TIP QIC Targeted Investments Program Quality Improvement Collaborative

AHCCCS Arizona Health Care Cost Containment System

ARCS Dashboard Guide:

Follow-up After Hospitalization for Mental Illness (FUH)

The ASU TIP QIC team is analyzing AHCCCS claims and enrollment data to assist TI-participating agencies in identification of potential key areas of improvement on their TI performance measures. Agency-specific findings are available to TI-participating agencies through their TIP QIC Dashboards. This guide is intended to be used by TI-participating agencies to better understand and make use of the AHCCCS Root Cause at Scale (ARCS) Dashboards.

Measures examined

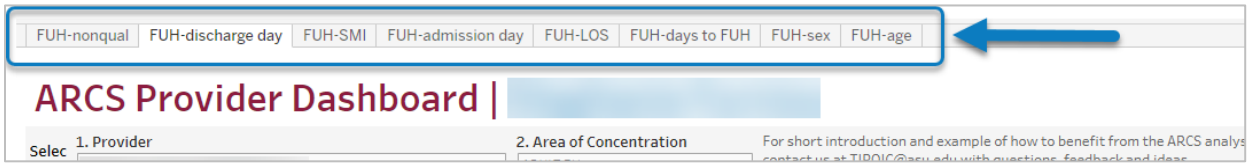
This guide explains the ARCS analyses and results for the FUH measure. Similar work has been done for the other TI measures, find the guides linked below. Stay tuned for future announcements from TIPQIC on continued improvements and please feel free to provide feedback and ideas to TIPQIC@asu.edu.

- ARCS Dashboard Guide – SSD/APM
- ARCS Dashboard Guide – W34/AWC
- ARCS Dashboard Guide – W15

Accessing the ARCS dashboards

To access the dashboards:

1. Go to data.tipqic.org and sign in
2. Navigate to Explore > TIPQIC – Provider Dashboards > ARCS FUH Dashboards
3. You will see a number of tiles, one for each ARCS dashboard available to you. Click on one to open and view the dashboard
4. Once you've opened one, you can navigate between the dashboards using the tabs at the top of the dashboard (see image)



Using the ARCS dashboards for QI & Resolving Issues

We anticipate the ARCS dashboards will be a useful resource in your quality improvement efforts and the QI Workgroups.

- We recommend that you use the impact assessment dashboard and single-variable dashboards to understand which variables are associated with lower performance. Then use quality improvement tools to examine those variables to surface possible root causes leading to lower performance.
- Please watch this short video for an introduction and example of how to benefit from the ARCS analyses.
- Quality Improvement tools—such as, the cause and effect diagram (i.e., fish bone diagram) and the 5 Whys approach—can aid in the root causes analysis.

Table of Contents

FUH – Impact Assessment

This dashboard is a summary of the impact(s) of each variable examined in the ARCS analysis for the FUH measure.

- In general, impacts were assessed by calculating the potential performance improvement if an issue were resolved.
    - For example, for *FUH – Member sex,* which looks at denominator proportions and performance by member sex, if performance for males was lower than females, then the impact was the improvement that would occur if males had a follow-up visit rate equal to females.
- Impact calculations were specific to each variable and are described in Table 1 (page 4).
- Small deviations from 0 on the impact assessment dashboard view may be the result of rounding errors that occur when calculating impacts across all variables examined.

IMPORTANT

- The impact assessment examines one variable at a time.
- The analysis does not distinguish relationships among the categories that can influence these impact calculations. In addition, a denominator event can be in more than one category.
    - For example, a member who did not have a qualifying FUH follow-up visit within 7 days after discharge may have been discharged on a day associated with lower performance (e.g., weekend day) and had a non-qualifying visit within 7 days (e.g., case management service). In this ARCS analysis, this denominator event would be counted in possible improvement for both the *Discharge day of the week* analysis and the *non-numerator visit* analysis. However, reducing variation in follow up rates across the day of the week of discharge may not address the underlying probably for this case.
- Therefore, we recommend that you use the impact assessment to understand which variables are correlated with lower performance, then examine those variables to surface possible root causes leading to lower performance. Quality Improvement tools—such as, the cause and effect diagram (i.e., fish bone diagram) and the 5 Whys approach—can aid in the root causes analysis.

Main takeaways for the aggregate TI population

- *Members not having any visits with any provider during the follow-up period* was the most impactful factor, followed by *length of stay* and *SMI status*.
- These 3 variables are partially correlated with one another.
    - Member-events with a length of stay greater than 14 days were 12 times as likely to have at least 1 claim with any provider within 7 days of discharge compared to shorter lengths of stay.
    - SMI member-events were 2.82 times as likely to have at least 1 claim with any provider within 7 days of discharge compared to non-SMI member-events.
    - SMI member-events were 3.51 times as likely to have a stay >14 days than non-SMI member-events.

Table 1. Impact assessment calculation for each analysis.

Analysis	How impact assessment was calculated
FUH – Non-numerator visits	• For each category, impact was quantified as the performance improvement that would occur if all member-events in the category were moved into the numerator. • Since these categories are expressed as percentages of the total denominator, the %-point change in performance is equal to the % of member-events in the category. • Example: If current performance is 60% and 10% of member-events had no visits in the follow-up period, then performance would increase to 70% if all of these member-events were moved into the numerator.
FUH – Length of stay	• Impact was assessed by calculating the performance improvement that would occur if the follow-up rate for stays 14 days or less were equal to the follow-up rate for stays longer than 14 days. • If your organization's performance for stays 14 days or less was equal to or higher than stays longer than 14 days, then the impact was assumed to be 0%.
FUH – SMI status	• Impact was assessed by calculating the performance improvement that would occur if the follow-up rate for non-SMI members were equal to SMI members. • If your organization's performance was higher for non-SMI members than SMI members, this calculation was not done and the impact was assumed to be 0%.
FUH – Discharge day of the week	• Impact was assessed by calculating the performance improvement that would occur if the follow-up rate for weekend discharges were equal to the average follow-up rate for weekday discharges. • If your organization's performance was higher for weekend discharges than weekday discharges, then the impact was assumed to be 0%.
FUH – Admission day of the week	• Impact was assessed by calculating the performance improvement that would occur if the 7-day follow-up rate for Sunday admissions was equal to the follow-up rate for Tuesday admissions • If your organization's 7-day performance for Sunday admissions was equal to or higher than for Tuesday admissions, then the impact was assumed to be 0%.
FUH – Days to FUH visit	• Since this analysis only examined member-events that were in the numerator, no impact assessment was done.

FUH – Member sex	• Impact was assessed by calculating the performance improvement that would occur if the follow-up rate for males were equal to the follow-up rate for females. • If your organization's performance for males was equal to or higher than females, then the impact was assumed to be 0%.
FUH – Member age	• Impact was assessed by calculating the performance improvement that would occur if the follow-up rate for ages 18-24 were equal to the follow-up rate for ages 55-64. • If your organization's performance for ages 18-24 was equal to or higher than ages 55-64, then the impact was assumed to be 0%. • Impact was 0% for Peds.

FUH – Non-numerator visits in follow-up period

This analysis describes visits during the FUH follow-up period for non-numerator member-events. Non-numerator member-events are member-events in the denominator that did not have a qualifying follow-up visit in the 7/30-day follow-up periods.

Context

- The FUH visit must have a provider with a behavioral health specialty and a qualifying procedure code. Depending on the procedure code, there may also be a required qualifying place of service. If any of these three elements are invalid, the visit does not qualify the member for the numerator.

Definitions

- The FUH follow-up period is days 1-7 for the FUH 7 measure, and days 1-30 for the FUH 30 measure. The day of discharge is day 0.

Analysis

- The graphs break out your denominator into several categories based on the types of visits members had during the follow-up period:
    - The next category ("No visits") corresponds to member-events that had no claims with any provider during the follow-up period.
    - All subsequent categories correspond to member-events that were attributed to your organization and had a non-qualifying visit with your organization during the follow-up period.
        - These categories may overlap; a member could have had a visit with a BH provider for an invalid service *and* a separate visit with a non-BH provider for a valid service.
        - Place of service was not considered for visits that had an invalid service.

Main takeaways for the aggregate TI population

- Most member-events that were not in the numerator had no visits with any provider during the follow-up period.
- The most common type of non-qualifying visit was with a behavioral health provider for a non-qualifying service. The vast majority of these visits had the T1016 procedure code (case management).

Example next steps

- Review the number or proportion of member-events in your denominator for which the member had no visits in the follow-up period, and those where the member had a non-qualifying visit rendered by your organization.
    - If a substantial proportion of events were followed by a non-qualifying visit in the follow-up period, consider whether the coding was appropriate. If changes can be made to bring the service and coding into alignment with measure requirements, this should be done.
    - If a substantial proportion of events were not followed by a visit in the follow-up period ("no visits"), consider reviewing these members to determine if they correlate with discharge planning procedures and appointment reminder procedures.

FUH – Length of stay

This dashboard describes the member-events by hospital length of stay. The charts provide the proportion of member-events and performance for each of three groups: hospital length of stay of *0-7 days*, *8-14 days*, and *>14 days*.

Main takeaways for the aggregate TI population

- Longer hospital stays (>7 days) are less common than shorter stays (0-7 days), but have higher performance.

Example next steps

- If the performance for your practice is substantially lower for one of the length-of-stay ranges, it may be worthwhile for your organization to assess your policies and procedures that may affect this.

FUH – SMI status

This analysis shows proportion of member-events in the denominator associated with *SMI members* and proportion associated with *non-SMI members*. For each group, FUH 7 and FUH 30 performance is shown.

Definitions

- *SMI members* are members enrolled in an AHCCCS Complete Care (ACC) health plan with contract type C (ACC SMI capitated), D (ACC SMI prior period coverage), or W (ACC, SMI KidsCare capitated) on the date of discharge.

Main takeaways for the aggregate TI population

- Performance on the FUH 7 and FUH 30 measures was higher for *SMI members* than *non-SMI members*. This may be because there are additional resources available to health plans and providers for SMI members.
- No pediatric SMI members were found.

Example next steps

- If your performance for *non-SMI members* was lower than your performance for *SMI members* (or vice versa), explore what procedures and resources you use to follow up with the higher performing group. Can any of these also be used for the lower performing group?

FUH – Discharge day of the week

This analysis shows the proportion of member hospitalization events in the denominator discharged on each day of the week. For each day of the week, FUH 7 and FUH 30 performance is shown.

Main takeaways for the aggregate TI population

- Members who were discharged on a weekend (Saturday or Sunday) were less likely to receive follow-up care than members discharged on a weekday (Monday – Friday).
- However, weekend discharges were less common than weekday discharges.

Example next steps

- If your agency's performance is substantially lower on one or more days of the week, it may be worthwhile for your organization to assess your policies and procedures that may affect this.
- For example, determine if daily patterns of performance correlate with clinic staffing or differing discharge planning procedures. If you find a possible cause, meet with providers to discuss the value and feasibility of testing a change (e.g., reallocating staffing). Quality Improvement tools—such as, Plan-Do-Study-Act cycle—may be helpful in testing a change.If change becomes permanent, remember to update policies and procedures as needed.

FUH – Admission day of the week

This analysis shows the proportion of member hospitalization events in the denominator admitted on each day of the week. For each day of the week, FUH 7 and FUH 30 performance is shown.

Main takeaway for the aggregate TI population

- Members admitted on a Sunday were less likely to have a follow-up visit within 7 days after discharge than members admitted on a Tuesday. This difference was small but statistically detectable.
- Admission day had no effect on the rate of 30-day follow-up.

Example next steps

- If your agency's performance is substantially lower on one or more days of the week, it may be worthwhile for your organization to assess your policies and procedures that may affect this.
    - For example, determine if daily patterns of performance correlate with clinic staffing or differing discharge planning procedures. If you find a possible cause, meet with providers to discuss the value and feasibility of testing a change (e.g., reallocating staffing). Quality Improvement tools—such as, Plan-Do-Study-Act cycle—may be helpful in testing a change.
    - If the change becomes permanent, remember to update policies and procedures as needed.

FUH – Days to FUH visit

These graphs show the number of days between discharge and follow-up for member-events that received follow-up care. If the member had more than one qualifying follow-up visit, then the date of the earliest visit in the follow-up period was used. Values are plotted as average ± standard error of the mean.

Main takeaways for the aggregate TI population

- Members discharged from the hospital early in the week (Monday-Tuesday) had the shortest duration between discharge and follow-up. The duration steadily increased for discharges later in the week, reached a peak for Friday discharges, and was lower for weekend discharges.
- This trend is similar for the FUH 7- and 30-day measures.

Example next steps

- Compare these observations with performance (see discharge day dashboard). If performance is low for a certain day of the week, is that day also associated with longer time to follow-up?

FUH – Member sex

This dashboard describes the member-events by member sex. The charts provide the proportion of member-events and performance for *female* and *male* members.

Main takeaways for the aggregate TI population

- Performance for females was higher than for males.

Example next steps

- If the performance for your practice is substantially lower for one member sex, it may be worthwhile for your organization to assess your policies and procedures that may affect this.

FUH – Member age

This dashboard describes the member-events by member age. The charts provide the proportion of member-events and performance for specific age ranges.

Main takeaways for the aggregate TI population

- Performance for pediatric members (1-17 years old) was higher than performance for adult members (18+ years old).
- Among adults, performance was higher for members ages 55-64 years old compared to members ages 18-24 years old.
- There were no statistically significant differences between members ages 1-12 and 13-17 years old.

Example next steps

- If the performance for your practice is substantially lower on member age, it may be worthwhile for your organization to assess your policies and procedures that may affect this.