

# Urban-rural disparities in residential access to colorectal and cervical cancer care specialists

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## BACKGROUND AND PURPOSE

- Access to care – which rural residents suffer more than their urban counterparts – is evidently associated with cancer care outcomes.
- Despite overwhelming rural-urban disparities in cancer mortality, geographic distribution of cancer specialists has left unanswered.

### Purpose:

- To examine the geographic distribution of colorectal and cervical cancer specialists
- To quantify how far rural and urban residents have to travel to reach the nearest cancer care providers by specialty (general surgery, surgical oncology, medical oncology, radiation oncology, gynecology oncology, colorectal surgery, and gastroenterology)

## METHODS

The 2016 American Community Survey

Practice location from 2018 Physician Compare

Identify Zip code tabulation area (ZCTA)

Nationwide 2,704,804 colorectal & cervical cancer providers actively practicing in 2016

Identify and calculate the residents density at risk of colorectal (all residents at age 50-74) and cervical cancers (females at age 20+)

Calculate the proximity in miles for each specialty, from each residential ZCTA centroid to the nearest cancer provider's practice location

Calculate the specialists density by specialty per 100,000 residents at risk (colorectal & cervical cancers)

## RESULTS

Figure 1. Density of specialists per 100,000 residents at risk of cancer

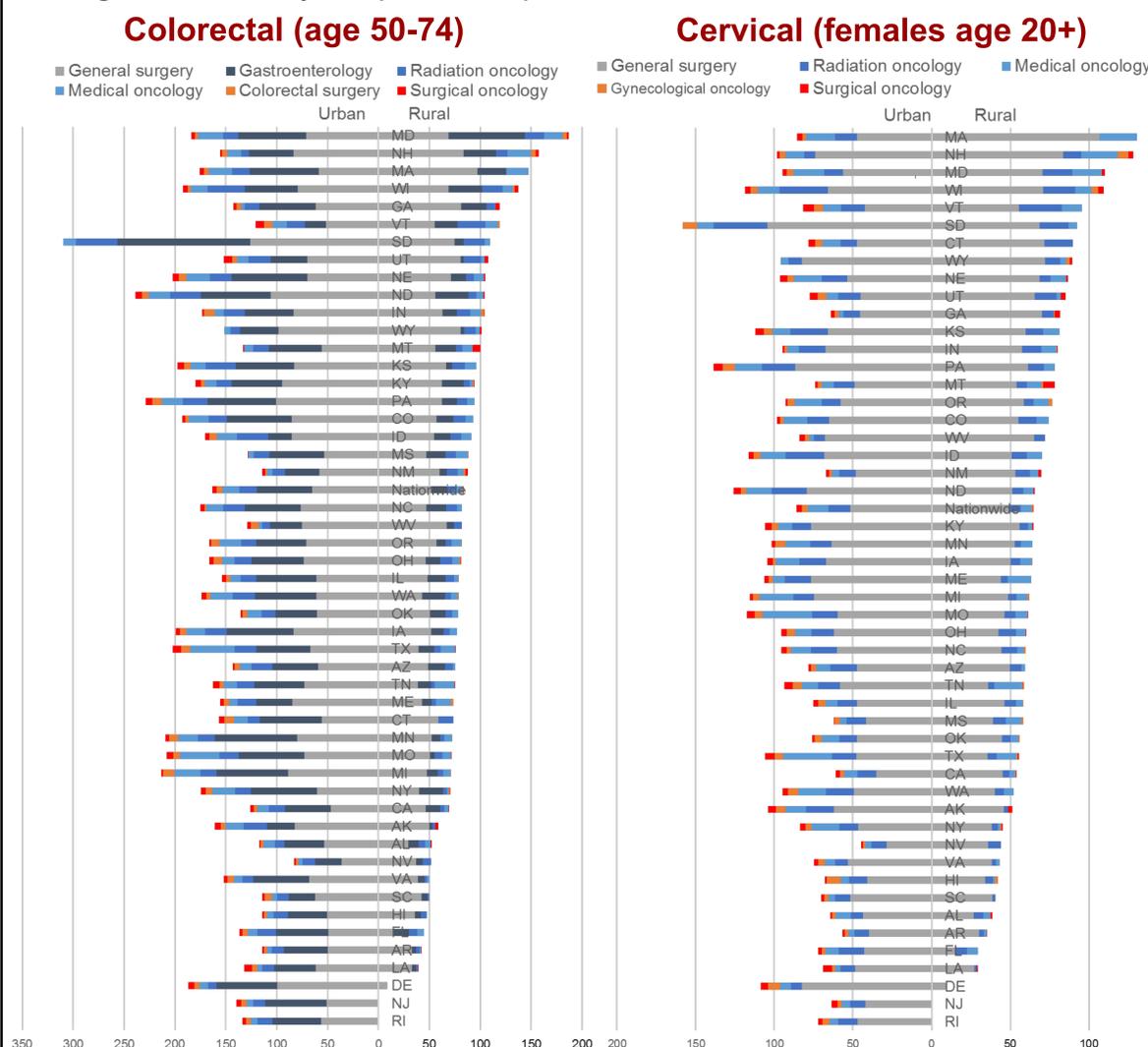
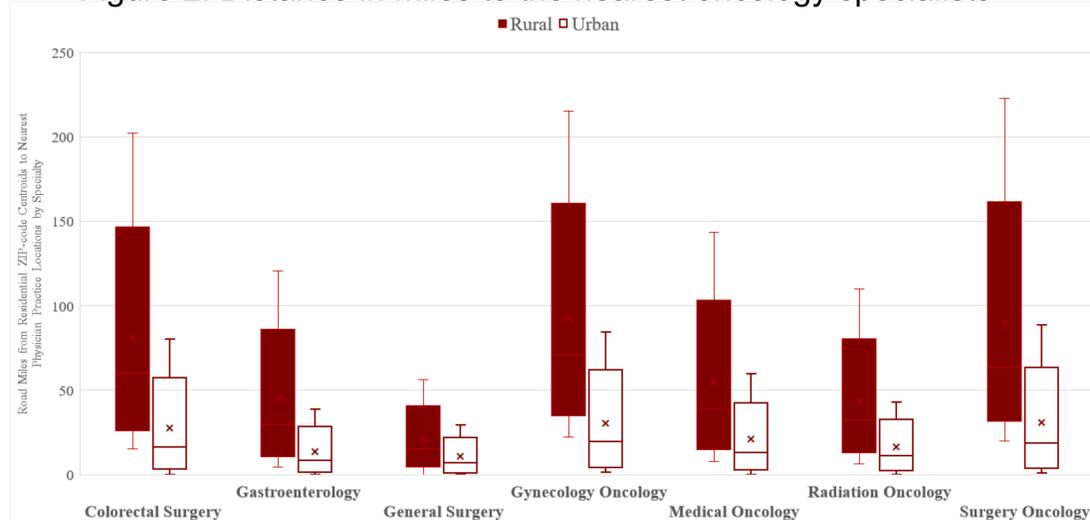


Figure 2. Distance in miles to the nearest oncology specialists



### Key Findings

#### State density of providers per 100,000 residents at risk:

		Min	Mean	Max
Colorectal Cancer Providers	Rural	9	84	187
	Urban	83	163	349
Cervical Cancer Providers	Rural	9	65	131
	Urban	45	86	158

#### Median residential proximities to the nearest oncologist(s) by rurality (miles):

	Rural	Urban
Colorectal Surgeon	38.6	10.9
Gastroenterologist	32.5	12.9
General Surgeon	36.7	18.7
Gynecological Oncologist	15.4	6.8
Medical Oncologist	73	19.4
Radiation Oncologist	60.1	16.1
Surgery Oncologist	29.6	8.3

## DISCUSSION

- Rural residents are already older, sicker, and more socioeconomically disadvantaged than their urban counterparts.
- The maldistribution of cancer care workforce may exacerbate the existing rural-urban disparities in cancer care morbidity and mortality.
- Policy actions to address these access disparities and to develop programs to provide specialized cancer care to millions of rural residents in underserved areas are warranted.

## ACKNOWLEDGEMENT

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