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MEMORANDUM

TO: Joint Legislative Mental Health Oversight Committee
Joint Health Care Committee

FROM: Paul Dupre, Commissioner of the Department of Mental Health

DATE: November 19, 2013

RE: November, 2013 Department of Mental Health (DMH), Addendum Report on Overall Mental Health Hospital System Capacity to the Joint Legislative Mental Health and Health Care Oversight Committees

Attached please find the November 19, 2013 Addendum Report to the Oversight Committees on Mental Health and Health Care as outlined in 2012 Acts and Resolves No. 79, Sec. E.314.2.

Please direct any inquiries for additional data collection or report content development to Paul Dupre, Commissioner of the Department of Mental Health; paul.dupre@state.vt.us.

DMH Addendum: Overall Mental Health Hospital System Capacity Report November 19, 2013

This report is submitted in response to requests by the Joint Legislative Committees on Mental Health Oversight and Health Care Oversight on 11/8/13. The information requested is listed below. Section I describes and summarizes the information depicted in graphic and tabular formats, found in Section II.

Section I: Summary

The information requested by the Joint Mental Health and Health Care Oversight Committees is listed below.

1. Crisis Bed Occupancy Rates to determine overall system capacity

The first **Table (1)** in Section II depicts the Census Report for Crisis Beds available for use in communities statewide, for purposes of diverting individuals from hospitalization, when possible, and for step-down to the community from other higher levels of care, such as hospitalization. There is an overall capacity of 39 beds to date, having grown by 2 beds since January. Overall occupancy rates are averaging at 81%, or 31 individuals on average per month. The length of stay in the crisis beds is relatively short and the services provided are divergent from each other, with some providing more supervision and support than others. This somewhat limits utilization in some instances. **Graph (1)** shows how the census fluctuates from month to month between the crisis bed programs.

2. Housing and Support

Housing, if it part of a client's mental health treatment plan, is an allowable MCO Investment. Clients that are given housing vouchers receive services either through Pathways to Housing or one of the Designated Agencies. This allows DMH to use the \$500k GF appropriated in fy13, plus the additional \$75k GF appropriated in fy14, to match Global Commitment for MH Housing Vouchers of \$1.4M. Pathways to Housing and the Designated Agencies have agreements with DMH to provide these treatment services. In order to participate in the housing voucher program each provider is required to have an individual treatment plan for each client and enters outcome information into a data collection system. Using an average ratio of 1:1 housing dollars to service dollars, there is approximately \$1.4M in treatment dollars being spent on the individuals receiving housing vouchers.

3. Non-Residential Services Trends

Graph (2) shows that there has been a significant increase in services provided between FY 12 and FY 13 in use of both Emergency and Adult Outpatient services, at 44% and 12% respectively. Services to individuals also increased, by 11% in Emergency Programs and 8% in Adult Outpatient programs. This can be attributed to increased access to services and extended services of case management to otherwise non-eligible individuals (non-categorical case management).

The Designated Agencies Enhancements more than likely have been successful in increasing both. A report of the data that has been gathered follows.

Enhanced Emergency Services Funding

There are 10 Designated Agencies across the State that received funding to enhance their crisis and other related emergency services through an allocation via Act 79. All of the agencies participated in developing additional services and enhancing services already in place, in order to provide more timely access to and response for those in crisis.

The funds were disbursed as services were developed and implemented. The list of enhancements is fairly broad, with common themes and best practices identified and implemented across all of the DA's. Due to the fact that all of the agencies implemented their programs to meet the individual needs of their catchment areas, and to differences in how outcomes and delivery of services were measured, it is still premature to attribute specific activities to specific outcomes from the mix of quantitative data currently available. A baseline of relevant themes reported by each of the agencies and rough estimates of numbers of persons served in several categories are presented.

The program services which were implemented by all of the DA's include:

- Enhancements to the Emergency Services through additional staff and implementation of mobile/community crisis and assessment capacity.
- Adding Peer supports in either crisis settings, or in some areas, hospital emergency rooms.
- Diversion from Emergency Departments
- Collaboration with Law enforcement and participation with law enforcement training
- Emergency respite and crisis beds
- Non-categorical case management (in all but one DA)
- Special services such as new programs developed to manage more complex clients in the community, extending services to those not previously covered through CRT and/or AOP, and additional psychiatrist/Nurse Practitioner time for medication evaluation and administration.

Quantitative Data

The DA's receiving enhancement funding, sent quarterly reports of persons and/or services provided; however, reporting was inconsistent due to differences in definitions of measures. The primary outcome measures to be reported were:

- # assessed in Emergency Department
- # Assessed in the Community
- # Total Assessments
- # Diverted from ED
- # Diverted from Hospitalization
- # voluntarily hospitalized
- # involuntarily hospitalized

# assessed in ED	# assessed in Comm	# Total Assessments	Diverted from ED	Diverted from Hospital	Vol hospital	Invol hospital
3185	2972	6651	4267	1129	972	462

(This summarized data from all of the Agencies, is a projective estimate, as data collection varied in its consistency from each DA for quarters queried. In these instances, the data was annualized in order to provide an estimated snapshot.)

Qualitative Themes

- ***Increased Access:***

Several of the DA’s reported that the numbers of persons served through their emergency and crisis services, as well as in the Adult Outpatient services increased between FY12 and FY 13. This was also impacted in some areas, by the time required to bring services up to speed.

Co-located staff in some areas with shelter/homeless programs, Corrections Probation and Parole, Reach-UP and Vocational Rehabilitation, Drop in Centers and Turning Point Recovery Centers, have increased access to mental health services. (HCRS)

“We have provided services to many clients who, in the past, would have gotten lost between the gap of Adult Outpatient and CRT services”(HCRS).

“....it can be noticed that the Enhanced Emergency Program has gained the ability to assess more individuals in the community from the previous year. Involvement with adults within a community setting has increased 66% from the previous year with overall assessments for adults increasing 13%. (NKHS)

- ***Diversion from hospitalization:***

DA staff report that through diversion case managers, services are being provided to those at risk for hospitalization in community settings, such as in motels or other services for those who may be homeless.

Increased home based services, through increasing the number of case managers to individual who do not meet eligibility criteria for CRT and/or DS programs, have helped provide a range of interventions and supports as alternatives to hospitalization.

- ***More crisis intervention capacity:***

“We have been able to have staff respond to many different situations where clients and non-clients were at risk for hospitalization and been able to provide the support needed to divert these higher level care needs. In addition, “these resources have made....this shift possible”, to “changing the approach of staff and their response to the person in need through adopting a prevention philosophy of recovery and resiliency”. (CMC)

- ***Collaboration with Law Enforcement has resulted in increased capacity to manage complex clients in the community.***

Emergency team clinicians are screening, assessing and providing case management services through police departments, primary care providers and others to prevent escalating crises and further decompensation of persons in need.

- ***Expanded capacity to provide higher levels of support and supervision in the community as a way to prevent higher cost institutional services.***

“...is a featured resident in a brand new program that provides him with 24/7 awake support without his being in a group home situation. The program provides such a significant amount of attention with focus on helping (him) to be an individual and not a ‘delusional character’ “.

(HC) Staff also report that he has been prevented from having to be hospitalized on at least 2 occasions.

Utilization of an interagency team approach to serving persons who repeatedly utilize costly institutional services has reduced hospitalization.

Ability to provide outreach and home based services to fragile people who might otherwise have been admitted to higher level of care.

Challenges to implementation of enhanced programs

- *Challenges in hiring qualified staff*
- *Difficulty siting programs in communities that are sensitive to having programs for persons with mental health problems in their neighborhoods.*

FY 2013 Peer Services have increased, with the allocation of \$1 million from Act 79. DMH has expanded services provided by individuals with the lived experience of mental illness (peers) as follows:

- Vermont Psychiatric Survivors is now operating a new program in Rutland called Community Links, which includes 4 Peer Outreach Staff that provide support and crisis prevention services for individuals with serious mental illness coming out of RRMC, Corrections, homeless shelters and Turning Point Recovery Center;
- Vermont Psychiatric Survivors has also increased statewide outreach staffing to provide additional support (e.g. support groups) and crisis prevention for individuals who typically avoid professional services;
- Pathways Vermont is operating a Statewide Support Line 8 hours per day and 7 days a week that provides pre-crisis mental health support and outreach;
- Another Way in Montpelier has increased staffing to provide support and crisis prevention in Montpelier for individuals who typically avoid traditional mental health services;

- Northeast Kingdom Youth Services has added to 2 Peer Outreach Staff that provide support (e.g. WRAP groups) and crisis prevention for young adults at risk of hospitalization;
- the Vermont Center for Independent Living has established a statewide Wellness Workforce Coalition for peer services and is providing core training (Wellness Recovery Action Planning, Intentional Peer Support), mentoring, and competency development for all peer service providers in the state; and
- Over the past 12 months, Pathways-VT has secured a building for Soteria-Vermont and is in the process of making renovations and accessibility improvements to the building. Pathways-VT has also submitted a Certificate of Need (CON) Application and expects to open the program in March of 2014. The opening date of the program was delayed due to a lack of funding in SFY '14.

4. Census trends for all inpatient, non-level I beds: involuntary and voluntary and for Level I beds

Voluntary census is estimated and shown on **Table (2)**. The data is specific to each of the Designated Hospitals, and illustrates the average daily census (ADC) for Level I, involuntary patients, and then for the percentage of Voluntary, Non-Level I and percentage of Level I patients for each of the hospitals and statewide. It is clear to see that for some hospitals, there are very few involuntary persons, and fewer Level I patients. These are small numbers, which when aggregated, may indicate higher percentages than is truly representative of the data presented. This is particularly the case when looking at GMPCC, which had a 26% non-Level I rate, which occurred due to one person. When taken together, the statewide census of voluntary patients in designated psychiatric treatment beds, for FY13 was 63%, while Level I was 28% and non-level I Involuntary was lowest, at 9%.

Graph (3), illustrates Level I Inpatient Capacity and Utilization between July 2012 and October 2013. In demonstrating our projections for the system with the Vermont Psychiatric Hospital in Berlin at 16 and 25 beds respectively, the graph shows both the average daily census and the trend line across this time period. It would suggest that the 25 bed option would most approximate the projected need. The graph also shows that there may be some correlation with increased census with the opening of the Level I units at GMPCC in January, 2013, Rutland Regional Medical Center and Brattleboro Retreat, in April of 2013. This could also be reflective of having specific units for patients with higher needs, as the trend seemed to stabilize for the Retreat and Rutland in the summer months. This could also be a seasonal shift.

Graph (4) pertaining to Level I Inpatient Length of Stay for Brattleboro Retreat and RRMC and statewide, show some differences between the two hospitals. Rutland had a large spike in December; however this could be skewed by one patient. Overall the general length of stay is trending upward to around 60 days, averaging close to 50 at Rutland Regional Medical Center and approximately 80 at Brattleboro Retreat. It is important to keep in mind that the range is fairly broad with respect to lengths of stay, which are impacted by patient engagement with treatment, and appropriate discharge plans, as well as other factors such as forensic requirements.

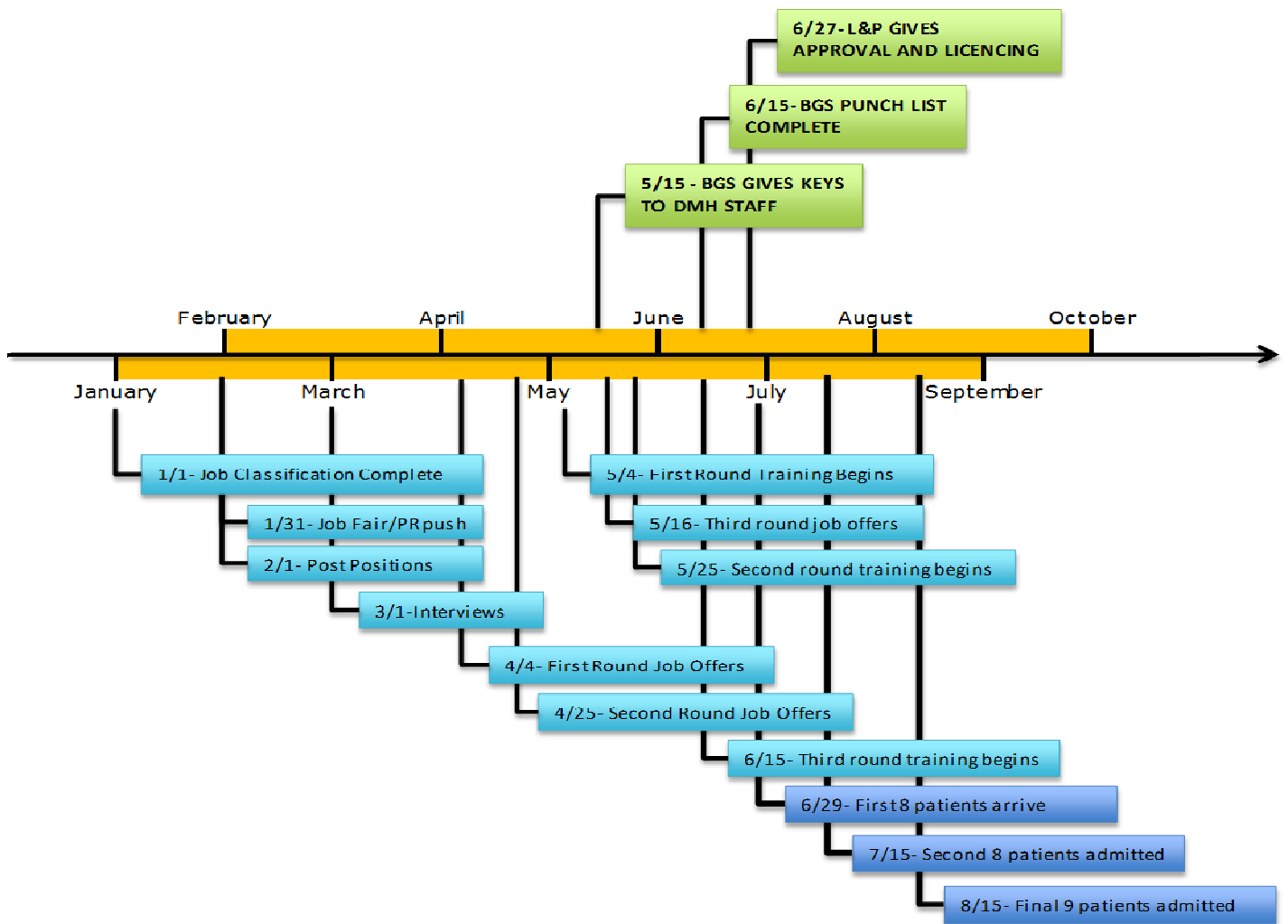
Forensic and Emergency admissions are compared across a ten year history to look at whether the numbers have changed since the closing of the Vermont State Hospital (VSH). This analysis is limited, given the short period of time, during which the shift to a decentralized system of Designated Hospitals for Level I patients has been in place. It can be seen on **Graph (6)** that there were more involuntary admissions to the Designated Hospitals than to VSH between 2002 and 2011, however, no forensic admissions to the Designated Hospitals until after the closing of the VSH. It would appear that emergency examination admissions have remained somewhat stable taking into account, the combined numbers of DH and VSH Emergency admissions, which are now represented only by DH's numbers (**Graph 5**). In addition, the numbers of Forensic admissions, seems a bit lower than in previous years.

The final **Graph (7)**, illustrates the Estimated Need for Inpatient Beds in our current system of care. In summary, DMH believes that the state will have an estimated need for approximately 44 beds, through looking at our capacity to date, utilization and length of stay, and the historical trend lines for emergency and forensic admissions.

Bringing Vermont Psychiatric Hospital at Berlin on line:

The proposed timeline for opening and accepting patients to its full capacity at Berlin is impacted by a number of both clinical and logistical factors. The illustration below shows the progression of events.

Timeline to VCPH Opening Task Completion 2013



Factors contributing to a phase-in approach to accepting patients are:

- Staff needs to become oriented to new building. Staff occupancy will not occur until 5/15/14 per most recent BGS building update.
- Hospital staff must know procedures and follow hospital and patient care policies at all times. Systematic repetition for consistent response is vital to ensure staff and patient safety.
- Staff and patient safety, are impacted by the opportunity to establish new work flows within a new building and establish routines for both operations and patient care. The start-up experience at GMPCC indicates that staff will encounter unforeseen obstacles in the first few weeks, of occupancy in the building, that we must have time to work through before increasing patient capacity. As a hospital with current JCAHO accreditation, and anticipating CMS accreditation by the opening of the new hospital, a negative patient care outcome due to staff not being familiar with routine work flows will launch regulatory review and potential failure to meet CMS conditions of participation.
- In addition to new space, we will have numerous new staff (we are projecting needing to hire 71 direct care staff). Although orientation and training is extensive for new staff, inexperienced staff have a natural learning curve before achieving full competency. In addition, a stable working team has a similar learning curve. A large number of new nurses and psychiatric technicians will be working in a locked involuntary psychiatric facility with high acuity patients and must be afforded sufficient time to develop effective teaming behaviors for the hospital and patient care units.

What do JCAHO and other evidence based practices show regarding staffing levels.

JCAHO and CMS do not recommend a specific number for staffing ratios. Accreditation organizations stress that staffing levels should be adequate to follow identified policies and procedures, deliver the required care for the patient needs, and achieve compliance with accreditation standards.

California has identified minimum nursing staffing requirements, which is 1 nurse for 6 patients. GMPCC personnel have solicited staffing level information from other Level 1 hospital units, as well as other regional state psychiatric hospitals. The staffing levels we are requesting are more robust than other inpatient psychiatric hospitals. The request is based on the following reasons:

- Vermont, unlike most states, does not have a forensic psychiatric hospital. Our hospital must have capacity to serve a patient mix of individuals who are on a Civil Commitment, as well as, those who are there by court order.
- The hospital was designed to both have a non-institutional feel and smaller patient units that would promote greater patient and staff treatment interactions. This purposeful design also requires staffing to achieve these intentional interactions. For example, the

design creates 8, 8, 5 and 4-bed patient care wings respectively. Each wing has its own patient help desk, dining room, and multiple use areas which require staff availability and oversight, often simultaneously, in each of these areas throughout each shift.

- The hospital was designed to utilize space in multiple areas of the facility that are purposefully open to patients, but increases the need to monitor and assure patient care and safety in the accessible and open spaces as well.
- The current staffing levels at the renovated 8-bed GMPCC space in Morrisville have comparability with one 8 bed unit at the new hospital in Berlin. Currently, GMPCC has reduced Emergency Involuntary Procedures (EIP) by 30% when compared to EIP levels with the former Brooks 1 and 2 units at VSH. Replicating this achievement in a multiple unit environment requires additional staffing for the new hospital.
- VSH experienced chronic staff shortages in its efforts to admit any patient presenting for admission and maintain adequate staffing for units with high acuity. Staff shortages, due to a variety of reasons, then coupled with cyclical mandatory overtime to safely staff the hospital on each shift were significant contributors to workforce dissatisfaction prior to the hospital's closure.

Section II. Data Presented in Graphs and Tables

Table 1

Legislative Report to Mental Health Oversight Committee and Health Care Oversight Committee Crisis Bed Census Report 2013

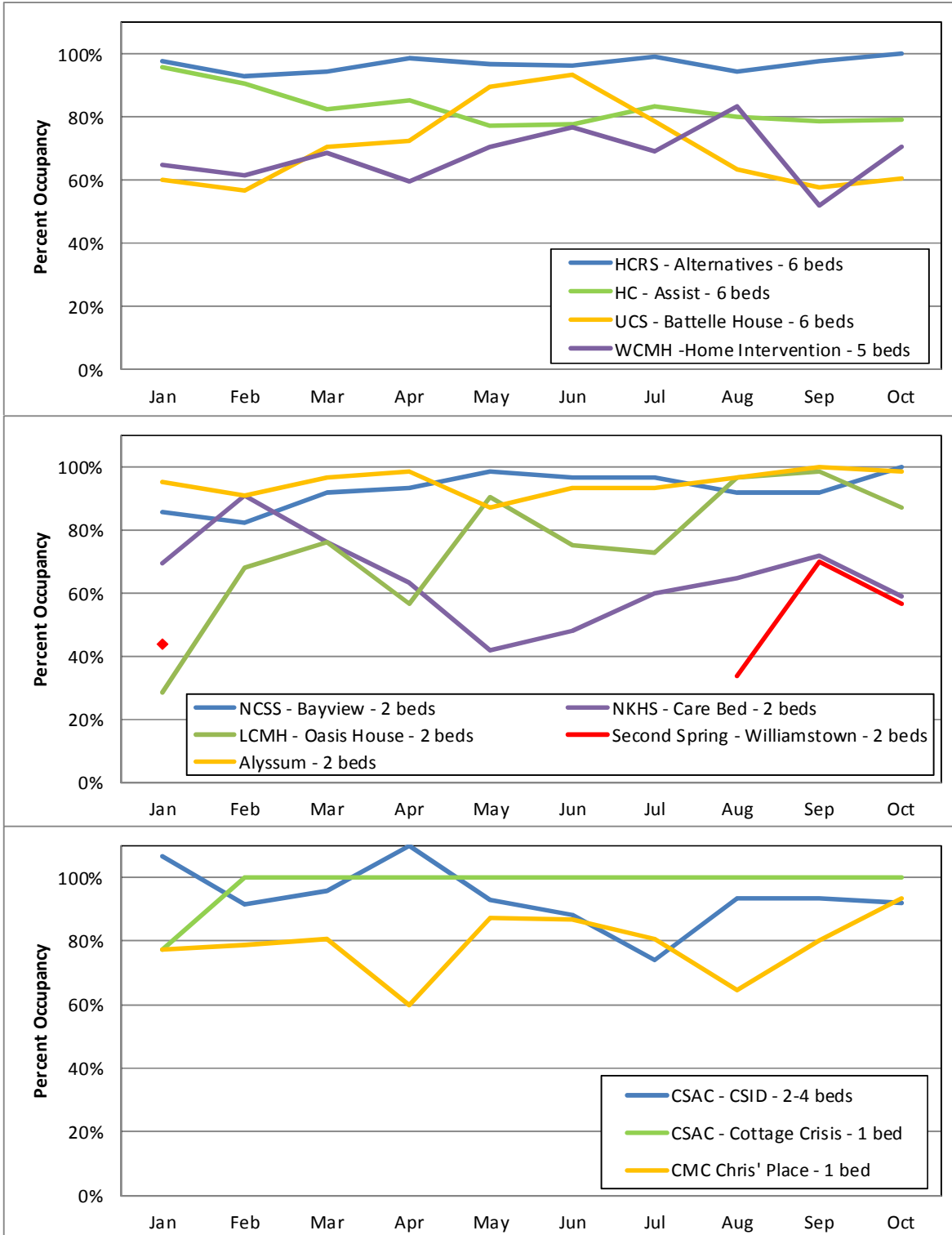
Adult Crisis Bed Units

	HCRS Alternatives	HC Assist	UCS Battelle House	WCMH Home Intervention	NCSS Bayview	NKHS Care Bed	LCMH Oasis House	Second Spring Williamstown	Alyssum	CSAC CSID	CSAC Cottage Crisis	CMC Chris' Place	State Avg
January													
Total Beds	6	6	6	5	2	2	2	2	2	2	1	1	37
Monthly Avg.	5.87	5.74	3.60	3.23	1.71	1.39	0.57	0.88	1.90	2.13	0.77	0.77	27.48
Monthly % Occupancy	97.8%	95.7%	60.0%	64.5%	85.5%	69.4%	28.3%	43.8%	95.2%	106.5%	77.4%	77.4%	77.4%
February													
Total Beds	6	6	6	5	2	2	2	2	2	3	1	1	38
Monthly Avg.	5.57	5.43	3.39	3.07	1.64	1.82	1.36	-	1.82	2.75	1.00	0.79	27.68
Monthly % Occupancy	92.9%	90.6%	56.5%	61.4%	82.1%	91.1%	67.9%	-	91.1%	91.7%	100.0%	78.6%	79.2%
March													
Total Beds	6	6	6	5	2	2	2	2	2	3	1	1	37
Monthly Avg.	5.65	4.93	4.23	3.42	1.84	1.52	1.52	-	1.94	2.87	1.00	0.81	29.35
Monthly % Occupancy	94.1%	82.2%	70.4%	68.4%	91.9%	75.9%	76.0%	-	96.8%	95.7%	100.0%	80.6%	82.6%
April													
Total Beds	6	6	6	5	2	2	2	2	2	3	1	1	37
Monthly Avg.	5.90	5.11	4.34	2.97	1.87	1.27	1.13	-	1.97	3.30	1.00	0.60	28.80
Monthly % Occupancy	98.3%	85.2%	72.4%	59.3%	93.3%	63.3%	56.5%	-	98.3%	110.0%	100.0%	60.0%	81.8%
May													
Total Beds	6	6	6	5	2	2	2	2	2	4	1	1	39
Monthly Avg.	5.81	4.61	5.37	3.52	1.97	0.84	1.81	-	1.74	3.71	1.00	0.87	30.71
Monthly % Occupancy	96.8%	76.9%	89.4%	70.3%	98.4%	41.9%	90.3%	-	87.1%	92.9%	100.0%	87.1%	84.3%
June													
Total Beds	6	6	6	5	2	2	2	2	2	4	1	1	39
Monthly Avg.	5.77	4.64	5.6	3.83	1.93	0.96	1.50	-	1.87	3.53	1.00	0.87	31.00
Monthly % Occupancy	96.1%	77.4%	93.3%	76.6%	96.7%	48.2%	75.0%	-	93.3%	88.3%	100.0%	86.7%	85.4%
July													
Total Beds	6	6	6	5	2	2	2	2	2	4	1	1	39
Monthly Avg.	5.94	5.00	4.71	3.45	1.94	1.19	1.45	-	1.87	2.97	1.00	0.81	29.61
Monthly % Occupancy	98.9%	83.3%	78.5%	69.0%	96.8%	59.7%	72.6%	-	93.3%	74.2%	100.0%	80.6%	81.9%
August													
Total Beds	6	6	6	5	2	2	2	2	2	4	1	1	39
Monthly Avg.	5.65	4.80	3.81	4.16	1.83	1.29	1.94	0.68	1.94	3.74	1.00	0.65	31.23
Monthly % Occupancy	94.1%	80.0%	63.4%	83.2%	91.7%	64.5%	96.8%	33.9%	96.8%	93.5%	100.0%	64.5%	80.7%
September													
Total Beds	6	6	6	5	2	2	2	2	2	4	1	1	39
Monthly Avg.	5.87	4.72	3.45	2.60	1.83	1.43	1.97	1.40	2.00	3.73	1.00	0.80	30.50
Monthly % Occupancy	97.8%	78.7%	57.5%	52.0%	91.7%	71.7%	98.3%	70.0%	100.0%	93.3%	100.0%	80.0%	79.1%
October													
Total Beds	6	6	6	5	2	2	2	2	2	4	1	1	39
Monthly Avg.	6.00	4.73	3.61	3.52	2.00	1.18	1.74	1.13	1.97	3.68	1.00	0.94	31.23
Monthly % Occupancy	100.0%	78.9%	60.2%	70.3%	100.0%	58.9%	87.1%	56.5%	98.4%	91.9%	100.0%	93.5%	80.9%

Based on data reported to the Vermont Department of Mental Health (DMH) by crisis bed programs for adult care using the electronic bed boards system. Programs are expected to report to electronic bed boards a minimum of once per day to update their census. State averages are adjusted to exclude programs on days where there were no updates submitted to the bed board.
The Second Spring -Williamstown program is based upon two beds that can be reallocated to intensive residential services as needed.

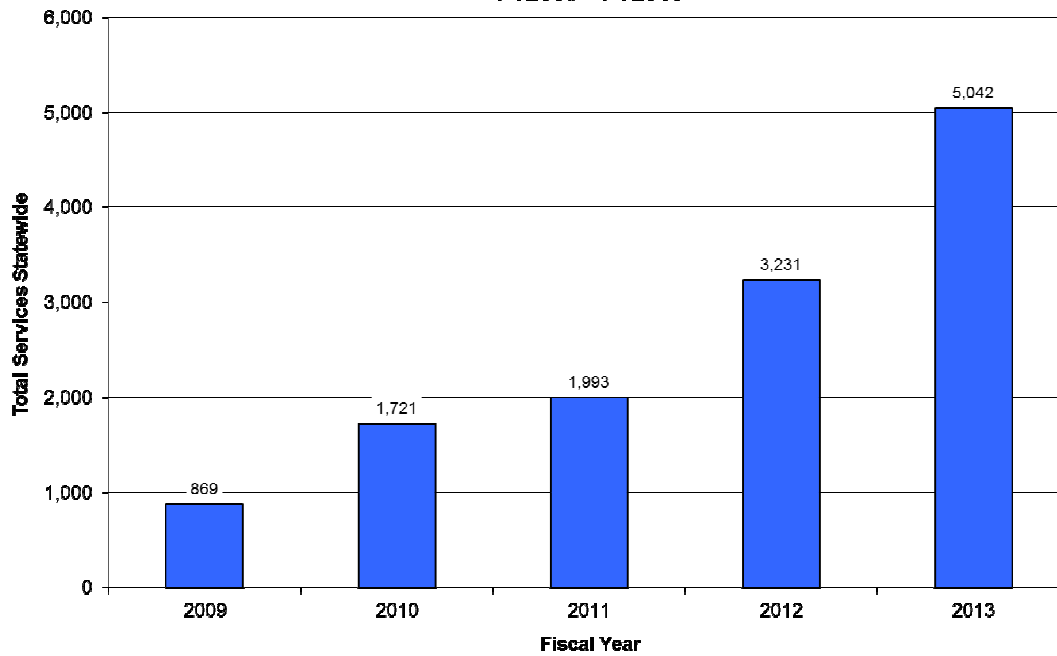
Graph 1

**Legislative Report to Mental Health Oversight Committee
and Health Care Oversight Committee
Crisis Bed Census Report
2013**



Graph 2

**Service Planning and Coordination Services Provided to Adult Outpatient Clients
FY2009 - FY2013**



Total Services			
Program of Service	FY12	FY13	% Change
Emergency	21,137	30,474	44%
AOP	79,519	88,819	12%

Total Served			
Program of Service	FY12	FY13	% Change
Emergency	5,823	6,443	11%
AOP	7,761	8,404	8%

Table 2

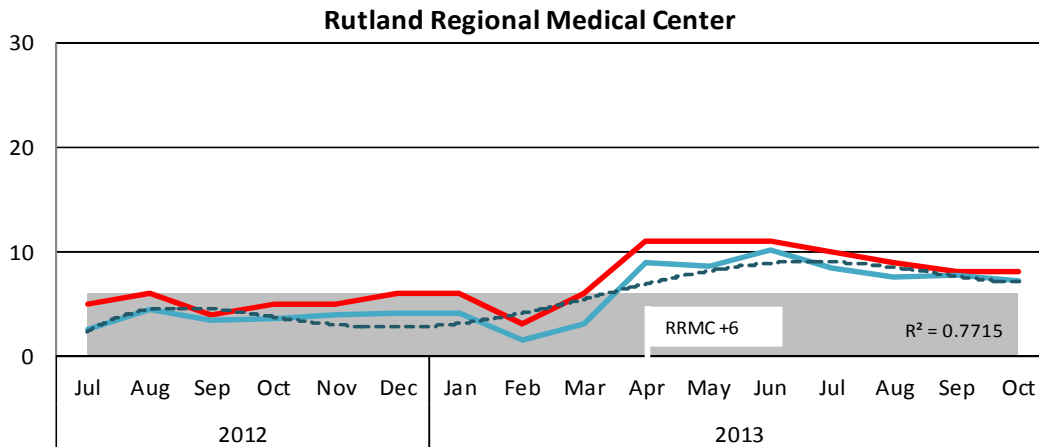
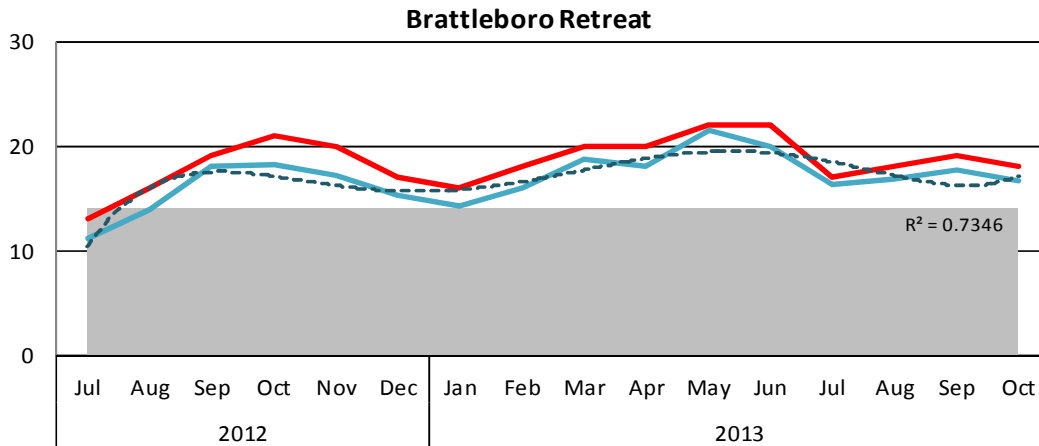
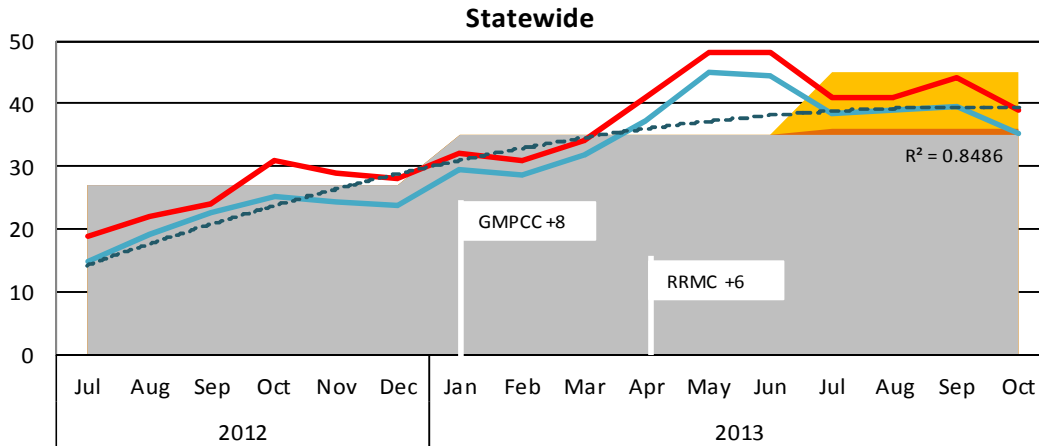
**Estimation of Voluntary Census at Inpatient Designated Hospitals
Level 1 and Non-Level 1: FY 2013**

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
Statewide	Total Beds	-	139	139	139	139	139	147	148	149	162	157	157
	Total ADC	-	127	130	129	123	122	137	132	136	134	135	146
	Involuntary ADC	-	44	47	45	47	44	47	47	57	55	61	61
	Level 1 ADC	-	19	23	25	24	24	29	29	32	37	45	44
	% Voluntary	-	65%	64%	65%	62%	64%	66%	64%	59%	59%	55%	58%
	% Non-Level 1	-	19%	19%	16%	18%	16%	13%	14%	18%	13%	12%	11%
	% Level 1	-	15%	17%	20%	20%	19%	22%	22%	23%	28%	33%	30%
BR	Total Beds	-	72	72	72	72	72	72	73	74	75	75	75
	Total ADC	-	67	70	70	68	66	68	67	71	71	71	72
	Involuntary ADC	-	23	23	25	29	25	20	21	26	22	24	26
	Level 1 ADC	-	14	18	18	17	15	14	16	19	18	21	20
	% Voluntary	-	66%	67%	65%	57%	62%	70%	69%	63%	68%	66%	63%
	% Non-Level 1	-	13%	7%	9%	17%	15%	9%	7%	11%	6%	4%	9%
	% Level 1	-	21%	26%	26%	25%	23%	21%	24%	26%	26%	30%	28%
CVMC	Total Beds	-	14	14	14	14	14	14	14	14	14	14	14
	Total ADC	-	13	13	13	13	13	13	12	13	13	13	13
	Involuntary ADC	-	6	7	2	3	2	2	2	1	2	4	3
	% Voluntary	-	54%	50%	83%	80%	88%	87%	87%	90%	81%	69%	74%
	% Non-Level 1	-	46%	50%	17%	20%	12%	13%	13%	10%	19%	31%	26%
FAHC	Total Beds	-	27	27	27	27	27	27	27	27	27	27	27
	Total ADC	-	26	26	24	24	25	26	24	24	23	25	26
	Involuntary ADC	-	9	9	9	7	9	11	11	14	12	12	11
	Level 1 ADC	-	1	1	4	3	4	6	6	6	6	9	9
	% Voluntary	-	66%	64%	63%	72%	61%	57%	53%	44%	51%	53%	59%
	% Non-Level 1	-	30%	32%	22%	14%	21%	20%	20%	30%	23%	10%	7%
GMPCC	Total Beds	-	-	-	-	-	-	8	8	8	8	8	8
	Total ADC	-	-	-	-	-	-	6	8	8	8	8	8
	Involuntary ADC	-	-	-	-	-	-	6	8	8	8	8	8
	Level 1 ADC	-	-	-	-	-	-	5	5	4	4	6	6
	% Voluntary	-	-	-	-	-	-	2%	0%	0%	0%	0%	0%
RRMC	Total Beds	-	14	15	15	15	15	16	15	15	23	21	20
	Total ADC	-	14	15	15	15	15	16	15	15	23	21	20
	Involuntary ADC	-	6	8	8	7	6	7	5	6	10	11	12
	Level 1 ADC	-	4	3	4	4	4	4	1	3	9	9	10
	% Voluntary	-	56%	48%	46%	52%	57%	57%	66%	62%	55%	47%	37%
WC	Total Beds	-	10	10	10	10	10	10	10	10	10	10	10
	Total ADC	-	8	8	8	9	8	9	7	8	9	7	8
	Involuntary ADC	-	0	1	1	1	1	1	1	2	0	1	0
	% Voluntary	-	97%	87%	88%	89%	88%	88%	85%	77%	98%	82%	94%
	% Non-Level 1	-	3%	13%	13%	11%	12%	12%	15%	23%	2%	18%	6%

Based on data from the electronic bed boards for total average daily census and total beds available in conjunction with data maintained by DMH care managers regarding involuntary stays. Voluntary percentages are calculated by subtracting the percentage of Total average daily census divided by Involuntary average daily census from 100%. Data regarding Level 1 stays are maintained by the utilization review team. Average daily census for Level 1 stays represents the entirety of an individual's stay, which can include parts of a stay that were voluntary, before a patient was assessed as Level 1. Thus, percentages at hospitals for Level 1 contain both the voluntary and involuntary parts of an individual's inpatient stay.

Graph 3

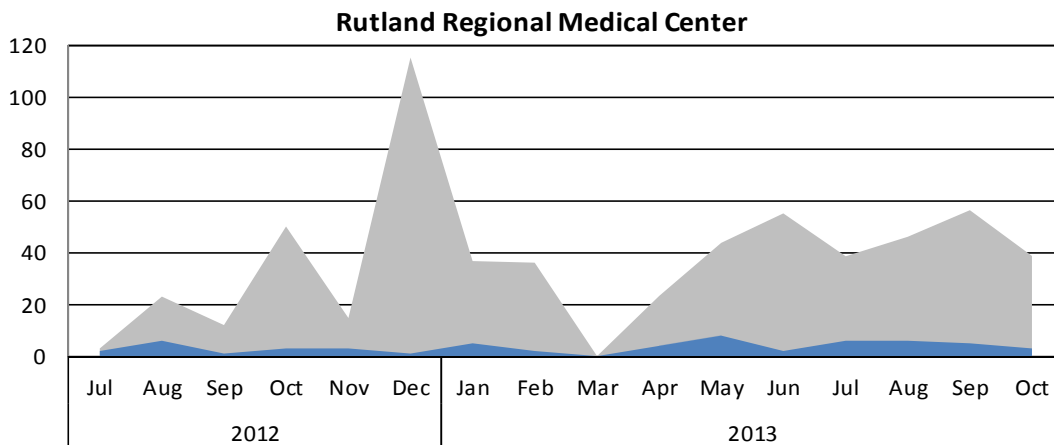
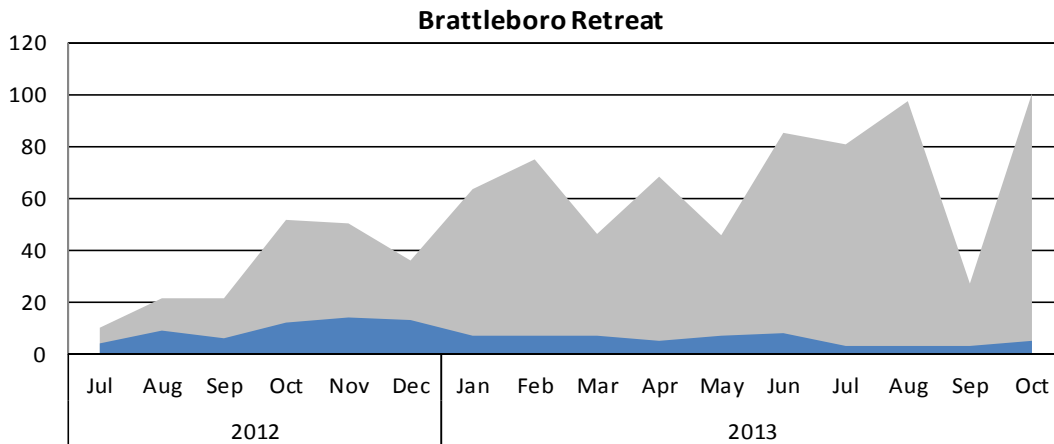
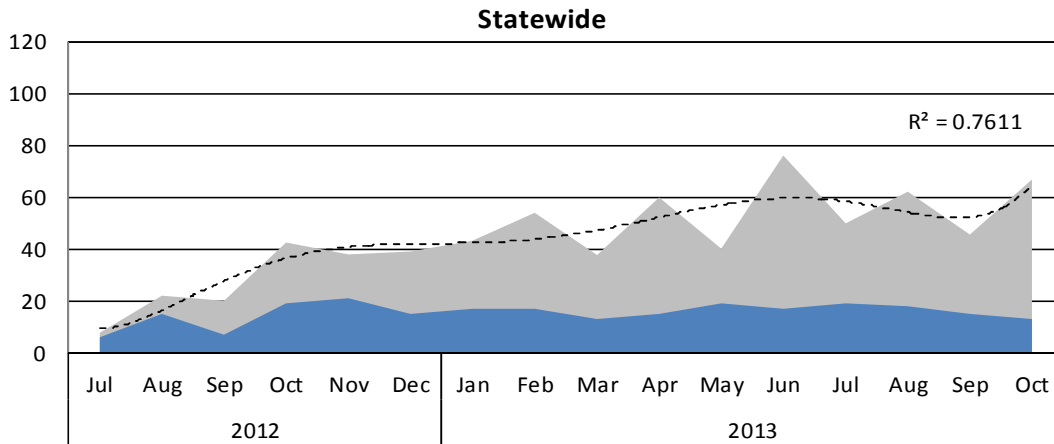
Level 1 Inpatient Capacity and Utilization July 2012 - October 2013



Graph 4

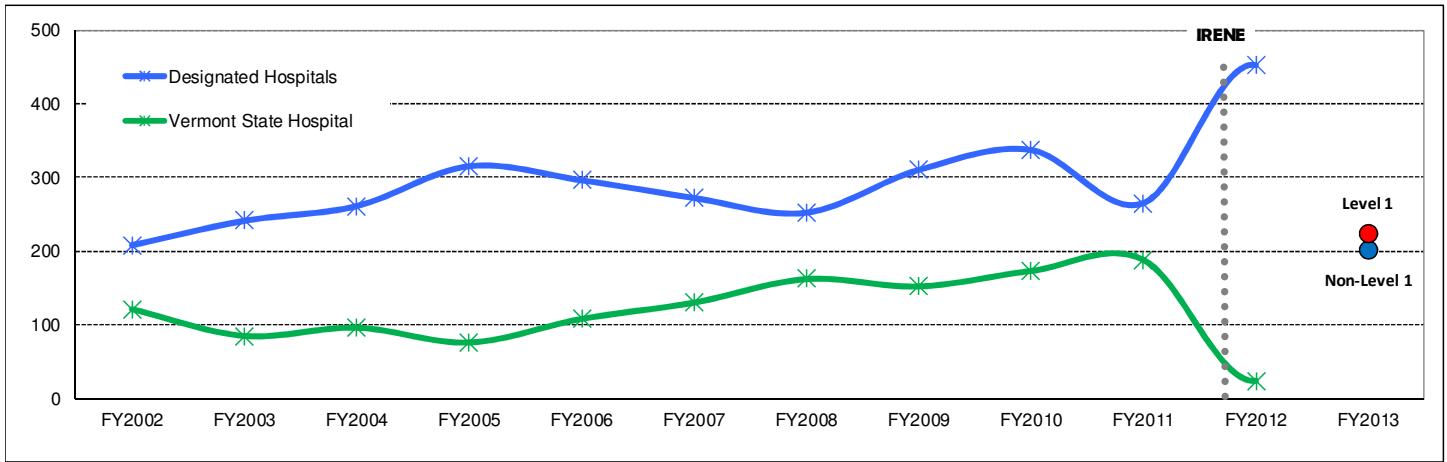
Level 1 Inpatient Lenth of Stay of Discharged Patients July 2012 - October 2013

LOS Total Discharges Trendline (LOS)



Graph 5

Vermont Adult Inpatient Admissions for Emergency Examination FY2002 - FY2013



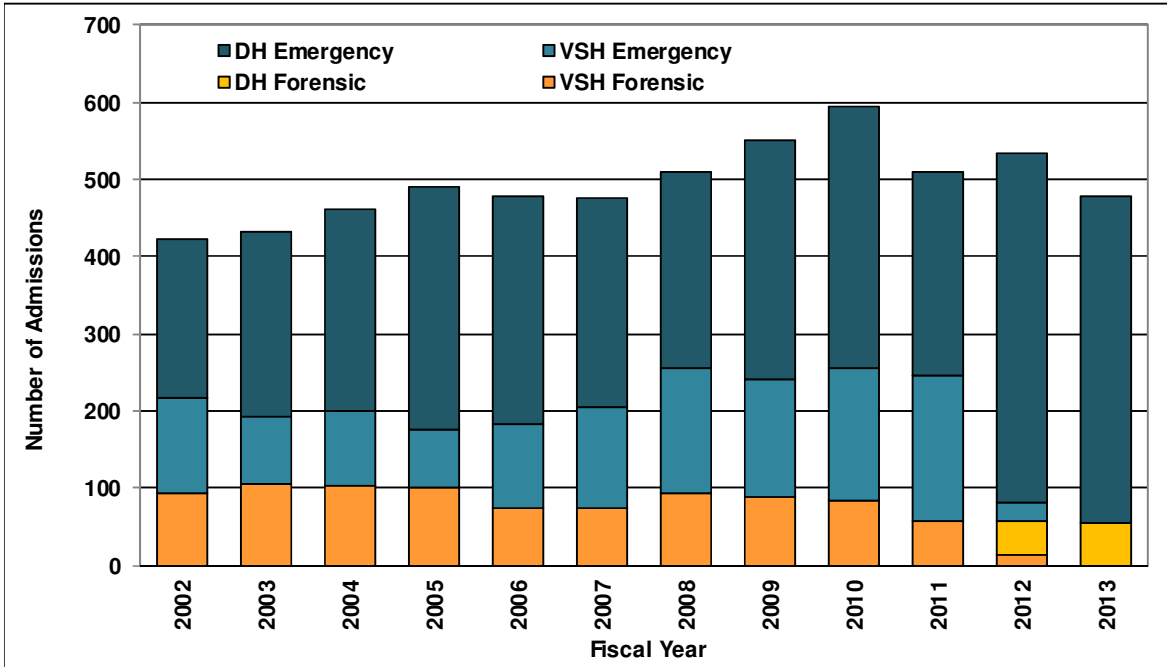
	Emergency Admissions												Overall
	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013*	
Admissions	332	328	362	405	406	402	416	462	510	453	476	424	4,976
VSH												Level 1	
Number	121	85	96	76	108	130	162	152	173	188	24	223	1,538
Percent	36%	26%	27%	19%	27%	32%	39%	33%	34%	42%	5%	53%	31%
DH												Non-Level 1	
Number	211	243	266	329	298	272	254	310	337	265	452	201	3,438
Percent	64%	74%	73%	81%	73%	68%	61%	67%	66%	58%	95%	47%	69%

This analysis includes adult patients (aged 18 and over) who received involuntary mental health services at designated community hospitals (DH) and Vermont State Hospital (VSH). The DH analysis is based on adult patients in the involuntary inpatient data set maintained by the Vermont Department of Mental Health. The DHs include The Brattleboro Retreat, Central Vermont Medical Center, Fletcher Allen, Rutland, and The Windham Center. The VSH analysis is based on extracts from the Vermont State Hospital Treatment Episode database. This analysis includes VSH patients with a legal status at admission of emergency or warrant.

*FY2013 is broken into Level 1 and Non-Level 1 admissions.

Graph 6

Vermont State Hospital and Designated Hospitals Emergency and Forensic Admissions FY2002 - FY2013



Fiscal Year	VSH Involuntary		DH Involuntary		Total Involuntary	
	Emergency Admissions	Forensic Admissions	Emergency Admissions	Forensic Admissions	Emergency Admissions	Forensic Admissions
	#	#	#	#	#	#
2002	121	95	208	0	329	95
2003	85	107	241	0	326	107
2004	96	104	261	0	357	104
2005	76	100	315	0	391	100
2006	108	75	296	0	404	75
2007	130	75	272	0	402	75
2008	162	95	252	0	414	95
2009	152	89	310	0	462	89
2010	173	84	337	0	510	84
2011	188	58	265	0	453	58
2012	24	13	452	45	476	58
2013	--	--	424	55	424	55

Analysis based on the Vermont State Hospital (VSH) Treatment Episode Database. Includes all admissions during FY1985 - FY2013 with a forensic legal status or emergency legal status at admission.

Graph 7

