

## 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: September 24, 2010

RE: CRT Clients with Potentially Avoidable Emergency Room Visits by Region

This week's brief report is the second in a series that provides information regarding potentially avoidable hospital emergency room visits by Vermont community mental health (CMH) service recipients. Specifically, this report provides estimates of the numbers of individuals served by Vermont Community Rehabilitation and Treatment (CRT) programs for adults with serious mental illness during CY2008 who had potentially avoidable emergency room visits to general hospitals in Vermont and neighboring states during the same year. This report also provides estimates of the numbers of all adults in each of Vermont's ten service areas who had potentially avoidable emergency room visits. As in our previous report, potentially avoidable emergency department visits are based on definitions provided by Onpoint Health Data.<sup>1</sup> This analysis was requested by Boyd Tracy, Vermont Division of Vocational Rehabilitation.

This analysis used anonymous extracts from two data sets. Vermont's Uniform Hospital Discharge Data Set provided the date of birth, gender, diagnosis, and county of residence for all Vermont residents with emergency visits to general hospitals in Vermont and neighboring states during CY2008. Vermont's Department of Mental Health Monthly Service Report (MSR) data provided the date of birth, gender, and county of residence of all individuals with a CRT program assignment 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. "Potentially avoidable emergency department visits" include visits with primary diagnostic categories that are most likely to represent conditions that are non-urgent or treatable in primary care settings. A complete list of the diagnoses that indicate potentially avoidable emergency room visits that were included in this analysis is attached.

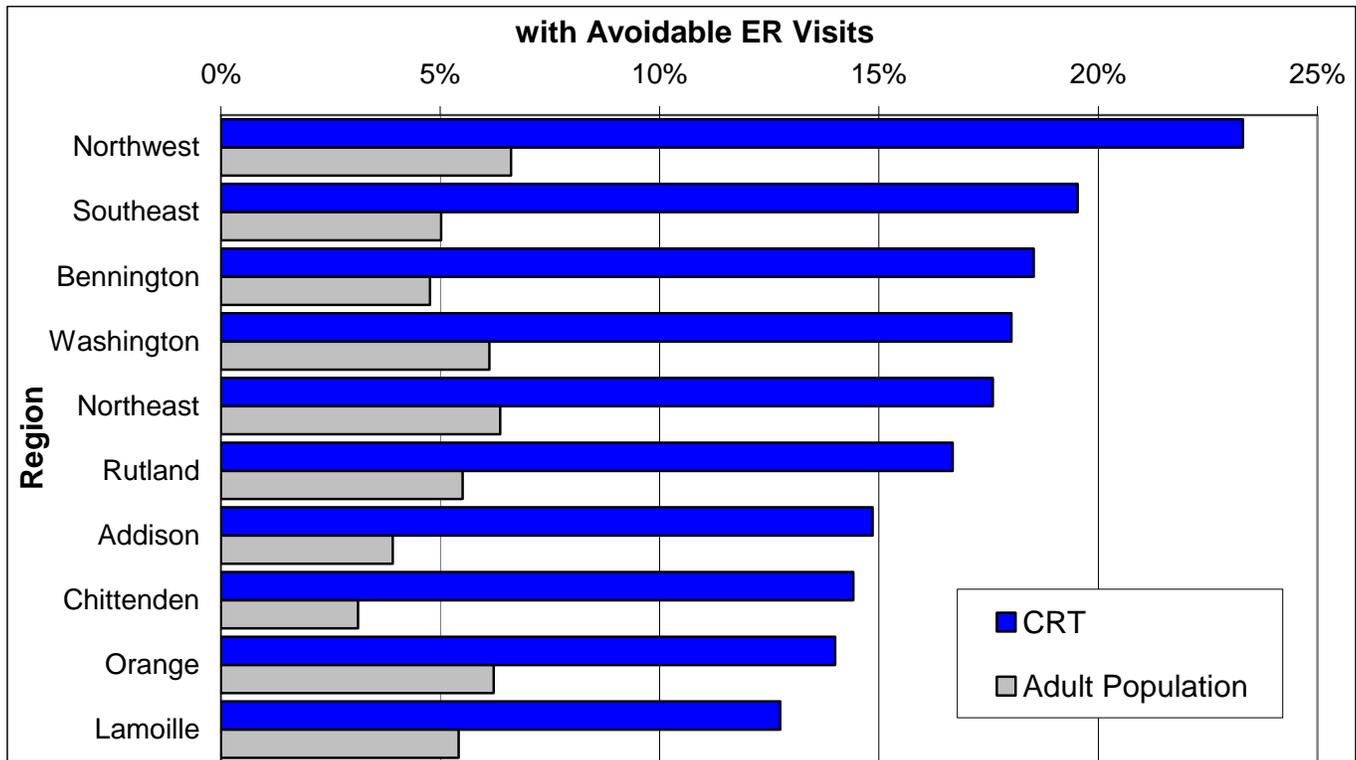
As you will see, 17% of CRT clients, statewide, had a potentially avoidable emergency room visit during CY2008. The percentage of CRT clients with potentially avoidable emergency room visits, however, varied from a high of 23% in Northwestern Vermont to a low of 13% in Lamoille County. The rate of potentially avoidable emergency room visits for CRT clients was substantially greater than for members of the general population in every region, ranging from a high of 4.6 times the general population rate in Chittenden County to lows of 2.4 and 2.3 times the general population rate in Lamoille and Orange Counties, respectively.

We look forward to your questions, comments, interpretation of these findings, 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> Vermont Emergency Department Visit Study DRAFT Proposal. Analysis of Commercially Insured Population Under Age 65 Claims and Vermont Hospital Data. Prepared by Onpoint Health Data, June 2010.

## Potentially Avoidable General Hospital Emergency Room Visits CRT Clients and Total Adult Residents by Region: CY2008



Region	Unduplicated Counts of People Served		Caseload Overlap		Adult General Population		Relative Risk
	CRT	Avoidable ER	Number	% of CRT with Avoidable ER	Number	% with Avoidable ER	
Northwest	227 ± 2	2,795 ± 19	53 ± 5	23% ± 2%	42,266	7% ± 0.04%	3.5
Southeast	392 ± 3	4,022 ± 22	77 ± 7	20% ± 2%	80,098	5% ± 0.03%	3.9
Bennington	178 ± 2	1,385 ± 11	33 ± 3	19% ± 2%	29,067	5% ± 0.04%	3.9
Washington	432 ± 4	2,879 ± 21	78 ± 8	18% ± 2%	47,060	6% ± 0.05%	2.9
Northeast	347 ± 3	3,237 ± 15	61 ± 4	18% ± 1%	50,870	6% ± 0.03%	2.8
Rutland	297 ± 3	2,815 ± 21	50 ± 6	17% ± 2%	51,101	6% ± 0.04%	3.0
Addison	172 ± 2	1,133 ± 8	26 ± 2	15% ± 1%	28,941	4% ± 0.03%	3.8
Chittenden	661 ± 6	3,759 ± 30	95 ± 14	14% ± 2%	120,406	3% ± 0.03%	4.6
Orange	178 ± 2	1,432 ± 11	25 ± 3	14% ± 1%	23,027	6% ± 0.05%	2.3
Lamoille	130 ± 2	1,057 ± 8	17 ± 2	13% ± 2%	19,504	5% ± 0.04%	2.4
<b>VT Total</b>	<b>3,014 ± 9</b>	<b>24,513 ± 57</b>	<b>513 ± 20</b>	<b>17% ± 1%</b>	<b>492,340</b>	<b>5% ± 0.01%</b>	<b>3.4</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 on Monthly Service Record data maintained by the VT Department of Mental Health. Includes adult (age 18 and over) Vermont residents served by emergency rooms in Vermont and in neighboring states during CY2008 and includes adult Community Rehabilitation and Treatment (CRT) program clients served during CY2008. Potentially avoidable visits, based on primary diagnosis, are listed on the following page. 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).

Relative Risk is the rate of CRT potentially avoidable emergency room utilization divided by the rate of general population potentially avoidable emergency room utilization. A relative risk of 3.0 indicates that CRT clients are three times as likely as members of the general population to have used the Emergency Room for an avoidable visit in CY2008.

Analysis Conducted by the Vermont Mental Health Performance Indicator Project

# Potentially Avoidable Hospital Emergency Room Visits\*

## Diagnostic Categories

- Anxiety, unspecified or generalized
- Asthma
- Bronchitis, acute or unspecified, and cough
- Conjunctivitis, acute or unspecified
- Dermatitis and rash
- External and middle ear infections, acute or unspecified
- Fatigue
- Headache
- Joint pain
- Lower and unspecified back pain
- Muscle and soft tissue limb pain
- Sore throat, strep
- Upper respiratory infections, acute or unspecified
- Viral infection, unspecified

\* The definition of avoidable Hospital Emergency Room Visits used in this analysis was provided by Onpoint Health Data in its June 2010 report Vermont Emergency Department Visit Study DRAFT Proposal

This definition includes non-admitted patients with emergency room diagnoses identified as non-urgent and/or treatable in primary care settings.

A complete list of the specified diagnoses is provided above.