Becoming Employed Starts Today (BEST)

Baseline Characteristics and Program Services

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THE BECOMING EMPLOYED STARTS TODAY (BEST) program is a federally funded, five-year pilot program that provides evidence-based supported employment (SE) services to individuals with serious mental illness in two sites. While supported employment services were previously available in Washington State under a 1915(b) mental health waiver, these services were discontinued in 2012 and have since been offered unevenly across the state. The BEST program represents a concerted effort on the part of several state agencies to explore the benefits of integrating SE with broader statewide mental health services. The primary goals of the BEST program include higher employment rates for program participants with severe mental illness and co-occurring substance use disorders, improved participant well-being, and reduced inpatient hospitalization rates, emergency department use, and criminal justice system involvement. The purpose of this report is to provide baseline profiles and initial service information for BEST participants at each site. An outcome evaluation will be conducted at the end of the grant period.

Key Findings

This report describes baseline characteristics, supported employment service receipt, and preliminary outcomes for 102 participants who began participating in the BEST program between March 2015 and March 2016.

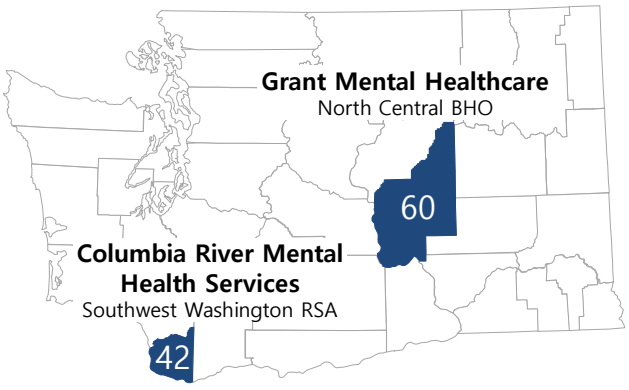
In the 12 months prior to enrollment:

- Nearly all BEST participants had documented medical coverage and mental health treatment needs,
- Two-thirds had been prescribed psychotropic medications,
- One-third had co-occurring substance use disorder treatment needs or chronic illness, and
- Nearly half visited an emergency department,
- Most (86 percent) received Basic Food benefits.

During and following enrollment in BEST:

- More than half (53 percent) of participants were employed.

FIGURE 1.
BEST Sites
Total Participants = 102



Program Description

The Washington State Division of Behavioral Health and Recovery (DBHR) received a Substance Abuse and Mental Health Services Administration (SAMSHA) grant in 2015 to deliver supported employment services to individuals with serious mental illness. The resulting five-year intervention, known as the Becoming Employed Starts Today (BEST) program, is a partnership between DBHR, other state agencies and programs, and two community-based mental health services providers: Grant Mental Healthcare (GMH), located in a rural area of central Washington, and Columbia River Mental Health Services (CRMHS), located in urban Vancouver, Washington.

Each site utilizes an evidence-based SE model known as Individual Placement and Support (IPS) designed to help participants achieve competitive employment (Bond et al., 2011).[1] At the onset of the project, each site hired three employment specialists to provide IPS services to participants referred to the BEST program. Employment specialists help participants identify employment opportunities that minimize future potential problems for the participant, are in topic areas that the participant finds interesting, and are aligned with participant work preferences concerning work schedule, location, and work environment. Employment specialists also contact employers on participants' behalf and help participants with résumés and job applications.

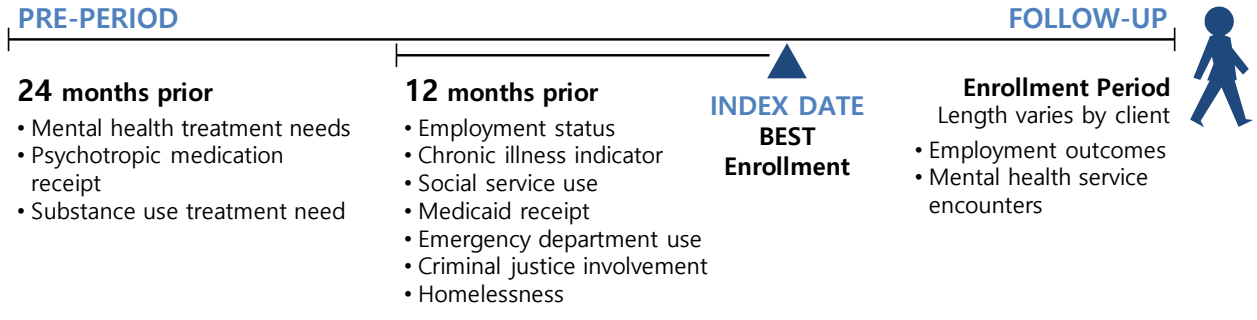
In accordance with a key practical principle of the IPS model, employment specialists act as members of larger multidisciplinary teams to integrate SE services with a participant's broader mental health treatment plan. This allows mental health care providers familiar with a participant's needs to provide consultation on an employment plan, better tailor treatment services to a participant's employment situation, and maximize a participant's ability to remain employed in that position.

Study Methods

Identifying baseline participant characteristics and services up to 12 months

The BEST program began serving public mental health participants in March 2015. Between March 2015 and March 2016 BEST employment specialists provided supported employment services to 102 participants at the two partner sites (60 in GMH and 42 in CRMHS). In this report, we examine their mental health treatment needs, psychotropic medication receipt, and substance use treatment need for the two years prior to enrollment. We also look at employment status, chronic illness indicator, social service use, Medicaid receipt, emergency department use, criminal justice involvement, and homelessness in the 12 months prior to entering the program. Employment outcomes and mental health service encounters were also examined for these 102 participants during their enrollment in the program.

FIGURE 2.
Study Timeline



[1] Competitive employment is defined as a job that pays at least minimum wage and is not specifically set aside for people with disabilities.

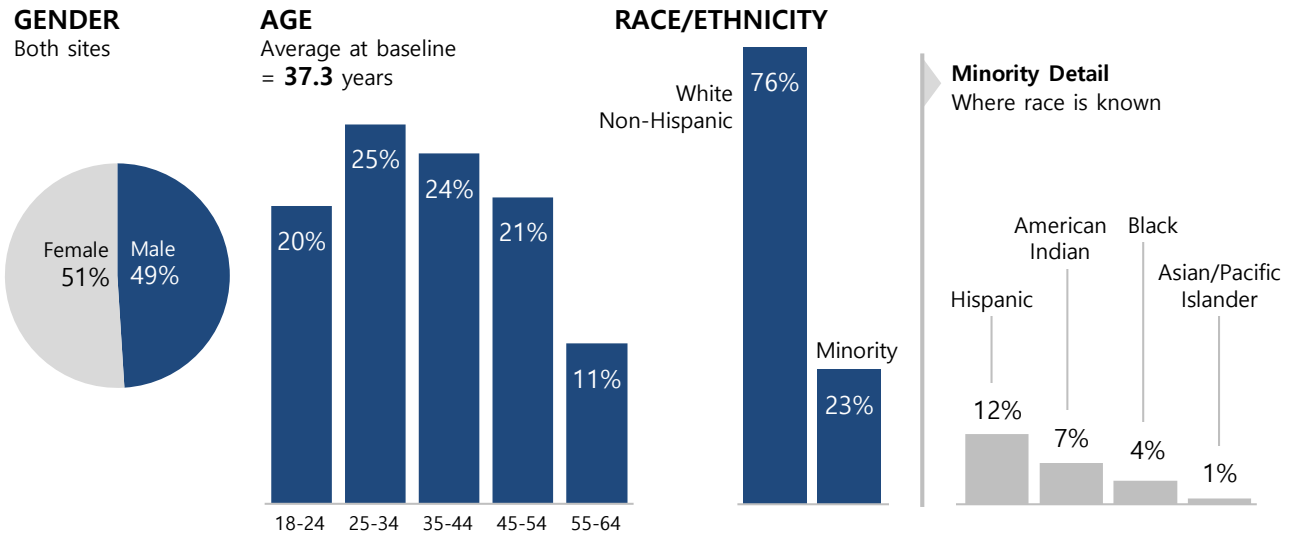
Demographics

Demographics were similar across the two BEST sites

The demographic characteristics of BEST participants were similar between the two sites in terms of age, gender, and race/ethnicity. The 102 participants were between 18 and 63 years of age, with an average age of 37. GMH participants were, on average, four years younger than CRMHS participants, and more GMH participants were under 45 years-old (77 percent) relative to CRMHS participants (58 percent). Most participants were non-Hispanic white (76 percent) and approximately half were female (51 percent).

FIGURE 3.

Demographics at Baseline



	Female	18-24	25-34	35-44	45-54	55-64	White	Minority	Hispanic	American Indian	Black	Asian/ PI
GMH	53%	22%	27%	28%	17%	7%	75%	25%	13%	8%	3%	0%
CRMHS	48%	17%	24%	17%	26%	17%	81%	19%	10%	5%	5%	2%

Behavioral Health Indicators

High prevalence of mental health and substance use disorder treatment needs

As expected given the BEST program's target population, nearly all participants had some indication of mental health treatment need (98 percent) in the administrative data records during the 24-months prior to enrollment. Eighty-nine percent of participants had a mental illness diagnosis, while 66 percent were receiving publicly funded mental health treatment.

The most prevalent diagnosis was a depressive disorder, followed by anxiety and bipolar disorders. There were proportionally more participants with depressive disorders at GMH (77 percent vs. 67 percent) and more with psychotic disorders at CRMHS (26 percent vs 10 percent).

One third of the BEST participants in both sites had co-occurring substance use disorder (SUD) treatment needs as indicated by diagnoses, SUD services, or drug and alcohol-related arrests during the 24 months prior to enrollment.

FIGURE 4.

Mental Health and Substance Use Disorder Treatment Need

TOTAL Both Sites = 102 (Grant = 60, Columbia = 42), 24 Months Prior to BEST Enrollment

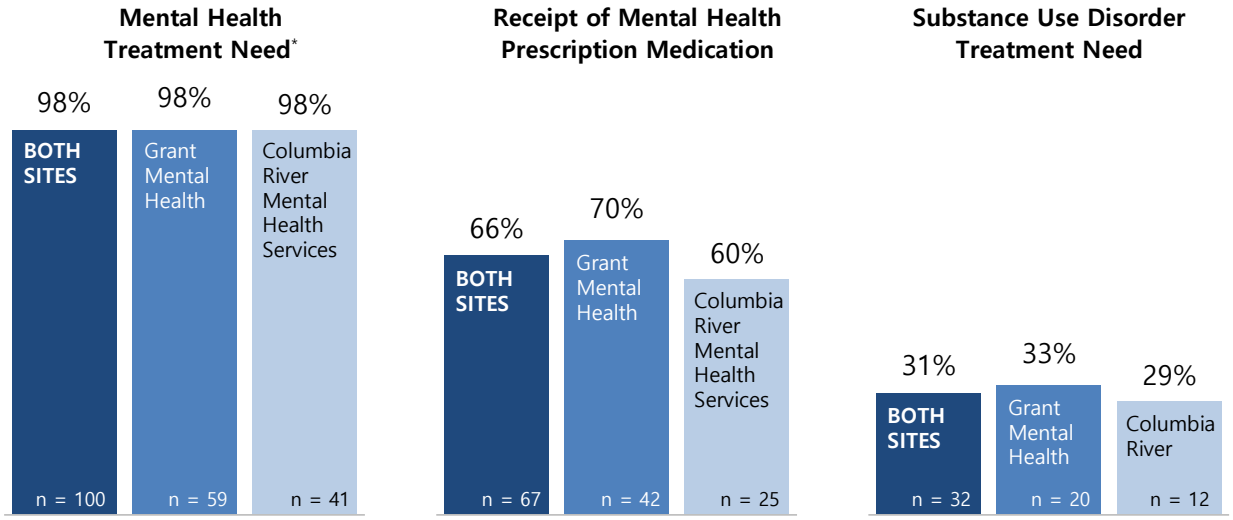


TABLE 1.

Mental Health and Substance Use Disorder Treatment Need

	BOTH SITES TOTAL = 102		**Grant Mental Health** n = 60		**Columbia River Mental Health Services** n = 42	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
Mental Health Treatment Need*	**100**	**98%**	**59**	**98%**	**41**	**98%**
Mental Health Diagnosis	91	89%	53	88%	38	90%
Psychotic Disorder	17	17%	6	10%	11	26%
Bipolar Disorder	30	29%	17	28%	13	31%
Depressive Disorder	74	73%	46	77%	28	67%
Anxiety Disorder	51	50%	29	48%	22	52%
ADHD	10	10%	7	12%	3	7%
Adjustment Disorder	3	3%	1	2%	2	5%
Prescription Medication	67	66%	42	70%	25	60%
Antipsychotic	30	29%	19	32%	11	26%
Anti-mania	1	1%	0	0%	1	2%
Antidepressant	59	58%	36	60%	23	55%
Antianxiety	35	34%	21	35%	14	33%
ADHD	7	7%	4	7%	3	7%
SUD Treatment Need	**32**	**31%**	**20**	**33%**	**12**	**29%**
Receipt of SUD Treatment	12	12%	7	12%	5	12%
Co-Occurring MH + SUD Disorders	**32**	**31%**	**20**	**33%**	**12**	**29%**

*See technical notes for definition.

Medical Coverage, Risk Indicators and Utilization

About half visited the emergency department and one third had chronic disease risk

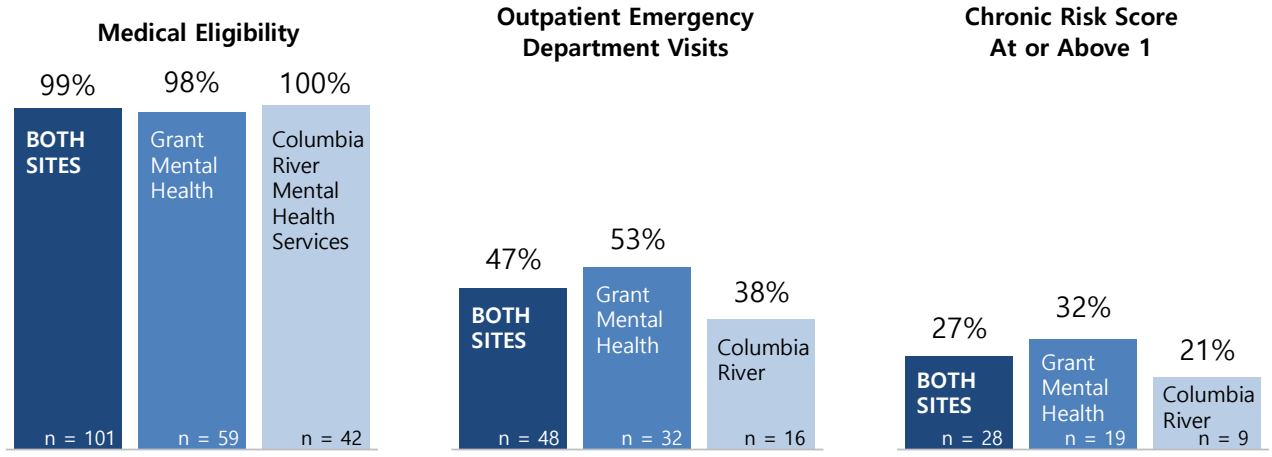
Nearly all enrolled BEST participants (99 percent) had Medicaid or other medical coverage through the Washington State Health Care Authority (HCA) during the 12 months prior to enrollment. More than half (53 percent) of GMH participants and over one-third (38 percent) of CRMHS participants with at least one month of Medicaid eligibility in the 12-month period prior to enrollment used emergency department services.

We used a chronic illness risk score based on health service diagnoses and pharmacy claim information (Gilmer et al. 2001, Kronick et al. 2000) to assess the health conditions of participants. The score was calibrated to equal one for the average Medicaid recipient in Washington State enrolled in the Social Security Insurance (SSI) disability program. About one-fourth (27 percent) of participants had medical risk scores ≥1, indicating that they had health service diagnoses and predicted costs similar to or greater than those enrolled in SSI disability. Thirty-two percent of GMH participants had a chronic illness score ≥1compared to 21 percent of CRMHS participants.

FIGURE 5.

Physical Health Indicators

TOTAL Both Sites = 102 (Grant =60, Columbia = 42), 12 Months Prior to BEST Enrollment



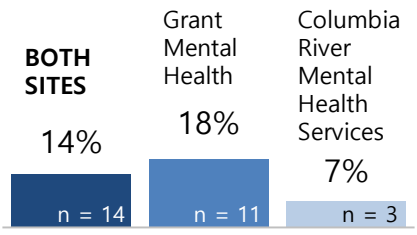
Criminal Justice Involvement

Relatively low proportion of participants had arrest records

FIGURE 6.

Arrests

TOTAL Both Sites = 102 (Grant =60, Columbia = 42), 12 Months Prior to BEST Enrollment



Fourteen percent of all BEST participants were arrested at some point during the 12-months prior to enrollment; this percentage was higher for GMH (18 percent) than CRMHS (7 percent) participants.

In both sites, misdemeanor arrests were more common than felonies—across both sites only two of the arrests were for felony charges, while 12 were for misdemeanors (data not shown).

Employment History

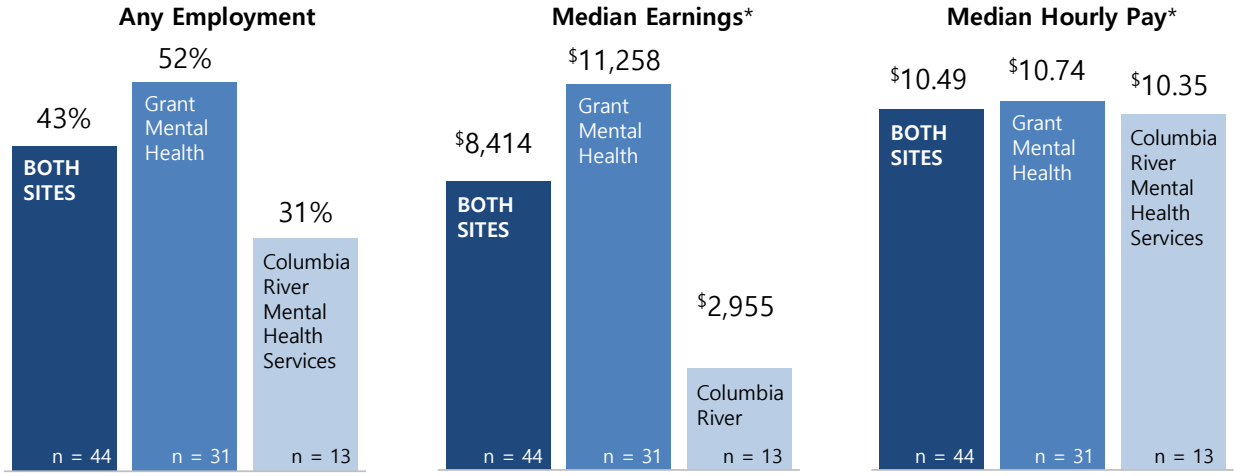
BEST participants have limited employment history

Participants were considered employed if they had any earnings reported in the Employment Security Department (ESD) unemployment insurance wage data during the measurement period.[2] Annual employment rates were based on having earnings in any quarter in the 12-month period before enrolling into the BEST program. Just over 40 percent of BEST participants reported any earnings, and this percentage was higher for GMH (52 percent) relative to CRMHS (31 percent). The median hourly earnings among the employed were $10.74 and $10.35 for GMH and CRMHS, respectively.

FIGURE 7.

Employment and Earnings

TOTAL Both Sites = 102 (Grant =60, Columbia = 42), 12 Months Prior to BEST Enrollment



*Of those with employment.

Measures of Self Sufficiency

Basic Food, TANF, and Homelessness

Prior social services received include receipt of Basic Food and Temporary Assistance for Needy Families (TANF) services through DSHS. These programs are federally funded and target low-income individuals and/or families who meet the necessary eligibility requirements to receive services. Households in Washington State qualify for Basic Food if they have an income at or below 200 percent of the Federal Poverty Level. TANF provides temporary cash assistance to very low-income families who have not exceeded 60 months of program usage over the course of their lifetime.

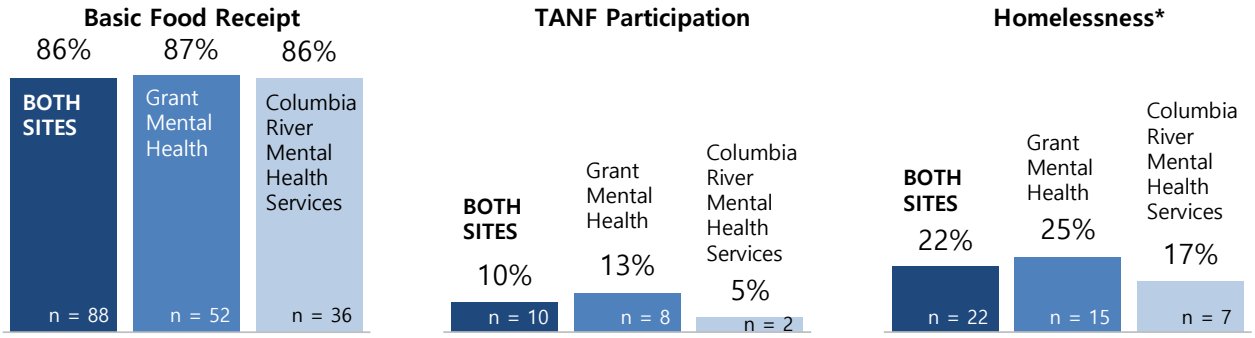
The majority of BEST participants (86 percent) received Basic Food, while a smaller proportion (10 percent) received TANF benefits at some point during the 12 months prior to enrollment. Although the proportion of participants receiving Basic Food were similar across the two sites, the proportion of TANF recipients among GMH participants (13 percent) was more than twice that of CRMHS (5 percent). One in five participants was homeless during the 12-months prior to BEST enrollment, with the rate slightly higher for GMH participants.

[2] ESD earnings data do not include self-employment, federal government employment, or unreported earnings.

FIGURE 8.

Basic Food, TANF, Homelessness

TOTAL Both Sites = 102 (Grant =60, Columbia = 42), 12 Months Prior to BEST Enrollment



*See technical notes for homelessness definition.

Implementing Individual Placement and Support Services

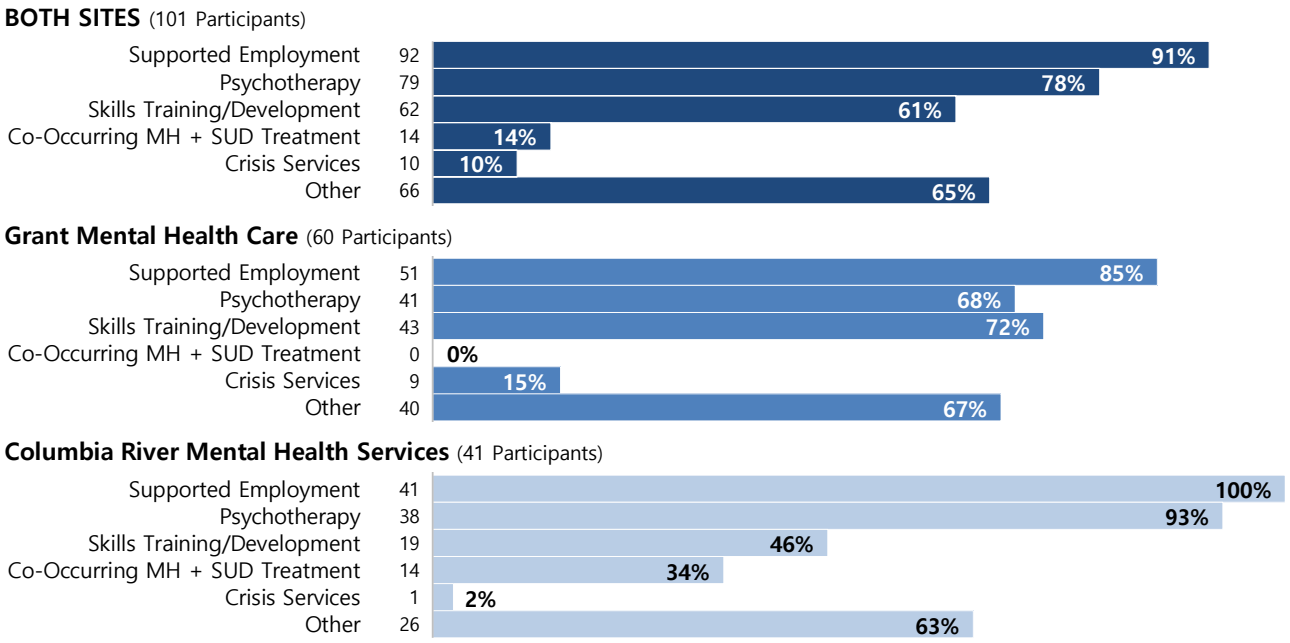
Integrated IPS service encounters

Participants were enrolled in BEST supported employment services for approximately 5 months on average, with participants enrolled for an average of about 6 months at CRMHS and 4 months at GMH. Supported employment and outpatient mental health service encounters were reported for 92 of the 101 participants who had service encounter information in the administrative data (41 participants from CRMHS and 51 from GMH). In line with the IPS model's integrated approach to supported employment and mental healthcare, 78 percent of all participants had at least one psychotherapy service encounter (93 percent at CRMHS and 68 percent at GMH). Almost two-thirds of all participants (68 percent at GMH and 46 percent at CRMHS) also received at least one skills training and development service encounter during their enrollment in the program.

FIGURE 9.

Percentage of Participants Receiving at Least One Service Encounter by Service Modality

TOTAL Both Sites = 102 (Grant =60, Columbia = 42), 12 Months After BEST Enrollment



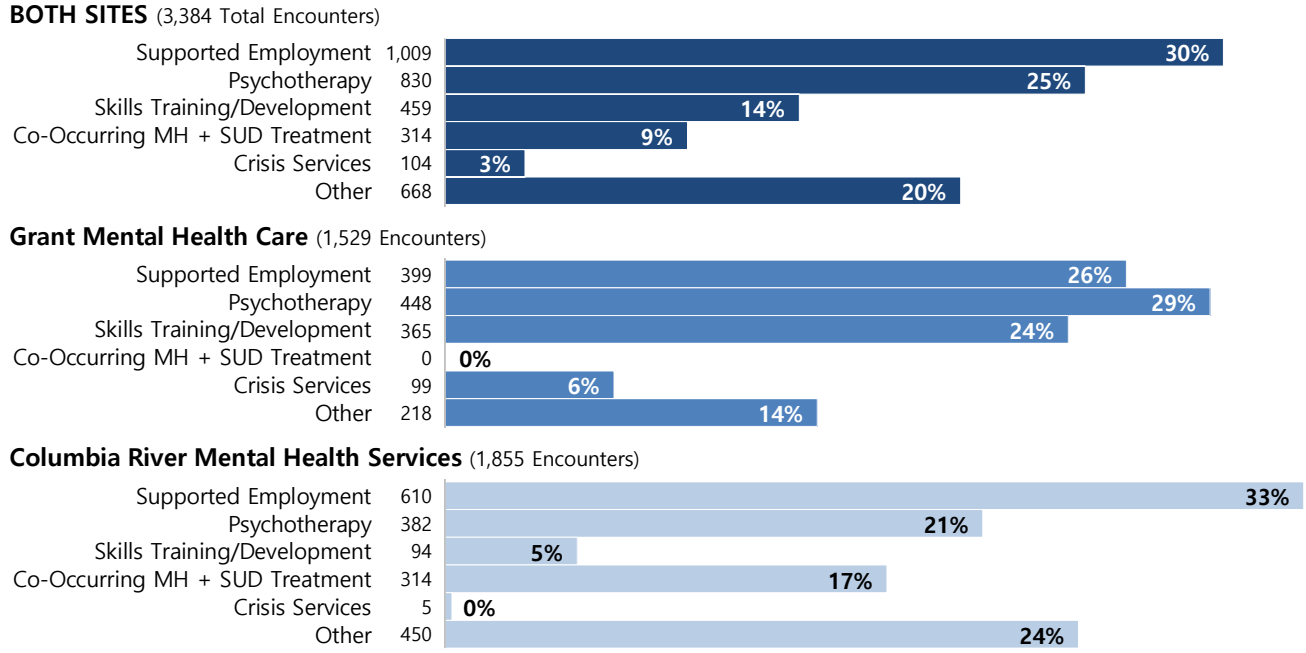
Other includes Intake, Medication Management, Peer Support, and Family Treatment.

BEST participants received 3,384 reportable service encounters during their participation in the program. Close to one-third of the reportable service encounters were for supported employment services. Psychotherapy and skills training/development and comprehensive community support services accounted for another third of outpatient mental health service encounters. While the two sites were similar in terms of the proportions of reported service encounters associated with supported employment services, other service modalities differed by sites. Notably, psychotherapy, skills and crisis service utilization was higher at GMH, whereas co-occurring mental health and substance use disorder treatment and "Other" service utilization was higher at CRMHS.

FIGURE 10.

Service Encounters by Service Modality

12-month follow-up period



Other includes Intake, Medication Management, Peer Support, and Family Treatment.

Preliminary outcomes: Job development, placement and earnings

Employment specialists at both sites provided supported employment services for the 102 participants enrolled between March 2015 and March 2016. On average, it took 17 days from initial contact with a participant to develop a job plan based on the participant's preferences, abilities, and strengths. It took another two months (61 days) on average to place participants in a job after developing a job development plan.

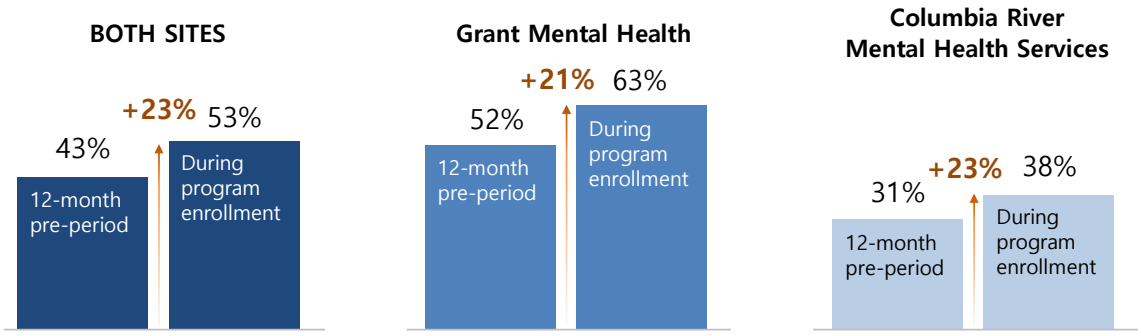
The overall employment rate for program participants was 53 percent for the two sites (10 percentage points higher than pre-enrollment employment rates) and was higher for GMH (63 percent) compared to CRMHS (38 percent). Among the 54 employed, nine participants got second job placements and one participant got a third job placement while enrolled in the program.

The hourly wages received by BEST participants ranged from $9.47 to $24.00, with an average wage of $11.28 per hour for all job placements. Half of the employed participants earned $10.00 per hour, higher than the minimum wage of $9.47 for Washington State in 2016.

FIGURE 11.

Employment Rates Before and During BEST Participation

TOTAL Both Sites = 102 (Grant =60, Columbia = 42)



Although we observed higher rates of employment and higher average hourly wages during program enrollment, these findings should be interpreted with caution. Without comparing BEST participants to participants with similar mental and behavioral need profiles not enrolled in this program, we cannot conclude that these increases in employment rates are attributable to participation in the BEST program. It is possible that these increases in employment reflect improvements in the overall health of the economy, declining unemployment rates, and growth in the overall number of employment opportunities available to BEST participants. Future versions of this report will account for these larger environmental changes using a matched comparison design.

Discussion

This is the first of several reports that will monitor BEST program participants over the five-year period of the program. This report describes detailed baseline and pre-program characteristics and integrated IPS services provided in the first year of service (March 2015 to March 2016). As expected given the program's target population, BEST participants had a high prevalence of mental health and substance use disorder treatment needs, high unemployment rates, and low median earnings prior to their enrollment in the program.

Following the enrollment of these individuals in the BEST program, 30 percent of all reported service encounters and 40 percent of reportable service hours were dedicated to supported employment services. Preliminary employment data indicate that BEST participant employment rates rose on average by 10 percentage points following their enrollment in the program. However, it is unclear at this time if this is an indication of program effectiveness.

It is important to note that the supported employment and mental health treatment service data reported here were based on reportable service encounter data. Because of rolling program enrollment and lags in the processing of service encounter records, the timing of follow-ups and service provision varies for each participant reported in these data.

Future reports will also include analyses of the Transformation Accountability Participant-Level National Outcome Measures (or NOMS) data collected for BEST participants at enrollment, 6-month follow-up, and discharge. This federally mandated reporting protocol collects information on participant demographics, functioning, experience of violence and trauma, stability in housing, education and employment status, perception of care, and social connectedness and will be used for program performance measurement by the SAMHSA Center for Mental Health Services.

At the end of the grant period, we will evaluate the impact of BEST on employment, mental health treatments, the use of social and health services, and other related outcomes by comparing BEST participants to a statistically matched comparison group. This will allow us to make definitive impact statements.

TECHNICAL NOTES

OVERVIEW AND STUDY POPULATION

During the time period between March 2015 and March 2016, 111 working-age adults (18 to 63 years old) enrolled in the BEST program (66 in GMH and 45 in CRMHS). Nine participants were excluded from the current analyses because they had no prior DSHS service history. This study describes BEST program service use including job development and placement for the remaining 102 (92 percent enrolled) participants (60 in GMH and 42 in CRMHS). Measures reported here were compiled using information collected by sites and data from the DSHS Integrated Client Databases (ICDB, Mancuso 2014).

BEST program enrollment is a rolling process that started in March 2015. As of March 31, 2016, the time since enrollment for the 102 participants ranged from 0.4 to 11.6 months, with an average of 4.9 person months and a total of 503 person months for the two sites combined. Due to data lags, supported employment and outpatient mental health service encounters were available for 92 participants the 12 months post-enrollment period.

DATA SOURCES AND MEASURES

Participant Log

- Employment specialists documented information on BEST enrollment, job development, job placement, and participant earnings in a participant log. In addition to contributing to site-specific quality assurance efforts, the monthly data were used for tracking program participation, services, and preliminary outcomes such as job placement.

Demographics

- Demographics such as age, race/ ethnicity, and gender were drawn from the ICDB using information from all DSHS and health service systems.

Outpatient Mental Health Service Encounters

- Service encounter records in ProviderOne and the Mental Health Consumer Information System were used to track outpatient mental health services. Specific service modalities were identified using Healthcare Common Procedure Coding Systems (HCPCS) codes and/or Current Procedure Terminology (CPT) codes. Two HCPCS codes, H2023 and H2025, denote initial and ongoing supported employment services. HCPCS codes H0030 and H2011 denote crisis hotline or intervention, H0004 and S9446 denote co-occurring treatment services, and H2014 and H2015 denote skills training and development, and comprehensive community support services. In addition, the CPT codes 90832, 90834, 90837 and 90853 denote psychotherapy.

Medical Coverage

- Medicaid and other medical coverage was obtained from eligibility codes recorded in ProviderOne.

Behavioral Health and an Indicator of Chronic Illness

- Mental illness, alcohol/drug treatment need, and chronic illness indicators come from administrative data in ProviderOne. These measures were calculated over a 12- or 24-month period prior to enrollment and were restricted to those participants with at least one month of medical eligibility during that period.
- Data from three information systems—ProviderOne (medical), the Consumer Information System (mental health), and the Treatment and Assessment Report Generation Tool (substance use disorders)—were used to identify the presence of substance use disorders and/or mental illness over a 24-month window prior to enrollment based on health and behavioral health diagnoses, prescriptions, and treatment records.
- Drug and alcohol-related arrest data maintained by the Washington State Patrol were also used to identify probable substance use issues and were included in the definition of treatment need for substance use disorders.
- An indicator of chronic illness was developed to identify individuals with chronic illness risk scores greater than or equal to 1, which is the score for the average Medicaid participant in Washington State meeting Supplemental Security Income disability criteria. Chronic illness risk scores were calculated from health service diagnoses and pharmacy claim information, with scoring weights based on a predictive model associating health conditions with future medical costs (Gilmer et al. 2001, Kronick et al. 2000).

Emergency Department Use

- Emergency department use was identified from ProviderOne medical claims and encounters for Medicaid participants.

Public Assistance

- Basic Food and TANF receipt were identified using data from the DSHS Automated Participant Eligibility System (ACES) summarized in the ICDB.

Homelessness

- Homelessness was identified through living arrangement status reported to DSHS caseworkers and recorded in ACES. Participants were identified as homeless with housing (HH), homeless without housing (HO), in an emergency shelter (EH), or in a domestic violence shelter (BT) in ACES.

Employment

- Employer-reported data on quarterly employment status, earnings, and hours worked came from the Washington State Employment Security Department (ESD) Unemployment Insurance wage file. Individuals were flagged as employed if they had at least one quarter of non-zero earnings during the calendar year prior to enrollment. Yearly earnings were calculated by summing quarterly earnings within each calendar year.

Criminal Justice Involvement

- Arrest rates were based on offenses reported to the Washington State Patrol (WSP), which include arrests for felonies, gross misdemeanors, and other offenses. WSP records arrests regardless of whether they led to a conviction. Some less serious misdemeanor offenses or non-criminal infractions handled by local law enforcement agencies were not required to be reported in the WSP database and so could not be included in the analyses.

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