NDNQI Submission Process Improvement

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Problem

- The National Database Of Nursing Quality Indicators (NDNQI) is a national database that provides quarterly and annual reporting that aims to provide a link between nursing care and patient outcomes.
- Currently, UCM submits to NDNQI on a quarterly basis on reports on 18 measures.
- Prior to the change in submission process, we had one team member that collected and manually entered the data, per measure per month.
- This amount of manual entry increases the chance for human error and increases the work load of Nursing Quality and Data and Analytics.

Goal

- Our goal with this project was to reduce the time to submission for both Data and Analytics and Nursing Quality.
- By reducing the submission time, Nursing Quality and Data and Analytics can spend less time validating the data and more time analyzing and identifying key areas for improvement across units.

Strategy

- Starting in June 2020 we expanded our team to 4 individuals working on the NDNQI data collection and submission process.
- For the data entry piece, we introduced submission via XML as a replacement for the manual data entry.
- Each quarter, NDNQI units change based on cost centers and units within our hospital. We established a streamlined process to build a mapping of these units that can then be leveraged to make the XML submission successful (Figure 1).

Impact

- Prior to the XML submission being introduced, we had one person on our team collect and manually submit data on 18 different measures per month.
  - This typically took 2 full business days per week for three weeks (6 full days total) leading up to the submission.
- Since the establishment of the XML submission process for 4 primary measures, we have drastically reduced the total submission process time to roughly 2-3 full business days.
- Introducing new team members and having the data submitted via XML has reduced the workload and stress amongst both Nursing Quality and Data and Analytics.
- Reducing the time to submission has reduced data entry errors and allowed Nursing Quality to identify areas for improvement on a much faster timeline.

Next Steps

- We are expanding the XML submission process to more complicated measures.
- We plan on streamlining the process further by reducing the number of raw data sources and consolidating our code to be written out of one data source (Unified Data Platform).
- Plan to improve the overall process by leveraging Alteryx to build workflows to automate the data collection, manipulation, and submission process into minimal steps.

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