Care Management Oversight Project

Established and tested cross-agency care management oversight for children and youth with the most intense needs and their families.

Goals:

• Create a more integrated and seamless system of mental health and substance abuse services

• Offer children and youth with serious emotional disturbances and their families direct linkages to community-based services
Care Management Oversight Project

Goals:

• Increase usage of community-based services and the wraparound approach
• Decrease inpatient/residential days
• Decrease number of days from inpatient/residential discharge to first community-based service
Care Management Oversight Project

Partnership between

• Oklahoma Department of Mental Health and Substance Abuse Services (ODMHSAS)
• Oklahoma Health Care Authority (OHCA)
• Oklahoma Department of Human Services (OK DHS)
• Oklahoma Office of Juvenile Affairs (OJA)
• Oklahoma Commission on Children and Youth (OCCY)
• Oklahoma Department of Rehabilitation Services (DRS)
• Oklahoma Federation of Families
• APS Healthcare
• E-TEAM, University of Oklahoma Outreach
Care Management

• Collaborative approach to assessing, providing, coordinating and monitoring mental health services.

• Includes a set of activities which assures that every person served by the treatment system has a single approved care (service) plan that is coordinated, not duplicative, and designed to assure cost effective and good outcomes.
Evaluation Study

• Randomized Control Trial research design
• Compared outcomes for youth who received Care Management to youth who received standard behavioral health services
• Study Population: 1,943 projected high-resource utilization youth 6-18 years of age eligible for Medicaid
• Recruited via letter mailed to eligible parents
Evaluation Study

• Youth whose parents agreed to participate were randomly assigned to the:
  – treatment group (received Care Management N=87); or
  – control group (did not receive Care Management N=90).

• Parents and youth were interviewed at baseline, 6 months and again at 12 months.

• Other data: De-identified Care Management service hours, inpatient and outpatient claims, eligibility and custody.
Evaluation Study

• Compared to the study population of 1,943 moderate to high Medicaid utilization youth, those who participated were significantly:
  – Younger (12 vs. 13);
  – Less likely to be female (42% vs. 30%);
  – Higher in cumulative Length of Stay (111 vs. 25 days);
  – Higher on projected mental health costs ($38,041 vs. $44,174);
  – Higher on projected total costs ($40,097 vs. $45,777); and
  – Higher on acute impact score (86 vs. 88).
Evaluation Study

• No difference on forecasted inpatient days (11.5 days).
• No difference on forecasted inpatient rank (98).
Evaluation Study

Treatment Group
• 71% Male
• Average Age: 14.7
• Caucasian: 69%
• African American: 26%
• American Indian: 26%
• Latino: 13%
• Multiracial: 23%
• 57.5% impaired (OHIO Scale)

Comparison Group
• 67% Male
• Average Age: 14.8
• Caucasian: 66%
• African American: 31%
• American Indian: 17%
• Latino: 13%
• Multiracial: 19%
• 57.8% impaired (OHIO Scale)
Adolescent Resiliency Attitude (ARAS) Scores by Group and Time

- Control Group
- Care Management

<table>
<thead>
<tr>
<th>Time</th>
<th>Control Group</th>
<th>Care Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>65%</td>
<td>67%</td>
</tr>
<tr>
<td>6-Months</td>
<td>68%</td>
<td>68%</td>
</tr>
<tr>
<td>12-Months</td>
<td>69%</td>
<td>68%</td>
</tr>
</tbody>
</table>
Ohio Scales Scores
Caregiver Perception of Youth Impairment by Group and Time

Percent Impaired

Baseline | 6-Months | 12-Months
---------|----------|----------
Control Group | 55% | 63% | 75%
Care Management | 57% | 58% | 52%
Average Care Management Hours per Participant by Time Period

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Average Hours per 3 Month Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3 Mo</td>
<td>5.2</td>
</tr>
<tr>
<td>4-6 Mo</td>
<td>2.9</td>
</tr>
<tr>
<td>7-9 Mo</td>
<td>3.2</td>
</tr>
<tr>
<td>10-12 Mo</td>
<td>2.8</td>
</tr>
</tbody>
</table>
Average Total Inpatient and Outpatient Charges by Group and Time Period

![Graph showing the comparison of total charges before and during care management between control and care management groups.](graph.png)
Average Total Inpatient Charges by Group and Time Period

- **Before CM**:
  - Control Group: $27,177
  - Care Management: $19,967

- **During CM**:
  - Control Group: $16,521
  - Care Management: $10,986
Average Total Inpatient Charges by Group and Time Period—Only Youth Hospitalized during the Study

- Control Group
- Care Management

Before CM: $39,097
Before CM: $28,632
During CM: $23,691
During CM: $15,805
Average Total Outpatient Charges by Group and Time Period

![Graph showing average total outpatient charges by group and time period. The graph compares the average charges for the control group and the care management group before and during care management. The data points are as follows:

- Control Group: Before CM - $16,498, During CM - $14,450
- Care Management: Before CM - $13,233, During CM - $15,295]
Per Member Per Month Charges by Group and Time Period

- **Before CM**:
  - Comparison: $3,368
  - Care Management: $3,039

- **During CM**:
  - Comparison: $2,581
  - Care Management: $2,190
Estimated Savings in Health Care Costs with Care Management

- Behavioral Health: $9,112,402
- Behavioral Health and Medical: $8,334,938

During Care Management: $9,112,402
Across Study: $18,162,398

The University of Oklahoma
College of Continuing Education
Evaluation Study Conclusions

Interview Data:

• The interview data were mixed.
  – Adolescent Resiliency Attitude Scales scores increased slightly over time; however, there were no statistically significant differences in ARAS scores between the two groups over time (p = .73).
Evaluation Study Conclusions

Interview Data:

• The interview data were mixed.
  – Ohio Scales scores for caregiver perceptions of youth problems increased over time for the Control Group youth (55% to 75%) and decreased over time for the Care Management group youth (57% to 52%).
    • This interaction effect is in the expected direction and was statistically significant ($p = .02$).
Evaluation Study Conclusions

Inpatient Hospitalizations:

• The Care Management Program resulted in statistically significant cost savings for inpatient hospitalizations over the course of the study.
  – There was a 60% reduction in average inpatient charges for the Care Management group over time compared to a 17% reduction for the Control Group. This reduction in inpatient charges held regardless of whether youth were in state custody or not.
Evaluation Study Conclusions

Follow-up Care:

• There was a trend toward a higher proportion of Care Management youth receiving outpatient follow-up care within seven days of discharge from a behavioral health hospitalization (78% of Care Management hospitalizations vs. 73% of the Control Group hospitalizations).
  – This trend is in the desired direction; however, the difference was not large enough to reach statistical significance ($p = .31$).
Evaluation Study Conclusions

Outpatient Charges:
• There was a 16% increase in average outpatient charges for the Care Management group ($2,062) over time compared to the Control Group whose total average outpatient charges decreased by 12% (-$2,048) ($p = .01$).
Evaluation Study Conclusions

Total Behavioral Health and Medical Charges:

• Care Management resulted in savings of $458 per youth per month compared to the Control Group during the 12-month Care Management time period and savings of $720 per youth per month (Per Member Per Month—PMPM) for the entire 24 month time period.
Evaluation Study Conclusions

Total Behavioral Health and Medical Charges:

• These PMPM savings were used to project savings for the 1,943 moderate to high Medicaid utilization youth in the population resulting in total estimated savings over a one year period of between $9,112,402 and $16,777,805 if the study population had all received Care Management.
Evaluation Study Conclusions

Total Behavioral Health Charges:

• Care Management resulted in savings of $357 per youth per month in behavioral health charges compared to the Control Group during the 12-month Care Management time period and savings of $779 per youth per month for the entire 24 month time period.
Evaluation Study Conclusions

Total Behavioral Health Charges:

- These PMPM savings were used to project savings for the 1,943 moderate to high Medicaid utilization youth in the population resulting in total estimated behavioral health savings over a one year period of between $8,334,938 and $18,162,398 if the study population had all received Care Management.
Evaluation Study Conclusions

To view the report for the Care Management Oversight Project Evaluation Study, visit the E-TEAM website at http://eteam.ou.edu and view our behavioral health projects page.
E-TEAM is a department within the College of Continuing Education at the University of Oklahoma. E-TEAM provides custom designed research studies and program evaluations. Experienced researchers consult with clients to design the study, plan data collection, and determine the appropriate statistical analyses and reporting format. Data collection techniques include: surveys, interviews, focus groups, observations, custom assessments and use of existing instruments.

For more information on the Care Management Resiliency Evaluation Study, please contact:

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