Significantly Longer Delays to Colonoscopy in Underinsured Patients on Gastroenterology (GI) Trainees' Panel Following the Novel Coronavirus Disease (COVID-19) Pandemic

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Study Highlights

WHAT IS KNOWN

- The COVID 19 pandemic has disrupted endoscopy services.

WHAT IS NEW HERE

- Outpatient colonoscopy wait times increased dramatically for underinsured patients since the onset of the COVID 19 pandemic.
- Reducing diagnostic colonoscopy wait times for underinsured patients will require targeting resources and may result in increased delays in screening/surveillance colonoscopies.

Abstract

- We hypothesized that the COVID-19 pandemic increased colonoscopy wait times for underinsured patients (uninsured, Medicaid, and Emergency Medicaid).
- We conducted a retrospective study of colonoscopies performed on underinsured patients between 2019-2021. We measured the time interval between the clinic and colonoscopy appointments.
- Colonoscopy wait times for underinsured patients increased significantly in 2021 compared to the years prior, for both screening and diagnostic indications.
- We plan to hire a patient navigator and expand endoscopy slots for underinsured patients to shorten their colonoscopy wait times to a comparable level in insured patients at our institution.

Introduction

- Underinsured patients have limited access to colonoscopy, which leads to delayed diagnosis and higher incidence of conditions such as colorectal cancer.
- Many academic centers in the U.S. schedule underinsured patients on GI trainees' panel under faculty supervision, with fewer available slots and longer wait times for procedures.
- At our institution, suspension of procedures and deployment of GI trainees during the COVID-19 pandemic resulted in cancellation of 40% of colonoscopies on GI trainees' panel.
- The aim of this study was to assess the status of colonoscopy wait times in underinsured patients following the pandemic to identify specific processes to improve and develop targeted interventions.

Methods and Materials

- This study was determined to be Quality Improvement (QI) by Stony Brook Medicine's Division of Medical and Regulatory Affairs.
- Using a standard **FOCUS-PDCA** framework, we identified colonoscopy wait times as an active issue and organized a group of GI faculty, trainees, and students to clarify, understand, and select a specific process to improve and develop targeted interventions.
- We conducted a retrospective chart review of 273 adult outpatient colonoscopies performed on underinsured patients on GI trainees' panel at a large academic hospital in Stony Brook, New York from January 1, 2019 to December 31, 2021.
- We recorded patient demographics, indication for colonoscopy, and the time interval between the initial GI clinic appointment and the colonoscopy appointment.
- Each colonoscopy was classified as a screening, surveillance, or diagnostic procedure based on history of colonic adenoma or neoplasia and presence of any pertinent symptoms.
- Kruskal-Wallis one-way analyses of variance were conducted to identify differences in wait times across the years.

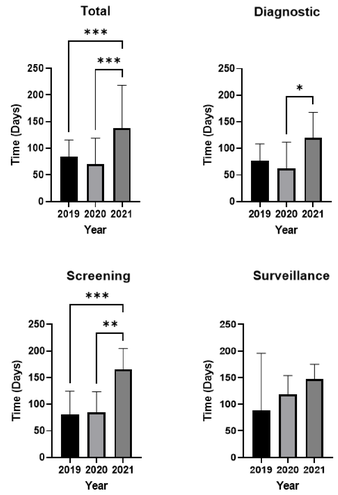
Table 1. GI Trainees' panel encounter demographics 2019-2021.

	2019 (N = 102)	2020 (N = 67)	2021 (N = 104)	2019-2021 (N = 273)
Median Age ± IQR (years)	54 ± 14	56 ± 19	51 ± 17	52 ± 16
Sex (%)				
Male	43 (42%)	40 (60%)	40 (38%)	123 (45%)
Female	59 (58%)	27 (40%)	64 (62%)	150 (55%)
Race/Ethnicity (%)				
White/Caucasian (Not Hispanic or Latino)	30 (29%)	20 (30%)	14 (13%)	64 (23%)
Hispanic or Latino	55 (54%)	33 (49%)	70 (68%)	158 (58%)
Black/African American	12 (12%)	10 (15%)	14 (13%)	36 (13%)
Asian	5 (5%)	4 (6%)	6 (6%)	15 (6%)
Language preference (%)				
English	66 (65%)	32 (48%)	47 (45%)	145 (53%)
Spanish	33 (32%)	27 (40%)	49 (47%)	109 (40%)
Other	3 (3%)	8 (12%)	8 (8%)	19 (7%)
Colonoscopy Indication (%)				
Screening	24 (23%)	14 (21%)	39 (38%)	77 (28%)
Surveillance	8 (8%)	7 (10%)	5 (5%)	20 (7%)
Diagnostic	70 (69%)	46 (69%)	60 (57%)	176 (65%)

Results

- A total of 102, 67, and 104 colonoscopies were performed on underinsured patients on GI trainees' panel in years 2019, 2020, and 2021, respectively.
- 77% of the underinsured patients self-identified as non-White ethnicities and nearly half of the patients preferred languages other than English (Table 1).
- The **overall median wait time** between the initial GI clinic visit and colonoscopy increased significantly from 84 days in 2019 and 70 days in 2020 to **147 days in 2021** ($p < 0.001$, Figure 1).
- The median wait time for **screening colonoscopy** increased significantly from 80.5 days in 2019 to **165.5 days in 2021** ($p < 0.001$, Figure 1).
- The median wait time for **diagnostic colonoscopy** increased significantly from 63.5 days in 2020 to **120 days in 2021** ($p < 0.01$, Figure 1).

Figure 1. Median wait time in days (± IQR) from the initial GI clinic visit to colonoscopy.



Discussion

- We noticed that the total number of endoscopic procedures performed on the underinsured panel was less than the potential slots allotted to this panel over the study period, likely related to frequent cancellations or no-shows.
- As a result, we have recently secured funding to hire a bilingual patient navigator to reduce cancellations and improve utility of our endoscopy resources1.
- The GI trainees have also been encouraged to shift diagnostic colonoscopies to insured panels on an ad-hoc basis, while plans to expand underinsured endoscopy slots are being made.
- Given that we do not anticipate immediate expansion of our workforce, reducing diagnostic colonoscopy wait times will likely result in increased wait times for screening/surveillance exams.
- Non-invasive tests can help with risk stratification and prioritization to reduce colonoscopy wait times.
- While our findings are limited to a single institution, the type of data we collected is not readily available on any public database, and reports of colonoscopy wait times in the U.S. are scarce[1].
- Excess mortality owing to delayed diagnoses is predicted to rise in the post-pandemic era and will disproportionately affect people from low socioeconomic status and ethnic minorities[2-4].
- We are assessing colonoscopy wait times in insured patients to develop a measurable, specific metric and a target goal for our interventions to be utilized for PDCA cycles.

Conclusions

- Underinsured patients experienced significantly longer wait times for both screening and diagnostic colonoscopies following the COVID-19 pandemic.
- Our findings allowed us to identify colonoscopy wait times in underinsured patients as a specific process to improve in our system.
- We plan to hire a bilingual patient navigator and expand endoscopy slots for underinsured patients seen on GI trainees' panel to reduce health disparities in this vulnerable population.

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