Proposed Changes to Existing Measure for HEDIS®[1] MY 2022: Colorectal Cancer Screening (COL)

NCQA seeks comments on proposed modifications to the HEDIS Health Plan Colorectal Cancer Screening (COL) measure.

Proposed Revisions Based on Updated Guideline Recommendations

The current measure assesses the percentage of adults 50–75 years of age who had appropriate screening for colorectal cancer. The measure is reported by commercial and Medicare health plans.

In May 2021, the U.S. Preventive Services Task Force released an updated guideline that expands the recommended ages for screening to adults 45–49 because of increased incidence of colorectal cancer in younger adults.

NCQA seeks comments on proposed revisions to the measure for HEDIS Measurement Year (MY) 2022:

- ***Add members 45–49 years*** to align with updated guidelines.
- ***Specify performance rates stratified by 45–49 years, 50–75 years and a total rate,*** which would permit continued trending for adults 50–75 and highlight performance in younger adults for whom screening is newly recommended. We also seek comments on options for stratifying the measure by age, given that the measure includes stratifications for socioeconomic status (SES), race and ethnicity: Would reporting SES, race and ethnicity for each age stratum feasibly provide useful information, and would the benefits of such reporting justify potential burden?
- ***Add the Medicaid product line for reporting,*** because the younger age range, in addition to Medicaid expansion, increases the applicability of the measure to the Medicaid population.

Proposed Revisions to Reporting Methods

Currently, the measure can be reported using either administrative data (the Administrative Method) or administrative data supplemented with medical record review for a sample of members (the Hybrid Method). Plans may also report the measure using the Electronic Clinical Data Systems (ECDS) Method, a HEDIS reporting standard that encourages the use and sharing of electronic clinical data across health care systems.[2]

NCQA previously proposed removing hybrid reporting and transitioning this measure to ECDS-only reporting for MY 2024. The proposed age and product line updates for MY 2022 provide an opportunity to assess earlier removal of hybrid reporting, which could facilitate the transition to ECDS-only reporting. Reducing the burden of manual chart review would allow plans to focus on capturing colorectal cancer screening with electronic clinical data while implementing the other proposed changes to the measure.

NCQA seeks comments on the following proposed revisions to the reporting methods:

- ***Remove the hybrid reporting option for HEDIS MY 2022.***
- ***Establish ECDS-only reporting for HEDIS MY 2023.***

Supporting documents include draft measure specifications, evidence workup and performance data.

NCQA acknowledges the contributions of the Colorectal Cancer Screening Measurement Advisory Panel, the Geriatric Measurement Advisory Panel, the Technical Measurement Advisory Panel and the Committee on Performance Measurement.

[1] HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA).
[2] For more information on the HEDIS ECDS Reporting Standard, please visit https://www.ncqa.org/hedis/the-future-of-hedis/hedis-electronic-clinical-data-system-ecds-reporting/.

Colorectal Cancer Screening (COL)

SUMMARY OF CHANGES TO HEDIS MY 2022 TECHNICAL UPDATE

- Revised the screening ages from 50–75 years to 45–75 years.
- Added instructions for reporting rates stratified by age for each product line.
- Added the Medicaid product line for reporting.
- Removed the Hybrid Method of data collection.

Description

The percentage of members ~~50–75~~ **45–75** years of age who had appropriate screening for colorectal cancer.

Eligible Population

Product lines

Commercial, Medicare, **Medicaid** (report each product line separately).

Stratification

For each product line, report the following age stratifications and total:

- **45–49 years.**
- **50–75 years.**
- **Total.**

For only Medicare, report the following SES stratifications and total:

- Non-LIS/DE, Nondisability.
- LIS/DE.
- Disability.
- LIS/DE and Disability.
- Other.
- Unknown.
- Total Medicare.

Note: *Stratifications are mutually exclusive and the sum of all six stratifications is the Total population*

For each product line, report the following stratifications by race and total, and stratifications by ethnicity and total:

- *Race:*
  - White.
  - Black or African American.
  - American Indian and Alaska Native.
  - Asian.
  - Native Hawaiian and Other Pacific Islander.
  - Some Other Race.
  - Two or More Races.

  - Asked but No Answer.
  - Unknown.
  - Total.
- *Ethnicity:*
  - Hispanic/Latino.
  - Not Hispanic/Latino.
  - Asked but No Answer.
  - Unknown.
  - Total.

Note: *Stratifications are mutually exclusive and the sum of all categories in each stratification is the Total population*

Ages ~~51–75~~ 46–75 years as of December 31 of the measurement year.

Continuous enrollment The measurement year and the year prior to the measurement year.

Allowable gap No more than one gap in continuous enrollment of up to 45 days during each year of continuous enrollment.

Anchor date December 31 of the measurement year.

Benefit Medical.

Event/diagnosis None.

Required exclusions Exclude members who meet any of the following criteria:

- Members in hospice or using hospice services anytime during the measurement year. Refer to *General Guideline 17: Members in Hospice*.
- Members receiving palliative care (Palliative Care Assessment Value Set; Palliative Care Encounter Value Set; Palliative Care Intervention Value Set) during the measurement year.

Exclusions Exclude members who meet any of the following criteria:

Note: *Supplemental and medical record data may not be used for these exclusions.*

- Medicare members 66 years of age and older as of December 31 of the measurement year who meet either of the following:
  - Enrolled in an Institutional SNP (I-SNP) any time during the measurement year.
  - Living long-term in an institution any time during the measurement year as identified by the LTI flag in the Monthly Membership Detail Data File. Use the run date of the file to determine if a member had an LTI flag during the measurement year.
- Members 66 years of age and older as of December 31 of the measurement year (all product lines) with frailty ***and*** advanced illness. Members must meet **BOTH** of the following frailty and advanced illness criteria to be excluded:
  1. At least one claim/encounter for frailty (Frailty Device Value Set; Frailty Diagnosis Value Set; Frailty Encounter Value Set; Frailty Symptom Value Set) during the measurement year.

2. Any of the following during the measurement year or the year prior to the measurement year (count services that occur over both years):
   - At least two outpatient visits (Outpatient Value Set), observation visits (Observation Value Set), ED visits (ED Value Set), telephone visits (Telephone Visits Value Set), e-visits or virtual check-ins (Online Assessments Value Set), nonacute inpatient encounters (Nonacute Inpatient Value Set) or nonacute inpatient discharges (instructions below; the diagnosis must be on the discharge claim) on different dates of service, with an advanced illness diagnosis (Advanced Illness Value Set). Visit type need not be the same for the two visits. To identify a nonacute inpatient discharge:
     1. Identify all acute and nonacute inpatient stays (Inpatient Stay Value Set).
     2. Confirm the stay was for nonacute care based on the presence of a nonacute code (Nonacute Inpatient Stay Value Set) on the claim.
     3. Identify the discharge date for the stay.
   - At least one acute inpatient encounter (Acute Inpatient Value Set) with an advanced illness diagnosis (Advanced Illness Value Set).
   - At least one acute inpatient discharge with an advanced illness diagnosis (Advanced Illness Value Set) on the discharge claim. To identify an acute inpatient discharge:
     1. Identify all acute and nonacute inpatient stays (Inpatient Stay Value Set).
     2. Exclude nonacute inpatient stays (Nonacute Inpatient Stay Value Set).
     3. Identify the discharge date for the stay.
   - A dispensed dementia medication (Dementia Medications List).

Dementia Medications

Description	Prescription
Cholinesterase inhibitors	• Donepezil • Galantamine • Rivastigmine
Miscellaneous central nervous system agents	• Memantine
Dementia combinations	• Donepezil-memantine

Administrative Specification

Denominator The eligible population.

Numerator One or more screenings for colorectal cancer. Any of the following meet criteria:

- Fecal occult blood test (FOBT Lab Test Value Set; FOBT Test Result or Finding Value Set) during the measurement year. For administrative data, assume the required number of samples were returned, regardless of FOBT type.
- Flexible sigmoidoscopy (Flexible Sigmoidoscopy Value Set; History of Flexible Sigmoidoscopy Value Set) during the measurement year or the four years prior to the measurement year.

- Colonoscopy (Colonoscopy Value Set; History of Colonoscopy Value Set) during the measurement year or the nine years prior to the measurement year.
- CT colonography (CT Colonography Value Set) during the measurement year or the four years prior to the measurement year.
- FIT-DNA test (FIT DNA Lab Test Value Set; FIT DNA Test Result or Finding Value Set) during the measurement year or the two years prior to the measurement year.

Exclusion *(optional)*

Either of the following any time during the member's history through December 31 of the measurement year:

- Colorectal cancer (Colorectal Cancer Value Set).
- Total colectomy (Total Colectomy Value Set; History of Total Colectomy Value Set).

~~Hybrid Specification~~

~~Denominator~~

~~A systematic sample drawn from the eligible population for each product line. Organizations may reduce the sample size using the current year's administrative rate or the prior year's audited, product line-specific rate. Refer to the *Guidelines for Calculations and Sampling* for information on reducing the sample size.~~

~~For Medicare reporting, the denominator (MRSS) for the Total category is the entire systematic sample. Do not pull samples for each stratification. The individual stratifications for the denominators and all numerators must sum to the totals.~~

~~Numerator~~

~~One or more screenings for colorectal cancer. Appropriate screenings are defined by one of the following:~~

- ~~FOBT during the measurement year.~~
- ~~Flexible sigmoidoscopy during the measurement year or the four years prior to the measurement year.~~
- ~~Colonoscopy during the measurement year or the nine years prior to the measurement year.~~
- ~~CT colonography during the measurement year or the four years prior to the measurement year.~~
- ~~FIT-DNA during the measurement year or the two years prior to the measurement year.~~

~~Administrative~~

~~Refer to *Administrative Specification* to identify positive numerator hits from the administrative data.~~

~~Medical record~~

~~Documentation in the medical record must include a note indicating the date when the colorectal cancer screening was performed. A result is not required if the documentation is clearly part of the member's "medical history"; if this is not clear, the result or finding must also be present (this ensures that the screening was performed and not merely ordered).~~

~~A pathology report that indicates the type of screening (e.g., colonoscopy, flexible sigmoidoscopy) and the date when the screening was performed meets criteria.~~
~~For pathology reports that do not indicate the type of screening and for incomplete procedures:~~

- ~~Evidence that the scope advanced beyond the splenic flexure meets criteria for a completed colonoscopy.~~
- ~~Evidence that the scope advanced into the sigmoid colon meets criteria for a completed flexible sigmoidoscopy.~~

~~There are two types of FOBT tests: guaiac (gFOBT) and immunochemical (FIT). Depending on the type of FOBT test, a certain number of samples are required for numerator compliance. Follow the instructions below to determine member compliance.~~

- ~~If the medical record does not indicate the type of test and there is no indication of how many samples were returned, assume the required number was returned. The member meets the screening criteria for inclusion in the numerator.~~
- ~~If the medical record does not indicate the type of test and the number of returned samples is specified, the member meets the screening criteria only if the number of samples specified is greater than or equal to three samples. If there are fewer than three samples, the member does not meet the screening criteria for inclusion.~~
- ~~FIT tests may require fewer than three samples. If the medical record indicates that an FIT was done, the member meets the screening criteria, regardless of how many samples were returned.~~
- ~~If the medical record indicates that a gFOBT was done, follow the scenarios below.~~
  - ~~*If the medical record does not indicate the number of returned samples,* assume the required number was returned. The member meets the screening criteria for inclusion in the numerator.~~
  - ~~*If the medical record indicates that three or more samples were returned,* the member meets the screening criteria for inclusion in the numerator.~~
  - ~~*If the medical record indicates that fewer than three samples were returned,* the member does not meet the screening criteria.~~

~~*Do not count* digital rectal exams (DRE), FOBT tests performed in an office setting or performed on a sample collected via DRE.~~

Exclusion *(optional)*

Refer to *Administrative Specification* for exclusion criteria. Exclusionary evidence in the medical record must include a note indicating colorectal cancer or total colectomy any time during the member's history through December 31 of the measurement year.

Data Elements for Reporting

Organizations that submit HEDIS data to NCQA must provide the following data elements.

Table COL-A-1/2/3: Data Elements for Colorectal Cancer Screening

Metric	Age Stratification	Data Element	Reporting Instructions
ColorectalCancerScreening	45-49 years	EligiblePopulation	For each Stratification
	50-75 years	ExclusionAdminRequired	For each Stratification
	Total	ExclusionAdminOptional	For each Stratification
		NumeratorByAdmin	For each Stratification
		NumeratorBySupplemental	For each Stratification
		Rate	(Percent)

Table COL-A-3: Data Elements for Colorectal Cancer Screening

Metric	SES Stratification	Data Element	Reporting Instructions
ColorectalCancerScreening	NonLisDeNondisability	EligiblePopulation	For each Stratification
	LisDe	ExclusionAdminRequired	For each Stratification
	Disability	ExclusionAdminOptional	For per Stratification
	LisDeAndDisability	NumeratorByAdmin	For each Stratification
	Other	NumeratorBySupplemental	For each Stratification
	Unknown	Rate	(Percent)
	Total		

Table COL-B-1/2/3: Data Elements for Colorectal Cancer Screening*: *Stratifications by Race

Metric
ColorectalCancerScreening

Race	Source	Data Element	Reporting Instructions	A
White	Direct	EligiblePopulation	For each Stratification	✓
BlackOrAfricanAmerican	Indirect	Denominator	For each Stratification	
AmericanIndianAndAlaskaNative	Total	Numerator	For each Stratification	✓
Asian		Rate	(Percent)	✓
NativeHawaiianAndOtherPacificIslander				
SomeOtherRace				
TwoOrMoreRaces				
AskedButNoAnswer*				
Unknown				

Table COL-C-1/2/3: Data Elements for Colorectal Cancer Screening: Stratifications by Ethnicity

Metric	Ethnicity	Source	Data Element	Reporting Instructions	A
ColorectalCancerScreening	HispanicOrLatino	Direct	EligiblePopulation	For each Stratification	✓
	NotHispanicOrLatino	Indirect	Denominator	For each Stratification	
	AskedButNoAnswer*	Total	Numerator	For each Stratification	✓
	Unknown		Rate	(Percent)	✓

*AskedButNoAnswer is only reported for Source='Direct.'

Colorectal Cancer Screening (COL)
Measure Workup

Topic Overview

Prevalence and Importance

Colorectal cancer represents 8% of all new cancer cases and is the second leading cause of cancer deaths in the United States for men and women combined (National Cancer Institute, 2021). In 2021, it is estimated there will be 149,500 new cases of colorectal cancer and 52,980 deaths attributed to it. (National Cancer Institute, 2021). According to the National Cancer Institute, approximately 4.3% of men and 4.0% of women will be diagnosed with colorectal cancer at some point during their lifetime (National Cancer Institute, 2021).

For most adults, older age is the most important risk factor for colorectal cancer, although male sex and Black race are also associated with higher incidence and mortality. Colorectal cancer is most frequently diagnosed among people 65–74 years of age (Howlader, 2016); however, it is estimated that 10.5% of new colorectal cancer cases occur in adults younger than 50. The incidence of colorectal cancer in adults 40–49 increased by almost 15% from 2002–2016 (USPSTF, 2021).

Screening can be effective for finding precancerous lesions (polyps) that could later become malignant, and for detecting early cancers that can be more easily and effectively treated. Precancerous polyps usually take 10–15 years to develop into colorectal cancer, and most can be found and removed before developing into cancer. The 5-year relative survival rate is about 90% for individuals whose colorectal cancer is found in the early stage before it has spread (ACS, 2020). However, in 2016, 26% of eligible adults in the U.S. had never been screened for colorectal cancer, and in 2018, 31% were not up to date with screening (USPSTF, 2021). *Healthy People 2030*, a program of nationwide health-promotion and disease-prevention goals set by the U.S. Department of Health and Human Services, seeks to increase the proportion of adults who receive colorectal cancer screening based on the most recent guidelines by the year 2030.

According to data from the Behavioral Risk Factor Surveillance System, 68.8% of eligible adults reported receiving colorectal cancer screening—a step away from the *Healthy People 2030* goal of 74.4% (Joseph et al., 2020).

Financial importance and cost-effectiveness

Colorectal cancer was estimated to cost the U.S. $14.1B in 2010, with the Medicare program spending an estimated $7.4B on treatment (Mariotto et al., 2010). Due to the high occurrence of colorectal cancer in older populations, treatment costs are likely to increase as the population ages.

According to the National Cancer Institute, an updated estimate of colorectal cancer care was $24.3B in 2020. Contributing to overall costs is the increasing price of cancer treatment drugs (Bach, 2015). Spending on therapeutic oncology and supportive care drugs reached $43.4B in 2014, an increase of $4.9B from 2013 (Tefferi, 2015).

Increased colorectal cancer screening is one way to reduce the costs associated with colorectal cancer. Preventing colorectal cancer through screening eliminates direct costs associated with treatment, including drugs, doctor visits and hospital stays, as well as indirect costs such as lost productivity from time away from work.

Supporting Evidence

USPSTF recommendations

Colorectal cancer screening is recommended by the US Preventive Services Task Force (USPSTF) for the general population starting at age 50 and continuing until age 75. This is an A recommendation, which means that the USPSTF found with high certainty that the net benefit is substantial.

In addition, the USPSTF recommends screening for colorectal cancer in adults 45–49. This is a B recommendation, and the USPSTF found with moderate certainty that the net benefit of screening adults in this age range is moderate. Other national guideline organizations also recommend colorectal cancer screening in a general population (Table 1).

Screening methods

A number of tests screen for colorectal cancer, including stool-based tests, endoscopy and imaging tests; the risks and benefits of different screening methods vary. The USPSTF evaluated screening tests and their effectiveness in terms of reducing the incidence of and mortality from colorectal cancer or all-cause mortality; harms associated with each test; and their ability to detect adenomatous polyps, advanced adenomas and colorectal cancer (2021). The USPSTF found no head-to-head studies demonstrating that one screening strategy is more effective than the others. The USPSTF stated that maximizing the total number of persons screened will have the greatest effect on reducing colorectal cancer deaths, and that offering choice in screening strategies may further this goal. The USPSTF presents seven screening strategies (Table 2) that may be offered to individuals, along with screening intervals, evidence of efficacy and strengths and limitations of each.

Opportunity for Improvement

Gaps in Care

Despite evidence that colorectal cancer screening can reduce both disease incidence and mortality, screening rates remain suboptimal. HEDIS measurement year 2020 performance rates indicate that 61.4% of commercial and 71.1% of Medicare plan members 50–75 received an appropriate screening for colorectal cancer. The spread between the 10th and 90th percentiles was 23.1 percentage points for commercial plans and 26.7 percentage points for Medicare plans.

Other studies have found that slightly more than two thirds of individuals who should get tested for colorectal cancer receive screening. Barriers to care include lack of public and health care provider awareness of screening options, out-of-pocket costs associated with screening and health insurance coverage issues, such as narrow provider networks and lack of coverage for preferred screening methods (ACS, 2020). A systematic review of studies that examined determinants of colorectal cancer screening behavior among older adults found perceived barriers, including fear and embarrassment, to be the most prominent predictors of a patient completing a screening (Beydoun, et al., 2008). Additionally, offering limited screening options to patients may contribute to low screening rates.

Disparities

There are racial, ethnic, socioeconomic and geographic disparities in colorectal cancer screening. One study found that screening rates among individuals 50–64 years of age were disproportionately lower among less-educated individuals and among those residing in southern states (Jemal A et al., 2014). Further, inequalities in screening, follow-up and treatment for Black adults (Cooper, 2004; Brawley, 2014) may contribute to the higher rate of colorectal cancer incidence and mortality in that population (Howlader, 2016).

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Specific Guideline Recommendations

Table 1. Clinical Practice Guidelines for Colorectal Cancer Screening by Screening Method and Organization

Guideline		USPSTF 2021 See Table 2 for Details	National Comprehensive Cancer Network 2021	American College Of Physicians 2019	American College Of Gastroenterology 2021	American Cancer Society 2018
Recommended Age for Screening (Grade)		Adults 50-75 Years (A Recommendation) Adults 45-49 Years (B Recommendation)	Adults ≥45 Years (Category 2A)	Adults 50-75 Years (No Grade, Expert Opinion)	Adults 50-75 Years (Strong Recommendation) Adults 45-49 Years (Conditoinal Recommendation)	Adults ≥50 Years (Strong Recommendation) Adults 45-49 Years (Qualified Recommendation)
Screening Method	FIT=fecal immunochemical test FOBT= fecal occult blood test	1 year • FIT or or high-sensitivity gFOBT	1 year • FIT or or high-sensitivity gFOBT	2 years • FIT or high-sensitivity gFOBT	1 year • FIT: Preferred cancer screening test (Strong recommendation) • High-sensitivity gFOBT: Alternative cancer screening test (Conditional recommendation)	1 year • FIT or high-sensitivity gFOBT
	Flexible sigmoidoscopy alone	5 years	5–10 years	—	5–10 years • Alternative cancer screening test (Conditional recommendation)	5 years
	Flexible sigmoidoscopy with gFOBT or FIT	Sigmoidoscopy every 10 years with annual FIT	Sigmoidoscopy every 5–10 years with gFOBT or FIT every 3 years	Sigmoidoscopy every 10 years with FIT every 2 years	—	—
	Colonoscopy	10 years	10 years	10 years	10 years • Preferred cancer screening test (Strong recommendation)	10 years
	CT Colonography	5 years	5 years	—	5 years • Alternative cancer screening test (Conditional recommendation)	5 years

Guideline		USPSTF 2021 See Table 2 for Details	National Comprehensive Cancer Network 2021	American College Of Physicians 2019	American College Of Gastroenterology 2021	American Cancer Society 2018
Recommended Age for Screening (Grade)		Adults 50-75 Years (A Recommendation) Adults 45-49 Years (B Recommendation)	Adults ≥45 Years (Category 2A)	Adults 50-75 Years (No Grade, Expert Opinion)	Adults 50-75 Years (Strong Recommendation) Adults 45-49 Years (Conditoinal Recommendation)	Adults ≥50 Years (Strong Recommendation) Adults 45-49 Years (Qualified Recommendation)
	FIT-DNA	1 or 3 years	Interval uncertain; 3 years is suggested	—	3 years • Alternative cancer screening test (Conditional recommendation)	3 years
	Colon capsule	—	—	—	5 years • Alternative cancer screening test (Conditional recommendation)	—

Table 2: [USPSTF] Characteristics of Colorectal Cancer Screening Strategies[a] (from USPSTF Recommendation Statement, 2021)

Screening Method	Frequency[b]	Evidence of Efficacy	Other Considerations
gFOBT	Every year	RCTs with mortality end points: High-sensitivity versions (e.g., Hemoccult SENSA) have superior test performance characteristics than older tests (e.g., Hemoccult II)	Does not require bowel preparation, anesthesia, or transportation to and from the screening examination (test is performed at home)
FIT[c]	Every year	Test characteristic studies: Improved accuracy compared with gFOBT Can be done with a single specimen	Does not require bowel preparation, anesthesia, or transportation to and from the screening examination (test is performed at home)
FIT-DNA	Every 1 or 3 years[d]	Test characteristic studies: Specificity is lower than for FIT, resulting in more false-positive results, more diagnostic colonoscopies, and more associated adverse events per screening test Improved sensitivity compared with FIT per single screening test	There is insufficient evidence about appropriate longitudinal follow-up of abnormal findings after a negative diagnostic colonoscopy; may potentially lead to overly intensive surveillance due to provider and patient concerns over the genetic component of the test

Screening Method	Frequency[b]	Evidence of Efficacy	Other Considerations
Colonoscopy[c]	Every 10 years	Prospective cohort study with mortality end point	Requires less frequent screening Screening and diagnostic follow-up of positive findings can be performed during the same examination
CT colonography[e]	Every 5 years	Test characteristic studies	There is insufficient evidence about the potential harms of associated extracolonic findings, which are common
Flexible sigmoidoscopy	Every 5 years	RCTs with mortality end points: Modeling suggests it provides less benefit than when combined with FIT or compared with other strategies	Test availability has declined in the United States
Flexible sigmoidoscopy with FIT[c]	Flexible sigmoidoscopy every 10 years plus FIT every year	RCT with mortality end point (subgroup analysis)	Test availability has declined in the United States Potentially attractive option for patients who want endoscopic screening but want to limit exposure to colonoscopy

[a] Although a serology test to detect methylated SEPT9 DNA was included in the systematic evidence review, this screening method currently has limited evidence evaluating its use (a single published test characteristic study met inclusion criteria, which found it had a sensitivity to detect colorectal cancer of <50%). It is therefore not included in this table.

[b] Applies to persons with negative findings (including hyperplastic polyps) and is not intended for persons in surveillance programs. Evidence of efficacy is not informative of screening frequency, with the exception of gFOBT and flexible sigmoidoscopy alone.

[c] Strategy yields comparable life-years gained (i.e., the life-years gained with the non-colonoscopy strategies were within 90% of those gained with the colonoscopy strategy) and an efficient balance of benefits and harms in CISNET modeling.

[d] Suggested by manufacturer.

[e] Strategy yields comparable life-years gained (i.e., the life-years gained with the non-colonoscopy strategies were within 90% of those gained with the colonoscopy strategy) and an efficient balance of benefits and harms in CISNET modeling when lifetime number of colonoscopies is used as the proxy measure for the burden of screening, but not if lifetime number of cathartic bowel preparations is used as the proxy measure.

Grading Systems

US Preventive Services Task Force

A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.
C	The USPSTF recommends against routinely providing the service. There may be considerations that support providing the service in an individual patient. There is at least moderate certainty that the net benefit is small.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits
I	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.

National Comprehensive Cancer Network Categories of Evidence and Consensus

Category 1	Based upon high-level evidence, there is uniform NCCN consensus that the intervention is appropriate.
Category 2A	Based upon lower-level evidence, there is uniform NCCN consensus that the intervention is appropriate.
Category 2B	Based upon lower-level evidence, there is NCCN consensus that the intervention is appropriate.
Category 3	Based upon any level of evidence, there is major NCCN disagreement that the intervention is appropriate.

American College of Gastroenterology

Strong	Modified Grading of Recommendations, Assessment, Development and Evaluation methodology to evaluate the quality of the evidence and strength of recommendation. We used “we recommend” for strong recommendations and “we suggest” for conditional recommendations.
Conditional	

American Cancer Society

Strong	Consensus that the benefits of adherence to the intervention outweigh the undesirable effects and that most patients would choose the intervention
Qualified	Clear evidence of benefit (or harm) but less certainty either about the balance of benefits and harms or about patients’ values and preferences, which could lead to different individual decisions.

References (Guidelines)

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HEDIS Health Plan Performance Rates: Colorectal Cancer Screening (COL)

Table 1. HEDIS COL Measure Performance—Commercial Plans

Measurement Year	Total Number of Plans (N)	Number of Plans Reporting (N (%))	Performance Rates (%)						
			Mean	Standard Deviation	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
2020*	416	415 (99.8)	61.4	9.5	49.5	56.1	62.2	67.9	72.6
2019	417	417 (100.0)	63.3	9.2	52.8	58.4	63.7	69.6	75.4
2018	405	403 (99.5)	62.1	9.6	50.0	56.6	62.3	68.1	74.0

*For 2020 the average denominator across plans was 10,323 individuals, with a standard deviation of 59,992.

Table 2a. HEDIS COL Measure Performance—Medicare Plans (Total)

Measurement Year	Total Number of Plans (N)	Number of Plans Reporting (N (%))	Performance Rates (%)						
			Mean	Standard Deviation	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
2020*	649	549 (84.6)	71.1	11.2	56.0	65.9	73.6	78.8	82.7
2019**	—	—	—	—	—	—	—	—	—
2018	525	464 (88.4)	72.1	11.2	57.8	67.2	74.3	79.6	83.3

*For 2020 the average denominator across plans was 2,160 individuals, with a standard deviation of 21,363.

**Not available due to CMS suspension of data reporting during the COVID-19 pandemic.

Table 2b. HEDIS COL Measure Performance—Medicare Plans (Disability)

Measurement Year	Total Number of Plans (N)	Number of Plans Reporting (N (%))	Performance Rates (%)						
			Mean	Standard Deviation	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
2020*	649	387 (59.6)	71.3	10.4	57.1	65.7	72.7	78.0	82.5
2019**	—	—	—	—	—	—	—	—	—
2018	525	359 (68.4)	70.7	11.1	56.2	65.0	72.2	78.6	83.6

*For 2020 the average denominator across plans was 349 individuals, with a standard deviation of 2,416.

**Not available due to CMS suspension of data reporting during the COVID-19 pandemic.

Table 2c. HEDIS COL Measure Performance—Medicare Plans (LIS/DE)

Measurement Year	Total Number of Plans (N)	Number of Plans Reporting (N (%))	Performance Rates (%)						
			Mean	Standard Deviation	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
2020	649	224 (34.5)	68.3	10.8	53.7	62.8	69.2	75.9	81.1
2019**	—	—	—	—	—	—	—	—	—
2018	525	118 (22.48)	70.8	11.2	55.8	63.7	70.3	78.6	85.6

*For 2020 the average denominator across plans was 316 individuals, with a standard deviation of 1,932.

**Not available due to CMS suspension of data reporting during the COVID-19 pandemic.

Table 2d. HEDIS COL Measure Performance—Medicare Plans (LIS/DE and Disability)

Measurement Year	Total Number of Plans (N)	Number of Plans Reporting (N (%))	Performance Rates (%)						
			Mean	Standard Deviation	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
2020	649	281 (43.3)	69.2	10.9	54.4	63.6	70.4	76.5	82.0
2019**	—	—	—	—	—	—	—	—	—
2018	525	153 (29.14)	71.1	11.5	58.0	65.5	72.6	78.2	84.9

*For 2020 the average denominator across plans was 267 individuals, with a standard deviation of 1,245.

**Not available due to CMS suspension of data reporting during the COVID-19 pandemic.

Table 2e. HEDIS COL Measure Performance—Medicare Plans (Non—LIS/DE Nondisability)

Measurement Year	Total Number of Plans (N)	Number of Plans Reporting (N (%))	Performance Rates (%)						
			Mean	Standard Deviation	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
2020	649	429 (66.1)	73.2	10.5	57.6	68.7	75.6	80.4	84.3
2019**	—	—	—	—	—	—	—	—	—
2018	525	383 (73.14)	73.2	11.3	58.3	68.2	75.9	80.6	84.4

*For 2020 the average denominator across plans was 429 individuals, with a standard deviation of 2,079.

**Not available due to CMS suspension of data reporting during the COVID-19 pandemic.

Table 2f. HEDIS COL Measure Performance—Medicare Plans (Other)

Measurement Year	Total Number of Plans (N)	Number of Plans Reporting (N (%))	Performance Rates (%)						
			Mean	Standard Deviation	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
2020	649	17 (2.6)	72.6	19.2	49.5	60.4	80.5	86.6	88.1
2019**	—	—	—	—	—	—	—	—	—
2018	525	6 (1.14)	82.8	15.4	53.9	81.2	86.3	93.1	95.9

*For 2020 the average denominator across plans was 178 individuals, with a standard deviation of 254.

**Not available due to CMS suspension of data reporting during the COVID-19 pandemic.

Table 2g. HEDIS COL Measure Performance—Medicare Plans (Unknown)

Measurement Year	Total Number of Plans (N)	Number of Plans Reporting (N (%))	Performance Rates (%)						
			Mean	Standard Deviation	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
2020	649	10 (1.5)	85.0	6.3	75.9	82.1	84.5	90.9	91.1
2019**	—	—	—	—	—	—	—	—	—
2018	525	12 (2.29)	74.8	11.38	59.57	65.57	75.15	82.47	87.77

*For 2020 the average denominator across plans was 154 individuals, with a standard deviation of 99.

**Not available due to CMS suspension of data reporting during the COVID-19 pandemic.