



EHR Reporting Program Task Force 2021 Recommendations

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Health Information Technology Advisory Committee

The Office of the National Coordinator for Health Information Technology



Task Force Recommendations and Report

- Task force charge, membership and process
- High-level summary of measures reviewed
- Task force recommendations report summary
 - High level / cross-cutting recommendations
 - Recommendations and considerations by domain
- Discussion



Task Force Charge, Membership and Process

Health IT Advisory Committee

EHR Reporting Program Task Force Charge

- **Vision:** To address information gaps in the health IT marketplace among all stakeholders, including ONC, and provide insights on how certified health IT is being used
- **Specific Charges:** Review the draft developer-reported measures and supporting materials developed by the Urban Institute, under contract with ONC, and provide recommendations to prioritize the measures and suggest ways to improve the draft measures
 - Consider background research, reports, and other sources as relevant to inform analysis of draft measures
 - Consider both established and emerging measurement practices and capabilities, as well as technical, legal, and policy requirements
 - Consider the use, technical feasibility, and potential policy impacts of the draft measures
 - Prioritize the draft measures to elevate those with the most potential for addressing gaps and providing insights in the certified health IT marketplace
- **Overarching Charge:** Make recommendations to prioritize and improve the draft set of developer-reported, interoperability-focused measures for the ONC EHR Reporting Program
 - Consider ways to avoid placing undue disadvantage on small and startup health IT developers in reporting measures
 - Develop recommendations to inform revisions to improve an initial set of developer-reported measures
 - Suggest additional measures and measure categories to prioritize for subsequent iterations of the developer-reported measures
 - Approve recommendations for submission to the HITAC by September 9, 2021

EHR Reporting Program Task Force Roster

| Name | Organization |
|----------------------------------|---|
| Raj Ratwani (Co-Chair) | MedStar Health |
| Jill Shuemaker (Co-Chair) | American Board of Family Medicine Foundation |
| Zahid Butt | Medisolv Inc |
| Jim Jirjis | HCA Healthcare |
| Bryant Karras | Washington State Department of Health |
| Joseph Kunisch | Harris Health |
| Steven Lane | Sutter Health |
| Kenneth Mandl | Boston Children's Hospital |
| Abby Sears | OCHIN |
| Sasha TerMaat | Epic |
| Sheryl Turney | Anthem, Inc. |
| Steven Waldren | American Academy of Family Physicians |



Task Force Process

- Task Force members volunteered to lead the discussion for each domain
- Domain leads presented initial thoughts and recommendations
- Task Force members discussed each recommendation
- Recommendations were revised based on the discussion
- Final Task Force recommendations are documented in the report
- Task Force members reviewed and approved the final report

Cross-Cutting Issues Discussed

- **How frequently should reporting occur (e.g., annually, 2x a year or quarterly)?**
- **How should the results be reported?**
 - Are proposed sub-groups appropriate (e.g., demographic characteristics, setting)?
 - What are the implications of including measures that require data from developer's customers (e.g., reporting by characteristics)?
 - Does the level of reporting make sense (e.g., client, product- vs. developer-level)?
 - Should reporting consist of distributional estimates (which show variation within developer) vs. a single value per developer?
- **What is the appropriate look back period for numerator/denominator? For example, active patients seen within the last 12 or 24 months.**
- **Are other aspects of the numerators and denominators accurately specified?**
- **How feasible is it for developers to access, analyze, and report data, particularly for capturing subgroups? If not feasible today, what could be feasible by the timeframe for data collection in several years?**
- **How to address potential interpretation challenges?**
 - Degree to which measures reflect quality rather than quantity or volume? More is not necessarily better for volume-based measures.
 - Extent to which measures reflect characteristics of geographic areas or clients (e.g., providers, app developers) as opposed to product itself?
- **Is there any potential burden on users of certified health IT? Would reporting unduly disadvantage small / startup developers?**
- **Value of measure to provide insights for multiple stakeholders on interoperability, needs of patient-centered care or populations health?**
- **What unintended consequences does this measure risk causing?**



High-Level Summary of Measures Reviewed

Draft Domains and Measure Concepts

- **Patient access**
 - Use of different methods for access to electronic health information
 - Use of 3rd party patient-facing apps
 - Collection of app privacy policy
- **Public health information exchange**
 - Sending vaccination data to Immunization Information Systems (IIS)
 - Querying of IIS by health care providers using certified health IT
- **Clinical care information exchange**
 - Viewing summary of care records
 - Use of 3rd party clinician-facing apps
- **Standards adoption and conformance**
 - Use of FHIR profiles by clinician-facing apps (adjusted by #patients and #apps)
 - Use of FHIR profiles by patient-facing apps (adjusted by #patients and #apps)
 - Use of FHIR bulk data

Draft Domains and Measure Concepts (continued)

- **Standards adoption and conformance – additional measures**
 - EHR Full Electronic Health Information (EHI) Export Metrics
 - Vendor – availability of apps
 - Cost of API Use
- **Data Quality and Completeness**
 - By data element, percentages of data complete (e.g., not missing)



Task Force Recommendations



High Level / Cross-Cutting Recommendation

EHRRP-TF-2021_Recommendation 01 – ONC should keep the following considerations in mind across all measures:

- Developers may have to change their agreements with providers to be able to report their data.
- A goal should be to minimize burden on provider organizations in data collection.
- Measures should be reported annually for a 12 month reporting period.
- July 1 - June 30 should be used as the default for a 12 month reporting period. e.g., to prevent differences in seasonal vaccine popularity from complicating analysis.
- A lookback beyond the reporting period is not necessary; measures should include the population at the time the data is collected and be collected after the year/reporting period is over.
- When possible, metrics should be reported at the product level (e.g., ambulatory, inpatient, or ED EHR product), not at the vendor level as products from the same developer may have different functionality and performance.
- More precise definitions should be developed for terms such as clinicians, encounter, active patient, successful transmission to an IIS registry and app reauthorization.

Recommendation for Patient Access: Use of different methods for access to electronic health information

EHRRP-TF-2021_Recommendation 02 – For the measure on use of different methods for access to electronic health information, ONC should:

- Consider this measure as the highest priority in the Patient Access set of measures.
- Aggregate by product, where possible; understanding actions such as app authorization or portal access are not necessarily ambulatory/inpatient product specific, and the denominator of encounter types should determine the product association. The numerator should not distinguish between ambulatory and inpatient encounters.
- Consider app usage should be examined for patients that have an encounter in the reporting period, as well as for patients that do not have an encounter in that reporting period.
- Consider measuring the ratio of access to patient portal versus third party apps.
- Consider collecting patient gender assigned at birth, sexual orientation, and gender identity (SOGI) and Social Determinants of Health (SDOH) data as defined in USCDI V2. Any additional stratification adds to the complexity of data collection and reporting.
- Remove the sustained use dimension from measure 1 and capture it only in measure 2.



Recommendation for Patient Access: Use of 3rd party patient-facing apps

EHRRP-TF-2021_Recommendation 03 – For the measure on use of 3rd party patient-facing apps, ONC should:

- Consider this measure as the 2nd highest priority under Patient Access measures.
- Report on apps by the number of users within the reporting period: less than 10 users, 10+ users, 100+ users, 1,000+ users, 10,000+ users.
- Consider collecting patient gender assigned at birth, sexual orientation, and gender identity (SOGI) and Social Determinants of Health (SDOH) data as defined in USCDI V2. Any additional stratification adds to the complexity of data collection and reporting.

Recommendation for Patient Access: Collection of app privacy policy

EHRRP-TF-2021_Recommendation 04 – ONC should remove the measure on collection of app privacy policy.

- The EHRRP is not the correct mechanism for collection of app privacy policy information since privacy policies may fall outside of certified health IT requirements.

Recommendation for Public Health Information Exchange: Sending vaccination data to IIS

EHRRP-TF-2021_Recommendation 05 – For the measure on sending vaccination data to immunization information systems (IIS), ONC should:

- Update denominator to “Number of immunizations administered.”
- Update numerator to “Number of administrations from which the information was electronically submitted to a registry successfully.”
 - These updated denominator/numerator suggestions should help address the confusion of the numerator being larger than the denominator.
- Stratify numerator by the registry submitted to, and avoid the complexity of attempting to stratify by state or jurisdiction. This would also provide additional data where there are multiple registries within a state.

Recommendations for Public Health Information Exchange: Querying of IIS by health care providers using EHRs

EHRRP-TF-2021_Recommendation 06 – For the measure on querying of IIS by health care providers using EHRs, ONC should:

- Update denominator to “Number of encounters.”
- Update numerator to “Number of query responses from the IIS received.”
 - These updated denominator/numerator suggestions should help address the confusion of the numerator being larger than the denominator.
- Note for interpretation that not all clinicians consider immunizations in their scope of practice, and that this will affect data reported. Not every encounter would necessarily have a query. Some queries may also be performed outside the concept of an encounter.

Recommendations for Clinical Care Information Exchange: Viewing summary of care records

EHRRP-TF-2021_Recommendation 07 – For the measure on viewing summary of care records, ONC should:

- Base metrics on any valid C-CDA document type received including but not limited to Summary of Care (CCD) documents.
- Incorporate future EHR certification requirements that will allow for the reporting to differentiate counts of documents received by push from those received by query/pull.
- Define “viewing” a document as having an open document displayed to a user, whether the display includes all or a subset of the data received, and regardless of whether the user scrolls through or clicks on any of the data in the document itself.
- Align the reporting period with the reporting period of the other metrics and reflect any view of documents received during that time period.
- In lieu of the terms “parse and integrate”, consider referencing and utilizing the existing Certification criteria for “incorporation” of received outside data from <https://www.healthit.gov/test-method/clinical-information-reconciliation-and-incorporation>.
- Define “incorporation” as to electronically process structured information from another source such that it is combined (in structured form) with information maintained by health IT and is subsequently available for use within the health IT system by a user.



Recommendations for Clinical Care Information Exchange: Viewing summary of care records (continued)

EHRRP-TF-2021_Recommendation 08 – For future reporting on viewing summary of care records, ONC should consider revising numerator 2 and denominator 2 of the measure on viewing summary of care records to capture how often data was parsed, incorporated, and viewed separately from the received document with the following specification:

- Numerator 2: Number of unique C-CDAs received where any parsed/incorporated/reconciled data is viewed in integrated form by end users and clinicians
- Denominator 2: Number of unique C-CDAs received using certified health IT that are parsed and have data incorporated or reconciled into the local system

Recommendations for Clinical Care Information Exchange: Use of 3rd party clinician-facing apps

EHRRP-TF-2021_Recommendation 09 – For the measure on use of 3rd party clinician-facing apps, ONC should:

- Report on app usage vs. app registration with the vendor or enablement in a customer system.
 - App enablement could be measured by apps listed as being allowed access.
 - App usage could be measured via API audit trail.
- Report on apps with active registration within the reporting period: < 10 users, 10+ users, 100+ users, 1,000+ users, 10,000+ users.
- Align these measures with the Standards Adoption and Conformance measures domain to eliminate any duplicity.



Recommendations for Standards Adoption and Conformance: Use of FHIR APIs and resources by clinician-facing apps

EHRRP-TF-2021_Recommendation 10 – for the measure on use of FHIR APIs and resources by clinician-facing apps, ONC should consider the following numerators:

- For clinician facing endpoints, number of API calls (queries/reads) by resource type and FHIR version
- For clinician facing endpoints, number of creates/updates (writebacks) by resource type and FHIR version and resource type (writeback)
- For clinician facing endpoints, total volume of data transferred (gigabytes), by resource type and FHIR version
- For clinician facing endpoints, number of FHIR resources transferred, by resource type and FHIR version
- For clinician facing endpoints, number of SMART on FHIR (SoF) apps with at least one launch
- For clinician facing endpoints, number of SoF app launches

Recommendations for Standards Adoption and Conformance: Use of FHIR APIs and resources by clinician-facing apps (continued)

EHRRP-TF-2021_Recommendation 11 – for the measure on use of FHIR APIs and resources by clinician-facing apps, ONC should consider the following denominators:

- Number of Clinicians with at least one EHR session in the period (active clinicians)
- Number of EHR documented encounters in period (EHR use)
- Per site, based on individual locations of care



Recommendations for Standards Adoption and Conformance: Use of FHIR APIs and resources by patient-facing apps

EHRRP-TF-2021_Recommendation 12 – for the measure on use of FHIR APIs and resources by patient-facing apps, ONC should consider the following numerators:

- For patient facing endpoints, number of API calls (queries/reads) by resource type and FHIR version
- For patient facing endpoints, number of creates/updates (writebacks) by resource type and FHIR version
- For patient facing endpoints, total volume of data transferred (gigabytes) transferred, by resource type and FHIR version
- For patient facing endpoints, number of FHIR resources transferred, by resource type and FHIR version
- For patient facing endpoints, number of SoF apps with at least one launch
- For patient facing endpoints, number of SoF app launches



Recommendations for Standards Adoption and Conformance: Use of FHIR APIs and resources by patient-facing apps (continued)

EHRRP-TF-2021_Recommendation 13 – for the measure on use of FHIR APIs and resources by patient-facing apps, ONC should consider the following denominators:

- Number of patients with at least one patient-facing app login in period (active patients with portal access)
- Number of patients with at least one patient-facing app login without an EHR documented encounter in period (patients interacting with health tools outside of a clinician visit)
- Patients with at least one EHR documented encounter in period (active patients)
- Per site based on individual locations of care (as per above)



Recommendations for Standards Adoption and Conformance: Use of FHIR bulk data

EHRRP-TF-2021_Recommendation 14 – For the measure on use of FHIR bulk data, ONC should consider the following numerators:

- For bulk data endpoints, number of API calls by resource type and FHIR version
- For bulk data endpoints, total volume of data transferred (gigabytes) transferred, by resource type and FHIR version
- For bulk data endpoints, number of FHIR resources transferred, by resource type and FHIR version
- Number of registered Smart Backend Services apps with at least one API request

Recommendations for Standards Adoption and Conformance: Use of FHIR bulk data (continued)

EHRRP-TF-2021_Recommendation 15 – For the measure on use of FHIR bulk data, ONC should consider the following denominators:

- Number of EHR documented encounters in period (EHR use)
- Per site based on individual locations of care (as per above)
- Per user type (Initial focus should be on payor, clinician, or other; later phases can have more granularity)
- Per HIPAA-supported reason for access (TPO, research, care coordination)



Recommendations for Standards Adoption and Conformance: EHR Full Electronic Health Information (EHI) Export Metrics

EHRRP-TF-2021_Recommendation 16 – ONC should add a measure on EHR Full Electronic Health Information (EHI) Export Metrics with the following specifications:

- Numerator recommendations:
 - Number of individual patient-initiated EHI export requests processed
 - Number of individual non-patient-initiated EHI export requests processed
 - Number of full data EHI export requests processed
 - Fees assessed to client or requestor
 - Other costs to the provider/client (e.g., hardware costs, cloud costs to support infrastructure and data transfer)
- Denominator recommendations:
 - Per number of sites



Recommendations for Standards Adoption and Conformance: Vendor - availability of apps

EHRRP-TF-2021_Recommendation 17 – ONC should add a measure on vendor – availability of apps with the following specifications:

- Numerator recommendations (along with lists):
 - Counts and lists of apps using the SoF API
 - Counts and list of apps using the SoF API in vendor-associated app galleries
 - Counts list of apps not using the SoF API in vendor associated app galleries
 - Counts and list of apps using the SoF API plus additional APIs
 - Counts and list of apps with at least one launch in the measure period, registered for SoF API write permissions
- Denominator recommendations:
 - Count of EHR documented encounters in period (EHR use)
 - Per site
 - Per user type (Payor, Researcher, Internal user)

Recommendations for Standards Adoption and Conformance: Costs of API Use

EHRRP-TF-2021_Recommendation 18 – ONC should add the following measures on costs of API use:

- Total fees charged per unit time to clinician for facing API calls
- Total fees charged per unit time for bulk data API calls

Recommendations for Data Quality and Completeness: By data element, percentage of data complete

EHRRP-TF-2021_Recommendation 19 – Each data element proposed should be clarified in a measure and prioritized as worth the additional reporting development and data processing effort. If some of these are prioritized, further definition is needed before consideration (e.g., address needs to be better defined as home, work, address parts, etc., and gender needs to be clarified). ONC should:

- Not prioritize mother's maiden name.
 - Mother's maiden name is low utility given it is often a missing data field, however, there is value for patient matching, particularly for children.
- Consider preferred language for future prioritization.
- Consider phone numbers (e.g., mobile, home, work) and email for prioritization.
- Consider the use for the data in prioritization. Completeness of individual elements is not all that meaningful. Focus on equity and patient matching.
- Clarify or remove “Potential subgroup by client (reported by quintiles).”
- Revisit these measures if future industry efforts develop new best practices around data completeness and quality.



Recommendations for Data Quality and Completeness: By data element, percentage of data complete (continued)

EHRRP-TF-2021_Recommendation 20 – ONC should consider the following items regarding interpretation of the data quality and completeness measure:

- Different system approaches need to be considered.
 - Required fields may lead to high completion rates but may not indicate data quality or usability.
 - Some systems may capture data at the encounter level, making reporting at the patient level difficult.
 - If certain data elements are required to create a patient record, then reporting on them is not useful in this way.
 - Similarly, if a default value (say, unknown) is populated, what we are really interested in is the non-default values.
- Aggregation cannot account for patients with multiple records across systems.
- Required vs optional fields within the EHR has ramifications for patient matching and public health use of data, Data gathered from this measure may help inform how changes in data elements can be best explained in implementation guides. Required (R), Required if Exist (RE), Conditional (C), Optional (O) listed in HL7 standards may need to be rethought given the impact that incomplete or poor data have on value. Optional but really important fields need to be communicated via the EHR to end users.



Discussion