NSQIP IRR Audits to Improve Abstraction Quality

An IRR audit process is a critical aspect for quality data abstraction

The inter-rater reliability (IRR) process is crucial in ensuring quality data is abstracted. However, there is a lack of audits at many facilities. We sought to improve our abstraction process by implementing an IRR process aimed toward educational purposes and increasing the quality of data while reducing workstation errors

We set out to track the ACS IQVIA case corrections made within the workstation following our IRR process. The knowledge gained from an educational focused IRR process has increased our quality of data output. Not only have we seen a decrease in ACS NSQIP workstation case corrections, but also an increased IRR percentage from our abstractors
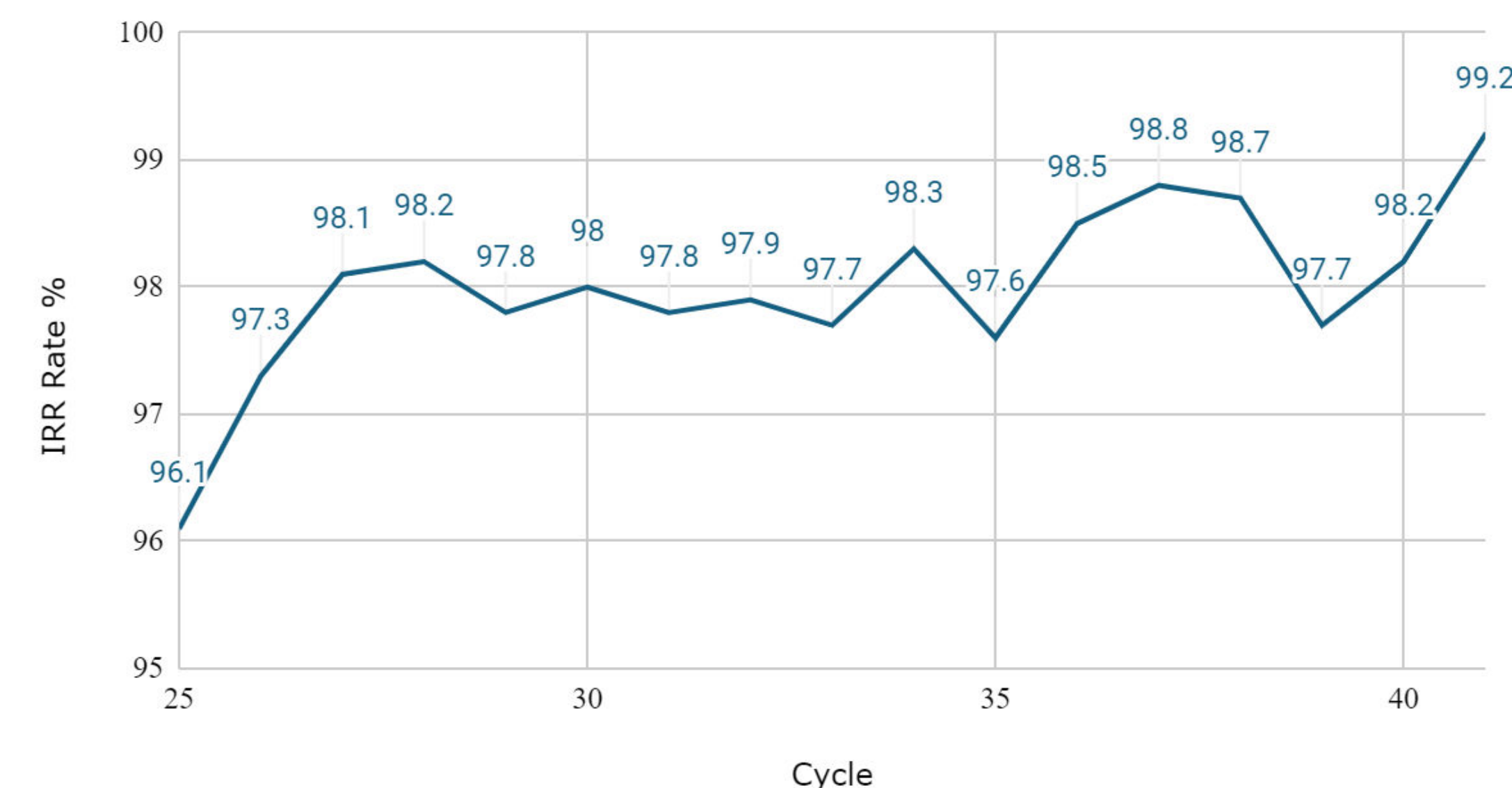
IRR audit education is necessary for quality data abstraction

IRR forms include all data elements from the ACS IQVIA workstation to be reviewed, including all parent and child fields. Individual IRR scores are kept confidential, however a team average is provided each cycle
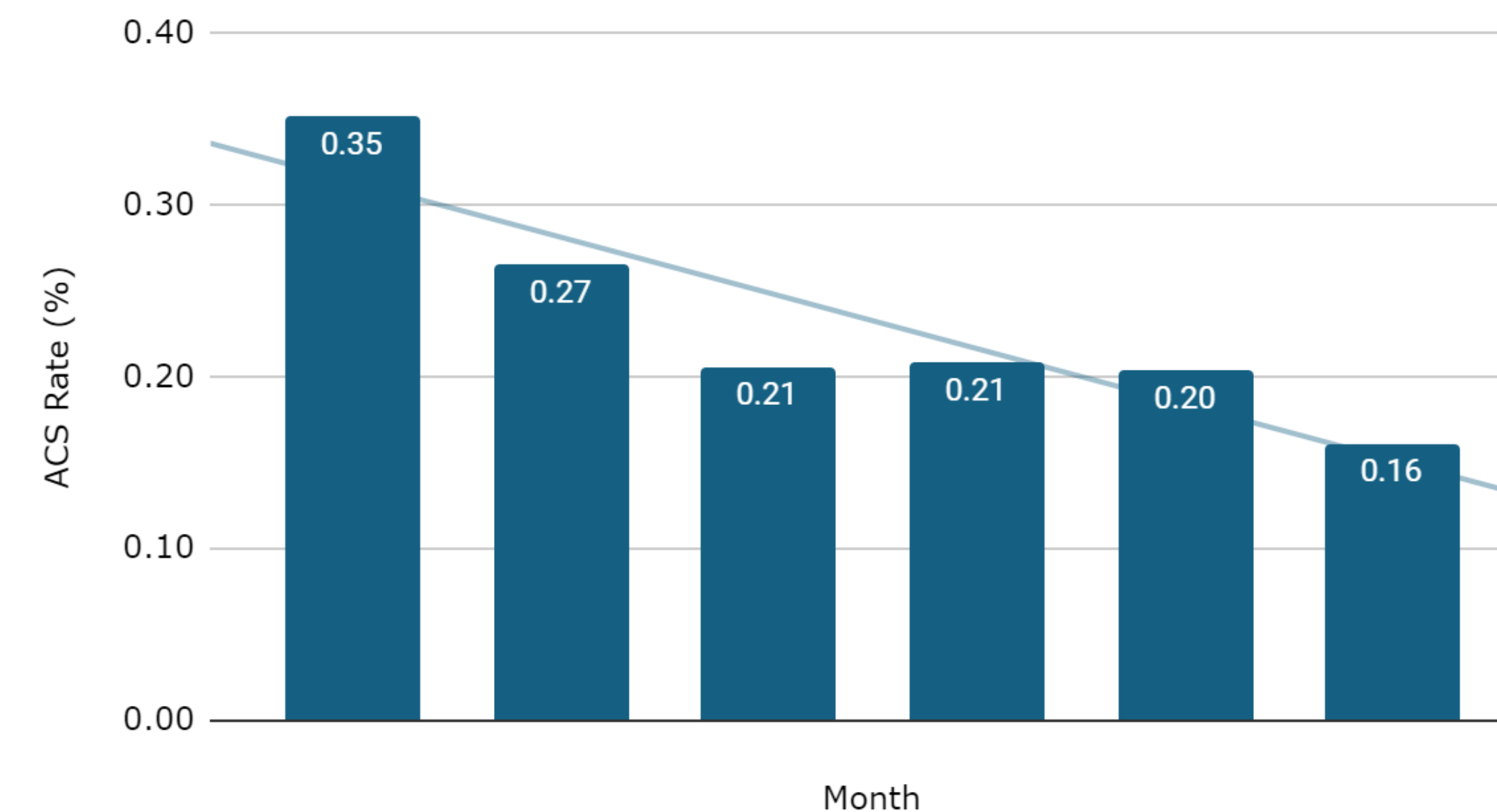
Education is provided to the abstractor for each missed data element. Examples included providing location in the EMR where info was found and/or criteria from the NSQIP Manual

The original abstractor is to review their IRR and make any necessary corrections to the abstraction within the ASC IQVIA workstation

IRR Rates per Cycle

Total ACS Case Correction Rates

Data Source/Population and Results:

Cases are thoroughly reviewed at 100% audit of all data points. Feed back it given to the abstractor, including screenshots of helpful information for educational purposes. Each audit is meant as a learning tool to incorporate better practices into daily abstraction and to reduce the workstation error rates

IRR is a continuous process and performed every cycle, with a 5% randomization of cases from every cycle abstracted. Full case review ensures any element that could affect a metric result is being reviewed and ensures the abstractor is consistently capturing all data elements accurately

Since tracking workstation correction rates and continuous IRR education each cycle, from July 2023, there was a nearly 46% reduction rate of ACS NQSIP workstation errors from 0.35% to 0.16%. The IRR rate, has also increased from 96.1% to 99.5%

Lessons Learned

- All abstractors loved the feedback regarding their abstraction
- Once the process was started, IRR was a natural workflow for each cycle
- Providing education regarding missed data elements for abstractors helped to increase the abstractors IRR rate
- As the IRR process continued, we saw fewer case corrections were necessary
- We plan to continue an education-based IRR process

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