

**Indiana Family and Social Services Administration
Division of Mental Health and Addiction**

Performance Measure Definitions

SFY 2012



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Introduction to Performance Measures and Definitions For State Fiscal Year 2012

The performance measures contained in this document will be utilized by DMHA in Performance Based Contracting with DMHA certified managed care providers (MCPs) of mental health and/or addiction services in Indiana. Most of the outcome measures for state fiscal year 2012 are based on the Child and Adolescent Needs and Strengths (CANS) assessment tool and the Adult Needs and Strengths Assessment (ANSA) tool and on recommendations from providers. For state fiscal year 2012, several outcome measures will be included in pay-for-performance.

The Outcome Measures are designed around a service delivery system based on episodes of care. An episode of care is defined by an admission date and a discharge date. At the beginning of each episode of care for a consumer, an assessment is completed. This is the admission or initial assessment. Depending upon the length of services, one or more reassessments will be completed. If the episode of care extends for six or more months, a reassessment is required at the end of each 180 days of treatment. Providers may perform reassessments more frequently based on the needs of the consumer. A reassessment is also needed at the time of discharge.

Assessments and reassessments are performed using the CANS comprehensive assessment (either the 0 – 5 tool or the 5 – 17 tool) for youth and the ANSA for persons aged 18 and over, except where otherwise noted. In addition to these assessment tools, DMHA requires reporting of the following data elements at admission, 180 day intervals, and discharge:

NOMs – included in DARMHA reassessment measure

- Living Arrangement (adults only)
- Employment Status
- Substance Usage data (primary, secondary and tertiary substances, route of ingestion, frequency of use/intake, and age at first use/intoxication)
- ROLES (youth only)
- Criminal Involvement
- Pregnancy
- Social Support
- Needle Use (for drugs)

EBPs – not included in DARMHA reassessment measure

- Supported Employment
- Integrated Dual Diagnosis Treatment
- Illness Management and Recovery
- Supported Housing
- ACT

- System of Care
- CA-PRTF
- Motivational Interviewing
- Cognitive Behavioral Therapy
- MATRIX Model

Some performance measures in this document utilize the above data elements, some use the CANS or ANSA data, and some use a combination of both.

Reassessment Frequency and Clinical Outcomes: Many of the measures contained in this document are clinical outcome measures. They try to answer the question: “Do consumers receiving services from this provider have less intense needs or greater strengths over time?” For the performance measures in this document, outcomes are measured from the two most recent assessments. For persons receiving services for shorter periods of time, the two most recent assessments may be an initial assessment and a discharge assessment which would actually measure any improvement in outcomes during the episode of care. However, for consumers receiving services for longer periods of time with multiple assessments (every 180 days), the two most recent assessments are usually reassessments and do not capture the level of need the consumer presented at the beginning of treatment. For consumers with very high levels of need, improvement may be very gradual and not evident every 6 months but could be evident over a 12 to 18 month period. For consumers at any level of need, reassessments completed too frequently will tend to reflect insignificant change.

Data Requirements for Performance Measures

In order for a consumer to be counted in the performance measure calculations several business rules must be met within the data. These include:

- Agreement type
- An episode of care must be open at some time during the month
- HAP Eligibility – consumer must be HAP Eligible or HAP Eligible – Medication Only status as of the most recent HAP status.
- At least one encounter reported during the month
- Two assessments using the same tool. A CANS 0-5 at time 1 and a CANS 5-17 at time 2 or a CANS 5-17 at time 1 and an ANSA at time two cannot be used to measure outcomes.
- To be counted as reassessed within 7 months, there must be two assessments within 210 days of each other.

Definitions and Acronyms

<i>Adult</i>	person aged 18 and over An exception to this age grouping applies to persons who started receiving child and adolescent services prior to age 18 and whose child and adolescent services will continue post age 18 and end prior to age 22
<i>Youth</i>	any person up to age 22 with an SED agreement type and youth with a CA agreement type who are aged 0 – 17 See above for special consideration for some persons aged 18 – 22.
<i>SMI</i>	adult person with serious mental illness
<i>CA</i>	person with addiction/substance abuse
<i>SED</i>	youth with serious emotional disturbance
<i>Co-Occurring</i>	identification of persons with co-occurring mental health and substance abuse disorders is required for the SAMHSA block grants. This identification is currently based on diagnoses but in the future a specific question in DARMHA may be necessary.
<i>Population</i>	in this manual, each definition has been assigned a population identification. The population identifiers fall within three categories: SMI, Adult CA, or Youth (SED and CA) as defined above. <u>All clients, except those as indicated below under Medication Only, in these population groups (including those with a status of ACT, SOF, Deaf) will be included in all performance measures. Consumers with a Gambling agreement identifier or a SMO status will not be included in performance measures.</u>
<i>Consumers with both SMI and CA Identifiers</i>	Providers may at times have a consumer with both a SMI and a CA agreement identifier. When this happens, the consumer could be counted twice in performance measures as they are based on the agreement identifier in DARMHA. In order to avoid duplication, the most recent agreement identifier in the reporting period will be used as the default identifier.
<i>DARMHA</i>	Data Assessment Registry for Mental Health and Addiction
<i>Medication Only</i>	DARMHA allows consumers to be identified as receiving Medication Only services. Since these services are provided only a few times per year, the consumers identified as

Medication Only will **not** be included in Outcome Measures. However, they will be counted for Average Monthly Number Served during the months in which services are provided.

***HAP Eligibility
(HAP Status)***

DARMHA allows a continuous episode of care for persons whose HAP eligibility status may change due to changes in income which are not anticipated to be permanent. For example, a consumer may have a history of employment instability where he/she obtains employment for short periods and again becomes unemployed. In these situations, the provider may determine that an actual discharge in DARMHA is unwarranted since the consumer will continue receiving services. If the provider chooses to use the HAP status field to change from HAP Eligible to No Longer HAP Eligible, the consumers with this status at the end of a reporting month will not be included in performance measure calculations for that month.

If consumers become HAP Eligible again, they will be counted in people served beginning in the month they are recoded as HAP Eligible and they have at least encounter in the month. They will be counted in the reassessment numbers after becoming HAP Eligible.

Time 1

Time one is the assessment immediately prior to the Time two assessment.

Time 2

Time two is the most recent assessment

Performance Measures
Effective July 1, 2011

Measure 2012	Pay for Performance
Improvement in One Domain – SMI	Will be included in dollars
Improvement in One Domain – CA	Will be included in dollars
Improvement in One Domain – Youth 5 – 17	Will be included in dollars
Employment SMI	Will be included in dollars
Employment CA	Will be included in dollars
Improvement in School Behaviors – Youth	Will be included in dollars
Residential and Community Stability – SMI	do not include in dollars
Residential and Community Stability – CA	do not include in dollars
Improvement in Strengths -- Youth	do not include in dollars
Reduced Involvement with Law Enforcement – SMI	Will be included in dollars
Reduced Involvement with Law Enforcement – CA	Will be included in dollars
Reduced Risk Behaviors – Youth	Will be included in dollars
Improved Functioning for Adults with Substance Use – SMI	Will be included in dollars
Improved Functioning for Adults with Substance Use – CA	Will be included in dollars
Improved Functioning for Youth with Substance Use – Youth	Will be included in dollars
Adults Served – SMI	Will be included in dollars.
Adults Served – CA	Will be included in dollars
Youth Served SED & CA	Will be included in dollars
Reassessment -- NOMS	Will be included in dollars
Reassessment – CANS/ANSA	Will be included in dollars

Performance Outcome Measures for SFY 2012

Improvement in Needs and/or Strengths – SMI Adult

Short Title: Needs and strengths improvement

Population: All SMI Adults

Long Title: Percentage of adults with SMI with improvement in at least one ANSA domain.

Definition: The Adult Needs and Strengths Assessment (ANSA) tool reports needs and strengths in six domains: Life Domain Functioning, Behavioral Health Needs, Strengths, Acculturation, Caregiver Strengths and Needs, and Risk Behaviors. Four domains (excluding Acculturation and Caregiver Strengths and Needs) are used to measure improvement. Improvement in at least one of the four domains constitutes improvement for this measure. Measure is reported monthly based on the reassessments completed during the month. At the end of each quarter, measure is cumulative year-to-date, that is, all reassessments completed during the fiscal year from beginning of fiscal year through the end of the specific quarter.

Measure Specific Source of Data: All data is from DARMHA. ANSA Assessments are used for the measurement. For each adult with a SMI agreement identifier and at least two ANSA assessments, improvement in each domain is measured using a statistically reliable change index. This measure uses ratings at the individual item level aggregated to the domain level. *Data from the two most recent assessments and/or reassessments will be used for Time 1 and Time 2 data points.*

Method of Calculation:

Rules for Calculating Respective Domain Scores: For each adult active at any time during the reporting period who also has at least two assessments, Time 1 (the assessment prior to the most recent reassessment) and Time 2 (the most recent reassessment), domain scores are calculated according to the formulas below for the ANSA. **(Details for calculation of domain averages are in the Reference Documentation section of this manual.)**

ANSA Domain Averages:

- **Functioning Domain** = Average of *Life Domain Functioning* scores multiplied by 10
- **Behavioral Health Domain** = Average of *Behavioral Health Needs* scores multiplied by 10
- **Risk Domain** = Average of *Risk Behaviors* scores multiplied by 10
- **Strengths Domain** = Average of *Strengths* scores multiplied by 10

For each adult, the average item score in the domain is calculated for the Time 1 assessment. The change score for each adult in each domain is obtained by subtracting the Time 2 average from the Time 1 average. This score is compared to the Reliable Change Index (RCI) difference to determine positive change (improvement), no change (maintained) or negative change (decline).

- If Functioning Domain Time 1 (T1) – Functioning Domain Time 2 (T1) \geq 2.68, improvement.
- If Behavioral Health Domain Time 1 (T1) – Behavioral Health Domain Time 2 (T2) \geq 2.43, improvement.
- If Risk Domain Time 1 (T1) – Risk Domain Time 2 (T2) \geq 1.74, improvement.
- If Strengths Domain Time 1 (T1) – Strengths Domain Time 2 (T2) \geq 3.58, improvement.

The total number of adults with a positive change in at least one domain is the numerator.

The total number of adults with at least two assessments is the denominator.

Calculation is numerator divided by denominator multiplied by 100.

Target: The state fiscal year 2012 target performance will be 25%.

Performance Contracting: SFY 2012: Measure will be connected to dollars for performance contracting. Measure will be given a weight of 3.

Improvement in Needs and or Strengths – CA Adult

Short Title: Needs and strengths improvement

Population: All CA Adults

Long Title: Percentage of adults with CA with improvement in at least one ANSA domain.

Definition: The Adult Needs and Strengths Assessment (ANSA) tool reports needs and strengths in six domains: Life Domain Functioning, Behavioral Health Needs, Strengths, Acculturation, Caregiver Strengths and Needs, and Risk Behaviors. Four domains (excluding Acculturation and Caregiver Strengths and Needs) are used to measure improvement. Improvement in at least one of the four domains constitutes improvement for this measure. Measure is reported monthly based on the reassessments completed during the month. At the end of each quarter, measure is cumulative year-to-date, that is, all reassessments completed during the fiscal year from beginning of fiscal year through the end of the specific quarter.

Measure Specific Source of Data: All data is from DARMHA. ANSA Assessments are used for the measurement. For each adult with a CA agreement identifier and at least two ANSA assessments, improvement in each domain is measured using a statistically reliable change index. This measure uses ratings at the individual item level aggregated to the domain level. *Data from the two most recent assessments and/or reassessments will be used for Time 1 and Time 2 data points.*

Method of Calculation:

Rules for Calculating Respective Domain Scores: For each adult active at any time during the reporting period who also has at least two assessments, Time 1 (the assessment prior to the most recent reassessment) and Time 2 (the most recent reassessment), domain scores are calculated according to the formulas below for the ANSA. **(Details for calculation of domain averages are in the Reference Documentation section of this manual.)**

ANSA Domain Averages:

- **Functioning Domain** = Average of *Life Domain Functioning* scores multiplied by 10
- **Behavioral Health Domain** = Average of *Behavioral Health Needs* scores multiplied by 10
- **Risk Domain** = Average of *Risk Behaviors* scores multiplied by 10
- **Strengths Domain** = Average of *Strengths* scores multiplied by 10

For each adult, the average item score in the domain is calculated. The change score for each adult in each domain is obtained by subtracting the Time 2 average from the Time 1 average. This score is compared to the Reliable Change Index (RCI)

difference to determine positive change (improvement), no change (maintained) or negative change (decline).

- If Functioning Domain Time 1 (T1) – Functioning Domain Time 2 (T2) \geq 2.68, improvement.
- If Behavioral Health Domain Time 1 (T1) – Behavioral Health Domain Time 2 (T2) \geq 2.43, improvement.
- If Risk Domain Time 1 (T1) – Risk Domain Time 2 (T2) \geq 1.74, improvement.
- If Strengths Domain Time 1 (T1) – Strengths Domain Time 2 (T2) \geq 3.58, improvement.

The total number of adults with a positive change in at least one domain is the numerator.

The total number of adults with at least two assessments is the denominator.

Calculation is numerator divided by denominator multiplied by 100.

Target: The state fiscal year 2012 target performance will be 35%.

Performance Contracting: SFY 2012: Measure will be connected to dollars for performance contracting. Measure will be given a weight of 3.

Improvement in Needs and or Strengths – Youth 5 – 17**Short Title:** Needs and strengths improvement**Population:** Youth 5-17 (SED or CA)**Long Title:** Percentage of youth ages 5 – 17 with improvement in at least one CANS domain.

Definition: The Child and Adolescent Needs and Strengths (CANS) assessment tool reports needs and strengths in six domains: Life Domain Functioning, Child Strengths, Acculturation, Caregiver Strengths and Needs, Child Behavioral/Emotional Needs, and Child Risk Behaviors. Five domains (all except Acculturation) are used to measure improvement. Improvement in at least one of the five domains constitutes improvement for this measure. Measure is reported monthly based on the reassessments completed during the month. At the end of each quarter, measure is cumulative year-to-date, that is, all reassessments completed during the fiscal year from beginning of fiscal year through the end of the specific quarter.

Measure Specific Source of Data: All data is from DARMHA. CANS 5-17 Assessments are used for the measurement. For each child with at least two CANS assessments, improvement in each domain is measured using a statistically reliable change index. This measure uses ratings at the individual item level aggregated to the domain level. ***Data from the two most recent assessments and/or reassessments will be used for Time 1 and Time 2 data points.***

Method of Calculation:

Rules for Calculating Respective Domain Scores: For each youth who is active at any time during the reporting period who also has at least two assessments, Time 1 (the assessment prior to the most recent reassessment) and Time 2 the most recent reassessment), domain scores are calculated according to the formulas below.

(Details for calculation of domain averages are in the Reference Documentation section of this manual.)

CANS 5 to 17 Domain Averages:

- **Behavioral Health Domain** = Average of *Child Behavioral/Emotional Needs* scores multiplied by 10
- **Risk Domain** = Average of *Child Risk Behaviors* scores multiplied by 10
- **Functioning Domain** = Average of *Child Life Domain Functioning* scores multiplied by 10
- **Strengths Domain** = Average of *Child Strengths* scores multiplied by 10
- **Caregiver Domain** = Average of *Caregiver Strengths & Needs* scores multiplied by 10

For each youth, the average score for the domain is calculated for Time 1 and Time 2. The change score for each youth in each domain is obtained by subtracting the Time 2 average from the Time 1 average. This score is compared to the Reliable Change Index (RCI) difference to determine positive change (improvement), no change (maintained) or negative change (decline).

- If Behavioral Health Domain T1 – Behavioral Health Domain T2 \geq 2.20, improvement.
- If Risk Domain T1 – Risk Domain T2 \geq 1.58, improvement.
- If Functioning Domain T1 – Functioning Domain T2 \geq 2.27, improvement.
- If Strengths Domain T1 – Strengths Domain T2 \geq 3.36, improvement.
- If Caregiver Domain T1 – Caregiver Domain T2 \geq 2.78, improvement.

The total number of youth with a positive change in at least one domain is the numerator.

The total number of youth with at least two assessments is the denominator.

Calculation is numerator divided by denominator multiplied by 100.

Target: The state fiscal year 2012 target performance will be **45%**.

Performance Contracting: **SFY 2012: Measure will be connected to dollars for performance contracting. Measure will be given a weight of 3.**

Improvement in Needs and or Strengths – Youth 0 – 5**Short Title:** Needs and strengths improvement**Population:** Youth 0 - 5 (SED or CA)**Long Title:** Percentage of youth ages 0 – 5 with improvement in at least one CANS domain.

Definition: The Child and Adolescent Needs and Strengths (CANS) assessment tool reports needs and strengths in six domains: Life Domain Functioning, Child Strengths, Acculturation, Caregiver Strengths and Needs, Child Behavioral/Emotional Needs, and Child Risk Behaviors. Five domains (all except Acculturation) are used to measure improvement. Improvement in at least one of the five domains constitutes improvement for this measure. Measure is reported monthly based on the reassessments completed during the month. At the end of each quarter, measure is cumulative year-to-date, that is, all reassessments completed during the fiscal year from beginning of fiscal year through the end of the specific quarter.

Measure Specific Source of Data: All data is from DARMHA. CANS 0 - 5 Assessments are used for the measurement. For each child with at least two CANS assessments, improvement in each domain is measured using a statistically reliable change index. This measure uses ratings at the individual item level aggregated to the domain level. *Data from the two most recent assessments and/or reassessments will be used for Time 1 and Time 2 data points.*

Method of Calculation:

Rules for Calculating Respective Domain Scores: For each youth who is active at any time during the reporting quarter who also has at least two assessments, Time 1 (the assessment prior to the most recent reassessment) and Time 2 the most recent reassessment), domain scores are calculated according to the formulas below.

(Details for calculation of domain averages are in the Reference Documentation section of this manual.)

CANS 0 - 5 Domain Averages:

- **Behavioral Health Domain** = Average of *Child Behavioral/Emotional Needs* scores multiplied by 10
- **Risk Domain** = Average of *Child Risk Behaviors* scores multiplied by 10
- **Functioning Domain** = Average of *Child Life Domain Functioning* scores multiplied by 10
- **Strengths Domain** = Average of *Child Strengths* scores multiplied by 10
- **Caregiver Domain** = Average of *Caregiver Strengths & Needs* scores multiplied by 10

For each youth, the average score for the domain is calculated for Time 1 and Time 2. The change score for each youth in each domain is obtained by subtracting the Time 2 average from the Time 1 average. This score is compared to the Reliable Change Index (RCI) difference to determine positive change (improvement), no change (maintained) or negative change (decline).

- If Behavioral Health Domain T1 – Behavioral Health Domain T2 \geq 2.39, improvement.
- If Risk Domain T1 – Risk Domain T2 \geq 3.29, improvement.
- If Functioning Domain T1 – Functioning Domain T2 \geq 2.52, improvement.
- If Strengths Domain T1 – Strengths Domain T2 \geq 3.71, improvement.
- If Caregiver Domain T1 – Caregiver Domain T2 \geq 2.98, improvement.

The total number of youth with a positive change in at least one domain is the numerator.

The total number of youth with at least two assessments is the denominator.

Calculation is numerator divided by denominator multiplied by 100.

Target: To be determined.

Performance Contracting: SFY 2012: Measure will not be connected to dollars for performance contracting since this is the first year to report this outcome.

Employment – SMI**Short Title:** Increased/Retained Employment**Population:** SMI**Long Title:** Percentage of adults with serious mental illness whose employment status remains the same or improves from the previous assessment for the episode of care to the most recent reassessment**Definition:** Employment is defined as paid work. The amount of time each week that a consumer works further defines the employment status. The data elements for employment status in the Data Assessment Registry for Mental Health and Addiction (DARMHA) manual are:

1. Full-time: working 35 – 40 or more hours per week.
2. Less than full-time: working 21 to 34 hours per week.
3. Part-time: working 16 – 20 hours per week.
4. Part-time: working 11 - 15 hours per week.
5. Part-time: working 6 – 10 hours per week.
6. Part-time: working 1 - 5 hours per week.
7. Unemployed: looking for work during the last 30 days or laid off from a job.
8. Not In Labor Force: not looking for work during the last 30 days or homemaker, student, disabled, retired or in an institution.

The performance measure for Increased/Retained Employment requires two data sets, one at the beginning of the episode of care and another at discharge or each six months of services. Although the “Not in Labor Force” detail includes several potential reasons for an individual not seeking employment, only the “disabled” category will be included in this measure in order to continue to promote the principles of “Recovery” throughout the mental health and addiction system.. Employment status is ranked from most active to least active as follows:

1. Full-time
2. Less than full time
3. Part-time – 16-20
4. Part-time – 11-15
5. Part-time – 6-10
6. Part-time – 1-5
7. Unemployed
8. Not In Labor Force -- disabled

Retained employment means that the consumer was employed at time one and maintains that same level of employment at time two. Improved employment means that persons not in labor force due to disability obtain employment, persons unemployed obtain employment and that persons increase the number of hours per

week worked. Measure is reported monthly based on the reassessments completed during the month. At the end of each quarter, measure is cumulative year-to-date, that is, all reassessments completed during the fiscal year from beginning of fiscal year through the end of the specific quarter.

Measure Specific Source of Data: Data will be current DARMHA data set for Employment and for Not in Labor Force due to disability. *Not in Labor Force due to other reasons or Unknown* at either the beginning of the episode of treatment or at the time of reassessment or discharge is not counted in the measurement.

Method of Calculation:

Denominator is total number of persons with SMI with at least two assessments in the episode of care who are unemployed, employed, or not in labor force due to disability at time one.

The numerator is: Of the above from the denominator, all whose status, at the most recent assessment, stays the same from Time 1 to Time 2 or who have improved employment status from Time 1 to Time 2.

Time two is the most recent assessment and time one is the assessment immediately prior to the time two assessment.

Calculations will be performed for each provider submitting data to DARMHA.

Target: The state fiscal year 2012 target performance will be 90%.

Performance Contracting: **SFY 2012: Measure will be connected to dollars for performance contracting. Measure will be given a weight of 2.**

Employment – CA**Short Title:** Increased/Retained Employment**Population:** CA Adults**Long Title:** Percentage of adults with alcohol and/or substance abuse diagnoses whose employment status remains the same or improves from the previous assessment for the episode of care to the most recent reassessment.**Definition:** Employment is defined as paid work. The amount of time each week that a consumer works further defines the employment status. The data elements for employment status in the Data Assessment Registry for Mental Health and Addiction (DARMHA) manual are:

1. Full-time: working 35 – 40 or more hours per week.
2. Less than full-time: working 21 to 34 hours per week.
3. Part-time: working 16 – 20 hours per week.
4. Part-time: working 11 - 15 hours per week.
5. Part-time: working 6 – 10 hours per week.
6. Part-time: working 1 - 5 hours per week.
7. Unemployed: looking for work during the last 30 days or laid off from a job.
8. Not In Labor Force: not looking for work during the last 30 days or homemaker, student, disabled, retired or in an institution.

The performance measure for Increased/Retained Employment requires two data sets, one at the beginning of the episode of care and another at discharge or each six months of services. Although the “Not in Labor Force” detail includes several potential reasons for an individual not seeking employment, only the “disabled” category will be included in this measure in order to continue to promote the principles of “Recovery” throughout the mental health and addiction system.. Employment status is ranked from most active to least active as follows:

1. Full-time
2. Less than full time
3. Part-time – 16-20
4. Part-time – 11-15
5. Part-time – 6-10
6. Part-time – 1-5
7. Unemployed
8. Not In Labor Force -- disabled

Retained employment means that the consumer was employed at time one and maintains that same level of employment at time two. Improved employment means that persons not in labor force due to disability obtain employment, persons unemployed obtain employment and that persons increase the number of hours per

week worked. Measure is reported monthly based on the reassessments completed during the month. At the end of each quarter, measure is cumulative year-to-date, that is, all reassessments completed during the fiscal year from beginning of fiscal year through the end of the specific quarter.

Measure Specific Source of Data: Data will be current DARMHA data set for Employment and for Not in Labor Force due to disability. *Not in Labor Force due to other reasons or Unknown* at either the beginning of the episode of treatment or at the time of reassessment or discharge is not counted in the measurement.

Method of Calculation:

Denominator is total number of persons with chronic addiction with at least two assessments in the episode of care who are unemployed, employed, or not in labor force due to disability at time one.

The numerator is: Of the above from the denominator, all whose status, at the most recent assessment, stays the same from Time 1 to Time 2 or who have improved employment status from Time 1 to Time 2.

Time two is the most recent assessment and time one is the assessment immediately prior to the time two assessment.

Calculations will be performed for each provider submitting data to DARMHA.

Target: The state fiscal year 2012 target performance will be 90%.

Performance Contracting: **SFY 2012: Measure will be connected to dollars for performance contracting. Measure will be given a weight of 2.**

School Performance – Youth

Short Title: Improved School Performance

Population: Youth

Long Title: Percentage of youth whose overall school performance shows improvement on the CANS from Time 1 to Time 2.

Definition: Both the 5 - 17 Comprehensive and the Reassessment Child and Adolescent Needs and Strengths (CANS) tools contain three items that relate to school performance. These items are School Behavior, School Achievement, and School Attendance. The three items will be used to measure improved school performance. Improvement is defined as a reliably lower level of need rating at Time 2. Measure is reported monthly based on the reassessments completed during the month. At the end of each quarter, measure is cumulative year-to-date, that is, all reassessments completed during the fiscal year from beginning of fiscal year through the end of the specific quarter.

The Comprehensive assessment tool has one core item related to school that triggers completion of the school module if rated at a 2 or 3. The three items included in this measure are contained in the module on the Comprehensive tool and as individual core items on the Reassessment tool. Due to the differences in the tools, only consumers with data for these three items in the Time 1 assessment will be included in the calculation for this measure.

Measure Specific Source of Data: All data is from DARMHA. CANS assessments are used for the measurement. For each youth with a SED agreement identifier or a CA agreement identifier and at least two CANS assessments, improvement in School Performance is measured using a statistically reliable change index. ***Data from the two most recent assessments and/or reassessments will be used for Time 1 and Time 2 data points. Time 1 will include only consumers with an average score for the items that is equal to or more than the RCI. Time 2 will include the most recent assessments for the consumers in Time 1.***

Method of Calculation:

For each youth with at least two assessments, a score for school performance for each assessment is calculated by adding the scores for School Behavior, for School Achievement, and for School Attendance, dividing the sum by 3 and multiplying the result by 10. [School Performance = ((School Behavior + School Achievement + School Attendance) divided by 3) multiplied by 10]. If the Time 1 average score is less than the RCI, the consumer is not counted in the calculation since there is no possibility for improvement at Time 2. For all consumers remaining in the Time 1 assessment data, the average score is completed for the Time 2 assessment. The change score for each youth is obtained by subtracting the Time 2 average from the

Time 1 average. This score is compared to the Reliable Change Index (RCI) difference to determine positive change (improvement).

- If $T1 - T2 \geq 3.68$, improvement.

The total number of youth with a positive change is the numerator.

The total number of youth with at least two assessments and a Time 1 average score equal to or more than the RCI is the denominator.

Calculation is numerator divided by denominator multiplied by 100.

Target: The state fiscal year 2012 target performance will be 25%.

Performance Contracting: SFY 2012: Measure will be connected to dollars for performance contracting. Measure will be given a weight of 2.

Future Considerations: This calculation methodology will be used throughout SFY 2012. Beginning July 1, 2011, the CANS reassessment tools will no longer be used and the measure for School Performance can be calculated based on the items in the school module. Since it will take approximately 6 to 7 months for all youth to have the most recent 2 assessments using the comprehensive tool, the calculation methodology will be changed for SFY 2013.

Housing – SMI

Short Title: Improved Community and Residential Stability

Population: SMI

Long Title: Percentage of adults with SMI whose community and living situation ratings on the ANSA shows improvement from Time 1 to Time 2.

Definition: The Adult Needs and Strengths Assessment (ANSA) tool contains three items that relate to community or residential stability. These items are Residential Stability, Social Connectedness, and Community Connection. The three items will be used to measure improved community and residential stability. Improvement is defined as a reliably lower level of need rating at Time 2. Measure is reported monthly based on the reassessments completed during the month. At the end of each quarter, measure is cumulative year-to-date, that is, all reassessments completed during the fiscal year from beginning of fiscal year through the end of the specific quarter.

Measure Specific Source of Data: All data is from DARMHA. ANSA Assessments are used for the measurement. For each adult with a SMI agreement identifier and at least two ANSA assessments, improvement in community and residential stability is measured using a statistically reliable change index. ***Data from the two most recent assessments and/or reassessments will be used for Time 1 and Time 2 data points. Time 1 will include only consumers with an average score for the items that is equal to or more than the RCI. Time 2 will include the most recent assessments for the consumers in Time 1.***

Method of Calculation:

For each adult with at least two assessments, a score for community and residential stability for each assessment is calculated by adding the scores for Residential Stability, for Social Connectedness, and for Community Connection, dividing the sum by 3 and multiplying the result by 10. [Community Functioning = ((Residential Stability + Social Connectedness + Community Connection) divided by 3) multiplied by 10]. If the Time 1 average score is less than the RCI, the consumer is not counted in the calculation since there is no possibility for improvement at Time 2. For all consumers remaining in the Time 1 assessment data, the average score is completed for the Time 2 assessment. The change score for each adult is obtained by subtracting the Time 2 average from the Time 1 average. This score is compared to the Reliable Change Index (RCI) difference to determine positive change (improvement).

- If $T1 - T2 \geq 4.08$, improvement.

The total number of adults with a positive change is the numerator.

The total number of adults with at least two assessments and a Time 1 average score equal to or less than the RCI is the denominator.

Calculation is numerator divided by denominator multiplied by 100.

Target: The state fiscal year 2012 target performance will be 20%.

Performance Contracting: SFY 2012: Measure will not be connected to dollars for performance contracting. DMHA will monitor performance on this measure. This measure will be further analyzed during SFY 2012 to determine whether or not these specific ANSA items have relationship to each other.

Housing – CA

Short Title: Improved Community and Residential Stability

Population: CA

Long Title: Percentage of adults with CA whose community and living situation ratings on the ANSA shows improvement from Time 1 to Time 2.

Definition: The Adult Needs and Strengths Assessment (ANSA) tool contains three items that relate to community or residential stability. These items are Residential Stability, Social Connectedness, and Community Connection. The three items will be used to measure improved community and residential stability. Improvement is defined as a reliably lower level of need rating at Time 2. Measure is reported monthly based on the reassessments completed during the month. At the end of each quarter, measure is cumulative year-to-date, that is, all reassessments completed during the fiscal year from beginning of fiscal year through the end of the specific quarter.

Measure Specific Source of Data: All data is from DARMHA. ANSA Assessments are used for the measurement. For each adult with a CA agreement identifier and at least two ANSA assessments, improvement in Community and Residential Stability is measured using a statistically reliable change index. ***Data from the two most recent assessments and/or reassessments will be used for Time 1 and Time 2 data points. Time 1 will include only consumers with an average score for the items that is equal to or more than the RCI. Time 2 will include the most recent assessments for the consumers in Time 1.***

Method of Calculation:

For each adult with at least two assessments, a score for community and residential stability for each assessment is calculated by adding the scores for Residential Stability, for Social Connectedness, and for Community Connection, dividing the sum by 3 and multiplying the result by 10. [Community Functioning = ((Residential Stability + Social Connectedness + Community Connection) divided by 3) multiplied by 10]. If the Time 1 average score is less than the RCI, the consumer is not counted in the calculation since there is no possibility for improvement at Time 2. For all consumers remaining in the Time 1 assessment data, the average score is completed for the Time 2 assessment. The change score for each adult is obtained by subtracting the Time 2 average from the Time 1 average. This score is compared to the Reliable Change Index (RCI) difference to determine positive change (improvement).

- If $T1 - T2 \geq 4.08$, improvement.

The total number of adults with a positive change is the numerator.

The total number of adults with at least two assessments and a Time 1 average score equal to or more than the RCI is the denominator.

Calculation is numerator divided by denominator multiplied by 100.

Target: The state fiscal year 2012 target performance will be 20%.

Performance Contracting: SFY 2012: Measure will not be connected to dollars for performance contracting. DMHA will monitor performance on this measure. This measure will be further analyzed during SFY 2012 to determine whether or not these specific ANSA items have relationship to each other.

Strengths – Youth

Short Title: Improved Overall Strengths for Children and Adolescents

Program: All Youth

Long Title: Percentage of youth whose overall strengths show improvement on the CANS from Time 1 to Time 2.

Definition: Both the 5 - 17 Comprehensive and the Reassessment Child and Adolescent Needs and Strengths (CANS) tools have a domain for Child Strengths. The items within this Domain include: Family, Interpersonal, Optimism, Educational, Vocational, Talents/Interests, Spiritual/Religious, Community Life, Relationship Permanence, Youth Involvement, and Natural Supports. This Domain will be used to measure improvement in the youth's strengths. Measure is reported monthly based on the reassessments completed during the month. At the end of each quarter, measure is cumulative year-to-date, that is, all reassessments completed during the fiscal year from beginning of fiscal year through the end of the specific quarter.

Measure Specific Source of Data: All data is from DARMHA. CANS assessments are used for the measurement. For each youth with a SED agreement identifier or a CA agreement identifier and at least two CANS assessments, improvement in Strengths is measured using a statistically reliable change index. ***Data from the two most recent assessments and/or reassessments will be used for Time 1 and Time 2 data points. Time 1 will include only consumers with an average score for the items that is equal to or more than the RCI. Time 2 will include the most recent assessments for the consumers in Time 1.***

Method of Calculation:

For each youth with at least two assessments, a domain score for Child Strengths on each assessment is calculated. If the Time 1 average score is less than the RCI, the consumer is not counted in the calculation since there is no possibility for improvement at Time 2. For all consumers remaining in the Time 1 assessment data, the average score is completed for the Time 2 assessment. The change score for each youth is obtained by subtracting the Time 2 average from the Time 1 average. This score is compared to the Reliable Change Index (RCI) difference to determine positive change (improvement).

- If Child Strengths Domain at T1 – Child Strengths Domain at T2 \geq 3.36, improvement.

The total number of youth with a positive change is the numerator.

The total number of youth with at least two assessments and a Time 1 average score equal to or more than the RCI is the denominator.

Calculation is numerator divided by denominator multiplied by 100.

Target: The state fiscal year 2012 target performance will be 20%.

Performance Contracting: SFY 2012: Measure will not be connected to dollars for performance contracting. DMHA will monitor performance on this measure.

Criminal Justice – SMI**Short Title:** Reduced Involvement with Law Enforcement**Population:** SMI**Long Title:** Percentage of adults with serious mental illness whose ratings on the ANSA Crime Module item scores shows improvement from Time 1 to Time 2.**Definition:** The Adult Needs and Strengths Assessment (ANSA) tool contains a Crime Module which is used when the Criminal Behavior item has a rating of 2 or 3. Measure is reported monthly based on the reassessments completed during the month. At the end of each quarter, measure is cumulative year-to-date, that is, all reassessments completed during the fiscal year from beginning of fiscal year through the end of the specific quarter.**Measure Specific Source of Data:** All data is from DARMHA. ANSA Assessments are used for the measurement. For each adult with a SMI agreement identifier and at least two ANSA assessments, reduction in involvement with law enforcement is measured using a statistically reliable change index applied to the item scores in the Crime Module. ***Data from the two most recent assessments and/or reassessments will be used for Time 1 and Time 2 data points. Time 1 will include only consumers with an average score for the items that is equal to or more than the RCI. Time 2 will include the most recent assessments for the consumers in Time 1.*****Method of Calculation:** For each adult with at least two assessments with the Crime Module completed, the item scores are averaged and multiplied by ten for the Time 1 assessment. If the Time 1 average score is less than the RCI, the consumer is not counted in the calculation since there is no possibility for improvement at Time 2. For all consumers remaining in the Time 1 assessment data, the average score is completed for the Time 2 assessment. **If at Time 2, the Crime Module is not triggered and, therefore, not completed, Time 2 will be assigned an average score of 0, thereby capturing the improvement.** The change score for each adult is obtained by subtracting the Time 2 average from the Time 1 average. This score is compared to the Reliable Change Index (RCI) difference to determine positive change (improvement).

- If Crime Module T1 – Crime Module T2 \geq 3.82, improvement.

The total number of adults with a positive change is the numerator.

The total number of adults with at least two assessments and a Time 1 average score equal to or more than the RCI is the denominator.

Calculation is numerator divided by denominator multiplied by 100.

Target: The state fiscal year 2012 target performance will be 45%.

Performance Contracting: SFY 2012: Measure will be connected to dollars for performance contracting. Measure will be given a weight of 2.

Criminal Justice – CA

Short Title: Reduced Involvement with Law Enforcement

Population: CA

Long Title: Percentage of adults with chronic addiction whose ratings on the ANSA Crime Module item scores shows improvement from Time 1 to Time 2.

Definition: The Adult Needs and Strengths Assessment (ANSA) tool contains a Crime Module which is completed when the Criminal Behavior item has a rating of 2 or 3. Measure is reported monthly based on the reassessments completed during the month. At the end of each quarter, measure is cumulative year-to-date, that is, all reassessments completed during the fiscal year from beginning of fiscal year through the end of the specific quarter.

Measure Specific Source of Data: All data is from DARMHA. ANSA Assessments are used for the measurement. For each adult with a CA agreement identifier and at least two ANSA assessments, reduction in involvement with law enforcement is measured using a statistically reliable change index applied to the item scores in the Crime Module. ***Data from the two most recent assessments and/or reassessments will be used for Time 1 and Time 2 data points. Time 1 will include only consumers with an average score for the items that is equal to or more than the RCI. Time 2 will include the most recent assessments for the consumers in Time 1.***

Method of Calculation: For each adult with at least two assessments with the Crime Module completed, the item scores are averaged and multiplied by ten for the Time 1 assessment. If the Time 1 average score is less than the RCI, the consumer is not counted in the calculation since there is no possibility for improvement at Time 2. For all consumers remaining in the Time 1 assessment data, the average score is completed for the Time 2 assessment. **If at Time 2, the Crime Module is not triggered and, therefore, not completed, Time 2 will be assigned an average score of 0, thereby capturing the improvement.** The change score for each adult is obtained by subtracting the Time 2 average from the Time 1 average. This score is compared to the Reliable Change Index (RCI) difference to determine positive change (improvement).

- If Crime Module T1 – Crime Module T2 \geq 3.82, improvement.

The total number of adults with a positive change is the numerator.

The total number of adults with at least two assessments and a Time 1 average score equal to or more than the RCI is the denominator.

Calculation is numerator divided by denominator multiplied by 100.

Target: The state fiscal year 2012 target performance will be 45%.

Performance Contracting: SFY 2012: Measure will be connected to dollars for performance contracting. Measure will be given a weight of 2.

Risk Behaviors – Youth

Short Title: Reduction in Risk Behaviors for Children and Adolescents

Program: All Youth

Long Title: Percentage of youth whose overall risk behaviors show reduced severity of need on the CANS from Time 1 to Time 2.

Definition: Both the 5 - 17 Comprehensive and the Reassessment Child and Adolescent Needs and Strengths (CANS) tools have a domain for Child Risk Behaviors. The items within this Domain include: Suicide Risk, Self Mutilation, Other Self Harm, Danger to Others, Sexual Aggression, Runaway, Delinquency, Fire Setting, Social Behavior, and Bullying. This Domain will be used to measure reduction in the youth's risk behaviors. Measure is reported monthly based on the reassessments completed during the month. At the end of each quarter, measure is cumulative year-to-date, that is, all reassessments completed during the fiscal year from beginning of fiscal year through the end of the specific quarter.

Measure Specific Source of Data: All data is from DARMHA. CANS assessments are used for the measurement. For each youth with a SED agreement identifier or a CA agreement identifier and at least two CANS assessments, reduction in risk behaviors is measured using a statistically reliable change index. ***Data from the two most recent assessments and/or reassessments will be used for Time 1 and Time 2 data points. Time 1 will include only consumers with an average score for the items that is equal to or more than the RCI. Time 2 will include the most recent assessments for the consumers in Time 1.***

Method of Calculation:

For each youth with at least two assessments, a domain score for Child Risk Behaviors on each assessment is calculated. If the Time 1 average score is less than the RCI, the consumer is not counted in the calculation since there is no possibility for improvement at Time 2. For all consumers remaining in the Time 1 assessment data, the average score is completed for the Time 2 assessment. The change score for each youth is obtained by subtracting the Time 2 average from the Time 1 average. This score is compared to the Reliable Change Index (RCI) difference to determine positive change (improvement).

- If Child Risk Behaviors at T1 – Child Risk Behaviors at T2 \geq 1.58, improvement.

The total number of youth with a positive change is the numerator.

The total number of youth with at least two assessments and a Time 1 average score equal to or more than the RCI is the denominator.

Calculation is numerator divided by denominator multiplied by 100.

Target: The state fiscal year 2012 target performance will be **20%**.

Performance Contracting: **SFY 2012: Measure will be connected to dollars for performance contracting. Measure will be given a weight of 2.**

Substance Use – SMI

Short Title: Improved Functioning for Adults with Substance Use

Program: SMI Adults

Long Title: Percentage of adults with a SMI agreement indicator whose ratings on the ANSA Substance Use Disorder Module item scores show improvement from Time 1 to Time 2.

Definition: The Adult Needs and Strengths Assessment (ANSA) tool contains a Substance Use Disorder Module which is completed when the Substance Use item has a rating of 2 or 3. Measure is reported monthly based on the reassessments completed during the month. At the end of each quarter, measure is cumulative year-to-date, that is, all reassessments completed during the fiscal year from beginning of fiscal year through the end of the specific quarter.

Measure Specific Source of Data: All data is from DARMHA. ANSA Assessments are used for the measurement. For each adult with at least two ANSA assessments, improved functioning specific to a substance use disorder is measured using a statistically reliable change index applied to the item scores in the Substance Use Disorder Module. *Data from the two most recent assessments and/or reassessments will be used for Time 1 and Time 2 data points. Time 1 will include only consumers with an average score for the items that is equal to or more than the RCI. Time 2 will include the most recent assessments for the consumers in Time 1.*

Method of Calculation:

For each adult with a SMI agreement indicator and at least two assessments with the Substance Use Disorder Module completed, the item scores are summed and multiplied by 10 for the Time 1 assessment. If the Time 1 average score is less than the RCI, the consumer is not counted in the calculation since there is no possibility for improvement at Time 2. For all consumers remaining in the Time 1 assessment data, the average score is completed for the Time 2 assessment. **If at Time 2, the Substance Use Disorder Module is not triggered and, therefore, not completed, Time 2 will be assigned an average score of 0, thereby capturing the improvement.** The change score for each adult is obtained by subtracting the Time 2 average from the Time 1 average. This score is compared to the Reliable Change Index (RCI) difference to determine positive change (improvement).

- If Substance Use Disorder Module T1 – Substance Use Disorder Module T2 ≥ 3.93 , improvement.

The total number of adults with a positive change is the numerator.

The total number of adults with at least two assessments and a Time 1 average score equal to or more than the RCI is the denominator.

Calculation is numerator divided by denominator multiplied by 100.

Target: The state fiscal year 2012 target performance will be 35%.

Performance Contracting: SFY 2012: Measure will be connected to dollars for performance contracting. Measure will be given a weight of 2.

Substance Use – CA

Short Title: Improved Functioning for Adults with a Substance Use Disorder

Program: CA Adults

Long Title: Percentage of adults with a chronic addiction agreement indicator whose ratings on the ANSA Substance Use Disorder Module item scores show improvement from Time 1 to Time 2.

Definition: The Adult Needs and Strengths Assessment (ANSA) tool contains a Substance Use Disorder Module which is completed when the Substance Use item has a rating of 2 or 3. Measure is reported monthly based on the reassessments completed during the month. At the end of each quarter, measure is cumulative year-to-date, that is, all reassessments completed during the fiscal year from beginning of fiscal year through the end of the specific quarter.

Measure Specific Source of Data: All data is from DARMHA. ANSA Assessments are used for the measurement. For each adult with at least two ANSA assessments, improved functioning specific to a substance use disorder is measured using a statistically reliable change index applied to the item scores in the Substance Use Disorder Module. ***Data from the two most recent assessments and/or reassessments will be used for Time 1 and Time 2 data points. Time 1 will include only consumers with an average score for the items that is equal to or more than the RCI. Time 2 will include the most recent assessments for the consumers in Time 1.***

Method of Calculation:

For each adult with a CA agreement indicator and at least two assessments with the Substance Use Disorder Module completed, the item scores are summed and multiplied by 10 for the Time 1 assessment. If the Time 1 average score is less than the RCI, the consumer is not counted in the calculation since there is no possibility for improvement at Time 2. For all consumers remaining in the Time 1 assessment data, the average score is completed for the Time 2 assessment. **If at Time 2, the Substance Use Disorder Module is not triggered and, therefore, not completed, Time 2 will be assigned an average score of 0, thereby capturing the improvement.** The change score for each adult is obtained by subtracting the Time 2 average from the Time 1 average. This score is compared to the Reliable Change Index (RCI) difference to determine positive change (improvement).

- If Substance Use Disorder Module T1 – Substance Use Disorder Module T2 \geq 3.93, improvement.

The total number of adults with a positive change is the numerator.

The total number of adults with at least two assessments and a Time 1 average score equal to or more than the RCI is the denominator.

Calculation is numerator divided by denominator multiplied by 100.

Target: The state fiscal year 2012 target performance will be **45%**.

Performance Contracting: **SFY 2012: Measure will be connected to dollars for performance contracting. Measure will be given a weight of 2.**

Substance Use – Youth

Short Title: Improved Functioning for Youth with a Substance Use Disorder

Program: All Youth

Long Title: Percentage of youth whose overall substance use shows improvement on the CANS from Time 1 to Time 2.

Definition: Both the 5 - 17 Comprehensive and the Reassessment Child and Adolescent Needs and Strengths (CANS) tools contain four items that relate to substance use. These items are Severity of Use, Peer Influences, Parental Influences, and Stage of Recovery. The four items will be used to measure improvement in substance use. Measure is reported monthly based on the reassessments completed during the month. At the end of each quarter, measure is cumulative year-to-date, that is, all reassessments completed during the fiscal year from beginning of fiscal year through the end of the specific quarter.

The Comprehensive assessment tool has one core item related to substance use that triggers completion of the substance use module if rated at a 2 or 3. The four items included in this measure are contained in the module on the Comprehensive tool and as individual core items on the Reassessment tool. Due to the differences in the tools, only consumers with data for these three items in the Time 1 assessment will be included in the calculation for this measure.

Measure Specific Source of Data: All data is from DARMHA. CANS assessments are used for the measurement. For each youth with a SED agreement identifier or a CA agreement identifier and at least two CANS assessments, improvement in Substance Use is measured using a statistically reliable change index. ***Data from the two most recent assessments and/or reassessments will be used for Time 1 and Time 2 data points. Time 1 will include only consumers with an average score for the items that is equal to or more than the RCI. Time 2 will include the most recent assessments for the consumers in Time 1.***

Method of Calculation:

For each youth with at least two assessments, a score for substance use on each assessment is calculated by adding the scores for Severity, for Peer Influences, for Parental Influences, and for Stage of Change, dividing the sum by 4 and multiplying the result by 10. [Substance Use = ((Severity of Use + Peer Influences + Parental Influences + Stage of Change) divided by 4) multiplied by 10]. If the Time 1 average score is less than the RCI, the consumer is not counted in the calculation since there is no possibility for improvement at Time 2. For all consumers remaining in the Time 1 assessment data, the average score is completed for the Time 2 assessment. The change score for each youth is obtained by subtracting the Time 2 average from the Time 1 average. This score is compared to the Reliable Change Index (RCI)

difference to determine positive change (improvement), no change (maintained) or negative change (decline).

- If substance use items at T1 – substance use items at T2 \geq 3.30, improvement.

The total number of youth with a positive change is the numerator.

The total number of youth with at least two assessments and a Time 1 average score equal to or more than the RCI is the denominator.

Calculation is numerator divided by denominator multiplied by 100.

Target: The state fiscal year 2012 target performance will be **30%**.

Performance Contracting: **SFY 2012: Measure will be connected to dollars for performance contracting. Measure will be given a weight of 2.**

Future Considerations: This calculation methodology will be used throughout SFY 2012. Beginning July 1, 2011, the CANS reassessment tools will no longer be used and the measure for School Performance can be calculated based on the items in the school module. Since it will take approximately 6 to 7 months for all youth to have the most recent 2 assessments using the comprehensive tool, the calculation methodology will be changed for SFY 2013.

Performance Process Measures for SFY 2012

Adults Served – SMI

Short Title: Average Monthly Number of Adult Consumers with a Serious Mental Illness Served

Population: Adults with SMI Agreement Identifier

Long Title: Average monthly number of unduplicated adult consumers with SMI agreement identifier who receive one or more services each month.

Definition: Adult consumers with mental health diagnoses include all persons age 18 years and older who have an open episode of care and a SMI agreement identifier in the DARMHA data system.

A service during the month is defined as one or more encounter records during the month. **All consumers with open episodes except those identified as Gambling or Opioid Treatment (SMO) will be included in the calculation.**

Measure Specific Source of Data: Data will be the current DARMHA data set for SMI.

Method of Calculation:

On a monthly basis, this is a simple count of the unduplicated number of consumers with a SMI agreement identifier who have one or more encounters reported during the month. The calculation of average monthly takes the specific number served each month and averages the months in the reporting period. The measure is cumulative during the reporting year in that for the first reporting period, three months are averaged; in the second reporting period, six months are averaged; in the third reporting period, nine months are averaged; and in the fourth reporting period, twelve months are averaged.

Target: The target performance for each provider in state fiscal year 2012 is based on the provider's actual performance from July 1, 2010 through March 31, 2011.

Performance Contracting: **SFY 2012: Measure will be connected to dollars for performance contracting. Measure will be given a weight of 1.**

Adults Served – CA

Short Title: Average Monthly Number of Adult Consumers with a Chronic Addiction Served

Population: Chronic Addiction

Long Title: Average monthly number of unduplicated adult consumers with a chronic addiction agreement identifier who receive one or more services each month.

Definition: Adult consumers with CA include all persons age 18 years and older who have an open episode of care and a CA agreement identifier in the DARMHA data system.

A service during the month is defined as one or more encounter records during the month. **All consumers with open episodes except those identified as Gambling or Opioid Treatment (SMO) will be included in the calculation.**

Measure Specific Source of Data: Data will be the current DARMHA data set for CA.

Method of Calculation:

On a monthly basis, this is a simple count of the unduplicated number of consumers with a CA agreement identifier who have one or more encounters reported during the month. The calculation of average monthly takes the specific number served each month and averages the months in the reporting period. The measure is cumulative during the reporting year in that for the first reporting period, three months are averaged; in the second reporting period, six months are averaged; in the third reporting period, nine months are averaged; and in the fourth reporting period, twelve months are averaged.

Target: The target performance for each provider in state fiscal year 2012 is based on the provider's actual performance from July 1, 2010 through March 31, 2011.

Performance Contracting: **SFY 2012: Measure will be connected to dollars for performance contracting. Measure will be given a weight of 1.**

Youth Served – SED and CA

Short Title: Average Monthly Number of Youth Served

Population: All youth (SED and CA)

Long Title: Average monthly number of unduplicated child and adolescent consumers with a CA or SED agreement type who receive one or more services each month.

Definition: Child and adolescent consumers include any youth with an SED agreement type and youth with a CA agreement type who are aged 0 - 17 with an open episode of care in the DARMHA data system during the reporting month. A service during the month is defined as one or more encounter records during the month.

Measure Specific Source of Data: Data will be the current DARMHA data for all youth with a SED agreement identifier and youth with a CA agreement identifier who are aged 0 – 17.

Method of Calculation:

On a monthly basis, this is a count of the total number of SED and youth CA consumers aged 0 - 17 with one or more encounters reported during the month.

The calculation of average monthly takes the specific number served each month and averages the months in the reporting period. The measure is cumulative during the reporting year in that for the first reporting period, three months are averaged; in the second reporting period, six months are averaged; in the third reporting period, nine months are averaged; and in the fourth reporting period, twelve months are averaged.

Target: The target performance for each provider in state fiscal year 2012 is based on the provider's actual performance from July 1, 2010 through March 31, 2011.

Performance Contracting: **SFY 2012: Measure will be connected to dollars for performance contracting. Measure will be given a weight of 1.**

Reassessment – DARMHA Outcomes (NOMs Table)**Short Title:** Percentage of DARMHA Outcome (NOMs) reassessments completed**Population:** All**Long Title:** Percentage of consumers who are reassessed within 7 months of the previous assessment or at discharge from an episode of care.**Definition:** Reassessment includes updating demographic information as defined in DARMHA and reporting current and updated information on the client in the following National Outcome areas:

- Living Arrangement (adults only)
- Employment Status
- Substance Usage data (primary, secondary and tertiary substances, route of ingestion, frequency of use/intake, and age at first use/intoxication)
- ROLES (youth only)
- Criminal Involvement
- Pregnancy
- Social Support
- Needle Use (for drugs)

Reassessments are required during the episode of care at 180 day intervals and should also be completed at the time of discharge from an episode of care. For the measure “Percentage of Reassessments Completed” during state fiscal year 2012, consumers with an active episode of care or a mutual discharge at any time during the reporting month will be included in the calculation. **All consumers with open episodes except those identified as Medication Only, Gambling, or Opioid Treatment (SMO) will be included in the calculation.**

Measure Specific Source of Data: Data will be the current DARMHA data set.**Method of Calculation:**

The calculation identifies all consumers active at any time during the reporting period who were eligible to be reassessed and measures the percentage that were reassessed within 7 months of the previous assessment or reassessment. Measure is the percentage of persons who should have received a reassessment within 7 months of previous assessment/reassessment and persons who did receive a reassessment.

The denominator is the number of persons “Eligible to be Reassessed”. “Eligible to be reassessed” is defined as all consumers with open episodes during the reporting month who have at least two assessments/reassessments plus all other consumers

with open episodes with last assessment at least 180 days prior to the beginning of the reporting period plus consumers open more than 30 days with no assessment.

The numerator is the number of consumers with “On-Time Reassessments”. On-Time Reassessment is defined as at least two assessments/reassessments with valid data in the outcome fields where the reassessment occurred within 7 months of the previous assessment/reassessment.

Target: The target performance for each provider of services to consumers with mental illness or an addiction during state fiscal year 2012 will be: 80% of all consumers (SMI, CA, or Youth) will have either a discharge reassessment or a 180 day reassessment within 7 months of last assessment.

Performance Contracting: SFY 2012: Measure will be connected to dollars for performance contracting. Measure will be given a weight of 2.

Reassessment – CANS or ANSA**Short Title:** Percentage of CANS or ANSA reassessments completed**Population:** All**Long Title:** Percentage of consumers who are reassessed with the CANS or ANSA within 7 months of the previous assessment or at discharge from an episode of care.**Definition:** Reassessments are required during the episode of care at 180 day intervals and should also be completed at the time of discharge from an episode of care. For the measure “Percentage of CANS or ANSA Reassessments Completed” during state fiscal year 2012, consumers with an active episode of care or a mutual discharge at any time during the reporting period will be included in the calculation. **All consumers with open episodes except those identified as Medication Only, Gambling, or Opioid Treatment (SMO) will be included in the calculation.****Measure Specific Source of Data:** Data will be the current DARMHA data set.**Method of Calculation:**

The calculation identifies all consumers active at any time during the reporting month who were eligible to be reassessed and measures the percentage that were reassessed within 7 months of the previous assessment or reassessment. Measure is the percentage of persons who should have received a reassessment within 7 months of previous assessment/reassessment and persons who did receive a reassessment.

The denominator is the number of persons “Eligible to be Reassessed”. “Eligible to be reassessed” is defined as all consumers with open episodes during the reporting period who have at least two assessments/reassessments plus all consumers with open episodes with last assessment at least 180 days prior to the beginning of the reporting period plus consumers open more than 30 days with no assessment.

The numerator is the number of consumers with “On-Time Reassessments”. On-Time Reassessment is defined as at least two assessments/reassessments with valid data in the outcome fields where the reassessment occurred within 7 months of the previous assessment/reassessment.

Target: The target performance for each provider of services to consumers with mental illness or an addiction during state fiscal year 2012 will be: 80% of all consumers (SMI, CA, or Youth) will have either a discharge reassessment or a 180 day reassessment within 7 months of last assessment.**Performance Contracting:** **SFY 2012: Measure will be connected to dollars for performance contracting. Measure will be given a weight of 2.**

Performance Calculations for Scorecards

Measure	2012 Target	Weight
Improvement in One Domain – SMI	25%	3
Improvement in One Domain – CA	35%	3
Improvement in One Domain – Youth 5 – 17	45%	3
Employment SMI	90%	2
Employment CA	90%	2
School Performance Youth	25%	2
Residential and Community Stability – SMI	20%	0
Residential and Community Stability – SMI	20%	0
Strengths – Youth	20%	0
Criminal Justice -- SMI	45%	2
Criminal Justice -- CA	45%	2
Risk Behaviors – Youth	20%	2
Substance Use – SMI	35%	2
Substance Use – CA	45%	2
Substance Use – Youth	30%	2
Adults Served – SMI	Provider Specific	1
Adults Served CA	Provider Specific	1
Youth Served SED & CA	Provider Specific	1
Reassessment -- NOMS	80%	2
Reassessment – CANS/ANSA	80%	2

Detail for calculating outcome based on selected CANS or ANSA items or modules.

Residential and Community Stability

RCI = 4.08

	Time 1 Item Scores			Average times 10	Average \geq RCI (1 = Yes)
	Residential Stability	Social Connectedness	Community Connection		
Consumer 1	2	2	1	16.666667	1
Consumer 2	0	1	0	3.3333333	0
Consumer 3	1	0	1	6.6666667	1
Consumer 4	3	2	3	26.666667	1
Consumer 5	2	2	3	23.333333	1
Consumer 6	3	3	2	26.666667	1

	Time 2 Item Scores			Average times 10	Time 1 minus Time 2
	Residential Stability	Social Connectedness	Community Connection		
Consumer 1	3	3	2	26.666667	-10
Consumer 2	2	2	3	23.333333	NULL
Consumer 3	3	2	3	26.666667	-20
Consumer 4	1	0	1	6.6666667	20
Consumer 5	0	1	0	3.3333333	20
Consumer 6	2	2	1	16.666667	10

Of the six consumers, five can be included in the calculation since their time 1 average score for the three items is equal to or more than the RCI of 4.08.

Of the five remaining consumers, two had higher scores at time 2 and, therefore, did not improve. Three consumers did improve resulting in 60% of consumers improved in the Residential and Community Stability outcome measure.

Reference Documentation

Reliable Change Indices

John Lyons, PhD

Adult Needs and Strengths Assessment

The Reliable Change Index (RCI) is a concept used in monitoring outcomes. When scale scores are used, the interpretation of values across those scales can become somewhat arbitrary. For this reason, knowing when a change is ‘sufficient’ is an important criterion for creating meaning from changes in scores across time. RCI is one method that can be used to define when a change in a scale score is sufficient to be categorized as a real change. Put another way, RCI are the size of a change that would be difficult to explain as measurement error alone. The RCI works by asking how large of a change would need to be observed on a scale to be replicable given the reliability of the measure. The size of the RCI, therefore depends both on the variability of the measure (i.e. standard deviation) and the reliability of that measure. A standard error of measurement of 1.28 is used as the standard of sufficient change.

$$RCI = 1.28 * (\text{standard deviation}) \times \text{SQRT}(1-\text{reliability}).$$

For the purposes of our analyses we used an estimated reliability of 0.78 which is the average reliability of ANSA trainees who are certified on the Indiana ANSA Training website. Domain scores are calculated by averaging items within the domain (only those that can change over time as a result of intervention) and then multiplying these item averages by 10 to create uniform 30 point domain scores whereby a ‘0’ indicates all ‘0’ ratings on every item in the domain and a ‘30’ indicates all ‘3’ ratings on every item in the domain.

Domain	n	mean	sd	RCI
Life Domain Functioning	20,708	8.7	4.56	2.68
Risk Behaviors	20,677	2.3	2.95	1.74
Behavioral Health	20,707	7.0	4.12	2.43
Strengths	20,709	14.1	6.08	3.58
Employment	7,429*	15.1	8.86	5.31
Community Functioning	20,709	11.6	6.79	4.08
Legal Involvement	2,149*	9.9	6.36	3.82
Substance Use Involvement	6,782*	17.8	6.54	3.93

*These values were calculated only for individuals for whom the module was completed. A majority of the total population of individuals served would score all ‘0’s on these items. Therefore these RCI would only apply to individuals with identified target needs that trigger the indicated modules.

Given an RCI for Life Domain Functioning of 2.68, this would mean that an individual would have to evince a change in the domain score of more than this value to achieve an improvement that could be seen as sufficient to be larger than to have occurred by chance.

Reliable Change Indices

Betty Walton, PhD

May 9, 2011

Child and Adolescent Needs and Strengths Birth to Five

To measure change over time using the CANS tools, changes between one rating score and another are clinically meaningful for an individual child. However, when rating scores are aggregated for a group of youth, statistically methods are used to help determine how much change is enough to be considered sufficient, not related to chance. The Reliable Change Index (RCI) is one method that can be used to determine when the change is large enough to be categorized as real change. The RCI is the size of a change that would be difficult to explain due to measurement error. Given the reliability of the measure, how large of a change would need to be observed on a scale to be replicable? The size of the RCI depends on the variability of the measure (standard deviation) and the reliability of the measure. A standard error of measurement of 1.289 is used as the standard of sufficient change.

$$RCI = 1.28 * (\text{standard deviation}) * \text{Square Root } (1 - \text{reliability})$$

For the purposes of this analysis, data from the Comprehensive CANS Birth to Five CANS which was pulled in 5/2009 is included. At that time the estimated reliability of Indiana clinicians certified to use the CANS online was 0.79. Domain scores were calculated by averaging items within the domain; each domain is then multiplied times “10” to create a 30 point scale. In the 30 point scale, ‘0’ indicates all ‘0’ ratings and ‘30’ indicates all ‘3’ ratings. Note that only items which can change over time are included. Therefore, for young children, risk factors are not included. A limitation of using this dataset is that Aggression was not included as a Risk Behavior in the Indiana Birth to 5 CANS until July 1, 2010.

<u>Domain</u>	<u>n</u>	<u>mean</u>	<u>SD</u>	<u>RCI</u>
Acculturation	1090	0.48	1.99	1.17
Caregiver Strengths & Needs	1647	5.94	5.09	2.98
Behavioral Health	1647	4.70	4.07	2.39
Risk Behaviors	1647	4.30	5.62	3.29
Strengths	1647	8.15	6.33	3.71
Functioning	1647	6.07	4.30	2.52

Child and Adolescent Needs and Strengths 5-17 Tool

The following table presents reliable changes indices (RCI) for each of the dimensions of the items of the Indiana Child and Adolescent Needs and Strengths (CANS) for the items completed for all children and youth (modules not included in the present analyses).

Reliable change refers to score deviations that would be difficult to explain by measurement error, as determined by reliability statistics. An overall reliability statistics of 0.79 from the average of certification reliabilities from the CANS training experience which is consistent with Anderson, et. al., (2003) was applied to sample statistics from scales to all Indiana CANS initial assessments from a little more than the first year of assessments. To obtain RCI (Reliable Change Index) estimates. In the present case, RCI is defined as 1.28 standard errors of measurement.¹

Dimension	n	Mean	sd	RCI
Life Domain Functioning	31,493	7.03	3.88	2.27
Child Strengths	31,493	13.52	5.73	3.36
Acculturation	30,176	0.56	2.11	1.27
Caregiver Needs & Strengths	31,121	5.33	4.23	2.78
Emotional/Behavioral	31,493	6.92	3.75	2.20
Risk Behaviors	31,493	2.20	2.70	1.58

Scoring for each dimension was accomplished by average available items and multiplying by 10 resulting in uniform 30 point scales (0 to 30) for each dimension. Thus a 10 would be an average of ‘1’ for all items on a dimension.

The RCI for Life Domain Functioning was 2.27 which is the size of average difference from time 1 to time 2 on the dimension score that you would need to see to ensure that the change was not a function of unreliability.

It should be noted that over time it is possible to apply reliability estimates generated separately for each domain to improve the estimation of the RCI.

Substance Use and School Functioning RCIs

For Youth Performance Measures, Substance Use Needs and School Functioning include the items that are reported in the Comprehensive and Reassessment CANS 5 to 17:

- Substance Use (Severity, Peer Influences, Parental Influences & Stage of Recovery)
- School Functioning (School Behavior, School Achievement & School Attendance)

RCIs were calculated from a population of 22,940 youth whose needs and strengths had been rated with the Comprehensive or Reassessment CANS, 5 to 17 as of September 2008. The following formula was used.

¹ If one were to sample scores under an assumption that the extreme scores are a consequence entirely of rater unreliability and thus represent “no real improvement,” the RCI value would cut off the most extreme 10% of cases. Obtaining such extreme scores calls the assumption of “no real improvement” into question, thus suggesting reliable improvement.

$$RCI = 1.28*(SD) \times \text{SQRT}(1-\text{reliability})$$

For each Performance Measure, only the sample of youth with identified needs (> 0 ratings) were considered in calculating the RCI. Indiana’s average reliability for the CANS on certification tests is .79. Raw scores are multiplied times 10 to create a 30 point aggregate scale. The RCI indicates how much difference between time 2 and time 1 is needed to indicate statistically significant change.

Domain	<i>n</i>	means	SD	RCI
Substance Use	5,586	7.50	5.62	3.30
School Functioning	17,794	10.30	6.28	3.68

CANS Domain Items and Calculation Methodology for Improvement

Comprehensive CANS 0 to 5 Domain Averages:

- Child Behavioral/Emotional Needs
 {(Attachment +Regulatory + Failure to Thrive + Depression + Anxiety + Atypical Behaviors + Impulsive + Oppositional + Trauma) divided by 9}* 10 =
Behavioral Health Domain
- Child Risk Behaviors
 {(Birth Weight + Pica + Prenatal Care + Labor/Delivery + Substance Exposure + Parent/Sibling Problem + Maternal Availability + Self Harm + Abuse/Neglect + Social Behavior) divided by 10} * 10 = **Risk Domain**
- Child Life Domain Functioning
 {(Family + Living Situation + Pre-School/Day Care + Social Functioning + Recreation/Play + Developmental + Motor + Communication + Medical + Physical + Sleep + Relationship Permanence) divided by 12}* 10 = **Functioning Domain**
- Child Strengths
 {(Family + Extended Family Relationships + Interpersonal + Adaptability + Persistence + Curiosity) divided by 6} * 10 = **Strengths Domain**
- Caregiver Strengths & Needs
 {(Physical + Mental Health + Substance Use + Development + Safety + Involvement + Knowledge + Organization + Social Resources + Residential Stability + Family Stress) divided by 11} * 10 = **Caregiver Domain**

Comprehensive CANS 5 to 17 Domain Averages:

- Child Behavioral/Emotional Needs
 {(Psychosis + Impulsivity + Depression + Anxiety + Oppositional + Conduct + Trauma + Anger + Eating Disturbance + Substance Use [Severity of Use]) divided by 10}* 10 = **Behavioral Health Domain**
- Child Risk Behaviors
 {(Suicide + Self Mutilation + Other Self Harm + Danger to Others + Sexual Aggression + Runaway + Delinquency + Fire Setting + Social Behavior + Bullying) divided by 10} * 10 = **Risk Domain**
- Child Life Domain Functioning
 {(Family + Living Situation + School [Highest of School Behavior, Attendance or Achievement] + Social Functioning + Recreation + Developmental + Communication + Judgment + Legal + Medical + Physical + Sleep + Independent Living) divided by 13}* 10 = **Functioning Domain**
- Child Strengths
 {(Family + Interpersonal + Optimism + Educational + Vocational + Talents/Interests + Spiritual + Community Life + Relationship Permanence + Youth Involvement + Natural Supports) divided by 11} * 10 = **Strengths Domain**
- Caregiver Strengths & Needs
 1{(Physical + Mental Health + Substance Use + Developmental + Safety + Supervision + Involvement + Knowledge + Organization + Social Resources + Residential Stability + Family Stress) divided by 12} * 10 = **Caregiver Domain**

1. If Behavioral Health Domain Time 1 – Behavioral Health Domain Time 2 \geq 2.20, improvement.
2. If Risk Domain Time 1 – Risk Domain Time 2 \geq 1.58, improvement.
3. If Functioning Domain Time 1 – Functioning Domain Time 2 \geq 2.27, improvement.
4. If Strengths Domain Time 1 – Strengths Domain Time 2 \geq 3.36, improvement.
5. If Caregiver Domain Time 1 – Caregiver Domain Time 2 \geq 2.78, improvement.

ANSA Domain Items and Calculation Methodology for Improvement

- Life Domain Functioning
 {(Physical/Medical + Family + Employment + Social Functioning + Recreational + Sexuality + Living Skills + Residential Stability + Legal + Sleep + Self Care + Involvement in Recovery + Transportation) divided by 13} * 10 = **Functioning Domain**
 - Behavioral Health Needs
 {(Psychosis + Impulse Control + Depression + Anxiety + Interpersonal Problems + Antisocial Behavior + Adjustment to Trauma + Anger Control + Substance Use + Eating Disturbance) divided by 10} * 10 = **Behavioral Health Domain**
 - Risk Behaviors
 {(Danger to Self/Others + Self Injurious Behavior + Other Self Harm + Exploitation + Gambling + Sexual Aggression + Criminal Behavior) divided by 7} * 10 = **Risk Domain**
 - Strengths
 {(Family + Social Connections + Optimism + Talents/Interests + Educational + Volunteering + Job History + Spiritual/Religious + Community Connectedness + Natural Supports + Resiliency + Resourcefulness) divided by 12} * 10 = **Strengths Domain**
1. If Life Domain Functioning Time 1 – Life Domain Functioning Time 2 \geq 2.68, improvement
 2. If Behavioral Health Domain Time 1 – Behavioral Health Domain Time 2 \geq 2.43, improvement
 3. If Risk Behaviors Time 1 – Risk Behaviors Time 2 \geq 1.74, improvement
 4. If Strengths Time 1 – Strengths Time 2 \geq 3.58, improvement