HARNESSING DATA, FOR THE HEALTH OF AMERICA.

RISE IN CHRONIC CONDITIONS IS PUTTING MORE AMERICANS AT RISK FOR COLORECTAL CANCER

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INTRODUCTION

Colorectal cancer will take the lives of more than 53,000 Americans in 2020.¹ Our research shows that number could rise. Chronic conditions linked to an increased risk for colorectal cancer are increasing, especially among millennials.

Most Americans are not receiving the recommended colorectal cancer screenings.² Those screenings can help prevent or detect colorectal cancer at an earlier stage and potentially improve the effectiveness of treatment.³ To prevent the spread of COVID-19, most preventive screenings and elective procedures were put on hold, although those restrictions are lifting in some areas.⁴

This report examines the rate of colorectal cancer diagnoses and preventive screenings, as well as the reasons why two of the most at-risk populations of commercially insured Americans say they avoid or delay screening. Those groups include people over the age of 50 and those with diagnosed Crohn’s or ulcerative colitis.

KEY FINDINGS

1. Known risk factors for colorectal cancer have increased substantially, especially among millennials. For this group, Crohn’s disease and ulcerative colitis are up 14%, diabetes 15%, and diagnosed obesity up 100%.

2. People with these known risk factors are at 1.3 to 1.9 times the risk for colorectal cancer than those without.

3. Among people aged 50-55, there is a 50% increase in colorectal cancer diagnoses, highlighting the importance of recommended screenings.

4. About 60% of people 50+ and nearly half of people with Crohn’s or ulcerative colitis aren’t getting screened because of a discomfort with the process or a lack of awareness about the need.

3. CDC Screen for Life https://www.cdc.gov/cancer/colorectal/sfl/index.htm
4. As of April 21, 2020 the number of colorectal cancer screenings per week was 86% lower than in previous years, likely due to restrictions put into place to prevent the spread of COVID-19. For additional details see: Health Research Network. https://www.ehrn.org/wp-content/uploads/Preventive-Cancer-Screenings-during-COVID-19-Pandemic.pdf. May 2020.
DOUBLE DIGIT INCREASES IN RISK FACTORS AMONG MILLENNIALS

While the overall rate of colorectal cancer diagnoses remained steady through 2018, the prevalence of conditions that increase the risk for colorectal cancer has increased dramatically. Crohn's disease, ulcerative colitis, diabetes and diagnosed obesity are up significantly among some age groups, especially millennials. This trend among millennials significantly increases the risk of future diagnoses of colorectal cancer. (see Exhibit 1 and Appendix for additional detail).

EXHIBIT 1: GROWTH OF RISK FACTORS FOR COLORECTAL CANCER AMONG MILLENNIALS (AGES 22-37)

- **CROHN’S DISEASE & ULCERATIVE COLITIS**
  - 2014: 9.5 per 1,000
  - 2018: 10.8 per 1,000
  - Increase: 14%

- **TYPE I & II DIABETES**
  - 2014: 3.2 per 100
  - 2018: 4.4 per 100
  - Increase: 35%

- **DIAGNOSED OBESITY**
  - 2014: 7.0 per 100
  - 2018: 14.1 per 100
  - Increase: 100%

The 2019 Health of Millennials report found double digit increases among millennials for type II diabetes and Crohn’s and ulcerative colitis — prevalence rates significantly higher than in their Gen X counterparts at the same age.
CHRONIC DISEASES INCREASE THE RISK FOR COLORECTAL CANCER

The American Cancer Society recognizes these chronic conditions increase the risk for colorectal cancer. Data from the Blue Cross Blue Shield (BCBS) Health Index show that patients with Crohn’s and ulcerative colitis are at a nearly twofold increased risk for colorectal cancer, and patients with diabetes or diagnosed obesity are at a 1.7 and 1.3 times greater risk of getting colorectal cancer, respectively, compared to those without these conditions (see Exhibit 2).

EXHIBIT 2: CHRONIC DISEASES AND NEW COLORECTAL CANCER DIAGNOSES AMONG AGES 18-64, 2018 (RATE PER 10,000)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Undiagnosed Population</th>
<th>Diagnosed Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crohn’s Disease &amp; Ulcerative Colitis</td>
<td>7.0</td>
<td>13.0</td>
</tr>
<tr>
<td>Diabetes</td>
<td>6.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Diagnosed Obesity</td>
<td>6.0</td>
<td>8.0</td>
</tr>
</tbody>
</table>

COLORECTAL CANCER DIAGNOSES ARE HIGHER IN THE SOUTH AND NORTHEAST

The overall rate of colorectal cancer diagnoses among commercially insured Americans has remained largely steady across all age groups since 2014, at about 32.7 per 10,000 in 2018 or about 282,000 individuals for both men and women.

The prevalence of colorectal cancer is highest in parts of the South and Northeast U.S. (excluding New England). Rates of Crohn’s disease and ulcerative colitis follow a similar regional pattern with the highest rates in the South and Northeast (See Appendix). Rising rates of these conditions among younger adults increase the risk for higher rates of colorectal cancer in the future.

6. The Blue Cross Blue Shield Health Index quantifies over 300 different health conditions to identify which diseases and conditions most affect Americans’ longevity and quality of life. It is powered by annual data from more than 41 million BCBS members, commercially insured Americans.
FOLLOWING SCREENING GUIDELINES CAN CATCH COLORECTAL CANCER EARLIER

Screening can potentially catch precancerous polyps as well as identify colorectal cancer in its early stages. The U.S. Preventive Services Task Force recommends colorectal cancer screening begin at age 50, but people with Crohn’s disease or other risk factors should be screened earlier. Several screening tests can be used. Among those screened in 2018, most BCBS commercially insured members had colonoscopies. Twenty-seven percent used Fecal Immunochemical Tests (FIT) and 13% used Fecal Occult Blood Tests (FOBT) (see Exhibit 3).

EXHIBIT 3: PERCENT OF ALL COLORECTAL CANCER SCREENINGS BY TYPE, 2018

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colonoscopy</td>
<td>65.2%</td>
</tr>
<tr>
<td>Fecal Immunochemical Tests (FIT)</td>
<td>26.8%</td>
</tr>
<tr>
<td>Fecal Occult Blood Tests (FOBT)</td>
<td>12.7%</td>
</tr>
<tr>
<td>Other*</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

*Other includes: Barium Enema, Flexible Sigmoidoscopy and Virtual Colonoscopy.

BCBS AXIS\(^7\) DATA INDICATES THAT ONLY A SMALL NUMBER OF PATIENTS BETWEEN THE AGES OF 50-52 ARE GETTING COLORECTAL CANCER SCREENING.

Among the population 50 years and older, most are waiting well beyond their 53rd birthday to begin colorectal cancer screening. BCBS Axis data show that between the ages of 50 and 52, only 30% of this population has been screened. The data also indicate these rates have not improved since 2016, remaining around 30% for ages 50-52.

For those under the age of 50 with Crohn’s or ulcerative colitis, 31% are getting screened in the preceding two years.\(^8\)

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7. Blue Cross Blue Shield Axis\(^6\) is the industry’s largest healthcare data capability, powering analytics and insights that improve healthcare quality and affordability for everyone.

8. For cohort >50 years of age a three year look back was applied for those that were 52 years of age in 2018. For cohort <50 years of age with Crohn’s or ulcerative colitis a two year look back was applied for those that were 19-50 years of age in 2018.
DELAYED SCREENING COULD MISS CRITICAL WINDOW FOR EARLIER DIAGNOSIS

People who delay screening until their late 50s or early 60s are at risk of missing precancerous polyps or detecting colorectal cancer at an earlier stage. BCBS Health Index data indicate a 50% increase in colorectal cancer prevalence between ages 50 and 55 (see Exhibit 4).

Rates of colorectal cancer screening vary nearly twofold across states, with rates being higher in the Northeast and lower in the Southwest (see Exhibit 5). In addition, 15 states have colorectal cancer rates that are higher than the national average and screening rates that are lower than the national average. (See striped states below.)

EXHIBIT 5: COLORECTAL CANCER SCREENING FOR 50-52 AGE GROUP, PER 100 BY STATE, 2018

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EXHIBIT 4: OVERALL PREVALENCE OF COLORECTAL CANCER BY AGE, 2018

EXHIBIT 4: OVERALL PREVALENCE OF COLORECTAL CANCER BY AGE, 2018

0.08% 0.15% 0.23% 0.30% 0.38% 0.45% 0.53% 0.60%
0 5 10 15 20 25 30 35 40 45 50 55 60 65 AGE

PREVALENCE

50 years old

FROM AGES 50-55
PREVALENCE RISES 50%

EXHIBIT 5: COLORECTAL CANCER SCREENING FOR 50-52 AGE GROUP, PER 100 BY STATE, 2018

Screening Rate per 100
18.0 - 23.0
24.0 - 26.0
27.0 - 37.0
High rate colorectal cancer/
Low rate of screening

9. Screening rates are also 12% higher in suburban and 5% higher in urban ZIP codes when compared to rural ZIP codes.
10. National average of colorectal cancer prevalence is 13 per 10,000 and 29 per 100 for colorectal cancer screening.
ATTITUDES TOWARD COLORECTAL CANCER SCREENING

To better understand why individuals are not getting the recommended colorectal cancer screenings, BCBSA surveyed more than 1,000 commercially insured Americans.

Among those over the age of 50, most (61%) cited attitudinal reasons as the main barrier. Those aged 18-49 with Crohn’s or ulcerative colitis (58%) cited knowledge barriers as the main reason for not having been screened.

ATTITUDINAL REASONS

• I find the screening process uncomfortable emotionally/physically. (First choice for 50+)
  61%

• I do not believe I am at risk for colorectal cancer. (First choice for 18-49)
  48%

• I am afraid the screening will find cancer.
• I believe the screening is not effective.

KNOWLEDGE BARRIERS

• My primary care physician has not recommended the screening. (First choice for both age groups)
  33%

• I wasn’t aware that I needed this type of screening.

EXTERNAL BARRIERS

• I am too busy/don’t have time to be screened. (First choice for both age groups)
  26%

• Screening tests are too expensive.
• I don’t think my insurance covers this type of screening.
METHODOLOGY

This is the 32nd study of the Blue Cross Blue Shield, The Health of America Report® series, a collaboration between Blue Cross Blue Shield Association and Blue Health Intelligence (BHI), which uses a market-leading claims database to uncover key trends and insights in healthcare affordability and access to care.

This report leverages data from three sources 1) BCBS Axis Data 2) the BCBS Health Index; and 3) a 2020 BCBSA consumer survey. The survey was self-reported from February 10-11, 2020 and consisted of commercially insured individuals ages 18-49 (n=643) or age 50+ (n=497).

The prevalence rates were estimated using BCBS Health Index data between the years 2014-2018. This includes the rates of screening for the 50-52 year old population. Screening rates by age 52 were estimated by selecting those who were 52 in 2018. Colorectal cancer screening was then cumulative for these individuals in 2016, 2017, and 2018. Lifetime screening rates were self-reported through the 2020 BCBSA survey.

Increased risk of colorectal cancer was assessed by identifying 2 groups: People with Health Index data that had Crohn's or ulcerative colitis in 2017 and people who did not. We then reduced this base population to those who had no diagnosis of colorectal cancer in 2017. The rates of new colorectal cancer diagnoses in 2018 were estimated for the Crohn's/ulcerative colitis population and the population without. The rates were then measured in a ratio of new colorectal cancer diagnoses for the Crohn's/ulcerative colitis population vs. the population without Crohn's/ulcerative colitis. This was subsequently done, replacing Crohn's/ulcerative colitis with diabetes, and then diagnosed obesity. Rates of new colorectal cancer diagnoses in 2018 are represented, along with their rate ratios.
## APPENDIX

### FIGURE A: PREVALENCE RATES OF CHRONIC CONDITIONS ASSOCIATED WITH COLORECTAL CANCER BY AGE, 2018

<table>
<thead>
<tr>
<th>CHRONIC CONDITIONS ASSOCIATED WITH COLORECTAL CANCER (2018)</th>
<th>PREVALENCE FOR AGES 50-64</th>
<th></th>
<th>PREVALENCE FOR UNDER 50</th>
<th></th>
<th>PREVALENCE FOR MILLENNIALS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Crohn’s Disease and Ulcerative Colitis (Prevalence rate per 1,000)</td>
<td>15.2</td>
<td>20.4</td>
<td>34%</td>
<td>7.9</td>
<td>9.6</td>
<td>22%</td>
</tr>
<tr>
<td>Type I &amp; II Diabetes (Prevalence rate per 100)</td>
<td>19.5</td>
<td>24.4</td>
<td>25%</td>
<td>4.2</td>
<td>5.6</td>
<td>34%</td>
</tr>
<tr>
<td>Diagnosed Obesity (Prevalence rate per 100)</td>
<td>13.7</td>
<td>27.3</td>
<td>98%</td>
<td>7.0</td>
<td>14.1</td>
<td>100%</td>
</tr>
</tbody>
</table>

### FIGURE B: PREVALENCE OF CROHN’S AND ULCERATIVE COLITIS PER 1,000 BY STATE, 2018

![Map showing prevalence of Crohn's and Ulcerative Colitis per 1,000 by state.]

**Prevalence Rate per 1,000**
- 0.8 - 8.0
- 9.0 - 11.0
- 12.0 - 13.0
- 14.0
- 15.0 - 19.0

### FIGURE C: PREVALENCE OF COLORECTAL CANCER PER 10,000 BY STATE, 2018

![Map showing prevalence of Colorectal Cancer per 10,000 by state.]

**Prevalence Rate per 10,000**
- 7.0-11.0
- 12.0-13.0
- 14.0-17.0