



## *Resource Guide*

# Leveraging Clinical Data for Measurement of Colorectal Cancer Screening

Emily Morden, MSW  
Fern McCree, MPH  
Wendy Talbot, MPH  
Ben Hamlin, DrPH  
Sepheen Byron, DrPH

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This resource is provided for educational purposes only.

For HEDIS<sup>®1</sup> reporting, organizations must follow the technical specifications and general guidelines contained in HEDIS Volume 2.



NCQA has announced a [plan](#) to fully transition the **COLORECTAL CANCER SCREENING** measure to the **HEDIS ELECTRONIC CLINICAL DATA SYSTEMS REPORTING STANDARD** in the coming years. This transition presents an opportunity for health plans, providers and vendors to align efforts for data standardization and exchange. This resource provides **GUIDANCE TO SUPPORT** health plans and other stakeholders in successfully reporting measures using electronic clinical data systems, and specifically on using electronic clinical data for the *Colorectal Cancer Screening* measure reports. The strategies and resources outlined in this guide can also be adapted to other quality measure and improvement use cases.

## Background

As health care systems evolve toward greater use of electronic data, quality measures are also evolving to meet the demand. NCQA's Healthcare Effectiveness Data and Information Set (HEDIS®) has incorporated two new features along this pathway. First, NCQA is publishing a subset of HEDIS as [digital quality measures \(dQMs\)](#), which provide technical specifications via executable files with accompanying 'human readable' documentation that supports implementation. HEDIS dQMs are specified using standardized data definitions and logic, which reduces the burden of measure calculation while generating more reliable information about health care quality.

Second, NCQA introduced a new reporting method into HEDIS: Electronic Clinical Data Systems (ECDS). ECDS is a reporting standard that facilitates the use and sharing of relevant electronic data across health care systems.<sup>2</sup> ECDS reporting is part of NCQA's larger strategy to enable a fully digital quality ecosystem<sup>3</sup> designed to move the industry towards digital measurement. This move should allow for greater assessment of person-specific outcomes, provide results in real-time and ultimately improve the value of the information being used to assess quality.

The HEDIS Electronic Clinical Data Systems reporting standard uses **structured electronic data** to facilitate measurement of key concepts and sharing of data across health care entities.

As the quality of clinical data improves and becomes more accessible for quality measurement and care improvement, NCQA seeks to expand the number of HEDIS measures that use those data management practices prescribed by ECDS reporting. Since the introduction of the ECDS reporting standard in 2015, health plans and other stakeholders have gained experience in leveraging electronic clinical data. As of HEDIS Measurement Year (MY) 2022, there are 14 measures available for this reporting method.<sup>4</sup>

However, challenges remain.<sup>5,6</sup> For MY 2019, NCQA added the ECDS reporting option to the *Colorectal Cancer Screening* measure alongside the traditional methods of reporting it via

administrative and hybrid reporting. This resource provides guidance to support health plans and other stakeholders in successfully reporting measures using ECDS --- and specifically on using electronic clinical data in the *Colorectal Cancer Screening* measure reports.

## About the Measure

The *Colorectal Cancer Screening* measure assesses the percentage of adults ages 45-75 years who had appropriate screening for colorectal cancer. Screening with any of the following tests is considered compliant for the measure: annual fecal occult blood test, flexible sigmoidoscopy every 5 years, colonoscopy every 10 years, computed tomography colonography every 5 years, stool DNA FIT test every 3 years. The measure applies to commercial, Medicaid and Medicare health insurance plans.

## Reporting Methods

In addition to ECDS reporting, the *Colorectal Cancer Screening* measure is available for administrative and hybrid reporting for MY 2022. The administrative method relies on enrollment, claims, and encounter data. In the hybrid method, plans are permitted to use administrative and medical record data taken from a random sample of members. Administrative and medical record data are often enhanced by “supplemental data,” or information coming from a variety of data sources plans collect and, in some cases, specifically create to help improve their quality scores.

ECDS reporting also includes the use of payer enrollment and administrative data but provides an expanded set of guidance for including **STRUCTURED ELECTRONIC DATA** in the measure reports. This guidance is specific to categorizing data from a variety of sources, including electronic health records, health information exchanges and clinical registries, and case management systems.

Key measure components are reported by the data category from which they were extracted and loaded for quality measure reporting. Guidance on how to report HEDIS using ECDS reporting may be found in the *Technical Specifications for Health Plans: General Guidelines for Data Collection and Reporting*.

**ECDS uses structured data from the following**



**Electronic Health Records**



**Health Information Exchanges and Clinical Registries**



**Case Management Systems**



**Claims and Enrollment Data**

## ECDS Reporting Observations

### Quantitative Findings

The *Colorectal Cancer Screening* measure was available for optional ECDS reporting starting in MY 2019. Health plans that reported ECDS are required to also report using one of the traditional methods. NCQA conducted a comparative analysis between performance rates among plans that used both reporting methods in MY 2019 and MY 2020 to investigate differences between the rates produced by these two methods.

#### Key Findings

- ▶ Approximately a third of Medicare plans and two-thirds of commercial plans submitted results using both methods.
- ▶ Performance rates for both the administrative and ECDS methods were very similar, differing by less than one percentage point in most cases.
- ▶ Hybrid rates were higher than ECDS rates by an average of 6 percentage points for commercial and 10 percentage points for Medicare.

These results suggest that some plans, particularly Medicare, disproportionately rely on information found from manual medical chart review and/or supplemental data sources to access historical screening information. The findings from this analysis also indicate that some Medicare plans do not incorporate supplemental data (i.e., electronic clinical data) sources for ECDS reporting, which likely contributed to the lower ECDS performance across Medicare plans when compared to results using the hybrid method.

### Qualitative Findings

NCQA conducted informational interviews with health plans and organizations licensed by NCQA to conduct HEDIS compliance audits to learn about health plans' experience with reporting the *Colorectal Cancer Screening* measure using the ECDS reporting standard.

#### Key Findings

- ▶ Many plans shared that while most colorectal cancer screening information is found using administrative data, historical screening data often are not available in claims.
- ▶ Because of this, plans might rely more on non-administrative data sources to identify historical screening information for the numerator, and some of this information might be found in unstructured data in the clinical record.
- ▶ Some plans experienced challenges incorporating eligible clinical data in ECDS reporting because they did not think the data were permitted, or were unsure about the categorization given how the data were acquired.

## Strategies for Using Electronic Clinical Data for HEDIS

This section outlines strategies for using electronic data to assess performance on the *Colorectal Cancer Screening* measure. Most of the strategies outlined below pertain to actions health plans can take to improve data collection and sharing of measure-related information, as well as strategies and resources for engaging providers or other stakeholders in the process.

### 1

#### Gain Experience with HEDIS ECDS Reporting

Health plans that are new to ECDS reporting have several measures to choose from to gain experience with the reporting method, including several long-standing HEDIS measures for which NCQA added the ECDS method as a reporting option alongside traditional reporting.<sup>4</sup> The *Colorectal Cancer Screening* measure is one such example. Plans that report following the ECDS method must also report following the traditional method. This ‘dual or parallel reporting’ allows plans to gain experience with ECDS using measures they are familiar with and allows for comparison of results using the two methods. NCQA encourages health plans to begin reporting using the ECDS method while reporting is still optional for measurement years 2021 and 2022.

As described above, ECDS performance rates are typically in line with the performance a plan sees with the administrative method, when claims and supplemental data are both used in the measure report. This is because plans typically use the same data sources to identify colorectal cancer screenings as they use for traditional administrative reporting. ECDS reporting provides a more standardized way to incorporate many of the data sources that are considered “supplemental” for traditional HEDIS reporting. For health plans that have experience reporting the *Colorectal Cancer Screening* measure, it may be helpful to compare performance rates generated through the administrative method to rates generated for ECDS reporting. If the rates are not comparable, the health plan can assess the impact of supplemental data for the administrative rate and ensure that all supplemental data sources are being incorporated for ECDS reporting as well. If a plan develops their own database of colorectal cancer screening results from non-claims information systems, these data might be considered nonstandard supplemental data for traditional HEDIS reporting but are likely eligible for the health information exchange (HIE)/clinical registry or electronic health record (EHR)/personal health record (PHR) classification under ECDS reporting, depending on the specific data source characteristics. Although the primary source of information might be the same, ECDS reporting has specific definitions for the source system of record data categories that are used under ECDS reporting rules that are distinct from their use as supplemental data under traditional HEDIS reporting methods. The guidelines are updated and published annually in the HEDIS Volume 2 publication.

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Improve Data Standardization

Administrative claims are a well standardized and validated source of quality information, but this was improved over time. Efforts are now needed to improve the consistency and reliability of clinical data captured at the point of care to ensure these data align with standards and terminologies that support health care data interoperability, which is a core tenet of digital quality measurement. Aligning quality measure specifications to international interoperability and clinical data standards ensures that information documented at the point of care is also usable for quality measurement and improvement efforts. This would alleviate sole reliance on summary data generated through retrospective review of claims or manual chart abstraction for quality reports.

To facilitate use of these data for quality measurement and improvement purposes, data should be captured using standard terminologies and codes. The table below outlines a few examples of colorectal cancer screening tests and the standard codes and terminologies that can be used to identify them. In particular, LOINC is a standard terminology for representing observations in clinical datasets, and SNOMED CT is an expansive terminology used to represent a large number of different clinical concepts. Clinical data streams that have been validated through NCQA’s Data Aggregator Validation program can assist with ensuring the accuracy of aggregated clinical data for use in HEDIS.<sup>7</sup>

Screening Test	Example Codes	Example Code Systems
<b>Colonoscopy</b>	45378	CPT
	G0105	HCPCS
	45.22	ICD-9
	8180007	SNOMED
<b>Fecal occult blood test</b>	82270	CPT
	G0328	HCPCS
	12503-9	LOINC
	104435004	SNOMED

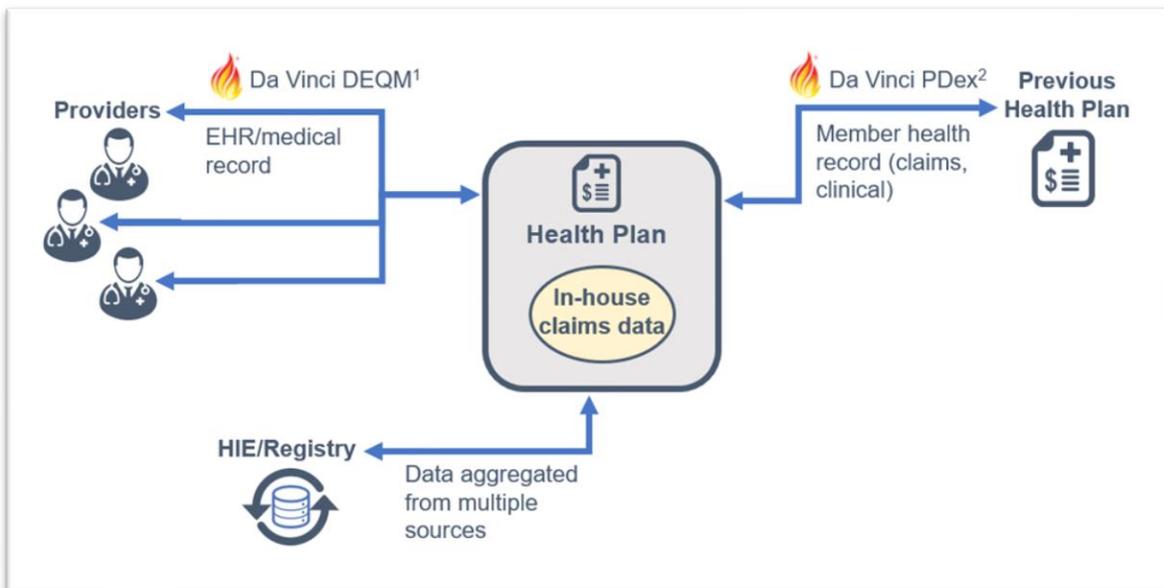
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Improve the Exchange of Electronic Clinical Data

Recent regulations, such as the Office of the National Coordinator’s Cures Act Final Rule and the Centers for Medicare & Medicaid Services’ Interoperability and Patient Access Final Rule, support a major shift towards interoperable electronic health information.<sup>8</sup> This has the potential to revolutionize the way we collect and use data for both quality measurement and care improvement. While HEDIS measures have long relied on administrative claims data, there are increasing opportunities to also leverage electronic clinical data. Health plans can employ multiple strategies for data collection, including exchanging data directly with providers and other payers or with HIEs and clinical registries.

**Figure 1** demonstrates some of the pathways for data collection and exchange. **Table 1** outlines various strategies health plans can use to collect and exchange data for reporting on colorectal cancer screenings and identifies resources that may support each strategy.

**Figure 1. Example Pathways for Exchange of Information on Colorectal Cancer Screening**



<sup>1</sup> Da Vinci DEQM: Data Exchange for Quality Measures implementation guide. <http://build.fhir.org/ig/HL7/davinci-deqm/index.html>

<sup>2</sup> Da Vinci PDex: Payer Data Exchange implementation guide. <http://hl7.org/fhir/us/davinci-pdex/STU1/>

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## Report Measure Results for the HEDIS ECDS Reporting Standard

To qualify for HEDIS ECDS reporting, data must use standard layouts, meet the measure technical specification requirements and be accessible by the care team upon request.

For HEDIS ECDS reporting for MY 2022, plans report each key measure element (e.g., the initial population, numerator and exclusions) by the data source type in which it was found. ECDS reporting has four specified data source categories: EHR/PHR, HIE/registry, case management, and administrative. When measure data are found in more than one data source, a hierarchy is used to determine which data source they are assigned to so that measure data are deduplicated for reporting. For ECDS reporting of the *Colorectal Cancer Screening* measure, the exclusions and numerator are reported by the data source categories in which they were found. Reporting data in this way allows for a better understanding of how plans use different data sources for quality measure reporting and how that may impact their overall performance. In 2021, NCQA published a special report on the HEDIS ECDS results, which included findings on the contributions of different sources to measure reporting. These results indicated that using data beyond administrative claims typically led to higher performance rates on measures.<sup>9</sup>

**Table 1** outlines various strategies that may be used to identify colorectal cancer screenings and the corresponding data source categories that would potentially be used for ECDS reporting. All relevant data that meet the measure specifications should be allowable, assigned to a data source category and used for ECDS reporting. To determine which data source category should be assigned for reporting purposes, organizations should reference the information provided in the ECDS General Guidelines and consult with their auditor if they have questions.

Some measures reported using ECDS also have stratifications where measure data are stratified by certain categories for reporting (e.g., age, race, ethnicity). The *Colorectal Cancer Screening* measure is stratified by race and ethnicity for all product line reporting and by socioeconomic status (i.e., disability, low-income subsidy and dual-eligibility status) for Medicare reporting. Typically, the information needed to determine these stratifications is captured in administrative data (e.g., enrollment data). Information on stratifications can be found in HEDIS Volume 2 in the general guidelines and the Data Elements for Reporting section of individual measure specifications.

# Conclusion

As we move towards having interoperability of data across the health care ecosystem, bridge strategies and pilot efforts can support progress in the interim.

NCQA announced a plan to fully transition the *Colorectal Cancer Screening* measure to the HEDIS ECDS reporting standard in the coming years. This transition presents an opportunity for health plans, providers and vendors to align efforts for data standardization and exchange. The strategies and resources outlined in this guide can also be adapted to other quality measure and care improvement use cases.

## Acknowledgments

NCQA would like to thank Advent Advisory Group, Attest Health Care Advisors and DTS Group for their review and feedback on this resource guide.

<sup>1</sup> HEDIS is a registered trademark of the National Committee for Quality Assurance.

<sup>2</sup> National Committee for Quality Assurance. "HEDIS Electronic Clinical Data Systems (ECDS) Reporting." NCQA. August 4, 2018. <https://www.ncqa.org/hedis/the-future-of-hedis/hedis-electronic-clinical-data-system-ecds-reporting/>.

<sup>3</sup> National Committee for Quality Assurance. "The Future of Healthcare Quality." NCQA. January 14, 2021. <https://www.ncqa.org/hedis/the-future-of-hedis/>.

<sup>4</sup> NCQA Store. "HEDIS MY 2022 Digital Measures Bundle." NCQA. <https://store.ncqa.org/hedis-quality-measurement/hedis-my-2022-dqms.html>.

<sup>5</sup> Morden E, McCree F, Jones-Pool M, Shah S, Byron S. Leveraging Electronic Clinical Data for HEDIS. NCQA. May 2021. [https://www.ncqa.org/wp-content/uploads/2021/05/20210526\\_Issue\\_Brief\\_Leveraging\\_Electronic\\_Clinical\\_Data\\_for\\_HEDIS.pdf](https://www.ncqa.org/wp-content/uploads/2021/05/20210526_Issue_Brief_Leveraging_Electronic_Clinical_Data_for_HEDIS.pdf).

<sup>6</sup> Morden E, Byron S, Roth L, Olin SS, Shenkman E, Kelley D, Scholle SH. Health Plans Struggle to Report on Depression Quality Measures that Require Clinical Data. *Academic pediatrics*, S1876-2859(21)00514-3. Advance online publication.

<sup>7</sup> National Committee for Quality Assurance. "Data Aggregator Validation." NCQA. November 16, 2021. <https://www.ncqa.org/programs/data-and-information-technology/hit-and-data-certification/hedis-compliance-audit-certification/data-aggregator-validation/>.

<sup>8</sup> Department of Health and Human Services. *Interoperability and Patient Access for Medicare Advantage Organization and Medicaid Managed Care Plans, State Medicaid Agencies, CHIP Agencies and CHIP Managed Care Entities, Issuers of Qualified Health Plans on the Federally Facilitated Exchanges, and Health Care Providers*. 2020-05050. Washington, D.C.: Federal Register, 2020, <https://www.federalregister.gov/documents/2020/05/01/2020-05050/medicare-and-medicare-programs-patient-protection-and-affordable-care-act-interoperability-and> (accessed February 18, 2022).

<sup>9</sup> Jones-Pool M, McCree F, Morden E, Acton R, Roth L, Byron S. Special Report: Reporting Results for Measures Leveraging Electronic Clinical Data for HEDIS. NCQA. November 2021. <https://www.ncqa.org/wp-content/uploads/2021/11/Special-Report-Reporting-Results-for-Measures-Leveraging-Electronic-Clinical-Data-for-HEDIS.pdf>.

**Table 1. Strategies for Data Collection**

Strategy	Potential ECDS Data Source Category†	Resources that May Support Strategy
<p>1. Electronic data exchange with providers and health systems</p> <p><b>Example:</b> Standardized clinical data from provider and hospital EHRs; data from clinical laboratories and radiology services</p>	<p>EHR/PHR</p>	<p><b>HL7 Da Vinci Project</b></p> <ul style="list-style-type: none"> <li>The Da Vinci Project is a private sector initiative aimed to support adoption of standardized solutions for data exchange between payers and providers. The <a href="#">Data Exchange for Quality Measures (DEQM) Implementation Guide</a> provides a framework for exchanging measure data using the FHIR standard. <a href="#">Colorectal Cancer Screening</a> is one of the example use cases.</li> </ul> <p><b>For providers and health information technology (HIT) vendors</b></p> <ul style="list-style-type: none"> <li>The Healthcare Leadership Council and the American Health Law Association partnered to develop <a href="#">example contract language</a> for providers and HIT vendors to promote interoperability.‡</li> </ul> <p><b>Resources on information blocking for providers</b></p> <ul style="list-style-type: none"> <li>The <a href="#">Information Blocking Resource Center</a>.</li> <li><a href="#">Resources for providers on information blocking</a> from Health Current.</li> </ul>
<p>2. Payer-to-payer data exchange</p> <p><b>Example:</b> Historic claims or clinical data</p>	<p>Administrative if data are claims</p> <p>HIE/clinical registry if data are clinical</p>	<p><b>HL7 Da Vinci Project</b></p> <ul style="list-style-type: none"> <li><a href="#">Payer Data Exchange (PDex) Implementation Guide</a> provides support for payers to create and share member health history with other payers.</li> </ul> <p><b>Centers for Medicare &amp; Medicaid Services (CMS) Interoperability and Patient Access Final Rule</b></p> <ul style="list-style-type: none"> <li>As part of the Interoperability and Patient Access final rule, CMS outlined requirements for certain payers to support payer-to-payer data exchange with the goal of promoting better coordinated care, patient access to their healthcare records and reducing administrative burden (<a href="#">FAQs</a> from CMS).</li> </ul>
<p>3. Connection to HIE</p> <p><b>Example:</b> Standardized data aggregated from multiple providers and health systems</p>	<p>HIE/clinical registry</p>	<p><b>Trusted Exchange Framework and Common Agreement (TEFCA)</b></p> <ul style="list-style-type: none"> <li><a href="#">Trusted Exchange Framework</a>: a common set of non-binding, foundational principles for trust policies and practices to facilitate data exchange.</li> <li><a href="#">Common Agreement</a>: establishes an infrastructure model and governing approach to securely share clinical information across different networks.</li> </ul> <p><b>Data Validation</b></p> <ul style="list-style-type: none"> <li><a href="#">NCQA's Data Aggregator Validation Program</a> supports validation of data streams so they are considered standard supplemental data and do not require primary source verification by the end user.</li> </ul>
<p>4. Abstracting information from medical records</p> <p><b>Example:</b> Clinical data that are housed in medical records and not yet structured in a way to share electronically</p>	<p>EHR/PHR</p> <p>HIE/clinical registry</p>	<p><b>Description for this use case:</b> collecting information from medical records and standardizing it upon abstraction to be included in an electronic database. This may be applicable for certain health plans (e.g., small plans serving rural areas) and could entail manual review of paper-based charts and/or backend access to EHRs or clinical registries to manually collect information that is not yet shared electronically.</p> <p><i>Note: Keep in mind, manually abstracted data must be audited as nonstandard supplemental data.</i></p>
<p>5. Internal payer data</p> <p><b>Example:</b> Administrative claims, encounters and enrollment information</p>	<p>Administrative</p>	<p><b>HEDIS Specifications and General Guidelines:</b></p> <ul style="list-style-type: none"> <li>Reference the digital measure package for the <i>Colorectal Cancer Screening</i> measure as well as HEDIS Volume 2 Technical Specifications for Health Plans (available from the <a href="#">NCQA Store</a>).</li> </ul>

† To determine which data source category should be assigned for reporting purposes, organizations should reference the information provided in the ECDS General Guidelines and consult with their auditor if they have questions.

‡ Accessed from HLC website: <https://www.hlc.org/programs-publications/reports-and-publications/>.