

## Vermont Mental Health Performance Indicator Project

Agency of Human Services, Department of Mental Health  
103 South Main Street, Waterbury, Vermont 05671

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

FROM: John Pandiani and Walter Ochs

DATE: June 18, 2010

RE: CRT Hospital Emergency Room Utilization by Region: CY2008

This week's brief follows a line of enquiry that began with our report on statewide CRT hospital emergency room utilization rates.<sup>1</sup> This analysis focuses on variation in emergency room utilization rates among DMH designated agencies (DAs) in response to a request from Michael Hartman, Commissioner of the VT Department of Mental Health, and Helen Oetjen of Washington County Mental Health following the publication of the original report.

Anonymous extracts from two data sets were used in this analysis. The first data set, the Vermont Uniform Hospital Discharge Data Set, provides the date of birth, gender, and county of residence for all individuals with emergency visits to hospitals in Vermont, New Hampshire, and New York. The earlier analysis included only Vermont general hospitals. The focus of this report was broadened to include hospitals in neighboring states in order to be sensitive to variation among DAs in the likelihood of clients being served by out of state hospitals. The second data set, the Vermont Department of Mental Health Monthly Service Report (MSR) data set, provides the date of birth, gender, and county of residence of all individuals with CRT services during CY2008. Because these data sets do not share unique person identifiers, Probabilistic Population Estimation (PPE) was used to determine the unduplicated number of people shared by the two data sets.

As you will see, 52% of all CRT service recipients used hospital emergency services during CY2008. There were, however, substantial differences among agencies, varying from a high of 62% of CRT service recipients in Northwestern Vermont to a low of 46% of CRT service recipients in Rutland County.

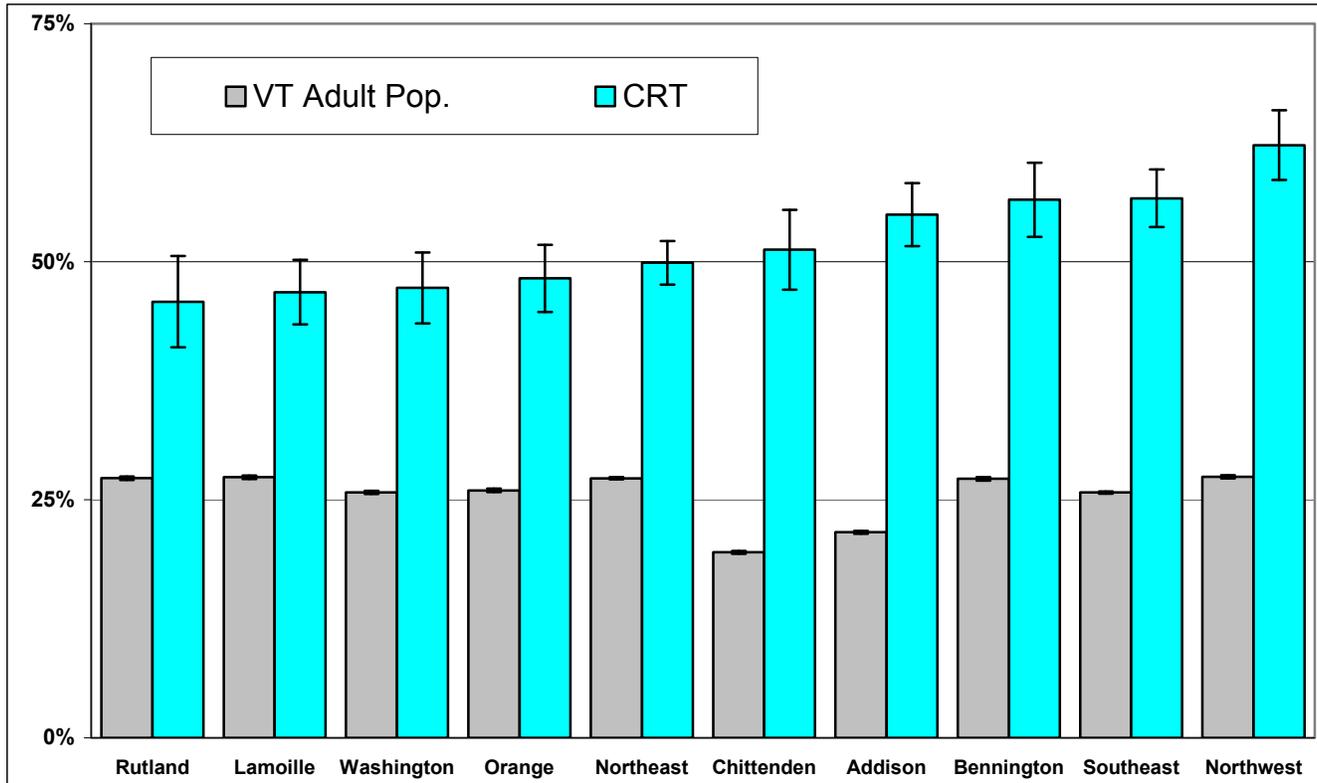
There were also substantial differences among regions in CRT clients' relative rate of hospital emergency service utilization compared to rates for the general population. Statewide, CRT clients were more than twice (2.1 times) as likely to use hospital emergency services as members of general population. This elevated rate of hospital emergency service utilization by CRT clients ranged from 1.7 times the general population rate in Rutland and Lamoille counties to 2.5 and 2.6 times the general population rates in Addison and Chittenden counties.

We look forward to your interpretation of these findings, questions, comments, and requests for further analyses. As always, we can be reached at [pip@ahs.state.vt.us](mailto:pip@ahs.state.vt.us) or 802-241-4049.

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<sup>1</sup> [http://mentalhealth.vermont.gov/sites/dmh/files/pip/DMH-PIP\\_May\\_7\\_2010.pdf](http://mentalhealth.vermont.gov/sites/dmh/files/pip/DMH-PIP_May_7_2010.pdf)

## Vermont and Out of State General Hospital Emergency Room Utilization by CRT Clients and Other Vermont Adults During CY2008 by Region



| Region       | Vermont General Population Adults |                      |                   | CRT Clients      |                   |                 | Elevated Rate    |
|--------------|-----------------------------------|----------------------|-------------------|------------------|-------------------|-----------------|------------------|
|              | Total                             | Served by ER         |                   | Total            | Served by ER      |                 |                  |
|              |                                   | #                    | % VT Adults       |                  | #                 | % CRT           |                  |
| Rutland      | 51,101                            | 13,930 ± 93          | 27% ± 0.2%        | 297 ± 3          | 136 ± 14          | 46% ± 5%        | 1.7 ± 0.2        |
| Lamoille     | 19,504                            | 5,338 ± 36           | 27% ± 0.2%        | 130 ± 2          | 61 ± 4            | 47% ± 3%        | 1.7 ± 0.1        |
| Washington   | 47,060                            | 12,123 ± 82          | 26% ± 0.2%        | 432 ± 4          | 204 ± 16          | 47% ± 4%        | 1.8 ± 0.1        |
| Orange       | 23,027                            | 5,984 ± 40           | 26% ± 0.2%        | 178 ± 2          | 86 ± 6            | 48% ± 4%        | 1.9 ± 0.1        |
| Northeast    | 50,870                            | 13,860 ± 59          | 27% ± 0.1%        | 347 ± 3          | 173 ± 8           | 50% ± 2%        | 1.8 ± 0.1        |
| Chittenden   | 120,406                           | 23,451 ± 189         | 19% ± 0.2%        | 661 ± 6          | 339 ± 28          | 51% ± 4%        | 2.6 ± 0.2        |
| Addison      | 28,941                            | 6,246 ± 41           | 22% ± 0.1%        | 172 ± 2          | 94 ± 6            | 55% ± 3%        | 2.5 ± 0.2        |
| Bennington   | 29,067                            | 7,906 ± 51           | 27% ± 0.2%        | 178 ± 2          | 101 ± 7           | 57% ± 4%        | 2.1 ± 0.1        |
| Southeast    | 80,098                            | 20,629 ± 99          | 26% ± 0.1%        | 392 ± 3          | 222 ± 12          | 57% ± 3%        | 2.2 ± 0.1        |
| Northwest    | 42,266                            | 11,587 ± 70          | 27% ± 0.2%        | 227 ± 2          | 142 ± 8           | 62% ± 4%        | 2.3 ± 0.1        |
| <b>Total</b> | <b>492,340</b>                    | <b>121,052 ± 277</b> | <b>25% ± 0.1%</b> | <b>3,014 ± 9</b> | <b>1,557 ± 40</b> | <b>52% ± 1%</b> | <b>2.1 ± 0.1</b> |

Southeast includes Windham and Windsor; Northeast includes Essex, Orleans & Caledonia; Northwest includes Grand Isle and Franklin counties.

Analysis based on the Uniform Hospital Discharge Dataset maintained by the VT Department of Health and Monthly Service Report data maintained by the VT Department of Mental Health. Includes adult (age 18 and over) Vermont residents served by emergency rooms in Vermont and out of state hospitals during CY2008 and includes adult CRT clients served during CY2008. Adult general population rates based on 2008 Vermont Department of Health Estimates.

Because data sets used in this analysis do not share unique person identifiers, Probabilistic Population Estimation was used to measure caseload size and overlap (with 95% confidence intervals).