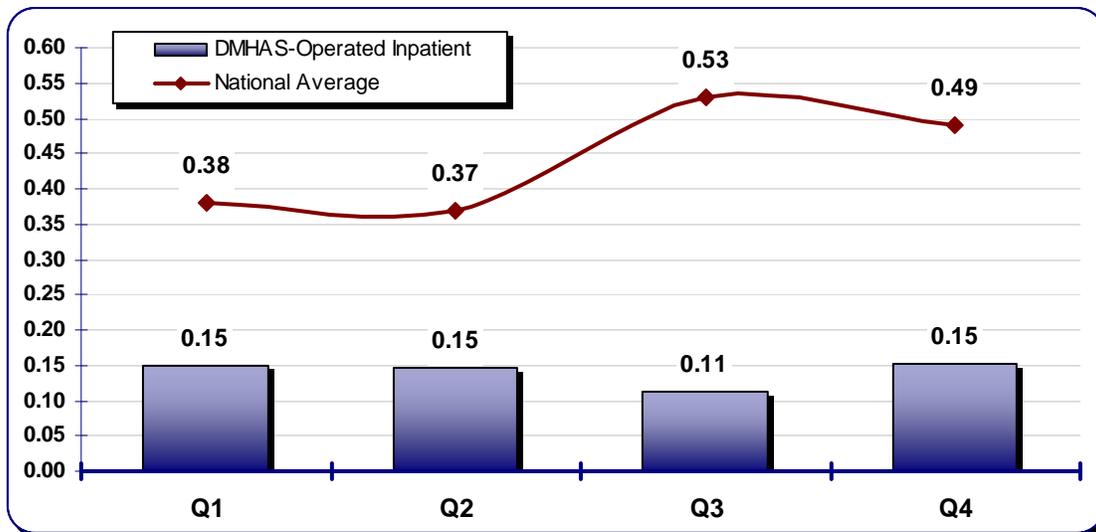
Figure 3. Statewide Restraint Hours (MH Only) by Fiscal Quarter for FY2012



Rates of Restraint (*Mental Health Only*)

As shown in Figure 4, when substance abuse bed days were excluded from the analysis there was an increase in Connecticut's rate of restraint for each Fiscal Quarter of 2012. System-wide, Connecticut's rates of restraint increased to 0.15 hours (*9 minutes*) per 1,000 hours of patient care for every Quarter except Quarter 3, which increased to 0.11 hours (*6 minutes*) per 1,000 hours of patient care. Even with the exclusion of substance abuse data, Connecticut's state-operated inpatient facilities rates of restraint remained lower than the national rates of restraint in every Quarter of Fiscal Year 2012.

Figure 4. Connecticut (MH Only) vs. National Rates of Restraint by Fiscal Quarter for FY2012

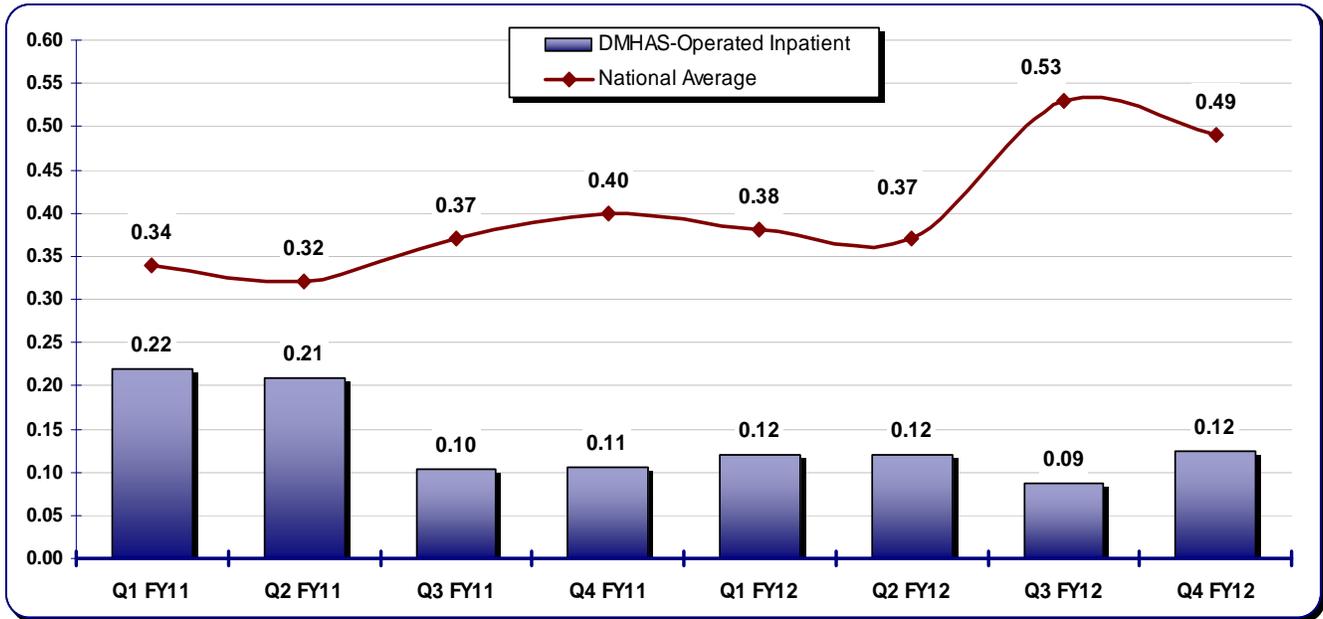


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Rates of Restraint in FY2011 & FY2012 (*Mental Health & Substance Abuse*)

Figure 5 illustrates that the rates of restraint in Connecticut’s state-operated inpatient facilities remained relatively stable in every Quarter of Fiscal Year 2012. The rate of restraint did not exceed 0.12 hours in Fiscal Year 2012, which represents nearly a 46% decrease from the rates of restraint in Quarter 1 (0.22) and Quarter 2 (0.21) of Fiscal Year 2011. The rate of restraint in Quarter 3 (0.09) of Fiscal Year 2012 was the lower than any Quarter in the previous two Fiscal Years.

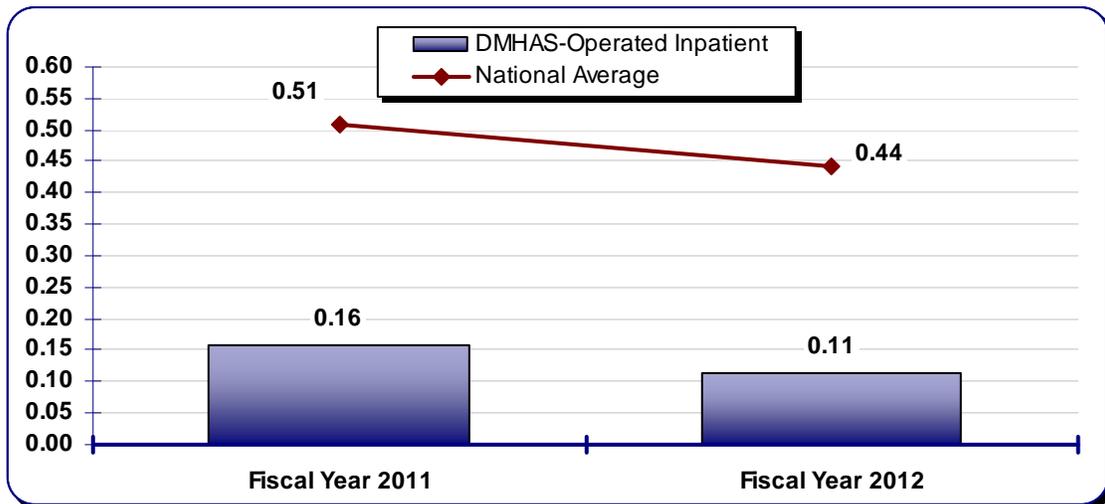
Figure 5. Connecticut (MH & SA) vs. National Rates of Restraint by Fiscal Quarter for FY2011 and FY2012



Rates of Restraint by Fiscal Year (*Mental Health & Substance Abuse*)

As illustrated in Figure 6, in Fiscal Year 2012 the average rate of restraint in Connecticut’s state-operated inpatient facilities was 0.11 hours (*6 minutes*) per 1,000 hours of patient care. This represents a 29% decrease from the rate of restraint in Fiscal Year 2011, which was 0.16 hours (*9 minutes*) per 1,000 hours of patient care.

Figure 6. Connecticut (MH & SA) vs. National Rates of Restraint for FY2011 and FY2012

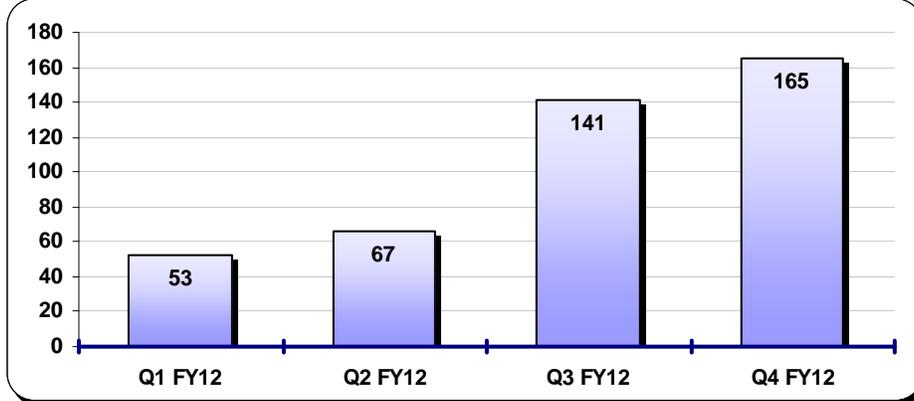


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Seclusion Hours (*Mental Health & Substance Abuse*)

Statewide, the total number of seclusion hours in Fiscal Year 2012 was 426 hours, which represents a 16% increase from 368 seclusion hours in Fiscal Year 2011. Still, the number of seclusion hours in Quarter 1 and Quarter 2 of Fiscal Year 2012, were substantially lower than the number of hours in any Quarter of Fiscal Year 2011. Quarter 1 (53 hours) the lowest number of seclusion hours representing a 26% decrease from the lowest Quarter (*Quarter 3 – 72 hours*) in Fiscal Year 2011. As shown in Figure 7, there was a sharp increase in the number of statewide seclusion hours in Quarter 3 and Quarter 4 when compared with the first two Quarters.

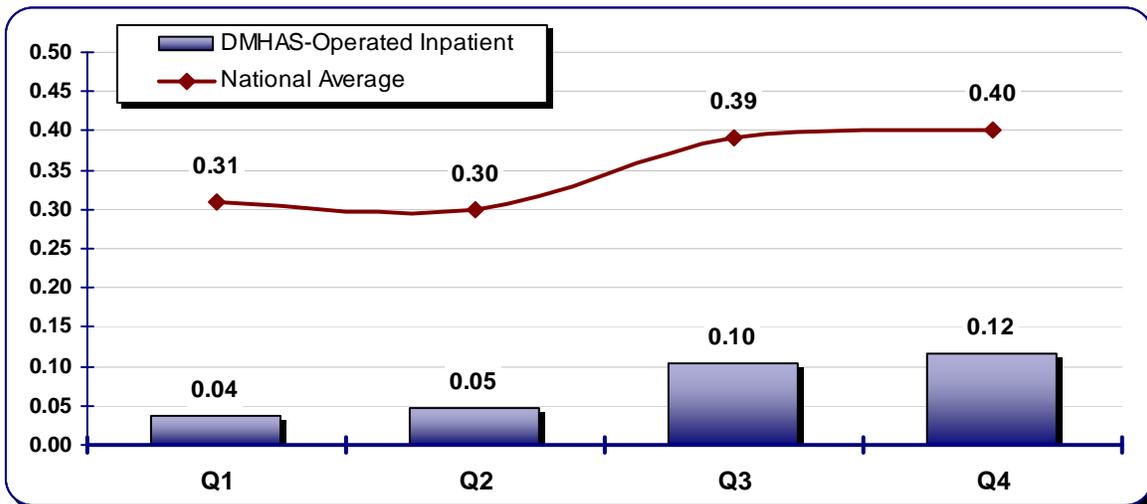
Figure 7. Statewide Seclusion Hours (MH & SA) by Fiscal Quarter for FY2012



Quarterly Rates of Seclusion (*Mental Health & Substance Abuse*)

As with the calculation of rates of restraint, both Connecticut and NRI calculate a rate of seclusion based on the number of hours in restraint per patient hours taking into account the number of patients and their length of stay. Figure 8 illustrates that the highest rates of seclusion in Connecticut's state-operated inpatient facilities occurred in Quarter 3 and Quarter 4 of Fiscal Year 2012 with 0.10 hours (6 minutes) per 1,000 hours of patient care in Quarter 3 and 0.12 hours (7 minutes) per 1,000 hours of patient care in Quarter 4. In comparison, the national rate of seclusion was 0.39 hours (23 minutes) per 1,000 hours of patient care in Quarter 3 and 0.40 hours (24 minutes) per 1,000 hours of patient care in Quarter 4 of Fiscal Year 2012.

Figure 8. Connecticut (MH & SA) vs. National Rates of Seclusion by Fiscal Quarter in FY2012

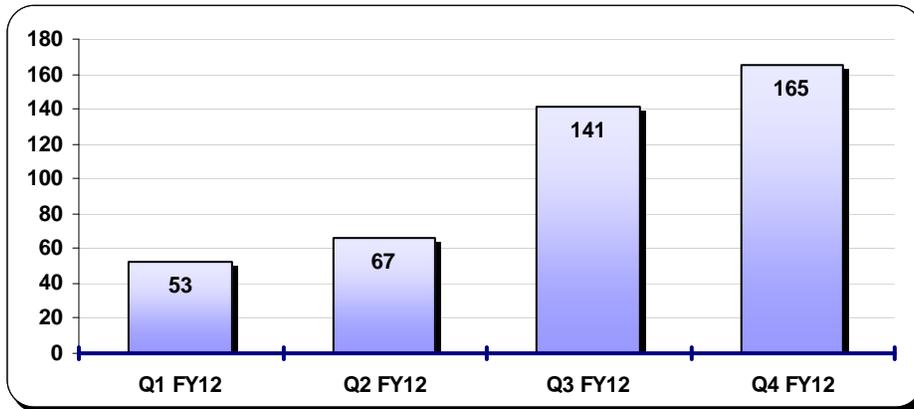


Connecticut DMHAS Restraint and Seclusion Annual Report SFY2012

Seclusion Hours (Mental Health Only)

As illustrated in Figure 9, when substance abuse bed days were excluded from the analysis, there was no change in the number of seclusion hours for each Fiscal Quarter of Fiscal Year 2012.

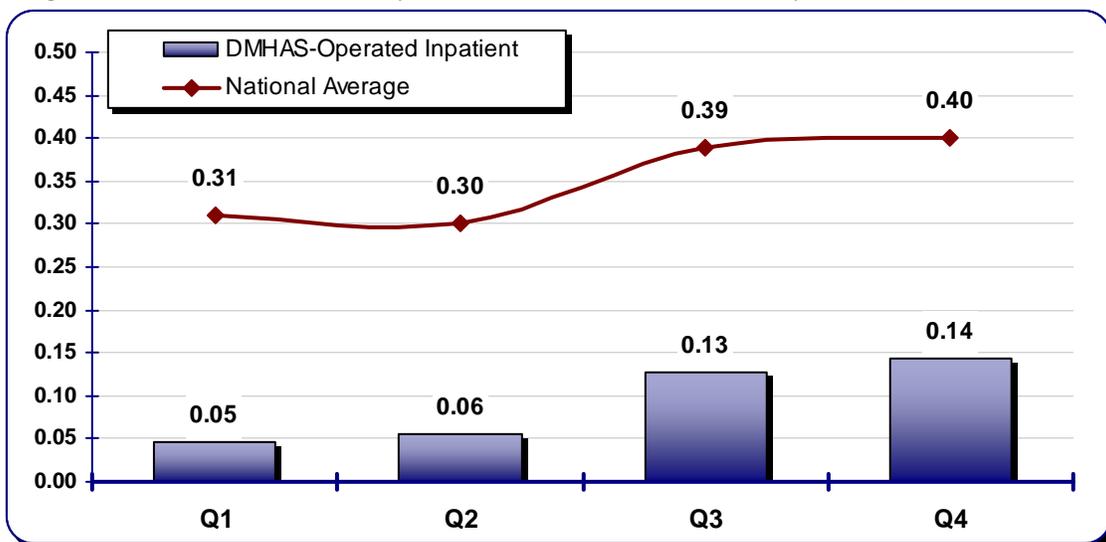
Figure 9. Statewide Seclusion Hours (MH Only) by Fiscal Quarter for FY2012



Rates of Seclusion (Mental Health Only)

As illustrated in Figure 10, when substance abuse bed days are excluded from the analysis, there was an increase in the rates of seclusion for every Fiscal Quarter in Fiscal Year 2012. The highest rates of seclusion in Connecticut's state-operated inpatient facilities were in Quarter 3 and Quarter 4, with 0.13 hours (7 minutes) per 1,000 hours of patient care and 0.14 hours (8 minutes) per 1,000 hours of patient care, respectively. Quarter 1 and Quarter 2 had the lowest rates of seclusion with 0.05 hours (3 minutes) per 1,000 hours of patient care and 0.06 hours (4 minutes) per 1,000 hours of patient care, respectively. The increases in seclusion rates during Quarter 3 and Quarter 4 were consistent with the increases in the national averages for the same Fiscal Quarters. Even with the exclusion of substance abuse bed days, Figure 6 demonstrates that the quarterly rates of seclusion in Connecticut's state-operated inpatient facilities remained substantially lower than the national quarterly rates of seclusion during every Quarter of Fiscal Year 2012.

Figure 10. Connecticut (MH Only) vs. National Rates of Seclusion by Fiscal Quarter in FY2012

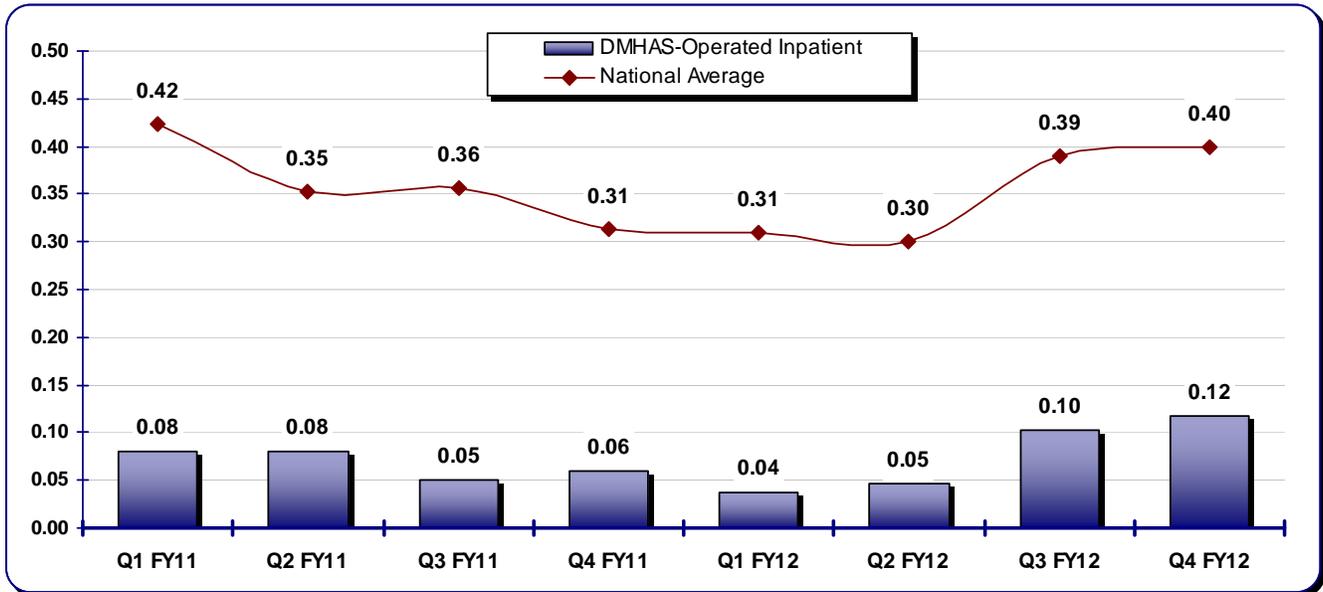


Connecticut DMHAS Restraint and Seclusion Annual Report SFY2012

Rates of Seclusion in FY2011 & FY2012 (*Mental Health and Substance Abuse*)

As shown in Figure 9, there was a decrease in the statewide rates of seclusion in Quarter 1 and Quarter 2 of Fiscal Year 2012 when compared with the rate of seclusion in Quarter 4 of Fiscal Year 2011. There was a sharp increase in the rates of seclusion for Quarter 3 and Quarter 4 of Fiscal Year 2012 when compared with every Quarter of Fiscal Year 2011. The increase in Connecticut's rates of seclusion in Quarter 3 and Quarter 4 of Fiscal Year 2012 is consistent with the increase in the national averages for the same Fiscal Quarters.

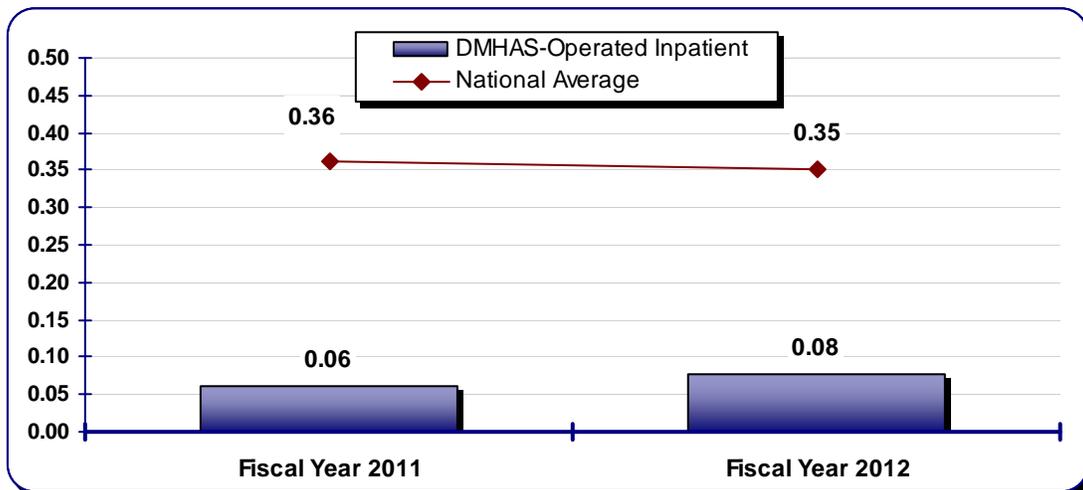
Figure 11. Connecticut (MH & SA) vs. National Rates of Seclusion by Fiscal Quarter for FY2011 & FY2012



Rates of Seclusion by Fiscal Year (*Mental Health & Substance Abuse*)

As illustrated in Figure 12, in Fiscal Year 2012 the average rate of seclusion in Connecticut's state-operated inpatient facilities was 0.08 hours (5 minutes) per 1,000 hours of patient care. This represents a 25% increase when compared with the rate of seclusion in Fiscal Year 2011. Despite this increase, Connecticut's rate of seclusion remained substantially lower than the national rates of seclusion in Fiscal Year 2011 and Fiscal Year 2012.

Figure 12. Connecticut (MH & SA) vs. National Rates of Seclusion for FY2011 and FY2012



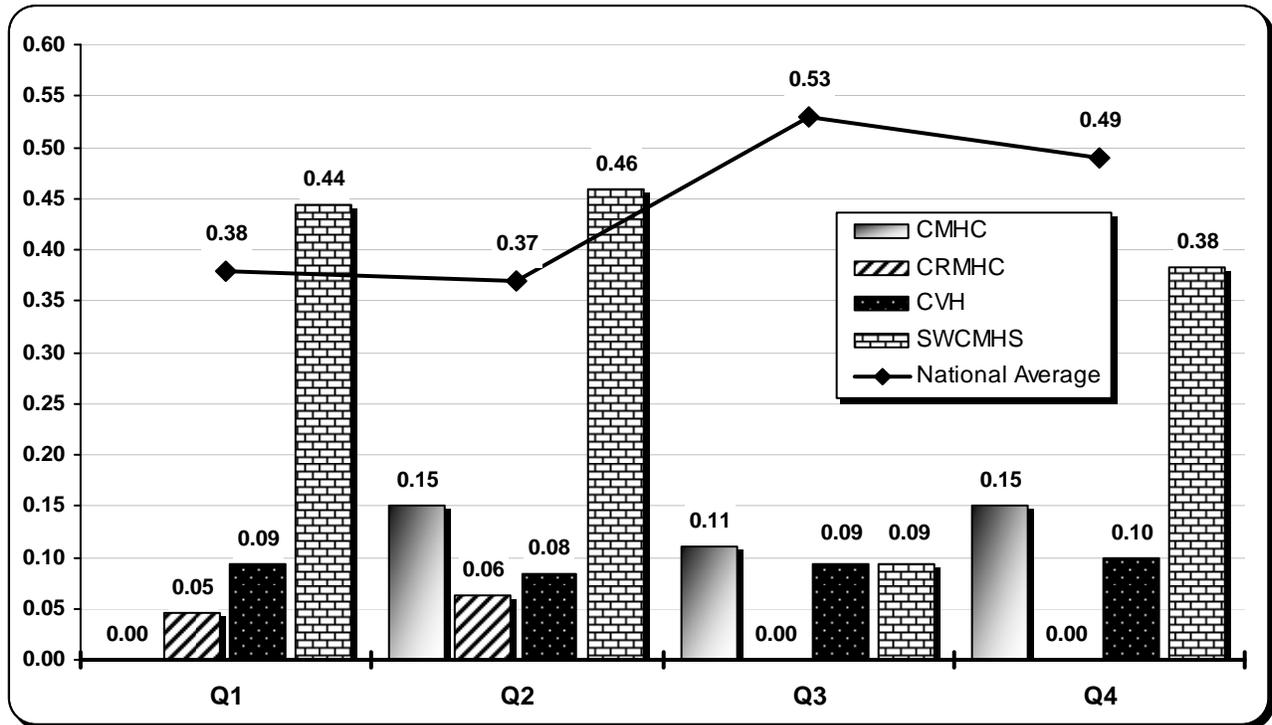
Connecticut DMHAS Restraint and Seclusion Annual Report SFY2012

Key to Abbreviations	
	CMHC = Connecticut Mental Health Center
	CRMHC = Capitol Region Mental Health Center
	CVH = Connecticut Valley Hospital
	SWCMHS = Southwest Community Mental Health System

Rate of Restraint by Facility (*Mental Health & Substance Abuse*)

As shown in Figure 13, the rates of restraint at CMHC, CRMHC and CVH, remained well below the national averages for every Fiscal Quarter of Fiscal Year 2012. In Quarter 1 and Quarter 2, the rates of restraint at SWCMHS exceeded the national rates of restraint for the same Fiscal Quarters. In Quarter 1, the rate of restraint at SWCMHS was 0.44 hours (26 minutes) per 1,000 hours of patient care and the national rate of restraint was 0.38 hours (23 minutes) per 1,000 hours of patient care. In Quarter 2, the rate of restraint at SWCMHS was 0.46 hours (26 minutes) per 1,000 hours of patient care and the national rate of restraint was 0.37 hours (22 minutes) per 1,000 hours of patient care. There was a substantial decrease in the rate of restraint at SWCMHS in Quarter 3 and while the rate of restraint increased in Quarter 4 to 0.38 hours (23 minutes), it remained below the national average. CMHC reported no restraint events during Quarter 1 and reported its highest quarterly rates of restraint in Quarter 2 and Quarter 4 at 0.15 hours (9 minutes) per 1,000 hours of patient care. CRMHC reported its highest quarterly rate of restraint was during Quarter 2 with 0.06 hours (3 minutes) per 1,000 hours of patient care but then report no restraint events during Quarter 3 and Quarter 4. The quarterly rates of restraint at CVH remained relatively stable during every Quarter of Fiscal Year 2012 with it highest rate of restraint being in Quarter 4 with 0.10 hours (6 minutes) per 1,000 hours of patient care.

Figure 13. State-Operated Facility (MH & SA) vs. National Rates of Restraint by Fiscal Quarter in FY2012



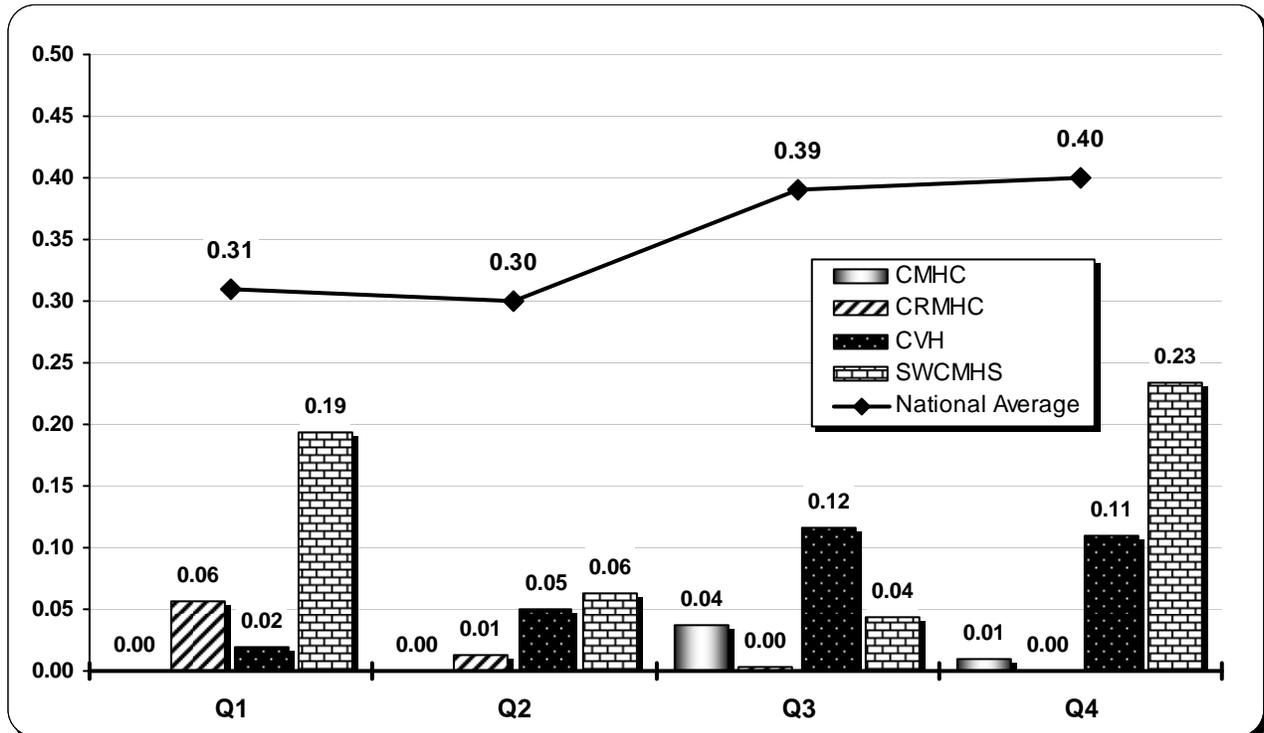
Connecticut DMHAS Restraint and Seclusion Annual Report SFY2012

Key to Abbreviations
CMHC = Connecticut Mental Health Center
CRMHC = Capitol Region Mental Health Center
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SWCMHS = Southwest Community Mental Health System

Rate of Seclusion by Facility (*Mental Health & Substance Abuse*)

As shown in Figure 14, SWCMHS had the highest rates of seclusion in Quarter 1 and Quarter 4 of Fiscal Year 2012, with 0.19 hours (*11 minutes*) per 1,000 hours of patient care and 0.23 hours (*14 minutes*) per 1,000 hours of patient care, respectively. There was a sharp increase in the rate of seclusion at CVH in Quarter 3 and Quarter 4 with 0.12 hours (*7 minutes*) per 1,000 hours of patient care and 0.11 hours (*6 minutes*) per 1,000 hours of patient care, respectively. CMHC reported no seclusion events during Quarter 1 and Quarter 2. CRMHC reported that its highest quarterly rate of seclusion was in Quarter 1 with 0.06 hours (3 minutes) per 1,000 hours of patient care. The quarterly rate of seclusion at CRMHC gradually declined in Quarter 2 and Quarter 3 until there were no seclusion events during Quarter 4. During Fiscal Year 2012, the quarterly rates of seclusion at all of Connecticut's state-operated inpatient facilities remained below the national rates of seclusion.

Figure 14. State-Operated Facility (MH & SA) vs. National Rates of Seclusion by Fiscal Quarter in FY2012

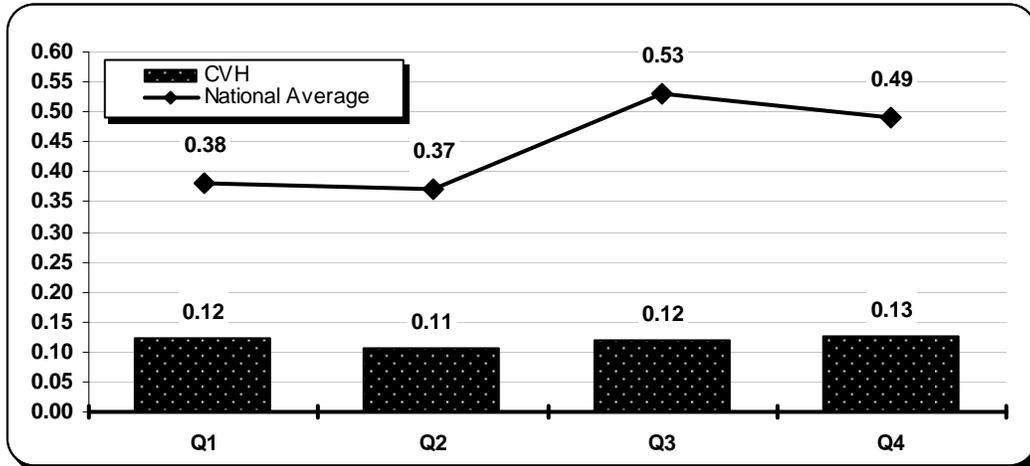


Connecticut DMHAS Restraint and Seclusion Annual Report SFY2012

Rate of Restraint at CVH (*Mental Health Only*)

Because CVH is the only state-operated facility that has substance abuse bed days, the other three facilities are excluded from this section of the report. As illustrated in Figure 14, when substance abuse bed days were excluded from the analysis, there was an increase in the rates of restraint at CVH during every Quarter of Fiscal Year 2012. The rate of restraint increased by 0.03 hours (2 minutes) per 1,000 hours of patient care in every Fiscal Quarter (e.g., 0.09 including SA bed days to 0.12 excluding SA bed days) with the exception Quarter 3, which only rose by 0.02 (1 minute) per 1,000 hours of patient care. Even when substance abuse bed days are excluded from the analysis, the quarterly rates of restraint at CVH remained below the national averages.

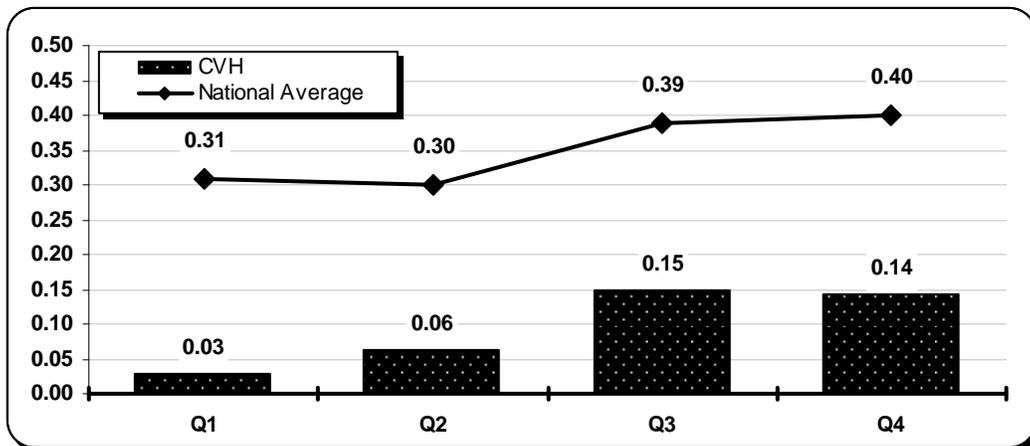
Figure 15. CVH (MH Only) vs. National Rates of Restraint by Fiscal Quarter for FY2012



Rate of Seclusion at CVH (*Mental Health Only*)

As illustrated in Figure 15, when substance abuse bed days were excluded from the analysis, there was an increase in the rates of seclusion at CVH during every Quarter of Fiscal Year 2012. The rate of seclusion increased by 0.01 hours (1 minute) per 1,000 hours of patient care in Quarter 1 and Quarter 2 and by 0.03 (2 minutes) per 1,000 hours of patient care in Quarter 3 and Quarter 4 of Fiscal Year 2012. Even when substance abuse bed days are excluded from the analysis, the quarterly rates of seclusion at CVH remained below the national averages.

Figure 16. CVH (MH Only) vs. National Rates of Seclusion by Fiscal Quarter for FY2012



Connecticut DMHAS Restraint and Seclusion Annual Report SFY2012

Activities to Reduce the Use of Restraint and Seclusion in Fiscal Year 2012

In Fiscal Year 2012, DMHAS continued developing and implementing innovative strategies designed to reduce the use of restraint and seclusion in its state-operated inpatient facilities. For example, Connecticut Valley Hospital (CVH) formed a Restraint and Seclusion Prevention Project Team that developed various interventions designed to promote a restraint and seclusion free environment. As a group and by discipline, the Project Team identified persons receiving services who were exceeding thresholds for restraint and seclusion and then evaluated their appropriateness for alternatives to restraint and seclusion. The nursing staff became familiar with each person's stress cycles and personal preferences for managing periods of aggression. This information was then made available to additional staff as they conduct rounds in the milieu, to support the use of early interventions. Another strategy proposed by Project Team at CVH, involved the use of brief holds as an alternative to the use of mechanical restraints. The staff at CVH received additional assistance with how to question a person's readiness to be released from a hold and how to determine if a brief extension would ultimately result in the person's release without moving to a mechanical restraint option. CVH also reduced the time limits for a physician's order of restraint and seclusion from 3 hours to 2 hours. Notably, the national standard for restraint and seclusion physician orders among adults is 4 hours. The discipline of nursing also instituted a process whereby nursing supervisors and the assessing RN conduct a face-to-face assessment of any person remaining in seclusion or restraint for more than one hour. The goals of this assessment were to determine if early release was possible or if additional interventions were needed to assist the person in their readiness for release. Lastly, CVH expanded the use of sensory modalities and currently has 22 Comfort Rooms that are being used to assist persons receiving services to decrease stimulation, practice alternative coping strategies, including the use of mindfulness and other self-soothing techniques.

During Fiscal Year 2012, the Restraint and Seclusion Prevention Project Team at CVH was able to change a restraint/seclusion pattern wherein persons with long lengths of stay were found to have higher frequencies of restraint and seclusion use when compared with persons who were recently admitted to the hospital. In addition, these efforts significantly reduced the duration of restraint and seclusion episodes on a unit that had the highest use of restraint and seclusion for many years.

Connecticut Mental Health Center (CMHC) also continued to implement several strategies designed to reduce episodes of restraint and seclusion on their inpatient unit. Beginning in 2009, CMHC utilized an incremental and multi-stage process to shift the culture of their organization to become a "Trauma-Informed" system of care". Because of the high prevalence of physical and sexual abuse and other trauma-inducing experiences among person who receive public behavioral health services, many agencies are beginning to modify their service systems to include a basic understanding of how trauma affects the lives of their service users. A trauma-informed approach to service delivery is based on an understanding of the vulnerabilities of trauma survivors that traditional service delivery approaches may exacerbate, so that these services are more supportive and avoid re-traumatization. In collaboration with the National Center for Trauma and Justice (NCTJ), CMHC focused on leadership development for organizational change, the use of data informed practice, workforce development, the use of restraint/seclusion reduction tools, and expanding the roles of consumers in the change process.

Data collected for restraint and seclusion episodes for State Fiscal Years 2011 and 2012 indicated that CMHC achieved and maintained an 81% reduction of restraint episodes and a 75% reduction of episodes of seclusion. These trauma-informed care initiatives have not only resulted in a significant reduction of restraint and seclusion episodes, but also directly correlated with a reduction of patient and staff injuries. It remains CMHC's vision to reduce and ultimately eliminate the use of seclusion and restraint practices and to maintain an organizational culture that emphasizes physical and emotional safety, choice, empowerment, and trustworthiness.