The Foundational Community Supports Program: Preliminary Evaluation Findings

Materials Prepared by Taylor Danielson, Department of Social and Health Services, Research and Data Analysis Division
Enrolled Clients: The Treatment Group

- Individuals enrolled in an FCS program from January 2018 through September 2018 according to ProviderOne payment data and in supported employment or supportive housing as of their enrollment month,*

- 18 years of age or older if enrolled in supportive housing OR 16 or older if in supported employed,

- Correctly linked to their Automated Client Eligibility System (ACES) data,

- Had a valid address/geographical location at enrollment,

- Received any form of medical assistance in the six months prior to and following program entry, and

- Were alive as of the last month of the six-month follow-up period.

*32 individuals enrolled in both services at enrollment were excluded from the analyses.
Comparison Group Identification

- Received qualifying forms of medical assistance in a given month,*
- Met age, needs-based, and risk-based program eligibility criteria during the intake window,
- Had not enrolled in FCS services as of September 2019,
- Correctly linked to their Automated Client Eligibility System (ACES) data,
- Had a valid address/geographical location in a given month,
- Received any form of medical assistance in the six months prior to and following the month that they qualified for FCS services, and
- Were alive as of the last month of the six-month follow-up period.

*The pool of potential controls may include multiple months where an individual qualified for but did not receive FCS services. Each month that an individual qualified for the program is treated as a separate observation for comparison group selection.
Study Design and Matching Process

1. Analyses were stratified by delivery system affiliation and program type. Individuals were assigned to ALTSA population if they had a CARE assessment in the 15 months prior to and including their index month. Otherwise, they were assigned to HCA.

2. Matched comparison group analysis.
   - Propensity score matching using 2:1 matching ratio without replacement.
   - Exact matching on dual-eligibility for Medicare, additional third-party liability coverage, urbanicity of county/census tract, pre-period outcomes, and eligibility for other FCS programs.
   - Data were balanced across a wide range individual-level characteristics, services histories, pre-period outcomes, and contextual-level measures.

3. Resulting data analyzed using a difference-in-difference approach.
   - Statistical adjustments made to account for repeated observations in the comparison group and remaining differences between the treatment and matched comparison groups.
FCS Study Measures

**Pre-Period**

24 months prior
- Mental health indicators
- Receipt of psychotropic medication
- Substance use disorder treatment need

**Post-Period**

6 months before enrollment
- Employment and earnings (SE)
- ED visits
- Inpatient hospitalizations

INDEX DATE
FCS Enrollment/ Month Eligible for FCS Services

6 months after enrollment
- Employment and earnings (SE)
- ED visits
- Inpatient hospitalizations
- Housed in Department of Commerce project (SH)
- Transitioned out of homelessness (SH)

**12 months prior**
- Employment
- Chronic illness indicator
- Criminal justice involvement
- Social service use
- Medical and behavioral health service history
- Homelessness

**Prior year (5-year moving average)**
- Contextual-level factors

**Post-Period**

6 months before enrollment
- Employment and earnings (SE)
- ED visits
- Inpatient hospitalizations

INDEX DATE
FCS Enrollment/ Month Eligible for FCS Services

6 months after enrollment
- Employment and earnings (SE)
- ED visits
- Inpatient hospitalizations
- Housed in Department of Commerce project (SH)
- Transitioned out of homelessness (SH)
Study Limitations and Caveats

1. Programs were still maturing during the evaluation window.

2. Treatment effects are based on an intent-to-treat analysis. Estimated effects are for enrolled individuals regardless of actual service receipt.

3. Certain outcomes such as the timing of changes in housing status are more challenging to capture using administrative data.

4. Due to data lags, these analyses use six-month pre-/post-enrollment measures to assess program effects; we do not examine long-term outcomes.

5. The number of clients enrolled in FCS programs are relatively small, making it difficult to perfectly balance treatment and control group characteristics.

6. Individuals who received FCS services may have selected into these services because of unobserved differences in health status, services needs, client motivation, etc. Matching methods may not fully mitigate selection bias.
Summary of Key Findings

- **Supported employment**
  - Uniformly positive impacts on employment, earnings, and hours for both HCA and ALTSA populations
  - Magnitude of employment effects are relatively modest
  - No statistically significant impacts on ED or IP utilization

- **Supportive housing**
  - Significant or promising positive impacts on transitions out of homelessness for both HCA and ALTSA populations
  - Promising reductions in ED utilization and IP utilization for the “HCA” population
  - No positive impact on ED, IP, or nursing facility utilization for ALTSA clients
HCA Supported Employment Outcomes: Employment and Earnings

Comparison of outcomes 6 months prior to and 6 months following enrollment month • Data is limited to individuals who entered the program as of September 30, 2018

Any Employment

...at least one quarter in 6-month period

Adjusted DID = +11.9%

P < 0.001

Comparison Group
n = 1,484

FCS-SE Clients
n = 742

29.6%
31.7%
29.6%
43.7%

Average earnings in 6-month period

Adjusted DID = $329

P = 0.06

Comparison Group
n = 1,484

FCS-SE Clients
n = 742

$1,059
$1,944
$956
$2,162

Average hours worked in 6-month period

Adjusted DID = +36.1

P < 0.01

Comparison Group
n = 1,484

FCS-SE Clients
n = 742

75.5
126.2
70.6
156.8

Any Employment

...at least one quarter in 6-month period

Adjusted DID = +11.9%

P < 0.001

Comparison Group
n = 1,484

FCS-SE Clients
n = 742

29.6%
31.7%
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43.7%

Average earnings in 6-month period

Adjusted DID = $329

P = 0.06

Comparison Group
n = 1,484

FCS-SE Clients
n = 742

$1,059
$1,944
$956
$2,162

Average hours worked in 6-month period

Adjusted DID = +36.1

P < 0.01

Comparison Group
n = 1,484

FCS-SE Clients
n = 742

75.5
126.2
70.6
156.8

SOURCE: Integrated Client Repository (ICDR).
ALTSA Supported Employment Outcomes: Employment and Earnings

Comparison of outcomes 6 months prior to and 6 months following enrollment month • Data is limited to individuals who entered the program as of September 30, 2018

Any Employment

... at least one quarter in 6-month period

Adjusted DID = +8.0%

P < 0.001

<table>
<thead>
<tr>
<th></th>
<th>PRE- PERIOD</th>
<th>POST- PERIOD</th>
<th>PRE- PERIOD</th>
<th>POST- PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparison Group</td>
<td>6.2%</td>
<td>5.5%</td>
<td>6.2%</td>
<td>13.2%</td>
</tr>
<tr>
<td>FCS-SE Clients</td>
<td>6.2%</td>
<td>5.5%</td>
<td>6.2%</td>
<td>13.2%</td>
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</tbody>
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Average earnings in 6-month period

Adjusted DID = +$202

P = 0.02

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<tbody>
<tr>
<td>Comparison Group</td>
<td>$259</td>
<td>$267</td>
<td>$184</td>
<td>$394</td>
</tr>
<tr>
<td>FCS-SE Clients</td>
<td>$259</td>
<td>$267</td>
<td>$184</td>
<td>$394</td>
</tr>
</tbody>
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Average hours worked in 6-month period

Adjusted DID = +15.6

P = 0.01

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<th>PRE- PERIOD</th>
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<tbody>
<tr>
<td>Comparison Group</td>
<td>17.8</td>
<td>16.9</td>
<td>14.0</td>
<td>28.8</td>
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<tr>
<td>FCS-SE Clients</td>
<td>17.8</td>
<td>16.9</td>
<td>14.0</td>
<td>28.8</td>
</tr>
</tbody>
</table>

Comparison Group

n = 742

FCS-SE Clients

n = 371

SOURCE: Integrated Client Repository (ICDR).
**HCA Supported Employment Outcomes: Healthcare Utilization per 1,000 Member Months**

Comparison of outcomes 6 months prior to and 6 months following enrollment month • Data is limited to individuals who entered the program as of September 30, 2018

**Outpatient ED Visits, per 1,000 Member Months**

- Adjusted DID = -15.1
- \( P = 0.26 \)

**Inpatient Hospitalizations, per 1,000 Member Months**

- Adjusted DID = -2.3
- \( P = 0.53 \)

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<th>POST-PERIOD</th>
<th>PRE-PERIOD</th>
<th>POST-PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Comparison Group</strong></td>
<td>159.9</td>
<td>142.1</td>
<td>166.9</td>
<td>132.5</td>
</tr>
<tr>
<td><strong>FCS-SE Clients</strong></td>
<td>132.5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Comparison Group**
- \( n = 1,484 \)

**FCS-SE Clients**
- \( n = 742 \)

**SOURCE**: Integrated Client Repository (ICDR).
ALTSA Supported Employment Outcomes: Healthcare Utilization per 1,000 Member Months

Comparison of outcomes 6 months prior to and 6 months following enrollment month • Data is limited to individuals who entered the program as of September 30, 2018

### Outpatient ED Visits, per 1000 Member Months

<table>
<thead>
<tr>
<th></th>
<th>PRE-PERIOD</th>
<th>POST-PERIOD</th>
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</thead>
<tbody>
<tr>
<td><strong>Comparison Group</strong></td>
<td>139.5</td>
<td>125.0</td>
</tr>
<tr>
<td><strong>FCS-SE Clients</strong></td>
<td>184.7</td>
<td>176.7</td>
</tr>
</tbody>
</table>

**Adjusted DID = +11.6**  
**P = 0.66**

### Inpatient Hospitalizations, per 1000 Member Months

<table>
<thead>
<tr>
<th></th>
<th>PRE-PERIOD</th>
<th>POST-PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Comparison Group</strong></td>
<td>24.4</td>
<td>25.7</td>
</tr>
<tr>
<td><strong>FCS-SE Clients</strong></td>
<td>24.7</td>
<td>30.8</td>
</tr>
</tbody>
</table>

**Adjusted DID = +5.3**  
**P = 0.42**

SOURCE: Integrated Client Repository (ICDR).

DHS | Facilities, Finance, and Analytics Administration | Research and Data Analysis Division | FEBRUARY 2020
HCA Supportive Housing Outcomes: Housing Status
Comparison of outcomes 6 months prior to and 6 months following enrollment month • Data is limited to individuals who entered the program as of September 30, 2018

Transitioned Out of Homelessness and Did Not Return
... as of the last month of the 6-month period
Adjusted Difference = +3.7%
P = 0.12

Housed in a Commerce-Funded Project
Adjusted Difference = +7.4%
P < 0.01

SOURCE: Integrated Client Repository (ICDR).

Comparison Group
n = 844
FCS-SH Clients
n = 422

Comparison Group
n = 844
FCS-SH Clients
n = 422
ALTSA Supportive Housing Outcomes: Housing Status
Comparison of outcomes 6 months prior to and 6 months following enrollment month • Data is limited to individuals who entered the program as of September 30, 2018

Trans-transitioned Out of Homelessness and Did Not Return
... as of the last month of the 6-month period
Adjusted Difference = +4.3%
P = 0.04

Comparison Group
n = 402

FCS-SH Clients
n = 201

5.0%

10.9%

POST- PERIOD
POST- PERIOD

Housed in a Commerce-Funded Project
Adjusted Difference = -0.1%
P = 0.96

Comparison Group
n = 402

FCS-SH Clients
n = 201

6.0%

8.5%

POST- PERIOD
POST- PERIOD

SOURCE: Integrated Client Repository (ICDR).
HCA Supportive Housing Outcomes: Healthcare Utilization per 1,000 Member Months

Comparison of outcomes 6 months prior to and 6 months following enrollment month • Data is limited to individuals who entered the program as of September 30, 2018

**Outpatient ED Visits, per 1000 Member Months**

Adjusted DID = -45.9  
\( P = 0.14 \)

<table>
<thead>
<tr>
<th></th>
<th>PRE-PERIOD</th>
<th>POST-PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparison Group</td>
<td>258.8</td>
<td>216.8</td>
</tr>
<tr>
<td>FCS-SH Clients</td>
<td>259.1</td>
<td>258.5</td>
</tr>
</tbody>
</table>

**Inpatient Hospitalizations, per 1000 Member Months**

Adjusted DID = -12.4  
\( P = 0.06 \)

<table>
<thead>
<tr>
<th></th>
<th>PRE-PERIOD</th>
<th>POST-PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparison Group</td>
<td>32.1</td>
<td>16.9</td>
</tr>
<tr>
<td>FCS-SH Clients</td>
<td>34.2</td>
<td>27.1</td>
</tr>
</tbody>
</table>

**SOURCE:** Integrated Client Repository (ICDR).
ALTSA Supportive Housing Outcomes: Healthcare Utilization per 1,000 Member Months

Comparison of outcomes 6 months prior to and 6 months following enrollment month • Data is limited to individuals who entered the program as of September 30, 2018

Outpatient ED Visits, per 1000 Member Months
Adjusted DID = +71.8
\( P = 0.18 \)

Inpatient Hospitalizations, per 1000 Member Months
Adjusted DID = +22.9
\( P = 0.18 \)

Comparison Group
\( n = 402 \)
FCS-SH Clients
\( n = 201 \)

SOURCE: Integrated Client Repository (ICDR).
# ALTSA Supportive Housing Outcomes: Use of LTSS Services

Comparison of outcomes 6 months prior to and 6 months following enrollment month • Data is limited to individuals who entered the program as of September 30, 2018

**Nursing Facility**

<table>
<thead>
<tr>
<th></th>
<th>Comparison Group</th>
<th>FCS-SH Clients</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRE-PERIOD</td>
<td>5.5%</td>
<td>66.4%</td>
</tr>
<tr>
<td>POST-PERIOD</td>
<td>8.0%</td>
<td>67.4%</td>
</tr>
</tbody>
</table>

**Receiving In-Home Services**

<table>
<thead>
<tr>
<th></th>
<th>Comparison Group</th>
<th>FCS-SH Clients</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRE-PERIOD</td>
<td>4.2%</td>
<td>62.2%</td>
</tr>
<tr>
<td>POST-PERIOD</td>
<td>9.5%</td>
<td>73.6%</td>
</tr>
</tbody>
</table>

**Comparison Group**  
**n = 402**

**FCS-SH Clients**  
**n = 201**

**Adjusted DID**

- Nursing Facility: +2.8%  
  *P = 0.28*

- Receiving In-Home Services: +9.6%  
  *P = 0.02*

**SOURCE:** Integrated Client Repository (ICDR).
Questions?
**TECHNICAL APPENDIX**

**BALANCE ON SELECTED BASELINE MEASURES, 6 MONTHS PRIOR TO INDEX MONTH**

<table>
<thead>
<tr>
<th>ALRTSA-AFFILIATED CLIENTS</th>
<th>HCA-AFFILIATED CLIENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supported Employment</td>
<td>Supported Housing</td>
</tr>
<tr>
<td></td>
<td>ASMD*</td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td>6.2% 6.2% 0.00</td>
</tr>
<tr>
<td><strong>Average Earnings</strong></td>
<td>$259 $184 0.08</td>
</tr>
<tr>
<td><strong>Average Hours Worked</strong></td>
<td>17.8 14.0 0.05</td>
</tr>
<tr>
<td><strong>Nursing Facility</strong></td>
<td>3.5% 3.8% 0.01</td>
</tr>
<tr>
<td><strong>In-Home Services</strong></td>
<td>58.4% 60.4% 0.04</td>
</tr>
<tr>
<td><strong>Average Member Months (MMs)</strong></td>
<td>5.9 5.9 0.01</td>
</tr>
<tr>
<td><strong>ED Outpatient Visits, per 1000 MMs</strong></td>
<td>139.5 184.7 0.08</td>
</tr>
<tr>
<td><strong>Inpatient Hospitalizations, per 1000 MMs</strong></td>
<td>24.4 24.7 0.00</td>
</tr>
</tbody>
</table>

* Absolute standardized mean difference