The Foundational Community Supports Program: Preliminary Evaluation Findings

Materials Prepared by Taylor Danielson, DSHS Research and Data Analysis Division

JULY 2021

All results are preliminary. These results are not intended to supplant findings from analyses conducted by Oregon Health Sciences University, the independent external evaluator for the Medicaid Transformation Project.
Enrolled Clients: The Treatment Group

- **Individuals enrolled in an FCS program from January 2018 through June 2019** according to ProviderOne payment data and enrolled in either supported employment, supportive housing, or both services as of their enrollment month,*

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

- **Did not have third-party liability coverage** (e.g., Medicare Part C coverage),

- **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

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

* Individuals enrolled in both supported employment and supportive housing were included in both sets of 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 December 2019,
- Did not have third-party liability coverage (e.g., Medicare Part C coverage),
- 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 (ALTSA and HCA) and program type (SE and SH).
   - Individuals were assigned to the ALTSA population if they had a CARE assessment in the 15 months prior to and including their index month.

2. Matched comparison group analysis.
   - Simulates random assignment used in clinical trials by matching treated individuals to one similar individual selected from a pool of potential controls.
   - Clients were exact matched on a select set of measures (e.g., index month, dual eligibility, pre-period outcomes, urbanicity of county/census tract, etc.).
   - 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, with adjustments made for repeated observations and remaining differences between the treatment and comparison groups.
# FCS Study Measures

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

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

## Post-Period
- **6 months before enrollment**
  - Employment and earnings (SE)
  - ED visits
  - Inpatient hospitalizations
  - Receipt of long-term care services
  - Criminal justice involvement

## INDEX DATE
- **FCS Enrollment/Month Eligible for FCS Services**
  - Demographics
  - Household characteristics
  - CARE assessment data (15 months prior to and including index date)

## 6 months after enrollment
- Employment and earnings (SE)
- ED visits
- Inpatient hospitalizations
- Receipt of long-term care services
- Criminal justice involvement
- Housed in Department of Commerce project (SH)
- Transitioned out of homelessness (SH)

**Prior year (5-year moving average)**
- Contextual-level factors
Study Limitations and Caveats

1. Treatment effects were estimated for all enrolled individuals regardless of service receipt.

2. Certain outcomes (e.g., changes in housing status) are more challenging to capture using administrative data.

3. Due to data lags, we used six-month pre-/post-enrollment measures to assess program effects. We did not examine long-term outcomes.

4. Analyses exclude clients enrolled in FCS services after June 2019 to ensure that the outcome period did not include the onset of the COVID-19 pandemic.

5. The number of ALTSA clients enrolled in FCS programs in the first 18 months was 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., that are not fully mitigated by matching methods.
Summary of Key Findings

- **Supported employment**
  - Uniformly positive impacts on employment rates for both HCA and ALTSA populations
  - Modest increases in earnings and average hours worked among the HCA population.
  - No statistically significant impacts on ED or IP utilization for ALTSA or HCA clients

- **Supportive housing**
  - Significant positive impacts on transitions out of homelessness for HCA clients.
  - Statistically significant increases in the percentage of clients housed in housing projects funded by the Department of Commerce (HCA).
  - Statistically significant increases in receipt of in-home services (ALTSA).
  - No statistically significant impacts on ED utilization for ALTSA or HCA clients or community residential placements for ALTSA clients.
  - Statistically significant increases in IP utilization and nursing facility placements (ALTSA).
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 June 30, 2019

Comparison Group
n = 2,858

FCS-SE Clients
n = 2,858

Any employment

at least one quarter in 6-month period
Adjusted DID = +12.8%
P < 0.001

PRE-PERIOD
POST-PERIOD
PRE-PERIOD
POST-PERIOD
Comparison Group
FCS-SE Clients

Average earnings in 6-month period

Adjusted DID = + $552.22
P < 0.001

PRE-PERIOD
POST-PERIOD
PRE-PERIOD
POST-PERIOD
Comparison Group
FCS-SE Clients

Average hours worked in 6-month period

Adjusted DID = +45.2
P < 0.001

PRE-PERIOD
POST-PERIOD
PRE-PERIOD
POST-PERIOD
Comparison Group
FCS-SE Clients

Any employment

35.8% 35.5% 35.8%

48.2%

Average earnings in 6-month period

$1,470 $1,447

$2,060

$2,577

Average hours worked in 6-month period

105.4 103.5

138.1

180.5

Adjusted DID = +12.8%
P < 0.001

Adjusted DID = + $552.22
P < 0.001

Adjusted DID = +45.2
P < 0.001

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 June 30, 2019

Any employment
... at least one quarter in 6-month period
Adjusted DID = +5.7%
P < 0.01

Comparison Group
n = 584

FCS-SE Clients
n = 584

Average earnings in 6-month period
Adjusted DID = -$47.80
P = 0.66

Comparison Group
n = 584

FCS-SE Clients
n = 584

Average hours worked in 6-month period
Adjusted DID = -5.4
P = 0.49

Comparison Group
n = 584

FCS-SE Clients
n = 584

SOURCE: Integrated Client Repository (ICDR).
HCA Supported Employment Outcomes: Healthcare Utilization

Comparison of outcomes 6 months prior to and 6 months following enrollment month • Data is limited to individuals who entered the program as of June 30, 2019

**Outpatient ED visits, per 1000 member months**

- **Comparison Group**
  - PRE-PERIOD: 163.7
  - POST-PERIOD: 167.4
- **FCS-SE Clients**
  - PRE-PERIOD: 136.9
  - POST-PERIOD: 142.3

Adjusted DID = +3.8

*P = 0.65*

**Inpatient hospitalizations, per 1000 member months**

- **Comparison Group**
  - PRE-PERIOD: 18.7
  - POST-PERIOD: 15.8
- **FCS-SE Clients**
  - PRE-PERIOD: 18.6
  - POST-PERIOD: 13.3

Adjusted DID = -2.2

*P = 0.32*

SOURCE: Integrated Client Repository (ICDR).

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### ALTSA Supported Employment Outcomes: Healthcare Utilization

Comparison of outcomes 6 months prior to and 6 months following enrollment month • Data is limited to individuals who entered the program as of June 30, 2019

<table>
<thead>
<tr>
<th></th>
<th>Comparison Group</th>
<th>FCS-SE Clients</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outpatient ED visits, per 1000 member months</strong></td>
<td>n = 584</td>
<td>n = 584</td>
</tr>
<tr>
<td>Adjusted DID</td>
<td>+41.5</td>
<td>-0.3</td>
</tr>
<tr>
<td>( P = 0.06 )</td>
<td></td>
<td>( P = 0.97 )</td>
</tr>
<tr>
<td>PRE-PERIOD</td>
<td>160.5</td>
<td>32.1</td>
</tr>
<tr>
<td>POST-PERIOD</td>
<td>131.3</td>
<td>32.5</td>
</tr>
<tr>
<td></td>
<td>182.2</td>
<td>37.0</td>
</tr>
<tr>
<td></td>
<td>180.6</td>
<td>38.9</td>
</tr>
</tbody>
</table>

### SOURCE: Integrated Client Repository (ICDR).

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ALTSA Supported Employment 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 June 30, 2019

Nursing Facility
Adjusted DID = -1.1%
P = 0.33

Receiving In-Home Services
Adjusted DID = +6.5%
P < 0.001

Placed in Any Community-Based Residential Facility
Adjusted DID = +2.4%
P < 0.05

SOURCE: Integrated Client Repository (ICDR).

Comparison Group
n = 584

FCS-SH Clients
n = 584

PRE-PERIOD
POST-PERIOD
PRE-PERIOD
POST-PERIOD
PRE-PERIOD
POST-PERIOD
PRE-PERIOD
POST-PERIOD

61.3% 57.7% 58.7% 62.2%

30.3% 30.0% 33.4% 35.1%

30.3% 30.0% 33.4% 35.1%

30.3% 30.0% 33.4% 35.1%

30.3% 30.0% 33.4% 35.1%

30.3% 30.0% 33.4% 35.1%
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 June 30, 2019

Transitioned Out of Homelessness and Did Not Return
... as of the last month of the 6-month period
Adjusted Difference = +6.5%
P < 0.001

Housed in a Commerce-Funded Project
Adjusted Difference = +8.5%
P < 0.001

POST-PERIOD
POST-PERIOD
POST-PERIOD
POST-PERIOD

Comparison Group n = 2,214
FCS-SH Clients n = 2,214

Comparison Group n = 2,214
FCS-SH Clients n = 2,214

SOURCE: Integrated Client Repository (ICDR).
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 June 30, 2019

Transitioned Out of Homelessness and Did Not Return
... as of the last month of the 6-month period
Adjusted Difference = +2.7%
$P = 0.12$

Housed in a Commerce-Funded Project
Adjusted Difference = +1.2%
$P = 0.52$

Comparison Group
FCS-SH Clients

Comparison Group $n = 600$
FCS-SH Clients $n = 600$

POST-PERIOD
POST-PERIOD

7.5%
12.8%
10.2%
13.7%

SOURCE: Integrated Client Repository (ICDR).

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HCA Supportive Housing Outcomes: Healthcare Utilization

Comparison of outcomes 6 months prior to and 6 months following enrollment month • Data is limited to individuals who entered the program as of June 30, 2019

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

- **Comparison Group**: n = 2,214
- **FCS-SH Clients**: n = 2,214

<table>
<thead>
<tr>
<th></th>
<th>PRE-PERIOD</th>
<th>POST-PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Comparison Group</strong></td>
<td>313.4</td>
<td>241.6</td>
</tr>
<tr>
<td><strong>FCS-SH Clients</strong></td>
<td>322.7</td>
<td>270.4</td>
</tr>
</tbody>
</table>

Adjusted DID = +25.3
P = 0.08

**Inpatient Hospitalizations, per 1000 Member Months**

- **Comparison Group**: n = 2,214
- **FCS-SH Clients**: n = 2,214

<table>
<thead>
<tr>
<th></th>
<th>PRE-PERIOD</th>
<th>POST-PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Comparison Group</strong></td>
<td>41.0</td>
<td>27.3</td>
</tr>
<tr>
<td><strong>FCS-SH Clients</strong></td>
<td>40.0</td>
<td>26.8</td>
</tr>
</tbody>
</table>

Adjusted DID = +1.4
P = 0.71

**SOURCE**: Integrated Client Repository (ICDR).
ALTSA Supportive Housing Outcomes: Healthcare Utilization

Comparison of outcomes 6 months prior to and 6 months following enrollment month • Data is limited to individuals who entered the program as of June 30, 2019

Outpatient ED Visits, per 1000 Member Months
Adjusted DID = -2.6
P = 0.94

Comparison Group
n = 600

FCS-SH Clients
n = 600

PRE-PERIOD | POST-PERIOD
---|---
Comparison Group | 383.2 | 418.1
FCS-SH Clients | 306.6 | 343.1

Inpatient Hospitalizations, per 1000 Member Months
Adjusted DID = +22.5
P < 0.05

Comparison Group
n = 600

FCS-SH Clients
n = 600

PRE-PERIOD | POST-PERIOD
---|---
Comparison Group | 95.1 | 90.2
FCS-SH Clients | 69.0 | 73.2

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 June 30, 2019

**Nursing Facility**

Adjusted DID = +4.0%

P < 0.05

**Receiving In-Home Services**

Adjusted DID = +9.5%

P < 0.001

**Placed in Any Community-Based Residential Facility**

Adjusted DID = +1.0%

P = 0.53

---

**Comparison Group**

10.8% 6.2%

**FCS-SH Clients**

10.8% 10.2%

**Comparison Group**

10.2% 6.2%

**FCS-SH Clients**

10.2% 10.0%

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**Comparison Group**

n = 600

**FCS-SH Clients**

n = 600

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**Comparison Group**

n = 600

**FCS-SH Clients**

n = 600

---

**Comparison Group**

n = 600

**FCS-SH Clients**

n = 600

---

**Comparison Group**

n = 600

**FCS-SH Clients**

n = 600

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**Comparison Group**

n = 600

**FCS-SH Clients**

n = 600

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SOURCE: Integrated Client Repository (ICDR).
### TECHNICAL APPENDIX

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

<table>
<thead>
<tr>
<th></th>
<th>ALTSA-AFFILIATED CLIENTS</th>
<th></th>
<th>HCA-AFFILIATED CLIENTS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Supported Employment</td>
<td>Supportive Housing</td>
<td>Supported Employment</td>
<td>Supportive Housing</td>
</tr>
<tr>
<td></td>
<td>Comparison Group</td>
<td>Treatment Group</td>
<td>ASMD*</td>
<td>Comparison Group</td>
</tr>
<tr>
<td>Employment</td>
<td>8.4%</td>
<td>8.4%</td>
<td>0.00</td>
<td>3.5%</td>
</tr>
<tr>
<td>Average Earnings</td>
<td>$233.76</td>
<td>$252.94</td>
<td>0.02</td>
<td>$159.21</td>
</tr>
<tr>
<td>Average Hours Worked</td>
<td>16.5</td>
<td>18.4</td>
<td>0.02</td>
<td>11.1</td>
</tr>
<tr>
<td>Community Residential Facility Placement</td>
<td>30.3%</td>
<td>33.4%</td>
<td>0.07</td>
<td>10.8%</td>
</tr>
<tr>
<td>Nursing Facility</td>
<td>4.6%</td>
<td>5.5%</td>
<td>0.04</td>
<td>10.8%</td>
</tr>
<tr>
<td>In-Home Services</td>
<td>61.3%</td>
<td>58.7%</td>
<td>0.05</td>
<td>62.2%</td>
</tr>
<tr>
<td>Average Member Months (MMs)</td>
<td>5.92</td>
<td>5.88</td>
<td>0.06</td>
<td>5.92</td>
</tr>
<tr>
<td>ED Outpatient Visits, per 1000 MMs</td>
<td>160.5</td>
<td>182.2</td>
<td>0.05</td>
<td>383.2</td>
</tr>
<tr>
<td>Inpatient Hospitalizations, per 1000 MMs</td>
<td>32.1</td>
<td>37.0</td>
<td>0.05</td>
<td>95.1</td>
</tr>
</tbody>
</table>

* Absolute standardized mean difference
Questions?