CRC Screening: Findings from the CRCCP Economic Assessment of Patient Navigation to Improve Colonoscopy Completion



Purpose

In 2015, the Centers for Disease Control and Prevention (CDC) funded the Colorectal Cancer Control Program (CRCCP) to increase colorectal cancer (CRC) screening uptake. The University of Chicago Medical Center (UCMC) received CRCCP funds to implement an onsite non-nurse facilitated patient navigation program in August 2016.

Study Questions

- 1. Was there an increase in screening colonoscopy completion?
 - Was there a **decrease** in patients who make colonoscopy appointments but do not attend or cancel appointments ("no-shows")?
 - 3. Could the non-nurse patient navigation intervention be implemented at a reasonable cost?

Intervention

UCMC implemented a non-nurse patient navigation program at its medical center on the Southside of Chicago. The majority of patients who received patient navigation were either female, African American, or insured privately or through Medicare. The patient navigator was responsible for contacting patients to introduce them to the patient navigation process, provide basic colorectal cancer screening facts, describe bowel preparation procedures, and provide support for any barriers identified.

Results

10.8 Screening percentage point increase

colonoscopy completion

7.2 **Proportion** percentage of no-shows point decrease

Screening colonoscopy completion was 85.1% among patients selected to receive patient navigation compared to 73.4% when no navigation was implemented.

Performing a scenario analysis, assuming 0 to 50% no-show rates and using the 85% colonoscopy completion rate for patients who received patient navigation, the total incremental program cost per patient who successfully received patient navigation through screening completion ranged from \$148 to \$359, while the incremental intervention-only implementation cost ranged from \$88 to \$215.

Key Takeaways

Non-nurse patient navigation can increase colonoscopy completion and reduce no-shows.

Improved colonoscopy completion was achieved at a **minimal** incremental cost for an insured population at an urban academic medical center.

Effectiveness of the Patient Navigation Intervention

Measure	Navigation ¹		Notes:
	No	Yes	¹ The cohort of patients who did not receive navigation underwent colonoscopies from January to December 2016. Patients who received patient navigation underwent colonoscopies between August 2016 and April 2017. *Significant difference at P < .05
Number of patients	2,713	536	
Completed colonoscopy	1,990	456	
Completion rate	73.4%	85.1%*	
No show rate	15.4%	8.2%*	



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Kim K, Randal F, Johnson M, Quinn M, Maene C, Hoover S, Richmond-Reese V, Tangka F, Joseph D, Subramanian S. Economic assessment of patient navigation to colonoscopy-based colorectal cancer screening in the real-world setting at the University of Chicago Medical Center. Cancer. 2018;124(21):4137-4144. https://doi.org/10.1002/cncr.31690