



Quality Improvement Strategies that Work

There is a critical need for systems of care to dedicate resources to self-evaluation and monitoring activities. There is a twofold purpose behind this endeavor. First, systems have a genuine desire to continually improve their service delivery to children with serious mental health challenges and their families. Second, as is the case with all public and non-profit organizations, there is increasing pressure from the government and other funders to demonstrate programmatic results and assessments of system effectiveness (Plantz, Greenway, & Hendricks, 1997).

The goal of this issue brief is to discuss findings regarding the types of data and data collection procedures systems use to evaluate and monitor their performance. The brief highlights the evaluation activities that systems rely on to continually improve the quality of mental health service delivery to children with serious mental health challenges.

This issue brief presents key findings on the continuous quality improvement activities utilized by the six participating systems in *Case Studies of System Implementation* [the state of Hawaii (HI); Marion County, IN (MC), Placer County, CA (PC); Region 3 Behavioral Health Services, NE (R3); Santa Cruz County, CA (SC); Westchester County, NY (WC)]. Strategies to use data for continuous quality improvement are also explored.

Figure 1: Lessons Learned

1. Understanding system intent determines the type of data collected.
2. Relevant indicators engage partners.
3. Multiple measures inform system performance.
4. Cost-monitoring supports long-term viability of the system.
5. A quality improvement approach supports system development.
6. Successful systems hold themselves accountable.

Lessons Learned from Successful Systems of Care

1. Understanding system intent determines the type of data collected

Evaluation resources are limited, as is the time system planners and implementers can commit to collecting, analyzing, and understanding evaluation data. Participating systems make strategic decisions about what data will be collected based on a shared

understanding of the goals and targets they have set for system functioning. In this way, quality improvement measures are expected to inform decisions related to both short-term objectives, such as reducing juvenile detention placements, and long-term system goals, such as improving youth functioning in the community.

Clear conceptualization of system intent allows stakeholders to target the types of data collected so that the data inform the system's understanding of intended functioning.

Data from *Case Studies of System Implementation* indicate that system planners and implementers are able to make explicit conceptual links between the strategies they implement and the outcomes they intend to achieve. For the participating systems of care, these are value-based strategies that rely on a conceptual model that links increased access and availability of community-based, family-driven, culturally and linguistically competent services to the improved well-being of children and families. Such conceptual models are critical both in the initial development phase and throughout the system's implementation to ensure that the system continues to produce change as intended (Hernandez & Hodges, 2003). In the absence of a conceptual model that outlines system goals and targets and their links to service strategies, stakeholders are vulnerable to the selection of inappropriate or ineffective services that do not contribute to the well-being of children and families.

Data from participating sites indicate that a clear conceptualization of system intent allows system stakeholders to target the types of outcomes and process data collected. This clear conceptualization informs their understanding of intended system functioning. For example, systems of care share a common value of providing appropriate community-based services in the least restrictive setting. A significant finding of the study is that all six participating sites collect extensive information regarding residential treatment and out-of-home placements. With this information, system stakeholders are able to show that more youth are provided with appropriate care in community-based settings and the numbers of residential and out-of-home placements have decreased.

Study

Case Studies of System Implementation

is a five-year national study of strategies that local communities undertake to implement community-based systems of care. The purpose of the study is to understand how factors affecting system implementation contribute to the development of local systems of care for children with serious emotional disturbance and their families.

Methods

This study used a multi-site embedded case study design. Participating systems were identified through a national nomination process and were selected on the basis of having: (1) an identified local population(s) of youth with serious emotional disturbance; (2) clearly identified goals for this population that are consistent with system-of-care values and principles; (3) active implementation of strategies to achieve these goals; (4) outcome information demonstrating progress toward these goals; and (5) demonstrated sustainability over time.

Data collection included semi-structured key informant interviews, document review, site-based observation, and documented aggregate outcome data related to system implementation in communities with established service systems. The study included a total of six cases. Analyses used an intensive and iterative team-based approach.

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Clear conceptualization of system intent guided stakeholders in Santa Cruz County in choosing data indicators to inform them of system-level concerns. Large numbers of Latino youth requiring services augmented the need for culturally competent service delivery within the system. Stakeholders at this site now maintain detailed information that helps them determine whether there are adequate numbers of bilingual staff, Latino-based community organizations, and bilingual instruments and other materials. The site also ensures that the number of cultural competence trainings offered to staff meets the system level need.

2. Relevant indicators engage partners

The complex organizational philosophy that guides systems of care relies on the full engagement of system partners. Data from *Case Studies of System Implementation* show that incorporating relevant measures into quality improvement efforts plays a role in uniting system partners to work toward a common purpose. For example, Placer County includes truancy rates among its list of quality improvement measures because of its critical importance to both education and juvenile probation partners. When stakeholders noticed a steep increase in truancy rates, these agencies aligned with local judges to integrate programs designed to increase the attendance rates at particular schools experiencing high rates of truancy. Within these preventive programs, a judge teams with representatives from the school, probation office, and a community based agency to provide additional oversight and support to the school, while closely monitoring the school's truancy rate.

As another example, elevated fire-setting and gang violence indicators prompted a variety of stakeholders in Westchester County to pull together to address these challenges. Notably, mental health, juvenile justice, and the fire departments worked in close collaboration to create prevention programs aimed at reducing the incidence of fire setting in the communities. To address increased gang activity, the Westchester County Youth Bureau worked with mental health and juvenile justice to institute the first Gang Summit in 2003. People from all disciplines who work with youth and families were invited to the summit to brainstorm strategies to educate parents and young people on gang awareness and ultimately reduced the frequency of gang related activity. The Westchester County response to community gang issues is an ongoing effort.

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In addition to engaging agency partners, systems have also developed strategies to engage family organizations in the quality improvement process. In Region 3, Nebraska, the family organization, Families

Care, is an active partner in the evaluation, analysis, and dissemination of the Wraparound Fidelity Index (WFI; Suter et al., 2002) which measures the level of fidelity to system-of-care philosophy. The family members that are involved in this process develop an appreciation for data collection when they observe the manner in which these aggregate data are used to improve system functioning.

3. Multiple measures inform system performance

No single measure can provide a complete picture of system performance. System success depends on many factors, such as shared values across system partners, quality of services, and increased functioning of children and families. As such, there are at least three categories of indicators collected by participating sites that inform stakeholders about the system's functioning.

System Outcomes:

Indicators at the organizational level provide important administrative information to stakeholders. For example, all participating sites measure the personnel and material resources that are required for effective service delivery. The resource indicators are often used to improve the quality of resources, such as maintaining a maximum caseload or ensuring a minimum number of case managers with advanced degrees or training. Some sites also use these measures to inform programmatic needs and address them accordingly. If the demand for a service such as mentoring suddenly increases, such as in the case of Marion County, the system will explore why this might be occurring and will seek additional programs or services to fill this role. In this respect, the resource measures have direct implications for how resources are distributed, as well as estimating and controlling costs.

Service Outcomes:

Systems of care are dedicated to providing effective, culturally competent, and accessible services to youth with serious mental health challenges. In nearly all of the participating sites, two main sources of data inform administrators and managers on the level of current system fidelity to system-of-care philosophy. The WFI (Suter et al., 2002) measures the nature (phases and principles) of the wraparound process through brief interviews with caregivers, youth, and team members. The second important source of information comes from family surveys that indicate family satisfaction with the level of accessibility, availability, convenience, cultural competence, and overall quality of services provided. Santa Cruz County uses the Youth Services Survey and the Youth Services Survey for Families to measure youth and family satisfaction with their experience of receiving services (Brunk, Koch, & McCall, 2000). These two sources

of data provide valuable feedback that allows system managers to evaluate the fidelity of the current system functioning to system-of-care values and principles.

Child/Family Outcomes:

Outcome indicators at the child and family level offer stakeholders an opportunity to shift their focus away from the system and service levels to the clinical level. Participating sites use a combination of instruments that offer data from the point of view of youth, parents, and clinicians.

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Several instruments measure the changes in youth functioning while involved with the system and are often the most challenging and costly measures to implement. The sites generally use one of two assessments to determine child functioning and guide service delivery decision making. The Child & Adolescent Needs and Strengths scale (CANS) is designed to guide service delivery for children with mental health needs, developmental disabilities, issues of sexual development, juvenile justice involvement, and child welfare involvement (Lyons, 1999). The Child and Adolescent Functional Assessment Scale (CAFAS) describes child functioning at home, in school, and in the community (Hodges, 1997).

Some sites use The Ohio Scales (Ogles et al., 2004) in place of, or in addition to, the CAFAS. The Youth version is designed to show the changes in child functioning from the point of view of the youth, while the Worker version demonstrates the changes from the clinician's standpoint. The Child Behavior Checklist (CBCL; Achenbach, 1991) illustrates the range of problem behaviors of children from the perspective of the parent or caregiver.

Direct service staff (therapists, case managers, care consultants, etc.) use data from these assessments during team meetings with children and families. Since the assessments are designed to measure needs and functioning, they provide a source of data that can help the team members determine the most appropriate and effective treatment options for the child. The assessments assist in developing both initial and on-going service delivery plans. Therapists and case managers also use the assessment data to demonstrate the youth's progress to the family team.

4. Cost-monitoring supports long-term viability of the system

Systems also closely monitor cost savings. While funders are committed to system-of-care values, continued financial support for the system depends on its demonstrated ability to improve child outcomes while providing more cost-effective treatment delivery than alternatives without a system of care. This is no small challenge; however, since it is impossible to ascertain the type and length of treat-

ment that would be required to provide equivalent outcomes outside of the system. Rather than compare the actual costs of a child's treatment to hypothetical treatment, administrators rely on more concrete data to demonstrate cost savings. In Westchester County reports are produced that describe the cost savings associated with the number of averted residential placements. These reports compare the cost of the average residential placement to the costs incurred during the youth's community-based treatment. Stakeholders in Santa Cruz County take a slightly different approach to calculate the savings on out-of-home expenditures. Administrators in this system compare expenditures on out-of-home placements in Santa Cruz County to the California state average. Santa Cruz County also compares actual expenditures to local dollars appropriated for the service.

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Upon successfully demonstrating cost savings, systems must identify a reinvestment strategy that will benefit the community. The participating systems almost uniformly adopted a focus on early intervention strategies, in efforts to curtail the need for costly, deep-end services. For example, Region 3, Nebraska, implemented and funded the Early Intensive Care Coordination (EICC) program with the cost savings stemming from the Integrated Care Coordination Unit (ICCU). These programs provide similar services, but the goal of the EICC program is to prevent children from becoming state wards. While investing in early intervention efforts has intuitive appeal to system partners and funders, justification of these efforts on a financial basis presents on-going challenges for system administrators. The system must demonstrate that early intervention services curtail the cost of expected deep-end services. Again, the difficulty lies in comparing the actual cost of early intervention services to the anticipated costs of deep-end services.

5. A quality improvement approach supports system development

Continual self-reflection and system change are common themes found in the cross-site data from *Case Studies of System Implementation*. The partici-

pating sites use a wide range of indicators to ensure that the system is continuously adapting in ways that best serve their youth. Stakeholders often cited the importance of using the quality improvement data in ways that "feed back into the system and affect system change." They also noted the importance of using these data to "self-inform", "self-correct", "self-improve", and "self-monitor." Systems fostered data gathering by creating a culture that uses quality improvement indica-

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tors for positive, rather than punitive purposes. This culture emphasizes the use of data to inform how the system can adjust and strive for excellence when serving youth with serious mental health challenges.

Participating systems demonstrate this commitment to self-reflection and system change in visible and concrete ways. For example, every year in Placer County, the judges, agency heads, and public system partners participate in a cross-agency retreat. During the retreat, stakeholders use the data to reflect on current system functioning and conduct strategic planning activities. Based on their assessment of the system's worth, the participants decide whether to re-commit to this type of service delivery. Stakeholders demonstrate their re-commitment to systems of care by signing memoranda of understanding that serve as each person's yearly contractual obligation to systems of care values and principles.

Stakeholders in Hawaii also use data to guide positive system change decisions. The Performance Improvement Steering Committee (PISC) oversees the quality improvement program in Hawaii. PISC meets once a month to review existing quality indicators and discuss opportunities for improvement. The committee also provides direction for the development of new indicators and reports according to changing local needs. Minutes from the committee meetings are compiled into an annual report that is distributed to upper level administrators and other key stakeholders. The report documents the committee's discussion, key findings, and recommendations for the quality improvement system.

6. Successful systems hold themselves accountable

Stakeholders within these successful systems feel a sense of responsibility to children and families, system partners, and the community. Data are not used for punitive purposes within the participating systems, so stakeholders are able to trust that information will be used to improve services. Hawaii experienced a change in the culture of accountability during the development of its system. It moved from a tense system of accountability and measurement, to one that facilitated open discussion about improvements and change.

Systems hold themselves accountable by disseminating information in multiple public arenas. The most frequent form of accountability is the distribution of formal evaluation reports to multiple stakeholder groups, including those in state and local government, agencies, and programs. When an increased public emphasis is appropriate, evaluation findings are posted on the Internet. Sites also use summary slideshow presentations to convey the systems' position to a variety of stakeholders. For example, Marion County held six large annual research briefings to broadly disseminate key system findings based on

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available information. These were major public events in which the press, agencies, and city-county government representatives were in attendance.

System accountability also occurs at the child/family level. The data indicate that case managers at several sites discuss the focal child's evaluation data with the family in order to demonstrate the child's progress.

It is important to note that this philosophy of accountability to all stakeholders is not tied to state or federal reporting requirements. The data suggest that stakeholders at the participating sites compile multiple reports that are distinct from reporting requirements. These additional reports are tailored to fit the needs and interests of all system stakeholders, in addition to funders.

Strategies to utilize data for quality improvement

1. Use tools to clarify system intent

A well-developed, value-based conceptual model of system accountability helps system stakeholders make explicit links between the strategies they implement and the outcomes they hope to achieve. Conceptual models are used by stakeholders to establish system goals and to drive service planning and delivery. In the absence of a conceptual model, stakeholders are vulnerable to the selection of inappropriate or ineffective services that do not improve the well-being of children and families. These conceptual models are critical both in the initial implementation phase and throughout the system's development to ensure that the system continues to produce change as intended (Hernandez & Hodges, 2003). Stakeholders at participating sites use logic models, dashboard indicators, or other methods to align inputs, services, and outcomes with system goals.

Theory of Change Logic Models:

There are several different types of logic models; however, in relation to evaluation, the theory of change logic model is the most appropriate. A theory of change logic model is one that links the intended results with underlying ideas about strategies that are expected to accomplish change. These models provide clear articulation of how a system is expected to work under certain environmental conditions by describing logical linkages among program resources, activities, outputs, customers reached, and short-, intermediate-, and longer-term outcomes (Hernandez & Hodges, 2003).

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Theory of change logic models serve an important function during all phases of system development. During the initial implementation, the creation of a logic model facilitates a shared understanding of the system's values, population of youth served, strategies, and concrete expectations. As the system adapts based on changing community needs, updated logic models ensure that services continue to appropriately address the treatment needs of youth.

Dashboard Indicators:

The dashboard method provides decision makers with key indicators of critical information that signal issues needing attention. Dashboard indicators are typically presented as an at-a-glance cover page to a report, which ensures quick and easy access to “red flags.” As with all quality improvement measures, the dashboard indicators vary from site to site. Some of the more common dashboard indicators include staffing data, child outcome scores, offenses, enrollments, presenting problems, and school attendance.

2. Reduce data collection burden

Ideally, the goals and desired impacts of the system guide the decision about which quality improvement measures to implement. In reality, the actual data collection process can be cumbersome to staff, especially among direct service providers. An unwieldy data collection process can be problematic for a system because the data may become less reliable and timely. Stakeholders from sites that partnered in *Case Studies of System Implementation* reduce the data collection burden on system staff by using appropriate existing data to fit new reporting needs. When new data are required, stakeholders at the sites seamlessly incorporate new data collection efforts into the existing procedures. Hawaii takes care to select indicators that balance system goals, informational needs, and data availability. Administrators carefully assess the existing collection procedures to determine whether they can address new system concerns. This simple strategy helps stabilize data collection procedures and prevents staff frustration in responding to recurring changes in data collection standards. Marion County invested substantial resources to incorporate the CANS assessment into its existing computerized information management system. This provides direct line staff with a convenient way to access current and relevant information on each child. The staff uses the assessments primarily as a planning tool with the child and family teams, but they also utilize the data to demonstrate the youths' progress over time.

3. Increase access to results

The adoption of an effective quality improvement program can provide enumerable benefits to a system and the population it serves, yet even the most well-intentioned quality improvement efforts will be ineffective unless system stakeholders have meaningful access to results. Stakeholders at different levels of the system require different types and frequency of data and results, but the cross site data clearly suggest that all stakeholders require regular access to the information. Direct service staff have ample access to individual child outcomes as a decision support tool; some sites, such as Hawaii and Marion County, even have daily access to outcome data. To satisfy the needs of managers and administrators, evaluation staff at all sites produce monthly aggregate reports designed to facilitate system and agency performance monitoring.

The data also indicate that system administrators are careful to make evaluation staff available to all stakeholders. In most of the participating sites, evaluation staffs are physically located in close proximity to direct service staff and other stakeholders that require data for decision making and quality improvement purposes. This proximity facilitates the continual interactions that are required to cultivate the familiar relationships between evaluation staffs and other stakeholders.

4. Teach stakeholders to use data

These quality improvement data are used at individual, programmatic, system, and state levels. They provide critical information that is used both to improve and sustain the system. For these reasons, participating sites take great pains to ensure that stakeholders are fluent in the use of these evaluation and quality improvement results. Stakeholders in Region 3 and Marion County describe similar strategies to educate stakeholders to understand and effectively use these data. They tailor trainings to specific groups of stakeholders and demonstrate how the data are relevant and useful for particular types of staff. Stakeholders at these two sites articulated the importance of regular and repetitive trainings to help all system partners confidently use these data.

In addition to engaging agency partners, stakeholders in Hawaii also place high priority on ensuring that evaluation data are understood by families. Training family members to interpret data allows them to become full participants in a variety of system-level activities such as reviewing RFPs for service provision and monitoring the integrity of the system's internal review process.

Conclusion

There is no single way to implement or use a continuous quality improvement system within a system of care. The diverse foci and goals of multiple stakeholders at various levels must be adequately noted and represented. There are some constants within the quality improvement process, however. Quality improvement measures are always in line with the system-of-care context. Systems of care constantly adapt and change to better serve their children, so the continuous quality improvement system must be equally flexible and responsive to the needs of the community and the population. When all stakeholders in a system are dedicated to maintaining and utilizing the quality improvement system, self reflection and positive change follow suit. This is a key process that helps a system to continually improve and better serve their high needs kids.

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