

Sepsis Data Collection

IPRO Pioneers Digitized Data Collection to Improve Sepsis Care



The Challenge

Since 2014, IPRO has worked in partnership with the New York State Department of Health (NYSDOH) Sepsis Care Improvement Initiative in reducing the state's overall sepsis mortality rate, as evidenced by its decline from 32% (2015) to 23.5% (2018).

The Sepsis Care Improvement Initiative requires that each NYS acute care hospital report sepsis care data to NYS DOH. On behalf of the state, IPRO has developed quality measures, developed and maintains the portal for data upload, manages the data audit process, and provides reports back to the hospitals. These reports help the hospitals create protocols for early recognition and treatment of sepsis patients.

During the early days of the COVID-19 pandemic, hospitals in New York were overwhelmed with critically ill COVID-19 patients and confronted with concurrent staff shortages. Many re-deployed staff normally assigned to chart abstraction tasks to direct patient care roles and were thus challenged to comply with the manual chart abstraction required by sepsis reporting mandates.

The Approach

In 2020, the state suspended data collection requirements due to the COVID-19 pandemic. NYSDOH and IPRO seized this opportunity to move to electronic clinical quality measures and digitized data collection to allow direct sourcing of 150,000 patient-level encounters annually from the electronic health record (EHR).

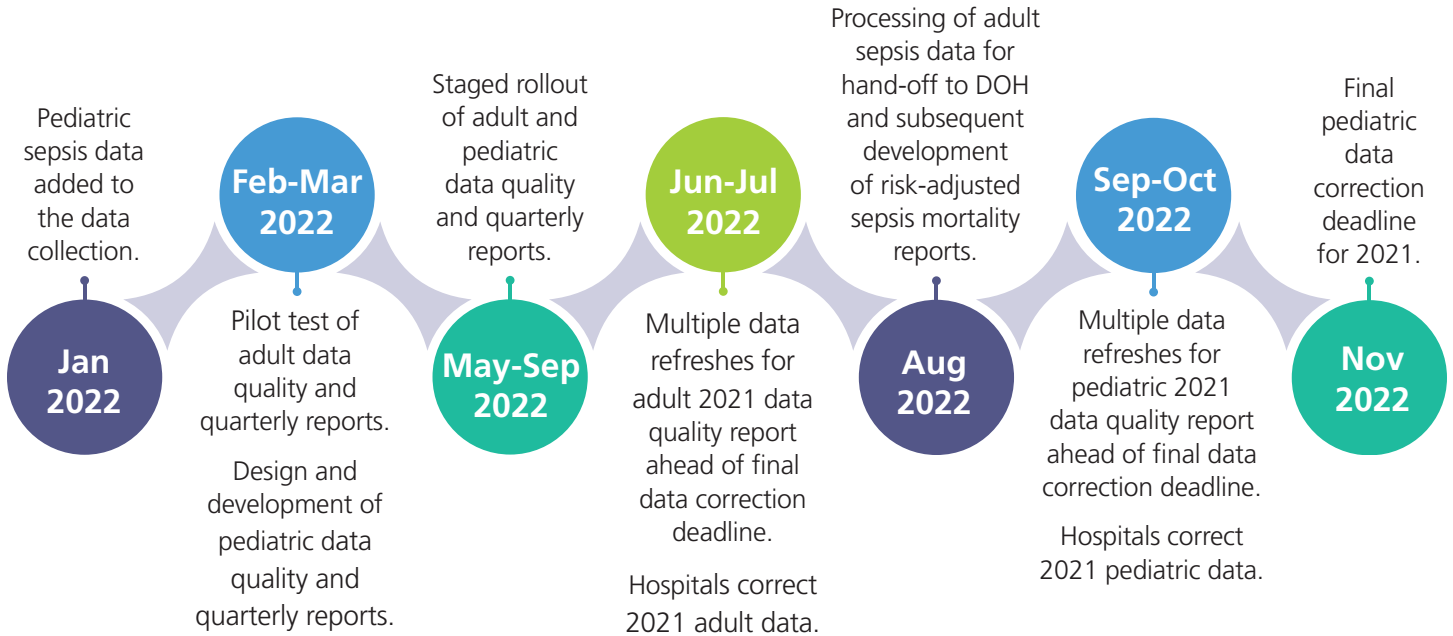
Flexible and interactive data quarterly quality reports were designed to provide hospitals and the state with comparison data on missing and potentially invalid data elements. These Tableau Webserver-based reports list additional patient-level information so that hospitals can identify specific missing data elements, validate, and if necessary, complete and correct the data. Additional quarterly reports provide details on observed mortality and ICU admission rates along with demographic profiling with state comparisons, outcomes with ability to filter by age group, discharge status, clinical population, and time periods.

Once the project was rolled out, a bi-monthly affinity group was convened to encourage hospitals to share best practices, pose data abstraction and EHR coding questions to IPRO experts and their peers, and discusses ongoing challenges and successes. The group continues to meet monthly for mutual support and troubleshooting.



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continued



The Results:

By transitioning sepsis data collection from labor-intensive chart abstraction to an automated, digitized process, IPRO has helped New York State hospitals save an estimated 50,000 hours of clinical staff time annually. Freeing clinical staff from administrative tasks during a public health emergency when there are increased patient care needs was critical to the state's COVID-19 response.



This not only reduced the data collection burden on hospitals, but allowed for more accurate, timely, and frequent data transparency that supports quality improvement activities in hospitals and more timely regulatory reporting.

Additionally, the initiative advanced both the quality and granularity of the data reports. Quarterly reports not only highlight missing or invalid data, but do so on a patient-specific level, allowing hospitals to easily correct issues. The system performs multiple data refreshes so that hospitals are apprised of corrections as they are made. This represents a significant advance in the complexity and magnitude of data reports created by IPRO.

Conclusion

This project represented a major shift in data collection from a manual to a digitized EHR-based process. The automated process allowed hospitals to re-deploy clinical staff from computer workstations to other tasks that better utilize their skills and training, enhance healthcare quality, and impact more directly on patient care.

At the same time, the quality, volume, and granularity of data collection permits more robust reporting, which fosters a deeper understanding of the variables surrounding sepsis and contributes to the continuing trend of reducing the mortality of sepsis across New York State.

For information on IPRO, contact us at info@ipro.org