# An Interprofessional EHR Collaboration Optimizes Oncology Navigation Efficiency and Value

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**In Brief**

Identifying a lack of integrated tools to support oncology navigators, an interprofessional, multi-state collaborative team optimized navigation efficiency and value using the health system's electronic health record (EHR).

Since the development of the first patient navigation program in 1990, oncology navigation has evolved;[1] the Commission on Cancer (CoC) updated its standards in 2016[2] to include patient navigation as a means to address barriers to cancer care, with a more recent focus on supporting care coordination, the patient experience, and care value.[3] Navigators, including oncology registered nurses, social workers, and unlicensed (or lay) patient navigators, have nationally recognized competencies in:[4–6]

- Care coordination
- Communication
- Advocacy
- Psychosocial support
- Evidence-based practice
- Quality improvement
- Interdisciplinary and inter-organizational collaboration
- Assessment, education, and intervention
- Metrics and outcomes tracking and monitoring.

For nearly 20 years, the National Academy of Medicine (formerly the Institute of Medicine) has advocated for all healthcare professionals to work in interprofessional teams, apply quality improvement and evidence-based practice, provide patient-centered care, and utilize informatics to improve care outcomes.[7] Interprofessional collaboration among healthcare professionals and informaticists, who are skilled in leading the design, development, and application of data collection tools, creates synergy to improve care.[8]

## Materials and Methods

Recognizing a gap in oncology navigation tools within the EHR, an informaticist at Providence Health & Services—a large health system across seven states in the United States—submitted a project request in February 2020, followed by a system leader competitive vetting process in November 2020, resource allocation in January 2021, and a plan set for February 2021. This plan called for the formation of an interprofessional team to develop and implement an EHR suite of tools to support navigation efficiency, transparency, productivity, and care value.

In February and March 2021, identified stakeholders, including nurse navigators, social workers, leaders, and informaticists, collaborated virtually in discovery sessions and found significant variations in roles and processes when it came to oncology navigation, as well as a lack of formal navigation governance structures across Providence Health & Services. Stakeholders voiced consistent challenges (Table 1, page 34), including:

- Documentation inefficiency and duplication within and outside the EHR
- Gaps in identifying newly diagnosed patients
- Inefficiency in tracking patients for follow-up needs
- Inefficiency in locating oncology-related staging information.

To help prioritize interventions and resource allocation to optimize care coordination, patient and staff satisfaction, and health outcomes, the interprofessional team identified a need for data visualization in the form of a one-stop-shop dashboard. Team

| Table 1. Identified Navigation Needs within the EHR |
|---|
| **DOCUMENTATION** |
| Discrete navigation-related fields |
| Patient-based workspace for health overview, results, and documentation |
| Navigation-related documentation and assessments for accreditation capture |
| **PATIENT IDENTIFICATION** |
| Newly diagnosed |
| Newly referred |
| **PATIENT TRACKING** |
| Next outreach/tasks |
| Disease-specific navigation |
| Acuity-guided navigation |
| Urgency-guided navigation |
| **ORGANIZATION OF NAVIGATION WORK** |
| Dashboard to aggregate patients and plan daily work |
| Communication and coverage by navigation teams |
| Consistent care team-based workflow |

EHR = electronic health record

members believed this dashboard could be developed using a suite of tools available in the EHR. This process improvement effort would not only transform navigation efficiency, but it would also support CoC accreditation efforts and (potentially) improve care outcomes.

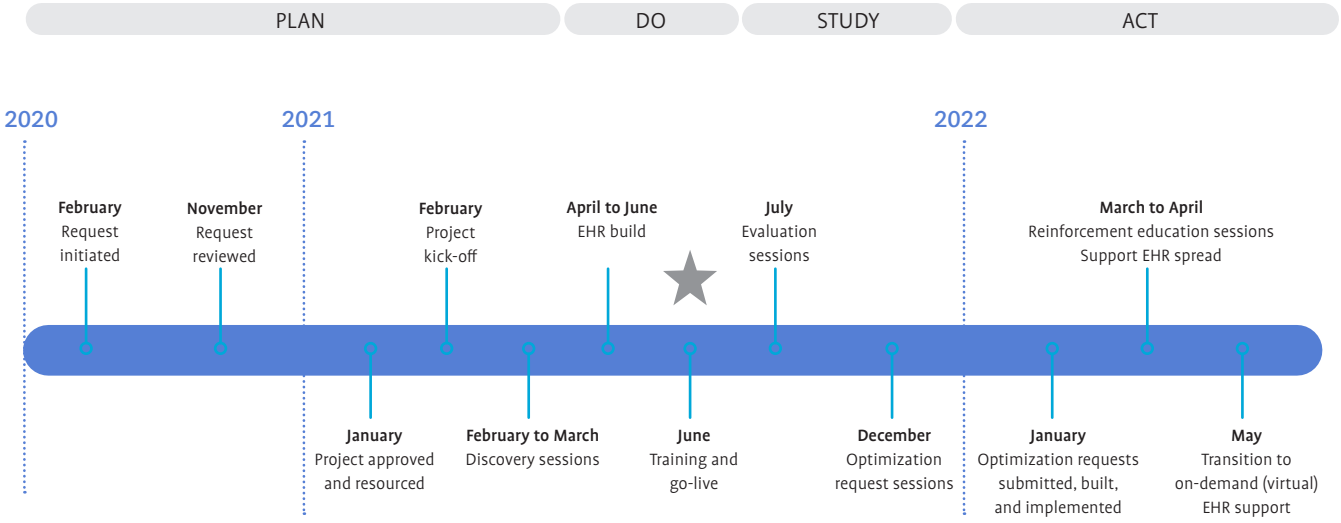
Accordingly, in April through June 2021, analysts facilitated a system-wide build across key EHR applications. This build was followed by virtual collaborative learning sessions to educate stakeholders about the new EHR tools, provide handouts, and encourage independent practice in a virtual learning environment. Super-users and informaticists supported the implementation of these new EHR tools.

In July 2021, the interprofessional team reviewed feedback and evaluations from these virtual sessions, leading to a number of improvements. Ad-hoc governance sessions held in early December 2021 shaped further optimization changes. In March 2022, the interprofessional team held focused, virtual reinforcement teaching sessions, followed by a report-focused virtual teaching session in April 2022 to support user confidence and enhanced use of these tools. In May 2022, the interprofessional team transitioned user support to a virtual, on-demand clinical informatics team for sustainability. Figure 1, below, outlines the timeline of this process improvement effort.

## Results

Based on the plan-do-study-act quality improvement model, this interprofessional approach to developing and implementing a new suite of EHR tools to support oncology navigation was successful in several areas. Nearly 60 percent of the health system's navigators are now using the tools, representing 6 states of 7 total

Figure 1. Project Timeline




EHR = electronic health record

states covered by the health system, and identifying approximately 900 patients monthly for navigation services. Navigators using these tools report greater efficiency in key areas (Table 2, below), including:

- Identifying and tracking patients
- Documenting provided care, acuity, and education in discrete data fields
- Responding to high distress screening scores
- Measuring allocation of navigation time and resources by disease type
- Communicating with patients electronically.

The enhanced EHR optimizes the interprofessional care team's ability to locate navigation documentation, communicate electronically, and refer to navigation services, therefore, supporting care coordination and value. Navigators also report less use of non-EHR calendars and spreadsheets for patient and data tracking, reducing inefficiencies and the risk of privacy breaches.

Dashboard and report capabilities with task lists, patient-specific oncology overview indices, productivity, and more (Table 3, below) support efficiency and transparency in metrics to direct navigation resources to best serve patients in optimizing care outcomes. There is additional navigator interest in learning how to better use these reports. One unanticipated benefit of the interprofessional project is the desire for regular and strengthened collaboration among regional teams of navigators, as well as between system informaticists and navigators.

## Discussion

Interprofessional collaboration and subsequent EHR transformation have positively improved teamwork within the Providence Health & Services health system; increased the efficiency of navigation services; and enhanced data analytic functionality to prioritize services and improve patient outcomes and care value. Other lessons learned include:

- Additional outreach and training are needed at locations where navigators are not yet using the tools.
- While data analytic and reporting functions are available, they are under-utilized, which is reflective of navigators' want for additional knowledge and training on how to best use these reports.

**Table 2. New Navigation Documentation Features**

| |
|---|
| Assigned navigator |
| Disease type |
| Treatment stage |
| Referral source |
| Date(s) of care (e.g., oncology consult, chemotherapy start) |
| Date(s) of tumor board presentation |
| Patient messaging |
| Barriers identified and resources offered |
| Referrals made for services |
| Education provided |
| Acuity |
| Time spent navigating |
| Visit type (telephone, in-person, location of services) |
| Care team identification |

**Table 3. Sample EHR Dashboard, Reports, and Data Analytic Features**

| |
|---|
| Assigned task list reminders by due date |
| Active navigation patients by navigator(s) or department |
| Incomplete task list reminders for more than one navigator |
| Navigation enrollment and disenrollment |
| Productivity |
| Distress screening and barriers |
| Recent and upcoming oncology new patient visits |
| Recent admissions, discharges, and demises |
| Recent emergency department visits |
| Upcoming/recent appointments |
| Timeline-to-treatment initiation |
| Patient-specific oncology overview index |

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- Additional promotion, training, and ongoing development of EHR features are needed to support more robust uptake of the tools and should help with CoC reporting requirements, as well as capturing navigator-influenced patient and return-on-investment outcome metrics, such as no-show rates, diagnostic workup, time-to-treatment efficiency, referrals for cancer prevention, emergency department utilization, and patient retention within the health system.
- Value-based care payment models, like the Enhancing Oncology Model that is going into effect on July 1, 2023,[9] require patient navigation services, and an optimized EHR can be instrumental in understanding a cancer program or practice's weaknesses, reducing emergency department visits and hospital admissions, identifying and addressing health-related social needs, leaning into health equity, and improving patient care.

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## Disclosure

The authors report there are no competing interests to declare.

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