

Data Dictionary OBH Contract Performance & C-Stat Measures

Updated: June 3, 2015 (changes highlighted in yellow)

Effective Date: July 1, 2015

Source of the Data

Mental Health Treatment Outcome Measures: Colorado Client Assessment Record (CCAR)

Changes on the CCAR items are tracked between the first and last CCAR within an episode of care in the past 3 years. Each month of data reflects the change in status for each client who had a CCAR within that month. Therefore the following combination of T_1 and T_2 CCARs is possible:

CCARs used to calculate change		
T_1	\Rightarrow T ₂	
ADMIT	⇒ DISCHARGE	
ADMIT	⇒ UPDATE	

Substance Use Disorder Treatment Outcome Measures: Drug/Alcohol Coordinated Data System (DACODS)

Changes on the DACODS are tracked from admit to discharge. Each month of data reflects the change in status for individual clients who were discharged within that month, without a limit to when they were admitted. Due to the relatively discreet nature of SUD treatment (client do not stay in treatment for extended periods of time), tracking across each unique episode of care was deemed the appropriate methodology to observe improvements in treatment.

• Mental Health Service Data: 837 Encounters

Encounter data, or billing data, submitted in the 837 file format is used to track a consumers' engagement in treatment in the 45 days following a new admit to outpatient services. Each month of data reflects those consumers who reached 45 days following admit during that month.

• SUD Service Data: 837 Encounters

Encounter data submitted in the 837 file format is used to track a consumers' engagement in SUD treatment in the 45 days following a new admit to outpatient services. Each month of data reflects those consumers who reached 45 days following admit during that month.

Sampling Period

CCARs: CCARs with an admit date from the past 3 years are selected (36 months back from the month we are reporting, so if we are reporting May 2014 data, we select any CCAR from 6/1/11 to 5/31/14). Within this period, episodes of care are identified by grouping CCARS based on Agency, Client ID, and Admit Date. This procedure is followed so we ensure we are *not* tracking change from *discharge to admit* and when the client is not actively involved in treatment. In addition, this methodology allows us to utilize update CCARs, not just

admit to discharge. Each month reported reflects the most recent CCAR for each individual. Multiple episodes of care for clients are allowed.

DACODS: DACODS are tracked from admit to discharge within each treatment modality (e.g., IOP, residential, outpatient). Currently there is no tracking across treatment modalities.

Encounters: For the engagement analysis, both CCAR/DACODS and Encounters data are used. Client admits are identified using their admit CCAR or DACODS. The 'admit date' and 'admit date plus 45 days' are calculated for each individual and any encounters which fall between these two dates are selected. For example, the month of January would include clients admitted 45 days before January 1 through January 31, which would be admits occurring between November 16th through December 16th.

General Comments

An **episode of care**, in terms of CCAR and DACODS data, is defined as any period of treatment that falls between an admit and a discharge on the CCAR and DACODS, both CCARS or both DACODS must have a matching admit date to identify each episode of care.

Goals

Best practice article published in Psychiatric Services co-authored by staff at Center for Quality Assessment and Improvement in Mental Health and Harvard University:

Herman, R.C. and Provost, S. (2003). Best Practices: Interpreting Measurement Data for Quality Improvement: Standards, Means, Norms, and Benchmarks. Psychiatric Services. Vol. 54 No. 5, 655-657.

The article cited a methodology for setting benchmarks for quality improvement data. *The Achievable Benchmark of Care (ABC™)* system is designed to help practitioners, administrators, payers, and anyone else charged with improving the quality of health care. It was pioneered for the Agency for Healthcare Research and Quality (AHRQ) at Center for Outcome and Effectiveness Research and Education at the University of Alabama, Birmingham (UAB). UAB have studied the use of the ABC methodology and found that "use of the ABC significantly enhances the effectiveness of physician performance feedback in the context of a multimodal quality improvement intervention". DBH has defined superior performance as that received by the top 25% of consumers/clients.

Methodology for calculating the benchmarks is as follows:

- 1. Calculate the performance of each provider
- 2. Rank order the providers based on performance
- 3. The number of patients (the denominator) is then cumulated in the same descending order in which the providers were ranked

- 4. When we reach a point at which 25% of total patients are included, this is the breakpoint
- 5. The group performance of all these providers is then recalculated and this is the benchmark

This methodology also recommends the use of a Bayesian Estimator that adjusts for small N size, especially when comparing the performance of small providers to the benchmark (adjusts performance down among providers with low numbers). However, the numbers used to calculate the goal are so large that the effect of the Bayesian estimator are negligible.

The goals that are being placed in contracts are based upon improving performance by 10% toward the Statewide benchmark from each contractors performance on the measure in the last complete calendar year.

Inclusion and Exclusion Criteria

Exclusions for CCAR Analysis:

- Clients that have no eligible special studies codes on either their CCAR or their Encounters in the past 3 years or in the 45 days following admits for the engagement measure.
- CCARS not completed within one of the contracted 17 CMHCs (i.e. non-contracted MH providers and the MH Institutes)
- "Assessment-only" CCARS
- Psych hospital admission/discharge CCARS (Update Type: 03 or 07)
- Any single CCARs (clients that have only one CCAR in past 3 years), except for the access measure and the engagement measure

Exclusions for DACODS Analysis:

- DACODS not submitted by MSOs Special Connections clients will be included
- DUI, MIP and Detox DACODS
- Differential Assessments in DACODS

Qualifying MH Special Studies Codes

The following Special Studies Codes on the CCAR or MH Encounters are eligible to C-Stat and Contract reporting:

ACT, AIM, HOSPALT, INDIGENT, NTINDIGENT, SB97A SB97, SB97U, SB97D, UPARENT, & WRAP

Measures

SUD Access to Outpatient Services

Percent of persons who are offered an appointment to outpatient SUD treatment within 3 days of initial contact.

- Source: DACODS, First Contact Date and date first appointment offered (items 3 and 4)
- **Description**: Percent of persons that the time between first contact with a person and the date of the first appointment offered for outpatient substance use disorder treatment is within 3 days
- Methodology:
 - Date of first appointment offered First Contact Date = Days to Access
- Specific Inclusions:
 - Clients receiving outpatient SUD services, regardless of funding source.
 - Treatment modalities:
 - Outpatient
 - Intensive outpatient
- **Specific Exclusions:** Opioid Replacement Therapy excluded from the sample. Any cases with a 'days to access care' as greater than 300 days is considered an outlier and excluded.
- **Numerator:** Number of persons offered an appointment within 3 days (from first contact to first appointment offered).
- **Denominator:** Number of persons admitted into treatment.
- Statewide Goal: Benchmark based on the top MSOs serving at least 25% of the sample.

Access to Care Calculation

Days to Access ≤ 3, then = 1 (met target)

Days to Access > 3, then = 0 (did not meet target)

SUD Access to Service for Pregnant Women

Percent of pregnant women who are offered an appointment to outpatient SUD treatment within 3 days of initial contact.

- Source: DACODS, First Contact Date and date first appointment offered (items 3 and 4)
- **Description**: Percent of pregnant women that the time between first contact with a person and the date of the first appointment offered for outpatient substance use disorder treatment is within 3 days
- Methodology:
 - Date of first appointment offered First Contact Date = Days to Access
- Specific Inclusions:
 - Pregnant women receiving outpatient SUD services, regardless of funding source.
 - Treatment modalities:
 - Outpatient
 - Intensive outpatient
 - Opioid Replacement Therapy
- **Specific Exclusions:** Any cases with a 'days to access care' as greater than 300 days is considered an outlier and excluded.

- **Numerator:** Number of pregnant women offered an appointment within 3 days (from first contact to first appointment offered).
- **Denominator:** Number of pregnant women admitted into treatment.
- **Statewide Goal**: Benchmark based on the top MSOs serving at least 25% of the sample.

Access to Care Calculation

Days to Access ≤ 3, then = 1 (met target)

Days to Access > 3, then = 0 (did not meet target)

MH Access to Outpatient Services

Percent of persons who are admitted to Outpatient MH Treatment within 7 days of initial contact.

- Source: CCAR, First Contact Date and First Offered Appointment
- **Description:** Percent of persons that the time between first contact with a person and the first appointment offered into outpatient mental health treatment is within 7 days.
- Methodology:
 - Time of First Appointment Offered Time of First Contact = Days to Access
- Specific Inclusions:
 - Clients receiving outpatient MH services with at least one Encounter OR CCAR that has an eligible Special Studies Code within a selected episode of treatment (starting after 1/1/14).
 - Treatment modalities:
 - Outpatient
 - Medication Only Clients
- **Specific Exclusions:** Any cases with a 'days to access care' as greater than 300 days is considered an outlier and excluded.
- Numerator: Number of persons seen within 7 days (from first contact to first offered appointment).
- **Denominator:** Number of persons admitted into treatment.
- **Statewide Goal**: Benchmark based on the top providers serving at least 25% of the sample.
- **Note**: If there is found to be a ceiling effect, this measure may move to align with the SUD access benchmark of 3 days or less.

Access to Care Calculation

Days to Access ≤ 7, then = 1 (met target)

Days to Access > 7, then = 0 (did not meet target)

Engagement

Engagement in MH Outpatient Services

Percent of persons who engaged in services in the first 45 days following admit to outpatient treatment.

Source:

- Encounter files that have an eligible Special Studies code submitted by CMHCs or on behalf of the CMHCs by Value Options.
- CCAR data used to identify those clients admitted in the sample period and for other inclusions and exclusions.
- **Description**: Percent of persons that receive 4 or more days with an eligible service (including the intake/admit) in the first 45 days following admit to outpatient services. ¹

Methodology:

- Admits are identified through use of the CCAR and included regardless of the discharge status or discharge date.
- CCAR admits are then matched with encounters data and only those encounters that match the client ID AND fall in the 45 days after admit are selected.
- Non qualifying CPT codes are excluded. See appendix for a list of included and excluded codes.
- A count of the number of days with an eligible service is then obtained and the percent who
 meet the engagement criteria of 4 or more days is calculated.

• Specific Inclusions:

- Clients that have an Encounter or CCAR with a qualifying Special Studies Code at any point in the 45 days following admit.
- Includes CCARS with or without Special Study Codes.
- Include all eligible clients with symptom severity greater than 5 at T₁.
- Only admit CCARs

• Specific Exclusions:

- Medication only clients (identified on the CCAR)
- Any CCAR program code that refers to inpatient services (currently only "INPAT")
- Evaluation only CCARs
- Update CCARs
- Admit or discharge CCARs into inpatient (type of update CCAR = 3, 7)
- **Numerator:** Number of persons admitted to outpatient treatment who engaged in services (4 or more days with service in the first 45 days).
- **Denominator:** Number of persons admitted into outpatient treatment
- Statewide Goal: Benchmark based on the top providers serving at least 25% of the sample.

¹ Four days with a service came from the Washington Circle's measure of engagement adopted by HEDIS: *Initiation and Engagement of Alcohol and Other Drug Dependence Treatment*. HEDIS defines initiation and engagement separately: the "initiation" measure ensures that there is 1 outpatient visit following the intake within 14 days (2 visits in 14 days) and "engagement" is defined as 2 additional outpatient visits within the following month. OBH has grouped these two measures to one requiring 4 services in 45 days AND that these services be on different days.

Engagement in SUD Outpatient Services

Percent of persons who engaged in services in the first 45 days following admit to outpatient treatment.

• Source:

- Encounters files, including all SUD Encounter files regardless of payer source or Special Studies
 Code.
- DACODS files used to identify those clients admitted in the sample period and for other inclusions and exclusions.
- **Description:** Percent of persons that receive 4 or more days with an eligible service (including the intake/admit) in the first 45 days following admit to *outpatient services*.

Methodology:

- Admits are identified through use of DACODS and included regardless of discharge date.
- DACODS admits are then matched with SUD
 encounters data and only those encounters that match the client ID and "Admit code"
 AND fall in the 45 days after admit are selected.
- Non qualifying CPT codes are excluded. See appendix 1 for a list of included and excluded codes.
- A count of the number of days with an eligible service is then obtained and the percent who
 meet the engagement criteria of 4 or more days with an eligible service is calculated.

• Specific Inclusions:

- Clients receiving outpatient SUD services, regardless of funding source.
- Clients being admitted to IOP and OP only.

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• Specific Exclusions:

- Differential Assessment only DACODS.
- Admit or discharge DACODS into detox, DUI, or residential.
- **Numerator:** Number of persons admitted to outpatient treatment who engaged in services (4 or more days with an eligible service in the first 45 days).
- Denominator: Number of persons admitted into outpatient treatment
- Statewide Goal: Benchmark based on the top MSOs serving at least 25% of the sample.

Outcomes

SUD Reduction in Substance Use (Outpatient)

Percent of Persons Reducing Use or Maintaining non-use of Their Primary Substance or Maintaining non-use.

- Source: DACODS, admit item 51 and discharge item 90
- **Description**: Decrease in days of reported use in the last 30 days, from admission to discharge.
- **Methodology**: Percent of *primary* substance reduction from admission to discharge, if discharge use is less than admit use, the person is counted. If use at admission and discharge are both equal to 0, the person is counted. See calculation below.
- Specific Inclusions: Clients receiving outpatient SUD services (outpatient, intensive outpatient, and day treatment modalities), regardless of funding source
- **Numerator**: Persons who reduce use of primary substance at discharge from outpatient services or persons who maintain 0 use of primary substance at both admission and discharge.
- **Denominator:** Persons discharged from outpatient treatment.
- Statewide Goal: Benchmark based on the top MSOs serving at least 25% of the sample.

SUD Reduction in Substance Use (Residential)

Percent of Persons Reducing Use of Their Primary Substance.

- Source: DACODS, admit item 51 and discharge item 90
- Description: Decrease in days of reported use in the last 30 days, from admission to discharge.
- **Methodology**: Percent of *primary* substance reduction from admission to discharge, if discharge use is less than admit use, the person is counted. See calculation below.
- Specific Inclusions: Clients receiving residential SUD services, regardless of funding source.
- **Specific Exclusions:** Must have at least one day in the 30 days prior to admission where they have used their primary substance.
- Numerator: Persons who reduce use of primary substance at discharge from residential services.
- Denominator: Persons discharged from residential treatment.
- **Statewide Goal**: Benchmark based on the top MSOs serving at least 25% of the sample.

Substance Use Reduction Calculation
If Use_{Admit} > Use_{Discharge} = 1 (reduction)
If Use_{Admit} ≤ Use_{Discharge} = 0 (no reduction)

Reduction in Mental Health Symptom Severity (Outpatient)

Percent of Persons with reduced mental health symptom severity

• **Source**: CCAR - Item *Overall symptom severity* is based on a 9 point scale: 1=No symptoms are present and 9=Symptoms are profound and potentially life-threatening. Calculation is based on those persons

- who score a 5 or above (5=symptoms are present which require formal professional mental health intervention) at T_1 .
- **Description**: Reduction in Symptom Severity Score between 2 CCARs, among those who have significant symptoms at T_1 (≥5). Improvement in symptom severity is counted, worsening or maintained symptoms are not.
- Methodology: CCARS with admissions from the past 3 years. First and last CCAR within an episode of care. Symptom Severity score is identified in the first and last CCAR and used in the following calculation.
- Numerator: Number of persons with improved Symptom Severity at T₂ (who report significant symptom severity at T₁ (≥5))
- **Denominator:** Number of persons receiving mental health treatment who report significant symptom severity at T₁ (≥5)

• Specific Inclusions:

- Clients that have at least one Encounter or one CCAR with a qualifying Special Studies code within the episode of care.
- All clients admitted for treatment including "medication-only" clients
- Score of greater than or equal to 5 on symptom severity at T₁
- Specific Exclusions: Anyone without significant symptom severity at T₁ (score of less than 5 at T₁)
- **Statewide Goal**: Benchmark based on the top providers serving at least 25% of the sample.

Symptom Severity (SS) Calculation If $SS_{CCAR1} > SS_{CCAR2} = 1$ (improved) If $SS_{CCAR1} \le SS_{CCAR2} = 0$ (not improved)

MH Improvement in Overall Functioning (Outpatient)

Percent of Persons with improved overall functioning

- **Source**: CCAR Item *Overall Level of Functioning* is based on a 9 point scale: 1=functioning well in most activities of daily living and 9=significantly impaired functioning; may be life-threatening. Calculation is based on those persons who score a 5 or above (5=limited functioning in activities of daily living) at T₁.
- Description: Improvement in Level of Functioning score between 2 CCARs, among those who have "limited functioning" at T₁ (≥5). Improvement in level of functioning is counted, worsening or maintained level of function are not.
- **Methodology**: CCARS from the past 3 years. First and last CCAR within an episode of care. Level of functioning score is identified in the first and last CCAR and used in the following calculation.
- Numerator: Number of persons with improved functioning levels at T₂ (who report "limited functioning" at T₁ (≥5))
- **Denominator:** Number of persons receiving mental health treatment who report "limited functioning" at $T_1 (\geq 5)$

• Specific Inclusions:

- Clients that have at least one Encounter or one CCAR with a qualifying Special Studies code within the episode of care
- All clients admitted for treatment including "medication-only" clients
- Score of greater than or equal to 5 on level of functioning at T₁
- Specific Exclusions: Anyone without "limited functioning" at T₁ (score of less than 5 at T₁)
- Statewide Goal: Benchmark based on the top providers serving at least 25% of the sample.

Level of Functioning (LF) Calculation If $LF_{CCAR1} > LF_{CCAR2} = 1$ (improved) If $LF_{CCAR1} \le LF_{CCAR2} = 0$ (not improved)

Detox Discharge Status

Percent of Persons who successfully discharged from a Detox facility

- Source: DACODS, discharge item 86
- Description: Successful discharge for a detox facility.
- **Methodology**: Percent of clients being discharged from a detox facility who either completed treatment at that facility or who were transferred or referred to another substance abuse treatment program
- Specific Inclusions: Clients being discharged from a detox SUD facility by a funded SUD provider.
- Specific Exclusions:
- **Numerator**: Number of persons being discharged from a detox facility who either completed treatment at that facility or who were transferred or referred to another substance abuse treatment program
- **Denominator:** Number of persons discharged from detox services.
- Statewide Goal: Benchmark based on the top MSOs serving at least 25% of the sample.

MH Maintained or Improved Housing

The percent of clients, who maintain housing or move to a less restricted place of residence

- **Source**: CCAR, item *Place of Residence*
- **Description**: Percent of persons who move to a higher level at T₂, or who maintain their current housing situation with the exception of those who 'maintain homelessness'. Improvements in living situation are tracked by movement from a lower numbered category to a higher numbered category.
- DBH's levels of CCAR "Place of Residence" are shown below, with increasing restrictiveness as the level number drops.

Level 7 (Independent Living)		
15 – Independent Living		
Level 6 (Supported Housing)		
13 – Supported housing		
Level 5 (Assisted Living)		
05 – Foster Home (Youth)		
06 – Boarding home (Adult)		
07 – Group Home (Adult)		
14 – Assisted Living		
11 - Sober Living (NEW)		
16 - Halfway House (NEW)		
Level 4 (Residential Treatment)		
04 – Residential Treatment/Group (Youth)		
09 – Residential Facility (MH Adult)		
10 – Residential Facility (Other)		
Level 3 (Nursing Home)		
08 – Nursing Home		
Level 2 (ATU)		
03 – ATU, Adults Only		
Level 1 (Locked Facility)		
01 – Correctional facility/Jail		
02 – Inpatient		
Level 0 (Homeless)		
12 – Homeless		

- **Numerator**: Number of persons receiving mental health treatment who have maintained or improved their housing situation at T₂ (not including maintained homelessness).
- **Denominator**: Number of persons receiving mental health treatment at T₁
- Specific Inclusions:
 - Clients that have at least one Encounter or one CCAR with a qualifying Special Studies code within the episode of care.
 - All clients admitted for treatment including "medication-only" clients
- **Statewide Goal**: Benchmark based on the top providers serving at least 25% of the sample.

Appendix

Appendix. Excluded Mental Health & SUD CPT codes

Excluded codes	Description
G0176	Activity Therapy partial hospitalization
82075	Alcohol (ethanol); breath
H0003	Alcohol and/or drug screening
H0048	Alcohol/drug screening
H0024	Behavioral Health Prevention Information Dissemination Service
H0019	Behavioral health; long-term residential
H0018	Behavioral health; short-term residential
99334	Domiciliary, rest home - home visit est pat
G0434	Drug screen multi drug class
G0431	Drug screen multiple class
80100	Drug screen qualitative/multi
90870	Electroconvulsive therapy
90882	Environmental intervention for medical management purposes on a psychiatric patient's behalf with agencies, employers, or institutions
99000	Handling and/or conveyance of specimen for transfer from the physician's office to a laboratory
99238	Hospital Discharge Day Management Service
99239	Hospital Discharge Day Management Service
99221	Initial hospital care, per day
99222	Initial hospital care, per day
99223	Initial hospital care, per day
99251	Initial Inpatient Consultation
99252	Initial Inpatient Consultation
99253	Initial Inpatient Consultation
99254	Initial Inpatient Consultation
90823	Intac psytx hosp 20-30 min
90826	Intac psytx hosp 45-50 min
90828	Intac psytx hosp 75-80 min
90824	Intac psytx hsp 20-30 w/e&m
90827	Intac psytx hsp 45-50 w/e&m
90829	Intac psytx hsp 75-80 w/e&m
H0035	Mental health partial hospitalization, treatment, less than 24 hours
H0046	Mental health services, NOS
E or S	None
124	None
8888	None
99307	Nursing facility care subseq
99234	Observ/hosp same date
99235	Observ/hosp same date
99236	Observ/hosp same date

H0033	Oral medication administration, direct observation
90889	Preparation of report of patient's psychiatric status, history, treatment, or progress
90825	Psychiatric evaluation of hospital records, other psychiatric reports
H2013	Psychiatric Health Facility Service, Per Diem
90816	Psytx hosp 20-30 min
90817	Psytx hosp 20-30 min w/e&m
90818	Psytx hosp 45-50 min
90819	Psytx hosp 45-50 min w/e&m
90821	Psytx hosp 75-80 min
90822	Psytx hosp 75-80 min w/e&m
99001	Specimen handling pt-lab
99231	Subsequent hospital care, per day
99232	Subsequent hospital care, per day
99233	Subsequent hospital care, per day
99368	Team conference w/o pat by hc pro
99367	Team conference w/o pat by phys
99499	Unlisted evaluation and management service
90899	Unlisted psychiatric service or procedure
80101	Urine Drug Screen
H0030	Hotline Services
H0010	Alcohol and/or Drug Services; Sub-acute Detoxification (residential addiction program inpatient)
H0011	Alcohol and/or Drug Services; Acute Detoxification (residential addiction program inpatient)
H0012	Alcohol and/or Drug Services; Sub-acute Detoxification (residential addiction program outpatient)
H0013	Alcohol and/or Drug Services; Acute Detoxification (residential addiction program outpatient)
H0014	Alcohol and/or Drug Services; Ambulatory Detoxification
S3005	Performance Measurement, Evaluation of Patient Self-assessment, Depression (Detox)
T1007	Physical Assessment of Detoxification Progression including Vital Signs Monitoring
T1019	Personal Care Services, per 15 minutes, (not for an inpatient or resident of a hospital, nursing facility,
	ICF/MR or IMD, part of the individualized plan of treatment- code may not be used to identify services provided by home health aide or CAN) (detox)
T1023	Screening to determine the appropriateness of consideration of an individual for participation in a
	specified program, project or treatment protocol, per encounter (detox)
H0020	Alcohol and/ or Drug Services; methadone administration and/ or service (provisions of the drug by a
	licensed program)
H0047	Alcohol and/ or Other Drug Abuse Services; Not Otherwise Specified (NOS)
H1004	Prenatal Follow-up Home Visit
T1009	Child Sitting Services for the children of the individual receiving Alcohol and/or Substance Abuse Services
T1010	Meals for Individuals receiving Alcohol and/or Substance Abuse Services
T1013	Sign Language or Oral Interpreter for Alcohol and/or Substance Abuse Services
T1999	Miscellaneous Therapeutic Items and Supplies
T2001	Non-emergency Transportation
H2034	Halfway House
S9976	Lodging, Per Diem, Not Otherwise Specified (NOS)
J0592	Injection, Buprenorphine Hydrochloride, 0.1 Mg
J1630	Injection, Haloperidol, up to 5 mg
J1631	Haloperidol Decanoate, per 50

J2300	Injection, nalbuphine hydrochloride, per 10 mg
J2315	Injection, Naltrexone, Depot Form, 1 Mg
J2680	Injection, Fluphenazine Decanoate, up to 25 mg
J2794	Injection, Risperidone, long acting, 0.5 mg
J3490	Unclassified Drugs
H0021	Alcohol and/or drug training service (for staff and personnel not employed by providers)