

Vermont Mental Health Performance Indicator Project

Agency of Human Services, Department of Health, Division 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 Joan Mongeon

DATE: November 4, 2005

RE: Nursing Home Utilization by CRT clients and former VSH patients

In preparation for completing the 2005 CMHS Uniform Reporting System (URS) Table 15, Living Situation Profile, MH Research and Statistics requested and received an anonymous extract from the federally mandated nursing home Minimum Data Set (MDS) for Vermont. Residential situation is also listed as one of the performance indicators recommended by Vermont's Mental Health Performance Indicator Project Multi-Stakeholder Advisory Group. (<http://www.healthyvermonters.info/ddmhs/docs/pips/pipPerfIndRecs.pdf>)

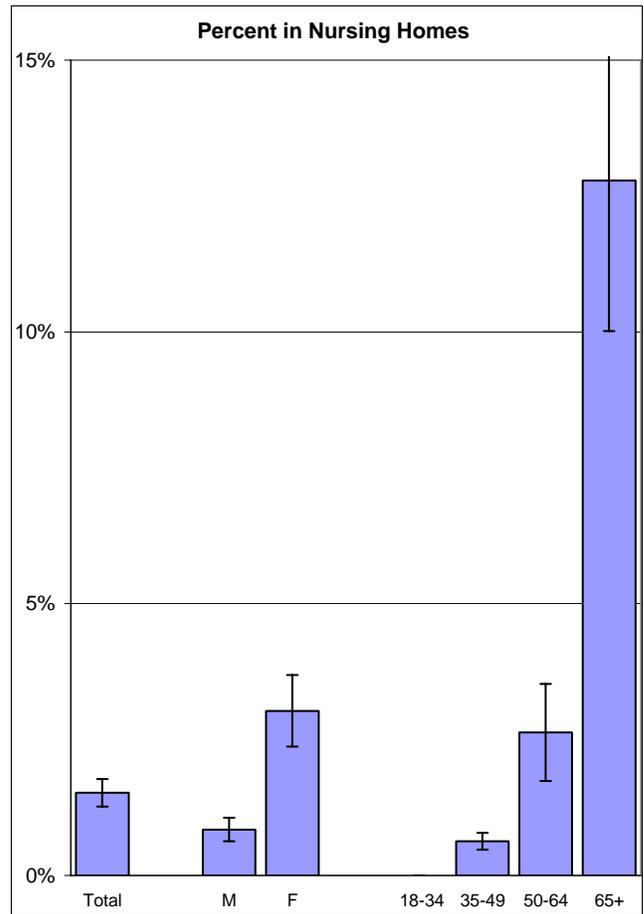
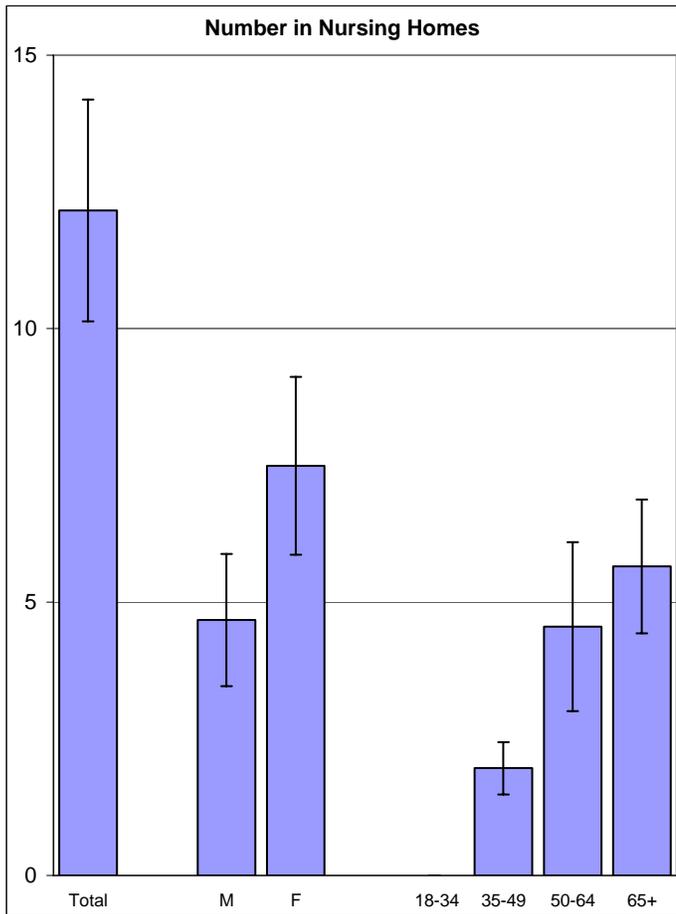
Three data sets were used in this analysis. The first, which includes the date of birth and gender of all individuals residing in a Vermont nursing home on June 15, 2005, is extracted from the Vermont MDS provided by the Vermont Department of Aging and Independent Living. The other data sets describe two groups of mental health service recipients. An extract from the Vermont Mental Health Monthly Service Report data set provided the date of birth and gender of all individuals assigned to CRT programs for adults with serious mental illness during FY2005, and an extract from the Vermont State Hospital (VSH) Episode Data Set provided the date of birth and gender of all individuals discharged from VSH during FY2001 through FY2005. Because these data sets do not include unique person identifiers, Probabilistic Population Estimation was used to determine the number of CRT clients and the number of people discharged from VSH who were living in nursing homes on the target date.

Results of this analysis indicate that about one in eight (12.8%) VSH patients discharged during FY2001 - FY2005 who were 65 years of age or older were residing in a Vermont nursing home on June 15, 2005. A similar proportion of older CRT clients were in Vermont Nursing Homes on that same day. In terms of total numbers 71 CRT clients and 12 former VSH patients were living in nursing homes on June 15, 2005. (The unduplicated number of former VSH patients and current CRT clients who were living in nursing homes was 75, indicating that the nursing home population included 8 CRT clients who were also VSH patients during the period covered by this study.)

We look forward to your interpretation of these findings and your suggestions for further analysis of data regarding the residential situation of mental health service recipients in Vermont. As always you can reach us at pip@vdh.state.vt.us or 802.863.7249.

Individuals Discharged from the Vermont State Hospital in Nursing Homes

Individuals Discharged from the VSH during FY01-FY05, Residence on June 15, 2005



General Population

Clients Discharged from VSH, FY01-FY05

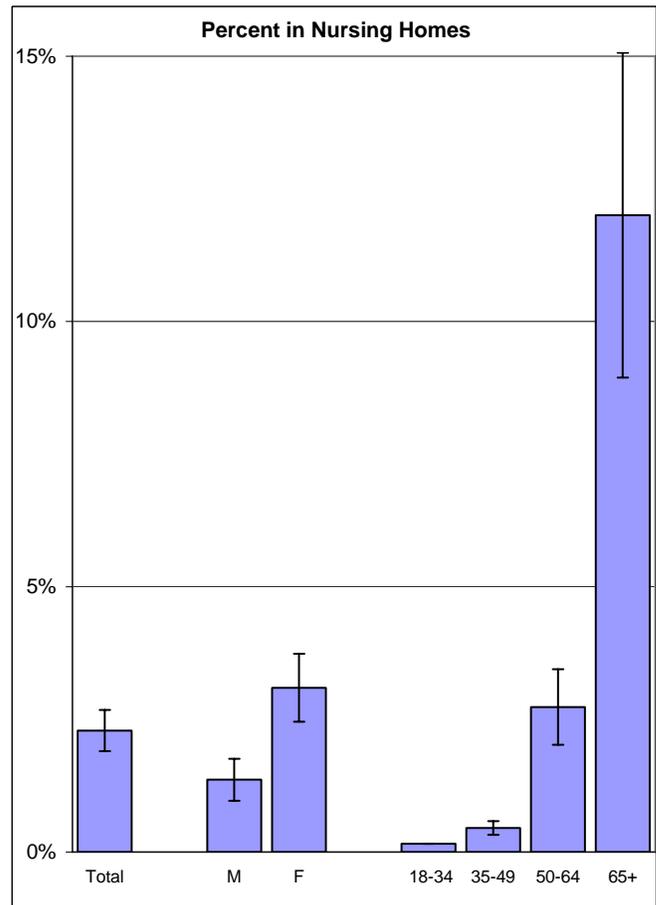
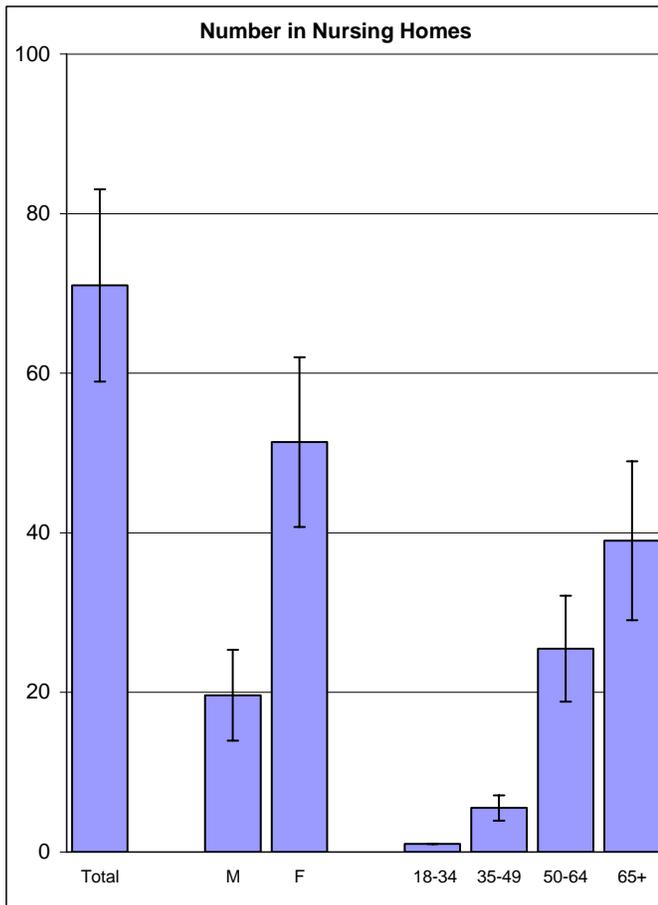
	2003 VT Population	# in Nursing Homes	% in Nursing Homes	VSH Discharges	# in Nursing Homes	% in Nursing Homes
Total	481,614	3,103 ± 33	0.6% ± 0.0%	799 + 7	12 + 2	1.5% ± 0.3%
Male	233,385	919 ± 12	0.4% ± 0.0%	552 + 6	5 + 1	0.8% ± 0.2%
Female	248,229	2,184 ± 31	0.9% ± 0.0%	247 + 3	7 + 2	3.0% ± 0.7%
Age 18-34	134,377	7 ± 0	0.0% ± 0.0%	271 + 4	0 + 0	0.0% ± 0.0%
35-49	149,789	44 ± 1	0.0% ± 0.0%	312 + 5	2 + 0	0.6% ± 0.2%
50-64	117,316	179 ± 3	0.2% ± 0.0%	173 + 3	5 + 2	2.6% ± 0.9%
65+	80,132	2,873 ± 33	3.6% ± 0.0%	44 + 1	6 + 1	12.8% ± 2.8%

Analyses are based on the Hospital Discharge Data set maintained by the Vermont Health Department and an anonymous extract from the Vermont Nursing Home Minimum data set. Individuals in Nursing Homes include all adults in residence on June 15th, 2005. Individuals discharged from the Vermont State Hospital include all adults discharged in FY01-FY05. Because these data sets do not share unique person identifiers, Probabilistic Population Estimation was used to determine caseload size and overlap (with 95% confidence intervals).

Probabilistic Population Estimation is a statistical procedure that provides valid and reliable measures of the size and overlap of data sets that do not include unique person identifiers. These estimates are based on a comparison of the distribution of dates of birth in the data sets to the known distribution of dates of birth in the general population. This approach is particularly useful where concerns about the confidentiality of medical records limit the use of personally identifying information. For more detail, see: Banks SM & Pandiani, JA (2001) Probabilistic population estimation of the size and overlap of data sets based on date of birth. *Statistics in Medicine*. 20:1421-1430.

Community Rehabilitation Treatment (CRT) Clients in Nursing Homes

CRT Clients served in FY05, Residence on June 15, 2005



General Population

	2003 VT Population	# in Nursing Homes	% in Nursing Homes
Total	481,614	3,103 ± 33	0.6% ± 0.0%
Male	233,385	919 ± 12	0.4% ± 0.0%
Female	248,229	2,184 ± 31	0.9% ± 0.0%
18-34	134,377	7 ± 0	0.0% ± 0.0%
35-49	149,789	44 ± 1	0.0% ± 0.0%
50-64	117,316	179 ± 3	0.2% ± 0.0%
65+	80,132	2,873 ± 33	3.6% ± 0.0%

Clients Served by CRT FY05

	Clients Served by CRT FY05	# in Nursing Homes	% in Nursing Homes
Total	3,101 + 24	71 + 12	2.3% ± 0.4%
Male	1,441 + 16	20 + 6	1.4% ± 0.4%
Female	1,661 + 18	51 + 11	3.1% ± 0.6%
18-34	629 + 9	1 + 0	0.2% ± 0.0%
35-49	1,215 + 17	6 + 2	0.5% ± 0.1%
50-64	933 + 13	25 + 7	2.7% ± 0.7%
65+	325 + 5	39 + 10	12.0% ± 3.1%

Analyses are based on the Hospital Discharge Data set maintained by the Vermont Health Department and an anonymous extract from the Vermont Nursing Home Minimum data set. Individuals in Nursing Homes include all adults in residence on June 15th, 2005. Individuals discharged from the Vermont State Hospital include all adults discharged in FY01-FY05. Because these data sets do not share unique person identifiers, Probabilistic Population Estimation was used to determine caseload size and overlap (with 95% confidence intervals).

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