Oregon Health Authority
Addictions & Mental Health Division
Statewide Children's Wraparound Initiative
Fiscal analysis – 2009-2011 Cost Comparisons
October 25, 2012

Introduction

The Wraparound model for delivery of mental health services to children has received considerable attention nationwide as a more efficient and effective way to address the needs of children with complex mental health needs. In theory, Wraparound services should reduce the overall cost of services provided to children enrolled in Medicaid. AMH has conducted a comparative analysis of costs in regions served by the ten Oregon Health Plan (OHP) Mental Health Organizations (MHOs) according to participation in the Statewide Children's Wraparound Initiative (SCWI) demonstration project. This report summarizes initial results of that study.

What is Wraparound?

Wraparound is an evidence-based, comprehensive care management process that has been evolving since the mid-80s and is rooted in a specific set of values, elements, and principles. Its purpose is to coordinate and integrate care for children with complex mental health needs, so that they may function more effectively in their own families and communities.[1]

The Wraparound model is distinguished by its strengths-based approach which is team-based, systems-driven and family- and youth-driven. This model creates a flexible, coordinated plan of services and supports based on each young person's strengths. The core values of Wraparound are:

- Individualized care that is tailored to the individual needs and preferences of the child and family,
- Family inclusion at every level of the clinical process and system development,
- Collaboration between different child-serving agencies and integration of services across agencies,
- Provision of culturally competent services, and

[1] Oregon Health Authority / Department of Human Services, Statewide Children's Wraparound Initiative: Progress Review Summary, July 2012; http://www.oregon.gov/oha/amh/child-mh-soc-in-plan-grp/reports/scwi-pro-review2012-07.pdf

- Serving youth in the least restrictive setting that meets their clinical needs by providing a continuum of formal treatment and community-based supports.[2]

The Wraparound planning process results in a diverse set of community services and natural supports. Child and Family Teams composed of family members, care coordinators, and professional and lay helpers then draw on these services and supports to create flexible plans of care tailored to the individual needs and strengths of each child and family in order to achieve a positive set of outcomes.

Statewide Children's Wraparound Initiative

The statewide Children's Wraparound Initiative (SCWI) was established in 2009 with the goal of bringing the Wraparound model to communities in Oregon. State leadership and support for the SCWI is a joint commitment between the Oregon Health Authority's Addictions and Mental Health (AMH) division and the Department of Human Service's Children, Adults and Families (CAF). Community partners include Portland State University's Center for Improvement of Child and Family Services, Oregon Family Support Network, and Youth M.O.V.E. Oregon.[3]

The SCWI program serves the complex mental health needs of children and youth who have been in the custody of DHS child welfare for at least a year and have been in four or more foster care placements, as well as youth in their first year of DHS custody whose needs require increasingly intensive services.

Three Wraparound demonstration sites were launched in July of 2010 and reached capacity by October of that year, serving a total of 340 children and youth in eight Oregon counties.

- Mid-Valley WRAP, serving 180 youth in Linn, Marion, Polk, Tillamook, and Yamhill counties,
- Rogue Valley Wraparound Collaborative, serving 100 youth in Jackson and Josephine counties, and
- Washington County Wraparound Demonstration Project, serving 60 youth in Washington County.

As of mid-October of 2012, more than 550 children and youth have participated in the demonstration project, including at least 240 who have exited Wraparound.

In 2011-2012 the Wraparound Fidelity Index, version 4 (WFI-4) was used to measure the degree to which Wraparound activities and processes are being

[2] Oregon Department of Human Services, Summary of System of Care Values & the Wraparound Process, December 16, 2009; http://www.oregon.gov/oha/amh/wraparound/docs/soc-values.pdf
[3] Oregon Department of Human Services, Statewide Children's Wraparound Initiative Biennial Report, May 25, 2011; http://www.oregon.gov/oha/amh/wraparound/docs/2011/scwi-biennial-lt-rpt.pdf

implemented according to a model defined by the National Wraparound Initiative in the three demonstration sites. The three demonstration programs compared favorably with other Wraparound programs around the nation on key Wraparound process and outcomes measures, indicating that the Wraparound model is being successfully implemented in Oregon[4].

Research question

Do the costs of mental health services provided to children by plan providers and counties participating in the SCWI differ from costs in non-participating providers and counties? One goal of the Wraparound model is to provide services and supports to help children successfully return to their families and communities instead of moving into higher, more costly levels of care. The purpose of this study is to test the hypothesis that the SCWI demonstration sites will experience reduced overall costs for higher levels of care, relative to those without Wraparound. The study objectives are:

1. Summarize amounts billed and rates per thousand members for children's mental health outpatient, psychiatric day treatment, psychiatric residential treatment, subacute, and acute care, by plan provider and county, for calendar years 2009, 2010, and 2011.

2. Compare three-year trends overall and within each level of services between Wraparound or non-Wraparound plan-counties.

The three year time period allows comparison of rates and costs for the year preceding implementation of the demonstration sites (2009), for the year in which the programs were launched (2010), and for a full year of operation after launch (2011).

Methods

All of the data used in this study were extracted from Oregon's Medicaid Management Information System (MMIS) by Oregon Health Authority's Office of Health Analytics, Program Analysis and Evaluation Unit.

For this study, enrollment is defined as the number of individual children under 18 years of age who were enrolled in each MHO plan county for any length of time during each of the three calendar years covered. All children who meet these criteria are counted whether or not they participated in Wraparound. Enrollment data were extracted from the MMIS Member Months tables.

[4]Oregon Health Authority/Department of Human Services, Wraparound Fidelity Index-4: Summary of Fidelity Monitoring Results, May, 2012; http://www.oregon.gov/oha/amh/wraparound/docs/fidelity-monitoring-results.pdf

Cost estimates are based on billed amounts for cleansed, paid claims from Oregon MHOs for clients 0-17 years of age, regardless of whether they participated in Wraparound. Dollar amounts submitted by MHOs to MMIS for enrolled clients reflect "usual and customary costs" rather than actual expenditures. These amounts were aggregated for each MHO within each of five levels of service: Acute/Hospital Care, Subacute Care, Psychiatric Residential Treatment Services (PRTS), Psychiatric Day Treatment Services (PDTS), and Outpatient Services. Other types of services were excluded, as were services provided to children while not enrolled in any of the Oregon MHO's.

For this report, MHO regions are grouped according to whether or not they are included in the State Children's Wraparound Initiative demonstration project. SCWI participating regions are: Washington County; all five counties served by the Mid-Valley Behavioral Health Care Network; and Jackson and Josephine counties, two of the five counties covered by Jefferson Behavioral Health. The remaining three counties in JBH and all of the other seven MHOs comprise the "Non-SCWI" group.

The relative difference between SCWI and Non-SCWI costs, shown in the table on Page 9 was determined by subtracting the amount billed ("Total Billed per 1,000 Members age 0-17") for SCWI from the total for non-SCWI, and expressing that difference as a percentage of the Non-SCWI amount. A plus sign indicates SCWI sites spent more than Non-SCWI; minus indicates SCWI costs were lower.

Limitations

Several limitations should be considered while considering the results from this study. Perhaps the most important of these is that Oregon is a large and diverse state and no two counties or regions are the same. The type and cost of mental health services are subject to many influences, which may or may not be related to implementation of Wraparound services. In some cases communities are not able to provide the services or supports Wraparound clients need, causing delay or inability to get treatment, resulting in less favorable outcomes.

Keep in mind as well that Oregon's Medicaid mental health care system has been and continues to be in flux as the state implements fundamental changes in the way health and mental health services are delivered. During the three years covered by this study, the Oregon Healthy Kids initiative was implemented, resulting in steep increases in the number of OHP enrollees. The timing of these increases did not always correspond directly to changes in costs, often as a result of the need to increase the diversity and capacity of community mental health services and supports for the increasing number of children served.

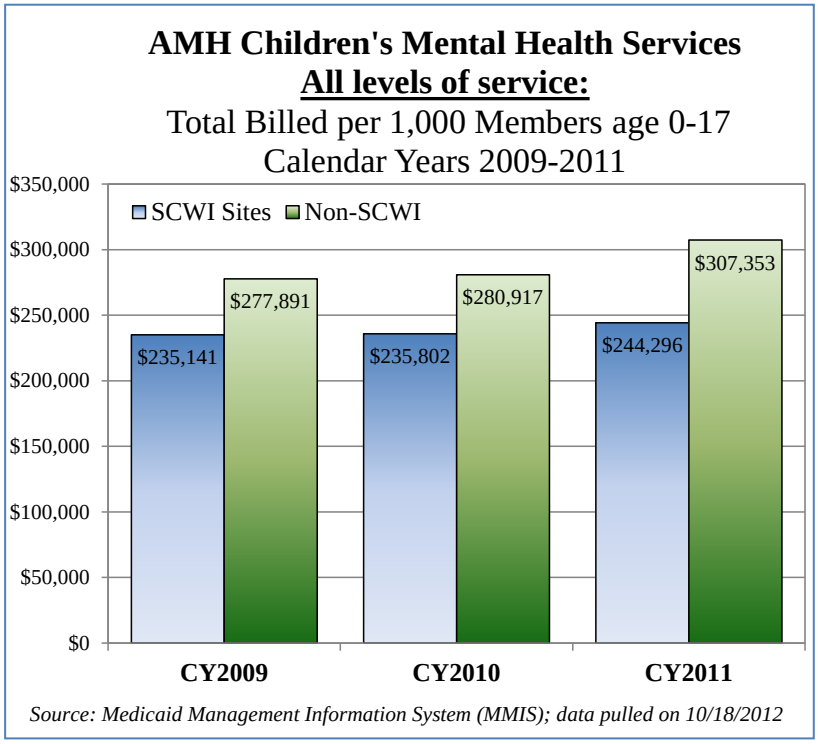
In addition, during these three years communities around Oregon were preparing plans and proposals for a new and very different health care delivery model designed to roll separate mental, physical, and dental health plans together into unified Coordinated Care Organizations (CCOs).

Some MHOs that were not included in the SCWI demonstration project have adopted Wraparound policies and practices. AMH approves of these efforts despite the fact that they may increase the difficulty of measuring the impact of the SCWI demonstration.

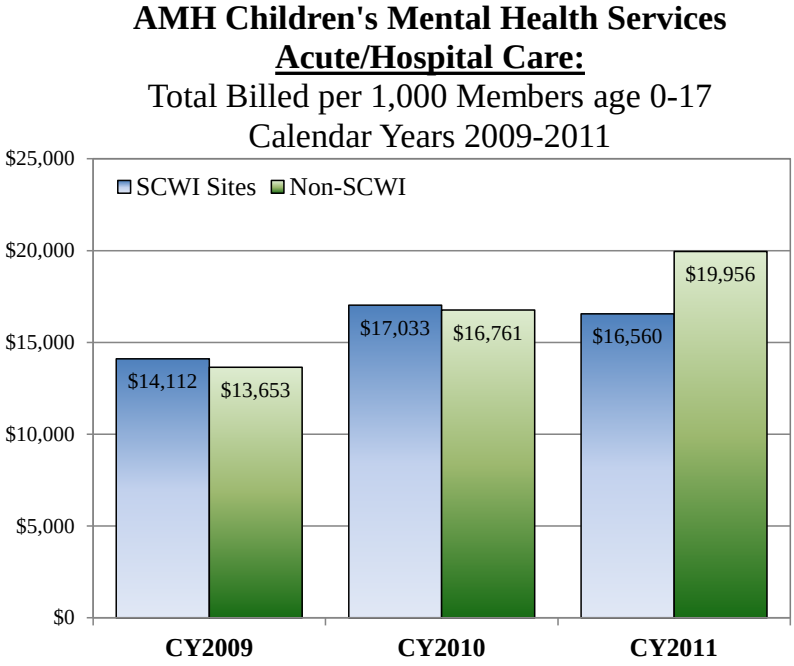
Another factor to consider is that the amount billed for mental health services is often higher than the actual expenditure for services, especially for acute care. However, even if the "costs" seem inflated, it is still possible to compare results among MHOs and Counties.

Results

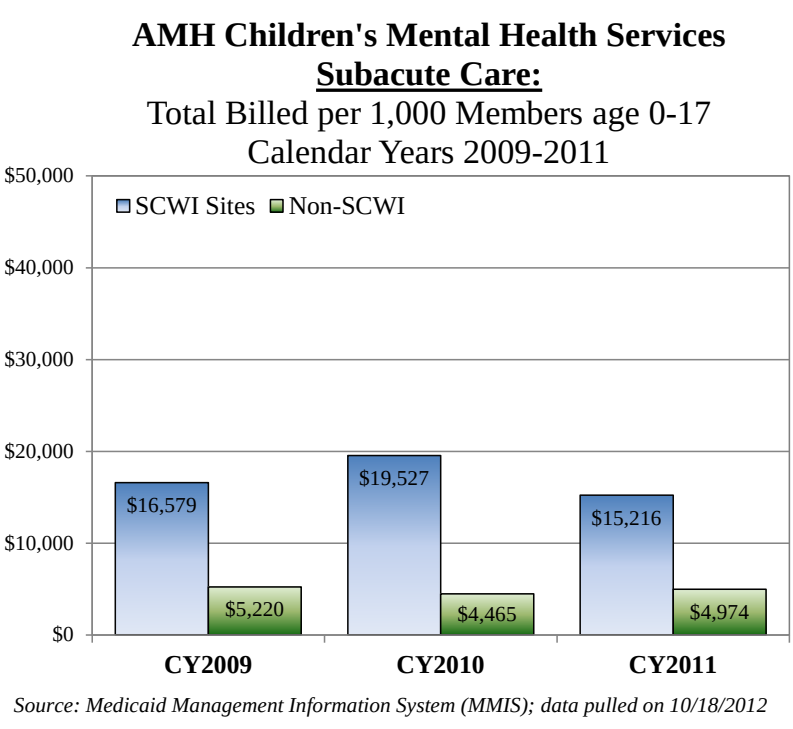
Results for each level of service are shown separately in bar graphs, followed by a summary table.



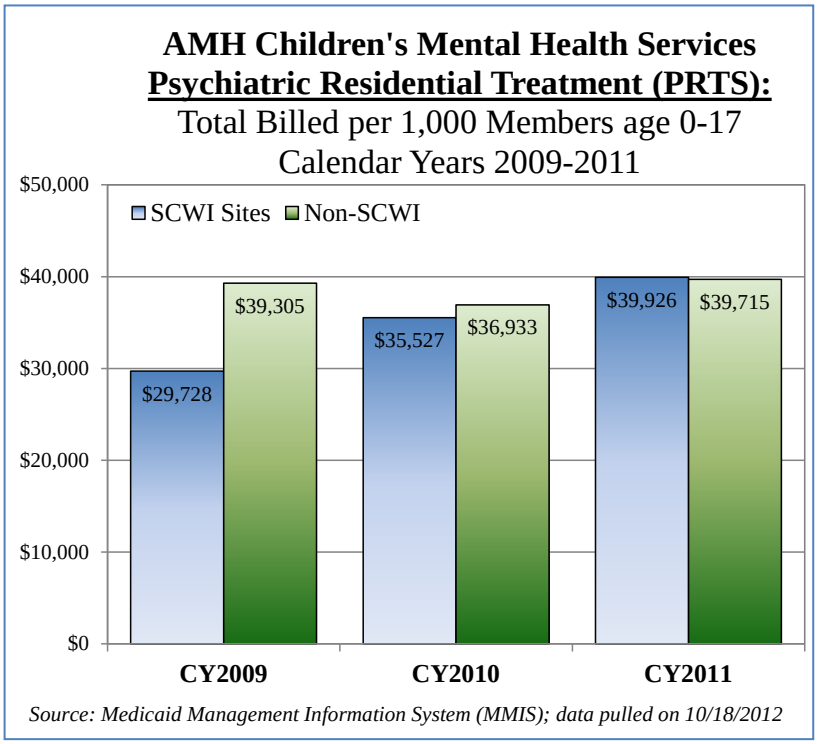
Combined results for all levels of service (left) indicate that the SCWI sites "spent" less overall during each year studied. Relative to Non-SCWI, SCWI overall costs were shrank from 15% less in 2009 and 16% less in 2010. In the third year, after the Wraparound was fully established in all three demonstration sites, overall costs increased much less among SCWI, compared to non-SCWI – $9,400 and $26,400, respectively.



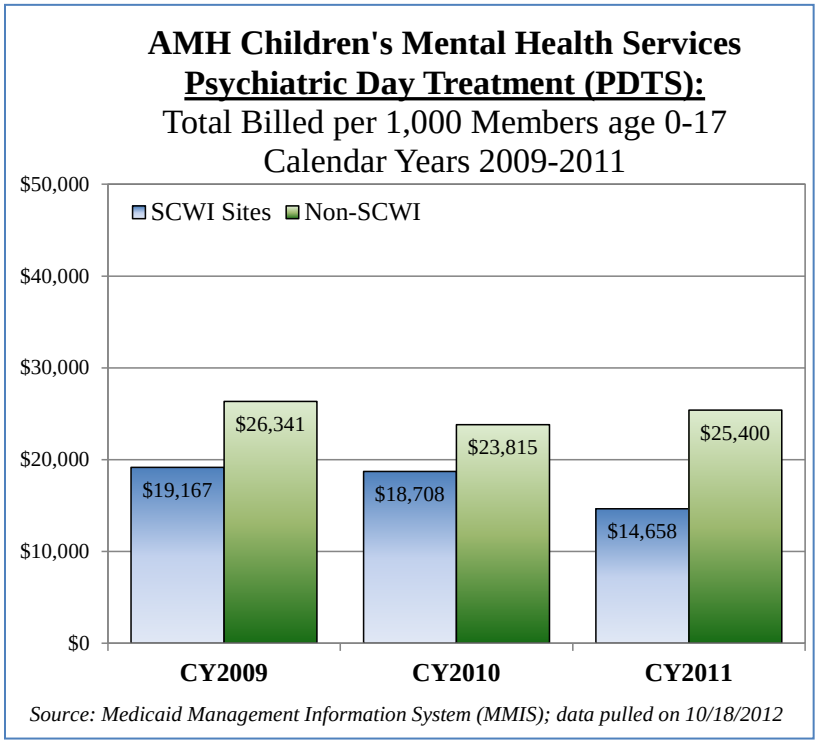
Costs for Acute/Hospital Care were essentially identical among SCWI and Non-SCWI in 2009 and 2010 (next page, lower chart). Both groups saw a moderate increase. SCWI held the line in 2011, though, while Non-SCWI costs jumped up by nearly 20%.



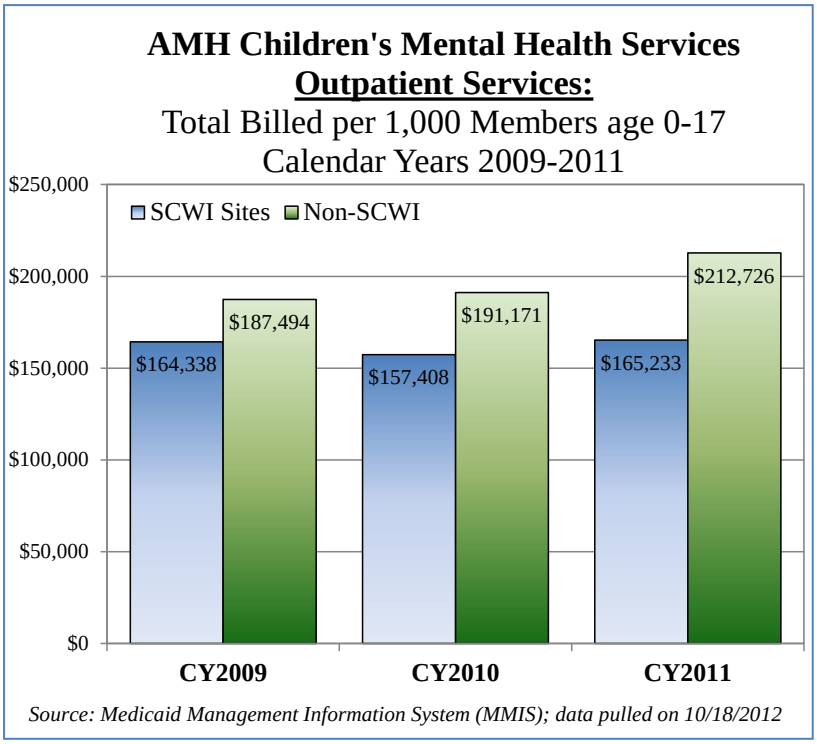
Subacute cost per 1,000 enrolled children ran two to three times higher in SCWI than Non-SCWI. However, within SCWI, the amount billed for subacute care was slightly lower in 2011 than in 2009.



For PRTS, SCWI costs increased substantially in 2010 and again in 2011, while Non-SCWI programs started higher but saw little net change.



Between 2009 and 2011, costs associated with PDTS decreased slightly in Non-SCWI, compared to a one-quarter decrease in SCWI over the same period. Again, most of the change appears in 2011, when SCWI sites were up and running.



Outpatient services account for just over two-thirds (67.5-69.5%) of the combined costs, so it is not surprising that the relationship of SCWI and non-SCWI cost-per-1,000 member children follows a similar pattern. Again, it appears that outpatient costs in SCWI avoided the steep cost increases occurring in the Non-SCWI group.

Summary

The results of this study suggest that within a year of implementation of Wraparound the SCWI demonstration sites, costs for children's mental health services were generally lower relative to Non-SCWI areas. In 2011, the increase in overall costs per 1,000 child members in SCWI was much smaller than the increase observed in Non-SCWI that year. The same trend appears for Outpatient Services and Acute Care. Day Treatment costs did not increase appreciably in Non-SCWI from 2009 to 2011, yet SCWI sites' PDTS expenses dropped by about $4,500 per 1,000 children enrolled during that time.

While the results largely support the premise that Wraparound services can help reduce overall costs in systems of care, contrary trends appear in results for two of the three higher levels of services: PRTS and Subacute Care. The SCWI group started in 2009 with about 25% lower PRTS expenses than Non-SCWI. While in Non-SCWI costs at this level held steady, within SCWI they increased steadily. In Subacute Care, SCWI costs are consistently much higher.

These findings deserve further investigation to determine the extent to which they are driven by implementation of the Wraparound model of care management.

Summary Table: AMH Children's Mental Health Services Statewide Children's Wraparound Initiative Calendar Years 2009-2011 Total Billed per 1,000 Members age 0-17 -- SCWI and Non-SCWI MHO Regions			
Combined - 5 Levels of Services	CY2009	CY2010	CY2011
SCWI Sites	$235,141	$235,802	$244,296
Non-SCWI	$277,891	$280,917	$307,353
SCWI % difference	*-15%*	*-16%*	*-21%*
Acute/Hospital Care	CY2009	CY2010	CY2011
SCWI Sites	$14,112	$17,033	$16,560
Non-SCWI	$13,653	$16,761	$19,956
SCWI % difference	*+3%*	*+2%*	*-17%*
Subacute Care	CY2009	CY2010	CY2011
SCWI Sites	$16,579	$19,527	$15,216
Non-SCWI	$5,220	$4,465	$4,974
SCWI % difference	*+218%*	*+337%*	*+206%*
Psychiatric Residential Treatment (PRTS)	CY2009	CY2010	CY2011
SCWI Sites	$29,728	$35,527	$39,926
Non-SCWI	$39,305	$36,933	$39,715
SCWI % difference	*-24%*	*-4%*	*+1%*
Psychiatric Day Treatment (PDTS)	CY2009	CY2010	CY2011
SCWI Sites	$19,167	$18,708	$14,658
Non-SCWI	$26,341	$23,815	$25,400
SCWI % difference	*-27%*	*-21%*	*-42%*
Outpatient Services	CY2009	CY2010	CY2011
SCWI Sites	$164,338	$157,408	$165,233
Non-SCWI	$187,494	$191,171	$212,726
SCWI % difference	*-12%*	*-18%*	*-22%*

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