Expert Views



Colorectal Cancer Screening and the Role of (Re)insurance

SCOR
The Art & Science of Risk

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EXECUTIVE SUMMARY

March – Colorectal Cancer Awareness Month – is a great time to talk about screening.

Colorectal cancer (CRC) is a disease that is highly prevalent worldwide, but largely preventable through early detection. However, despite the availability of effective screening tools, participation rates remain insufficient to curb the trend, especially among adults aged 45–75.

Common barriers include low risk perception in the absence of symptoms, limited health literacy, fear of procedures, and logistical or financial constraints. Mental health also plays a major role: anxiety, depression, and chronic stress significantly reduce screening adherence. Individuals with mental health conditions are screened less frequently, diagnosed at later stages, experience higher mortality, and incur significantly higher healthcare costs.

A multi layered response is essential. Non-invasive tests (for blood or DNA in stool samples) increase participation and should be prioritized as first-line options. Personalized risk tools, digital reminders, and clear educational materials help to counter cognitive biases. Patient navigation and support strongly boost screening adherence. Removing logistical and financial barriers (for example through mailed kits, mobile units, and full coverage) improves uptake. Finally, investing in integrated mental health and prevention strategies lowers long-term cancer costs and strengthens insurance portfolio sustainability.

(Re)insurers are uniquely positioned to support evidence-based CRC screening strategies. These contribute to healthcare equity and improve population health indicators.

As (re)insurers, we have a role to play by prioritizing prevention – not just as a tool to improve the bottom line, but also as a way of engaging policyholders to improve their health and wellbeing.



COLORECTAL CANCER: EPIDEMIOLOGICAL FACTS

In the 21st century, cancer is a major societal, public health, and economic problem.

CRC is an extremely common cancer worldwide, but is largely preventable – through changes in modifiable risk factors and through the detection and removal of precancerous lesions.

- In 2020, incidence was highest in Australia/New Zealand and several European regions (40.6 cases per 100,000 people) and lowest in several African regions and Southern Asia (4.4 per 100 000, females). Mortality was highest in Eastern Europe (20.2 deaths per 100,000 people) and lowest in Southern Asia (2.5 deaths per 100,000 people).
- By 2040, global CRC cases are expected to rise to 3.2 million new diagnoses and 1.6 million deaths, predominantly in countries with a high Human Development Index (HDI).[1] The Human Development Index is a summary measure of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable, and having a decent standard of living.[2]

A notable shift over the past few decades is the marked increase in early-onset CRC (<50 years), rising from 6% of cases in 1990 to 13% in 2023.[3] This trend is hypothesized to reflect lifestyle-related exposures, including sedentariness, increased intake of processed foods, and red meat consumption.

However, CRC mortality rates have been decreasing in high-income countries, largely because of effective screening programs. The prognosis for CRC varies depending on the stage at diagnosis. Early-stage cancers have higher survival rates than advanced-stage cancers. Timely diagnosis, appropriate treatment, and regular follow-up care are important to improve survival rates and quality of life.[4]

COLORECTAL CANCER SCREENING

What does screening involve?

Screening detects cancer before symptoms appear. This can help find the disease at an early stage. When abnormal tissue or cancer is found early, it may be easier to treat. By the time symptoms appear, cancer may have begun to spread. Studies show that some screening tests for colorectal cancer help find cancer at an early stage and decrease the number of deaths from the disease.[5] Poor adherence to screening leads to late-stage diagnoses, higher treatment costs, and worse outcomes.

The following types of tests are used to screen for colorectal cancer:

- The fecal immunochemical test (FIT) looks for occult blood in a sample of stool.
- Flexible sigmoidoscopy (FS) is performed using a thin, flexible tube called a sigmoidoscope. It can be used to remove polyps or hemorrhoids (swollen veins in rectum and anus). It is also a screening test for colon cancer and rectal cancer.
- Optical colonoscopy (OC) is an exam of the colon and rectum using a tiny camera to search for polyps, cancer, or other diseases.
- CT colonography (CTC) is a procedure in which a radiologist uses images created by x-rays and a computer to examine the rectum and the colon from outside the body.
- The DNA stool test checks DNA in stool cells for genetic changes that may be a sign of colorectal cancer.

CRC screening strategies generally include FIT as a first exam and OC as a further work-up procedure.

Why Is Screening Underused?

Despite its proven effectiveness, CRC screening is still underused. Cancer screening is, always, considered to be a secondary prevention. Understanding psychological and behavioral



barriers is essential to forecast future screening participation.

Most reported barriers:[6 7]

1. Lack of risk perception in the absence of symptoms
2. Low health literacy and lack of provider recommendation
3. Fear or worry about the procedure or outcome
4. Logistic and financial challenges
5. Chronic diseases combined with poor mental health

Furthermore, the obstacles are also linked to the type of tests offered. According to a 2025 study, psychosocial barriers were the most reported obstacles to colonoscopy, associated with perceived discomfort with the procedure, and perceived embarrassment/humiliation.[8]

How to facilitate colorectal cancer screening?

Addressing these barriers is essential and requires a multi-level strategy involving patients, providers, and health systems.

Lack of risk perception in the absence of symptoms

Several cognitive biases reinforce the refusal of screening in the absence of symptoms. These include optimism bias ("it won't happen to me"), availability bias when there are no cancer cases in one's family or environment, or loss aversion dynamics, in which screening is perceived as an immediate psychological cost (causing stress and anxiety) rather than a distant or abstract health benefit.

To counteract these biases, personalized risk assessment tools and educational campaigns help to increase awareness that CRC can be asymptomatic in the early stages. Coupled with behavioral "nudges" via SMS or portals, these tools effectively encourage individuals in the most relevant age band (45–75) to initiate screening.

In addition, improving public understanding of (1) the survival rates for early stage cancers (even without symptoms), (2) the minimally invasive treatments available for early detection, and (3) the life saving impact of screening, can reduce fear-based avoidance and encourage proactive behavior.

Insurers can help to facilitate colorectal screening programs, by implementing personalized risk assessment tools and targeted educational campaigns that emphasize the asymptomatic nature of early CRC.

Low health literacy and lack of provider recommendation

Health literacy is the degree to which individuals can find, understand, and use information and services to inform health-related decisions and actions for themselves and others.[9]

Low health literacy amplifies barriers to screening by limiting individuals' understanding of the benefits of early detection and contributing to misconceptions about cancer prognosis and treatment.[10] This lack of clarity weakens motivation to engage in preventive behaviors.

For example, low health literacies lead to gender-related misconceptions. In a study on gender differences in cancer mortality risk perceptions and preventive screening behaviors, McCreary et al[11] showed that most respondents believed women had higher rates of cancer morbidity and mortality than men, while in actual fact it is the other way around. These results show that an increase in cancer mortality risk awareness is needed among both men and women. The observed elevated risks among men must be made salient, and prevention campaigns that target men's mortality risks need to be developed.

In a similar vein, a study on gender differences in cancer screening belief showed that, while both men and women believed cancer screenings to be effective, men were less willing to participate



in them. However, when given descriptions of screening conditions, they indicated more willingness to participate than before.[12] These gender differences highlight the need for health professionals to provide enhanced cancer screening promotion and education among men.

Insurers can help to develop culturally adapted, plain-language educational materials and train providers to proactively recommend screening during routine care, integrating the health literacy of participants.

Fear or worry about the procedure or outcome

Evidence shows that offering non-invasive tests increases participation: a study from 2025 found that participation in any form of screening was 31.8% in the colonoscopy group and 39.9% in the fecal immunochemical test group.[13] Prioritizing non-invasive tests in initial screening aligns with patient preferences, optimizes resource use, and allows colonoscopy to focus on high-risk or follow-up cases.

Psychological barriers such as fear of a positive result, poor understanding of and anxiety about the procedure, psychological distress, anticipation of pain, embarrassment, and perceived unpleasantness are also major deterrents to screening. These feelings are normal but can prevent people from detecting a disease that is highly treatable when caught early. Talking openly about these fears and normalizing them is already a step toward prevention.

Furthermore, patient navigation is a tool that has significantly increased screening rates for breast, cervical, and colorectal cancer in patients at high risk for nonadherence with testing.[14] Patient navigators are people who accompany patients through the health care system, including through the screening, diagnosis, treatment, and follow-up of medical conditions such as cancer. Patient navigation reduces the anxiety of procedures and enhances screening rates.

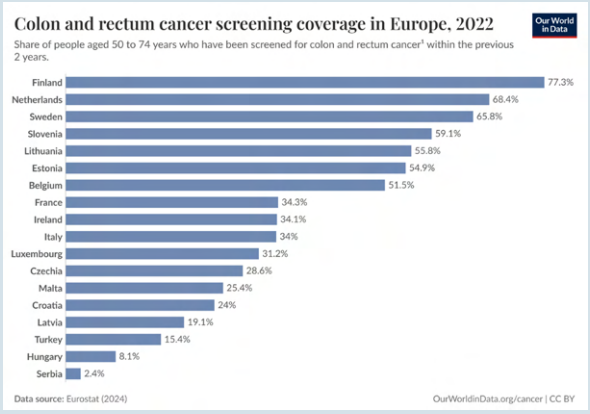
Insurers can promote non-invasive alternatives (e.g., FIT, stool DNA tests), help to normalize screening through patient testimonials, and offer emotional support.

Logistic and financial challenges

When FIT test kits are sent by mail, accompanied by follow-up reminders and patient support, screening rates improve significantly (+20%) and compliance with follow-up colonoscopies increases (+24%).[15]

This is effective in the Finland model, for example: screening kits are mailed directly to participants' homes with prepaid return envelopes, and participation is completely free. The process is simple and requires only one stool sample. It avoids GP involvement, an extra step that reduces uptake and introduces variability and delays, especially if people don't visit their doctor regularly.

Figure 1: Colon and rectum cancer screening



Moreover, data suggests that removing financial barriers increases participation in screening programs.[16]

Research highlights some measures which have been successfully implemented to facilitate access to screening, such as the "health bus" – a mobile unit providing healthcare services to people who are geographically, economically, or socially isolated, and face barriers in terms of accessing healthcare facilities.[17]



Insurers can facilitate the logistical aspects of screening by supporting effective models such as sending kits to people's homes. Offering insurance coverage that encourages screening behavior is another option.

It is also valuable to develop community-based strategies, such as mobile units, flexible schedules, home kits, and transportation assistance.

Chronic Diseases & Poor Mental Health

Chronic diseases such as diabetes, cardiovascular illness, and respiratory disorders are strongly associated with poorer mental and physical health outcomes. Recent research shows that these combined burdens can interfere with participation in recommended health screenings. When chronic diseases and poor mental health co-occur in cancer survivors, they create a compounding effect that decreases engagement with recommended screening programs.[18] The result is lower uptake of follow up screenings, which are crucial for detecting recurrence or secondary cancers.

Mental health significantly influences preventive health behaviors and screening adherence, which in turn impacts long-term healthcare costs and claims. Research shows that people with mental health disorders experience an increased mortality rate from cancer compared to the general population.[19] Individuals with mental health conditions (such as chronic stress, depression, anxiety, substance use disorders) are less likely to undergo timely screening, and more likely to postpone medical interviews.[20] Consequently, they often experience delays in diagnosis, which increases emergency admissions.[21] Psychological fatigue and diminished capacity for planning contribute to this avoidance.[22] Mental health conditions are associated with a higher risk of emergency cancer diagnosis, along with higher costs[23] and excess mortality rates, which could reflect an advanced cancer stage at diagnosis[24] and inadequate access to care.[25]

Mental health support can improve compliance: interventions like patient navigation and counseling have led screening rates to increase from 11.8% to 47.1% in vulnerable populations.[26] This underscores the need for integrated survivorship care models that address both chronic disease management and mental health support – an approach recognized in public health guidance and clinical interventions.

For insurers, missed or delayed screenings translate into higher downstream costs from more advanced disease and avoidable interventions.

It is crucial to invest in integrated prevention models combining chronic disease management, mental health support, and proactive screening reminders that can improve outcomes while protecting portfolio sustainability. Integrating mental health considerations into awareness campaigns by offering reassurance and support can enhance participation rates and overall health outcomes. In a US study conducted in 2025, targeted educational programs were the most suggested strategy to overcome barriers to cancer screening uptake.[27] Similarly, successful solutions include incorporating screening reminders into chronic care visits, offering psychological support, and using patient navigation to coordinate care.

SCREENING SUCCESS STARTS IN THE MIND: A NEW PERSPECTIVE FOR INSURERS

Improving colorectal cancer screening adherence is a public-health priority, and a strategic lever for insurers seeking to strengthen portfolio resilience, to reduce long-term cancer-related losses, and to enhance customer value. CRC's high treatability in its early stages means that every increase in screening participation translates directly into better outcomes and lower claims severity. CRC at advanced stages



often results in long recovery periods, lasting impairment, or increased risk of recurrence. Boosting screening helps prevent these prolonged disability claims and reduces critical illness and life insurance payouts, ultimately lowering the total cost of risk.

Mental health is an influencing factor for colorectal screening compliance, linked to addressing the fear of testing and outcomes as well as low health literacy. A multi level prevention strategy is needed to improve screening adherence and reduce long term cancer costs. This may include:

Patient navigation programs:[28] personalized assistance for scheduling, preparation, and overcoming psychological barriers boosts screening rates significantly.[29] Such programs feature patient testimonials, FAQs, and emotional reassurance.

Behavioral interventions[30] **or online intervention:**[31] messages that combine cognitive (early detection benefits) and affective (peace of mind) levers increase the intention to screen. Similarly, educational online intervention reduces cancer-related anxiety and leads to higher screening uptake. These interventions help to promote non-invasive screening options, communicate the asymptomatic nature of early CRC and survival benefits, encourage providers to issue systematic recommendations during routine visits, and target gender differences in prevention behaviors.

Digital health tools: mobile apps, Electronic Medical Record-based reminders, and telehealth counseling improve uptake by 20–37% in underserved populations[32] (e.g., racial and ethnic minorities, rural communities, and individuals with limited health literacy). Mobile insurer apps can include risk calculators and screening reminders, and digital health tools in general offer plain language, culturally adapted materials.

Integrated care models: combining mental health support with preventive care improves adherence. Offering mental health support as well as navigation services can increase screening compliance, reduce cancer-related payouts, and improve customer well-being.

Local screening events: organized in partnership with clinics and pharmacies, these events make screening easier to access by bringing it to local communities.

Offering simple, accessible prevention pathways (through mailed FIT kits, targeted communication, and online support) is identified as a core element in high-performing programs, and differentiates insurers in a competitive market. Clients value insurers who actively help them to maintain their health. Prevention services enhance customer satisfaction, retention, and trust.



CONCLUSION

Improving CRC screening adherence is clinically impactful and economically sound. These interventions may require modest upfront investment, but they generate large financial benefits through avoided late-stage cancers. Interventions that integrate behavioral, logistical, and mental health support reduce late stage cancer claims, lower emergency admissions, and improve treatment outcomes, enhancing quality of life and longevity and strengthening long term portfolio performance.

CRC screening success begins with understanding human behavior. In this regard, (re)insurers are uniquely positioned to turn insight into action, to the benefit of their clients, themselves, and the wider society.

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