



Colorectal Cancer Screening Rates at Federally Qualified Health Centers In 2019 and 2020 Varied Based on Urban-Rural Status and Predominant Racial/Ethnic Group

Megan R. McLeod MD, MS¹, Matthew Zhao¹, Yvonne Lei¹, Jayraan Badiee MPH^{2,3}, Artin Galoosian MD¹, Folasade May MD, PhD, MPhil^{1,2,4,5}

[1] Department of Medicine, David Geffen School of Medicine, University of California, Los Angeles, California; [2] The Vatche and Tamar Manoukian Division of Digestive Diseases, Department of Medicine, David Geffen School of Medicine, University of California, Los Angeles, California; [3] Department of Medicine Statistics Core, David Geffen School of Medicine, University of California, Los Angeles, California; [4] Division of Gastroenterology, Department of Medicine, VA Greater Los Angeles Healthcare System, Los Angeles, California; [5] Jonsson Comprehensive Cancer Center, Cancer Prevention Control Research, UCLA

BACKGROUND

- Federally Qualified Health Centers (FQHCs) provide preventive services, including colorectal cancer (CRC) screening, to more than 30 million low-income and underinsured individuals in the U.S. each year.
- CRC screening rates vary by several modifiable and non-modifiable factors at the patient, local, and health facility levels.

OBJECTIVES

- To assess **CRC screening rates** in U.S. FQHCs.
- To determine FQHC-level **factors that impacted changes in screening rates** from 2019 to 2020.

METHODS

Data sources:

- National Health Resources and Services Administration Uniform Data System (UDS) data; 2019 and 2020.

Analyses:

- Calculated **screening rate change (SRC)** from 2019 to 2020 for FQHCs overall and by state.
- Stratified FQHCs into quartiles by SRC with SRC Q1 representing FQHCs with the largest decrease in CRC screening rates from 2019 to 2020.
- Performed mixed-effects logistic regression separately for urban and rural FQHCs to determine FQHC-level characteristics associated with SRC Q1 status.

RESULTS

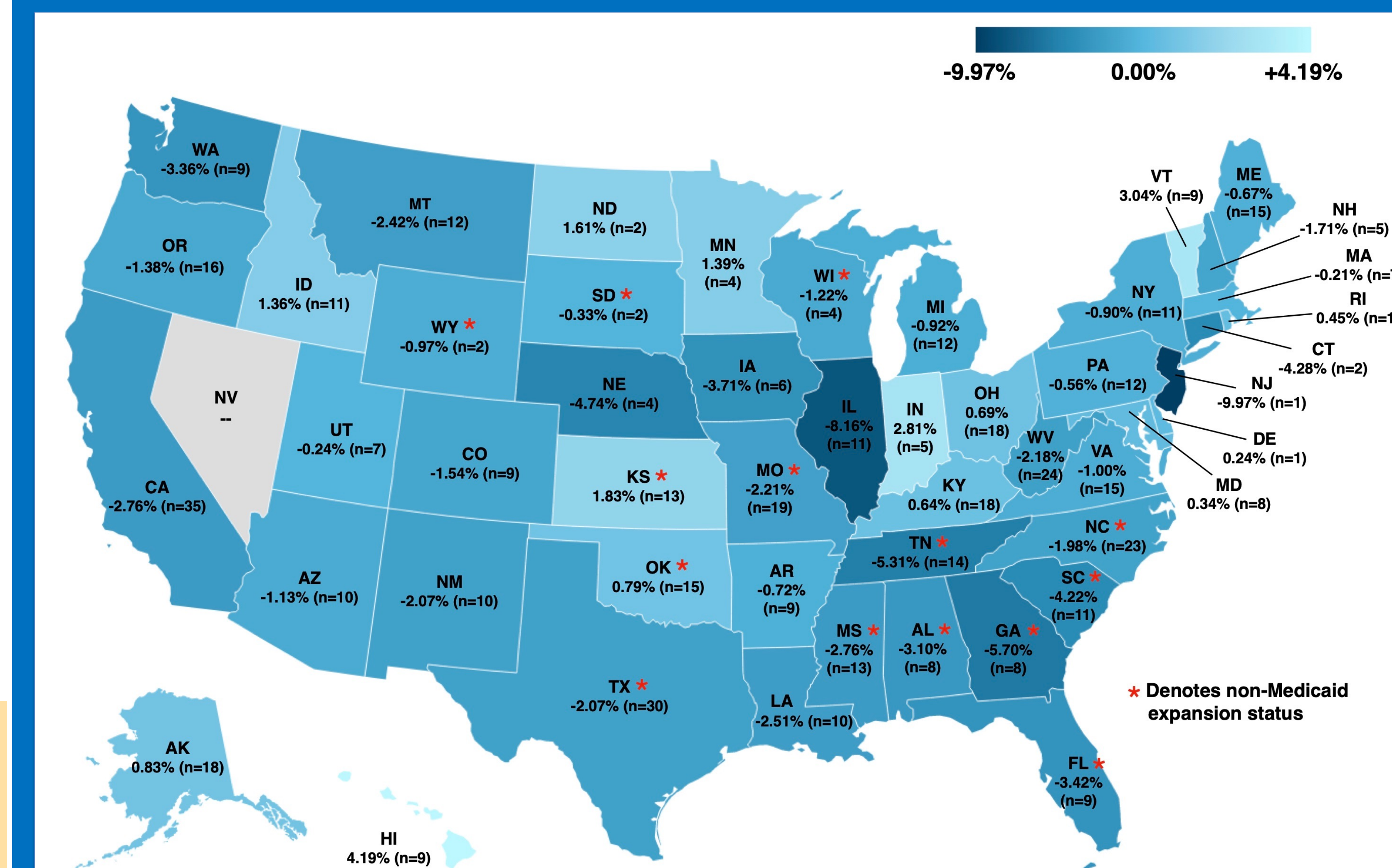
- CRC screening rates were lower in rural FQHCs than urban FQHCs in 2019 and in 2020.
- Urban centers experienced larger declines in screening (average SRC -3.6%) than rural (average SRC -1.2%) centers ($p < 0.0001$).
- Urban FQHCs were more likely to have large declines in screening if they served a majority Black patients (aOR 2.05, 95%CI=1.19-3.52) or a high proportion of uninsured patients (data not shown).
- Rural FQHCs had large declines in screening if they served a majority Latino/a/e patients (aOR 2.78, 95% CI=1.50-5.15) or were in a non-Medicaid expansion state (aOR 1.81, 95% CI 1.09-2.99).

Table. FQHC characteristics (2020), colorectal cancer (CRC) screening rates (2019 and 2020), and screening rate change (SRC) for urban and rural FQHCs in the US overall and by SRC comparison groups.

Frequency or percent	All FQHCs (n=1261)	Urban FQHCs (n=734)			Rural FQHCs (n=527)			p-value*
		SRC Q1 (n=218)	SRC Q2+Q3+Q4 (n=516)	Total (n=734)	SRC Q1 (n=98)	SRC Q2+Q3+Q4 (n=429)	Total (n=527)	
Total patients eligible for CRC screening (age 50-74)	6,438,433	1,328,330	2,811,734	4,140,064	483,110	1,815,259	2,298,369	n/a
CRC screening rate in 2019 (median %)	42.9	48.0	38.3	41.6	48.5	43.7	44.7	0.04
CRC screening rate in 2020 (median %)	38.8	32.4	38.8	36.9	32.7	43.9	42.4	<0.0001
Median 2019-2020 Screening Rate Change (SRC)	-2.7	-13.7	-1.2	-3.6	-12.6	0.1	-1.2	<0.0001
Male patients (median %)	42.9	42.1	42.3	42.2	43.4	43.9	43.8	<0.0001
Majority Race/Ethnicity served at FQHC (median %)								
Non-Hispanic White	36.4	16.0	25.2	21.7	66.9	70.4	70.1	<0.0001
Non-Hispanic Black	8.2	12.7	19.1	17.3	2.6	1.6	1.6	<0.0001
Hispanic/Latine	15.8	33.4	24.7	26.8	7.7	5.5	6.1	<0.0001
Other Non-Hispanic	4.6	5.2	5.9	5.7	2.5	3.4	3.3	<0.0001
Patients with a preference for non-English Language (median %)	11.7	27.1	17.9	19.2	6.7	3.5	3.8	<0.0001
Patients experiencing homelessness (median %)	1.8	3.2	2.6	2.7	1.1	1.0	1.0	<0.0001
Patients with income level >200% FPL (median %)	4.6	2.9	3.8	3.5	6.5	8.1	7.8	<0.0001
Uninsured patients (median %)	19.6	23.9	21.5	22.3	19.7	16.2	16.7	<0.0001
Medicaid Expansion (%)	71.6	76.6	73.6	74.5	59.2	69.5	67.6	0.007

*p-values represent Wilcoxon rank-sum or χ^2 tests comparing overall characteristics between urban and rural FQHCs.

Figure: Median screening rate change (2020–2019) for rural FQHCs by state and Medicaid expansion status as of 2020.



CONCLUSIONS

- U.S. FQHCs saw a decline in CRC screening in 2020, and this decline was greater in urban than rural FQHCs.
- This study highlights the need for interventions that address low CRC screening rates in U.S. FQHCs, especially in rural FQHCs in non-Medicaid expansion states and FQHCs that serve a majority of minority or uninsured patients.

ACKNOWLEDGEMENTS

UCLA Melvin and Bren Simon Quality Improvement Program;
UCLA Vatche and Tamar Manoukian Division of Digestive Diseases

CONTACT INFORMATION

Megan R. McLeod, MD MS
[MRMcLeod@mednet.ucla.edu](mailto:MRMcleod@mednet.ucla.edu)
[@meganrmcleod](https://twitter.com/meganrmcleod)

Folasade P. May MD, PhD, MPhil
FMay@mednet.ucla.edu
[@dfrolamay](https://twitter.com/dfrolamay)

