

Background: Extensive patient-related paperwork is processed at 20+ Mayo Clinic Health System (MCHS) clinics in multiple ways, including hand-delivered and fax. Numerous allied health employees (primarily nurses) frequently and consistently check for and process associated paperwork, a time-consuming and non-value-added activity. Processing paperwork consists of a nurse printing out a fax, completing multiple fields, obtaining a signature from a physician, nurse practitioner or physician assistant, scanning the document, and ultimately, routing the document back to the patient. These efforts are complicated by variability in the hours of operation of the clinics, including three sites that are open only 1-2 days a week, located in rural areas where expensive outdated technology used. As a result of these factors, turnaround time for paperwork completion is 5-20 days – delays that are frustrating for both patients and clinic staff.

Objectives of the program: Creation of a centralized team of non-licensed delegates (NLD) to process patient paperwork, thus removing administrative burden from busy and short-staffed nurses and improving turnaround time. Doing so allowed nurses to work at the top of their licensure with significant emphasis on providing direct patient care. The team also believed that developing a central processing team would allow for the deployment, implementation and utilization of new electronic fax and signature tools that would decrease clerical and administrative burden associated with patient paperwork, thus improving turnaround time of documentation. In addition, project leadership believed that costs could be reduced, and provider and patient satisfaction would be improved through this process.

Planning/research methods: This project utilized the DMAIC framework: Define, Measure, Analyze, Improve, and Control. As part of this framework, a stakeholder analysis was conducted with site, regional and operational leaders for the purpose of developing a project plan and delineating appropriate scoping of the project. Scope parameters included exploration of potential technological solutions, staff knowledge, onsite work ramifications, licensure, and projected paperwork turnaround time. The project team also performed internal benchmarking across other Mayo Clinic locations, specialties, and business units to evaluate existing tools and processes. Finally, value stream mapping (VSM) was utilized to analyze gaps in quality and timeline for work completion.

Implementation methods/sample sizes: Through utilization of the research methodology, the project team identified three rural clinics – where expensive outdated technology utilized to support fax machines and staffing was very lean – to pilot the proposed process. Leveraging specifics identified in the VSM, the team evaluated ways technology could improve the process and outlined a new workflow to pilot. Key components of the project included implementation of an electronic fax tool, estimated cost of \$90,000 which allowed faxes to be collected in a central electronic folder. In addition, a centralized NLD team was created to pilot the new process, including routing paperwork for signature via technology and processing via email which accelerated the timeline for returning paperwork back to the patient.

Positive results from the three pilot locations allowed the project team to quickly deploy solutions across the other 20+ locations. During that time, metrics pertaining to on-time paperwork completion were collected to support the creation of a permanent team. In less than one year, the 20+ locations were successfully transitioned to a centralized processing team.

Results: The key measures of success for the processing team included:

- Reduced paperwork processing time from 5-20 days to an average of 2-3 business days
- Successfully processed over 10,000 forms with no lost paperwork
- 1000+ hours a month returned to Department of Nursing staff for direct patient care activities
- Monitored physician and APP satisfaction pertaining to clerical burden through feedback sessions

Contact: Brent Helgren, Helgren.brent@mayo.edu