



# Brattleboro Retreat

## Quality Improvement Initiatives 2009

### Summary of the Juran Model of Performance Improvement (PI) and Performance Improvement Initiatives:

The Juran Model of Performance Improvement introduced to the Brattleboro Retreat in 2007 by Chief Executive Officer Dr. Robert E. Simpson, Jr. is now in its third year of implementation. This model has the vision to evaluate and assess services within the hospital to ensure clinically excellent care that incorporates best practices in the field and also adapts itself well for strategic planning throughout the organization. This process supports strong customer focused (patient) satisfaction and outcomes while ensuring fiscal responsibility. The introduction and implementation of this model is a key component of the Brattleboro Retreat's commitment to improving patient safety and quality outcomes.

In 2009, the Brattleboro Retreat continued the organization wide performance improvement initiatives begun in 2007. This initiative required each clinical service and operations division to develop a scope of service and plan of care based on the Juran Model. These plans assessed each programs' current core competencies and compared them with the best practices in the field. The following programs have completed and their respective core competency assessments and have also worked on clinical and other performance improvement initiatives:

- Adolescent Inpatient Program
- Children's Inpatient Program
- General Adult Inpatient Program
- Co-Occurring Disorders Inpatient program
- Lesbian, Gay, Bisexual and Transgender (LGBT) Program
- Abigail Rockwell Children's Center
- Adolescent Residential Programs
- Meadows School and the Bridges Program
- Anna Marsh Behavioral Care Clinic
- Starting Now: Intensive Outpatient Program and Outpatient Program
- Birches Adult Partial Hospital Program
- United Service Worker's Program (USP)
- Social Services Department.
- Pharmacy
- Staff Education

- Human Resources
- Facilities
- Medical Clinic
- Quality Department

A sampling of clinical and other performance improvement projects and the departments who spearheaded the initiatives are listed below. This sampling illustrates the breadth of the Retreat's performance improvement projects. Three of these projects (in bold) are outlined in the remainder of the report. The first is a clinical quality improvement project designed to decrease restraint and seclusion on the child inpatient unit through the use of sensory modulation techniques. The second is a patient safety project implemented to ensure that patients are provided with the safest environment possible. The third project outlined in this report is the Retreat's ongoing implementation of the Six Core Strategies to reduce the use of seclusion and restraint in all programs in the hospital.

- Critical Laboratory and Radiology Values: Improving Turn Around Times: *Quality Department*
- Improving Communication Between Shifts: *Quality Department*
- Implementing and measuring Hospital Based Psychiatric Inpatient Core Measures (HBIP's): *Quality Department*
- **Implementing Sensory Modulation Techniques: *Child Inpatient Program***
- Reducing Self-Harming Incidents: *Inpatient Adolescent Psychiatric Program*
- Improving Patient Safety: *Inpatient Adult Psychiatric Programs*
- Improving Hand Hygiene: *Infection Control Coordinator*
- Improving Medication Safety, Preparation and Delivery: *Pharmacy Services*
- Decreasing Staff Injury: *Human Resources Department*
- **Reducing the Risk of Self Harm in the Environment of Care: *Facilities and Quality Department***
- Decreasing Elopement: *Adolescent Residential Program*
- Improving Clinical Outcomes: *Uniformed Service Program*
- **Decreasing Seclusion and Restraint through use of the Six Core Strategies *Patient Care Services***

## 1. Clinical Quality Improvement Project:

### Implementing Sensory Modulation Techniques: Child Inpatient Program

**Overview:** In 2008, the Retreat recognized an increase in the use of seclusion and restraint in the child inpatient program related to an increase in the admissions of latency age patients having a diagnosis of both a mental health and an autism spectrum or other pervasive developmental disorder. These children tend to have a higher rate of restraint and seclusion due to the nature of their behavioral challenges. In response to this trend, the Retreat initiated a multi-faceted staff training approach. This training included Autism Spectrum Disorders training for all Crisis Prevention Institute (CPI) instructors and training for the latency unit staff with an autism spectrum disorders specialist. A new unit was also opened in 2009 (see strategic initiatives

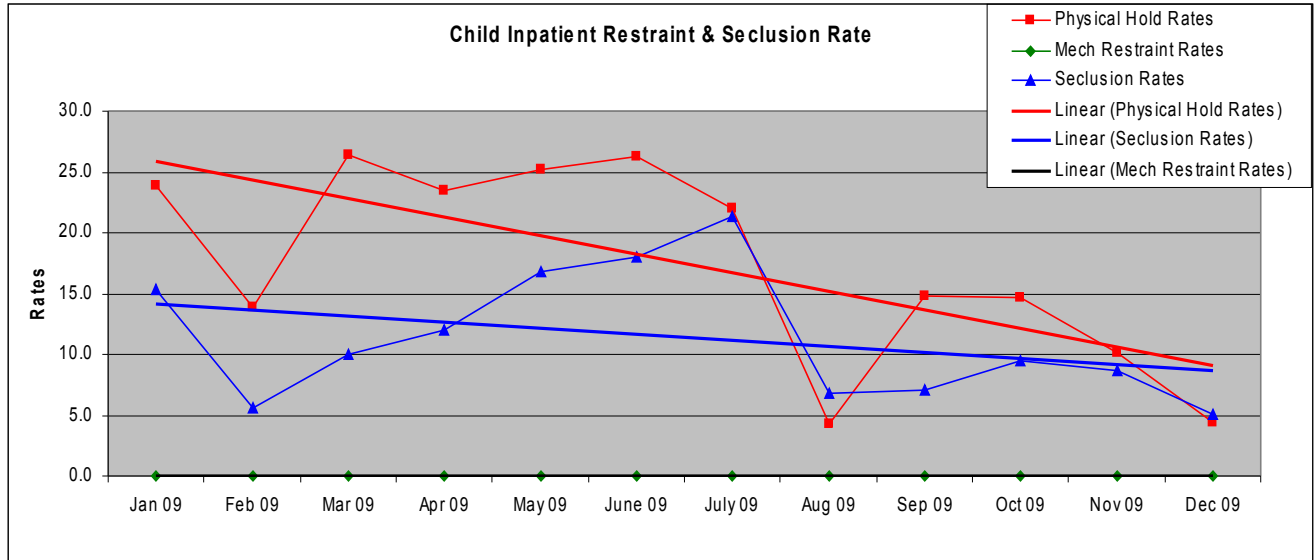
report). The environment of care on this unit was specially designed to meet the needs of the changing child population.

In 2009, the child inpatient program continued to see an increase in the admissions of latency age patients having a diagnosis of both a mental health and an autism spectrum or other pervasive developmental disorders. In response to the continuation of this trend, the Retreat implemented a comprehensive sensory modulation program. The goal of this program was to teach children to use sensory modulation techniques to sooth themselves when they get upset and therefore to reduce the need for seclusion and restraint.

Sensory experiences include touch, movement, body awareness, sight, sound and the pull of gravity. The process of the brain organizing and interpreting this information is often called sensory integration or sensory modulation. Sensory modulation provides a crucial foundation for later, more complex learning and behavior. For most children, sensory modulation develops in the course of ordinary childhood activities. Motor planning ability is a natural outcome of the process, as is the ability to adapt to incoming sensations. But for some children, sensory modulation does not develop as efficiently as it should. When the process is disordered, a number of problems in learning, development or behavior may become evident. The child may easily become scared in their home environment and frustrated with people around them leading to disruptive behaviors at home and school which are very difficult for parents and teachers to understand and manage.

In this situation, children need to be taught techniques to help them organize and interpret sensory information, which they often experience as overwhelming. The sensory modulation program incorporates many elements and is highly individualized. First, a staff psychologist conducts sensory assessments for each child. The assessment provides guidance for staff in what sensory intervention to use with each child. Staff attended all day sensory modulation training workshops with an occupational therapist to learn how to use the techniques. On the new inpatient unit, a sensory room was created using a soothing ocean and sand theme. Many sensory activities take place in this room. It has a music system and is stocked with sensory modulation materials such as weighted blankets, sand and other textured materials. Other activities include aromatherapy, large motor skills activities, for which there is a separate large room, and outdoor activities. Each child also receives a "Me Time Box," which contains sensory materials for use in their room. The children are helped to understand what kinds of modulation activities and materials work for them and to use them at times when they feel upset or overwhelmed as a way to calm themselves.

As a result of this initiative, the child inpatient unit has experienced a dramatic decrease in the use of restraint and seclusion in 2009. This decrease comes even as the number of children served has increased, and as the number of children with both a mental health and autism spectrum disorder has also increased. Please see the graph below illustrating the numbers and rate of restraint per month:



In this graph, a physical restraint is defined as the physical holding of a patient or physical escorting of a patient. A mechanical restraint is any mechanical device used for restraining a patient. This differs from a physical restraint which involves staff using their hands and not a mechanical device. Seclusion is confining a patient to a room and/or preventing a patient from leaving an area. Both actual restraints and the trend line for each measure are shown.

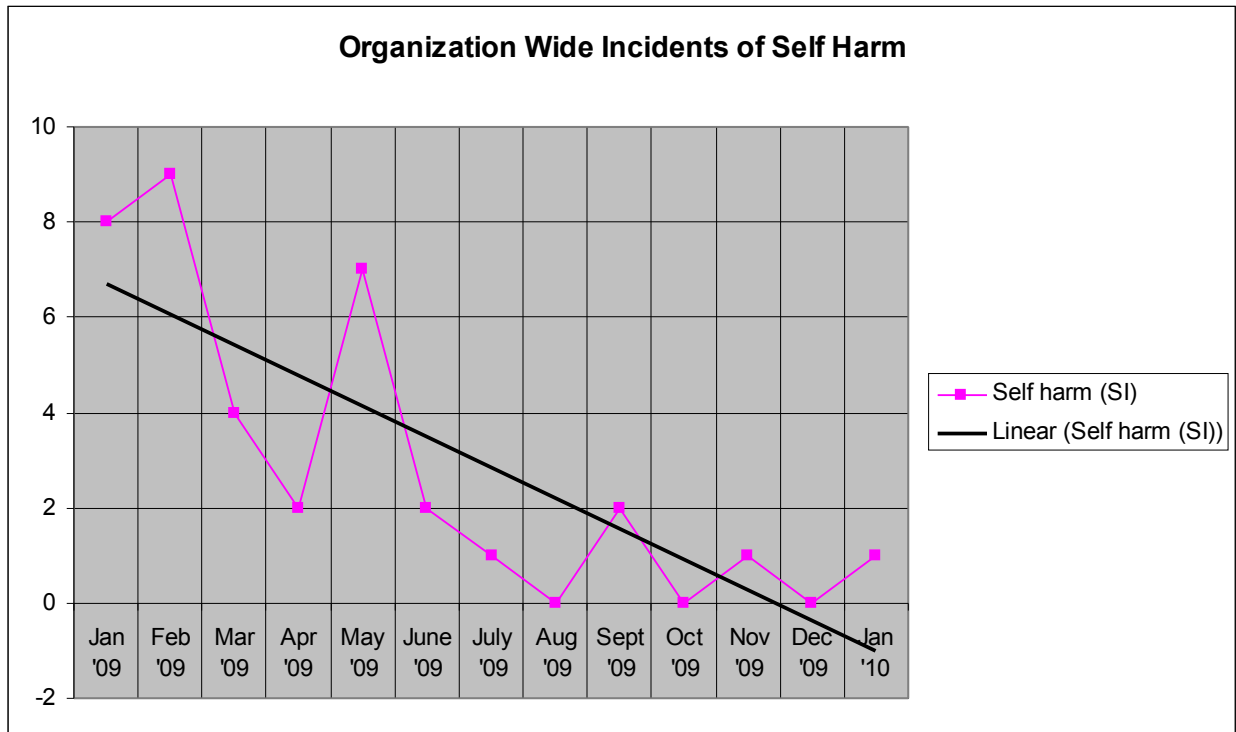
## 2. Patient Safety Project:

### Reducing Self Harm in the Environment of Care

**Overview:** The environment of care or physical building attributes plays an important role in decreasing or eliminating the opportunity for self harm. An expert external consultant was hired to conduct an environment of care risk assessment and to train the Retreat's Facilities staff and other team members to conduct such assessments in the future. The national accreditation body, the Joint Commission, requires hospitals to conduct risk assessments annually. The Brattleboro Retreat chooses to do these assessments at a minimum of quarterly. The core team conducting these assessments consists of the Patient Safety Officer, Director of Facilities, Performance Improvement and Risk Manager, Director of Standards and Quality Management, Vice President of Patient Care Services. We also include Registered Nurses (RN) and Mental Health Workers (MHW) involved in direct patient care as their schedules permit. The results of the assessments are incorporated into a strategic plan for environmental redesign. The Brattleboro Retreat team uses the Design Guide for Built Environments as recognized by the Joint Commission and the National Association of Psychiatric Health Systems (NAPHS) for environmental redesign initiatives. Many new safety features have been put in place including replacement of identified door hinges, securing toilet seat covers, replacing shower heads and other bathroom fixtures, and installing screens over vents and window areas. Outcomes of this initiative include:

- Decreased incidents of self harm (see graph below)

- Increased staff satisfaction related to the safety initiatives as demonstrated by staff safety survey
- Increased patient safety and patient satisfaction. We have also received unsolicited letters from patients expressing satisfaction with improved environment of care.



### 3. Seclusion and Restraint Reduction (Six Core Strategies) Performance Improvement Project

**Overview:** Anna Marsh founded the Brattleboro Retreat based on the philosophy of humane treatment, and principles of respect for each individual. While the Retreat has embraced these principals for 175 years, in 2005 we adopted and continue today with the most progressive step forward in our history by applying a trauma-informed recovery and resiliency model of treatment (TIRRM). This approach seeks to partner with the people in our care throughout their recovery process, engaging them more fully in directing that process. This involves recognition of the role that a history of trauma plays in the lives of many of the people we serve, and doing everything possible to help them heal from and not to re-enact that experience.

The TIRRM initiative that began in 2005 evolved into the **Six Core Strategies Project** using the trauma informed recovery and resiliency model as a foundation for all six project workgroups (listed below).

### **Leadership Core Team: Leadership towards Organizational Change**

The goal of this team is to reduce the use of seclusion and restraint by defining and articulating a mission, philosophy of care, guiding values, and assuring for the development of a strategic plan to guide implementation of the project by the other teams.

### **Workforce Development Core Team**

This team addresses the workforce development agenda and leads organizational changes in safe seclusion / restraint application training, and inclusion of technical and attitudinal competencies in job descriptions and performance evaluations.

### **Debriefing Core Team**

This team, co-led by a mental health advocate, develops an immediate-post event debriefing that is done onsite after each event and is led by the senior on-site supervisor who immediately responds to the unit or area to support patients and staff. The team also develops a Formal Debriefing Review that occurs within 48 hours of the event or next business day and includes a rigorous analysis and problem solving procedure.

### **Consumer Core Team**

The goal of this team is full and formal inclusion of consumers, family members and advocates in a variety of roles in the organization. It is co-led by a Mental Health Consumer and the Retreat's Director of Social Service.

### **Data Use Core team**

This team uses data in an empirical, non-punitive manner by identifying facility baseline, setting improvement goals, and comparatively monitoring use over time.

### **Tools for Reduction of Restraint and Seclusion Core Team**

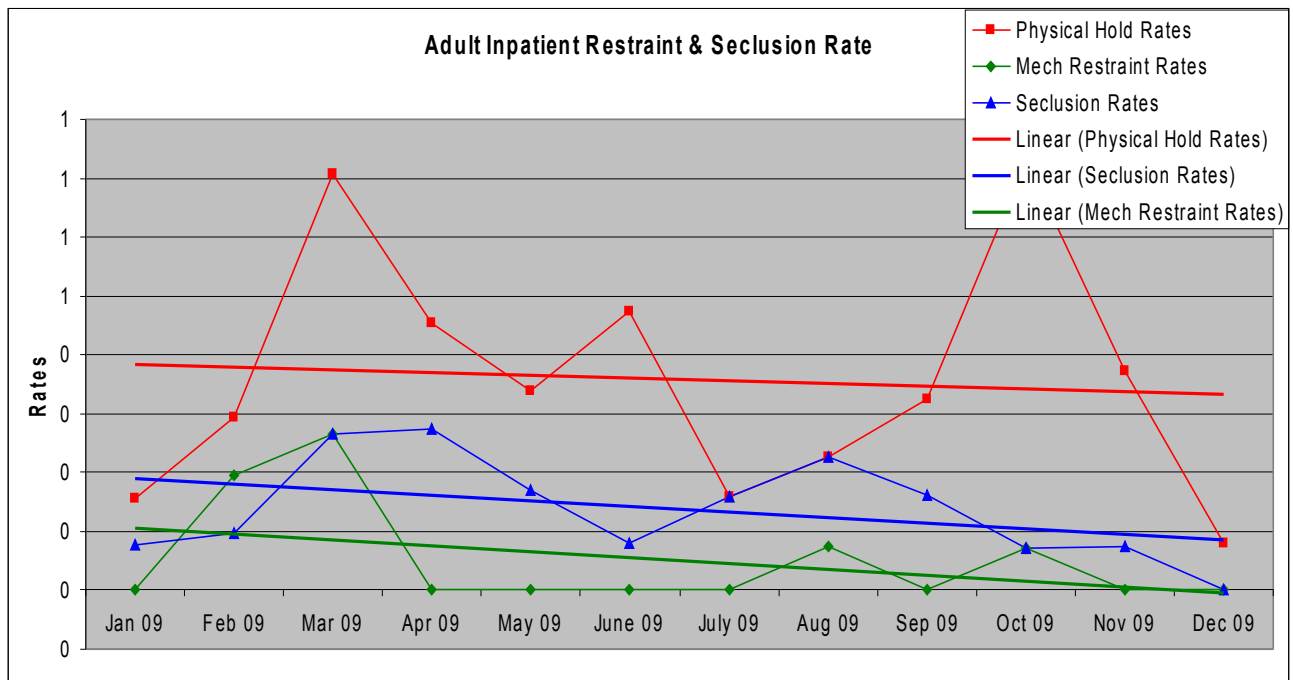
This team includes a family representative and is developing the following policies and procedures as well as tools for the reduction of restraint and seclusion: 1) Assessment of risk factors for aggression/violence; 2) Assessment of medical/physical risks for death or injury; 3) De-escalation/safety plans/crisis plans; and 4) Behavioral scales that assist in determining appropriate staff interventions that match level of behavior observed. This team is also focused on developing sensory modulation programs.

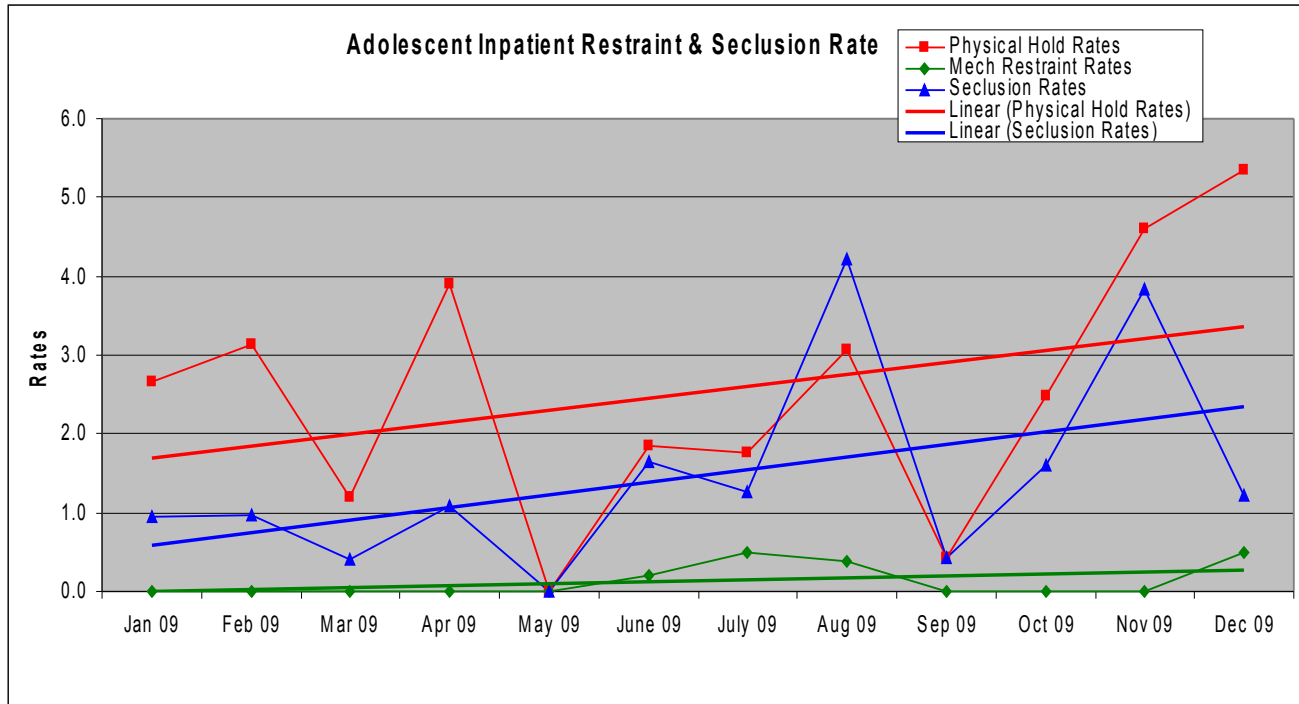
In 2008 the Brattleboro Retreat and the Vermont State Hospital began a 3 year project funded by a Substance Abuse and mental Health Services Administration (SAMHSA) grant to reduce restraint and seclusion through the implementation of sensory modulation techniques. The Retreat has now completed its second year of this major project. In 2009 the Brattleboro Retreat instituted an Advisory Council for the Six Core Strategies project. The Advisory Council team members include consumers, a Vermont Psychiatric Survivors representative, Disability Rights Vermont representatives, family member(s), the Department of Mental Health, and Brattleboro Retreat administrative and clinical staff. The consumers, advocates and family Advisory Council members have provided a wealth of knowledge and experiences that have guided the Council in our efforts to reduce restraint and seclusion.

## Restraint rates:

The Retreat experienced decreased rates of seclusion and restraint on its adult inpatient units and child unit in 2009. A graph showing seclusion and restraint rates for the child program is shown under #1 above. The adolescent unit's seclusion and restraint rates remained stable in comparison to 2008 however have trended up over 2009. The Retreat has begun a sensory modulation PI project in 2010 for the adolescent inpatient program and expects to see similar results as experienced in the child inpatient program. The sensory modulation project is also described in detail above.

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For more information on quality improvement initiatives at the Brattleboro Retreat please contact:

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