



Digital Transformation Initiative

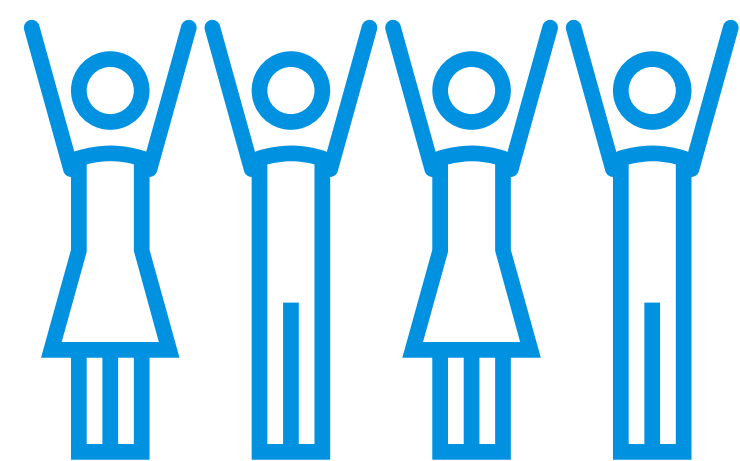
Stephanie Shapiro, MD
Chief, Medical Informatics &
Population Health

Sheri Giangregorio
Manager, Technology Relationship Management

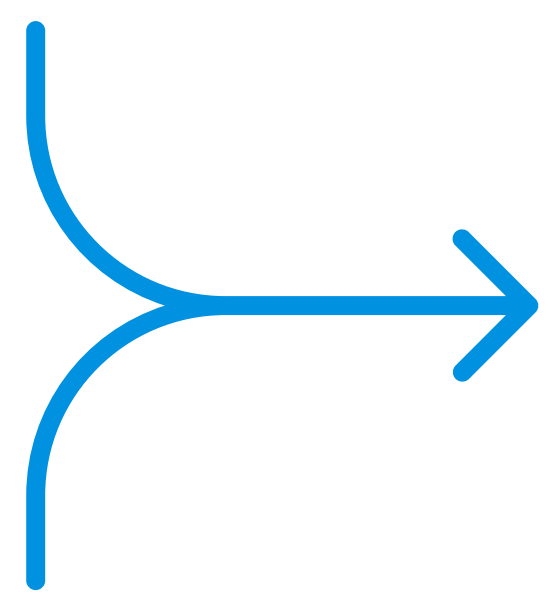
Why is digital transformation central to MIT Health's mission?



Improved Health Outcomes



Patient Empowerment



Streamlined Workflows

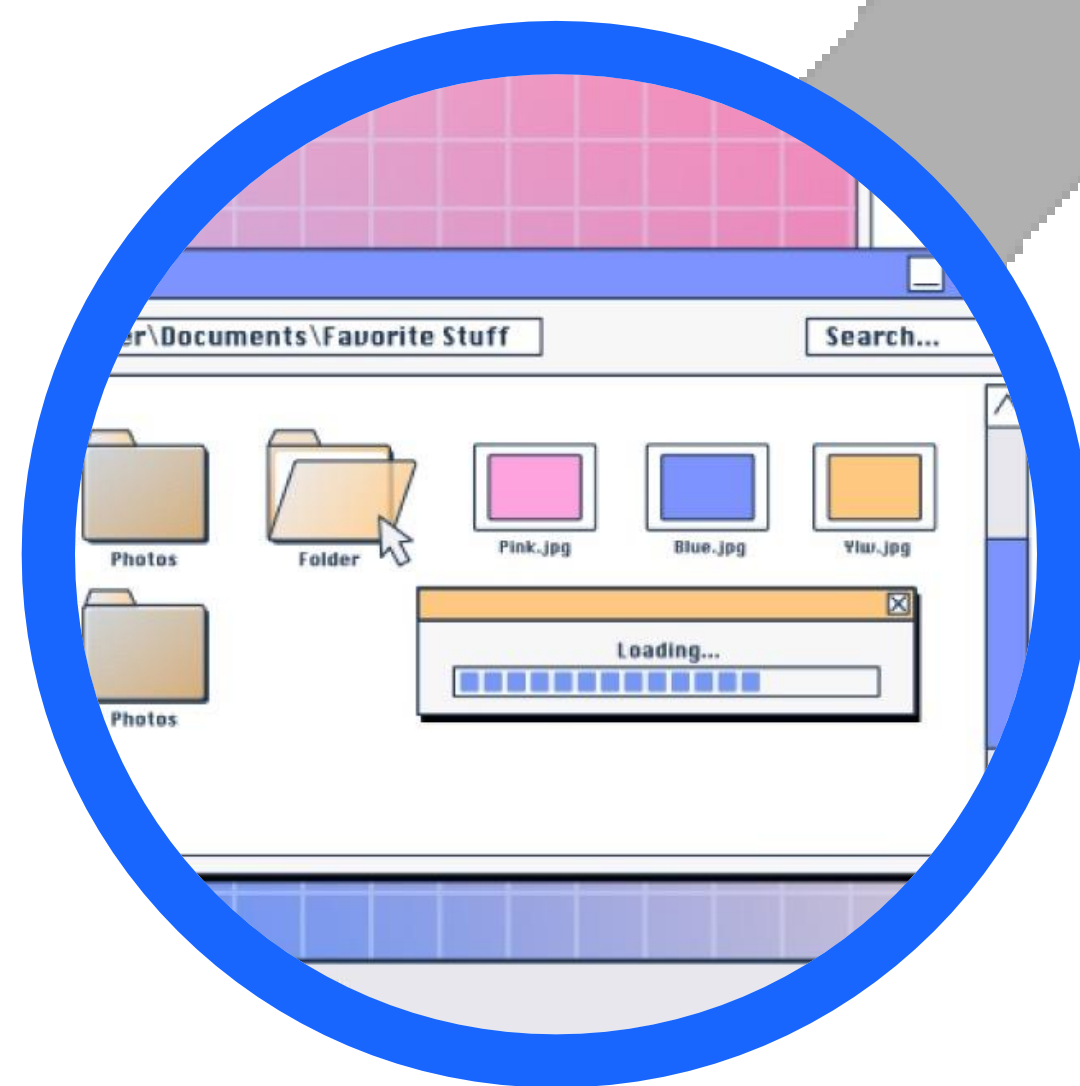
MIT Health's digital journey

December 2022

MIT Health begins using Robotic Process Automation (RPA) processes for data-input, improving accuracy and consistency.

October 2024

We begin using natural language models for information retrieval, documentation creation, and the autonomous triggering of workflows.



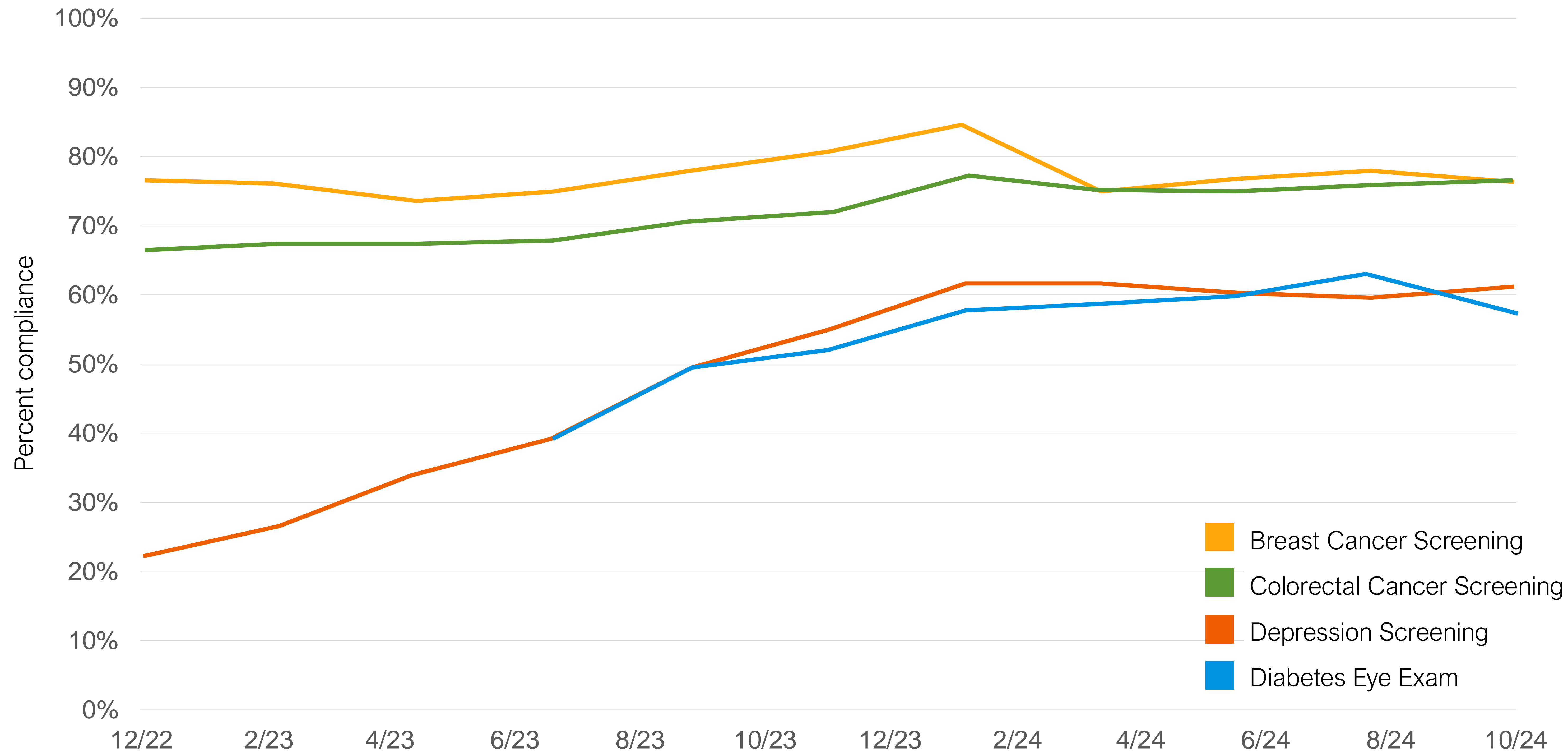
1999

We begin to migrate from paper to an electronic health record. Countless hours are spent getting correct information into correct discrete fields.



Improved health outcomes

Direct patient outreach to address care gaps in routine health screenings



Improved health outcomes

EXAMPLE: Identification of Patient at high risk of colon cancer

We **reach out directly to patients** to offer colorectal cancer screening for patients who are overdue for routine screening or have never been screened.

Approximately 65 percent of the patients contacted were thought to be of “routine risk.” Of that group, we found that 29 percent were actually at increased risk of colon cancer and had otherwise not been identified.

To date we have identified and added 89 new patients to the high-risk registry through direct patient contact.

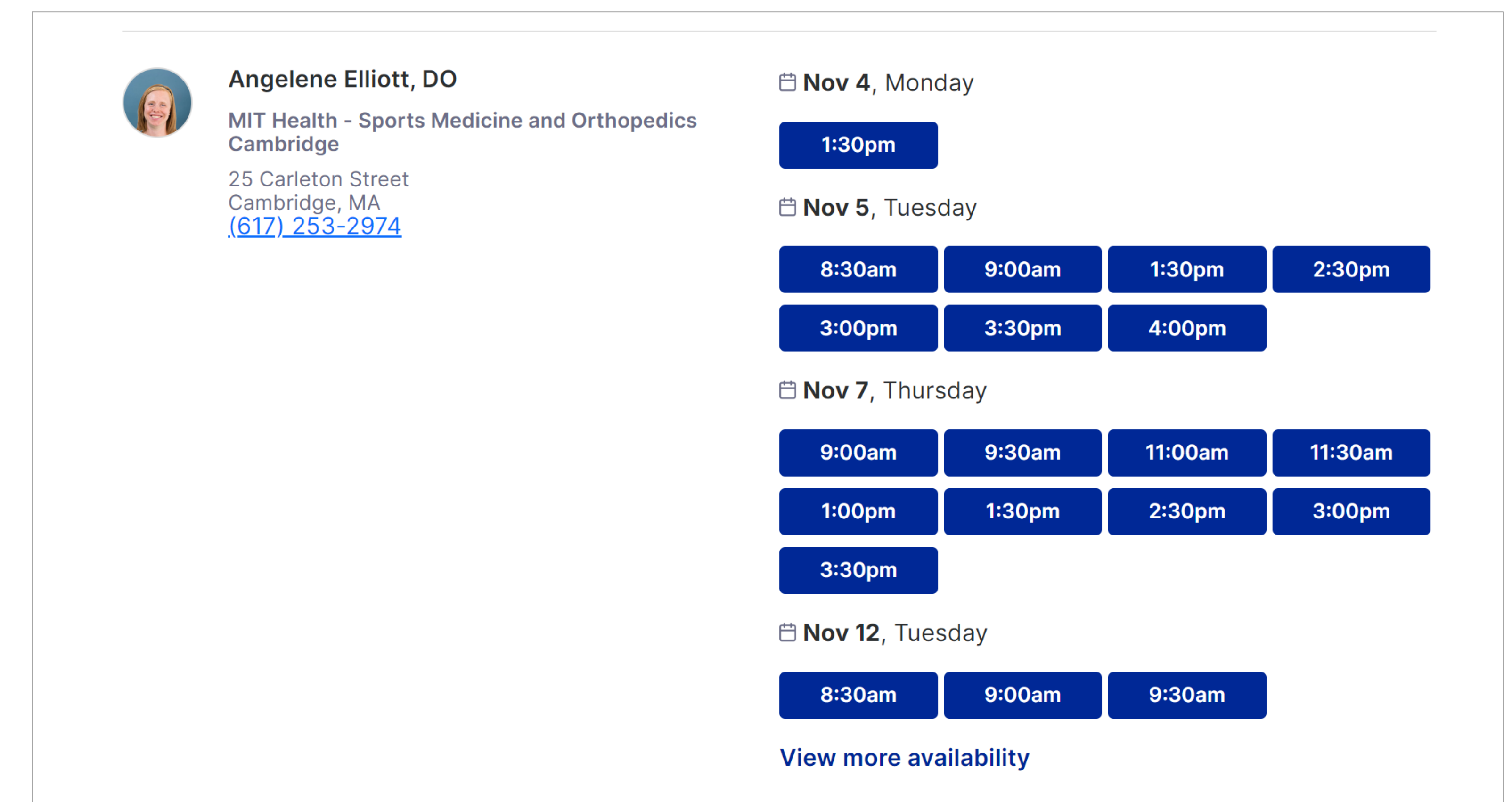
Patient Empowerment

New digital workflows gives us tools to enhance patients' voice and agency

Patient identity: We offer all individuals the option to identify their chosen name and gender pronouns.

Direct access to your health: Patients can directly book health screening exams including colon cancer screening, mammograms, and diabetic eyes exams.

Direct Scheduling: Patients can see all available appointments for every clinician and can quickly select the time and doctor that is best for them.



The screenshot shows a digital scheduling interface for a clinician named Angelene Elliott, DO. On the left, there is a profile card with a circular profile picture, the name "Angelene Elliott, DO", and the text "MIT Health - Sports Medicine and Orthopedics Cambridge", "25 Carleton Street Cambridge, MA", and a phone number "(617) 253-2974". To the right, the interface displays a calendar view with appointment slots for several dates: Nov 4 (Monday) with a 1:30pm slot; Nov 5 (Tuesday) with slots at 8:30am, 9:00am, 1:30pm, 2:30pm, 3:00pm, 3:30pm, and 4:00pm; Nov 7 (Thursday) with slots at 9:00am, 9:30am, 11:00am, 11:30am, 1:00pm, 1:30pm, 2:30pm, 3:00pm, and 3:30pm; and Nov 12 (Tuesday) with slots at 8:30am, 9:00am, and 9:30am. At the bottom right, there is a link that says "View more availability".

Patient Empowerment

Ambient dictation allows for more direct provider-patient interaction, minimizing typing during appointments and amplifying the voice of the patient

Ambient dictation records the conversation during a medical appointment and, in real time, turns that audio file into complete documentation of the clinical encounter.

No computer interaction is necessary during the visit.

Notes are written in patient-friendly language complete with clear care instructions for going forward. All documentation is available to patients on the patient portal.

By directly translating what patients say in their appointments, ambient dictation works to remove unconscious biases often present in clinical documentation.



Streamlining Operational Workflows

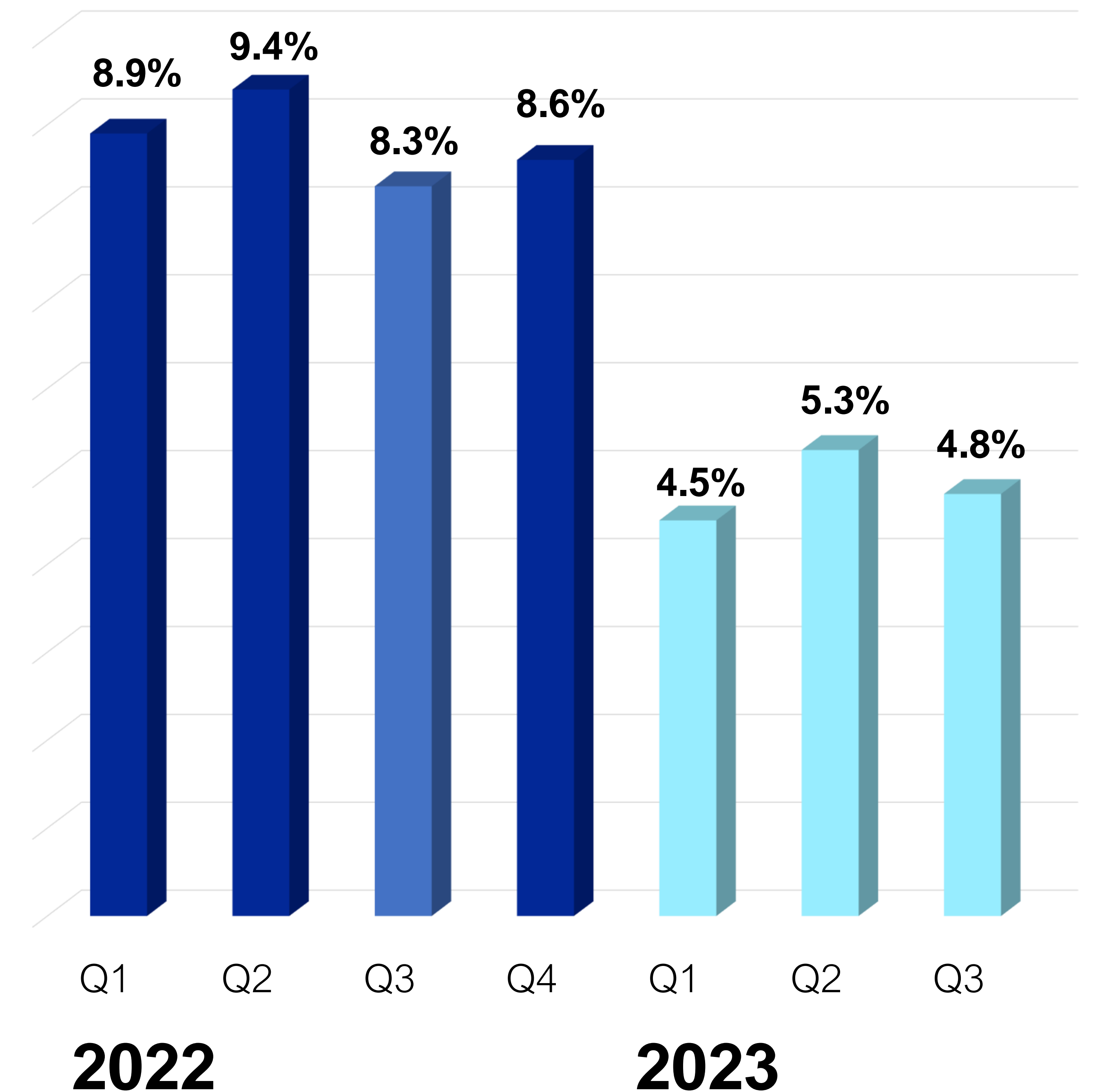
Better information, fewer errors, no paper...

By collecting required patient data prior to arrival, **check-in times are reduced by more than 75 percent.**

Digital check-in also allows for:

- Easy updates to demographics and insurance information
- Copayment collection

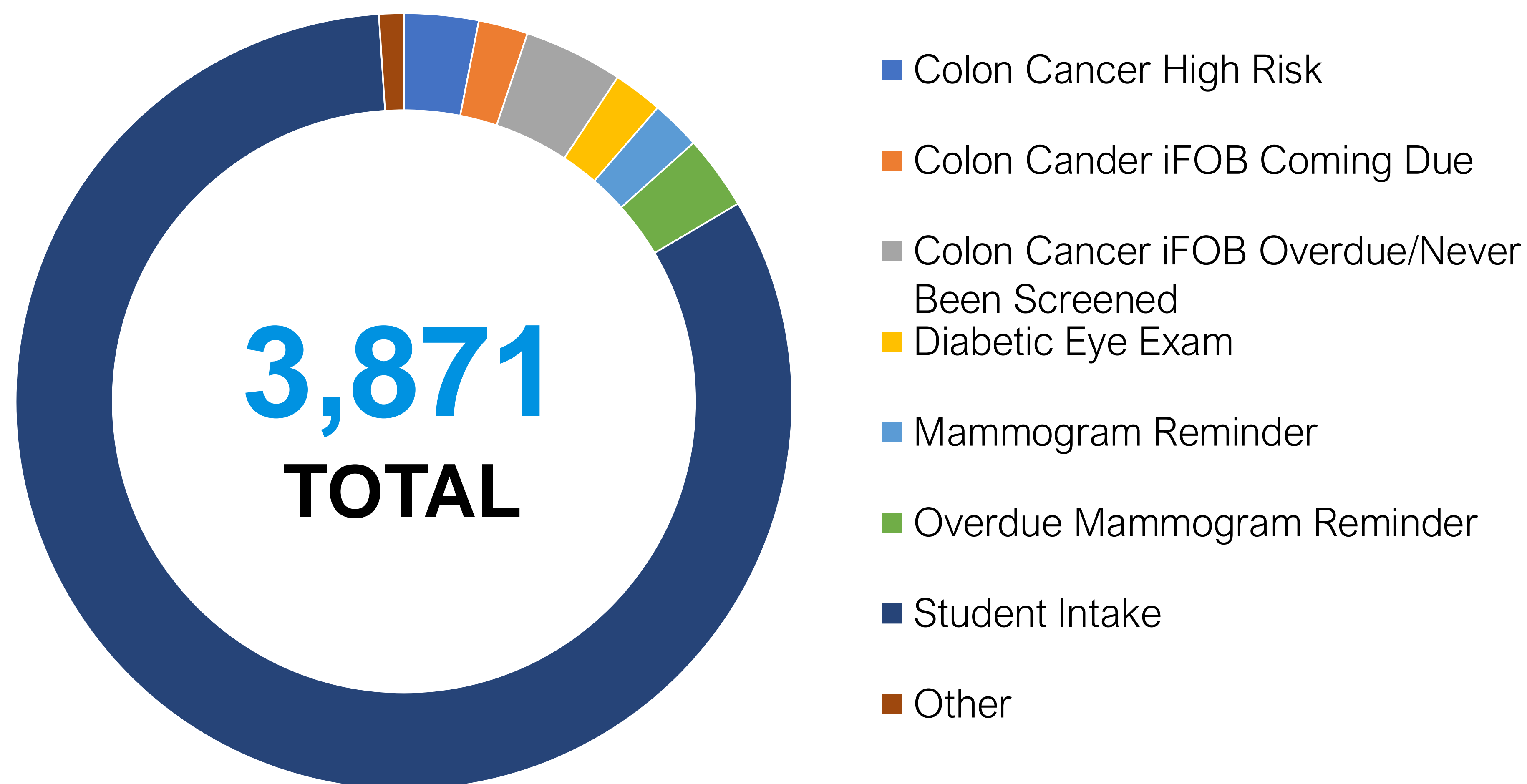
Digital appointment confirmation/cancellation produced an immediate **40+ percent drop in our “no-show rate, resulting in doubling our next day/same day access.**



Streamlined Workflows: Clinical

Direct patient outreach with RPA processing: Better information, fewer errors, no paper...

Care Gap Outreaches to Date



To date, we have converted some 40 workflows from paper to digital experiences.

Each digital experience means that the data is automatically entered into discrete data fields within the electronic medical record or directly into the clinician's note. This removes a source for potential data-entry transcription errors.

What do patients think?

97%

**patient satisfaction
across 100,000+ transactions**



“ Every time I use this process, I admire it for its simplicity and straightforwardness. A lot of things in this world claim to be user-friendly or intuitive, but this process actually is. Nicely done.

”

— Patient Verbatim



“ Sending screening forms before appointments has been helpful in that we definitely receive more completed questionnaires than we previously did. Having parents take the time to fill them out at home helps and it's great that the results go directly into the chart. It is especially helpful for abnormal results, since I have time to review the information ahead of time.

”

— Pediatrician Rosemarie Roqué Gordon, MD





Thank you!

