The Availability of Colorectal Cancer Screening with Colonoscopy in Wisconsin

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Discussion Points

Points explored in this report:

1. We found 198 facilities that perform colonoscopies in the state. This indicates that there are not enough facilities to screen the approximately 2,178,778 individuals in Wisconsin, eligible for screening, through only colonoscopy.

2. Availability of colonoscopy does not necessarily mean access. Based on mapping locations and number of clinicians in Wisconsin, we found possible gaps for the following communities: people living in rural areas, people living on Native land, and in certain areas where there may not be enough Medicaid-accepting locations to accommodate the population of Medicaid beneficiaries.

3. Other screening options should be considered such as stool-based, at-home tests for average risk adults to increase timely screening.

Note:
Several of the maps in this report include depictions of where colonoscopies are performed in Wisconsin. A distinction is drawn between “colonoscopy locations” and “Medicaid-accepting colonoscopy locations.”

Data on these sites were collected via two distinct methods. Medicaid-accepting colonoscopy locations data came from a data request of Medicaid claims data from May 2021-May 2022 and includes both actual clinical locations and administrative buildings, depending on where procedures are billed.

Colonoscopy location data, by contrast, were gleaned via direct contact with facilities whether by speaking with staff or consulting the facility website.

Accuracy of each and every location was limited by website accuracy, as well as individual staff member knowledge of colonoscopy services throughout a given health system. Because of this not all Medicaid-accepting colonoscopy locations overlap with the list of all colonoscopy locations.

We find these data to still be relevant, however, as this work still covers the vast majority of colonoscopy facilities in the state and depicts important trends in healthcare coverage in Wisconsin.
Introduction
The Wisconsin Cancer Plan 2020-2030 outlines the role of early detection and screening as key priorities in reducing the burden of cancer for all individuals in Wisconsin. The United States Preventive Services Task Force (USPSTF) recommends screening for people of average risk for colorectal cancer between ages 45-75 years old. The USPSTF recently lowered the age to begin screening to 45, down from 50. In addition, the National Colorectal Cancer Roundtable aims for at least 80% of all screening eligible individuals to be screened in all communities. To understand the state of colorectal cancer (CRC) screening in Wisconsin, we looked to understand the availability of colonoscopy services in Wisconsin.

Methods
Hospitals, clinics and surgery centers, physically located in Wisconsin, were contacted via phone or email to discuss their colonoscopy services. Names of clinicians, medical specialties, credentials and more were gleaned from conversations with staff members and publicly available health system websites.

Medicaid claims data were obtained by clinic or hospital locations that billed for the following CRC screening procedure codes: G0104, G0105, G0106, G0120, and G0121 from May 2021–May 2022. Data were analyzed in Excel and locations mapped by county using ArcMap software.

Terms
- **Screening-eligible population:** As defined by the USPSTF as those aged 45 – 75 years old with average risk of colorectal cancer.
- **Colorectal cancer screening:** Colorectal cancer (CRC) screening describes different methods of looking for signs of cancer or pre-cancerous areas in the colon and rectum. Methods include direct visualization options like colonoscopy and flexible sigmoidoscopy, virtual colonoscopy (using a form of CT scanning to see the colon) and stool-based test options like FIT or stool DNA that can be performed in the home.
- **Endoscopic CRC screening:** Endoscopic procedures are those that look inside the body. For colorectal cancer screening, this refers to colonoscopies and flexible sigmoidoscopies.
- **Late-stage diagnosis:** Cancer diagnosed at more advanced stages (regional and distant), amount of spread and level of severity. The associated stage describes how far the cancer has advanced within the body. Late-stage colorectal cancer is associated with lower rates of survival.
- **Medicaid:** A federal and state government program that helps with healthcare costs for some people of limited resources and income.

This report considers locations in Wisconsin that offered colonoscopy and flexible sigmoidoscopy screenings. It does not include other CRC screening options such as stool-based tests or virtual colonoscopies.
Figure 2. Colorectal Cancer Screening-Eligible Population by County
(Includes location of facilities performing colonoscopies)

Note: Colonoscopy locations include hospitals, clinics and surgery centers where colonoscopies were performed, regardless of insurance acceptance.

Summary: Counties with large metropolitan areas, like Dane, Milwaukee, and Outagamie, tend to have more facilities performing colonoscopies and larger screening-eligible populations than those without major metropolitan areas like Taylor and Lincoln counties.
Note: Number of locations within the county that billed Medicaid for performing colonoscopies.

Summary: In regions without viable locations, those on Medicaid may face long travel distances and transportation issues which are significant barriers. Twelve counties have zero locations that provided colonoscopies to Medicaid beneficiaries, and 18 counties have one location. Some of these may be justified by a low Medicaid-enrolled population. Other counties, despite high Medicaid populations, may have no or low access to colonoscopy. For example, Menominee County has zero locations that offer colonoscopies for Medicaid beneficiaries despite 59.2% of adults being Medicaid beneficiaries, and Richland County has one location that offers colonoscopies for Medicaid beneficiaries despite 63.9% of adults being Medicaid beneficiaries.
Figure 4. Colorectal Cancer Screening-Eligible Population by County
(Includes locations that bill Medicaid for colonoscopy procedures)

Note: Facilities include locations that billed Medicaid for performing colonoscopies.

Summary: Counties with large metropolitan areas like Dane, Milwaukee, and Outagamie have more facilities that bill for Medicaid procedures and more residents of screening-eligible age than those without major metropolitan areas like Ashland and Washburn counties.
Native-American land in Wisconsin is home to 11 federally recognized tribes: Bad River Band of Lake Superior Chippewa, Ho-Chunk Nation, Lac Courte Oreilles Band of Lake Superior Chippewa, Lac du Flambeau Band of Lake Superior Chippewa, Menominee Tribe of Wisconsin, Oneida Nation, Forest County Potawatomi, Red Cliff Band of Lake Superior Chippewa, St. Croix Chippewa, Sokaogon Chippewa (Mole Lake), and Stockbridge-Munsee Band of the Mohican Nation, in addition to other, non-federally recognized tribes. Black marks depict locations that billed Medicaid for performing colonoscopies. Red marks depict all colonoscopy locations, regardless of insurance.

Summary: Indian Health Service clinics do not provide colonoscopy procedures and rely on external referrals for these services. Thus, no sites that performed colonoscopies are located within Native land, and often Medicaid-accepting locations are not located nearby, indicating a gap in equitable access to screening.
Note: Percentage of colorectal cancers diagnoses by county that were considered late-stage at the time of diagnosis (regional or distant).

Summary: This is important because later stage of diagnosis means people are more likely to experience poor outcomes. Black dots mark colonoscopy locations that billed Medicaid for performing colonoscopies while red dots mark all colonoscopy locations, regardless of insurance accepted. In general, urban counties like Milwaukee County have lower percentages of late-stage diagnoses than those of lower population counties.
Figure 7. Geographic Heat Map of Colonoscopy Locations with an Approximate 15-Mile Radius

Note: This heat map shows where people can get colonoscopies in Wisconsin.

Summary: Each light green circle represents a colonoscopy location, with approximately a 15-mile radius extending out from the colonoscopy location. As the circles overlap in more densely provided areas, the green color darkens and gives way to yellow, then red. The red colors signify the areas with the most significant overlap of colonoscopy locations in the same area. This is important because not all Wisconsinites can access locations nearby.
Note: Percent of residents 50 years old and over at average risk of colorectal cancer who are up-to-date with their colonoscopy (within the past ten years). Currently available county level screening data begins at age 50, although recent USPSTF guidelines have lowered the age to begin screening to 45.

Summary: In general, northern counties had lower screening rates than southeastern counties. Limited data for counties such as Menominee, Adams, Iowa, Green Lake, Shawano, and Door counties should be taken into context when noting their high screening rates. Additionally, screening rates can still be improved to better identify cancer earlier and improve survival.
This report contains county-level data from the Behavioral Risk Factor Surveillance System 2020, which is a telephone-based survey measuring health behaviors. These data do not reflect the recent change in screening age by the United States Preventative Services Task Force 2021 and should be interpreted with caution. Further work is needed to identify population-level screening data sources that capture the variety of screening methods available among the clinic locations that offer the screenings (hospitals, community health centers, Indian Health Service, etc.).

**Implications**

Approximately 2,178,778 individuals in Wisconsin aged 45-75 are eligible for colorectal cancer screening\(^5\), with fewer than 200 facilities performing colonoscopies in the state. Further research is needed to determine whether the true capacity of the existing locations in Wisconsin meets the need, especially considering that colonoscopies are needed for various other health concerns beyond colorectal cancer screenings.

- We found 198 facilities that perform colonoscopies in the state and 179 that accept Medicaid. The colonoscopies were performed by 386 total medical professionals: 243 gastroenterologists (63%), 132 general surgeons (34%), six family medicine physicians (2%) and five colorectal surgeons (1%).
- Our results indicate there are not enough locations to serve all people eligible for screening in a timely manner.
- More populated counties have more colonoscopy locations per resident than less populated counties, but fewer Medicaid-accepting locations.
- Screening capacity in all counties can be increased with more stool-based testing and virtual colonoscopy options for average risk people, and by increasing locations that accept Medicaid patients. Both measures could serve to make colorectal cancer screening more accessible for all people of Wisconsin.

**Limitations**

This report relied on clinic website information and discussions with staff at colonoscopy locations. Current lists of clinicians performing colonoscopies varied by facility. Up-to-date lists of clinicians billing Medicaid for colonoscopies for colorectal cancer screening were also difficult to identify. Locations billing Medicaid for colonoscopies for colorectal cancer screening may vary by year and this is only a snapshot in time. Additionally, this report does not include data from Veterans Affairs clinics or Indian Health Service facilities and does not include any data on facilities that accept Medicare, a federal health insurance program for people 65 or older, some younger people with disabilities, and people with end-stage renal disease. This report does not include any data on the number of colonoscopies that can be performed by each hospital, clinic or surgery center.

**Figure 9. Colonoscopy Clinician Type.** There are 386 total medical professionals that perform colonoscopy screening. 63% were gastroenterologists (243 clinicians), 34% were general surgeons (132 clinicians), 2% were family medicine physicians (six clinicians) and 1% (five clinicians) were colorectal surgeons.
Research shows that the best screening test is the one that gets done. It is important to consider distance to a colonoscopy/gastroenterology center and acceptance of the patient’s insurance when recommending screening test options. Stool-based, at-home screening options should be considered for average-risk adults who are unable to or unwilling to access a colonoscopy.

Availability does not necessarily mean access. Access is multi-factorial. There are fewer Medicaid-accepting colonoscopy sites per resident in high population counties like Milwaukee and Dane counties than in lower population counties such as Ashland.

Additional Resources

The Wisconsin Cancer Collaborative offers support and resources designed to help you reduce the burden of cancer within specific populations, communities, and issue areas:

**County Cancer Data Dashboard:** Get the latest data about cancer risks, screening rates and health outcomes for every county in Wisconsin.

**Issue briefs and reports:** Explore cancer-related topics and align your work with the latest research. Our issue briefs and reports are authored by experts and backed by the latest available data.

**Health literacy tools:** Our How-To Sheets offer straightforward answers to questions about cancer risk, screenings and insurance coverage, so that patients can make informed choices about their health. Many of these tools are available in both English and Spanish.

**Online Resource Center:** Find exactly what you need to adopt best practices, implement successful interventions and improve health outcomes in your community.

**Member networking and events:** From online to in-person, we offer a variety of ways for members to network, engage, connect and collaborate.

**Direct support:** Our outreach team works closely with member organizations to provide technical assistance, networking opportunities, peer learning collaboratives, access to content experts, support with health equity promotion and more.

Learn more at [www.wicancer.org](http://www.wicancer.org)
References

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