



## COMPOSITE SCORE MANUAL:

Mental health outpatient services, Levels A through D  
Fall 2019

### INTRODUCTION

The tri-county composite scores seek to integrate multiple indicators of quality and outcomes among community providers into a single system. The intent is to create a more comprehensive view of performance than single metrics provide while retaining easy interpretation and accessibility, which can aid in increasing accountability, providing valuable feedback to providers, and giving guidance on the distribution of performance-based funding. This manual lays out the metrics, methods, and mechanisms by which the scores for providers offering mental health outpatient services under Levels A through D authorizations are computed.

### METRICS

#### Process and outcomes measures

Access to care	Offered appointment within 14 days of calling	85%
Early initiation and engagement	Second appointments for new clients occur within 30 days of the first	85%
Retention for therapeutic effect	See methods section	75%
Rate of acute care utilization	See methods section	*
Coordinating care after hospital discharge	Hospital discharges followed up within 7 days	90%
Case management for clients with schizophrenia (adult services only)	Receiving case management services at least one every 90 days while enrolled in services	90%
Timely assessment for children in foster care (child services only)	Assessments occur within 60 days of referral	90%

#### Compliance measures

Pending--measures assessing frequency of outcomes tool assessment and incorporating the results of said outcome tools have been proposed, but were put on hold. We anticipate revisiting this in 2020.

## DEFINITIONS & RULEBOOK

### Measure definitions

#### Access to care

Data comes directly from the regional access report, as submitted by providers via SurveyMonkey – reporting the total appointments requested against the total appointments that could be offered within 14 days. The data is uploaded into a SQL table to integrate it with the rest of the measures.

#### Early initiation and engagement

The specifications for this measure were originally taken from the regional access and initiation (A&I) report, with some modifications.

We are only measuring Level A through D clients. Assessment-Plus-Two authorizations are only counted if that client opened a Level A through D authorization within 6 months of the start of their Assessment-Plus-Two, at which point, all encounters are counted under the Level-specific authorization.

Example: Jack has an Assessment-Plus-Two authorization that begins January 1. He has three encounters before a Level C authorization is opened March 1. Because a Level A-D authorization is opened within 6 months, he is classified as a Level C client, but his outpatient episode is determined to have started January 1, and those three encounters under the assessment authorization are considered his first three encounters.

Being a new client is determined by having no encounters at that provider within the previous 120 days. Any client that started services within the time period of interest (e.g., if we are computing the score for FY17, any client that started between 7/1/16 and 6/30/17) is counted in the denominator. Their full follow-up periods will be tracked, even where they go outside the time period of interest (e.g., if a client begins on 6/15/18, we will still track initiation for a full 30 days, even though it will extend beyond the end of the year). This keeps clients from being double-counted on the same metric, year-to-year.

Any encounter from the below list of codes can count as one's first encounter; this is a deviation from the regional specification that specifies assessment codes as initiations. The change is due to directions given to providers to alleviate access issues by attempting to provide alternate services while clients await appointments. (For example, peer mentors.)

Once the first encounter is determined, a second encounter at the same provider is looked for within 30 days of the first.

Procedure codes:

90791,	96101,	99325,	99344,	H0002,	H2011,
90792,	99201,	99326,	99345,	H0004,	H2014,
90832,	99202,	99327,	99347,	H0031,	H2021,
90834,	99203,	99328,	99348,	H0032,	H2023,
90837,	99204,	99334,	99349,	H0034,	H2027,
90839,	99205,	99335,	99350,	H0036,	H2032,

90846,	99212,	99336,	99407,	H0038,	T1016,
90847,	99213,	99337,	99441,	H0039,	T1023,
90849,	99214,	99341,	99442,	H2000,	G0176,
90853,	99215,	99342,	99443,	H2010,	G0177
90887,	99324,	99343,	S9453,		

### Retention for therapeutic effect

The same rules laid out under initiation also apply here—including Assessment-Plus-Two where it transitions to a Level A through D authorization, criteria for determining new clients, tracking full follow-up periods even where they extend beyond the end of the time period of interest, and eligible codes for determining encounters.

All unique encounters are counted that occurred within 180 days of the first encounter. It does not matter how many service units were rendered on a given day; one calendar day with any number of services = one encounter. The goal for Levels A and B is 6 encounters; for C, 8 encounters; and for D, 20 encounters.

If a client changes level of care mid-services, whatever level of care is highest is what will be assigned to them for determining their minimum number of sessions.

### Rate of acute care utilization

Includes subacute services and inpatient psychiatric. Services are determined by the following procedure codes:

Subacute	Inpatient psychiatric
H2013	RV114, RV124, RV134, RV144, RV154, or RV204

Any day that has one of these codes is counted as an acute care bed day.

In CY 2017, network-wide rates were established by determining how many bed days of subacute and inpatient psychiatric occurred per 100 authorizations at each level of care. This was determined by gathering all Levels A through D authorizations open at some point during the year, and gathering all acute bed days for those clients that occurred on/after the first day of service recorded under that authorization (or on/after January 1, if the first date of service was prior to 2017) through to the end of the year. Days were totaled by level of care, and transformed into rate per 100 authorizations: Total bed days/(Total auths/100) = Bed days per 100 auths.

Acute care days are only counted if they occur after the first date of service in the year. E.g., if a client's first recorded date of service in 2018 is February 1, only acute care days after February 1 will be counted for 2018

If a client changes level of care, whatever level of care is highest is what will be assigned to them for determining the allowable rate.

Number of acute care bed days per 100 clients in services:

	Adult	Child
Level A	6.3	1.6
Level B	8	7.8
Level C	39.2	17.7
Level D	465.9	81.9
Level B-SPMI	26.4	N/A
Level C-SPMI	131.3	N/A

These rates supply the benchmark against which providers will be measured for years 1 and 2. After year 2, we will reassess to determine whether the rate will be updated or remain the same.

These rates are then applied to case mixes at each provider to determine how many bed days they are expected to have; e.g., if an agency has 100 Level A adult auths and 50 Level B adult auths, one would expect 10.3 acute care days. Providers' actual performance is compared to this; if they have less bed days than expected, it benefits their score; if they have more, it hurts it. Because one could theoretically score infinity on this measure, with zero bed days, performance is capped at 130%; meaning that expected acute care days divided by actual acute care days cannot exceed 1.3.

### **Coordinating care after hospital discharge**

Numbers are taken from Health Share Bridge, due to the complexity of reproducing the measure (and lack of access to APAC data from other two counties at the time of development)—total follow-ups versus total eligible discharges. The data is uploaded into a SQL table to integrate it with the rest of the measures.

### **Case management for clients with schizophrenia (adult services only)**

Clients are put in the denominator when they have a primary diagnosis under the F20\* ICD-10 hierarchy at any time in the time period of interest, and have an adult Level A through D authorization open.

Case management is defined by procedure code T1016.

A client's first and last encounter in the time period of interest define the length of active services, and case management encounters are tallied within that range. If a client has between 0 and 90 days of services, there must be at least one case management encounter to meet the criteria. From 91 to 180 days, two or more encounters; from 181 to 270, three or more encounters; 271 days or more, four or more encounters.

### **Timely assessment for children in foster care (child services only)**

Numbers are taken from data provided upon request from HSO—reporting the number of referrals that received an assessment within 60 days. Data is uploaded into a SQL table to better integrate it with other data.

## METHODOLOGY

### Weighting

Process and outcomes is cumulatively worth 90% of the score; compliance is 10%. However, at this time, compliance is not being computed, meaning that process and outcomes comprises 100% of the score at this time (November 2019).

Opportunity scoring is utilized within the two partitions, with several adjustments.

Opportunity scoring takes the number of people who met a metric divided by those eligible for the metric, and adds these together into one score as is. This ensures that measures are weighted relative to their relevance to a provider; for example, 80 out of 100 on measure 1 + 2 out of 5 on measure 2 = a score of 82 out of 105. The second measure, despite poor performance, does not greatly impact the overall score, because there are only 5 clients to whom it applied.

As mentioned, the scoring mechanism was adjusted in several places.

The numerators and denominators for access, initiation, and retention are each divided in half. If an agency has a large enough population for the other measures, this helps “even out” their relative importance. However, if the other measures are not relevant (e.g., to smaller agencies and/or those with less acute clients), their score is largely unchanged by this.

The access measure’s denominator can’t be larger than the initiation and retention measures’ denominator, as otherwise it would often comprise the vast majority of the score, simply by its nature. It is thus proportionately scaled downward to equal the weighting of initiation and retention—for example, if your access was 500 appointments offered out of 700 calls, and your initiation was 200 out of 300 and retention 150 out of 300, we would scale access to a denominator of 300, and scale the numerator as well (in keeping with the original ratio)—which would bring us to 214.3 out of 300.

The multiple administration of outcomes tool measure is normalized to have the same denominator as the single administration measure (you are only held accountable for those on whom you had at least one administration).

As detailed earlier, one cannot achieve higher than 130% on the acute care measure. Nor can its denominator be more than three times the size of the initiation measure’s denominator at most. This is the most complex measure to compute—in part because it runs counterintuitive to how the other measures are computed. The numerator is the expected number of hospital bed days (as detailed in the measure definition). The denominator is how many actually occurred. If an agency was expected to have 300 bed days, and only had 200, this measure would be 300/200. However, because of the ceiling we have put on the measure of never earning higher than 130%, we would scale the numerator down to being 130% of the denominator, or 260/200. We would also check how the denominator compares to the initiation denominator. If the initiation denominator was 50, we would have to scale down once again, to be no more than three times that—scaling both numerator and denominator, as we did with the access measure. In this scenario, we would finally land at 195/150.

## Benchmarks

Scores are based on benchmarks, not on perfect performance. E.g., if the benchmark for a metric is 85%, and you, as a provider, achieve 85%, you have scored 100%. Greater than that is essentially “extra credit,” which can help make up for other measures that fall below the benchmark.

Providers are compared to what perfectly meeting each benchmark would have been, with the size and acuity of their client population in the time period of interest, and graded according to that standard.

Let's create an example.

For simplicity's sake, let's say the composite score is comprised of just the first three metrics: access, initiation, and retention. (Let's also say that there are no adjustments, as are spelled out in the weighting section.)

You have 100 calls for appointments. The benchmark is 85%, meaning 85 calls are offered appointments within 14 days. You are able to offer appointments to 90 calls.

You have 150 new clients. The benchmark for initiation is 85%, and for retention, it is 75% (which would be 127.5 and 112.5 clients). You meet the initiation metric with 125 clients and the retention metric with 85 clients.

You would add together all clients across the three metrics for whom you met the criteria:  $90 + 125 + 85 = 300$ . This is the numerator for your score.

You then add together the totals of your benchmarks for each metric – not the total clients you had eligible for these measures, but the total that you were expected to achieve the metric with for your population size. In this example, that is 85 (85% of 100 calls) + 127.5 (85% of new clients) + 112.5 (75% of new clients) = 325. This is the denominator for your score; you are being measured against the score that perfectly meeting each benchmark–no more, no less–would have produced.

Your score is thus 300/325, or 92% (round to the nearest whole number). This would give your agency a B as your final grade (see scoring sheets for grading scale).

## Score computation

We now must combine all of the above into a usable score–taking the individual measures' numerators and denominators, the benchmarks, and the weighting adjustments and calculating the total score. The attached worksheets will walk you through how to manually compute an agency's score.

The mental health composite score started development in fall 2015; the first incentive payments based on the score were distributed in early 2019, based on CY 2017 data.

The composite score development process was led by Shannon Campbell and Devarshi Bajpai of Multnomah County, in collaboration with Clackamas and Washington Counties, the Tri-County Behavioral Health Provider Association, and Health Share of Oregon. Data collection and analysis, coding and IT functions, rules development, and the final scoring equation were executed by Shannon Campbell. Questions regarding methodology or appropriate use of this tool should be directed to [shannon.campbell@multco.us](mailto:shannon.campbell@multco.us)

rev. November 2019

## SCORE COMPUTATION: ADULT CLIENTS

Use the following worksheet to see how the score is computed, with these adjustments and with the benchmarking system.

\*\*\*\*\*

Calls offered an appointment within 14 days: \_\_\_\_\_ Divide that number by two: \_\_\_\_\_  
Acc-1

Total calls: \_\_\_\_\_ Divide that number by two: \_\_\_\_\_  
Acc-2

New clients who met initiation metric: \_\_\_\_\_ Divide that number by two: \_\_\_\_\_  
Init-1

Total new Levels A through D clients: \_\_\_\_\_ Divide that number by two: \_\_\_\_\_  
Init-2

\*\*\*\*\*

**Question: is Acc-2 greater than Init-2?**

If yes, fill out the following. Otherwise, skip to "If no."

Compute the following:  $(Acc-1/Acc-2) * Init-2 =$  \_\_\_\_\_ Write in the value from Init-2 here. \_\_\_\_\_  
Acc-3 Acc-4

If no, fill out the following. (Skip if the answer was yes.)

Write in the value from Acc-1 here. \_\_\_\_\_ Write in the value from Acc-2 here. \_\_\_\_\_  
Acc-3 Acc-4

\*\*\*\*\*

New Level A and Level B clients with 6 or more sessions in 6 months: \_\_\_\_\_  
Ret-1a

New Level C clients with 8 or more encounters in 6 months: \_\_\_\_\_  
Ret-1c

New Level D clients 20 or more encounters in 6 months: \_\_\_\_\_  
Ret-1d

Total the above: Ret-1a + Ret-1c + Ret-1d = \_\_\_\_\_ Divide that number by two: \_\_\_\_\_  
Ret-1

Total new Levels A through D clients: \_\_\_\_\_ Divide that number by two: \_\_\_\_\_  
Ret-2

Clients with schizophrenia who met case management metric: \_\_\_\_\_ Total clients with a primary dx. of schizophrenia: \_\_\_\_\_  
Cm-1 Cm-2

Discharges who received follow-up within 7 days: \_\_\_\_\_ Total eligible discharges: \_\_\_\_\_  
Sev-1 Sev-2

Actual number of acute care days tied to your clients: \_\_\_\_\_  
Hosp-1

Total Level A authorizations: \_\_\_\_\_ Divide by 100 = \_\_\_\_\_ Multiply by 6.2594: \_\_\_\_\_  
Hosp-2a

Total Level B authorizations: \_\_\_\_\_ Divide by 100 = \_\_\_\_\_ Multiply by 8.0335: \_\_\_\_\_  
Hosp-2b

Total Level C authorizations: \_\_\_\_\_ Divide by 100 = \_\_\_\_\_ Multiply by 39.178: \_\_\_\_\_  
Hosp-2c

Total Level D authorizations: \_\_\_\_\_ Divide by 100 = \_\_\_\_\_ Multiply by 465.8878: \_\_\_\_\_  
Hosp-2d

Total Level B SPMI authorizations: \_\_\_\_\_ Divide by 100 = \_\_\_\_\_ Multiply by 26.3707: \_\_\_\_\_  
Hosp-2b-s

Total Level C SPMI authorizations: \_\_\_\_\_ Divide by 100 = \_\_\_\_\_ Multiply by 131.25: \_\_\_\_\_  
Hosp-2c-s

Total the last column: Hosp-2a + Hosp-2b + Hosp-2c + Hosp-2d + Hosp-2b-s + Hosp-2c-s = \_\_\_\_\_  
Hosp-2

\*\*\*\*\*

Compute the following: Init-2 \* 0.85 = \_\_\_\_\_ Multiply result by 3: \_\_\_\_\_ **Question: is Hosp-2 greater than Init-B?**  
Init-B

*If yes, fill out the following. Otherwise, skip to "If no."*

Compute the following: (Hosp-2/Hosp-1) \* (Init-B) = \_\_\_\_\_ Write in the value of Init-B here = \_\_\_\_\_  
Hosp-3 Hosp-4

*If no, fill out the following. (Skip if the answer was yes.)*

Write in the value of Hosp-2 here: \_\_\_\_\_ Write in the value of Hosp-1 here: \_\_\_\_\_  
Hosp-3 Hosp-4

\*\*\*\*\*

Compute the following: Hosp-3/Hosp-4 = \_\_\_\_\_ **Question: is this greater than 1.3?**

*If yes, fill out the following. Otherwise, skip to "if no."*

Write in the value of Hosp-3 here: \_\_\_\_\_ Compute the following: Hosp-3 / 1.3 = \_\_\_\_\_  
Hosp-5 Hosp-6

*If no, fill out the following. (Skip if the answer was yes.)*

Write in the value of Hosp-3 here: \_\_\_\_\_ Write in the value of Hosp-4 here: \_\_\_\_\_  
Hosp-5 Hosp-6

Add together the following values; these are your adjusted numerators for each measure.

$$\text{Acc-3} + \text{Init-1} + \text{Ret-1} + \text{Cm-1} + \text{Sev-1} + \text{Hosp-5} = \underline{\hspace{2cm}} \\ \text{Num}$$

Compute the following; this is your personalized benchmark, based on your population, which will serve as denominator for your score:

$$(\text{Acc-4} * 0.85) + (\text{Init-2} * 0.85) + (\text{Ret-2} * 0.75) + (\text{Cm-2} * 0.9) + (\text{Sev-2} * 0.9) + (\text{Hosp-6} * 1) = \underline{\hspace{2cm}} \\ \text{Den}$$

Percent score:  $\text{Num}/\text{Den} = \underline{\hspace{2cm}}\%$  Round to the nearest whole number:  $\underline{\hspace{2cm}}\%$   
Perc

Find your grade in the table below:

<b>A+</b> : 110% or more	<b>C</b> : 80% to 89%
<b>A</b> : 100% to 109%	<b>D</b> : 70% to 79%
<b>B</b> : 90% to 99%	<b>F</b> : under 70%

**THIS IS YOUR COMPOSITE SCORE.**

## SCORE COMPUTATION: CHILD CLIENTS

Use the following worksheet to see how the score is computed, with these adjustments and with the benchmarking system.

\*\*\*\*\*

Calls offered an appointment within 14 days: \_\_\_\_\_ Divide that number by two: \_\_\_\_\_  
Acc-1

Total calls: \_\_\_\_\_ Divide that number by two: \_\_\_\_\_  
Acc-2

New clients who met initiation metric: \_\_\_\_\_ Divide that number by two: \_\_\_\_\_  
Init-1

Total new Levels A through D clients: \_\_\_\_\_ Divide that number by two: \_\_\_\_\_  
Init-2

\*\*\*\*\*

**Question: is Acc-2 greater than Init-2?**

If yes, fill out the following. Otherwise, skip to "If no."

Compute the following:  $(Acc-1/Acc-2) * Init-2 =$  \_\_\_\_\_ Write in the value from Init-2 here. \_\_\_\_\_  
Acc-3 Acc-4

If no, fill out the following. (Skip if the answer was yes.)

Write in the value from Acc-1 here. \_\_\_\_\_ Write in the value from Acc-2 here. \_\_\_\_\_  
Acc-3 Acc-4

\*\*\*\*\*

New Level A and Level B clients with 6 or more sessions in 6 months: \_\_\_\_\_  
Ret-1a

New Level C clients with 8 or more encounters in 6 months: \_\_\_\_\_  
Ret-1c

New Level D clients 20 or more encounters in 6 months: \_\_\_\_\_  
Ret-1d

Total the above: Ret-1a + Ret-1c + Ret-1d = \_\_\_\_\_ Divide that number by two: \_\_\_\_\_  
Ret-1

Total new Levels A through D clients: \_\_\_\_\_ Divide that number by two: \_\_\_\_\_  
Ret-2

DHS youth receiving assessment within 60 days: \_\_\_\_\_ Total DHS-referred youth: \_\_\_\_\_  
DHS-1 DHS-2

Discharges who received follow-up within 7 days: \_\_\_\_\_ Total eligible discharges: \_\_\_\_\_  
Sev-1 Sev-2

Actual number of acute care days tied to your clients: \_\_\_\_\_  
Hosp-1

Total Level A authorizations: \_\_\_\_\_ Divide by 100 = \_\_\_\_\_ Multiply by 1.6348: \_\_\_\_\_  
Hosp-2a

Total Level B authorizations: \_\_\_\_\_ Divide by 100 = \_\_\_\_\_ Multiply by 7.8415: \_\_\_\_\_  
Hosp-2b

Total Level C authorizations: \_\_\_\_\_ Divide by 100 = \_\_\_\_\_ Multiply by 17.6801: \_\_\_\_\_  
Hosp-2c

Total Level D authorizations: \_\_\_\_\_ Divide by 100 = \_\_\_\_\_ Multiply by 81.9277: \_\_\_\_\_  
Hosp-2d

Total the last column: Hosp-2a + Hosp-2b + Hosp-2c + Hosp-2d = \_\_\_\_\_  
Hosp-2

\*\*\*\*\*

Compute the following: Init-2 \* 0.85 = \_\_\_\_\_ Multiply result by 3: \_\_\_\_\_ **Question: is Hosp-2 greater than Init-B?**  
Init-B

*If yes, fill out the following. Otherwise, skip to "If no."*

Compute the following: (Hosp-2/Hosp-1) \* (Init-B) = \_\_\_\_\_ Write in the value of Init-B here = \_\_\_\_\_  
Hosp-3 Hosp-4

*If no, fill out the following. (Skip if the answer was yes.)*

Write in the value of Hosp-2 here: \_\_\_\_\_ Write in the value of Hosp-1 here: \_\_\_\_\_  
Hosp-3 Hosp-4

\*\*\*\*\*

Compute the following: Hosp-3/Hosp-4 = \_\_\_\_\_ **Question: is this greater than 1.3?**

*If yes, fill out the following. Otherwise, skip to "if no."*

Write in the value of Hosp-3 here: \_\_\_\_\_ Compute the following: Hosp-3 / 1.3 = \_\_\_\_\_  
Hosp-5 Hosp-6

*If no, fill out the following. (Skip if the answer was yes.)*

Write in the value of Hosp-3 here: \_\_\_\_\_ Write in the value of Hosp-4 here: \_\_\_\_\_  
Hosp-5 Hosp-6

Add together the following values; these are your adjusted numerators for each measure.

$$\text{Acc-3} + \text{Init-1} + \text{Ret-1} + \text{DHS-1} + \text{Sev-1} + \text{Hosp-5} = \underline{\hspace{2cm}} \\ \text{Num}$$

Compute the following; this is your personalized benchmark, based on your population, which will serve as denominator for your score:

$$(\text{Acc-4} * 0.85) + (\text{Init-2} * 0.85) + (\text{Ret-2} * 0.75) + (\text{DHS-2} * 0.9) + (\text{Sev-2} * 0.9) + (\text{Hosp-6} * 1) = \underline{\hspace{2cm}} \\ \text{Den}$$

Percent score:  $\text{Num}/\text{Den} = \underline{\hspace{2cm}}\%$  Round to the nearest whole number:  $\underline{\hspace{2cm}}\%$   
Perc

Find your grade in the table below:

<b>A+</b> : 110% or more	<b>C</b> : 80% to 89%
<b>A</b> : 100% to 109%	<b>D</b> : 70% to 79%
<b>B</b> : 90% to 99%	<b>F</b> : under 70%

**THIS IS YOUR COMPOSITE SCORE.**