Summary of Findings from the Mental Health Block Grant (MHBG) 10% Set Aside Study

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SAMHSA

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The MHBG 10% Evaluation is a collaboration among three federal agencies.
The MHBG Evaluation Team is also a collaborative effort
The MHBG Evaluation Team

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Objectives of the MHBG 10% Evaluation

- Identify and describe Coordinated Specialty Care (CSC) program services being offered nationally.
- Assess program fidelity to the NIMH-CSC model.
- Explore local environmental and contextual factors related to how CSC programs are implemented.
- Explore how CSC programs increase access to essential services and improve client outcomes such as symptom severity, employment, education, and quality of life.
Study Design

- **Hypothesis**: Sites with higher fidelity to the CSC model will have better participant outcomes than sites with low fidelity to the CSC model.

- **Mixed-methods design**: qualitative & quantitative data

- **Site Survey**: provides an overview of CSC programs nationally

- **Outcomes analysis**: to examine the client level outcomes on symptoms, functioning and quality of life.

- **Fidelity assessment**: to document each site’s fidelity to the coordinated specialty care (CSC) model

- **Process assessment**: to document the environmental context in which CSC is implemented
Site Survey

- N=209 programs (88% response rate)
- One time point

Outcomes

- 36 study sites
- Data collected every 6 mos.
- Measuring symptoms, QOL & functioning

Fidelity Assessment

- 36 study sites
- Two time points
- Telefidelity measures

Process Assessment

- 36 study sites
- Two site visits
- Interviews
- Agency tour
Site Survey

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Site Survey: Locations of Responding Programs
Site Survey: When programs began serving people with mental illness and people with FEP

Significant Dates and Milestones
- April, 2014 - NIMH/SAMHSA provide guidance to states
- October, 2015 - CMS coverage of FEP intervention services
- December, 2015 - H.R. 2029 ($50M set-aside for FEP)
Site Survey: Caseload and Funding Sources

66% of sites were first funded using MHBG funds

37% of sites currently receive support from non-MHBG sources, e.g., insurance, Medicaid, and fee-for-service

48% of reporting CSCs had 20 or fewer active clients in their FEP programs

19% of reporting sites had 41 or more clients
Most programs reportedly received TA/training from one or more of the models, most commonly:
- OnTrack
- NAVIGATE
- EASA
Site Survey: Average Duration of Care

- 3% less than 1 year
- 52% 1-2 years
- 39% 2-3 years
- 5% More than 3 years
## Site Survey: Referral Sources

<table>
<thead>
<tr>
<th>Referral Source</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychiatric inpatient facilities</td>
<td>95%</td>
</tr>
<tr>
<td>Outpatient mental health clinics</td>
<td>94%</td>
</tr>
<tr>
<td>Family referral</td>
<td>84%</td>
</tr>
<tr>
<td>Self-referrals</td>
<td>80%</td>
</tr>
<tr>
<td>Consumer, professional, or other</td>
<td>73%</td>
</tr>
<tr>
<td>Colleges, schools, or other</td>
<td>72%</td>
</tr>
<tr>
<td>Emergency departments</td>
<td>70%</td>
</tr>
<tr>
<td>Private practice psychiatrists, ...</td>
<td>70%</td>
</tr>
<tr>
<td>Courts/correctional facilities</td>
<td>58%</td>
</tr>
<tr>
<td>Primary care</td>
<td>61%</td>
</tr>
<tr>
<td>Centralized phone lines for referrals</td>
<td>49%</td>
</tr>
<tr>
<td>Other</td>
<td>10%</td>
</tr>
</tbody>
</table>
MHBG Study Sites
Identify Sites Using 10% Set Aside funds for CSC

Sites that have begun to use funds to support CSC services

Create a short list of possible study sites based on specified criteria to ensure diversity

List of Possible Study Sites

Discussions to determine study inclusion criteria

1. Geographic region
2. Urban/Rural
3. Program Model/Type
4. Implementation Status
5. Receipt of TA
MHBG 10% study sites are located in 21 states and Puerto Rico
Approximately half the study sites serve a population size of at least 500,000.

- **Less than 175,000**: 5 sites
- **176,000-299,000**: 6 sites
- **300,000-499,000**: 4 sites
- **500,000-1 million**: 9 sites
- **Over 1 million**: 12 sites
Nearly half the study sites serve a single county.
Programs range in size from 5 to 93 participants enrolled

Number of Participants Enrolled

<table>
<thead>
<tr>
<th>Number of Participants Enrolled</th>
<th>Time 1</th>
<th>Time 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 or fewer</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>11 to 25</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>26 to 40</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>41 to 55</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>56 or more</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Number of sites
Site Survey
N=209 programs
(88% response rate)
One time point

Fidelity Assessment
Two time points
Telefidelity measures

Outcomes
Collected every 6 mos.
Measuring symptoms,
QOL & functioning

Process Assessment
Two site visits
Interviews
Agency tour

N=780 Baseline Assessments
Number of client interviews and percent of total enrolled at each assessment point

<table>
<thead>
<tr>
<th>Count (percent)</th>
<th>Baseline</th>
<th>6 Months</th>
<th>12 Months</th>
<th>18 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>780 (100%)</td>
<td>486 (62.3%)</td>
<td>325 (41.7%)</td>
<td>173 (22.2%)</td>
</tr>
</tbody>
</table>
Select Participant Characteristics

75% of clients between 18-27 years old

68% Male
30% Female
2% Transgender/other

- 14 and under: 4%
- 15-17 years: 17%
- 18-21 years: 40%
- 22-27 years: 34%
- 28 and above: 5%

M = 20.6

Sample size varies by outcome area

*Sample size varies by outcome area
## Select Participant Characteristics

### Primary Diagnosis

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>30%</td>
<td>Schizophrenia</td>
</tr>
<tr>
<td>14%</td>
<td>Schizoaffective disorder</td>
</tr>
<tr>
<td>9%</td>
<td>Affective disorder with psychotic features</td>
</tr>
<tr>
<td>6%</td>
<td>Schizophreniform disorder</td>
</tr>
<tr>
<td>5%</td>
<td>Affective disorder w/o psychotic features</td>
</tr>
<tr>
<td>0.3%</td>
<td>Delusional disorder</td>
</tr>
<tr>
<td>34.7%</td>
<td>Other psychotic disorders</td>
</tr>
<tr>
<td>0.3%</td>
<td>Post traumatic stress disorder</td>
</tr>
<tr>
<td>0.1%</td>
<td>Substance use disorder</td>
</tr>
<tr>
<td>0.8%</td>
<td>Other disorders</td>
</tr>
</tbody>
</table>

### Insurance

- 48% Medicaid
- 32% Private insurance
- 4% Medicare and/or other type
- 19% uninsured

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Image: [Image 516x41 to 693x218]
Changes over Time: School and Work

At Baseline
42% of clients were employed or in school

At Most Recent Interview
65% of clients were employed or in school
Changes over Time: Substance Use

- There was a statistically significant decrease in marijuana use between baseline and most recent interview (35% at baseline and 27% at most recent interview).

- Changes in use of other substances were not statistically significant.
### Changes over Time: Symptoms, Quality of Life, and Social Functioning

<table>
<thead>
<tr>
<th>Measure</th>
<th>Baseline (Mean, Std. dev.)</th>
<th>Most recent interview (Mean, Std. dev.)</th>
<th>Pr &gt; t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado Symptom Index</td>
<td>22.5 (13.1)</td>
<td>14.0 (11.6)</td>
<td>&lt;.0001***</td>
</tr>
<tr>
<td>Lehman’s QOL Score</td>
<td>4.1 (1.5)</td>
<td>5.0 (1.3)</td>
<td>&lt;.0001***</td>
</tr>
<tr>
<td>Social Scale</td>
<td>5.0 (1.8)</td>
<td>6.1 (1.7)</td>
<td>&lt;.0001***</td>
</tr>
<tr>
<td>Role Scale</td>
<td>4.5 (2.3)</td>
<td>6.0 (2.2)</td>
<td>&lt;.0001***</td>
</tr>
</tbody>
</table>

Sample sizes range from 385 to 467.

- **Clients showed significant improvements in severity of symptoms and had more positive feelings about their life.**
- **Clients were also functioning at a higher level socially and in occupational/educational roles**
Changes over Time: Adverse Life Events

Significant reductions were demonstrated for all adverse life events except homelessness.
Site Survey

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One time point

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Fidelity Overview

- The fidelity assessment for the MHBG 10% Study was developed as an adaptation of the First Episode of Psychosis Services Fidelity Scale (FEPS-FS)

- Data sources for the fidelity assessment included
  - Telephone assessments with CSC staff members
  - Ten randomly selected medical records
  - Review of program information such as staffing and eligibility criteria
Fidelity

- Overall fidelity scores ranged from 119 to 150

<table>
<thead>
<tr>
<th>Fidelity Rating</th>
<th>N (%) of sites</th>
<th>Mean item rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent (149 or above)</td>
<td>2 (6%)</td>
<td>&gt;4.5</td>
</tr>
<tr>
<td>Good (132-148)</td>
<td>25 (69%)</td>
<td>≥4.0</td>
</tr>
<tr>
<td>Fair (116-131)</td>
<td>9 (25%)</td>
<td>&gt;3.5</td>
</tr>
<tr>
<td>Poor (Below 116)</td>
<td>0 (0%)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

- 77% of the sites attained good to excellent fidelity
- 23% were rated in the fair range
- Most sites achieved excellent fidelity on most fidelity items
Fidelity

Five items were rated at low fidelity in the majority of sites:

- Family Education and Support
- Supported Employment
- Early Intervention
- Duration of FEP Program
- Population Served
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Fidelity and Outcomes

There was a statistically significant relationship (with alpha set at .10) between the site fidelity score and the change in the Colorado Symptom Index severity score - indicating that higher total fidelity scores are associated with greater reductions in CSI scores.

<table>
<thead>
<tr>
<th>Primary Outcome Measure</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado Symptom Index</td>
<td>-0.29</td>
<td>0.0860</td>
</tr>
<tr>
<td>Lehman’s Quality of Life Scale</td>
<td>0.13</td>
<td>0.4742</td>
</tr>
<tr>
<td>The Global Functioning Social Scale</td>
<td>0.26</td>
<td>0.1360</td>
</tr>
<tr>
<td>The Global Functioning Role Scale</td>
<td>0.04</td>
<td>0.7516</td>
</tr>
</tbody>
</table>
Fidelity and Outcomes

- The results reveal strong correlation between the site’s total fidelity score and reductions in alcohol use (-0.53).

- Moderate correlations between total fidelity score and reductions in marijuana use (-0.27), and reductions in the incidence of homelessness in the prior 6 months (-0.24) were also observed, but these were not statistically significant.

<table>
<thead>
<tr>
<th>Secondary Outcome Measure</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol use</td>
<td>-0.53</td>
<td>0.0010</td>
</tr>
<tr>
<td>Tobacco use</td>
<td>0.16</td>
<td>0.3527</td>
</tr>
<tr>
<td>Marijuana use</td>
<td>-0.27</td>
<td>0.1266</td>
</tr>
<tr>
<td>Other drug use</td>
<td>0.13</td>
<td>0.4780</td>
</tr>
<tr>
<td>Homeless past 6 months</td>
<td>-0.24</td>
<td>0.1717</td>
</tr>
<tr>
<td>Psychiatric inpatient hospitalization past 6 months</td>
<td>-0.12</td>
<td>0.4940</td>
</tr>
<tr>
<td>ER visits past 6 months</td>
<td>-0.01</td>
<td>0.9451</td>
</tr>
<tr>
<td>Any legal issues past 6 months</td>
<td>0.08</td>
<td>0.6516</td>
</tr>
<tr>
<td>Suicide attempt past 6 months</td>
<td>-0.07</td>
<td>0.6911</td>
</tr>
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Staff/Admin: 338
State MHA: 22
Program Participants: 121

Total Program Participants: 36
The 36 study sites are located in 22 states

Reps from these 22 states were interviewed to understand the role of the state in administering and supporting CSC programs.
Factors for SMHAs in Selecting CSC Sites

- Geographic location
- Population density
- Experience providing similar services to youth and young adults
- Availability of community-based services in the area
- Creating an opportunity to serve areas with unmet need
- Availability of behavioral health workforce
- Ability of provider to collect data and monitor outcomes and fidelity
Financing and Funding for CSC Programs

- 22 (of the 36) sites received greater than half of their funds from MHBG 10% Set Aside

- Broad consensus was that the frequent and extensive staff-client contact, team meetings, and services that were not billable to insurance would not be possible without Set Aside funding

- By and large, administrators said their programs could not be sustained at fidelity without the block grant funds
Staffing and Turnover

From the first to the second round of site visits, seven sites experienced 50 percent turnover or greater, including two sites that lost 70 and 75 percent of their staff.

Percent of Staff Turnover From Time 1 to Time 2

<table>
<thead>
<tr>
<th>Turnover Percentage</th>
<th>Number of Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>4</td>
</tr>
<tr>
<td>Less than 25%</td>
<td>11</td>
</tr>
<tr>
<td>25% to 49%</td>
<td>14</td>
</tr>
<tr>
<td>50% or more</td>
<td>7</td>
</tr>
</tbody>
</table>
Reported Effects of Turnover

- **Reduced enrollment**: Having to slow or stop accepting new clients while new staff are hired.

- **Increased staff stress**: Hiring a replacement can take months, increasing stress for other team members as well as making it harder to provide quality care.

- **Reduced client trust**: Clients may have a harder time developing rapport with clinicians.

- **Lost costs**: Sites may spend as much as $70,000 on training staff who then leaves.
Transitions and Step Down

- Programs staff members expressed concern about clients’ post-discharge outcomes and service trajectories following CSC.

- Almost half (16) of the programs were able to provide at least some internal continuity of care through agency services after discharge.

- None were able to serve all discharged clients within the agency.

- Six provided some continuity of relationships with providers in the CSC programs.

- Two other programs reported that they provided formal early psychosis services for clients discharged from their 2-year CSCs.

- Only two programs reported availability of formal early psychosis services for clients discharged from 2-year CSC.
Staff Concerns on Discharge

- Standard outpatient clinics having limited engagement practices that don’t fit with this population, e.g. automatic disenrollment after two missed appointments

- Standard services reflecting a more traditional, pessimistic view of schizophrenia in contrast to recovery-oriented philosophy of a CSC framework

- Being able to locate psychiatrists who are able to prescribe clozapine or long-acting injectables (LAI)

- Being able to locate psychiatrists able to serve former CSC clients on Medicaid who were not and did not want to be enrolled in a case management program

- Negotiating the excessive costs of medication co-pays (for on-patent medications including LAIs as well as clozapine) for clients with private insurance
Examples of Discharge Planning Strategies

- Begin planning from 3-12 months before estimated discharge
- Taper intensity of care in the final 3 to 6 months of services
- Personally meet with the client and their new service provider
- Develop a formal relapse plan
- Develop a discharge toolkit
- Keep clients in the program for 6 months following transition
Peer Support in CSC

25 of the 36 study sites reported having a Peer Support component

Peer Roles Across CSC Study Sites (N=25)

- Client work: 25
- Team meetings: 24
- Family work: 23
- Service planning: 23
- Conduct groups: 22
- Community outreach: 20
- Psychiatric appointments: 18
- Program development: 18
- Education/ workshops: 11
- Administrative: 6
Understanding client perceptions of change over time can help clinicians and others understand what outcomes matter most to them.

**Individual Interview Participants (N=121)**

**Sex:** 41% female, 59% male  
**Age:** 14-35 years (M=22.7)  
**Race:** 41% White, 31% Black or African American, 21% Hispanic

Forty nine percent of the individual interview participants had been in the CSC program for 6-18 months, while another 31% had been in the program 19-30 months.
38% of participants reported the reduction in core symptoms as the most important change in themselves since starting the CSC program.

30% of participants reported improved relationships and the ability to be social as a change.

“The most important change is probably, not hearing the voices or seeing anything anymore, because I used to just see that all the time. Shadow people, used to hear people talk, that when they really wasn't there, and everything else.”
Client Perspectives

Nearly a quarter (24%) of participants described greater self-awareness and/or self-acceptance

“I would say that the most important change has been a greater understanding of myself, both my strengths and my weaknesses. You know, kind of like my view, and, that can be taken in many ways because I didn’t really have an understanding of the limitations, nor did I have an understanding of things that I excel at, that I can be really good in and work towards. The program has helped me work through so many of life’s obstacles. But what I’ve really taken away from all of that work has been an understanding of how I can best operate within these constraints.”
Summary and Conclusions

- The Mental Health Block Grant 10% Set Aside funds are critical to the implementation of Coordinated Specialty Care.

- Despite differences across sites, programs were generally able to implement CSC with fidelity.

- The peer support role is a rapidly evolving position within Coordinated Specialty Care sites.

- Clients experience improvements as they move through CSC.

- Initial results suggest that fidelity to the CSC model is related to specific clinical outcomes.