This document should be used by proposal respondents for better understanding of technical specifciations related to TCoC and Resource Use reporting and are subject to change.

RHIC Submission for calculating National Benchmarks for TCOC Measures

Purpose: This document contains the detailed specifications for preparing the files each RHIC participating in the Total Cost of Care pilot will submit for purposes of calculating national benchmarks for the Health Partners Total Cost of Care (TCOC) measure set.

Versions: The details below pertain to the execution of the process on measurement period Calendar 2013 by five participants:

1. Center for Improving Value in Health Care (CIVHC, Colorado)
2. Maine Health Management Coalition (MHMC)
3. Minnesota Community Measurement (MNCM)
4. Midwest Health Initiative (MHI, St. Louis area)
5. Oregon Health Care Quality Corporation (Q-Corp)

Some of the specifications are built around the current capacity of the participants. For future implementations with different participants, or when existing participants' capabilities change, some features should be re-evaluated. These include:

1. Assessment of the number of **diagnosis codes** reliably populated by contributors to each participant's data store. For comparability, each participant should use the smallest number available across all participants.
2. Assessment of the number of ICD9 (or ICD10) **procedure codes** reliably populated. All participants should use the smallest number available to all.
3. Inclusion/exclusion of **Substance Abuse claims**. For this implementation, these claims must be excluded from both ACG calculations and data aggregation to conform to CIVHC who does not collect them from contributors.
4. When new participants are added, assess the data source and determine whether additional specifications need to be included due to characteristics of the new data source.

Definitions:

Measurement period:	For this execution of this process, the measurement period will be calendar 2013. For medical and pharmacy claims use incurred dates between January 1, 2013 and December 31, 2013. This assumes a minimum of 3 months of claims run out. For inpatient claims, use discharge dates in that range. Member eligibility during that period is counted in months. Include all available commercial plans that offer complete medical coverage and have complete cost information in the claims data store.
Allowed amount:	The allowed amount is the amount received by the provider for each service. It consists of the plan-paid component plus the member paid components (generally copay, deductible and coinsurance). **PLEASE NOTE: When the Health Partners documentation refers to paid amount they are referring to what is defined here as Allowed Amount.**

Initial QC: For 2013, we have a new QC step intended to identify and resolve issues in the source data prior to investing in the remaining steps. This QC step will show whether the data source has the information necessary to participate in national benchmarking. Fields required in the QC document include the following:

i. Medical eligibility vs Pharmacy eligibility
ii. Average Age
iii. Claim counts
iv. Cost per eligible member
v. % of members with no medical claims
vi. Cost per claim
vii. Primary and additional diagnosis codes
viii. Surgical procedure codes (ICD 9)

CHECKPOINT: Technical Advisor reviews QC and issues are resolved.

Data preparation: Prior to running any of the steps in this project, apply the following selection and manipulation logic to the eligibility and claims data.

1) Select plans known to have the following characteristics:
    a. Members of the plan have complete medical coverage.
    b. The plan has submitted complete claims history for 2013 for all eligible members.
    c. The plan has included complete cost information on all claims.
    d. The plan includes at least 4 diagnosis code positions (not all claims will have 4 diagnosis codes, but the data must allow for it and the 4th code must be populated on some claims).
2) Calculate medical and pharmacy eligibility in number of months during the measurement period. If you have specific dates of eligibility on each member, determine eligibility during the month on a consistent day of the month (e.g., must be eligible on the 15th of the month to be considered eligible during the month). If you only have monthly indicators, use those.
3) Identify all members who do not have a pharmacy benefit for their entire medical enrollment period. Ignore the pharmacy eligibility and pharmacy claims for these members. In other words, if a member has any months in the measurement period with medical eligibility but no Rx benefit coverage, the member is treated as if s/he had no pharmacy benefit at all and no pharmacy claims for the measurement period.
4) Also ignore any pharmacy eligibility outside of the medical eligibility period (ignore pharmacy eligibility and claims in months during which the member has no medical eligibility). If a member has no medical eligibility at all, do not include that member in the aggregation.

5) Remove members who have not passed their first birthday by the end of the measurement period.
6) Remove members who have passed their 65th birthday at the end of the measurement period.
7) Remove members who do not have 9 months of medical eligibility during the measurement period.
8) Remove members who do not have complete coverage under a Commercial plan. For example, remove members with only the following types of plans:
    a. Medicare Advantage
    b. Medicare Supplement
    c. Supplemental coverage or secondary coverage (also called first dollar or limited benefit plans)
    d. Vision coverage only
    e. Behavioral health only
    f. Any other type of plan that does not offer complete medical coverage
9) Remove claims related to treatment of substance abuse. These claims may already be removed from or de-identified in your data due to the restrictions of CFR 42 part 2. To make sure all RHICs are including the same claims in their member histories, these must be removed. Remove the entire claim if it has one of these codes. Check only the first 4 diagnosis code positions on each claim. Not all participants have more than 4 codes, so for comparability everyone should use only 4. For ICD9 procedure codes, check only the first one[1].
10) Assign each included member to one of the following **age groups**:
    a. Pediatric: Has passed his/her 1st birthday but has not passed his/her 18th birthday by the end of the measurement period
    b. Adult: Has passed his/her 18th birthday but not his/her 65th birthday by the end of the measurement period.
11) Remove denied claims as well as any claims with zero total allowed amount at the encounter/visit/inpatient event level. Do not remove individual service lines with zero allowed amount if the total encounter/visit had a positive paid amount.
12) Exclude any members known to have capitated lab or any other capitated service.
13) Include all paid claims (except as described above) for all members who meet the eligibility criteria.

CHECKPOINT: Produce Initial QC table 1 (Population PMPM) on the selected population and send to the Technical Advisor for review.

Assign Johns Hopkins ACG Category

[1] For the 2013 implementation, MHMC has only 1 field available, so for consistency all participants should use only the first position..

1) Assign ACG category to each member. This requires running the ACG software available from DST on measurement period claims and eligibility information. This can be done by the RHIC itself, or by a third party. NRHI ACG license is good through February 2015.
   a. My current understanding of each RHIC's strategy is:
      i. MNCM: each submitter is responsible for assigning the ACG categories.
      ii. CIVHC: send data extracts to DST who will assign the ACG categories.
      iii. MHI: Milliman will execute the ACG software.
      iv. Q-Corp: Milliman will execute the ACG software.
      v. MEHMC: MEHMC will install and execute the software locally.
   b. To make sure that the results are comparable, all RHICs must use common settings on the software. These are:
      i. Use 4 diagnosis codes per claim. Not all claims will have 4 codes, but the layout for the software accepts 4. Use whatever appears on each claim, up to 4. If there are additional codes on a claim, do not include them in the extract.
      ii. The ACG software is set up to exclude claims with certain CPT codes because diagnoses associated with these procedures can be "rule out" diagnoses or potential diagnoses rather than actual diagnoses. Allow the software to perform the exclusion rather than pre-filtering the claims.
      iii. To be completely consistent with Health Partners methodology, exclude from ACG scoring any claim with zero total allowed amount.
      iv. The mapping file version should be **10.0.1 1st Quarter 2014 Release released January 8, 2014**
      v. "Choose the model calculation options for your new ACG data file." See page 25 of the User Guide for the default settings all RHICs should use.
      vi. Page 26 of the User Guide displays a screen that allows the user to specify additional record filtering. No additional filtering by the software is necessary for purposes of preparing the data for submission to the national benchmark.
   c. To support analysis on comparability across RHICs, please send the Technical Advisor a copy of the Summary Statistics page (shown on page 30 of the User Guide) that reflects the results of running the ACGs on your data.

CHECKPOINT: Technical Advisor reviews Summary Statistics for normality.

Assign TCRRV

2) Assign Health Partners TCRRV™ to each claim (medical and pharmacy) in the measurement period. The process for accomplishing this is outlined in documentation on the Health Partners website (http://www.healthpartners.com/public/tcoc/toolkit/)
   a. NOTE: HealthPartners updates TCRRV values during the first quarter of each year. Because MHMC's vendor did not update their version when running the 2013 data, we would like to standardize on the September 2013 version of the tables and software. This is likely the same version that was used on the 2012 data. The only change for 2013 would be to use the tables with 2013 in the name rather than the tables with 2012 in the name. All of the links below lead to the updated version of the software and tables,

which we do not want to use. Feel free to use the links for instructions and other information, but please do not use the updated versions.

b. Health Partners makes available SAS programs (macros).
    i. Access the programs
        1. here If you plan to run them yourself
        2. here If you plan to use a vendor to run them
        3. Instructions are here
c. If you plan to implement the methodology using your own programs, click here to access the document on how to do it.
d. The zip file from Health Partners contains 3 years of TCRRV lookup tables. Use the ones for 2013 for assigning TCRRV to 2013 data.
e. The Health Partners methodology uses the billed amount on each claim. If you do not have billed amount in your data, use the TCRRV calibrations factors (hotlink to pg 20 available at top of document) to calculate billed amount from allowed amount:
f. Select Region = ALL
g. No need to run the Optional SAS programs that calculate a paid adjustment factor specific to your data.

3) Verify assignment of Health Partners TCRRV™
    a. For each service type, do a frequency count on the TCRRV flag. The results should look something like the following tables:
    b. IP

Flag Value	Desired % of records	Possible problems
Normal	> 95%	
No LOS/No Billed	< 1%	Missing data from supplier
No Match	< 2%	Problem with DRG assignment
Low or High (combined)	< 5%	Problem with paid amounts

    c. OP

Flag Value	Desired % of records	Possible problems
Normal	> 95%	
Incidental	< 2%	Missing CPT codes
No Billed/No Units	< 1%	Problem with units field from supplier
No Match	< 2%	Problem with CPT codes
Low or High (combined)	< 5%	Problem with paid amounts

    d. Prof

Flag Value	Desired % of records	Possible problems
Normal	> 95%	
No Code	< 2%	Missing CPT codes
No Billed/No Units	< 1%	Problem with units field from supplier
No Match	< 2%	Problem with CPT codes
Low or High (combined)	< 5%	Problem with paid amounts

e. Rx

Flag Value	Desired % of records	Possible problems
Normal	> 95%	
No Days	< 1%	Missing data from supplier
No Match	< 1%	Bad NDC
Low or High (combined)	< 5%	Problem with paid amounts

f. Sum the TCRRV and allowed amount for 2013 by IP, OP, Prof and Rx

Type of Claim	Sum of Allowed Amount	Sum of TCRRV	Ratio
IP			
OP			
Prof			
Rx			

g. The ratio of TCRRV to allowed amount should be *approximately*:
   i. IP 1.5
   ii. OP 1.25
   iii. Prof 2.0
   iv. Rx 1.6

CHECKPOINT: Send the above tables to the Technical Advisor and resolve any issues discovered.

4) Apply truncation to high cost members. See the Technical Guidelines on the HealthPartners website here, page 4, for details on the truncation process. **PLEASE NOTE: When the Health Partners documentation refers to paid amount they are referring to what is defined here as Allowed Amount.** Keep both the original allowed amount and TCRRV™ amount as well as the amounts with the truncated factor applied because they will all be required for the aggregate file.

Attribute members to a PCP

Run your usual process for attributing members to a PCP (individual or practice). Set a flag for each member indicating whether that member could be attributed to a PCP or not.

Data aggregation

To produce the submission file, perform the following aggregation:

Within each ACG category, Age Group, and attribution status, roll up the data as prepared above to produce the following summary: (see next page)

Function	Variable	Description
GROUP	ACG	Category of ACG assigned by software
GROUP	Age Group	P for Pediatric, A for Adult
GROUP	Attributed/Not attributed	Flag (Y or N) separating those who could be attributed to a PCP using the RHIC's usual attribution procedure from those who could not be attributed.
COUNT	Unique members	Count the number of unique members in this group, defined by ACG, age group, and attributed flag
SUM	Medical member months	Sum months of medical eligibility for members in this group
SUM	Pharmacy member months	Sum months of pharmacy eligibility for members in this group
SUM	Truncated allowed amount	**Total Medical** claims for members in this group. This is the sum of Facility Inpatient, Facility Outpatient, and Professional.
SUM	Truncated allowed amount	**Facility Inpatient** medical claims for members in this group
SUM	Truncated allowed amount	**Facility Outpatient** medical claims (including ER, which is also reported separately)
SUM	Truncated allowed amount	**Professional** medical claims
SUM	Truncated allowed amount	**Outpatient ER** medical claims[2]
SUM	Truncated allowed amount	**Pharmacy** claims
SUM	Total allowed amount	**Total Medical** claims for members in this group.
SUM	Total allowed amount	**Facility Inpatient** medical claims
SUM	Total allowed amount	**Facility Outpatient** medical claims (including ER)
SUM	Total allowed amount	**Professional** medical claims
SUM	Total allowed amount	**Outpatient ER** medical claims[2]
SUM	Total allowed amount	**Pharmacy** claims
SUM	Truncated TCRRV	**Total medical** claims.
SUM	Truncated TCRRV	**Facility Inpatient** medical claims
SUM	Truncated TCRRV	**Facility Outpatient** medical claims (including ER)
SUM	Truncated TCRRV	**Professional** medical claims
SUM	Truncated TCRRV	**Outpatient ER** medical claims[2]
SUM	Truncated TCRRV	**Pharmacy** claims
SUM	Total TCRRV	**Total medical** claims .
SUM	Total TCRRV	**Facility Inpatient** medical claims
SUM	Total TCRRV	**Facility Outpatient** medical claims (including ER)
SUM	Total TCRRV	**Professional** medical claims
SUM	Total TCRRV	**Outpatient ER** medical claims[2]
SUM	Total TCRRV	**Pharmacy** claims
Standard Deviation	Total allowed amount	Total Medical claims
Standard Deviation	Total TCRRV	Total Medical claims

[2] If any line in a Facility Outpatient claim has a Revenue code in the 045X range, include the allowed amount and TCRRV for the whole claim in the OP ER medical claims bucket. Note that these claims are also included in the more general **Facility Outpatient** claims bucket.