

URBAN-RURAL DIFFERENCES IN THE COLONOSCOPY WORKFORCE IN SC

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BACKGROUND

Colorectal cancer (CRC) is the third most common cancer, and the second leading cause of cancer death for both men and women.

- Screening is recommended for average-risk persons aged 50-75 years by the US Preventive Services Task Force.

BACKGROUND

Colonoscopy has become the favored screening modality over time.

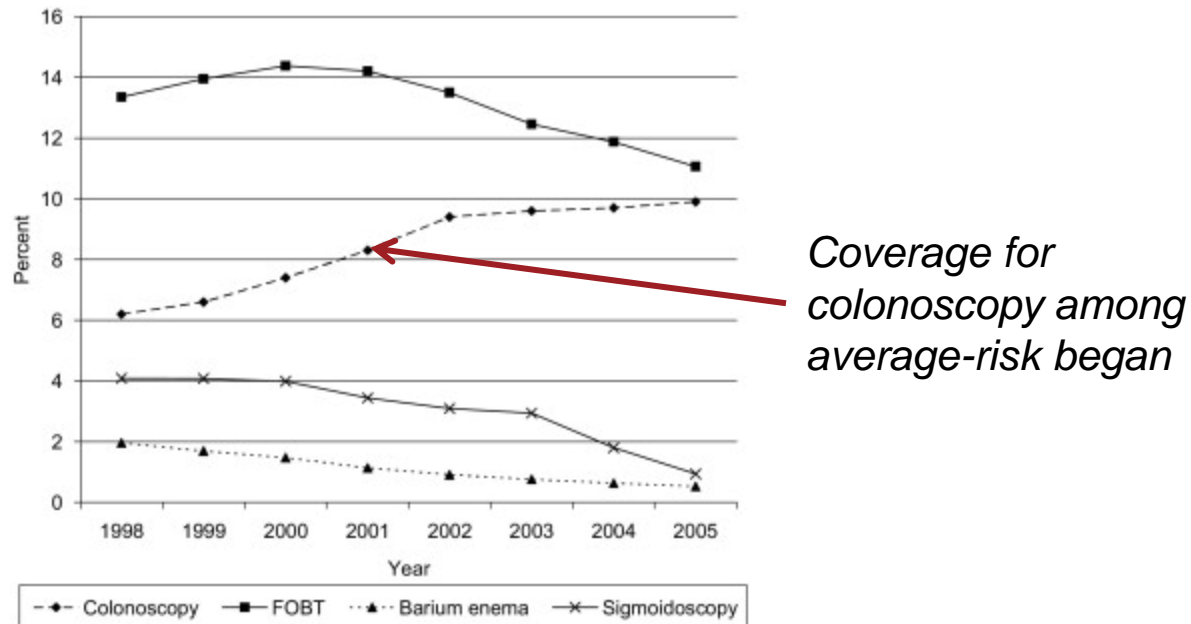


Figure 1.
Colorectal cancer test-use trends for U.S. fee-for-service Medicare enrollees aged ≥ 65 years, 1998–2005
Data sources: Medicare fee-for-service claims for CRC test in all settings conducted in 1998–2005 and the Medicare enrollment database

BACKGROUND

National data suggests that the demand for colonoscopy is greater than the supply of providers, and the availability of services is related to patient outcomes.

Selected research findings:

- Using SEER-Medicare, Haas found substantial variation in endoscopy capacity across counties, with increasing capacity associated with greater screening use.
- Mobley found that increased distance to closest endoscopy provider was a predictor of lower utilization of screening and later-stage CRC diagnosis among Medicare beneficiaries.
- Soneji found that state-level gastroenterologist density increased the probability of recent colorectal cancer screening.

References available upon request.

BACKGROUND

The literature is mixed on whether generalists can perform colonoscopy as well as gastroenterologists.

- Regardless of specialty, annual volume seems an important predictor of quality outcomes.
- In rural areas, generalists may fill a need for colonoscopy.

Our study aims to examine the extent to which colonoscopy providers of different specialties perform colonoscopies in South Carolina, by annual procedure volume and urban/rural location.

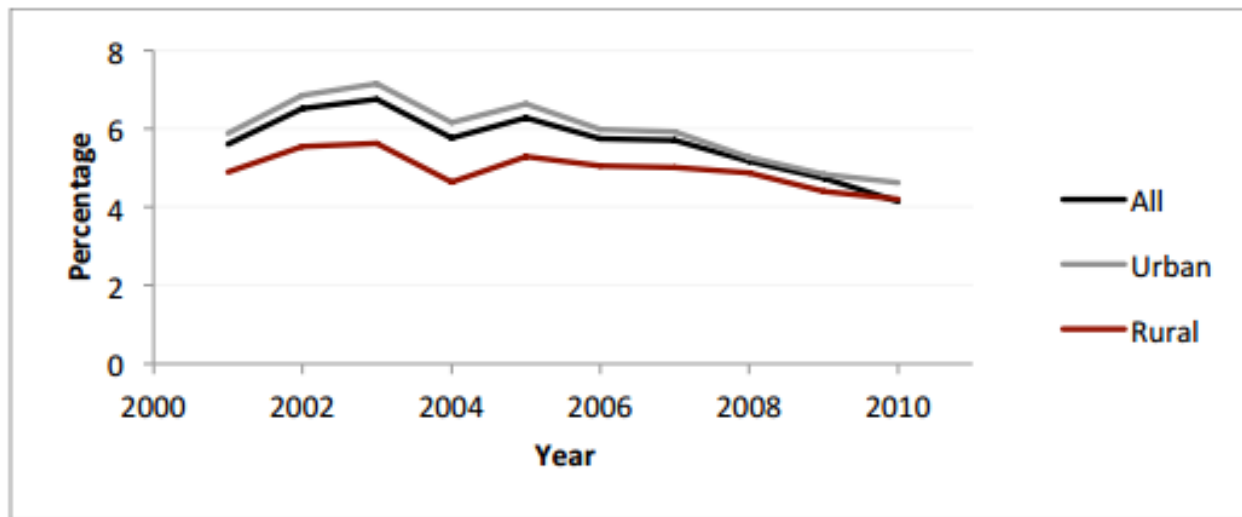
METHODS

Using the SC Ambulatory Surgery Discharge database, we conducted a retrospective analysis of all colonoscopy procedures between 2001-2010 among persons 50-74 years

- Colonoscopy center = a facility (hospital or ambulatory surgery center) performing ≥ 1 colonoscopy in any year
- Colonoscopy provider = physicians who performed ≥ 1 colonoscopy to individuals aged 50-74 years in any year
 - Medical specialty: Board of Labor & Licensing/NPI Registry
 - Categories: gastroenterology (GE), general surgery (GS), internal medicine (IM), colon and rectal surgery (CRS), and family medicine (FM). They performed >99% of colonoscopies in SC.

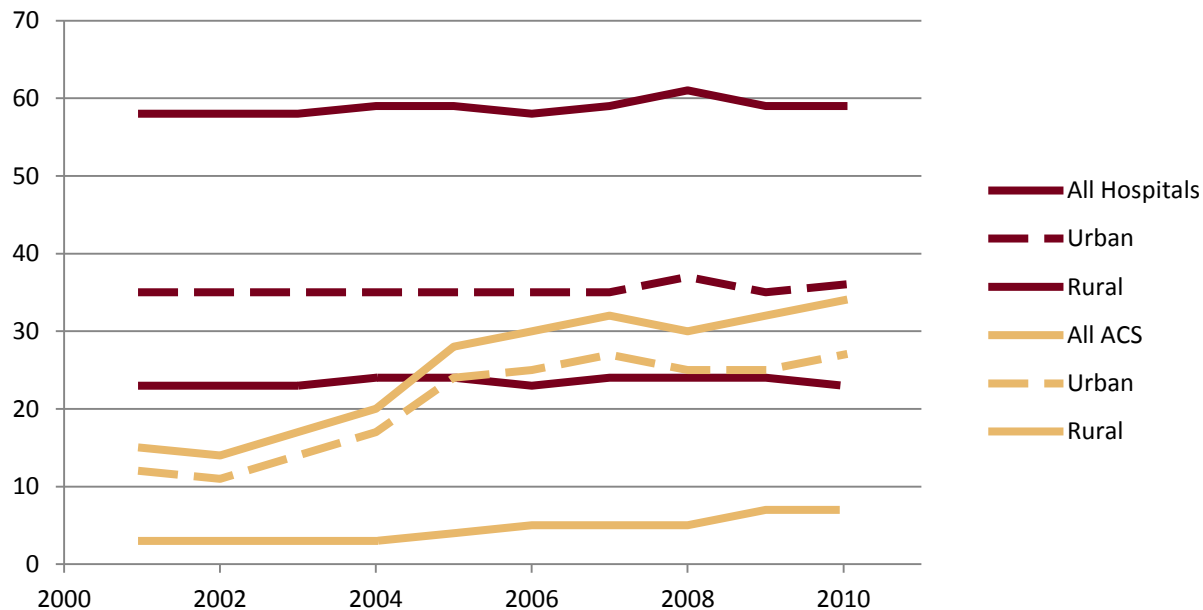
RESULTS

Figure 3. Percentage of SC population that had colonoscopies by area of residence and year
(Unique IDs for each year)



RESULTS

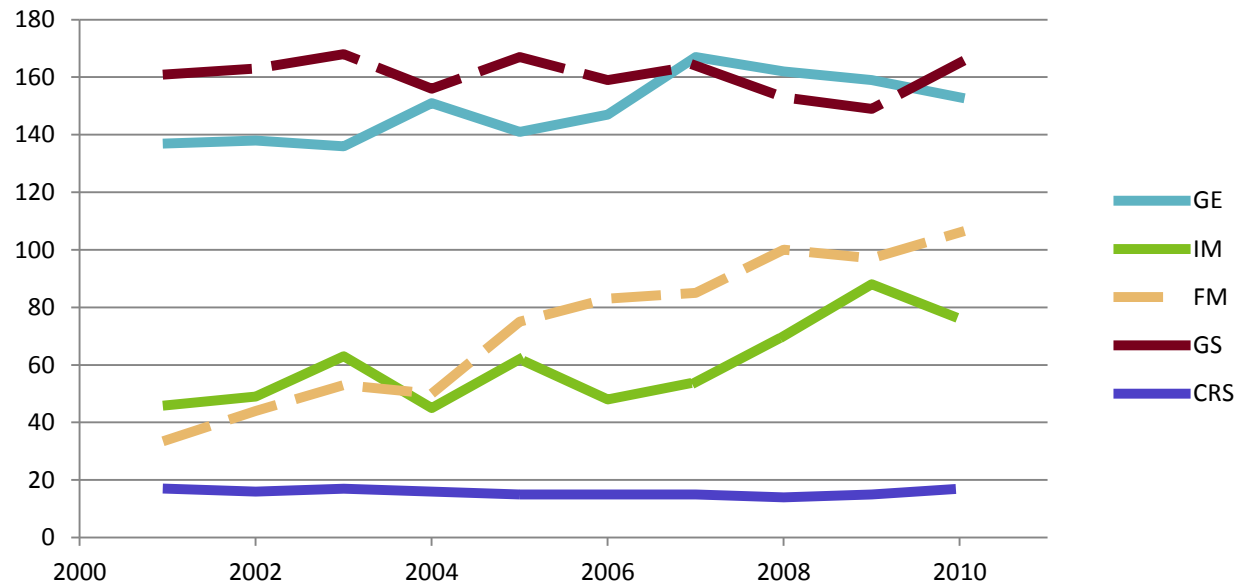
Trends in the type of facilities performing colonoscopy, by rurality



Ambulatory care surgery centers have had major gains (+125%) versus hospitals (+2%), particularly in urban areas (+230%).

RESULTS

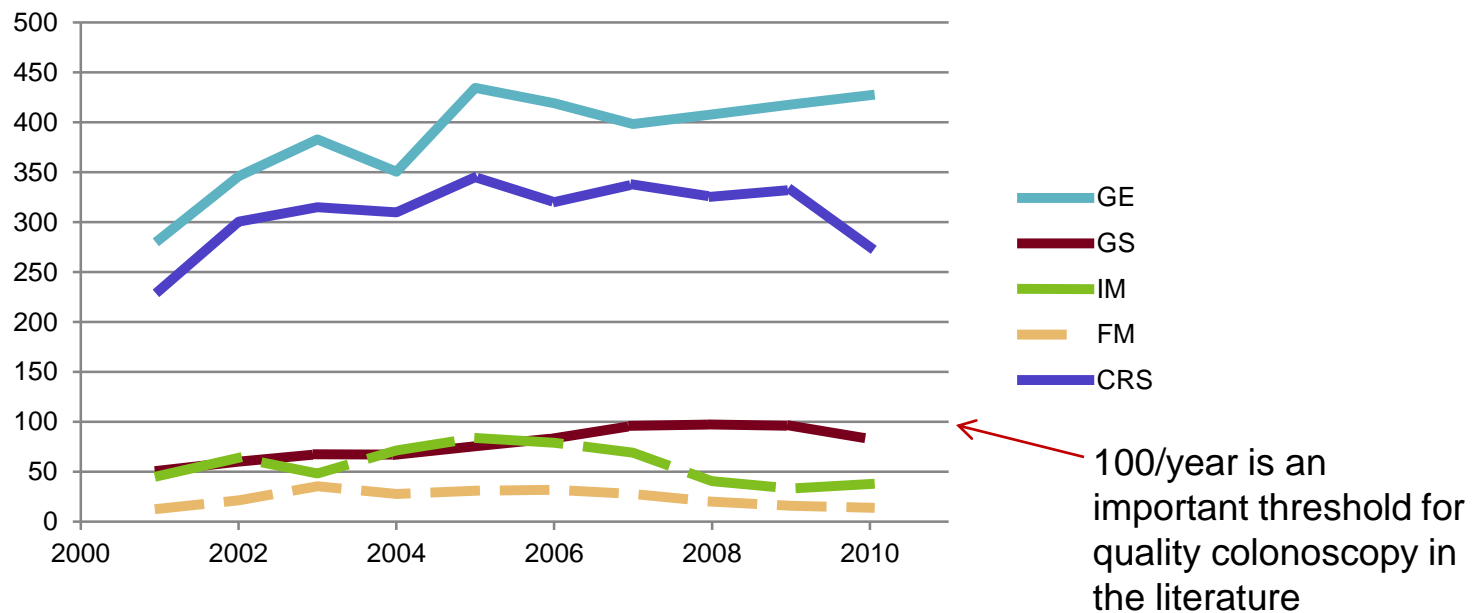
Growth of colonoscopy providers by specialty



The number of internists and family physicians performing colonoscopies increased most (+165% and +312%, respectively).

RESULTS

Changes in average procedure volume by specialty



Despite more IM and FM physicians doing colonoscopy, their annual procedures volumes stayed fairly constant.

2010 RESULTS

	All ^a	GE	GS	IM	FM	CRS
Overall Distribution, n (%)	583	153	165	76	106	17
	(100)	(26.2)	(28.3)	(13.0)	(18.2)	(2.9)
Overall Annual Volume ^c , mean (SD)	152	426	83	38	14	275
	(240)	(268)	(102)	(197)	(38)	(192)
Primary Office Location, n (%)						
Urban County	399	133	117	50	40	17
	(68.4)	(86.9)	(70.9)	(65.8)	(37.7)	(100.0)
Rural County	184	20	48	26	66	N/A
	(31.6)	(13.1)	(29.1)	(34.2)	(62.3)	

^a Includes providers not classified in one of the 5 predominant medical specialties providing colonoscopies.

2010 RESULTS

	All ^a	GE	GS	IM	FM	CRS
Primary Office Setting, n (%)						
Hospital	456 (78.2)	61 (39.9)	149 (90.3)	69 (90.8)	99 (93.4)	15 (88.2)
Urban County	287 (62.9)	53 (86.9)	104 (39.8)	43 (62.3)	33 (33.3)	15 (100.0)
Rural County	169 (37.1)	8 (13.1)	45 (30.2)	26 (37.7)	66 (66.7)	N/A
Ambulatory Surgery	127 (21.8)	92 (60.1)	16 (9.7)	7 (9.2)	7 (6.6)	2 (11.8)
Urban County	112 (88.2)	80 (87.0)	13 (81.3)	7 (100.0)	7 (100.0)	2 (100.0)
Rural County	15 (11.8)	12 (13.0)	3 (18.7)	N/A	N/A	N/A

^a Includes providers not classified in one of the 5 predominant medical specialties providing colonoscopies.

CONCLUSIONS

Observed a major shift in practice settings for colonoscopy, where the number of ASCs has substantially increased, mostly in urban counties.

Disparities in provider availability between urban and rural counties is widening.

- GI availability increased 17% in urban, decreased 13% in rural.

CHALLENGES

- Will physicians come together across specialty lines to ensure better supply?
 - More research needed to examine colonoscopy effectiveness and adverse events among generalists.
- As efforts are underway to screen 80% of the screening-eligible U.S. population by 2018, programs to address colonoscopy capacity limitations in rural America are needed.
- Repeal of ACA likely to remove requirement that private insurers fully cover screening colonoscopy (per USPSTF guidelines).

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