Do EHRs Help or Hinder Coordination: Examining Facilitators and Barriers of the EHR to CRC Screening Process

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BACKGROUND

- Colorectal cancer (CRC) is the second leading cause of cancer-related deaths in the United States.[1]
- Health Information Technology (HIT) plays a key role in coordinating patient care and improving preventive screening outcomes.
- Colorectal cancer screening (CRCS) offers a strong context to examine HIT in practice due to its multi-step process and reliance on effective coordination between providers, MAs, navigators, and patients.
- CRCS screening rates are lower within Federally Qualified Health Centers (FQHCs), which are community-based clinics federally funded to provide primary care in underserved areas regardless of patients' ability to pay[4].
- Although electronic health records (EHR) and patient portals like MyChart can streamline workflows and improve patient engagement, challenges remain in leveraging these tools effectively.
- **Study Objective:** To explore how EHR systems support or hinder coordination, communication, and workflow during the CRCS process FQHCs.

METHODS

Sites

- Seven academically affiliated FQHCs in the Midwest region.

Approach

- Interviews with clinicians (medical providers) who manage CRCS and patients who got CRC screening (aged 45 -75) within the past year.
- Protocol was approved by IRB of UIC and UI Cancer Center.

Data collection

- 25 semi-structured interviews were conducted with 9 providers and 16 patients
- Patients: identified in EPIC; recruited via mail, email, and phone calls.
- Clinicians: recruited via listserv email and clinic presentation.
- All participants received incentives after participating in the interview. Interviews were conducted via Zoom with auto-transcription.

Data Analysis

- Interview data: Data coded using mixed inductive-deductive approach, informed by Heuristic of Teamwork Framework[2] in Atlas.ti.[3] Each transcript was coded independently by two trained coders with all discrepancies resolved by two coders; we reviewed codes to identify emergent themes.

REFERENCES

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RESULTS

Facilitators:

Epic Chat

- Clinicians found the Epic Chat feature useful for real-time communication.
- *"I would say with Epic, and being able to have the chat feature, so that even if the navigator isn't here, I can send a message, and the navigator can always respond."* (Provider)

Alerts

- Health maintenance alerts helped remind clinicians of due screenings.
- *"Epic is nice, too, because I have a feature in my note that lets me know what health maintenance the patient is due for."* (Provider)

Pending Orders in Epic

- Streamlined the CRC screening process by allowing orders to be pended before provider review.
- *" If it seems that someone is potentially eligible for stool-based testing, they will let that patient know that they will pend orders on the visit, so that when providers show up and see the patient within the EMR, there's already a pended stool test."* (Provider)

MyChart

- Enabled patients to access results and communicate with providers.
- *"They always tell me that I can have, you know, any results on MyChart."* (Patient)

Barriers:

Digital Health Literacy

- Patients with limited digital skills struggled to use MyChart effectively.
- *"When I went to my next appointment, I asked the doctor about the results."* (Patient)

Lack of Customization

- Clinicians expressed concerns that the system is not always customized to account for individual factors, such as patient's personal or family history.
- *"That might be variable by physicians, how they are set, how their notes and things are set up, that where they have reminders that this patient is due for colorectal cancer screening."* (Provider)

Interoperability

- Limited access to records across different systems
- *"A lot of the patients have had a colonoscopy, and she just wasn't aware of it or couldn't access it in the chart, because it's in a different system that doesn't use EPIC."* (Provider)

Use After-Visit Summary

- Sometimes overlooked by medical assistants, leading to missed screenings.
- "*I would really like it if the MAs would read what's in the AVS and actually give people the FIT test.*" (Provider)

DISCUSSION & CONCLUSION

Health IT supports colorectal cancer screening (CRCS) before, during, and after appointments by improving communication, coordination, and patient follow-up. However, not all tools align with how clinical teams and patients actually work. Some tools, such as MyChart, are helpful for certain patients but less effective for those who prefer in-person communication, and after-visit summaries are often underused when staff rely mainly on verbal communication. These mismatches can lead to missed screenings. Improving customization of health maintenance alerts, enhancing interoperability, and better aligning EHR functions with real-world workflows could help maximize the value of these systems in Federally Qualified Health Centers.

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