California Quality Collaborative

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Quality Measure Resource Guide: Colorectal Cancer Screening (COL-E)

Measure Name: Colorectal Cancer Screening
Measure Abbreviation: COL-E
Measure Description: The percentage of members 45–75 years of age who had appropriate screening for colorectal cancer[1]

Why This Measure Matters

Colorectal cancer screening is a critical public health measure for several reasons, primarily due to its potential to significantly reduce mortality and improve treatment outcomes.

- **Early detection and increased survival rates**
  - Screening for colorectal cancer can detect the disease in its early stages when treatment is most effective. Early-stage colorectal cancer has a five-year survival rate of approximately 90%. This high survival rate underscores the importance of early detection, which can be achieved through regular screening[2].
- **Prevention of cancer development**
  - Screening tests can also identify precancerous polyps in the colon or rectum. These polyps can be removed before they develop into cancer, effectively preventing the disease. This preventive aspect of colorectal cancer screening is crucial in reducing the overall incidence of the disease[3]
- **Reduction in mortality rates**
  - Studies have shown that increased screening correlates with a decrease in both the incidence and mortality rates of colorectal cancer. For instance, between 2012 and 2020, deaths from colorectal cancer declined slightly each year, attributed in part to increased screening efforts[4]

Implemented Strategies

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The U.S. Preventive Task Force recommends several screening strategies for colorectal cancer screening (CRC) for average-risk individuals starting at age 45 (source).

1. Stool based tests like the high-sensitivity guaiac fecal occult blood test (HSgFOBT)
2. Fecal immunochemical test (FIT)
3. Multi-target stool DNA (mt-sDNA) test
4. Computed tomographic (CT) colonography
5. Flexible sigmoidoscopy with FIT

Implementation Considerations

Effective implementation of CRC screening requires an approach that includes informed decision-making by patients and providers. Factors such as test invasiveness, performance, screening interval, accessibility, and cost should be considered. Strategies may include, patient education, provider education, mailed screening outreach, and patient navigation to enhance screening uptake[3].

Evidence-Based Interventions

The CDC's Colorectal Cancer Control Program (CRCCP) supports the implementation of of evidence-based interventions to increase screening rates, specifically among underserved populations. Interventions include small media, client reminders, reducing structural barriers, and provider reminders. These interventions have shown variability, with challenges such as funding constraints and limited staffing capacity affecting sustainability (source)

Tools and Resources

- Colorectal Cancer Screening Shared Decision-Making Tool helps primary care providers educate patients about non-invasive screening options for colorectal cancer. It facilitates shared decision-making by providing information on various

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Screening methods, allowing patients to make informed choices based on their preferences and medical history.

- National Colorectal Cancer Roundtable (NCCRT) Resource Center offers a comprehensive resource center that includes evidence-based tools and innovations to enhance the quality of colorectal cancer screening. These resources are designed to be used in diverse settings and populations, helping providers implement effective screening practices.
- American Cancer Society's Screening Guidelines provides detailed screening guidelines that providers can reference to ensure they are following the most up-to-date recommendations for colorectal cancer screening.
- National Cancer Institute's PDQ Screening Summary offers a Physician Data Query (PDQ) screening summary for colorectal cancer, which provides detailed information on various screening methods, their efficacy, and potential harms.

Evaluation Criteria

- Eligible Clinicians:

Provider Type	
Primary Care Providers (PCPs)	Family physicians, internists, and nurse practitioners, play a crucial role in recommending colorectal cancer

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	screening. They assess patient risk factors, discuss screening options, and provide referrals for screening tests such as colonoscopies (source)
Gastroenterologists	Gastroenterologists are specialists who perform colonoscopies and other endoscopic procedures. They are essential for conducting follow-up colonoscopies if initial screening tests, like stool-based tests, return positive results (source)
Nurse Practitioners and Physician Assistants	These clinicians often work in primary care settings and can provide guidance on colorectal cancer screening. They may also perform certain types of screenings, such as administering stool-based tests (source)
General Surgeons	In some cases, general surgeons may be involved in the screening process, particularly if surgical intervention is required following the detection of polyps or cancerous lesions during screening (source)

- Measure Reporting
  - Covered California's Quality Transformation Initiative
  - CMS CRC Screening Reporting Requirements
  - Central CA Alliance for Health – CRC Screening- Exploratory Measure Tip Sheet
- Data Collection and Submission methodology
  - Providers can submit colorectal cancer screening data using,
    - Claims, laboratory data, DHCS Fee-for-Service encounter claims, and provider data submissions (source).

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- Measure Specifications
    - The measure tracks the percentage of members aged 45-75 who have undergone appropriate colorectal cancer screening.
    - Accepted screening methods include fecal occult blood test (FOBT) within the last year, flexible sigmoidoscopy within the last five years, colonoscopy within the last ten years, CT colonography within the last five years, and stool DNA with FIT test within the last three years (source)
- Denominator
    - Population of individuals who are eligible for screening based on age and other criteria
    - Age Range: Adults aged 45-75 years (source)
    - Exclusions: Those with a history of colorectal cancer or total colectomy, those in hospice or receiving palliative care, those who died during the measurement year, and those aged 66 and older with frailty and advanced illness (source)

- Numerator
    - The number of patients who have received one or more appropriate screenings for colorectal cancer within the specified measurement period.

Fecal Occult Blood Test (FOBT)	Conducted during the measurement period
Flexible Sigmoidoscopy	Performed during the measurement period or the four years prior
Colonoscopy	Conducted during the measurement period or the nine years prior

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Computed Tomography (CT) Colonography	Performed during the measurement period or the four years prior
Fecal Immunochemical DNA Test (FIT-DNA)	Conducted during the measurement period or the two years prior

- Exclusion
  - Certain members are excluded from the measure, such as those with a history of colorectal cancer or total colectomy, those in hospice or receiving palliative care, those who died during the measurement year, and those aged 66 and older with frailty and advanced illness (source)
- Rate Calculation Formula
  - The rate calculation formula for colorectal cancer screening is determined by dividing the number of patients who have received appropriate screenings (numerator) by the total number of eligible patients (denominator)

Screening Rate = Number of patients with appropriate screenings/ Total number of eligible patients ✖ 100