EHR Reporting Program Task Force 2021

Raj Ratwani, Co-Chair

Jill Shuemaker, Co-Chair

August 12, 2021

Health Information Technology Advisory Committee
The Office of the National Coordinator for Health Information Technology

Meeting Agenda

- Call to Order/Roll Call

- Opening Remarks

- Discussion of Data Quality Potential Future Measure

- Preliminary Recommendations for Clinical Care Measures

- Discussion of Standards Adoption and Conformance Measures

- Public Comment

- Final Remarks

- Adjourn

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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

- **Overarching Charge:** Make recommendations to prioritize and improve the draft set of developer-reported, interoperability-focused measures for the ONC EHR Reporting Program

- **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

  - 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 National Coordinator by September 9, 2021

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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

Opening Remarks

Meeting Process

- Task Force lead to present initial thoughts and recommendations

- All Task Force members will discuss

- The Urban team will document agreed upon recommendations and recommendations for further discussion

- Recommendations report template will be used to record emerging themes from discussion and projected during the meeting

- Task Force Co-Chairs will summarize initial recommendations that emerged

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

Cross-Cutting Issues for Discussion

- **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?**

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Discussion of Data Quality Potential Future Measure

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Potential Future Measure: Data Quality and Completeness

Measures	Reporting elements and format
1. By data element, percent of data complete (e.g., not missing). **Num:** For each data element selected, number of active patients with complete information for that data element. **Den**: Number of individuals with an encounter (e.g., active patient)	Data elements for consideration: race/ethnicity, DOB, gender, address, mother's maiden name, first name, last name. Others? Require developers to report numerators and denominators, not just percentages. Aggregated by developer Potential subgroup by client (reported out by quintiles) Frequency of reporting and look back period for numerators and denominators TBD.

Data Quality and Completeness Discussion

- To what extent do the provider/client processes drive the capture of these data?

- Should distinctions be made between data captured within a system/organization and those from external sources?

- To what extent does the regional/local characteristics for information exchange affect this measure?

- Could duplicate measures be counted and distort this measure?

- To what extent does the use of third-party applications/middleware shape the performance relative to this measure?

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Preliminary Recommendations for Clinical Care Measures

Clinical Care Information Exchange Measures

Measures	Reporting elements and format
<u>1. Summary of care records</u>: Percentage of summary of care records viewed by end users/clinicians (break out by parsing/integration of records) **Num 1**: Number of unique summary of care records received using certified health IT that are viewed by end users/clinicians **Den 1**: Number of unique summary of care records received using certified health IT **Num 2**: Number of unique summary of care records received using certified health IT that are parsed, integrated and viewed by end users/clinicians **Den 2:** Number of unique summary of care records received using certified health IT that are parsed and integrated	Viewing rates may differ based on whether data is integrated. Consider one denominator with multiple numerators to capture total number and then those that were parsed and integrated. Require developers to report numerators and denominators, not just percentages. For each measure, collect numerator and denominator counts by setting (e.g., inpatient, outpatient) Aggregated by developer Frequency of reporting and look back period for numerators and denominators TBD.

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Clinical Care Information Exchange Measures

Measures	Reporting elements and format
2. Clinician-facing apps: Percent of registered, 3rd party clinician-facing apps with active users (as defined by end users/clinicians authorizing access) **Num 1:** Number of registered 3rd party clinician-facing apps with a minimum number of users (see potential categories/subgroups). **Other potential numerators:** Average number of apps deployed by customer; or average number of apps by product ***Den***: Count of 3rd party clinician-facing apps that are registered via § 170.315(g)(10)(III)	Authorization of the app is a proxy for usage. Potential numerator categories for users: by average number of end/users/clinicians using each app across a developer; number of users (e.g., at least 1, 10, 100, 10,000, 100,000); Require developers to report numerators and denominators, not just percentages. Aggregated by developer Frequency of reporting and look back period for numerators and denominators TBD.

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Discussion of Standards Adoption and Conformance Measures

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Measurement Domain: Standards Adoption and Conformance

- Motivation
  - Provides a measure of the use of FHIR profiles which can help guide updates to US Core and provide insights into volume and types of data used by app users
  - Assess the implementation of health IT provisions of the 21st Century Cures Act by providing insight into usage of bulk FHIR overall, and for different use cases
  - Applies to certification criteria (g)(10)

- Draft measures address the following questions:
  - What FHIR Core and non-Core profiles are requested by providers and consumers when using apps?
  - How frequently are bulk FHIR transactions occurring overall and by type?

Standards Adoption and Conformance Measures

Measures	Reporting elements and format
1. Requests for FHIR profiles by clinician-facing applications: Number and percentage (relative share) of calls for individual Core and non-Core FHIR profiles. *Num*: Number of calls by clinician-facing registered apps for each distinct FHIR profile (both Core and non-Core FHIR profiles) *Den #1*: Number of active patients associated with a FHIR call (alt: total number of active patients) *Den #2*: Number of clinician-facing 3rd party apps that are registered via § 170.315(g)(10)(III) with minimum # users (see measure #2 clinical exchange)	The reported data could be used in combination to create a range of measures that provide indications of the adoption and use of FHIR and associated insight into the relative use of USCDI elements. EHR developer would need to capture the data elements at the client-level, then roll-up into aggregated groups. Normalization of call frequency would be needed to control for bulk FHIR and automatic refresh calls.
2. Requests for FHIR profiles by patient-facing applications: Percentage (relative share) of calls for individual Core and non-Core FHIR profiles. *Num*: Number of calls by clinician-facing apps for each FHIR profile (both Core and non-Core FHIR profiles) *Den #1*: Number of active patients associated with a FHIR call (alt: total number of active patients) *Den #2*: Count of patient-facing 3rd party apps that are registered via § 170.315(g)(10)(III) with minimum #users (see measure #2 patient access)	More than one denominator is appropriate in order to provide insight into (a) the relative share and frequency for individual FHIR Core profile calls amortized over the number of applications in use and (b) the relative share and frequency for individual Core profile calls as a percentage of aggregate calls being made. These measures can be reported as counts and distributions including within quintiles (across clients) Require developers to report numerators and denominators, not just percentages. Frequency of reporting and look back period for numerators and denominators TBD.

Standards Adoption and Conformance*

Measures	Reporting elements and format

3. Number of calls using SMART/HL-7 FHIR bulk data access: Usage of SMART/HL7 FHIR bulk data access to enable data export in enterprise-to-enterprise transactions.
 	
Num #1: Number of SMART/HL-7 FHIR bulk calls across EHR installations.
 	
   Num #2: Number of SMART/HL-7 FHIR bulk calls related to export data on all individuals across EHR installations
 	
   Num #3: SMART/HL-7 FHIR bulk calls related to export all data for individuals within a specified group (e.g., accountable care cohort, research group, health plan members)
 	
   Num #4: Number of SMART/HL-7 FHIR bulk calls related to full system-level export of all resources
 	
Den: Number of distinct EHR installations
	EHR developer would need to construct the measure at the client-level, then aggregate.
	
	The functionality to measure this is not currently available.
	
	The numerator could be artificially inflated due to technical or configuration factors.
	
	These measures can be reported as counts and distributions including within quintiles.
	
	Frequency of reporting and look back period for numerators and denominators TBD.

*Mandl, K.D., Gottlieb, D., Mandel, J.C. et al. Push Button Population Health: The SMART/HL7 FHIR Bulk Data Access Application Programming Interface. npj Digit. Med. 3, 151 (2020). https://doi.org/10.1038/s41746-020-00358-4

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Reporting Out Example: Usage of FHIR Profiles

	Developer A				Developer B			
	#calls among provider-facing apps (read)	#Patients	#Apps	Rate (#calls/users/apps)	#calls among provider-facing apps (read)	#Patients	#Apps	Rate (#calls/users/apps)
US Core AllergyIntolerance Profile	2,700	30	1	90	10,200	20	5	102

US Core Allergy Intolerance Profile (across clients)	Developer A Rate (#calls/users/apps)
Top Quintile	150
2nd Quintile	120
3rd Quintile	90
4th Quintile	60
Bottom Quintile	30

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Standards Adoption and Conformance Discussion

- To what extent do bulk and automatic refresh calls distort the ability to interpret these measures?

- Does "commonly requested" or frequency of calls for specific profiles depend upon what an application is programmed to do and not necessarily reflect the action of a clinician or individual?

- Do specific EHR technologies make all FHIR resources available?

- Would it be useful to refine bulk FHIR transactions to groups/population exports as well as all data exports?

- What are the appropriate thresholds for number of individual and number of clinician users?

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Other Standards Adoption and Conformance Measures Considered

- FHIR-based vs. Proprietary Clinician-facing 3rd party apps registered to certified API technology

- FHIR-based vs. Proprietary patient-facing 3rd party apps registered to certified API technology

- Use of structured data within document-based exchange as measured by CCDA Scorecard results across EHR installations

- Number of Applications a developer has registered

- Number of conformance errors in the CCDA

- Use of FHIR APIs that are in draft USCDI but not yet final (for both individual and provider-facing APIs).

- Percentage of records sent via CCDA vs FHIR

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Public Comment

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All public comments will be limited to three minutes.

You may enter a comment in the
"Public Comment" field below this presentation.

Or, email your public comment to onc-hitac@accelsolutionsllc.com.

Written comments will not be read at this time,
but they will be delivered to members of the Task Force and made part of the Public Record.

Final Remarks

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Meeting Schedule

	Topics	Current Assignments
July 15	Kickoff – introductions, overview of task force charge and plan for meeting topics and process, begin discussion of measures	
July 22	Patient Access measures	Steve Waldren Sheryl Turney
July 29	Public Health information exchange measures Begin developing recommendations report	Bryant Karras Sasha TerMaat
Aug 5	Clinical Care information exchange measures	Abby Sears Steven Lane
Aug 12	Standards adoption and conformance measures Data quality potential future measure	Ken Mandl, Jim Jirjis Sasha TerMaat, Zahid Butt
Aug 19	Review draft recommendations report and slide deck	
Aug 25	Review final recommendations report and slides, plan for HITAC meeting	
Sept 2	Available for additional task force meeting if needed, finalize slides/report for HITAC	
Sept 9	HITAC meeting and vote	
Sept 16	Hold for follow-up task force meeting if needed	

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GAO Seeking Nominations for Health IT Advisory Committee

- GAO is now accepting nominations for HITAC appointments. From these nominations, GAO expects to appoint at least five new HITAC members, focusing especially on health care providers, ancillary health care workers, health information technology developers, and patient advocates. Members serve 3-year terms beginning January 1, 2022, with the terms subject to renewal.

- Interested nominees should submit letters of nominations and resumes to HITCommittee@gao.gov by **August 24, 2021**.

- Refer to the Federal Register announcement for more information.

Meeting Adjourned

Appendix: Draft Measure Concepts for Future Consideration

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Draft Measure Concepts for Future Consideration

- Measurement Domain: Public Health Information Exchange
  - Extent to which data is being submitted to public health agencies via third-party apps (e.g., eCR Now) or APIs

- Measurement Domain : Patient Access
  - Extent to which 3rd party patient-facing app users are using write-back functionality (patient-level measure), OR
  - Number of patient-facing apps with users that are using write-back functionality (app-level measure)

- New Measurement Area: Data Quality and Completeness
  - Completeness of key socio-demographic and geographic data needed for patient matching and health equity efforts e.g., race/ethnicity, DOB, address, name, gender, and mother's maiden name.

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Potential Future Measure: Submission of data to public health via third-party apps or APIs

Motivation: Helps us understand the extent to which APIs are used to support transmission of public health data to public health agencies

Measure	Reporting elements and format	Questions
Num: Number of EHR installations submitting data to PHAs using APIs or third-party apps (i.e., eCR Now) related to (f)-criteria: • Immunizations (f)(1) • Reportable labs (f)(3) • Syndromic surveillance (f)(2) • Electronic case reports (f)(5) • Antimicrobial use and resistance reporting (f)(6) **Den**: Number of health IT installations	Gather numerator and denominator counts by: • State • State and setting • State and age group for immunizations only (adults, adolescents, child/infant)	Forward looking measure? The only FHIR API that exists now is one for electronic case reporting. Should we ask about APIs broadly (SOAP and FHIR) or FHIR only?

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Potential Future Measure: Patient Access

Measure	Reporting elements and format	Questions
<u>Percentage of patients using write-back functionality on 3rd party, registered patient-facing apps</u> **Num:** Number of patients who have used write-back functionality on 3rd party, registered patient-facing app **Den**: Number of patients who have authorized access to their information via 3rd party patient-facing apps (this number also collected via numerator from first individual Access measure)	We considered an app-level measure as well: **Num#1**: Number patient-facing apps where write-back is used by a minimum number of users (See categories in Patient Access measure #2) **Den**: Number of patient-facing apps with minimum number of users (See categories in Patient Access measure #2) The concern is that apps can have vastly different numbers of users, so could skew overall picture of how many patients are using write-back.	How can we better define scope and specificity around write-back? Should it exclude scheduling and administrative matters? If we see very little usage, is it because the API was not enabled to allow individual write-back, or because individuals aren't doing it? How can we differentiate/measure this—looking at apps/APIs that support write back? Do we expect more developers will have write-back on proprietary APIs? We understand many *clinicians* use write-back on proprietary APIs – should we try to capture that too?