

Development of Mental Health Measure of Social Connectedness

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Background:

In 2004, Mr. Charles Curie, then Administrator of the Federal Substance Abuse and Mental Health Services Administration (SAMHSA), announced 10 major outcome measures for mental health and substance abuse systems. These measures comprised the National Outcome Measurement System (NOMS) to which complete and consistent state reporting is now the focus of Federal Government attention.

According to SAMHSA, the NOMS will be measured across all SAMHSA-funded programs and will focus on using information to improve services for persons with mental illnesses and addictive disorders. The NOMS were selected to provide data on program accountability that resonate recovery and resiliency in serving the consumer populations. Former SAMHSA Administrator Charles G. Curie, noted:

"Increasingly, policymakers and budget planners at all levels—Federal, state, local, and private—are basing funding decisions on outcome data. Eventually, this Web-based tool—SAMHSA's National Outcome Measures (NOMS)—will provide the public and policymakers with the information to improve the management and performance of our programs and make the most of the limited dollars available to help people attain and sustain recovery."²

The mental health NOMS include measures that depict how well consumers are managing their illnesses through (a) improvement in their functioning; (b) ability to obtain and sustain gainful employment or enroll and stay in school; (c) decreased involvement with the criminal justice system; (d) secure a safe, decent, and stable place to live; and (e) have a healthy perspective of social connectedness to and support from others in the community such as family, friends, co-workers, and classmates. Two other NOMs, (f) increased access to mental health services, and (g) decreased inpatient re-hospitalizations for mental health treatment, are measures directly related to the efficient workings of the mental health system. Three other measures examine the quality of services provided: (h) client perception of care, (i) cost-effectiveness of services, and (j) use of evidenced-based practices in treatment.

Most of these measures were already known and widely used in the mental health field, except for Social Connectedness, which was one of the last two measures that were introduced for development. Social Connectedness has very limited implementation in the measurement of performance outcome. With the support and guidance provided by SAMHSA, the state mental health systems started to explore the development of the measure and its feasibility for national reporting. The approach adopted was to develop a new module to be added to the existing instruments for consumer evaluation of care (i.e. recommended MHSIP Adult Consumer Survey and the Youth Services Survey for Families, YSS-F).

This report summarizes the work and methods used in the development of a set of four consumer self-report items on social connectedness now being implemented by state mental health agencies.

The Development Process:

In late summer of 2004, a meeting was held at SAMHSA to discuss the NOMS and issues related in its implementation. At the meeting table were representatives from the Center for Mental Health Services (CMHS), SAMHSA's Administration Office, the National Association of State Mental Health Program Directors Research Institute, Inc. (NRI), and invited state data experts representing the state mental health agencies (SMHA). The meeting resulted in an agenda for action that included the development of an operational definition of Social Support/Social Connectedness, identification of a measurement approach and tool, and development of a method to evaluate state capacity to record and report the recommended measure. A Social Connectedness Workgroup (SCW) was then formed, which was chaired by Bernadette Phelan, Ph.D. formerly from Arizona and later led by

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² Measuring Outcomes To Improve Services, from SAMHSA News, July/August 2005.

Web site: http://www.samhsa.gov.SAMHSA_News/VolumeXIII_4/article_9.htm.

Sue Lummus, Ph.D. from Indiana. The WG was comprised of 14 members from the various states, CMHS, SAMHSA, NRI, and mental health experts from academia.

The SCW utilized phone conference calls to discuss and brainstorm the process. As a starting point, the SCW developed a state survey in order to identify states that were already measuring their clients' social connectedness, working definition used by states, available tools or instruments, and largely to solicit input from states with respect to developing this measure. The survey was distributed to all grantees of the SAMHSA-funded Data Infrastructure Grant (DIG). Less than a third of the responding states (31) reported that they use some measure of social support/social connectedness, however, none of them are using the same tool.

In addition to the information from the state survey, the SCW conducted a review of literature to identify the various tools and instruments that may contain measures of social support/social connectedness. At this point, the SCW still struggled with the definition of the measure since "social support" has different connotation than "social connectedness" and thus are not interchangeable. Although the review of literature identified several consumer survey items that closely resemble the concept of the measure, which are already being used by states, researchers, and the Centers for Disease Control (CDC), it became imperative for the SCW to establish the definition of the measure before further work is pursued.

The Working Concept:

What does social support/social connectedness mean? The SCW started by asking SAMHSA officials about the intent of this performance measure. The guidance provided was that the "emphasis is more on social connectedness rather than social support." Thus, the working concept agreed upon by the SCW is to measure the individual's relationship with his/her family, friends, and community. This does not include relationship with service providers or the use of specific programs or social support services provided through the mental health system. Henceforth, the phrase "social support" was dropped from the official name of the measure.

Selection of the Consumer Self-Report Items:

The SCW effort was focused in developing a set of survey items that will be added as a module to the existing Mental Health Statistics Improvement Program's (MHSIP) Adult Consumer Survey and the Youth Services Survey for Families (YSS-F). Since the state experience in implementing the Youth Services Survey has posed some challenges with respect to the response rate and parental consent, the SCW decided to limit the focus of this measure to the YSS-F. The SCW also argued that the caregiver's feeling of social connectedness is important as it may affect the child's outcome. Thus, the YSS-F social connectedness questions are focused on the caregiver's perceptions of social connectedness, rather than asking the caregiver to rate the social connectedness of their child. This argument was later sustained by the consumer focus group.

The SCW compiled over 75 items from various existing surveys, tools, and instruments that closely relate to the measurement of social connectedness. SCW members were asked to pick the five (5) items they thought best address the concept. When the results were consolidated, the SCW deliberated and finally selected 7 items to be tested with the Adult Consumer Survey and 7 items to be tested with the YSS-F.

In order to validate the work of the SCW, a focus group of mental health consumers and family members (including parents of child mental health consumers) was conducted. The Focus Group members, comprised of individuals representing 4 to 6 states, were provided copies of materials related to the issue of defining and measuring social connectedness and a list of potential questions endorsed by the SCW.

The outcome of the focus group strengthened the working concept of social connectedness that the SCW adopted. The focus group members agreed that the measure of connection should not be between mental health providers and the consumers, but rather between consumers and their families or friends. Thus concepts such as having strong friendships, people to do things with, feeling of belonging in the community, and people beyond their service providers who provide support and understanding became important aspects of the measure of social connectedness.

To reinforce this concept, the Focus Group cited the need for a preface to the items that would direct respondents to the intended meaning of the measure, i.e. social connectedness is not a measure on whether they feel supported by their mental health providers, but rather, had mental health services contributed to their sense of belonging and social structure outside of their service provider. Thus, the SCW came up with the following lead-in statements:

(Adult survey): *Other than my service providers ...*

(YSS-F): *Other than my child's service providers ...*

In addition to the focus group, input from states was also solicited with respect to the recommended items. Refinements were made to the items to bring down the readability level to <5.0. The following are the final 7 adult survey items, implemented using the Likert scale of strongly agree, agree, neutral/undecided, disagree, and strongly disagree.

1. I am happy with the friendships I have.
2. I have people with whom I can do enjoyable things.
3. I feel I belong in my community.
4. In a crisis, I would have the support I need from family or friends.
5. I know people who will listen and understand me when I need to talk.
6. When I need help right away, I know people I can call on.
7. I have more than one friend.

The final 7 YSS-F survey items mirror those of the adult items:

1. I am happy with the friendships I have.
2. I have people with whom I can do enjoyable things.
3. I have people that I am comfortable talking with about my child's problems.
4. In a crisis, I would have the support I need from family or friends.
5. I know people who will listen and understand me when I need to talk.
6. I have people that I am comfortable talking to about private things.
7. I have more than one friend.

In 2005, about 8 to 10 SMHAs participated in the pilot testing of the above recommended survey items for social connectedness. Seven states submitted adult consumer survey pilot data, while 8 States provided YSS-F pilot data to the State Data Infrastructure Coordinating Center (SDICC) at the NRI which pulled the state results into a common database and conducted a factor analysis of the survey results.

Factor Analysis:

Utilizing data from five states (other state data were unusable), a Maximum Likelihood factor analysis using Oblimin Rotation with Kaiser Normalization was completed separately for both the Adult Consumer Survey data and the YSS-F. The results of the Factor Analysis demonstrated that the social connectedness items did group into a separate domain from the other MHSIP items and that not all 7 items were needed to construct the measure of social connectedness. When the factors were forced to a 7 factor extraction, explaining about 70% and 78% of the variance in the adult and YSS-F data respectively, the social connectedness survey items split into two domains – support and belonging in the community.

Adult MHSIP Social Connectedness

Domain	Adult Questions	Alpha
SC – Support	SC1 - I know people who will listen and understand me when I need to talk SC2 – In a crisis, I would have the support I need from family or friends SC3 – When I need help right way, I know people I can call on	.845
SC – belonging in the community	SC4 – I have more than one friend SC5 – I am happy with the friendships I have SC6 – I have people with whom I can do enjoyable things SC7 – I feel I belong in my community	.892

Pattern Matrix^a: Adult Consumer Survey

	Factor						
	1	2	3	4	5	6	7
Q.1 I like the services I received here					-.560		
Q2. If I had other choices, I would still get services from this agency.					-.603		
Q3. I would recommend this agency to a friend or family member.					-.618		
Q4. The location of services was convenient (parking, public transportation, distance, etc.).					-.431		
Q5. Staff were willing to see me as often as I felt it was necessary.					-.632		
Q.6 Staff returned my call in 24 hours.						.415	
Q7. Services were available at times that were good for me.					-.602		
Q8. I was able to get all the services I thought I needed.					-.621		
Q9. I was able to see a psychiatrist when I wanted to.					-.367		
Q10. Staff here believe that I can grow, change and recover.	.455						
Q11. I felt comfortable asking questions about my treatment and medication.	.471						
Q12. I felt free to complain.	.520						
Q13. I was given information about my rights.	.660						
Q14. Staff encouraged me to take responsibility for how I live my life.	.727						
Q15. Staff told me what side effects to watch out for.	.634						
Q16. Staff respected my wishes about who is and who is not to be given information about my treatment.	.564						
Q17. I, not staff, decided my treatment goals.	.611						
Q18. Staff were sensitive to my cultural background (race, religion, language, etc.)	.420						
Q19. Staff helped me obtain the information I needed so that I could take charge of managing my illness.	.610						
Q20. I was encouraged to use consumer-run programs (support groups, drop-in centers, crisis phone line, etc.).						.442	
Q21. I deal more effectively with daily problems.							.528
Q22. I am better able to control my life.							.629
Q23. I am better able to deal with crisis.							.674
Q24. I am getting along better with my family.							
Q25. I do better in social situations.				-.375			
Q.26 I do better in school and/or work.						.458	
Q27. My housing situation has improved.						.438	
Q28. My symptoms are not bothering me as much.				-.405			
SC1. I know people who will listen & understand me when I need to talk.		-.282					
SC2. In a crisis, I would have the support I need from family or friends.		-.404					
SC3. When I need help right away, I know people I can call on.		-.913					
SC4. I have more than one friend.			-.753				
SC5. I am happy with the friendships I have.			-.898				
SC6. I have people with whom I can do enjoyable things.			-.747				
SC7. I feel I belong in the my community			-.600				
F1. I do things that are more meaningful to me.				-.620			
F2. I am better able to take care of my needs.				-.551			
F3. I am better able to handle things when they go wrong.				-.642			
F4. I am better able to do things that I want to do.				-.572			

Extract Method: Maximum Likelihood
 Rotation Method: Oblimin with Kaiser Normalization

^a Rotation Converged in 14 iterations.

YSS-F Social Connectedness

Domain	Youth Services Survey for Family Questions	Alpha
SC – Support	SC1 - I know people who will listen and understand me when I need to talk SC2 – In a crisis, I would have the support I need from family or friends SC3 – I have people that I am comfortable talking with about my child's problems. SC4 – I have people that I am comfortable talking to about private things.	.906
SC – belonging in the community	SC5 – I have more than one friend SC6 – I am happy with the friendships I have SC7 – I have people with whom I can do enjoyable things	.912

Pattern Matrix (a): Youth Services Survey – Family (YSS-F)

	Factor						
	1	2	3	4	5	6	7
Q.1 Overall, I am satisfied with the services my child received.	.629						
Q2. I helped to choose my child s services.						.724	
Q3. I helped to choose my child s treatment goals.						.944	
Q4. The people helping my child stuck with us no matter what.	.539						
Q5. I felt my child had someone to talk to when he/she was troubled.	.531						
Q6. I participated in my child s treatment.						.411	
Q7. The services my child and/or family received were right for us.	.685						
Q8. The location of services was convenient for us.							
Q9. Services were available at times that were convenient for us.	.378						
Q10. My family got the help we wanted for my child.	.898						
Q11. My family got as much help as we needed for my child.	.862						
Q12. Staff treated me with respect.				.536			
Q13. Staff respected my family s religious/spiritual beliefs.				.919			
Q14. Staff spoke with me in a way that I understood.				.661			
Q15. Staff were sensitive to my cultural/ethnic background.				.882			
Q16. My child is better at handling daily life.			-.862				
Q17. My child gets along better with family members.			-.922				
Q18. My child gets along better with friends and other people.			-.927				
Q19. My child is doing better in school and/or work.			-.805				
Q20. My child is better able to cope when things go wrong.			-.828				
Q21. I am satisfied with our family life right now			-.630				
SC1. I know people who will listen and understand me when I need to talk.					.673		
SC2. In a crisis, I would have the support I need from family or friends.					.706		
SC3. I have people that I am comfortable talking with about my child's problems.					.993		
SC4. I have people that I am comfortable talking to about private things.					.888		
SC5. I have more that one friend.		.856					
SC6. I am happy with the friendships I have.		.940					
SC7. I have people with whom I can do enjoyable things.		.810					
F1. My child is better able to do things he or she wants to do.			-.776				

The Final Measures:

Guided by the results of the factor analysis, the SCW and the Focus Group recommended the use of 4 items related to Social Connectedness. They selected some items from each of the two sub-domains to comprise the final 4 items.

In addition, a discussion ensued about the leading statement as not directly ascribing to the spirit of the national outcome measures, i.e. to have systems impact client outcomes in a measurable way. As a result, the leading statement for these survey items was revised.

The final social connectedness survey items added to the MHSIP Adult Consumer Survey are as follows:

As a result of the services I received ... (please answer for relationships with persons other than your mental health providers)

1. I am happy with the friendships I have.
2. I have people with whom I can do enjoyable things.
3. I feel I belong in my community.
4. In a crisis, I would have the support I need from family or friends.

The final social connectedness survey items added to the YSS-F are as follows:

As a result of the services my child and/or family received ... (please answer for relationships with persons other than your child's mental health providers)

1. I know people who will listen and understand me when I need to talk.
2. I have people that I am comfortable talking with about my child's problems.
3. In a crisis, I would have the support I need from family or friends.
4. I have people with whom I can do enjoyable things.

Implementation and Initial State Reporting (2006):

At the February 2006 National Meeting of State Data Infrastructure Grants, CMHS recommended states to start using these 4 items as a new module for inclusion in state consumer survey results. Many states began including these 4 items in their consumer surveys during 2006. A new Uniform Reporting System (URS) Table 9 was created for states to report Social Connectedness Scores for both Adult Consumers and Family Responses for the Children's measure.

Scoring Procedure for Reporting to the URS:

In selecting the social connectedness survey items, the SCW was careful not to disturb the existing 5 domains currently calculated from the MHSIP 28-item survey. Thus, the questions were added to the survey as a separate module which followed the same rules used for scoring the Adult MHSIP and the YSS-F perception of care surveys.

The recommended scoring procedure for the new Social Connectedness (and also the new Improved Functioning) Module for URS reporting is as follows:

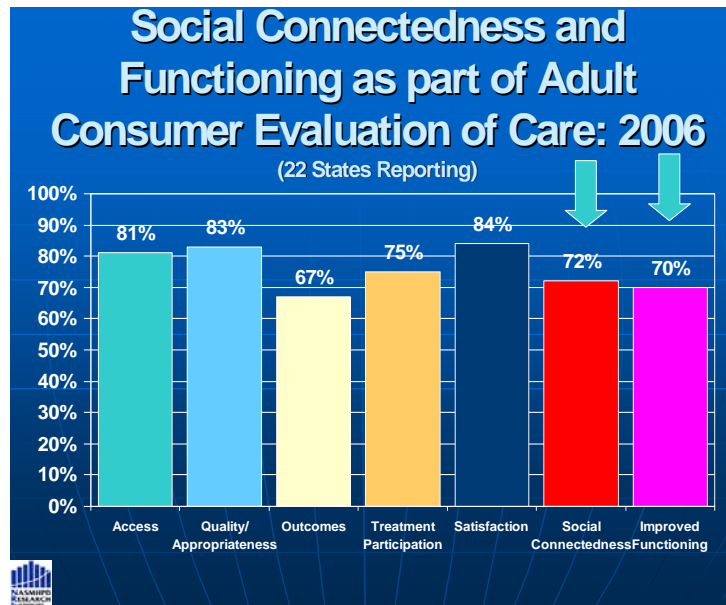
1. Recode ratings of "not applicable" as missing values.
 2. Exclude respondents with more than 1/3 of the items in that domain missing.
 3. Calculate the mean of the items for each respondent.
 4. FOR ADULTS: calculate the percent of scores less than 2.5 (percent agree and strongly agree).
 5. FOR YSS-F: calculate the percent of scores greater than 3.5 (percent agree and strongly agree).
- Note: Scoring of the Adult MHSIP (1 = Strongly Agree and 5 = Strongly Disagree) and the YSS-F (1 = Strongly Disagree and 5 = Strongly Agree) are reversed, therefore in calculating "agreement" scores, the scales must be reversed between the Adult and the Family surveys.

Preliminary Data Analysis: Adult

In December 2006, 25 states reported the adult measure for Social Connectedness of which 22 states used the recommended 4 items, 1 state used 2 of the recommended 4 questions, and 2 states used a home-grown set of survey items for social connectedness.

Of the states that used the 4 recommended items, an average of 72% of adult consumers strongly agreed or agreed that their level of social connectedness had improved as a result of services provided. A marked variation within the 22 states that used the recommended items, however, was observed - with the rate of positive responses ranging from a low of 58% to a high of 93%.

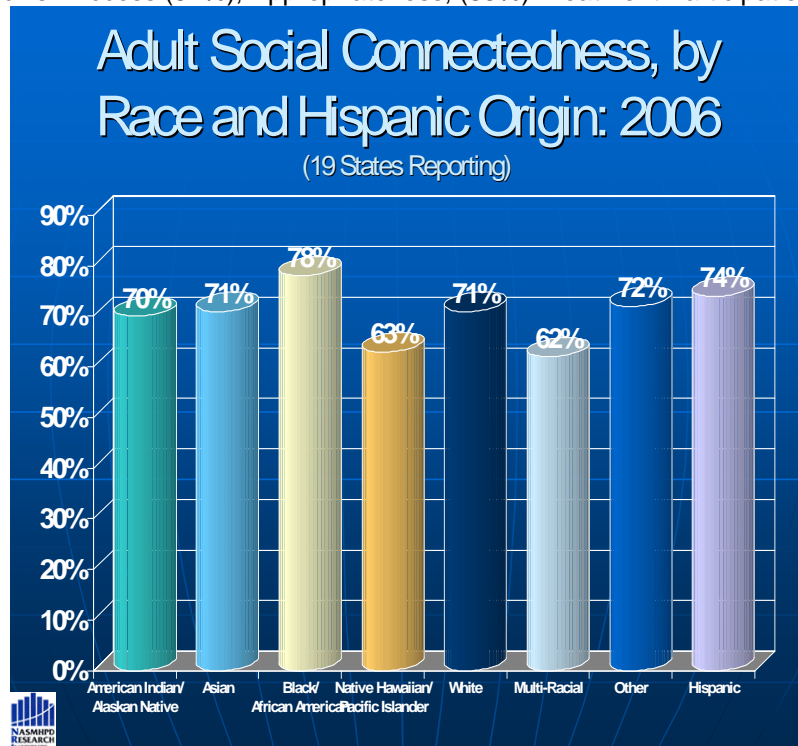
One of the 2 states that used a homegrown measure of social connectedness achieved the lowest results (i.e. only 36% of the state survey respondents strongly agreed or agreed that their level of Social Connectedness had improved as a result of services they received).



When comparison of the various domains was made for the 22 states that used the 4 recommended items for social connectedness, the reported level of Social Connectedness was only slightly higher than the Outcomes domain and Improved Functioning which reported an average of 67% and 70% Agree or Strongly Agree respectively. Other domain scores are as follows: Access (81%), Appropriateness, (83%) Treatment Participation (75%) and, Overall Satisfaction (84%), all of which are higher than the social connectedness score.

When the state survey administration method was factored in the analysis, no systematic pattern of rate differential in Social Connectedness score across states was observed.

Analysis of individual state scores showed that in six of the 22 states, Social Connectedness was rated lower than the outcome domain. The magnitude of rate differential between Social Connectedness and Outcome hovers in the range of 2-3 percentage points for majority of the states except for 4 states where Social Connectedness was reported to be 10 percentage points higher.



When the data for Social Connectedness is examined by Race and Hispanic Origin, it showed variation across the different racial groups. Blacks/African Americans rated social connectedness the highest (78%), while persons who identified themselves as “Multi-Racial” and the Native Hawaiian and Other Pacific Islanders had the lowest rating of social connectedness at 62% and 63% respectively.

Preliminary Data Analysis: YSS-F

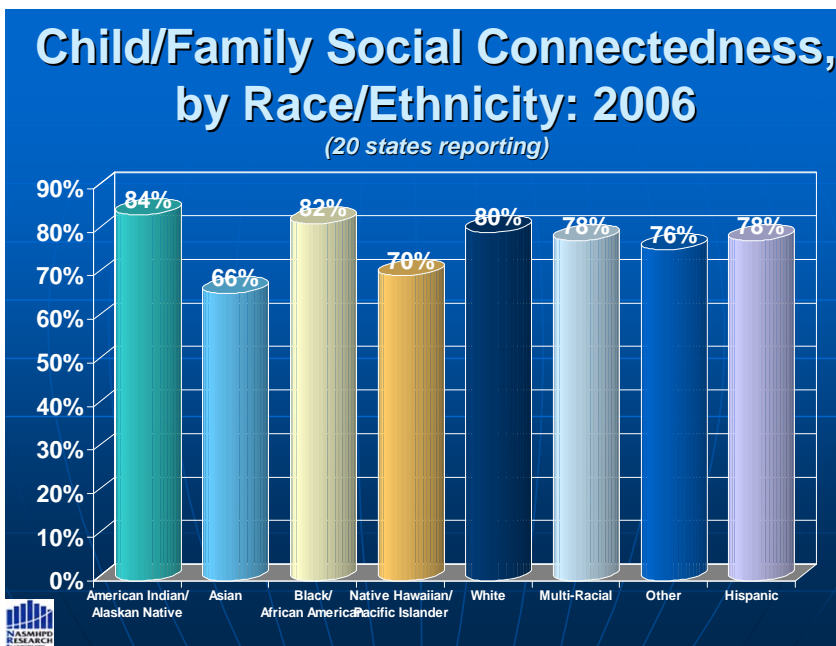
In December 2006, 23 states reported the YSS-F social connectedness measure, of which 20 states used the recommended 4 items, 1 state used only select questions from the recommended 4 questions, 1 state used a modified version, and 1 state did not specify the measure used.

Of the States that used the 4 recommended items, an average of 81% of YSS-F respondents strongly agreed or agreed that their level of social connectedness had improved. The rate of positive responses within the 20 States that used the recommended items ranged from a low of 55% to a high of 91%.

When comparing the seven domains across all 20 States that used the recommended Social Connectedness Items, the reported level of Social Connectedness was significantly higher than the Outcomes and Functioning domains which reported an average of 61% and 64% respectively. Other domain scores are as follows: Access (81%, Satisfaction 77%, Treatment Planning 83%, and Cultural Sensitivity 90%).

Unlike the adult consumer survey results, analysis of individual state scores showed that Social Connectedness was rated lower than the outcome domain in only one state. The magnitude of rate differential between Social Connectedness and Outcome domains is 2 percentage points in one state and 12 to 35 percentage points for the remaining states.

When the data for Social Connectedness is examined by Race and Hispanic Origin, it showed variation across the different racial groups. American Indian/Alaskan Natives rated social connectedness the highest (84%), while Asians had the lowest rating of Social Connectedness at 63%.



Next Steps:

Forty percent (40%) of the states and territories have already implemented the Adult measures of social connectedness and 35% of states and territories have used the Family version. Our communications with the states suggests that most states will be using the recommended SC measures during 2007. However, little is currently known about the utilization of this measure as part of the SMHAs systems of performance measurement and planning systems. Further work in analyzing the utility and appropriate use of this measure for planning mental health services is needed. It is also important for states, the District of Columbia and US Territories that have not implemented this measure to consider collecting the data in order to fully inform the national mental health systems.