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- During the presentation, you can send questions to the webinar organizer, but these will be held until the end.

*This webinar and the PowerPoint will be available on the NWI website. <http://www.nwi.pdx.edu/webinars.shtml>



Costs and Cost-Effectiveness in Wraparound Programs

April 8, 2014

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Today's presentation

- Overview of published research and evaluation on costs and cost-effectiveness in wraparound
- Focus on Wraparound Milwaukee
 - Evidence on cost-effectiveness
 - How that information has been used to sustain and expand the program
- Questions

Cost studies of Wraparound

- “First-generation” cost studies from 1995-2005 documented savings both per child and system wide while also improving outcomes
 - Wraparound Milwaukee
 - Los Angeles County
 - State of Kansas
 - Dawn Project-Indianapolis
- Do newer studies have similar results?
 - Four newer studies, documentation on NWI website

PRTF Waiver Demonstration: Final Evaluation Report (2012)

- All nine states executed “some form of wraparound”
- Enabled children and youth to either maintain or improve their functional status while in the waiver program:
 - “most children showed improvements for most domains and most follow-up periods”
 - Global functioning improved
 - Mental health improvements greatest for those with highest level of need
- Waiver costs were around 20 percent of the average per capita total Medicaid costs for services in institutions, an average per capita saving of \$20,000 to \$40,000.

MA Mental Health Services Program for Youth (2011)

- Versus matched comparison
 - Total Medicaid claims expenses were lower by 811/month (9732/year)
 - Inpatient psychiatry down 74%
 - ER down 32%
- One year pre-/ post-enrollment showed decreases in out-of-home treatment
 - Hospital admissions down 70%
 - Long term residential care down 82%
 - Acute residential down 44%
 - Foster care down 83%

Wraparound Maine, 2011

Pre-Post Wraparound Average Per Child Per Year Mental Health Expenditures

| Service Type | Pre-Wraparound Average Per Child Expenditures | Post-Wraparound Initiation Average Per Child Expenditures | Pre-Post Difference | Percent Change |
|---|---|---|---------------------|----------------|
| Targeted Case Management (Wraparound Maine) ¹ | \$3,858.02 | \$7,664.15 | \$3,806.13 | ↑ 99% |
| Emergency Room (MH) | \$441.16 | \$467.47 | \$26.31 | ↑ 6% |
| HCT Services | \$7,456.25 | \$6,735.99 | -\$720.26 | ↓ 10% |
| Crisis Intervention & Resolution | \$2,343.48 | \$1,637.15 | -\$706.33 | ↓ 30% |
| Residential (PNMI) Services ² | \$60,293.95 | \$43,027.68 | -\$17,266.27 | ↓ 29% |
| MH Outpatient Treatment (Sec 65) | \$1,406.07 | \$1,835.59 | \$429.52 | ↑ 31% |
| Medication Assessment & Tx | \$810.88 | \$779.16 | -\$31.72 | ↓ 4% |
| Psychiatric Inpatient Tx | \$55,488.75 | \$31,667.34 | -\$23,821.41 | ↓ 43% |
| Outpatient Psychiatric Tx | \$551.19 | \$693.23 | \$142.04 | ↑ 26% |
| Other MH Services | \$786.21 | \$968.82 | \$182.61 | ↑ 23% |
| Child ACT | \$8,712.24 | \$6,998.02 | -\$1,714.22 | ↓ 20% |
| Day Treatment | \$9,544.98 | \$7,925.49 | -\$1,619.49 | ↓ 17% |
| Day Habilitation | \$10,545.00 | \$14,639.64 | \$4,094.64 | ↑ 39% |
| Total Mental Health | \$58,403.91 | \$41,873.16 | -\$16,530.75 | ↓ 28% |

¹ Targeted Case Management (TCM) expenditures pre-Wraparound initiation reflect use of non-wrap TCM services. Wraparound Maine services are billed through Section 13 Targeted Case Management. The increase in TCM expenditure pre to post reflect the initiation of Wraparound services.

² Residential Treatment Services includes all PNMI Child Care and Crisis Residential facility expenditures.

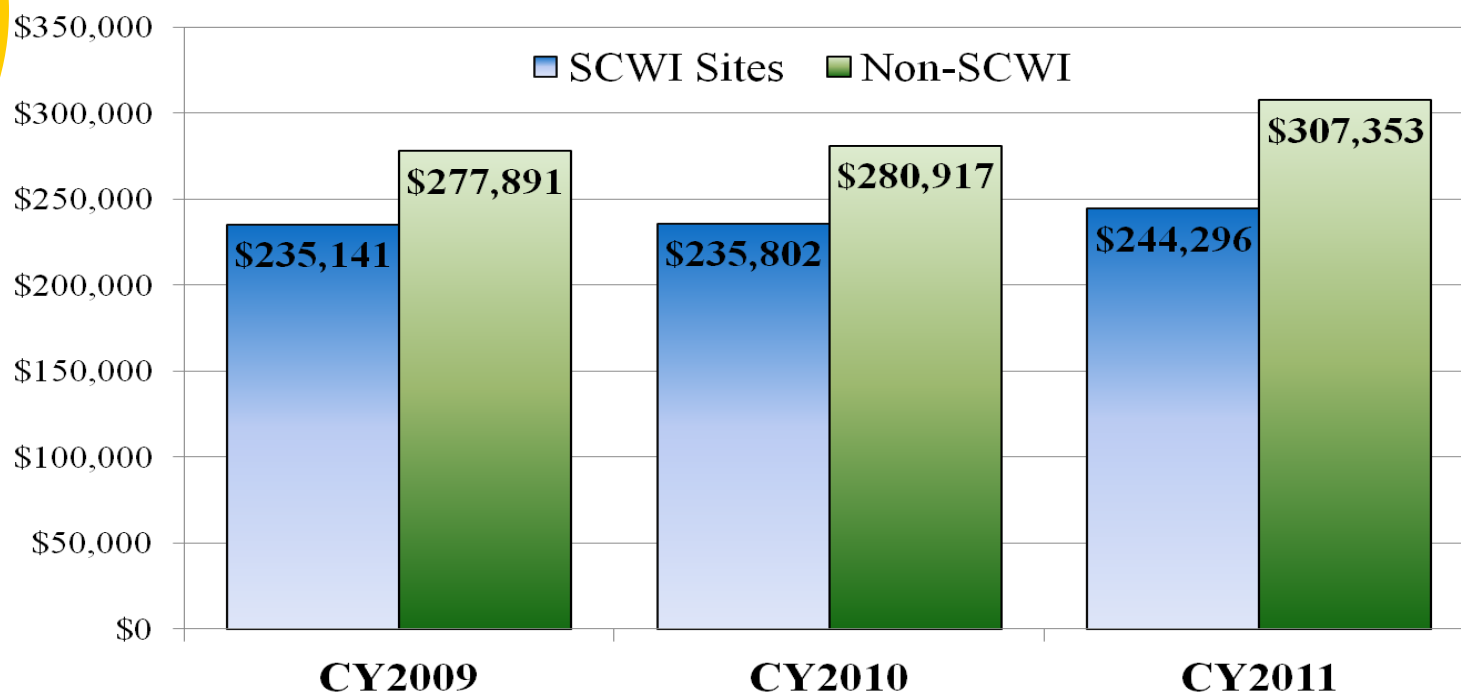
Oregon Statewide Children's Wraparound Initiative Demonstration

- 2012 report
- Data from three demonstration sites covering eight counties
- Served about 550 children and families at the time of the report
- Compared costs from SCWI counties to others, regardless of participation in Wraparound

Costs lower than comparison

All levels of service

Total Billed per 1,000 Members age 0-17
Calendar Years 2009-2011



Source: Medicaid Management Information System (MMIS); data pulled on 10/18/2012

Changes between intake and discharge

- Intake to discharge improvements:
 - Children not on psychotropic medications increased from 49% to 59%
 - Living stability: no moves in prior 90 days increased from 60% to 73%; three or more moves decreased from 11% to 2%
 - Living in family/long-term non-foster increased from 14% to 51%
 - Caregivers feel adequate to excellent support to address problematic behavior increased from 49% to 72%

Other recent cost studies

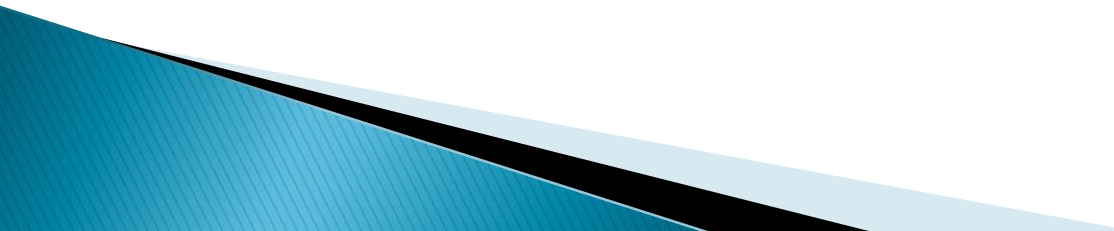
- Soon-to-be-released report from Nebraska demonstrating savings
- Citation from 2012 webinar by New Jersey Director of Children's Behavioral Health
 - savings of \$40 million from 2007 to 2010 by reducing the use of acute inpatient services alone
 - residential treatment budget was reduced by 15% during the same time period.
 - length of stay in residential treatment centers decreased by 25%.

Guenzel, J. (2012, July). System of care expansion in New Jersey. Presentation at the Georgetown University Training Institutes 2012: Improving Children's Mental Health Care in an Era of Change, Challenge, and Innovation: The Role of the System of Care Approach, Orlando, FL.


More information

- National Wraparound Initiative website www.nwi.pdx.edu
 - Resources ->library ->financing ->cost studies (or just use site search)
 - Join the NWI and/or subscribe to our newsletter and we'll let you know when new items are added.
- More information right now from Bruce Kamradt, Director of Wraparound Milwaukee.

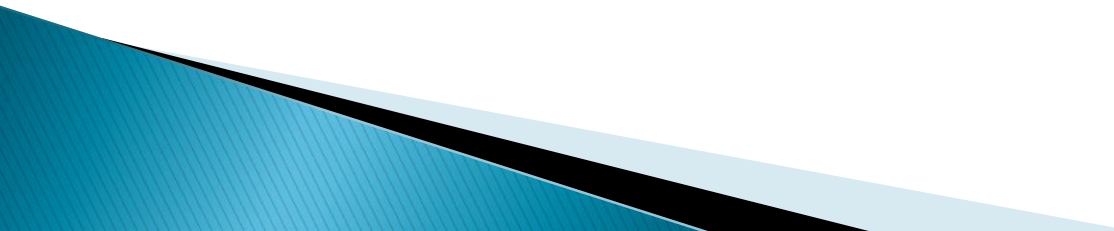
Focus of Today's Presentation and Wraparound Milwaukee is on Creating, Measuring, & Achieving Program & Financial Outcomes

- ▶ The key to the sustainability and tremendous expansion in enrollment and funding in Wraparound Milwaukee has been it's ability to show how implementation of the model has resulted in positive program outcomes and cost saving to other child serving agencies, particularly Child Welfare, Juvenile Justice and Medicaid
 - ▶ Being able to measure and demonstrate positive program and particularly fiscal outcomes has been the argument to policy makers for continued "investment and reinvestment" of savings from reduced need for institutional care back into the program to expand enrollment from the original 25 youth to now 1075
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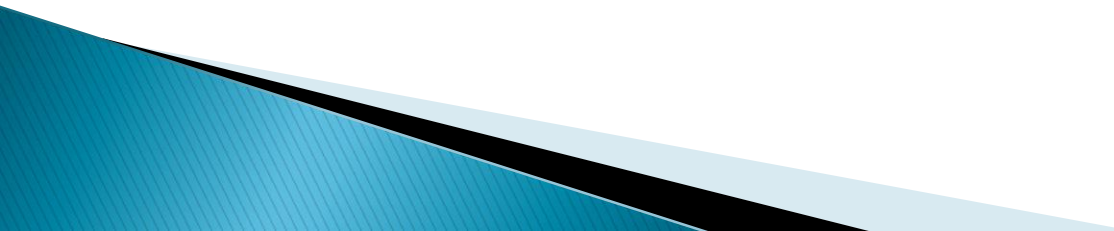
Background for the Development of A System of Care in Milwaukee County and for the Care Management Entity (CME) Model

- Milwaukee County consists of a culturally and ethnic diverse population of 1.1 million (230,00 children ages 0–18)
 - In the mid 1990's Milwaukee County faced significant clinical, programmatic and fiscal issues related to how care was provided to children with serious emotional and mental health needs
 - There was over utilization of institutional care for these children in hospitals, residential treatment centers and correctional facilities
 - The high placement numbers of these youth by mental health, Child Welfare and Juvenile Justice authorities was creating serious fiscal issues
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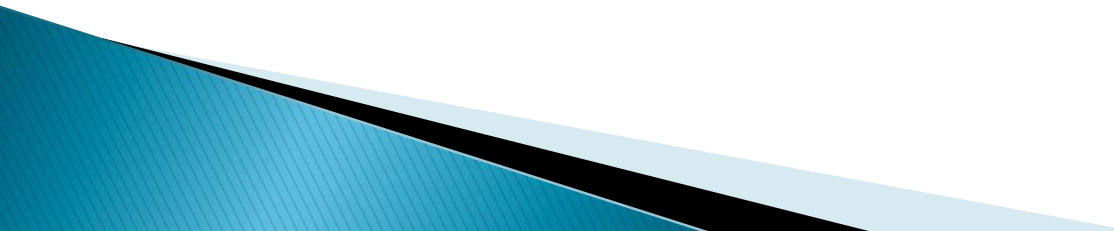
Background for the Development of A System of Care in Milwaukee County and for the Care Management Entity (CME) Model – cont'd

- The clinical outcomes were poor and recidivism high
 - Very little collaboration took place among mental health, Child Welfare and Juvenile Justice systems and this resulted in a fragmented service delivery system
 - What Milwaukee needed was “Real System Transformation” which opened the door for Wraparound Milwaukee’s Development
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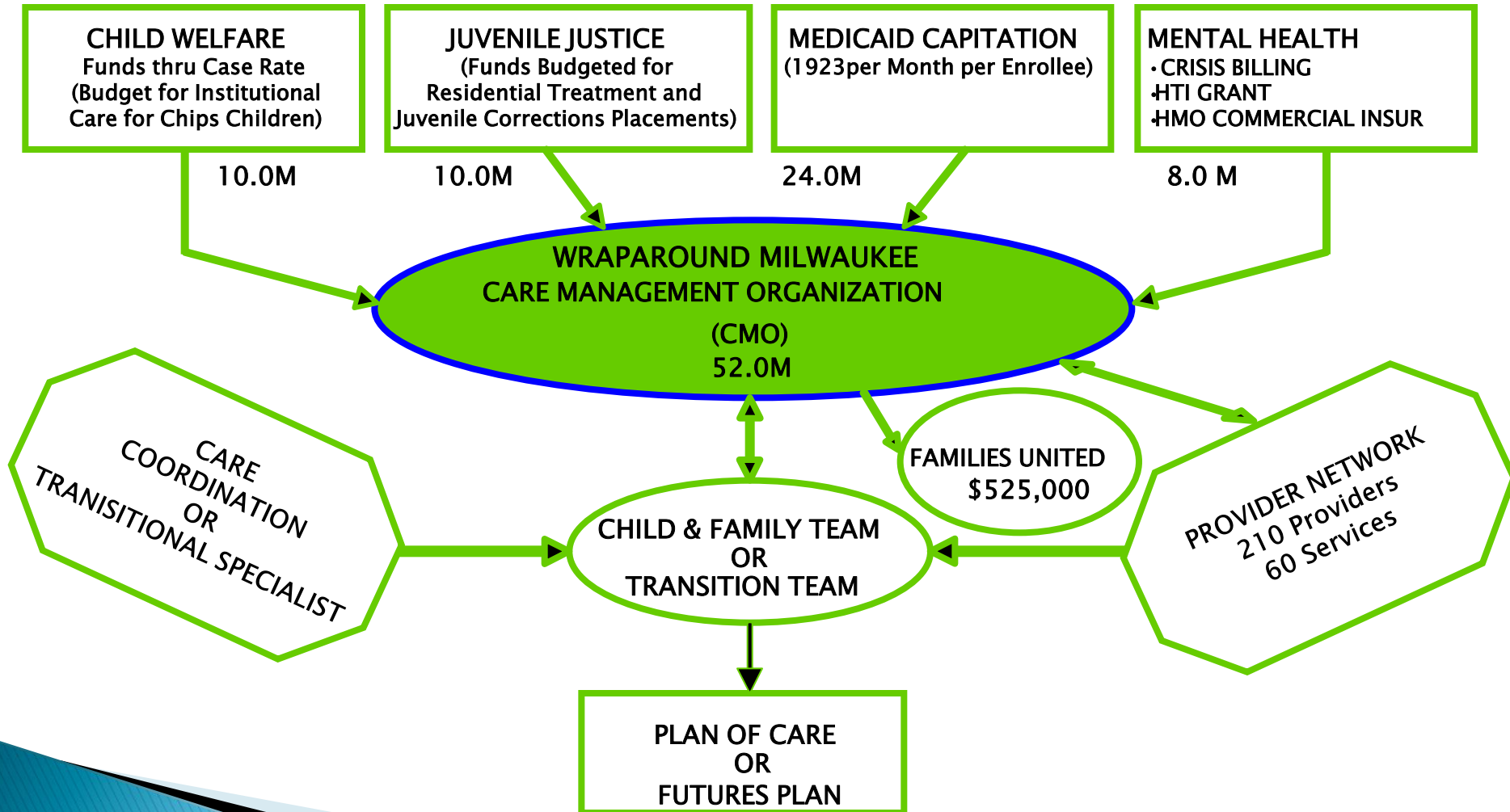
What is Wraparound Milwaukee?

- ▶ A system of care and unique care management entity serving children with serious emotional and mental health needs and their families
 - ▶ Established in 1995 to provide community-based alternatives to youth being placed in institutional placements, juvenile correctional placements and in-patient psychiatric hospitals
 - ▶ Serves all SED youth across child serving systems including Child Welfare, Juvenile Justice and Mental Health and is the single payor of all care for this population
 - ▶ Currently serves 1075 youth/families on a daily basis
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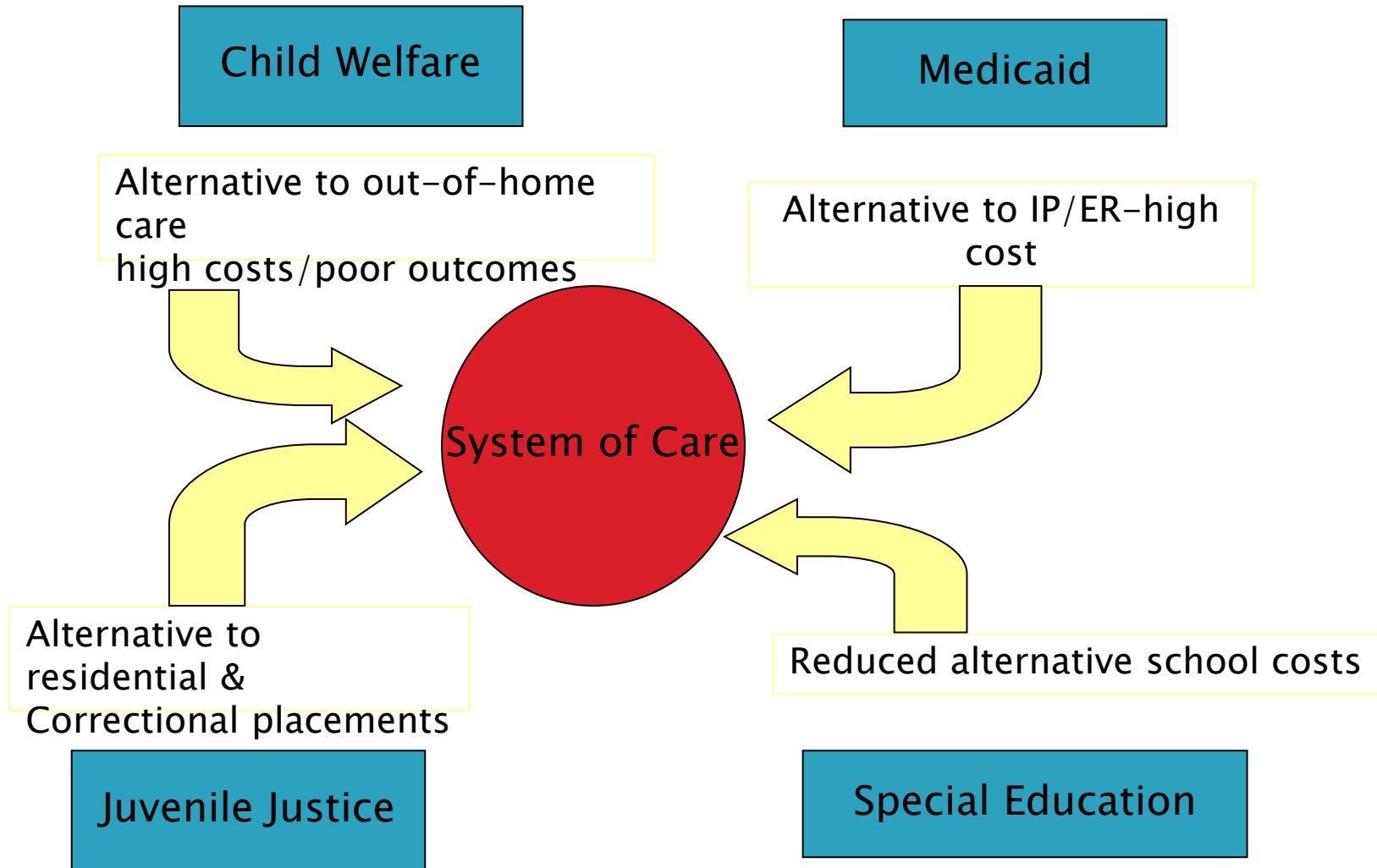
Funding of Wraparound Milwaukee

- ▶ Operates as a special manages care entity under a 1915(a) provision and contract between the Wisconsin Medicaid Program and Milwaukee County
 - ▶ Pools monies across child serving systems using various approaches including capitation payments and crisis billing on a fee-for-service basis from Medicaid, a case rate methodology from Child Welfare and both fixed allocation and case rate payment strategy with Juvenile Justice
 - ▶ The current pooled funding is \$52 million per year and any annual savings in excess of services paid out is retained in risk reserve (currently about \$5 million)
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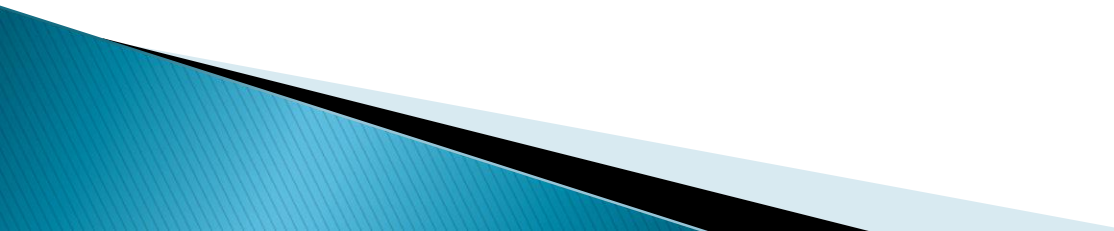
How We Pool Funds



Creating “win-win” Scenarios



Our Philosophical and Treatment Approach

- ▶ We utilize a wraparound approach with highly individualized, strength-based, family directed care
 - ▶ Care coordinators facilitate the care planning teams with families having access to family advocates and educational advocates through Families United of Milwaukee
 - ▶ Ratio of care coordinators to families is 1:8
 - ▶ Care coordinators have unique legal roles in Wraparound Milwaukee and prepare reports, testify in court, prepare legal documents
 - ▶ Participation in Wraparound Milwaukee for youth adjudicated delinquent or children in need of protection or services is part of the court order (flex orders)
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Cost Effectiveness of Wraparound Milwaukee Versus All Types of Institutional Care

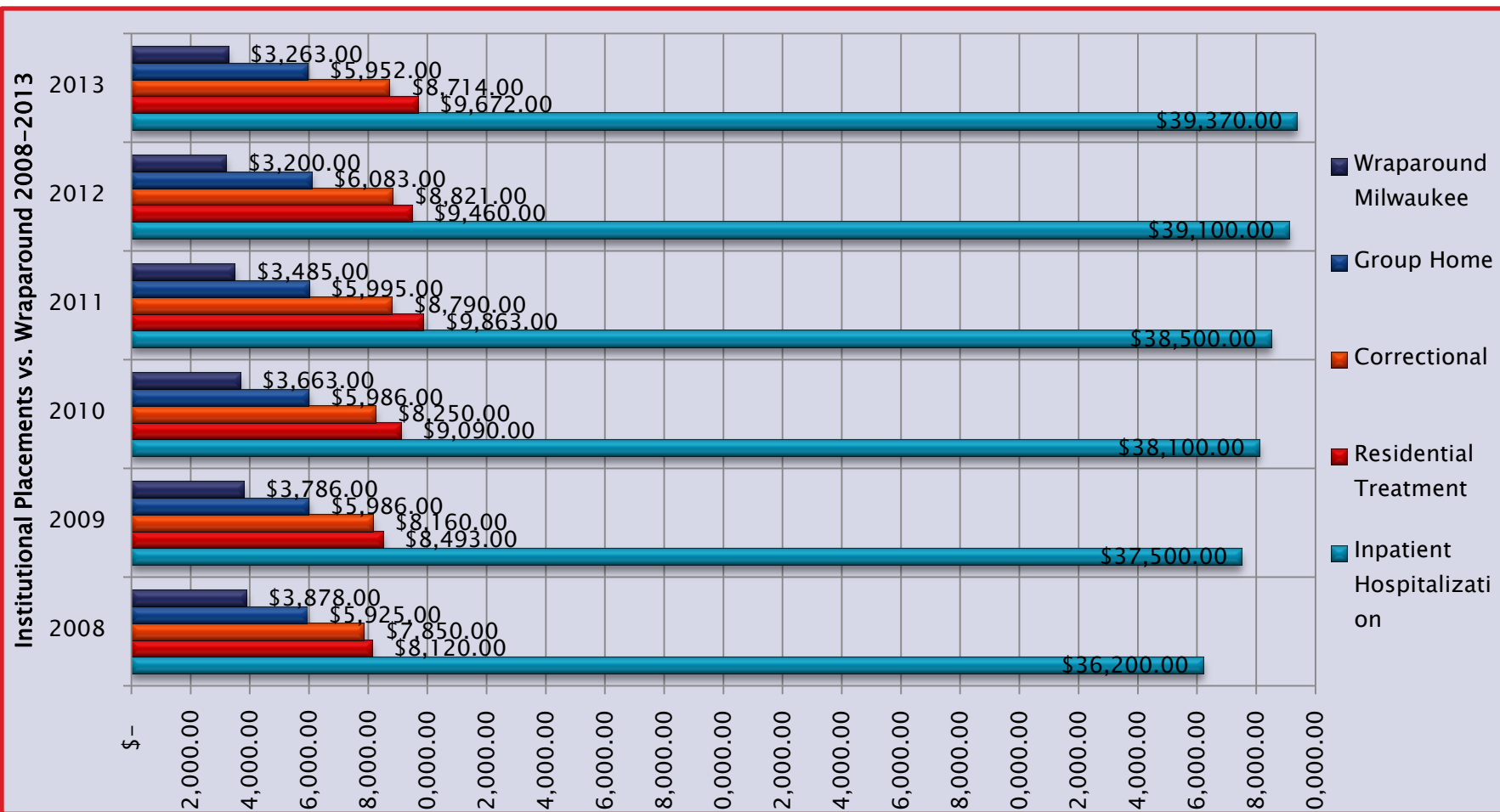
- ▶ Since Wraparound Milwaukee serves all Milwaukee County youth with serious emotional and mental health needs and is the single payor of care, one of our first studies was to compare the costs of WAM to institutional care
- ▶ For the past 5 years, as the graph on the next slide shows, the average monthly cost of care for a youth in Wraparound Milwaukee has consistently been less than the average cost for institutional care
- ▶ 6 year average monthly cost comparison
 - Wraparound Milwaukee \$3,545
 - Group Home \$5,998
 - Correctional Facility \$8,374
 - Residential Treatment \$9,116
 - Psychiatric Hospital Stay (30 days) \$38,130

Cost Effectiveness

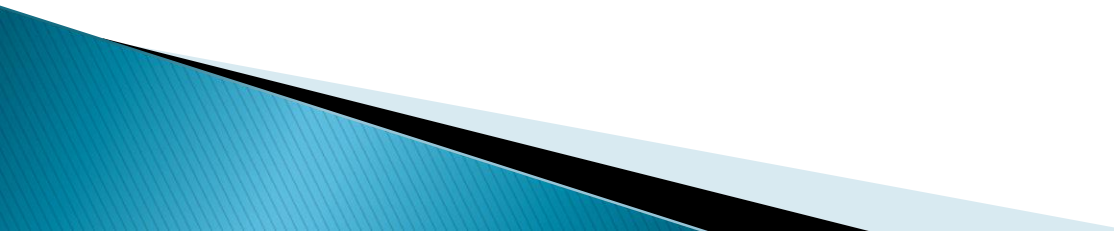
Wraparound Milwaukee vs. Institutional Placements

Over Past Six Years

(average monthly cost of service)



Reduction in Utilization (Cost & Usage) of Residential Treatment by Milwaukee County Youth

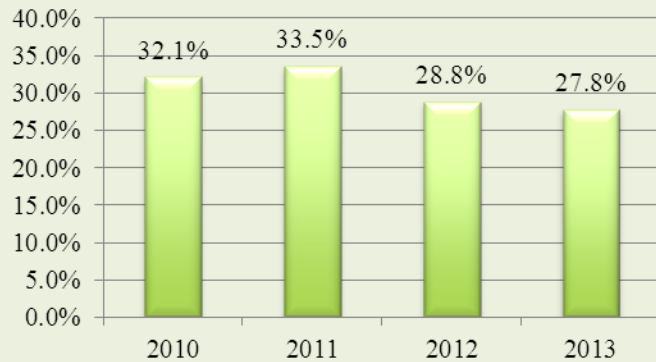
- ▶ Wraparound Milwaukee is designed to provide community-based alternatives to residential treatment
 - ▶ In 1995, the first year Wraparound Milwaukee targeted serving youth in residential treatment centers, there were 375 Milwaukee youth in residential treatment placements
 - ▶ Wraparound Milwaukee utilized a strategy to enroll all youth in RTC's and those identified at risk for residential treatment placement over a 2 year period with a goal to reduce the need for such placements
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Reduction in Utilization (Cost & Usage) of Residential Treatment by Milwaukee County Youth – cont'd

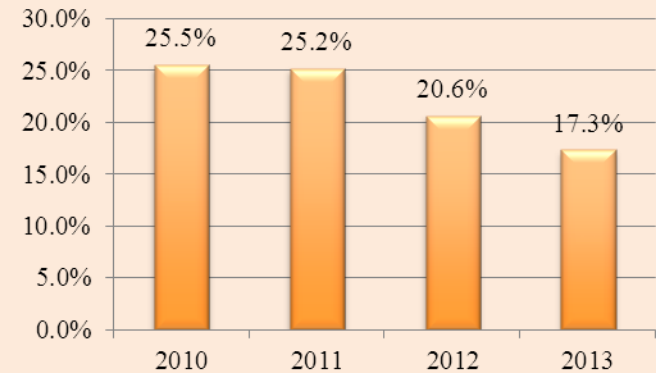
- ▶ System Stakeholders were interested from the start in whether Wraparound Milwaukee could reduce RTC use. Today there are 110 youth in residential treatment centers with a reduction in average stay from 14 months to 4 months.
- ▶ Wraparound Milwaukee continues to pay for and manage nearly all residential treatment placements of Milwaukee County youth and so we continue to monitor utilization for our system stakeholders
- ▶ As the graph on the following slide shows, over the past four years the utilization of residential treatment services has declined each year since 2010 from 25.5% of total enrollees to 17.3% in 2013 and the cost per month per child (PCPM) has decreased from \$1,110 to \$910 in 2013 (through first six months of 2013)

Average Utilization Trends (Cost and Usage) of Residential Treatment by Wraparound Milwaukee Enrollees (2010-2013)*

% of Total Wraparound Payments Per Month



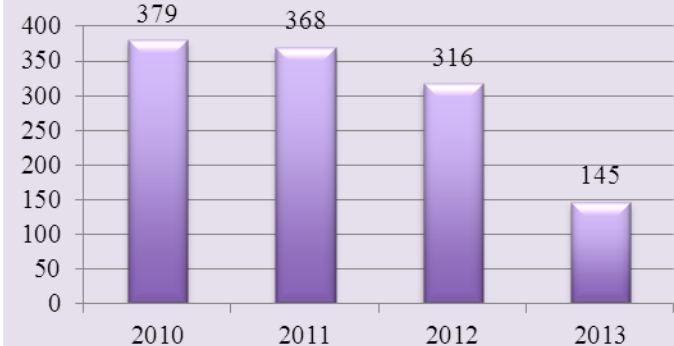
% of Total Wraparound Enrollees



Cost Per Month (Per Child)

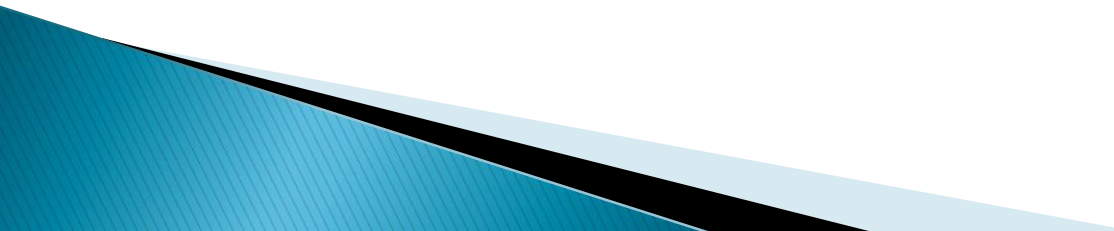


Average # of Youth Receiving RTC Services



*2013 (year-to-date)

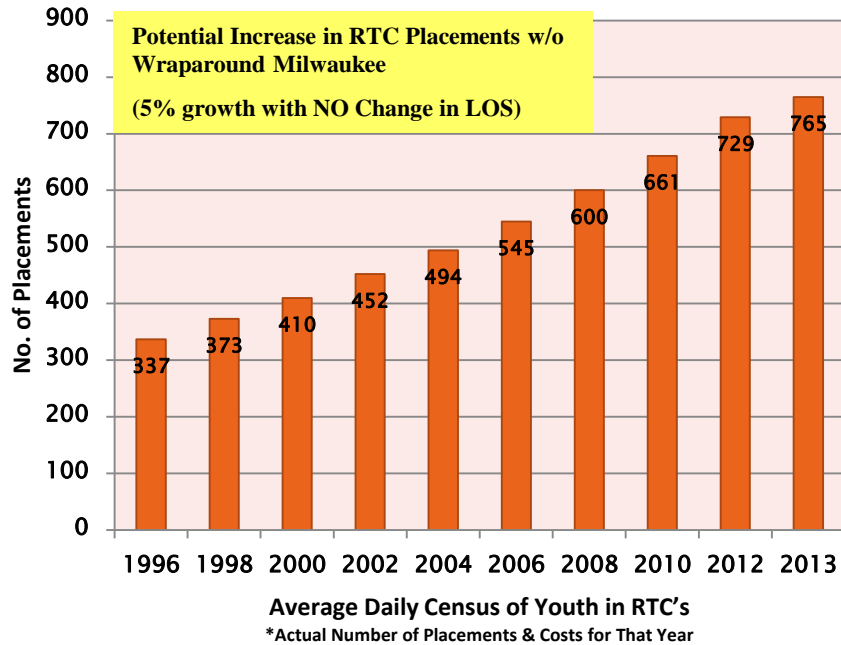
What has Contributed to Lower Residential Treatment Numbers

- ▶ Availability of an array of community-based alternatives in the Provider Network such as in-home treatment, crisis 1:1 stabilizers, professional foster homes, etc
 - ▶ Well trained and supervised care coordinators
 - ▶ Prior authorization of RTC care and required progress reports
 - ▶ Specialized Wraparound “coaches” who help teams with very complex youth and where teams get “stuck” with developing effective community plans
 - ▶ Improved transitional planning with the residential treatment centers including educational advocacy/planning
 - ▶ High risk youth i.e. juvenile sex offenders, more violent offender reviewed monthly with psychologist specializing in those more complex youth
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The Cost of Doing Nothing – Residential Treatment Costs Without Wraparound Milwaukee Versus Actual Residential Treatment Placement Costs Under Wraparound

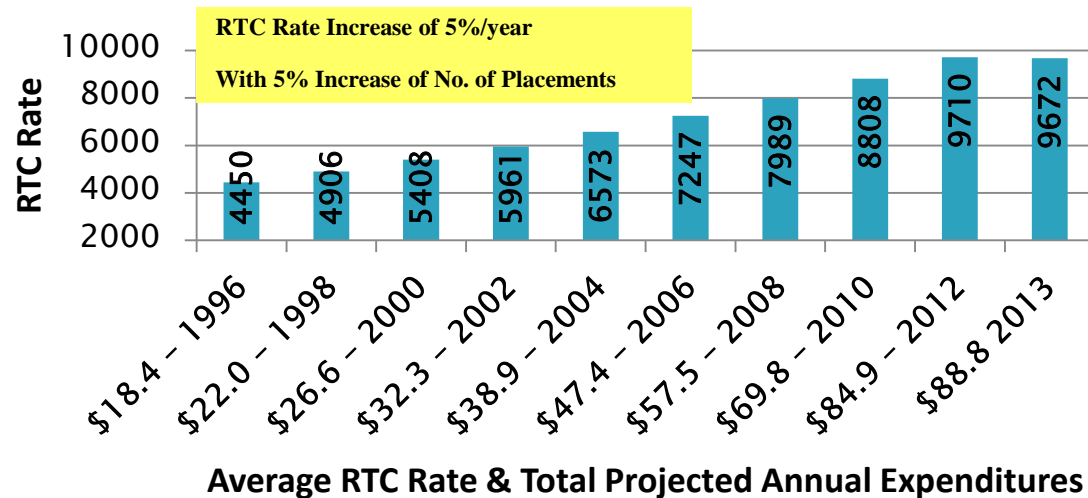
- ▶ Wraparound Milwaukee developed a methodology shown in the graph on the following slide to show what the potential for increase costs may have been to Milwaukee County child serving agencies had the number of RTC placements continued to increase by 5% every year and cost of RTC placements had also increased by the same percentage (as they had in the previous 5 years)
- ▶ This graph compares the projected costs without Wraparound with the actual expenditures for residential treatment for County youth over the same period
- ▶ Total projected expenses in 2013 without Wraparound Milwaukee would have been approximately \$88.8 million versus \$12.5 million in 2013

RTC Placements

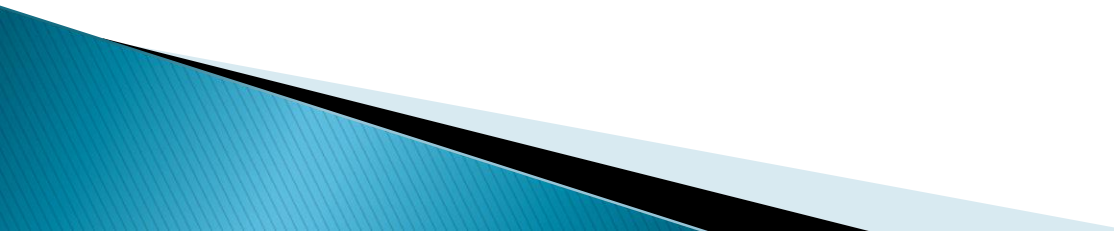


Cost of Doing Nothing Residential Treatment Placements & Costs Without Wraparound Milwaukee

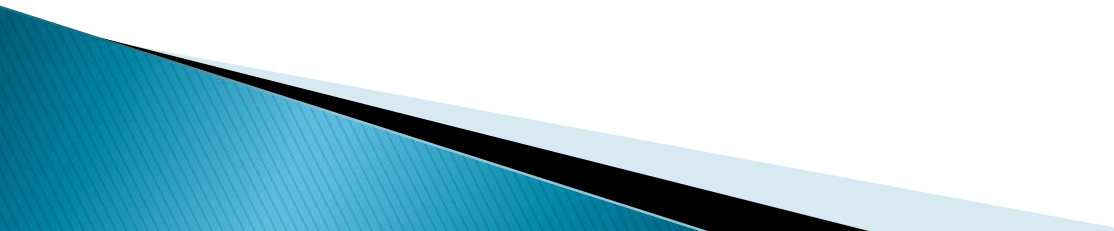
Child Welfare/Juvenile Justice Expenditures for RTC without Wraparound Milwaukee



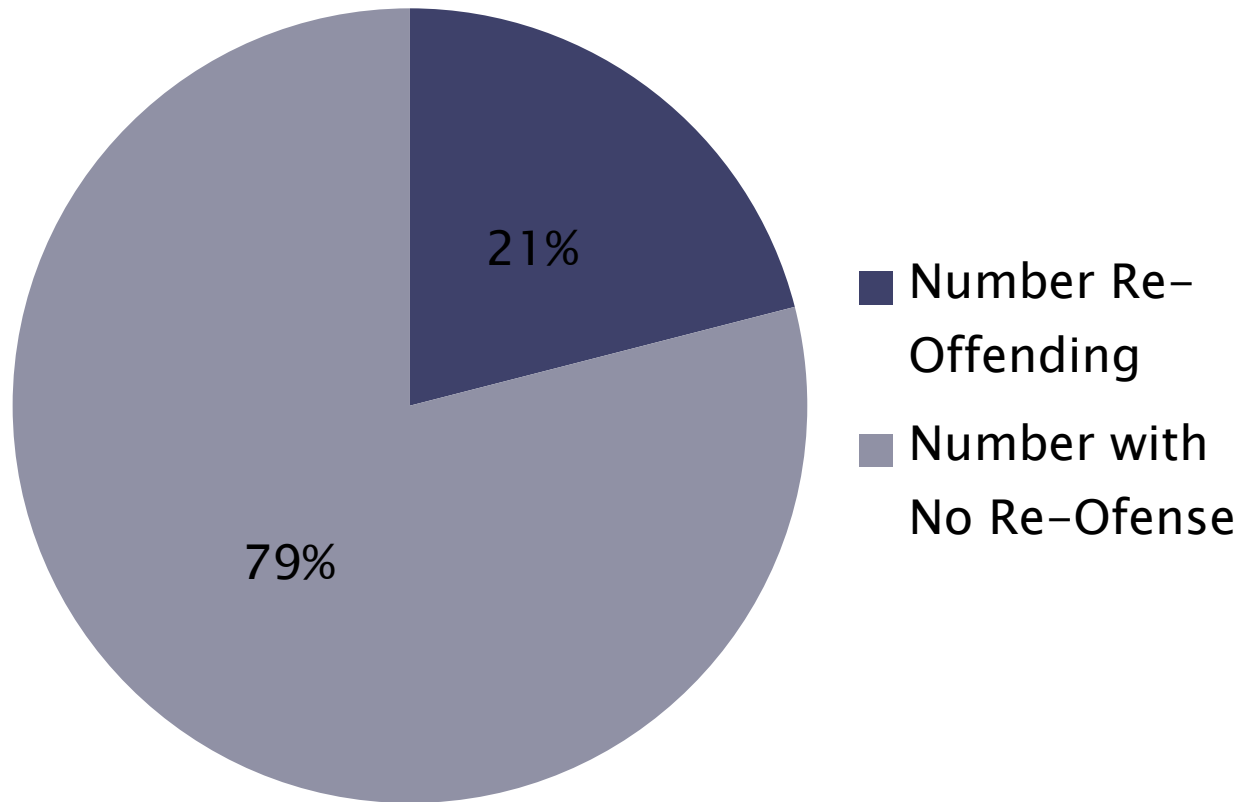
Reduction in Juvenile Justice Recidivism Rates for Youth Enrolled in Wraparound Milwaukee

- ▶ Nearly 45% of youth with serious emotional and mental health enrolled in Wraparound Milwaukee are adjudicated delinquent (about 450).
 - ▶ Nearly 45% of youth on probation supervision in Milwaukee County are enrolled in Wraparound Milwaukee
 - ▶ Wraparound Milwaukee and our Judicial and Delinquency System views the collection of recidivism data as an important accountability measure and an outcome that has financial and program importance
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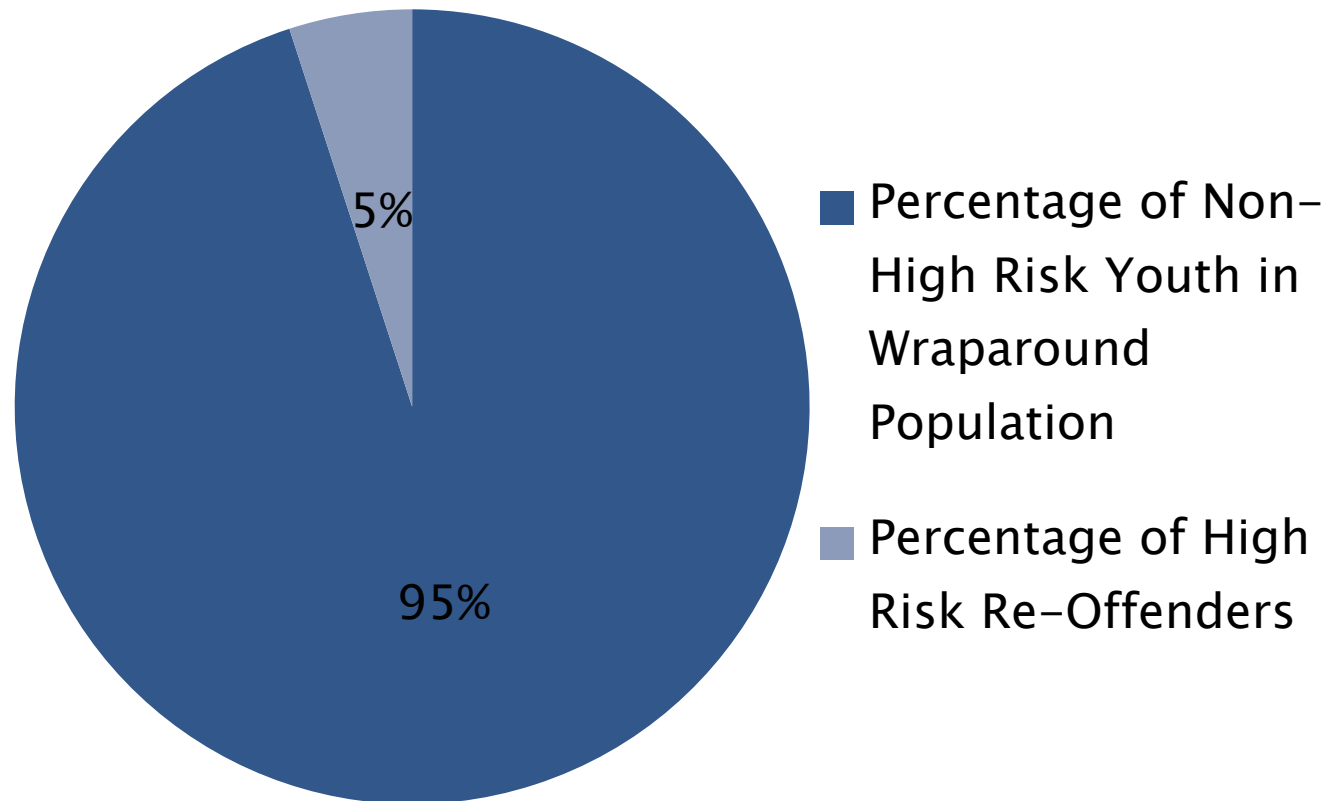
Reduction in Juvenile Justice Recidivism Rates for Youth Enrolled in Wraparound Milwaukee – cont'd

- ▶ The Public Policy Forum of Wisconsin recently conducted a four year study of all delinquent youth in Milwaukee County risking new arrest data as our indicator and established an overall 41.1% recidivism rate for youth in the delinquency system
 - ▶ As the graph on the following slide shows, the overall rate of recidivism of Wraparound Milwaukee enrolled youth using the same arrest data served in the delinquency system over the past two years (n=1309) was 21%
 - ▶ The impact of this data and findings has been important in the willingness and comfort level of the Judicial System to refer so heavily to Wraparound Milwaukee for the JJ youth with Serious Emotional/Mental Health Needs
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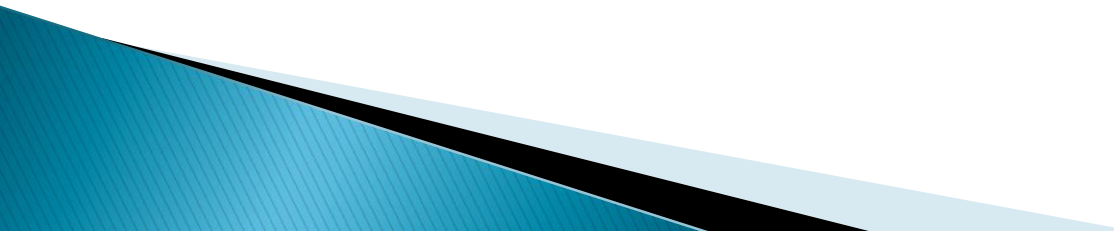
Overall Recidivism Rate for Wraparound Milwaukee (n=1 309)



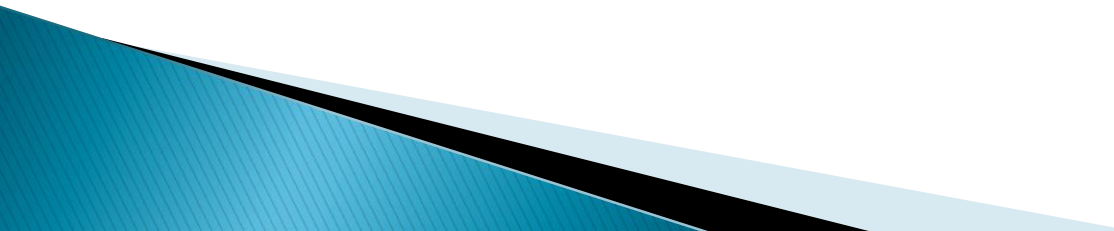
Overall Recidivism Rate for High Risk Youth in Wraparound Milwaukee (n=1 309)




Reduction in Recidivism Rates for Juvenile Offenders with Serious Mental Health Needs has Resulted in Reduction in Juvenile Correctional Placements and County Costs for Such Placements

- ▶ Wraparound Milwaukee needed to show what the direct fiscal impact of the reduction in recidivism had on correctional placements of county youth. In Wisconsin, including Milwaukee County, counties are responsible to pay for the costs of youth committed to the State correctional system (Youth Aids Program)
 - ▶ While counties receive some base level state funding, placement cost in excess of state funding must be absorbed by county funds
 - ▶ But counties also retain savings in excess of their aids base level funding to fund community-based care for delinquent youth if they can reduce juvenile correctional placements
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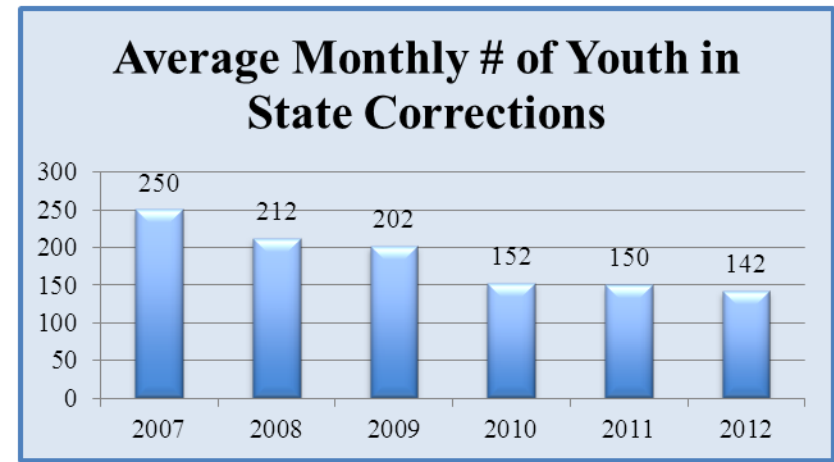
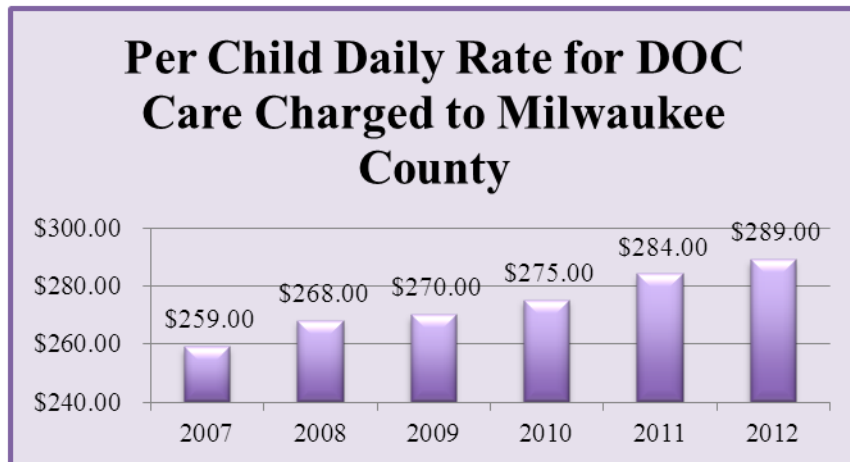
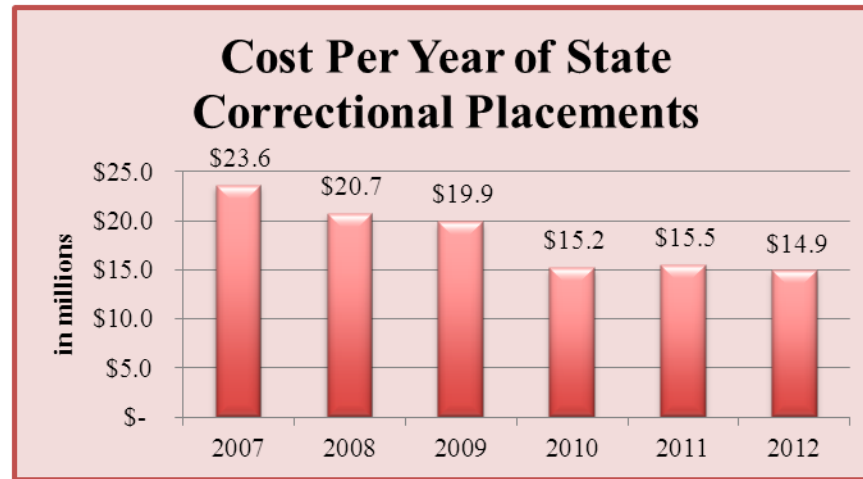
Reduction in Recidivism Rates for Juvenile Offenders with Serious Mental Health Needs has Resulted in Reduction in Juvenile Correctional Placements and County Costs for Such Placements – cont'd

- ▶ Wraparound Milwaukee serves 60% of youth on supervision or 420 adjudicated delinquent youth including many of those at risk of correctional placement – judges look to Wraparound for alternatives to state correctional commitment where possible
 - ▶ Annual Base level youth aids funding from the State for Milwaukee County is currently \$23,861,529
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Reduction in Recidivism Rates for Juvenile Offenders with Serious Mental Health Needs has Resulted in Reduction in Juvenile Correctional Placements and County Costs for Such Placements – cont'd

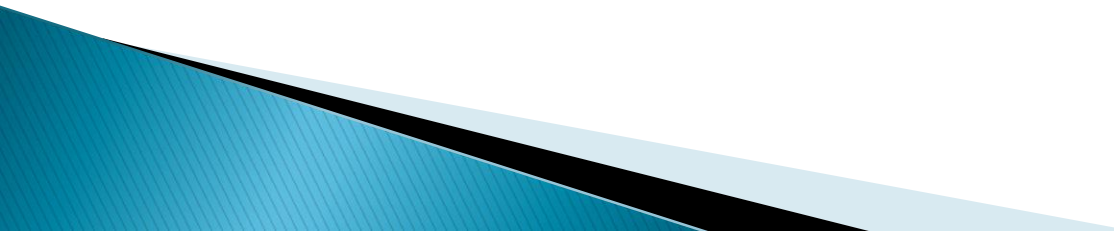
- ▶ As the graph on the following slide shows, over the past 5 years, the average monthly number of youth in the state corrections system from Milwaukee County has decreased from 250 in 2007 to 142 in 2012 leading to a reduction in state correctional costs to Milwaukee County from \$23.6 million in 2007 to \$14.9 in 2012. This is mainly seen as a direct impact of Wraparound Milwaukee's effectiveness with the juvenile justice youth.
 - ▶ Milwaukee County Delinquency & Court Services has used surplus in "saved monies" to continue to help fund their contribution of monies to WAM but also fund other JJ programs in the community
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Wraparound Milwaukee's Impact on Reducing Utilization of State Correctional Placements and Costs Over Past Six Years*



Wraparound Milwaukee serves 40% of youth in Milwaukee County on probation and most of youths at immediate risk of residential treatment/correctional placement.

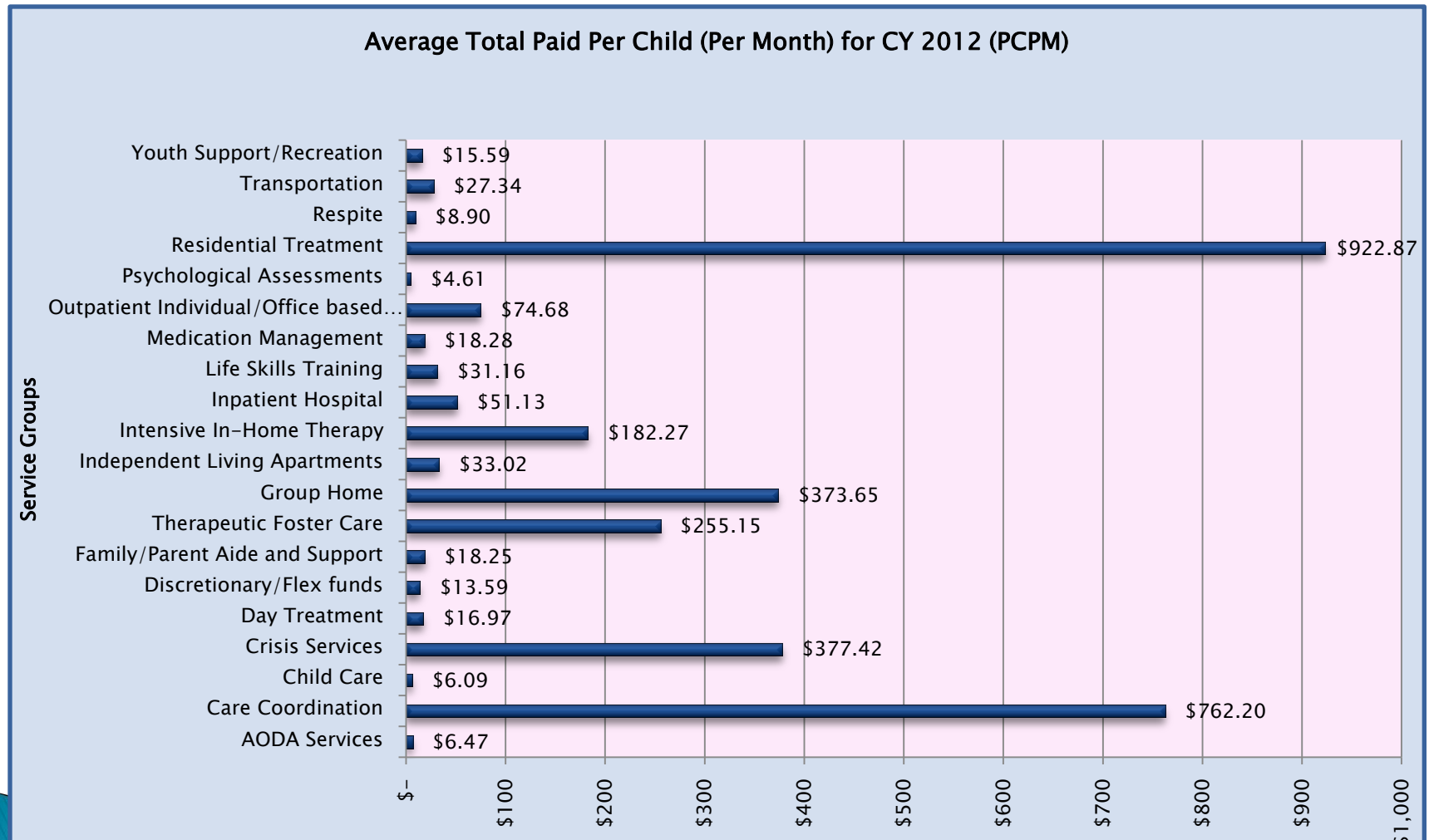
What are the Additional Programmatic and Human Costs to Correctional Placement

- ▶ The latest research has shown youth in state correctional placements have higher recidivism rates than youth treated in the community. Youth recidivism rates within states are often reported 50% or higher for incarcerated youth
 - ▶ Youth incarcerated in state juvenile facilities do not develop social skills; such as, self-control and conflict resolution as well as those who remain in the community
 - ▶ Incarcerated youth suffer more mental health issues and are at a higher risk of suicide
 - ▶ Grouping youth in state correctional facilities reduce their educational and vocational outcomes, disrupt their families, introduce them to delinquent peers and expose them to increased likelihood of trauma
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In-Patient Psychiatric Hospitalization Utilization Remains Low for Wraparound Milwaukee Enrollees

- ▶ Wraparound Milwaukee is a special managed care entity that covers the cost of in-patient psychiatric hospitalization for all members
- ▶ When Medicaid approved the contract with Milwaukee County in 1996 it was their desire to see better management of and reduced utilization of in-patient psychiatric care days for youth with serious emotional and mental health needs – so we have set up measures to look at the utilization of inpatient psychiatric care for WAM
- ▶ The graph on the following slide shows utilization (PCPM) of WAM benefit services for 2012 including psychiatric hospitalization
- ▶ The \$51.13 PCPM for in-patient psychiatric care was only 2% of the total average expenditures per member of \$3,200 per month in 2012.

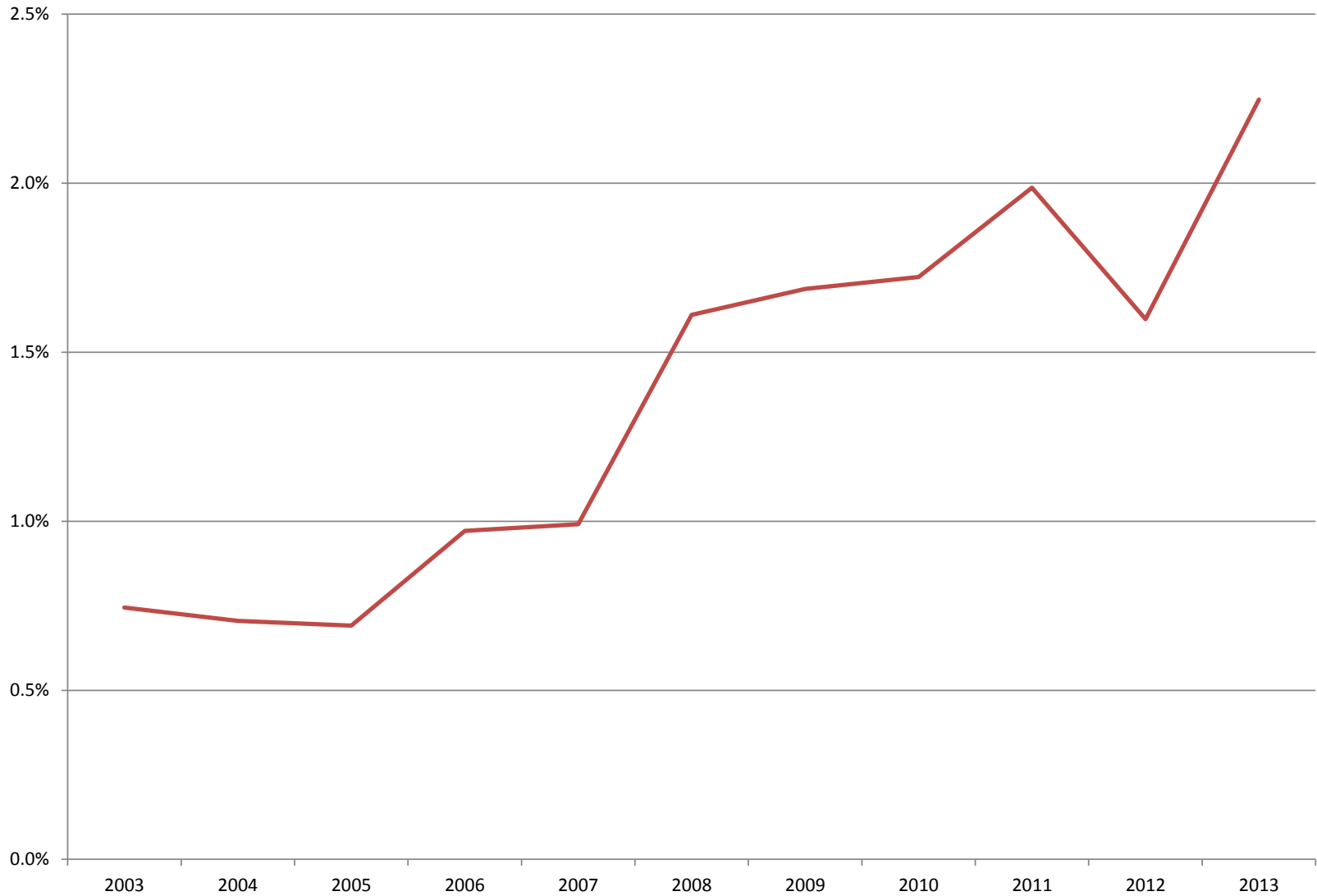
Utilization Review of Service Provided by Wraparound Milwaukee in 2012



Percent Wraparound Expenditures on In-Patient Hospitalization for the Past 10 Years

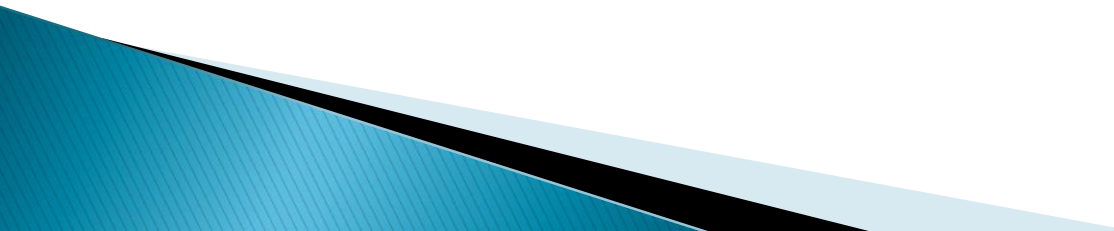
- ▶ The graph on the following slide shows for Medicaid that the percentage of Wraparound Milwaukee expenditures on psychiatric in-patient hospitalization over the past ten years from 2003 – 2013 showing that expenditure did not exceed 2.3% of expenditures and averaged about 1.5% of all Wraparound behavioral health spending
- ▶ Accounting for this low rate of hospital in-patient spending has been the effectiveness of our Mobile Crisis Teams and availability of crisis stabilization services including crisis 1:1 stabilizers and temporary crisis/respite beds

Percent Wraparound Expenditures on Inpatient Hospitalization, by Year



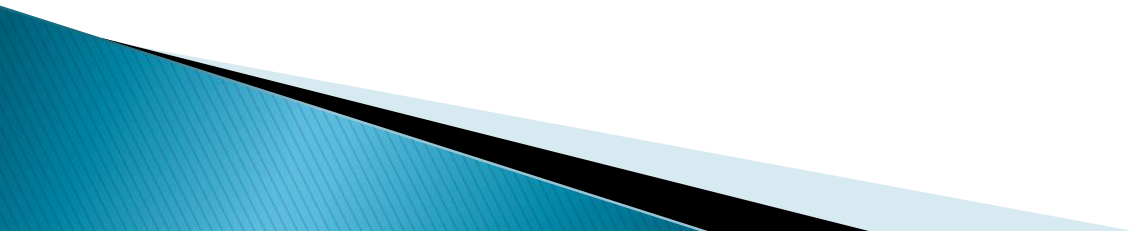
Source: Synthesis payment records

How Do We Disseminate Fiscal & Program Outcome Information to Stakeholders

- ▶ Annual Reports
 - ▶ Semi-Annual and Annual QA/QI Reports
 - ▶ Monthly Newsletter
 - ▶ Utilization Review Reports sent to Stakeholders
 - ▶ Meetings of Wraparound Milwaukee Partnership Council and other Stakeholder Meetings
 - ▶ Preparation and Dissemination of Periodic Studies and Reports
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Financial Outcomes

It is critical to develop good approaches to measure, monitor and report on fiscal outcomes for Wraparound Programs. The single biggest downfall to sustaining Wraparound Programs has been the lack of good fiscal data and/or ways to present such data to show the fiscal effectiveness of Wraparound Based Systems of Care





The **National Wraparound Initiative** is based in Portland, Oregon. For more information, visit our website:

www.nwi.pdx.edu



The National Wraparound Initiative is funded by the Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, United States Department of Health and Human Services.

This webinar was brought to you in partnership with the Technical Assistance Network.

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