

Vermont Mental Health Performance Indicator Project
Agency of Human Services, Department of Health, Department of Mental Health
108 Cherry Street, Burlington, Vermont 05401

TO: Vermont Mental Health Performance Indicator Project
Advisory Group and Interested Parties

FROM: John Pandiani and Brennan Martin

DATE: January 9, 2009

RE: Cross-Sector Inpatient Behavioral Health Care Utilization

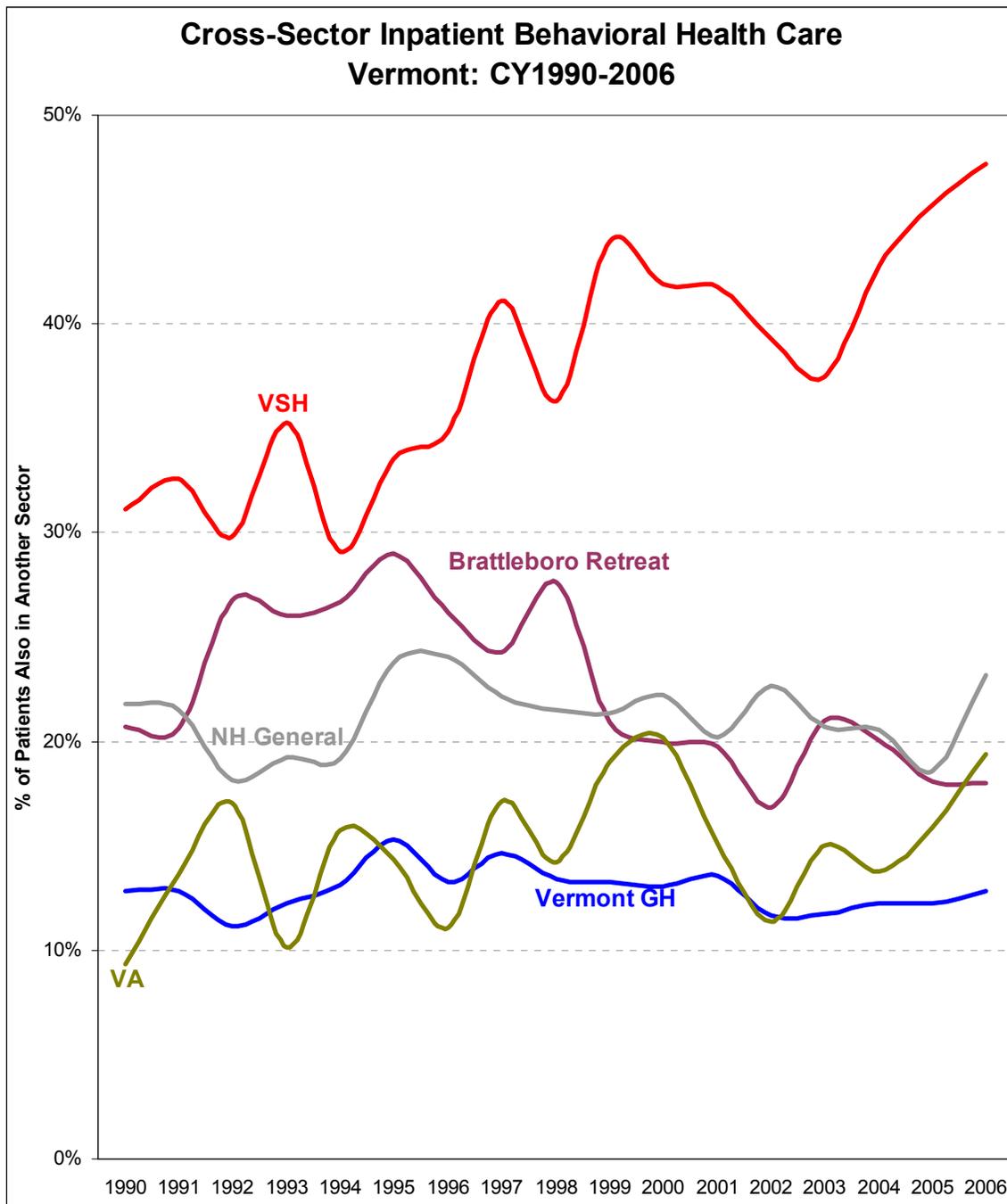
This brief report complements our December 5, 2008 report on “Inpatient Behavioral Health Days 1990-2006 by Hospital Type” by examining rates of cross-sector utilization of inpatient behavioral health care for Vermont residents during 1990 through 2006. Five inpatient service sectors are included in this analysis: the Vermont general hospital service sector, the Vermont Veterans Affairs (VA) service sector, the Vermont State Hospital service sector (VSH), the private psychiatric hospital service sector (The Brattleboro Retreat), and the New Hampshire general hospital service sector.

All results are based on analysis of anonymous extracts from administrative databases provided by participating institutions. Because these data sets do not share unique person identifiers, Probabilistic Population was used to determine the unduplicated number of individuals served in multiple service sectors during the study periods. More information regarding inclusion criteria, data analysis, and findings is available in the full report at <http://healthvermont.gov/mh/docs/eval/inpatient-data-book.aspx>.

As you will see, there are substantial differences in the rate at which Vermont residents hospitalized for behavioral health care in one service sector were also hospitalized for behavioral health care in another service sector during the same year. Average annual cross-sector utilization rates during the study period varied from 38% for VSH patients to 22% for Brattleboro Retreat patients and 21% for New Hampshire general hospital patients, to 15% for VA patients and 13% for Vermont General Hospital patients.

There were also substantial differences in the amount of change in the rate at which Vermont residents hospitalized for behavioral health care in one service sector were also hospitalized for behavioral health care in another service sector during the same year. Cross-sector utilization by Vermont State Hospital patients increased substantially, from 31% in 1990 to 48% in 2006. Cross-sector utilization by Vermont residents in Vermont general hospitals was fairly consistent, varying between a low of 11% in 1992 and a high of 15% in 1995. Change in other service sectors is less easily characterized.

We look forward to your interpretations of these findings and your suggestions for future analysis of this very rich data set. As always, you can reach us by e-mail at pip@vdh.state.vt.us or by phone at 802-863-7249.



Information is derived from the Hospital Discharge Data Set maintained by the Vermont Department of Health, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation has been used to provide unduplicated counts of people served (with 95% confidence intervals).

Cross-sector Inpatient Behavioral Health Care Vermont Residents: CY1990-2006

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
VT General Hospitals																	
Total Served	1,672 ±12	1,596 ±11	1,609 ±12	1,589 ±11	1,652 ±12	1,568 ±12	1,781 ±13	1,775 ±13	1,717 ±12	1,816 ±13	1,981 ±15	1,931 ±14	2,078 ±16	2,074 ±15	2,173 ±16	2,077 ±16	1,932 ±14
Also Served # in Other Sectors	215 ±14	205 ±15	179 ±14	195 ±15	217 ±16	240 ±16	236 ±16	260 ±14	230 ±16	241 ±16	259 ±17	262 ±18	242 ±19	244 ±18	267 ±20	254 ±20	248 ±18
%	13% ±1	13% ±1	11% ±1	12% ±1	13% ±1	15% ±1	13% ±1	15% ±1	13% ±1	13% ±1	13% ±1	14% ±1	12% ±1	12% ±1	12% ±1	12% ±1	13% ±1
Vermont State Hospital																	
Total Served	413	427	349	323	344	330	289	314	270	266	229	267	232	224	237	214	216
Also Served # in Other Sectors	128 ±7	139 ±8	104 ±7	114 ±6	100 ±7	111 ±7	101 ±6	129 ±7	98 ±6	117 ±6	96 ±6	111 ±6	91 ±7	84 ±7	101 ±7	98 ±6	103 ±6
%	31% ±0	33% ±0	30% ±0	35% ±0	29% ±0	34% ±0	35% ±0	41% ±0	36% ±0	44% ±0	42% ±0	42% ±0	39% ±0	38% ±0	43% ±0	46% ±0	48% ±0
Brattleboro Retreat																	
Total Served	204	212	215	267	296	421	486	536	485	560	692	743	819	766	832	926	895
Also Served # in Other Sectors	42 ±4	44 ±4	57 ±4	69 ±5	79 ±5	122 ±7	127 ±8	130 ±7	134 ±8	117 ±9	138 ±10	147 ±12	138 ±12	161 ±12	167 ±13	167 ±13	161 ±12
%	21% ±0	21% ±0	27% ±0	26% ±0	27% ±0	29% ±0	26% ±0	24% ±0	28% ±0	21% ±0	20% ±1	20% ±1	17% ±1	21% ±1	20% ±1	18% ±1	18% ±1
Veterans Administration																	
Total Served	171 ±2	174 ±2	164 ±2	187 ±2	192 ±3	200 ±3	182 ±3	146 ±2	141 ±2	147 ±2	169 ±2	157 ±2	161 ±2	140 ±2	160 ±2	161 ±2	134 ±2
Also Served # in Other Sectors	16 ±4	24 ±5	28 ±4	19 ±4	30 ±6	29 ±5	20 ±4	25 ±3	20 ±3	28 ±5	34 ±5	24 ±4	18 ±5	21 ±4	22 ±5	26 ±4	26 ±4
%	9% ±0	14% ±0	17% ±0	10% ±0	16% ±0	14% ±0	11% ±0	17% ±0	14% ±0	19% ±0	20% ±0	15% ±0	11% ±0	15% ±0	14% ±0	16% ±0	19% ±0
New Hampshire Hospitals																	
Total Served	374 ±3	410 ±3	386 ±3	495 ±4	558 ±5	546 ±5	480 ±4	374 ±4	395 ±3	379 ±3	346 ±3	356 ±3	359 ±3	382 ±3	419 ±4	392 ±3	369 ±3
Also Served # in Other Sectors	82 ±7	88 ±8	70 ±7	95 ±9	107 ±10	130 ±10	116 ±9	83 ±	85 ±6	81 ±7	77 ±8	72 ±7	81 ±8	79 ±8	86 ±9	73 ±8	85 ±8
%	22% ±0	22% ±1	18% ±0	19% ±1	19% ±1	24% ±1	24% ±1	22% ±0	22% ±0	21% ±0	22% ±0	20% ±0	23% ±0	21% ±0	21% ±0	19% ±0	23% ±0

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Department of Health, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital.

The State of Vermont does not have unique client identifiers across service providers. For this reason, Probabilistic Population Estimation was used to provide unduplicated counts of people served (with 95% confidence intervals).