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Comparison of VR Outcomes for Clients with Mental Illness across System Indicators

Joe Marrone, Frank A. Smith, and Susan M. Foley

The argument that people with psychiatric disabilities cannot work is an empty one, as anecdotal and research data have shown (Bond, 2004). Recently, there has been a plethora of information on evidence based employment strategies, prominently connected with the research on the Individual Placement and Support (IPS) model associated with Drake and colleagues at Dartmouth College (Drake, 1998). Historically, much of the pressure to produce employment outcomes for this group of people fell on the public vocational rehabilitation system. However, with the advent of greater attention in the last decade paid to Recovery, evidence based practices, mental health transformation, attempts to solve Medicaid disincentives issues, etc. there has been much more emphasis devoted to this aspect of psychiatric services coming more under the purview of community mental health. As Rapp et al (2005, p.351) noted: *“The bedrock of policy makers’ efforts is the establishment and codification of client outcomes. They are the ends for which the service system is designed and for which consumers, providers and others work. ‘Achieving consistently positive outcomes is at the heart of Evidence Based Practice’* (Goldman & Azrin, 2003, p. 901).” Yet overall employment outcomes for people with serious mental illness have not increased significantly. Nationally less than 25% of adult public mental health consumers are employed at any level according to a variety of research data and reporting streams (SAMHSA, 2006).

While there is general consensus that the employment outcomes for people with mental illness remain unacceptably low in terms of social change (Hall, Graf, Fitzpatrick, Lane, & Birkel, 2003; Marrone, 2007), three key issues stand out prominently among many in addition to this consistent lack of systemic success. One, beyond the assumption of “competitive employment” in integrated settings in the community there is no common definition of employment (more precisely “successful employment”) used in many studies. Two, no clear objective data currently exists to provide an overarching measure of employment outcomes. There are several indicators such as the Center for Mental Health Services Uniform Reporting

System (National Outcome Measures or NOMS), Rehabilitation Services Administration administrative services statistics (RSA 911), information from the Center for Mental Health Services (CMHS) Mental Health Transformation Grants (MHTG) and Supported Employment system change projects through the Johnson and Johnson/ Dartmouth Community Mental Health program collaboration. But they are not directly comparable in understanding systemic success in terms of enhancing employment outcomes. Three, different states and different public systems within those states, e.g., Vocational Rehabilitation (VR) and Mental Health (MH) measure the characteristics of the clients served very differently. Some MH agencies are only open for service to people with serious and persistent mental illness; others assist people with other diagnosable mental illnesses. VR agencies use functional criteria not diagnostic labels and many restrict services to those with the most significant disabilities.

Given this lack of comparability it still would prove useful to examine larger employment system results in light of these separate measures. Thus policy formulators and researchers can begin to highlight possible avenues for closer coordination and analysis. Focusing on how outcomes from these data sets vary by states’ involvement with a variety of system transformative efforts is illustrative but not probative. Cause and effect cannot be inferred because the information available is from different time frames and not necessarily from the same groups, other than the broad category of “people with mental illness”. As noted earlier, standards used to judge employment vary (VR requires a minimum of 90 days working to achieve a successful closure; the MH state NOMS data has no duration requirement). Some research investigations undertaken look at tenure (Salyers, Becker, Drake, Torrey, & Wyzik, 2004); but there is no consistent state recording format using length of employment. Therefore, care must be taken to avoid judging the relative success or failures of these respective interventions in light of the following numerical tabulations provided. In addition to the figures regarding employment outcomes, we have offered some data that may merit further investigation in relation to clients with mental illness served. There is no similar national data regarding access

to employment services within mental health systems overall, though the NAMI TRIAD report (Hall, et al, 2003) reports 28% of their adult mental health survey respondents had received “supported employment” services and Dartmouth researchers have postulated that perhaps even less than 5% of clients of public mental health systems have access to rigorously defined evidence based supported employment programs (Bond & Drake, 2008).

Despite these limitations and caveats the statistics noted would underline areas for further, more rigorous research. This is a call for more effort to understand if and how system change efforts improve employment outcomes, what influences outcomes, and how administrative data can be used to evaluate progress toward a compelling goal. Such endeavors may assist in demonstrating impact of the various interventions that have been and continue to be made by many advocates to create systems and structures that positively affect employment outcomes for people with serious mental illness beyond the more demonstrable improvements that have occurred at the program level across the country and even overseas. The statistics below have been compiled by the Institute for Community Inclusion (ICI) from data supplied through both the RSA 911 for fiscal year 2007 (ending 10/1/07) and the CMHS URS (NOMS) for fiscal year 2006 (ending 10/1/06- the last year available).

We draw attention to particular states in Tables 1 through 7 in the Appendix either because they have received federal MHTG funds or are part of the Johnson and Johnson – Dartmouth Community Mental Health Program collaboration for system change in Evidence Based Supported Employment or both. As explained earlier, the data is not directly comparable nor can it be used independently for causative calculations or project evaluation. Nonetheless it is worthwhile for researchers to begin to examine whether patterns begin to emerge in the one area of VR outcomes for people with mental illness that can be correlated with broader system change efforts engendered through mental health. These states are either:

1. Recipients of CMHS Mental Health Transformation Grants (CT, HI, MD, MO, NM, OH, OK, TX, WA). HI and MO grants (awarded 10/1/06) started one year after the other seven which were awarded effective 10/1/05. *Caveat:* Not all of these transformation grants emphasize employment specifically under the rubric of Recovery which they all espouse.
2. Recipients of assistance through the J & J – Dartmouth Project, which have been associated for different lengths of time over the last seven years since 2001 (CT, DC, IL, KS, MD, MN, MO, OH, OR, SC, VT). In addition, we have included Delaware in this comparative analysis as they were engaged with this project only for 1 year but they continued its effort essentially on the same path with the assistance of ICI since July 2007. *Caveat:* These states do

not all operate with programs that function at a high level of evidence based fidelity.

While the tables are focused primarily on employment outcomes another aspect of these ongoing quality improvement efforts is often to improve access to VR. The J & J- Dartmouth project has as one clear goal furthering supported employment through collaboration between Mental Health and VR systems. Therefore, we have included tables that reflect the percentage of all closures through the RSA 911 system that are those with mental illness. These are crude but nonetheless important figures to examine in determining whether people with psychiatric disabilities are receiving the full array of employment services for which they should be eligible.

The figures essentially present a mixed picture of outcomes with no consistent pattern. High achievement states in terms of VR successful closures do not necessarily line up in the same order in terms of the SAMHSA NOMs data (Smith & Bhattarai, 2008). States that have long tenures in system change initiatives through the J & J - Dartmouth projects (e.g., OR) do not achieve better outcomes in either the RSA or NOMs data sets than states that have only recently been involved (e.g., MN). States with MHTG grants are neither consistently high nor low performers in these calculations. States that have both also fall within the high and low ends of these numbers. The evidence is incontrovertible that faithful emulation of research based employment principles leads to programs achieving improved supported employment fidelity for people with serious mental illness (Drake, Becker, Goldman, & Martinez, 2006; McGrew & Griss, 2005). Nevertheless, there is as of yet no compelling statistical formulation that buttresses the notion that such program design attention creates systems of employment leading to better outcomes or even greater access to vocational rehabilitation services for people with mental illness at a statewide level.

Some questions that a review of this information presented in Tables 1 through 7 below we would hope inspire further scientific inquiries about include:

1. Does good statewide evidence based program development or emphasis on Recovery have an impact on overall employment outcomes and economic engagement for VR or MH systems of care?
2. Is improving employment services program by program the best way to change systems to produce better employment outcomes for an overall system of care? If not, what strategies might work better?
3. Why have not all these various change efforts, some operating for several years, produced better outcomes in the global employment data sets of the systems they are trying to affect the most – public VR and state/ local mental health authorities?

4. Why is there such disparity in statewide outcomes among states even with technical assistance or added resources related to employment?
5. How can public VR be a good partner with MH systems of care in supporting mutual clients becoming employed while at the same time, expecting the MH system to increase its commitment to employment?
6. If these measures available are admittedly crude what better data elements can systems routinely collect and use that could be used for more sophisticated evaluation and analysis?
7. Administrative data are used for daily policy decisions (big and small) but are known to have significant limitations for research. Should this sort of analysis inform major initiatives that are currently underway to revamp the VR RSA 911 reporting template?
8. The RSA 911 is the universe of closed cases and we believe that the number of people with mental illnesses (and for that matter any diagnoses) is underrepresented in the data. However, most of those that are underrepresented are not people with Axis 1 diagnoses, but anxiety, depression, etc. The underrepresentation is not just about data collection issues but also about orientation. Can we do sub population analysis if we cannot get a handle on the subpopulation so defined? The garbage in/garbage out problem.
9. What are the feasible tools for progress monitoring available that are cost effective, have some legitimacy, and are accurate? Is there a way to use administrative data? If we are looking to improve system outcomes through evidence based practice, then can we use tools already in place or do we need to create some to monitor our system change?

References

- Bond, G. R. & Drake, R. E. (2008). Predictors of Competitive Employment Among Patients with Schizophrenia. *Current Opinion in Psychiatry*. 21(4): 362-369.
- Bond, G. R. (2004). "Supported Employment: Evidence For An Evidence-Based Practice." *Psychiatric Rehabilitation Journal* 27(4): 345- 354.
- Drake, R. E. (1998). "A brief history of the individual placement and support model." *Psychiatric Rehabilitation Journal* 22(1): 3-8.
- Drake, R. E., D. R. Becker, Goldman, H.H., Martinez, R. (2006). "Best Practices: The Johnson & Johnson-Dartmouth Community Mental Health Program: Disseminating Evidence-Based Practice." *Psychiatric Services* 57(3): 302-304.
- Hall, L.L., Graf, A.C., Fitzpatrick, M.J., Lane, T., and Birkel, R.C. (2003). *Shattered Lives: Results of a National Survey of NAMI Members Living with Mental Illnesses and Their Families*. TRIAD Report. Arlington, VA: NAMI.
- Marrone, J. (2007) *Behavioral Healthcare*. Left Out of the Economy. June, 2007
- McGrew, J. H. and M. E. Griss (2005). "Concurrent And Predictive Validity Of Two Scales To Assess The Fidelity Of Implementation Of Supported Employment." *Psychiatric Rehabilitation Journal* 29(1): 41-49.
- Rapp, C., Bond, G., Becker, D., Carpinello, S., Nikkel, R., & Gintoli, G. (2005). The role of state mental health authorities in promoting improved client outcomes through evidence-based practice. *Community Mental Health Journal*, 41, 347-363.
- Salyers, M. P., Becker, D.R., Drake, R.E., Torrey, W.C., & Wyzik, P. (2004). "A Ten-Year Follow-Up of a Supported Employment Program." *Psychiatric Services* 55(3): 302-308.
- Smith, F.A.. and Bhattarai, S. (2008). *Persons Served in Community Mental Health Programs and Employment*. DataNote Series. Boston, MA: ICI. Note XVII. Boston, MA: Institute for Community Inclusion.
- Substance Abuse and Mental Health Services Administration. 2006. National Outcome Measures. Rockville, MD: SAMHSA Available at: www.nationaloutcomemeasures.samhsa.gov/outcome/EmpProfile.asp?Yr=2006&p_state=US&MH_employProfile=age&outcome=6&cType=Bar&OutputType=memory

Comments

Prior to publication, the senior author, Joe Marrone, contacted two colleagues with whom he is in frequent contact for comments on the material. One is a preeminent researcher in the field of evidence-based practice and employment and the other is a senior state mental health system administrator. He felt that their responses merited inclusion as a stimulus to further discussion on this topic, which may lead in the future to more accurate and representative data collection and subsequent program evaluation. While Mr. Marrone had some added thoughts he offered in answer to their critique he did not wish to create a point-counterpoint in this final section and chose to let the brief and their reactions speak for themselves. The remarks below summarize both of their respective thoughts and are edited for brevity and clarity, not content. Both contacts have reviewed these comments prior to publication and feel they are accurate representations of their thoughts upon reading the material.

"The obvious problem in your analysis is that the data displays contain a trivial number of individuals with mental illness. When you compare these numbers to the National Comorbidity Study or other national surveys for the actual number of people with schizophrenia and other psychiatric disorders, then the obvious question becomes, is this the number of people VR is serving? Or, in the last table—is this all who are being served in mental health programs? Or is this all a data reporting problem? Until we are assured that the numbers are valid and all the states are playing by the same rules (in terms of reporting), the Garbage In Garbage Out rule applies. I don't believe this tells us much at all about J&J or Transformation or state differences. Alternatively, if these numbers are accurate, then the real story is not the variation between states, but the low numbers nationally, as compared to those who could benefit."

Most states do "not have the needed resources to actually measure hardly anything with much precision at a state level... actual outcome measurement would be a good thing to spend money on." "... does the whole mess correlate to the economic conditions in the state or local area? ... And if nothing correlates to anything, then all we DO have is the ability to march program by program, person by person, on the long weary path."

Appendix

Date Sources: 2007 Rehabilitation Services Administration (RSA) 911: Tables 1 through 6

2006 Center for Mental Health Services (CMHS) Uniform Reporting System: Table 7

Notes on this appendix:

- To draw attention to states that are recipients of CMHS Mental Health Transformation Grants, participants in the Johnson and Johnson – Dartmouth Community Mental Health Program or both we use symbols next to the state abbreviation. States with a "*" displayed next to it are recipients of CMHS Mental Health Transformation Grants. States with a "+" displayed next to it are participants in the Johnson and Johnson – Dartmouth Community Mental Health Program. Delaware is included in this group. States with a "‡" displayed after it received Mental Health Transformation Grants AND participated in the Johnson and Johnson – Dartmouth Community Mental Health Program study.
- The mental illness category includes anyone who had a primary impairment to employment designation of psychosocial (code 18 in the RSA 911) and a cause of impairment code of either anxiety disorders (code 04), depressive or other mood disorders (code 15), Mental Illness not listed elsewhere (code 24), or Personality Disorders (code 29).
- The schizophrenia category includes anyone who had a primary impairment to employment designation of psychosocial (code 18 in the RSA 911) and a cause of impairment code of schizophrenia (code 33).
- The tables on pages 5 and 6 include all closures from VR regardless of impairment and cause of impairment designation.
- Table 7 displays information for all persons with a known employment status who received community mental health services in 2006.

Table 1. Successful VR Closures with Mental Illness (MI) as a Percentage of All VR Closures with MI

	Number of Successful Closures - Status 26 (A)	Total Number of Closures - All Statuses (B)	Percentage of all Closures who were Successful Closures (A/B)
SC†	1,574	3,019	52.1
AL	413	811	50.9
AS	1	2	50.0
UT	912	1,850	49.3
VT†	354	861	41.1
PR	350	857	40.8
GA	420	1,067	39.4
ID	383	1,082	35.4
WY	122	346	35.3
DE†	124	353	35.1
VA	481	1,378	34.9
DC†	33	96	34.4
NJ	562	1,651	34.0
NH	86	254	33.9
NY	1,615	4,882	33.1
AR	206	628	32.8
RI	158	485	32.6
NE	74	228	32.5
PA	1,401	4,316	32.5
FL	1,758	5,529	31.8
SD	139	439	31.7
CO	254	805	31.6
KY	941	2,994	31.4
IL†	562	1,933	29.1
MN†	480	1,680	28.6
WV	152	536	28.4
AK	42	149	28.2
ND	126	451	27.9
MA	818	2,964	27.6
CA	1,354	5,077	26.7
NM*	123	464	26.5
TX*	1,072	4,049	26.5
OR‡	237	897	26.4
AZ	303	1,167	26.0
MD‡	251	974	25.8
KS†	345	1,376	25.1
NV	55	221	24.9
HI*	139	562	24.7
NC	704	2,928	24.0
IN	436	1,833	23.8
MI	393	1,682	23.4
OK*	228	1,038	22.0
CT‡	117	535	21.9
TN	328	1,496	21.9
LA	179	842	21.3
MT	133	626	21.2
MO‡	536	2,569	20.9
WI	297	1,456	20.4
OH‡	717	3,577	20.0
IA	330	1,823	18.1
ME	88	615	14.3
WA*	237	1,881	12.6
MS	9	78	11.5
GU	0	3	0.0
VI	0	1	0.0
MP	0	0	--
Total	23,152	79,416	29.2

Table 2. Successful VR Closures with Mental Illness (MI) as a Percentage of All VR Closures with MI with an Employment Plan in Place

	Number of Successful Closures - Status 26 (A)	Closures with an Employment Plan in Place - Statuses 26 and 28 (B)	VR Rehabilitation Rate (%) (A/B)
PR	350	479	73.1
UT	912	1,265	72.1
AL	413	644	64.1
KY	941	1,485	63.4
SC†	1,574	2,484	63.4
WY	122	193	63.2
RI	158	252	62.7
MO‡	536	868	61.8
ID	383	621	61.7
GA	420	690	60.9
SD	139	230	60.4
DE†	124	206	60.2
MN†	480	798	60.2
VT†	354	588	60.2
DC†	33	55	60.0
OR‡	237	396	59.8
NE	74	128	57.8
WV	152	263	57.8
CO	254	442	57.5
NH	86	150	57.3
NJ	562	983	57.2
KS†	345	607	56.8
ND	126	223	56.5
TN	328	588	55.8
IL†	562	1,028	54.7
NV	55	101	54.5
MT	133	245	54.3
NY	1,615	2,986	54.1
CA	1,354	2,561	52.9
AR	206	394	52.3
AS	1	2	50.0
FL	1,758	3,515	50.0
NM*	123	246	50.0
WA*	237	478	49.6
VA	481	977	49.2
MA	818	1,666	49.1
TX*	1,072	2,213	48.4
AK	42	89	47.2
PA	1,401	3,008	46.6
IA	330	729	45.3
AZ	303	677	44.8
LA	179	405	44.2
OH‡	717	1,630	44.0
CT‡	117	268	43.7
IN	436	1,019	42.8
ME	88	206	42.7
NC	704	1,780	39.6
MI	393	996	39.5
HI*	139	363	38.3
MD‡	251	659	38.1
WI	297	847	35.1
OK*	228	681	33.5
MS	9	32	28.1
GU	0	0	--
MP	0	0	--
VI	0	0	--
Total	23,152	44,439	52.1

Table 3. Successful VR Closures with Schizophrenia as a Percentage of All VR Closures with Schizophrenia

	Number of Successful Closures - Status 26 (A)	Total Number of Closures - All Statuses (B)	Percentage of all Closures who were Successful Closures (A/B)
VI	1	1	100.0
NH	34	68	50.0
VT†	51	103	49.5
SC†	78	183	42.6
AL	123	321	38.3
ID	91	245	37.1
WY	26	71	36.6
VA	159	442	36.0
NJ	252	735	34.3
SD	40	121	33.1
UT	58	176	33.0
PR	61	186	32.8
NY	550	1,756	31.3
WV	30	98	30.6
IL†	191	639	29.9
MD‡	94	315	29.8
OR‡	36	122	29.5
GA	88	300	29.3
AK	9	31	29.0
CO	41	143	28.7
TN	177	632	28.0
PA	326	1,169	27.9
NM*	25	92	27.2
KY	90	347	25.9
MA	174	678	25.7
ND	18	70	25.7
FL	231	913	25.3
WI	103	410	25.1
MN†	123	493	24.9
IN	118	486	24.3
RI	25	105	23.8
AZ	64	271	23.6
AR	49	214	22.9
CA	330	1,512	21.8
KS†	60	277	21.7
MI	73	340	21.5
DE†	27	126	21.4
NC	205	957	21.4
MT	29	137	21.2
MO‡	229	1,101	20.8
NV	9	44	20.5
ME	43	214	20.1
CT‡	34	173	19.7
OH‡	164	850	19.3
IA	74	392	18.9
DC†	6	32	18.8
TX*	102	566	18.0
HI*	33	198	16.7
OK*	27	179	15.1
LA	23	165	13.9
MS	4	29	13.8
WA*	55	412	13.3
AS	0	1	0.0
GU	0	4	0.0
MP	0	0	--
NE	0	0	--
Total	5,063	19,645	25.8

Table 4. Successful VR Closures with Schizophrenia as a Percentage of All VR Closures with Schizophrenia with an Employment Plan in Place

	Number of Successful Closures - Status 26 (A)	Closures with an Employment Plan in Place - Statuses 26 and 28 (B)	VR Rehabilitation Rate (%) (A/B)
VI	1	1	100.0
VT†	51	74	68.9
NH	34	50	68.0
ND	18	28	64.3
SD	40	63	63.5
MT	29	52	55.8
ID	91	164	55.5
PR	61	110	55.5
NJ	252	467	54.0
SC†	78	145	53.8
OR‡	36	68	52.9
MO‡	229	434	52.8
WY	26	50	52.0
WV	30	58	51.7
TN	177	343	51.6
UT	58	114	50.9
NM*	25	50	50.0
NY	550	1,123	49.0
MN†	123	256	48.0
AL	123	259	47.5
AK	9	19	47.4
IA	74	156	47.4
GA	88	186	47.3
IL†	191	405	47.2
VA	159	342	46.5
KY	90	194	46.4
WA*	55	120	45.8
KS†	60	139	43.2
AR	49	114	43.0
OH‡	164	383	42.8
CA	330	791	41.7
RI	25	61	41.0
DE†	27	66	40.9
CO	41	101	40.6
ME	43	107	40.2
FL	231	584	39.6
IN	118	300	39.3
NV	9	23	39.1
NC	205	527	38.9
PA	326	871	37.4
CT‡	34	92	37.0
MD‡	94	254	37.0
WI	103	280	36.8
MA	174	483	36.0
AZ	64	179	35.8
TX*	102	302	33.8
MI	73	250	29.2
DC†	6	21	28.6
MS	4	14	28.6
LA	23	85	27.1
OK*	27	114	23.7
HI*	33	149	22.1
AS	0	1	0.0
GU	0	0	--
MP	0	0	--
NE	0	0	--
Total	5,063	11,622	43.6

Table 5. Successful VR Closures (All Disability Categories) as a Percentage of All VR Closures

	Number of Successful Closures - Status 26 (A)	Total Number of Closures - All Statuses (B)	Percentage of all Closures who were Successful Closures (A/B)
AL	7,802	13,698	57.0
VI	38	71	53.5
MS	4,544	9,609	47.3
SC†	9,066	19,275	47.0
VT†	1,557	3,393	45.9
NH	1,213	2,651	45.8
AS	32	70	45.7
UT	3,156	7,286	43.3
PA	11,228	27,059	41.5
ID	2,211	5,392	41.0
CT‡	1,446	3,604	40.1
VA	4,474	11,221	39.9
DE†	863	2,242	38.5
WY	696	1,828	38.1
AR	2,656	7,009	37.9
NJ	4,672	12,460	37.5
MI	7,965	21,482	37.1
GA	4,545	12,289	37.0
KY	5,440	14,751	36.9
NE	1,587	4,380	36.2
SD	960	2,699	35.6
FL	12,315	34,677	35.5
WV	1,587	4,509	35.2
PR	2,590	7,382	35.1
NV	1,161	3,329	34.9
AK	529	1,529	34.6
ND	893	2,588	34.5
NY	13,863	40,255	34.4
CO	2,509	7,404	33.9
IN	5,046	14,933	33.8
CA	13,282	39,474	33.6
OH‡	8,988	27,259	33.0
NM*	1,747	5,307	32.9
TX*	12,409	37,872	32.8
OR‡	2,984	9,236	32.3
RI	745	2,304	32.3
IL†	5,603	17,534	32.0
MA	4,062	12,681	32.0
LA	2,375	7,560	31.4
MN†	2,583	8,344	31.0
KS†	1,853	6,249	29.7
GU	21	73	28.8
TN	2,828	9,830	28.8
MD‡	3,097	10,841	28.6
OK*	2,218	8,050	27.6
AZ	2,096	7,660	27.4
NC	6,970	25,514	27.3
MO‡	4,536	16,697	27.2
MT	912	3,369	27.1
IA	2,254	8,421	26.8
DC†	575	2,189	26.3
ME	881	3,571	24.7
HI*	577	2,385	24.2
MP	39	170	22.9
WI	3,165	15,811	20.0
WA*	2,003	12,712	15.8
Total	205,447	600,188	34.2

Table 6. Successful VR Closures (All Disability Categories) as a Percentage of All VR Closures with an Employment Plan in Place

	Number of Successful Closures - Status 26 (A)	Closures with an Employment Plan in Place - Statuses 26 and 28 (B)	VR Rehabilitation Rate (%) (A/B)
VI	38	44	86.4
GU	21	25	84.0
AS	32	40	80.0
PR	2,590	3,310	78.2
UT	3,156	4,349	72.6
MS	4,544	6,393	71.1
AL	7,802	11,286	69.1
NH	1,213	1,775	68.3
MO‡	4,536	6,660	68.1
WY	696	1,027	67.8
KY	5,440	8,047	67.6
ND	893	1,337	66.8
OR‡	2,984	4,549	65.6
ID	2,211	3,378	65.5
VT†	1,557	2,377	65.5
DE†	863	1,323	65.2
NJ	4,672	7,166	65.2
SC†	9,066	13,980	64.8
MP	39	61	63.9
NV	1,161	1,820	63.8
SD	960	1,507	63.7
CO	2,509	3,984	63.0
TN	2,828	4,492	63.0
WV	1,587	2,521	63.0
CT‡	1,446	2,302	62.8
MN†	2,583	4,111	62.8
FL	12,315	19,830	62.1
NE	1,587	2,569	61.8
KS†	1,853	3,038	61.0
OH‡	8,988	14,885	60.4
VA	4,474	7,425	60.3
NM*	1,747	2,901	60.2
AR	2,656	4,428	60.0
IL†	5,603	9,347	59.9
RI	745	1,244	59.9
IA	2,254	3,768	59.8
DC†	575	972	59.2
AK	529	896	59.0
LA	2,375	4,030	58.9
NY	13,863	23,557	58.8
GA	4,545	7,783	58.4
PA	11,228	19,246	58.3
CA	13,282	22,837	58.2
IN	5,046	8,669	58.2
MT	912	1,576	57.9
TX*	12,409	21,515	57.7
ME	881	1,587	55.5
WA*	2,003	3,633	55.1
MI	7,965	14,542	54.8
MA	4,062	7,650	53.1
AZ	2,096	3,977	52.7
MD‡	3,097	6,206	49.9
NC	6,970	14,287	48.8
OK*	2,218	5,066	43.8
WI	3,165	7,533	42.0
HI*	577	1,647	35.0
Total	205,447	344,508	59.6

Table 7: Total number of individuals served in a Community Mental Health Program (CMHP) Individuals in CMHPs who are employed, and the percentage of individuals served who are employed (2006)

	Number of Individuals with a Known Employment Status Served in CMHPs (A)	Individuals Served in CMHPs Who are Employed (B)	Percentage of Individuals Served Who are Employed (B/A)
WY	11,481	5,457	48
AK	1,325	585	44
NH	11,631	4,942	42
AZ	83,759	31,569	38
ND	11,644	4,362	37
KS†	36,399	12,090	33
NE	21,123	6,900	33
VT†	11,194	3,701	33
MN†	42,722	13,592	32
NJ	257,548	82,571	32
CO	39,753	11,925	30
AR	39,666	11,516	29
IA	1,387	401	29
WI	14,069	3,949	28
UT	25,428	6,724	26
NM*	23,235	5,859	25
CT‡	33,617	8,167	24
DE†	3,962	965	24
ID	10,550	2,494	24
HI*	4,937	1,154	23
IL†	117,184	27,240	23
IN	53,493	12,531	23
NC	163,184	37,322	23
NV	14,735	3,432	23
OH‡	94,859	22,227	23
RI	17,071	3,937	23
VA	72,733	17,065	23
NY	345,677	77,116	22
GA	85,681	16,241	19
KY	85,871	16,479	19
MI	124,490	23,054	19
OK*	34,122	6,438	19
TN	7,911	1,518	19
FL	162,206	28,586	18
MS	51,811	9,160	18
WV	34,321	6,222	18
AL	73,341	12,110	17
OR‡	34,556	5,876	17
SC†	52,921	9,119	17
TX*	134,560	22,651	17
DC†	7,436	1,156	16
MA	19,518	2,689	14
MD‡	38,171	5,524	14
ME	12,857	1,624	13
LA	38,029	4,415	12
WA*	65,009	7,028	11
CA	196,058	15,729	8
PA	55,315	4,416	8
MO‡		-- Data Not Available --	
MT		-- Data Not Available --	
SD		-- Data Not Available --	
Total	2,878,550	619,828	22

VRTC

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