Medicare Promoting Interoperability Program Stage 3
Eligible Hospitals, Critical Access Hospitals, and Dual-Eligible Hospitals Attesting to CMS
Objectives and Measures for 2018

Objective 4 of 6

Updated: July 2018

Coordination of Care through Patient Engagement	
Objective	Use certified electronic health record technology (CEHRT) to engage with patients or their authorized representatives about the patient's care.
Measure	Eligible hospitals or critical access hospitals (CAHs) must attest to all three measures and must meet the thresholds for at least two measures to meet the objective: **View, Download, or Transmit** – During the Promoting Interoperability (PI) reporting period, at least one unique patient (or their authorized representatives) discharged from the eligible hospital or CAH inpatient or emergency department (POS 21 or 23) actively engage with the EHR made accessible by the provider and one of the following: (1) View, Download, or Transmit to a third party their health information; or (2) Access their health information through the use of an application programming interface (API) that can be used by applications chosen by the patient and configured to the API in the provider's CEHRT; or (i) A combination of (1) and (2) **Secure Messaging** – For more than 5 percent of all unique patients discharged from the eligible hospital or CAH inpatient or emergency department (POS 21 or 23) during the PI reporting period, a secure message was sent using the electronic messaging function of CEHRT to the patient (or the patient authorized representative), or in response to a secure message sent by the patient (or the patient-authorized representative). **Patient Generated Health Data Measure 3** – Patient generated health data or data from a nonclinical setting is incorporated into the CEHRT for more than 5 percent of all unique patients discharged from the eligible hospital or CAH inpatient or emergency department (POS 21 or 23) during the PI reporting period.
Exclusion	**View, Download, or Transmit, Secure Messaging, and Patient Generated Health Data** – Any eligible hospital or CAH will be excluded from the measure if it is located in a county that does not have 50 percent or more of their housing units with 4Mbps broadband availability according to the latest information available from the Federal Communications Commission (FCC) at the start of the PI reporting period.

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Definition of Terms

API – A set of programming protocols established for multiple purposes. APIs may be enabled by an eligible hospital or CAH to provide the patient with access to their health information through a third-party application with more flexibility than is often found in many current "patient portals."

View – The patient (or authorized representative) accessing their health information online.

Download – The movement of information from online to physical electronic media.

Transmission – This may be any means of electronic transmission according to any transport standard(s) (SMTP, FTP, REST, SOAP, etc.). However, the relocation of physical electronic media (for example, USB, CD) does not qualify as transmission.

Patient Generated Health Data – Data generated by a patient or a patient's authorized representative.

Data from a Non-Clinical Setting – This includes, but is not limited to, social service data, data generated by a patient or a patient's authorized representative, advance directives, medical device data, home health monitoring data, and fitness monitor data.

Secure Message – Any electronic communication between an eligible hospital or CAH and patient that ensures only those parties can access the communication. This electronic message could be email or the electronic messaging function of a personal health record, an online patient portal, or any other electronic means.

Unique Patient – If a patient is seen by an eligible hospital or CAH more than once during the PI reporting period, then for purposes of measurement, that patient is only counted once in the denominator for the measure. All the measures relying on the term ''unique patient'' relate to what is contained in the patient's medical record. Not all of this information will need to be updated or even be needed by the eligible hospital or CAH at every patient encounter. This is especially true for patients whose encounter frequency is such that they would see the same provider multiple times in the same PI reporting period.

Attestation Requirements

DENOMINATOR/NUMERATOR/THRESHOLD/EXCLUSION

VIEW, DOWNLOAD OR TRANSMIT:

- DENOMINATOR: Number of unique patients discharged from an eligible hospital or CAH inpatient or emergency department (POS 21 or 23) during the PI reporting period.
- NUMERATOR: The number of unique patients (or their authorized representatives) in the denominator who have viewed online, downloaded, or transmitted to a third party the patient's health information during the PI reporting period and the number of unique patients (or their authorized representatives) in the denominator who have accessed their health information through the use of an API during the PI reporting period.
- THRESHOLD: The numerator must be at least one patient in order for an eligible hospital or CAH to meet this measure.
- EXCLUSION: Any eligible hospital or CAH will be excluded from the measure if it is located in a county that does not have 50 percent or more of their housing units with 4Mbps broadband availability according to the latest information available from the FCC at the start of the PI reporting period.

SECURE MESSAGING:

- DENOMINATOR: The number of unique patients discharged from an eligible hospital or CAH inpatient or emergency department (POS 21 or 23) during the PI reporting period.
- NUMERATOR: The number of patients in the denominator for whom a secure electronic message is sent to the patient (or patient-authorized representative) or in response to a secure message sent by the patient (or patient-authorized representative), during the PI reporting period.
- THRESHOLD: The resulting percentage must be more than 5 percent in order for an eligible hospital or CAH to meet this measure.
- EXCLUSION: Any eligible hospital or CAH will be excluded from the measure if it is located in a county that does not have 50 percent or more of their housing units with 4Mbps broadband availability according to the latest information available from the FCC at the start of the PI reporting period.

PATIENT GENERATED HEALTH DATA:

- DENOMINATOR: Number of unique patients discharged from an eligible hospital or CAH inpatient or emergency department (POS 21 or 23) during the PI reporting period.
- NUMERATOR: The number of patients in the denominator for whom data from non-clinical settings, which may include patient-generated health data, is captured through the CEHRT into the patient record during the PI reporting period.
- THRESHOLD: The resulting percentage must be more than 5 percent.
- EXCLUSION: Any eligible hospital or CAH will be excluded from the measure if it is located in a county that does not have 50 percent or more of their housing units with 4Mbps broadband availability according to the latest information available from the FCC at the start of the PI reporting period.

Additional Information

- Eligible hospitals or CAHs must attest to all three measures and must meet the thresholds for at least two measures to meet the objective. There are four actions a patient might take as part of the View, Download or Transmit measure:
    1. View their information
    2. Download their information
    3. Transmit their information to a third party
    4. Access their information through an API

  These actions may overlap, but an eligible hospital or CAH is able to count any and all actions in the single numerator. Therefore, for this measure, an eligible hospital or CAH may meet a combined threshold for View, Download, or Transmit and API actions, or if their technology functions overlap, then any view, download, transmit, or API actions taken by the patient using CEHRT would count toward the threshold.
- In order to meet the objective, the following information must be available within 36 hours of hospital discharge:
    - Patient name
    - Admit and discharge date and location
    - Reason for hospitalization
    - Care team including the attending of record as well as other providers of care
    - Procedures performed during admission
    - Current and past problem list
    - Vital signs at discharge
    - Laboratory test results (available at time of discharge)
    - Summary of care record for transitions of care or referrals to another provider
    - Care plan field(s), including goals and instructions
    - Discharge instructions for patient
    - Demographics maintained by hospital (sex, race, ethnicity, date of birth, preferred language)
    - Smoking status
- An eligible hospital or CAH can make available additional information and still align with the objective.
- Secure Messaging includes provider-initiated communications (when an eligible hospital or CAH sends a message to a patient or the patient's authorized representatives), and provider-to-provider communications if the patient is included. An eligible hospital or CAH can only count messages in the numerator when the eligible hospital or CAH participates in the communication (e.g. patient-initiated communication only if the eligible hospital or CAH responds to the patient.) Note: Eligible hospitals or CAHs are not required to respond to every message received if no response is necessary.
- For the Patient Generated Health Data measure, the types of data that would satisfy the measure are broad. It may include, but is not limited to, social service data, data generated by a patient or a patient's authorized representative, advance directives, medical device data, home health monitoring data, and fitness monitor data. In addition, the sources of data vary and may include mobile applications for tracking health and nutrition, home health devices with tracking capabilities such as scales and blood pressure monitors, wearable devices such

as activity trackers or heart monitors, patient-reported outcome data, and other methods of input for patient and non-clinical setting generated health data. (Note: Data related to billing, payment, or other insurance information would not satisfy this measure.)

- For the Patient Generated Health Data measure, providers in non-clinical settings may include, but are not limited to, care providers such as nutritionists, physical therapists, occupational therapists, psychologists, and home health care providers. Other key providers in the care team such as behavioral health care providers, may also be included, and we encourage providers to consider ways in which this measure can incorporate this essential information from the broader care team.
- Patient Generated Health Data: we do not specify the manner in which eligible hospitals or CAHs are required to incorporate the data. Eligible hospitals or CAHs may work with their EHR developers to establish the methods and processes which work best for their practice and needs. For example, if data provided can be easily incorporated in a structured format or into an existing field within the EHR (such as a C–CDA or care team member reported vital signs or patient reported family health history and demographic information) the eligible hospital or CAH may elect to do so. Alternately, an eligible hospital or CAH may maintain an isolation between the data and the patient record and instead include the data by other means such as attachments, links, and text references again as best meets their needs.
- For the Patient Generated Health Data measure, the data may not be information the patient provides to the eligible hospital or CAH on location during the hospital stay as such data does not meet the intent of the measure to support care coordination and patient engagement in a wide range of settings outside the eligible hospital or CAH's immediate scope of practice.
- For the numerator for View, Download or Transmit and Secure Messaging, beginning in 2017, the action must occur within the PI reporting period if that period is a full calendar year, or if it is less than a full calendar year, within the calendar year in which the PI reporting period occurs (between January 1st and December 31st).

Regulatory References

- This objective may be found in Section 42 of the code of the federal register at 495.24 (c)(6)(i) and (ii). For further discussion please see 80 FR 62851.
- In order to meet this objective and measure, an eligible hospital or CAH must possess the capabilities and standards of CEHRT at 45 CFR 170.315(e)(1)(2) and (3), (g)(7) (g)(8) and (g)(9).

Certification Standards and Criteria

Below is the corresponding certification and standards criteria for EHR technology that supports achieving the meaningful use of this objective.

Certification Criteria	
§ 170.315(e)(1) (2) and (3) Patient engagement	(1) View, download, and transmit to 3rd party. (i) Patients (and their authorized representatives) must be able to use internet-based technology to view, download, and transmit their health information to a 3rd party in the manner specified below. Such access must be consistent and in accordance with the standard adopted in §170.204(a)(1) and may alternatively be demonstrated in accordance with the standard specified in §170.204(a)(2). (A) View. Patients (and their authorized representatives) must be able to use health information technology (HIT) to view, at a minimum, the following data: (1) The Common Clinical Data (CCD) Set (which should be in their English (i.e., noncoded) representation if they associate with a vocabulary/code set). (2) Ambulatory setting only. Provider's name and office contact information. (3) Inpatient setting only. Admission and discharge dates and locations; discharge instructions; and reason(s) for hospitalization. (4) Laboratory test report(s). Laboratory test report(s), including: (i) The information for a test report as specified all the data specified in 42 CFR 493.1291(c)(1) through (7); (ii) The information related to reference intervals or normal values as specified in 42 CFR 493.1291(d); and (iii) The information for corrected reports as specified in 42 CFR 493.1291(k)(2). (5) Diagnostic image report(s). (B) Download. (1) Patients (and their authorized representatives) must be able to use technology to download an ambulatory summary or inpatient summary (as applicable to the HIT setting for which certification is requested) in the following formats: (i) Human readable format; and The format specified in accordance to the standard specified in §170.205(a)(4) following the CCD document template. (2) When downloaded according to the standard specified in §170.205(a)(4) following the CCD document template, the ambulatory summary or inpatient summary must include, at a minimum, the following data (which, for the human readable version, should be in their English representation if they associate with a vocabulary/code set):

	(i) Ambulatory setting only. All of the data specified in paragraph (e)(1)(i)(A)(1), (2), (4), and (5) of this section. (ii) Inpatient setting only. All of the data specified in paragraphs (e)(1)(i)(A)(1), and (3) through (5) of this section. (3) Inpatient setting only. Patients (and their authorized representatives) must be able to download transition of care/referral summaries that were created as a result of a transition of care (pursuant to the capability expressed in the certification criterion specified in paragraph (b)(1) of this section). (C) Transmit to third party. Patients (and their authorized representatives) must be able to: (1) Transmit the ambulatory summary or inpatient summary (as applicable to the HIT setting for which certification is requested) created in paragraph (e)(1)(i)(B)(2) of this section in accordance with both of the following ways: (i) Email transmission to any email address; and (ii) An encrypted method of electronic transmission. (2) Inpatient setting only. Transmit transition of care/referral summaries (as a result of a transition of care/referral as referenced by (e)(1)(i)(B)(3)) of this section selected by the patient (or their authorized representative) in both of the ways referenced (e)(1)(i)(C)(1)(i) and (ii) of this section). (D) Timeframe selection. With respect to the data available to View, Download or Transmit as referenced paragraphs (e)(1)(i)(A), (B), and (C) of this section, patients (and their authorized representatives) must be able to: (1) Select data associated with a specific date (to be viewed, downloaded, or transmitted); and (2) Select data within an identified date range (to be viewed, downloaded, or transmitted). Activity history log. (A) When any of the capabilities included in paragraphs (e)(1)(i)(A) through (C) of this section are used, the following information must be recorded and made accessible to the patient (or his/her authorized representative): (1) The action(s) (i.e., view, download, transmission) that occurred; (2) The date and time each action occurred in accordance with the standard specified in §170.210(g); (3) The user who took the action; and (4) Where applicable, the addressee to whom an ambulatory summary or inpatient summary was transmitted.

	(B) Technology presented for certification may demonstrate compliance with paragraph (e)(1)(ii)(A) of this section if it is also certified to the certification criterion specified in §170.315(d)(2) and the information required to be recorded in paragraph (e)(1)(ii)(A) of this section is accessible by the patient (or his/her authorized representative). (2) Secure messaging. Enable a user to send messages to, and receive messages from, a patient in a secure manner. (3) Patient health information capture. Enable a user to (i) Identify, record, and access information directly and electronically shared by a patient (or authorized representative). (ii) Reference and link to patient health information documents.
§ 170.315 (g)(7) (g)(8) and (9) Design performance	(7) Application access—patient selection. The following technical outcome and conditions must be met through the demonstration of an API. (i) Functional requirement. The technology must be able to receive a request with sufficient information to uniquely identify a patient and return an ID or other token that can be used by an application to subsequently execute requests for that patient's data. (ii) Documentation – (A) The API must include accompanying documentation that contains, at a minimum: (1) API syntax, function names, required and optional parameters and their data types, return variables and their types/structures, exceptions and exception handling methods, and their returns. (2) The software components and configurations that would be necessary for an application to implement in order to be able to successfully interact with the API and process its response(s). (3) Terms of use. The terms of use for the API must be provided, including, at a minimum, any associated developer policies and required developer agreements. (B) The documentation used to meet paragraph (g)(7)(ii)(A) of this section must be available via a publicly accessible hyperlink. (8) Application Access. Data category request. The following technical outcome and conditions must be met through the demonstration of an API. (i) Functional requirements. (A) Respond to requests for patient data (based on an ID or other token) for each of the individual data categories specified in the CCD Set and return the full set of data for that data category (according to the specified standards, where applicable) in a computable format.

	(9) Application access—all data request. The following technical outcome and conditions must be met through the demonstration of an API. (i) Functional requirements. (A) Respond to requests for patient data (based on an ID or other token) for all of the data categories specified in the CCD Set at one time and return such data (according to the specified standards, where applicable) in a summary record formatted according to the standard specified in §170.205(a)(4) following the CCD document template. (B) Respond to requests for patient data associated with a specific date as well as requests for patient data within a specified date range. (ii) Documentation—(A) The API must include accompanying documentation that contains, at a minimum: (1) API syntax, function names, required and optional parameters and their data types, return variables and their types/structures, exceptions and exception handling methods and their returns. (2) The software components and configurations that would be necessary for an application to implement in order to be able to successfully interact with the API and process its response(s). (3) Terms of use. The terms of use for the API must be provided, including, at a minimum, any associated developer policies and required developer agreements. (B) The documentation used to meet paragraph (g)(9)(ii)(A) of this section must be available via a publicly accessible hyperlink. (B) Respond to requests for patient data associated with a specific date as well as requests for patient data within a specified date range. (ii) Documentation—(A) The API must include accompanying documentation that contains, at a minimum: (1) API syntax, function names, required and optional parameters and their data types, return variables and their types/structures, exceptions and exception handling methods, and their returns. (2) The software components and configurations that would be necessary for an application to implement in order to be able to successfully interact with the API and process its response(s). (3) Terms of use. The terms of use for the API must be provided, including, at a minimum, any associated developer policies and required developer agreements. (B)The documentation used to meet paragraph (g)(8)(ii)(A) of this section must be available via a publicly accessible hyperlink.

	(9) All data request. The following technical outcome and conditions must be met through the demonstration of an API. (i) Functional requirements. (A) Respond to requests for patient data (based on an ID or other token) for all of the data categories specified in the CCD Set at one time and return such data (according to the specified standards, where applicable) in a summary record formatted according to the standard specified in §170.205(a)(4) following the CCD document template. (B) Respond to requests for patient data associated with a specific date as well as requests for patient data within a specified date range. (ii) Documentation—(A) The API must include accompanying documentation that contains, at a minimum: (a) API syntax, function names, required and optional parameters and their data types, return variables and their types/structures, exceptions and exception handling methods, and their returns. (b) The software components and configurations that would be necessary for an application to implement in order to be able to successfully interact with the API and process its response(s). (c) Terms of use. The terms of use for the API must be provided, including, at a minimum, any associated developer policies and required developer agreements.

**Note: Depending on the type of certification issued to the EHR technology, it will also have been certified to the certification criterion adopted at 45 CFR 170.315 (g)(1), (g)(2), or both, in order to assist in the calculation of this PI measure.*

Standards Criteria	
§ 170.204(a)	Web Content Accessibility Guidelines (WCAG) 2.0, Level A Conformance (incorporated by reference in § 170.299).
§ 170.210(f)	Any encryption and hashing algorithm identified by the National Institute of Standards and Technology as an approved security function in Annex A of the FIPS Publication 140-2 (incorporated by reference in § 170.299).

§ 170.205(a)(3)	HL7 Implementation Guide for CDA® Release 2: IHE Health Story Consolidation, (incorporated by reference in §170.299). The use of the "unstructured document" document-level template is prohibited.
§ 170.202(a)	The Office of the National Coordinator for Health Information Technology Applicability Statement for Secure Health Transport, Version 1.0 (incorporated by reference in §170.299).
§ 170.210(g)	The date and time recorded utilize a system clock that has been synchronized following (RFC 1305) Network Time Protocol, (incorporated by reference in §170.299) or (RFC 5905) Network Time Protocol Version 4, (incorporated by reference in §170.299).

**Note: Additional standards criteria may apply. Review the ONC 2015 Edition Final Rule for more information*