

# Bringing it all together: insights and lessons learned from the process of developing multi-metric composite scoring systems for behavioral health providers

Shannon M. Campbell, MPP | Senior Research & Evaluation Analyst | [shannon.campbell@multco.us](mailto:shannon.campbell@multco.us)  
Multnomah County Mental Health & Addiction Services Division | Portland, OR

## TRI-COUNTY METRICS

### MENTAL HEALTH OUTPATIENT METRICS

Concept	Numerator   Unadjusted denominator	Benchmark
Access to care	Offered appointments within 14 days of calling.   All calls for initial appts..	85%
Initiation	Second appointments for new clients occur within 30 days of the first.   All new clients.	85%
Retention	New clients who meet the following minimum number of encounters within the first 6 months of treatment (Levels A and B, 6+ sessions; Level C, 8+; Level D, 20+).   All new clients.	75%
Supportive services	Adult clients with schizophrenia have at least one case management encounter for every 90 days they are enrolled in services.   All adult clients with a primary diagnosis of schizophrenia.	90%
Access to care	Mental health assessments for DHS-involved children (child welfare) occur within 60 days of referral.   All DHS-involved children referred to mental health.	90%
Acute care reductions	Psychiatric hospital discharges are followed up by care coordination within 7 days.   All psychiatric hospital discharges by assigned clients.	90%
Acute care reductions	Expected rate of hospitalizations over actual rate of hospitalizations, determined according to agencies' client population. (Different computing method than rest.)	Expected rate

### SUBSTANCE USE DETOXIFICATION METRICS

Concept	Numerator   Unadjusted denominator	Benchmark
Transition to lower levels of care	SUD residential, outpatient, or medication-assisted treatment encounter during detox or within 14 days post-discharge.   All new clients.	50%
Acute care reductions	Clients who do <i>not</i> * readmit to detox within 30 days of discharge.   All new clients.	90%
Addressing opioid use	Medication-assisted treatment encounter during detox or within 14 days post-discharge.   All new clients with a primary diagnosis of opioid use.	25%

### SUBSTANCE USE RESIDENTIAL METRICS

Concept	Numerator   Unadjusted denominator	Benchmark
Early engagement	Clients who do <i>not</i> * leave treatment before the 7 day mark (including if they return or go to a different SUD facility within 3 days).   All new clients.	90%
Retention	21+ consecutive days in treatment.   All new clients.	70%
Transition to lower level of care	SUD outpatient or medication-assisted treatment encounter during treatment or within 7 days post-discharge.   All new clients.	50%

<b>Addressing opioid use</b>	Medication-assisted treatment encounter during treatment or within 7 days post-discharge.   All new clients with a primary diagnosis of opioid use.	50%
<b>Healthcare integration</b>	Primary care encounter during treatment or within 30 days post-discharge.   All new clients.	60%
<b>Acute care reductions</b>	Clients <i>not</i> * experiencing behavioral health-based ED visits/hospitalizations during treatment or within 90 days post-discharge.   All new clients.	80%

## SUBSTANCE USE OUTPATIENT METRICS (NON-OTP PROGRAMS)

Concept	Numerator   Unadjusted denominator	Benchmark
<b>Early engagement</b>	3+ encounters in the first 30 days.   All new clients.	65%
<b>Retention</b>	New clients with at least 90 days in treatment and at least 10 encounters in those first 90 days (excluding UAs).   All new clients.	55%
<b>Addressing opioid use</b>	Medication-assisted treatment encounter during treatment or within 7 days post-discharge.   All clients with a primary diagnosis of opioid use.	50%
<b>Accountability</b>	Clients averaging at least 1 UA every 30 days in services.   All clients.	85%
<b>Healthcare integration</b>	Primary care encounter during treatment or within 30 days post-discharge.   All clients.	60%
<b>Acute care reductions</b>	Clients <i>not</i> * experiencing behavioral health-based ED visits/hospitalizations during treatment or within 90 days post-discharge.   All clients.	90%

\* All measures must be unidirectional--therefore, when one wants to measure something one wants to reduce, such as emergency room visits, one needs to invert the measure before including in the score.

## OPPORTUNITY SCORING EXAMPLE

Agency X has five metrics: A, B, C, D, and E. A straight opportunity scoring model would add the total number of people that met the 5 metrics together as the numerator, and the total number of people that should have met the metric (benchmark \* population) as the denominator.

Their score would be **1,256/1,270**, or **98.9%** (which you can convert to a letter grade or other type of rating if desired). Note that Agency X's performance on metrics A and C help make up for shortcomings elsewhere. Also note that metric E did not apply to many people at this agency, and thus, despite a very low percentage meeting the metric, is actually a very small part of their score.

However, look at C. It dominates--close to 75% of the total score! If this is true for other agencies, too, you may want to employ a weighting mechanism; for example, dividing the values for that metric by 3, or making it so that its denominator can never be larger than the denominator for D, the second largest. (This would transform C's numbers to 211.1 out of 200, and the total score to 90.7%--this isn't particularly helpful to Agency X, but conversely, an agency that scored poorly on C would benefit. The point is not to advantage or disadvantage specific providers, but have balanced weighting that still takes agencies' different populations into account.)

This reflects the type of scoring approach we took--dynamic and flexible, but with some rules to maintain balance.

Metric	Population to whom metric applies	Benchmark	Met metric: goal	Met metric: actual
A	200	20%	40	55
B	250	50%	125	100
C	1,500	60%	900	950
D	500	40%	200	150
E	10	90%	5	1
<b>Total</b>	<b>N/A</b>	<b>N/A</b>	<b>1,270</b>	<b>1,256</b>