

# The Impact of COVID-19 on Access to Colonoscopy in Eastern Health

## Objective

To determine the extent of reduction in the number of colonoscopies performed and the efficiency with which colonoscopies were performed when referred during COVID-19 at Eastern Health (EH).

## Practice Points

- Optimal times for colonoscopy is based on priority:

Urgency	Population	Acceptable Time Frame
Priority 1 Urgent	Conditions for which the procedure facilitates diagnosis and/or directs health management, and must be done quickly to prevent adverse patient outcomes.	0–14 Days
Priority 2 Non Urgent	Conditions for which the diagnostic procedure supports patient health care planning and appointment scheduling does not usually adversely affect patient outcomes.	0–60 Days
Priority 3 Baseline Screening	Asymptomatic patients for whom the procedure is required based on average risk.	0–182 Days

- COVID-19 induced a reduction in hospital services starting 16 Mar 2020.

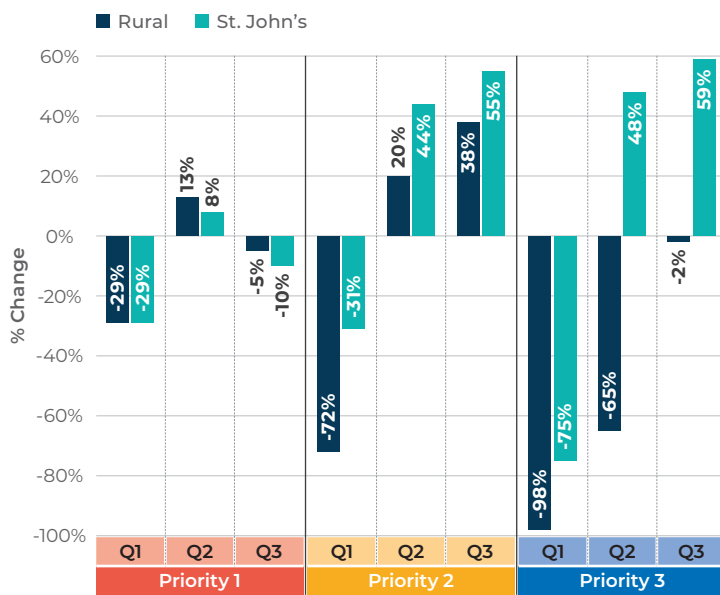
## Methods

- Data were obtained from Community Wide Scheduler for five hospitals in EH: Burin, Carbonear, GB Cross, Health Sciences Centre (HSC) and St. Clare's Mercy (SCM).
- Referral rates and wait time evaluation for Q1, Q2 and Q3 of Apr – Dec 2020–2021 (during COVID-19) was compared to Q4 of Jan – Mar 2019–2020 (pre-COVID-19).

			Region		
			Rural <sup>1</sup>	St. John's <sup>2</sup>	Eastern
Number of Colonoscopies Performed in 2020	Priority 1	Q4 <sup>3</sup>	191	162	353
		Q1 <sup>4</sup>	135	115	250
		Q2 <sup>5</sup>	215	175	390
		Q3 <sup>6</sup>	182	145	327
	Priority 2	Q4 <sup>3</sup>	365	618	983
		Q1 <sup>4</sup>	101	425	526
		Q2 <sup>5</sup>	437	889	1,326
		Q3 <sup>6</sup>	504	957	1,461
	Priority 3	Q4 <sup>3</sup>	95	65	160
		Q1 <sup>4</sup>	2	16	18
		Q2 <sup>5</sup>	33	96	129
		Q3 <sup>6</sup>	93	103	196

<sup>1</sup>Burin, Carbonear & GB Cross; <sup>2</sup>HSC & SCM; <sup>3</sup>January-March; <sup>4</sup>April-June; <sup>5</sup>July-September; <sup>6</sup>October-December

- In the rural hospitals, the overall reduction/quarter (average over the three quarters) during COVID-19 for priority 1 was 7.1% when compared to number pre-COVID-19, for priority 2 there was an overall reduction/quarter (4.8%), and for priority 3 the overall reduction per quarter was 55.1%.
- Comparable changes in the St. John's hospitals were: for priority 1 an overall reduction/quarter of 10.5%, for priority 2 an increase of 22.5%, and for priority 3 an increase of 10.3%.



**Figure 1. Per Cent Reduction in Colonoscopies Done During the First Three Quarters of the Pandemic by Region and by Priority**

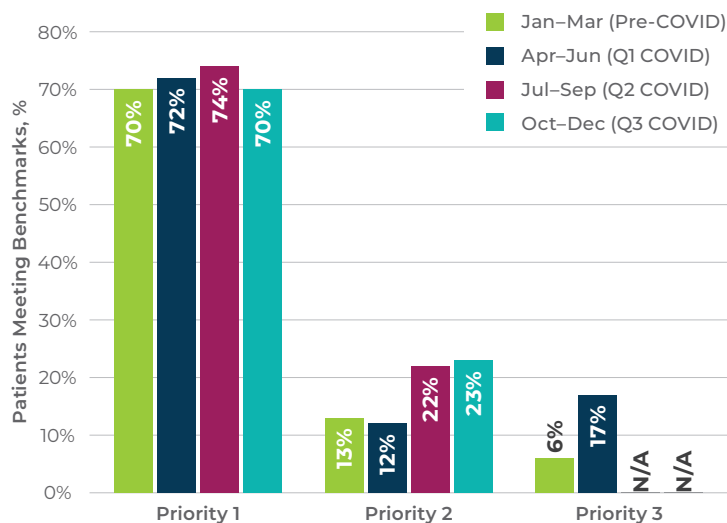
- In the first quarter of COVID-19, the reduction in colonoscopies for priority 1 patients was 29% in both regions, but there were far larger reductions for priority 2 and 3 patients.
- In the second and third quarters, catch-up in numbers done for priority 2 occurred in both regions.
- For priority 3 patients, catch-up did not occur in the rural region but did in St. John's.

**Table 1. Summary of Colonoscopy Referrals in 2020 by Priority, Quarter and Region**

			Region		
			Rural <sup>1</sup>	St. John's <sup>2</sup>	Eastern
Number of Referrals	Priority 1	Q4 <sup>3</sup>	190	143	333
		Q1 <sup>4</sup>	130	93	223
		Q2 <sup>5</sup>	193	156	349
	Priority 2	Q3 <sup>6</sup>	168	125	293
		Q4 <sup>3</sup>	466	703	1,169
		Q1 <sup>4</sup>	169	248	417
		Q2 <sup>5</sup>	420	914	1,334
	Priority 3	Q3 <sup>6</sup>	570	922	1,492
		Q4 <sup>3</sup>	76	84	160
		Q1 <sup>4</sup>	18	14	32
		Q2 <sup>5</sup>	64	115	179
		Q3 <sup>6</sup>	74	108	182

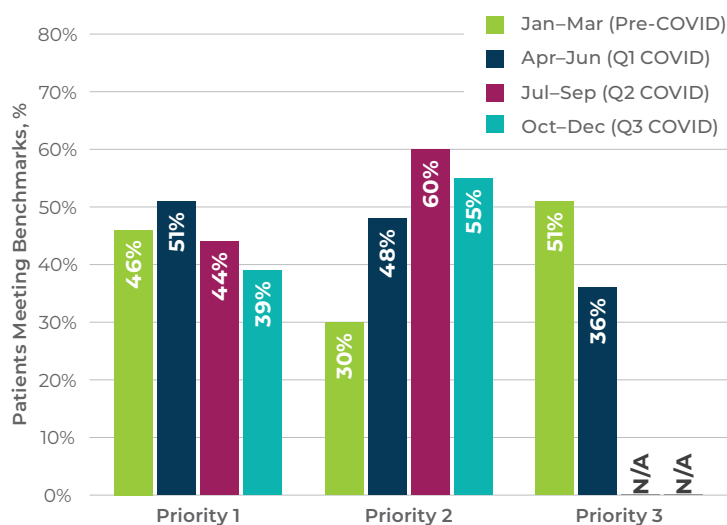
<sup>1</sup>Burin, Carbonear & GB Cross; <sup>2</sup>HSC & SCM; <sup>3</sup>January–March; <sup>4</sup>April–June; <sup>5</sup>July–September; <sup>6</sup>October–December

- The number of priority 1–3 referrals pre-COVID-19 was greater than the number actually performed.
- The number referred/quarter for priority 1 patients on average (for the three quarters of COVID-19) was 13.9% less than in the pre-COVID-19 era in the rural region and 12.8% in St. John's.
- For priority 2 patients, the number referred/quarter was 17.0% less in the rural region and little change was seen in St. John's (-1.2%).
- For priority 3 patients, the changes were on average 31.6% fewer/quarter in the rural region and 6.0% fewer in St. John's.



**Figure 2. Percentage of Patients Meeting Benchmarks in Rural Hospitals by Priority and Quarter**

- In the rural hospitals, per cent achieving benchmark wait times did not deteriorate compared to pre-COVID-19 quarter, but for priority 2 and 3 they were low.



**Figure 3. Percentage of Patients Meeting Benchmarks in St. John's by Priority and Quarter**

- In the St. John's hospitals, per cent achieving benchmark wait time for priority 1 was low throughout the year; for priority 2, timelines improved during COVID-19 but deteriorated for priority 3 patients.

## Conclusions

1. The number of patients who actually had a colonoscopy performed for urgent reasons during the first quarter of COVID-19 decreased by 29% in EH.
2. The initial reduction in colonoscopies for non-urgent reasons was offset by subsequent increase in colonoscopies in Q2 and Q3 of COVID-19.
3. There was a substantial reduction during COVID-19 in colonoscopies indicated because they were identified for colorectal screening in the rural hospitals but not in St. John's.
4. Time to colonoscopy during COVID-19 for Priority 3 patients was 17% performed within 6 months in the rural, and 36% in the St. John's hospitals.