

DEVELOPING A PLAN FOR MEASURING OUTCOMES IN MODEL SYSTEMS OF CARE FOR AMERICAN INDIAN AND ALASKA NATIVE CHILDREN AND YOUTH

Douglas K. Novins, M.D., Michele King, and Linda Son Stone

Abstract: The Circles of Care initiative emphasized the importance of developing an outcomes measurement plan that was consonant with the model system of care as well as community values and priorities. This analysis suggests that the Circles of Care grantees achieved this key programmatic objective, but that a major constraint was the tendency of funders, including the Substance Abuse and Mental Health Services Administration (the funder of Circles of Care), to mandate their own outcomes measurement plans. Funders are encouraged to balance their needs for commonality of measures across programs for their own evaluation purposes with the needs of service providers to utilize measures that meet their unique programmatic and community contexts.

Mental health services are expected to demonstrate positive outcomes for the children, adolescents, families, and communities they serve (Nixon & Northrup, 1997). Indeed, the importance of demonstrating such positive outcomes for programs serving American Indian and Alaska Native (AI/AN) communities was emphasized by many of the parent and community participants in the Circles of Care (CoC) planning process, who advocated for services that improved the mental health of their children and adolescents.

However, parents, community members, program staff, and evaluators raised the following key questions throughout the CoC planning process: (a) what constitutes a positive outcome for AI/AN children, adolescents, and their families; and (b) how would these outcomes be measured? Underlying these questions was the concern that mainstream approaches to measuring outcomes for mental health services were inappropriate for programs serving AI/AN communities. The major weakness

of these mainstream approaches was their emphasis on clinical conceptualizations of mental health, with measurement focusing exclusively on problems rather than strengths.

Fortunately, these concerns were anticipated in the CoC Guidance for Applicants (GFA), which identified explicitly the development of a plan for measuring outcomes as a key goal of the initiative (SAMHSA, 1998a). Indeed, the introductory section of the GFA stated that “The program is intended to support tribes and urban Indian organizations in their efforts to develop service delivery models, *which will generate the outcomes selected by American Indians/Alaska Natives for their own children* [emphasis added].” Other sections of the GFA amplify this intention:

The program is also intended to support the development of measures and processes that will be useful to tribal and urban Indian organizations in evaluating their service models against the outcomes they have selected.

Thus, the underlying message of the GFA was that strategic plans must include a plan for culturally and programmatically relevant approaches to measuring outcomes. Such a plan would assure that the model, once implemented, would be evaluated using the methods and measures consistent with its design, objectives, and values (SAMHSA, 1998a).

In this paper, we describe the framework, process, and products of this key component of the CoC evaluation. First, we describe the framework provided by the Circles of Care Evaluation Technical Assistance Center (CoCETAC) to the CoC grantees for developing their plan for measuring outcomes. Next, we describe the process the grantees used for developing their plans and a series of pragmatic issues that shaped this process. Then, using the framework provided by CoCETAC, we provide an overview of the grantees’ plans for measuring outcomes. Finally, we analyze the process and products of this evaluation component and their implications for communities, evaluators, and policymakers.

The Circles of Care Framework for Developing a Plan for Measuring Outcomes

Grantees were presented with an idealized approach to develop a plan for measuring outcomes that reflected the values, objectives, and programmatic design of the strategic plan itself. CoCETAC identified the following five aspects of measurement for the grantees to consider as they developed their Outcome Measurement Plans: (a) “Domains of Measurement,” (b) “Levels of Assessment,” (c) “Assessment Approaches,” (d) “Informants,” and (e) “Timeline.” To ensure that the outcome plans were not simply reflective of those measures that were most popular or expedient, grantees were encouraged to consider each of these aspects before choosing the

specific outcome measures they would employ. Each of these aspects of the Outcomes Measurement Plan is described in more detail below.

Domains of Measurement

First, the grantees identified areas or “domains” that would be impacted by their planned services. The following potential domains were identified by grantees and CoCETAC through the Needs Assessment activities described by Novins, LeMaster, Jumper Thurman, & Plested (2004) in another paper in this volume: local concepts of health and mental health, symptoms, indicators of health and dysfunction, resiliency and risk, tribal identities, spirituality, family profiles, availability of services, barriers to accessing services, and acceptability of services. Additionally, grantees were encouraged to develop other domains that were appropriate to their service area needs.

Levels of Assessment and Assessment Approaches

Next, the grantees determined the “levels of assessment” they would measure. Would they measure individual-based outcomes, family-based outcomes, and/or community-based outcomes? In addition, grantees were asked to choose specific approaches to their assessments. Would they concentrate on measuring outcomes from a problem-based perspective, typical of the measures used for programs serving non-Indian/American Indian and Alaska Native communities? Alternatively, would they also measure outcomes from a strength-based perspective, which was more consistent with AI/AN concepts of health and balance? Would they use some combination of these two approaches? The combination of these two aspects of the framework can be conceptualized as a 2 x 3 matrix as presented in Table 1.

Table 1
A Matrix of Levels of Assessment and Assessment Approaches

Assessment Approach	Assessment Level		
	Individual	Family	Community
Problem-Based	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strength-Based	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Informants

Next the grantees identified the informants they would utilize in measuring their outcomes. CoCETAC and the grantees generated a working list of potential informants. Identified informants were the following: the child/adolescent themselves, their parents/caregivers, the extended family, elders, traditional healers, community members, project staff members, biomedical clinicians, and secondary data (e.g. county mental health, schools and juvenile probation). Project staff members were included in this list because of the multiple perspectives they bring, including that of parents, extended family members, and community members in addition to those of clinicians and planners.

Timeline

The grantees then produced a project timeline. Grantees were asked to consider when they would expect their programs to demonstrate a measurable difference in the domains they had identified and how long they would expect these impacts to last. For example, a baseline could be established as 'entry into the system' for measuring many aspects of problems and strengths at an individual or family level. Specific follow-up intervals could then be specified that matched the grantee expectations for meaningful changes. However, some outcomes might be difficult to match to an individual child or adolescent's entry into the System of Care. For example, information on school-wide test scores, suspensions, and rates of graduation would only be available on an annual basis consistent with school district or state reporting requirements.

Selecting Specific Measures

After specifying the aspects of the Outcomes Measurement Plan noted above, the final step for developing this plan was to select specific measures to employ. CoCETAC and the grantees developed a substantial library of potential measures which was revised several times as new measures were identified.

The rationale for this approach of identifying the specific aspects of their plans prior to selecting specific measures was that grantees would be able to evaluate and choose potential measures based on utility for their community contexts and specific service delivery models rather than popularity in non-AI/AN programs and usage in county, state, and federal funding efforts.

Factors Affecting the Development of the Plans

While the approach outlined above was considered ideal, three important logistical and political issues resulted in a more pragmatic approach for many of the grantees. First was the issue of time. The CoC evaluation effort is demanding and time-consuming. By the time the grantees reached this component of the evaluation (outcomes measurement), which was usually well into the third year of their grants, they needed to move expeditiously in order to meet their planning deadlines. Indeed, First Nations Community HealthSource wrote that the specific challenge met in completing this component of the evaluation was the “lack of time.”

Second was the issue of potential funding sources for implementing their plan. Many funders, including CMHS, require specific outcomes measures as a part of their agreement to fund services. For example, CMHS’ own Comprehensive Community Mental Health Services for Children and their Families Program, which was identified by many of the grantees as an important potential source of funding, mandates an extensive Outcomes Measurement Plan (SAMHSA, 1998b). Many grantees were reluctant to develop a plan that they would be unable to use under this and other initiatives. Third, many of the service organizations that would participate in the grantees’ model systems of care had their own Outcomes Measurement Plans that would have to be incorporated into the grantees’ plans as well. Many of these measures were mandated by federal, state, and third party funders of these programs.

Therefore, many of the grantees decided to simultaneously review these existing measures and slot them into the aspects of their Outcomes Measurement Plan identified above. This enabled them to identify those outcomes that would not be measured by mandated instruments, and consider whether additional measures were needed to ‘cover’ these outcomes. Again, a pragmatic issue the grantees faced here was participant burden. With extensive measurement plans already in place or mandated by potential funders, the grantees had to decide whether additional measures would create undo burden for participants in their systems of care.

We now review the characteristics of these plans.

Characteristics of the Outcomes Measurement Plans

Domains of Measurement

Table 2 displays the domains of measurement covered by the grantees’ Outcomes Measurement Plans.¹ Indicators of Health and Dysfunction and Resiliency and Risk were covered by all eight of the grantees that submitted plans for analysis in this paper. The domain of Symptoms

was covered by seven grantees. Three grantees added the domain of Satisfaction with Services to the original list.

Table 2
Domains of Measurement Covered by the Circles of Care Outcomes Measurement Plans

Domains	Number of Grantees Including this Domain in their Plan
Indicators of Health and Dysfunction	8
Resiliency and Risk	8
Symptoms	7
Service System Needs (Availability)	6
Spirituality	5
Barriers to Accessing Services	5
Acceptability of Existing Services	5
Local Concepts of Health and Mental Health	4
Tribal Identities	4
Family Profiles	4
Satisfaction with Services	3
Acculturation (or Cultural Identity)	2

Notes: Only those domains identified by two or more grantees are included in this Table.

Levels of Assessment and Assessment Approaches

These two aspects of the grantees plans are summarized in Table 3. Grantees developed plans that were very balanced, both in terms of using problem- and strength-based approaches to measurement and in terms of assessing outcomes at individual, family, and community levels. Indeed, the emphasis on measuring community-level outcomes is unusual for mental health service systems, but consistent with the broad goals of the grantees' plans and the CoC initiative as a whole.

Table 3
Levels of Assessment and Assessment Approaches Included in the Circles of Care Outcomes Measurement Plans

Assessment Approach	Assessment Level		
	Individual	Family	Community
Problem-Based	6	6	5
Strength-Based	6	6	6

Informants

The list of informants included by the grantees in their plans is summarized in Table 4. All grantees included parents/caregivers as informants in their plans; seven included children/adolescents themselves; five included extended family members and elders. There was considerable divergence in informants beyond these three, fewer than half the grantees including informants such as biomedical clinicians, secondary data, and traditional healers.

Table 4
Key informants Included in the Circles of Care Outcomes Measurement Plans

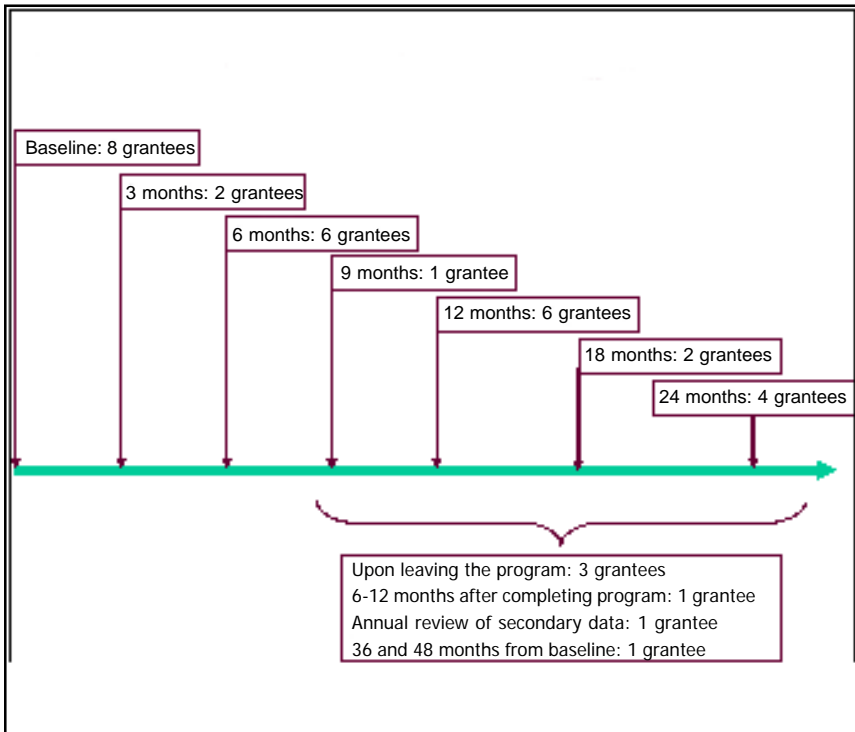
Domains	Number of Grantees Including this Domain in their Plan
Parent/Caregiver	8
Child/Adolescent	7
Project Staff Member	6
Extended Family	5
Elder	5
Biomedical Clinician	3
Secondary Data	3
Community Member	3
Traditional Healer	2
Stakeholders	2

Notes: Only those informants identified by two or more grantees are included in this table.

Timeline

The timelines utilized by the grantees in their plans are summarized in Figure 1. Baseline, 6-month, and 12-month data collection points were the most commonly utilized by grantees in their timelines. In terms of number of intervals utilized in the plan, four of the grantees collected data at four points in time; one grantee collected data at two and one grantee at eight points. While most grantees (four) tied their plans to time since entry into the program, one grantee tied follow-up data collection to leaving the program.

Figure 1
Timelines for Measuring Outcomes



Specific Measures

The measures most commonly included in these plans are summarized in Table 5. Six of the eight grantees developed (or intended to develop) local instruments to use in their plans. These instruments were largely intended to measure outcomes not normally addressed in commonly used instruments (e.g., spirituality), tap into secondary data to measure community impacts (e.g., decreased domestic violence), or to measure domains from an AI/AN perspective. Only five commonly used individual/family-based measures were selected by more than one grantee: the Behavior and Emotional Rating Scale, the Child Behavior Checklist (and related measures such as the Youth Self-Report), the Child and Adolescent Functional Assessment Scale, Client Satisfaction Questionnaire, and the Family and Youth Satisfaction Questionnaire. The Voices of Indian Teens Survey was the only measure identified by more than one grantee that had been developed specifically for use with AI's. Community Readiness (Oetting, Jumper-Thurman, Plested, & Edwards, 2001) was the most common approach to examining community-level outcomes without relying on secondary data.

Also notable is that of the eight measures chosen by two or more grantees, four were measures included in the mandatory evaluation plan for the CMHS' Children's Mental Health Systems grants (SAMHSA, 1998b).

Table 5
Key Measures Included in the Circles of Care Outcomes Measurement Plans

Domains	Number of Grantees Including this Domain in their Plan
Locally-developed measures	6
Child Behavior Checklist and Related Measures	5
Behavior and Emotional Rating Scale	3
Child and Adolescent Functional Assessment Scale	3
Community Readiness Measures	3
Client Satisfaction Questionnaire - 8	2
Family and Youth Satisfaction Questionnaires	2
Voices of Indian Teens Survey	2

Conclusions and Implications

The CoC grantees developed outcomes measurement plans that, while affected by the demands of potential funding mechanisms, also incorporated instrumentation that would allow them to focus on the domains, assessment levels, assessment approaches, and timelines most appropriate to their strategic plans. Indeed, the process and products of the CoC plans for measuring outcomes have important implications for communities, clinical programs, evaluators, and policymakers.

For communities and the clinical programs that serve them, the CoC grantees demonstrated that Outcome Measurement Plans can focus on both individual and family strengths and problems. Indeed, as a group the CoC grantees identified a menu of measures that approached outcomes from these different perspectives. Such a balanced approach to measuring outcomes should provide a more complete assessment of the progress a child and family make while they are receiving services and afterwards, and should serve as a model for other systems of care.

Furthermore, these results underscore the importance community members place on measuring community level outcomes. Thus, there is an expectation among community members that mental health services will not only provide positive outcomes for children, adolescents, and families who receive these services, but that the impact of services will extend to the greater community as well. Not only should children and adolescents who receive mental health services be more likely to graduate from high school, but effective mental health services should raise the graduation rate for entire schools. Thus, an effective system of care was viewed by the CoC communities as a healing process not only for individuals and families, but for communities as well.

For evaluators, the Outcome Measurement Plans produced by the CoC grantees demonstrate the importance of a participatory approach to developing these plans. Given the constraints already placed on programs and communities by policymakers and funders, evaluators need to be particularly attuned to their program and community partners and work to identify existing measures that meet the community's visions of positive outcomes rather than relying on those problem-focused measures that are typically employed in mental health programs. Given the likely possibility that no existing measures will be completely consistent with this vision, evaluators should be prepared to work with their partners to develop measures and measurement approaches that fill in the gaps that will almost certainly exist. A full appreciation of the scope, strengths, and weaknesses of existing measures, the process involved in developing community-specific measures, and the use of implicit measurement techniques (Brook & Cleary, 1996) for particularly complex areas of assessment (e.g., whether an child, adolescent, and family are "in balance," and how they are "out of balance") is a particularly important ability for evaluators to possess.

There are two important lessons for policymakers in the Outcomes Measurement Plans produced by the CoC grantees. First, these plans serve as both a wonderful example of what communities are capable of when given the time and necessary fiscal and technical support to develop model programs. The resultant plans for measuring outcomes are particularly impressive in their comprehensiveness, the ways they reflect community values and beliefs, and their responsiveness to clinical perspectives of mental health service delivery. As such, the process for these developing plans, embodied in the CoC approach to strategic planning and program evaluation, are a model for similar efforts in both AI/AN and non-AI/AN communities alike.

Second, these plans also demonstrate the power the funders hold in shaping the entire discussion on measuring Outcomes. The more funders specify the use of specific outcomes measures, the less communities and clinical programs will pursue innovative approaches to measurement. Thus, funders must be thoughtful in balancing their need for commonality in outcome measurement in the programs they support and the need for communities and service systems to measure the outcomes that reflect the values and beliefs of the communities they serve.

Douglas K. Novins, M. D.

Director, Circles of Care Evaluation Technical Assistance Center
American Indian and Alaska Native Programs

Nighthorse Campbell Native Health Building

P.O. Box 6508, Mail Stop F800

Aurora, CO 80045-0508

Tele: (303) 724-1414

FAX: (303) 724-1474

Email: douglas.novins@uchsc.edu

References

- Brook, R. H., & Cleary, P. D. (1996). Measuring quality of care. *New England Journal of Medicine*, 335, 966-970.
- Nixon, C. T., & Northrup, D. A. (Eds.). (1997). *Evaluating Mental Health Services: How Do Programs For Children "Work" in the Real World*. Thousand Oaks, CA: Sage.
- Novins, D. K., LeMaster, P., Jumper-Thurman, P., & Plested, B. (2004). Describing community needs – Examples from the Circles of Care initiative. *American Indian and Alaska Native Mental Health Research: The Journal of the National Center*, 11(2), 42-58. Available at: [http://www.uchsc.edu/ai/ncaianmhr/journal/11\(2\).pdf](http://www.uchsc.edu/ai/ncaianmhr/journal/11(2).pdf)
- Oetting, E. R., Jumper-Thurman, P., Plested, B., & Edwards, R. W. (2001). Community readiness and health services. *Substance Use & Misuse*, 36(6-7), 825-843.
- SAMHSA. (1998a). *Circles of Care: Planning, designing, and assessing mental health service system models for Native American Indian and Alaska Native children and their families*. Rockville, MD: Center for Mental Health Services, Substance Abuse and Mental Health Services Administration.
- SAMHSA. (1998b). *Comprehensive Community Mental Health Services for Children and Their Families*. Rockville, MD: Center for Mental Health Services, Substance Abuse and Mental Health Services Administration.

Footnote

¹ Eight of the Nine Circles of Care grantees provided Outcomes Measurement Plans for this report.