



What is this Patient Being Seen For? Outside Medical Records Collection Optimization

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ABSTRACT

BACKGROUND

When patients transition their care from one healthcare facility to another, they must collect their medical records from their former provider(s) which is a time-consuming and often stressful process. In a 2019 initiative, the GetMyHealthData campaign spent a year documenting what happened when patients requested their medical records. The campaign findings illustrated the difficulties patients faced, being thwarted by outdated formats for information, inefficient delivery, facility pushback, and exorbitant fees (Health Affairs Blog, 2020). The Office of Practice Specialty Collaborations and Contracts (OPSCC) at Mayo Clinic saw an increase in workload for clinicians and scheduling staff to collect, index, review, and summarize outside medical records for new patients through workload management reports in 2020. In response, the Office launched a deep dive project to address staff concerns with the current collection process, identify inefficiencies, and implement optimized practices and technologies. The scope of this project was focused on the clinical and scheduling teams that support specialty contracts at Mayo Clinic.

OBJECTIVE

The Project Team operationalized the project with the goal to decrease nursing time spent collecting, indexing, reviewing, and summarizing outside medical records, increase clarity regarding which outside medical records to collect for each patient, decrease scheduling staff time spent collecting outside medical records, increase satisfaction in the clinical practice with the outside medical records collection process, and implement novel technologies for collecting, indexing, reviewing, and summarizing outside medical records.

METHODS

The Project Team conducted informational interviews to garner feedback and accurately process map current outside medical records collection processes from nursing and scheduling staff. After assessing 20+ different specialties across Mayo Clinic's three destination medical center (DMC) sites, the Project Team worked with staff to identify optimization opportunities within each of their processes. Those were categorized using an effort impact grid. These findings were compiled into a larger assessment including detailed current state process maps, outside medical records data, and key areas for optimization. After the projects were categorized, work began to implement the quick wins and planning began to implement the major projects. More information on the changes are outlined in the rest of the poster.

RESULTS

Participating specialties, nursing and scheduling staff, were interviewed to assess the value of optimization improvements to their outside medical records collection process. The informational interviews showed that staff time spent doing collection activities was the biggest concern. It resulted in the following estimates for time reduction for key operational improvement projects. While many opportunities were identified for optimization, only the quantifiable results are illustrated in this poster.

CONCLUSIONS

As the project team completed informational interviews across the enterprise, we learned that numerous stakeholder groups were already testing optimization opportunities for medical records collection. Because of the efforts already being launched by frontline care teams, the project team did not aim to reinvent the wheel, rather learn from the improvements they implemented. The project team set out to multiply this success across the enterprise to reduce administrative costs and improve employee and patient satisfaction.

OBJECTIVES

The Project Team was activated with the following objectives in mind:

- Decrease nursing time spent collecting, indexing, reviewing, and summarizing outside medical records
- Increase clarity regarding which outside medical records to collect for each patient
- Decrease scheduling staff time spent collecting outside medical records
- Increase satisfaction in the clinical practice with the outside medical records collection process
- Implement novel technologies for collecting, indexing, reviewing, and summarizing outside medical records

METHODS

IDENTIFYING OPPORTUNITIES FOR IMPROVEMENT

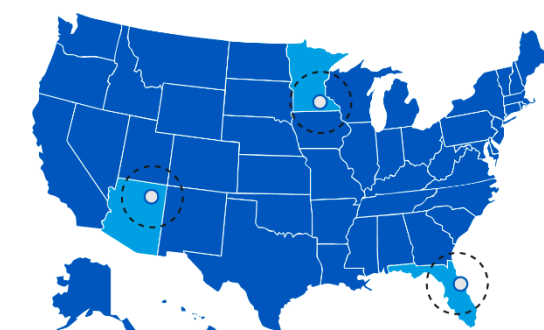
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OPERATIONALIZING CHANGE

Based on the feedback collected from the informational interviews, actionable solutions ranged from quick wins to major projects. Examples of quick wins were to refine the templates used to request outside medical records to improve clarity for scheduling staff submitting requests. Another just-do-it opportunity was to optimize the patient intake process to gather previous facility information and the authorizations and service terms form before the scheduling call, integrating the intake process forms within the patient portal, and collection streamlining. A major project would be implementing a multi-specialty pilot for using a new machine learning application to organize and index outside medical records sent to Mayo Clinic. While a portion of the recommendations were to be open to new AI and ML opportunities, the project team was not resourced to be able to implement a new product into the practice at this time.

FIGURE 1: AREAS EVALUATED

AZ	FL	RST	Enterprise	Key Call Outs
Oncology (Cancer Center)	Oncology (Cancer Center)	Oncology (Cancer Center)	-	Piloting new ML and Content Index, call out, and review OSM (Nursing Administration support)
Transplant	Transplant	Transplant	Transplant	Piloting new OSM collection process with NVC teams manually requesting records.
Spine	Spine	Spine	-	
Joint	Joint	Joint	-	
Complex Care	Complex Care	Complex Care (Adult & Pediatrics)	-	Piloting new additional request form and campus authorization process.



6 Arizona
6 Florida
7 Rochester
Number of Processes Assessed

RESULTS

OPTIMIZATION OPPORTUNITIES IDENTIFIED FOR IMPLEMENTATION

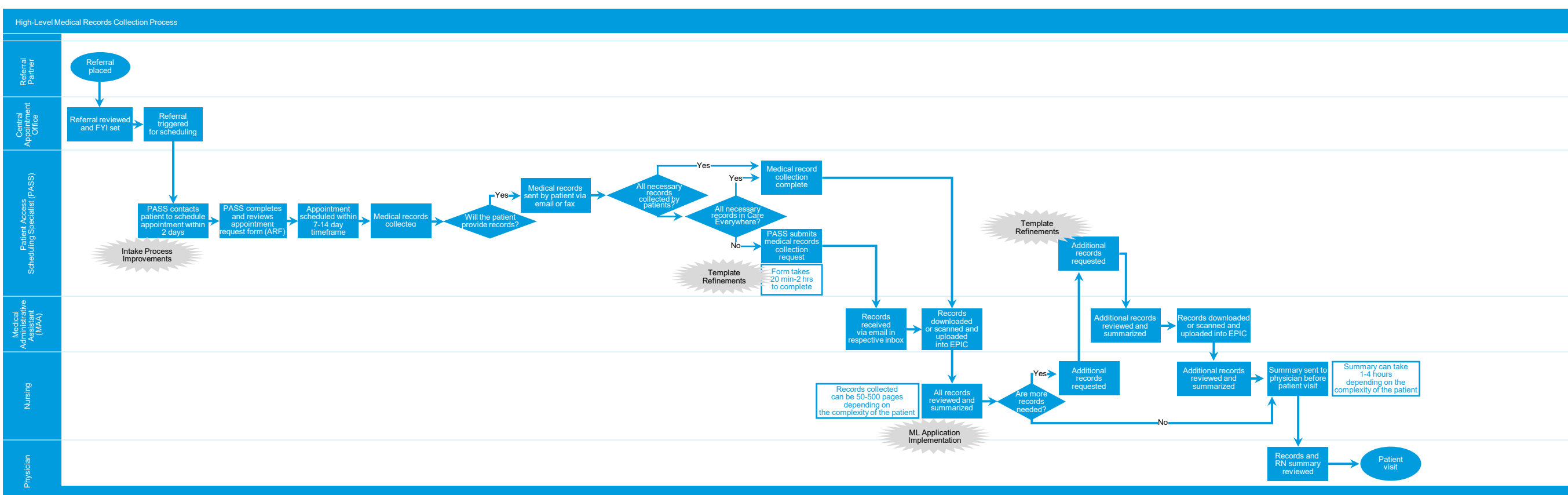
- **Template Refinement:** Template refinement will greatly help in reducing the collection of unwanted and unnecessary records. In turn, this should also reduce average turnaround time for records collection and promote efficiency between scheduling and nursing teams by reducing back-and-forth communications.
- **Artificial Intelligence (AI) / Machine Learning (ML) Expansion:** As ML and AI tools become more prevalent in healthcare, there is ample opportunity to use Natural Language Processing (NLP) capabilities to synthesize, review, and summarize outside medical records. By piloting and implementing new NLP-based tools, care teams can significantly reduce the amount of time it takes to review and summarize outside medical records before the patient visit.
- **Streamline Intake:** The patient intake process can take scheduling staff anywhere from 20 minutes to 120 minutes to complete on the phone with a patient. During this intake call, the information that is needed to collect patient medical records often takes most of that time. There is an opportunity to refine these practices through forms in the patient portal or other digital tools. Updating these processes should also increase patient and staff satisfaction by reducing the need for cold calls.

TABLE 1: RESULTING TIME REDUCTION FOR CLINICAL AND SCHEDULING STAFF TO COLLECT, INDEX, REVIEW, AND SUMMARIZE OUTSIDE MEDICAL RECORDS

Project Name	Improvements Made	Avg. Estimated Time Spent Completing Activity Before Improvements	Goal: Avg. Estimated Time Spent Completing Activity After Improvements are Implemented
Template Refinement	Templates improved flexibility for requesting specific records based on the patient's medical history.	20 minutes	15 minutes
ML Application Implementation	Application pilot reduced nursing time indexing, reviewing, and summarizing outside medical records.	180 minutes	120 minutes
Intake Process Optimization	Intake process improved collection of pertinent medical history from the patient before a scheduling intake call occurs. This reduced a bottleneck in the process and improved downstream results for accurate and streamlined records collection requests.	60 minutes	20 minutes

The key objectives for this project aimed to not only reduce the amount of clinical and scheduling staff time spent conducting outside medical records retrieval tasks, but also aimed to implement novel technologies for doing these tasks. By utilizing digital tools, the project team was able to digitize patient tasks and translate information easily into the EHR.

FIGURE 2: HIGH-LEVEL MEDICAL RECORDS COLLECTION PROCESS



In order to assess the opportunities for improvement across the enterprise, the project team conducted informational interviews with 20+ different specialties that support specialty contracts at each of the Mayo Clinic Destination Medical Center Sites (DMC). From those interviews, the optimization opportunities indicated by the Kaizen Bursts above were identified.

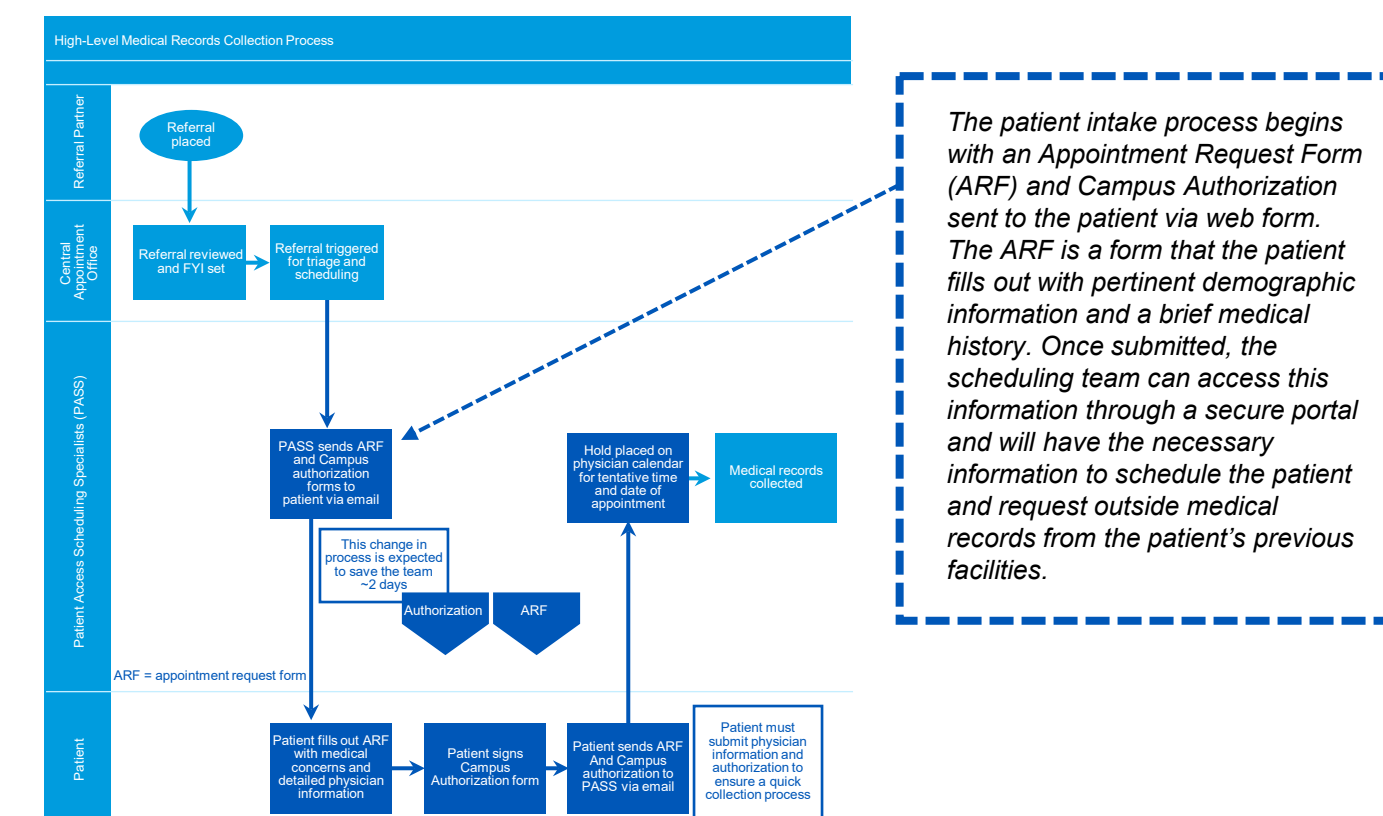
RESULTS

TABLE 2: TEMPLATE REFINEMENT TACTICS

Record Type	Current State	Refinement Tactics	Future State
Record Type	All scans, images, operative reports, consult notes, labs, procedure notes, radiology reports, discharge summaries, pathology slides, and MD notes	Ask teams to identify which data points they need to determine the proper care pathway for the patient	Most relevant scans, images, operative reports, consult notes, labs, procedure notes, radiology reports, discharge summaries, pathology slides, and/or MD notes
Body Part	All body parts	Ask teams to list out which body parts they need information for (e.g., Orthopedics may only need information on the left hip)	Only relevant body parts (e.g., Spine, Knees, Hips, Heart, etc.)
Timeframe	Varies between All, Last 2 Years, Last 12 Months, and/or Most Recent	Ask teams to refine timeframes to only the most recent	Only the most recent unless otherwise specified by the patient or physician

When interviewing clinical teams, a common theme was the exorbitant number of pages of records and the amount of irrelevant information that was received when information was requested from other facilities. To combat these issues, the project team partnered with clinical staff to develop criteria for creating more specific outside medical records requests.

FIGURE 3: INTAKE PROCESS OPTIMIZATION



To streamline the patient intake process, the project team assessed best practices used by various groups across the enterprise. The processes that proved to be the most efficient and patient-centric were being tested by the Rochester General Internal Medicine Team. This process shifted the intake call to a comprehensive web form that was sent to the patient before they spoke with the scheduling team. Before this change was made, the scheduling team would cold call the patient and attempt to gather the patient's medical history. This often resulted in cumbersome calls for patients and staff.

DISCUSSION

LESSONS LEARNED

- Informational interviews garnered unfiltered feedback from staff on how to improve the outside medical records collection process.
- This project focused on specialties caring for specialty contract patients and served as a pilot group for larger enterprise improvement opportunities.
- Outside medical records collection challenges pose a lot of inefficiencies to offering timely care to patients.

NEXT STEPS

- Broader implementation of major projects and quick win pilots to continue reducing staff time spent collecting outside medical records with the following recommendations: streamlining intake, refining templates, and AI/ML expansion.
- Survey feedback to validate time reduction from operational improvements made and iterate on new ideas.

CONCLUSIONS

- In 2010, the National Academy of Medicine (NAM) estimated that the United States spends about twice as much as necessary on administrative costs (Gee & Spiro, 2019). The project team sought to reduce these costs and the adverse impact to the organization.
- The burden for patients to collect their medical records is often very cumbersome and can cause a lot of stress. Considering Mayo Clinic's Primary Value, the needs of the patient come first, the project team wanted to improve the patient experience and decrease the burden to collect their medical records before receiving care at Mayo.
- As the project team completed informational interviews across the enterprise, we learned that numerous stakeholder groups were already testing optimization opportunities for medical records collection.
- Because of the efforts already being launched by frontline care teams, the project team did not aim to reinvent the wheel, rather learn from the improvements they implemented. The project team set out to multiply their success across the enterprise.
- Throughout the project, OPSCC sought to improve employee satisfaction with the medical records collection process. The project team assumed that this would be a major change management effort but found that every frontline team supporting specialty contracts was looking for help to improve this process. The 100% readiness for change made a huge difference in implementing the improvements suggested.

REFERENCES

1. Gee, E., & Spiro, T. (2019, April 8). Excess Administrative Costs Burden the U.S. Health Care System. In Center for American Progress. Retrieved from <https://www.americanprogress.org/article/excess-administrative-costs-burden-u-s-health-care-system/>
2. "Why Aren't More Patients Electronically Accessing Their Medical Records (Yet)?", Health Affairs Blog, January 13, 2020. DOI: 10.1377/hblog20200108.82072