AHRQ Quality Indicators™

Interim Considerations for AHRQ QI users to account for COVID-19

AHRQ is issuing this interim *considerations* document to support users who are trying to isolate the impact of COVID-19 on the AHRQ Quality Indicators (QIs). This interim considerations document explains how to identify and isolate COVID-19 discharges when preparing the analytic input file used by the SAS QI or WinQI software. This interim document does not change the QI specifications nor does it signal how the QIs may address COVID-19 in future versions. AHRQ is currently conducting rigorous empirical analyses as well as following HHS guidance to formulate a data-driven approach to address COVID-19 in the QI software. However, currently AHRQ does not have sufficient 2020 data to conduct analyses and offer guidance on the impact of COVID-19 on AHRQ QI measure specifications and rates.

Background: Preparing the Input File

As described in Chapter 3 of the QI Software Instructions, the SAS QI software is intended to be used with ICD-10-CM/PCS coded data that cover an entire patient population (e.g., all discharges from a hospital in a year) or that were sampled from a patient population using simple random sampling. Section 3.1 of the SAS QI Software Instructions provides detailed information on how users must prepare their dataset. Similar guidance on input file specifications is provided in Sections 8 and 9 of the WinQI instructions.

Identifying COVID-19 Discharges in Administrative Data

When preparing the analytic input file, users can identify COVID-19 discharges using diagnosis codes as follows:

- ICD-10-CM diagnosis code of B97.29 (discharge dates before 4/1/2020) or U07.1 (discharge dateson or after 4/1/2020)
- Search all principal and secondary diagnosis code positions

It should be noted that B97.29 covers “other coronavirus as the cause of diseases classified elsewhere” (i.e., any coronavirus other than SARS-associated coronavirus). Therefore, B97.29 is broader than U07.1, which is specific to COVID-19, and using B97.29 may result in an overcount of COVID-19 related hospitalizations. Conversely, in the early months of the COVID-19 pandemic, diagnostic testing was not routinely available in all hospitals, so use of either or both codes would be likely to undercount COVID-19 related hospitalizations. For additional information regarding these codes, please refer to following websites:

- https://www.cdc.gov/nchs/data/icd/Announcement-New-ICD-code-for-coronavirus-3-18-2020.pdf
- https://www.cdc.gov/nchs/data/icd/ICD-10-CM-April-1-2020-addenda.pdf
- https://www.cdc.gov/nchs/data/icd/interim-coding-advice-coronavirus-March-2020-final.pdf
- https://www.cms.gov/files/document/03092020-covid-19-faqs-508.pdf

Options for Isolating COVID-19 discharges when analyzing the QIs

Users have multiple options when analyzing the impact of COVID-19 on their data using the interim considerations above. Note that the COVID-19 ICD-10-CM diagnosis codes in the principal position are grouped into medical (not surgical) Medicare Severity Diagnosis-Related Groups (MS-DRGs). With limited exceptions such as sepsis, COVID-19 diagnoses are likely to be coded in the principal position because COVID-19 represents the underlying cause of the respiratory illness precipitating admission to the hospital.

However, users should be aware that analyzing hospitalization data from the public health emergency period comes with methodological challenges. Hospital volume and case mix during the public health emergency period are substantially different from the 2018 reference population on which the software risk adjustment models were developed. These changes in volume and case mix were driven by the near-universal postponement of elective procedures, as well as the large number of medical discharges for COVID-related conditions. As such, users analyzing calendar year 2020 data in the QI software must carefully interpret risk adjusted or smoothed rates. Even before users make modifications to their input file, smoothed rates will be smoothed toward the national average from 2018, and risk-adjusted rates will have wider-than-usual confidence intervals.

Users may wish to consider the following approaches after identifying COVID-19 discharges in their data:

- To focus analyses on non-COVID-19 cases, users can exclude COVID-19 cases from the input file
- To focus solely on COVID-19 cases, users can restrict their input file to only include COVID-19 cases
- To perform quality monitoring or surveillance, users can restrict their input file to COVID-19 cases that are not present on admission
- Include all discharges in the input data, but create a user-generated COVID-19 stratification variable, note that this is only possible using SAS QI.

AHRQ would like to reiterate that since this is an interim considerations document, it will be updated as additional data become available and further analyses are conducted.