



# EHR Reporting Program Task Force 2021

Raj Ratwani, Co-Chair

Jill Shuemaker, Co-Chair

August 25, 2021

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Health Information Technology Advisory Committee

The Office of the National Coordinator for Health Information Technology



# Meeting Agenda

- Call to Order/Roll Call
- Opening Remarks
- Draft Recommendations Report and HITAC Meeting Slides
- Recommendations for Public Health Information Exchange Measures
- Public Comment
- Final Remarks
- Adjourn

# 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 National Coordinator by September 9, 2021

# EHR Reporting Program Task Force Roster

Name	Organization
<b>Raj Ratwani (Co-Chair)</b>	<b>MedStar Health</b>
<b>Jill Shuemaker (Co-Chair)</b>	<b>American Board of Family Medicine Foundation</b>
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 will 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 3<sup>rd</sup> 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?**





# Draft Recommendations Report and HITAC Meeting Slides

## Draft HITAC Meeting Slides Content

- Introductory slides from task force meetings
  - Task force charge
  - Task force roster
  - Task force process overview
- High-Level Summary of Measures Reviewed
- Recommendations Report summary
  - High level / cross-cutting recommendations
  - Recommendations and considerations by domain



## High Level / Cross-Cutting Recommendations

- Consider that developers may have to change their agreements with providers to be able to report their data.
- A goal is to minimize burden on provider organizations in data collection.
- Measures will be reported annually for a 12 month reporting period.
- Use July 1 - June 30 as the default for a 12 month reporting period.
- A lookback beyond the reporting period is not necessary; check population at the time the data is collected. Collect after the year/reporting period is over.

## High Level / Cross-Cutting Recommendations (continued)

- Develop precise definitions for terms used in the measures, such as:
  - Clinicians – all licensed independent practitioners as well as all nursing/MA/clinical support staff
  - Encounter – based on SNOMED (outpatient) and CPT (inpatient) codes
  - Site
  - App reauthorization
  - Successful transmission to IIS registry



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

- Highest priority in this category.
- An active patient is one that had an encounter within the reporting period.
- Aggregate by product (understanding actions such as app authorization or portal access are not necessarily ambulatory/inpatient product specific, and denominator of encounter types will determine the product association, the numerator will not distinguish).
- Remove numerator "1c. Neither (did not use patient portal or authorize access via an app)" (cannot report on activity that does not take place).
- 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.

## Recommendations for Patient Access: Use of 3<sup>rd</sup> party patient-facing apps

- Second highest priority in this category.
- Report on apps by the number of users within the reporting period – < 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.

## Recommendations for Patient Access: Collection of app privacy policy

- Remove this measure.
  - There could be a different lever besides the EHRRP that could be leveraged for this.



## Recommendations for Public Health Information Exchange: Sending vaccination data to IIS

- Update denominator of measure 1 to “Number of immunizations administered.”
- Update numerator of measure 1 to “Number of administrations whose information was electronically submitted to a registry successfully.”
  - These updated denom/num suggestions help address the confusion of the numerator being larger than the denominator.
- Stratify numerator by registry submitted to, and avoid the complexity of attempting to stratify by state. This also provides 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

- Update denominator to “Number of encounters.”
- Update numerator to “Number of query responses from the IIS received.”
  - These updated denominator/numerator suggestions help address the confusion of the numerator being larger than the denominator.
- For interpretation, we note that not all providers 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

- Metrics should be based 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.
- “Viewing” a document should be defined 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.
- 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.



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

- The reporting period should align 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>.
- “Incorporation” means 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.”



## Considerations for Future Reporting for Clinical Care Information Exchange: Viewing summary of care records

- Request future reporting to include, “How often was data parsed and viewed separately from the received document”
  - Num 2: Number of unique C-CDAs received where any parsed/incorporated/reconciled data is viewed in integrated form by end users and clinicians
  - Den 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 3<sup>rd</sup> party clinician-facing apps

- 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:
  - Count of apps with active registration in the reporting period
  - Count of apps with 1-9 users in the reporting period
  - Count of apps with 10-99 users in the reporting period
  - Count of apps with 100-999 users in the reporting period
  - Count of apps with 1000+ users in the reporting period



# Recommendations for Data Quality and Completeness:

## By data element, percentage of data complete

- Each data element proposed would have to 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 (address needs to be better defined as home, work, address parts, etc, gender needs to be clarified).
  - Mother's maiden name seems low utility and would not prioritize.
  - Consider preferred language for future prioritization.
  - Consider phone numbers and email for future prioritization.
- Consider the use for the data in prioritization. Completeness of individual elements is not all that meaningful. Focus on equity and patient matching.
- “Potential subgroup by client (reported by quintiles)” is unclear and should be clarified or removed.
- If future industry efforts develop new best practices around data completeness and quality, revisit these measures.



## Other Considerations Regarding Interpretation for Data Quality and Completeness Measure

- Different system approaches will 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, not any value.
- 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 has on value. Optional but really important needs to be communicated via the EHR to end users.



# Recommendations for Public Health Information Exchange Measures





**AIRA**  
AMERICAN IMMUNIZATION  
REGISTRY ASSOCIATION

# Submission Measure Discussion

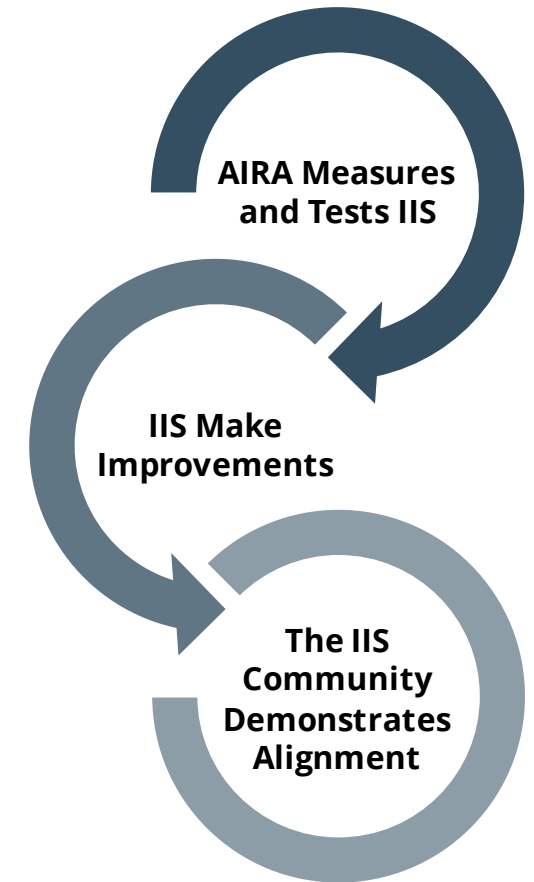
Using the ACK Message to  
Determine Success of Submission

Mary Beth Kurilo  
Eric Larson

# Measurement and Improvement Initiative – What is it?

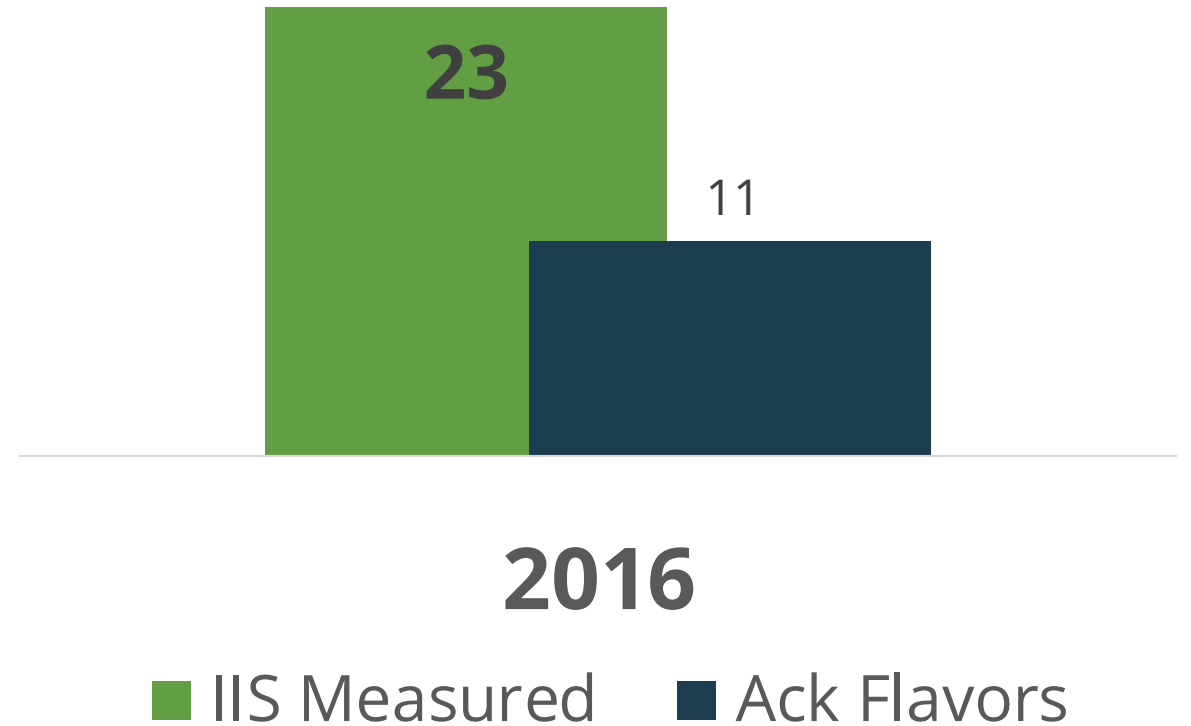


- The IIS Measurement and Improvement (M&I) Initiative began in 2015 in collaboration with CDC as an effort to:
  - Test IIS alignment with standards
  - Provide IIS with information and assistance to improve
- All testing is conducted by AIRA through:
  - Connecting with pre-production systems
  - analyzing deidentified data



# ACK Processing Rules

The logic AIRA uses to determine if the IIS **accepted** or **rejected** a message.

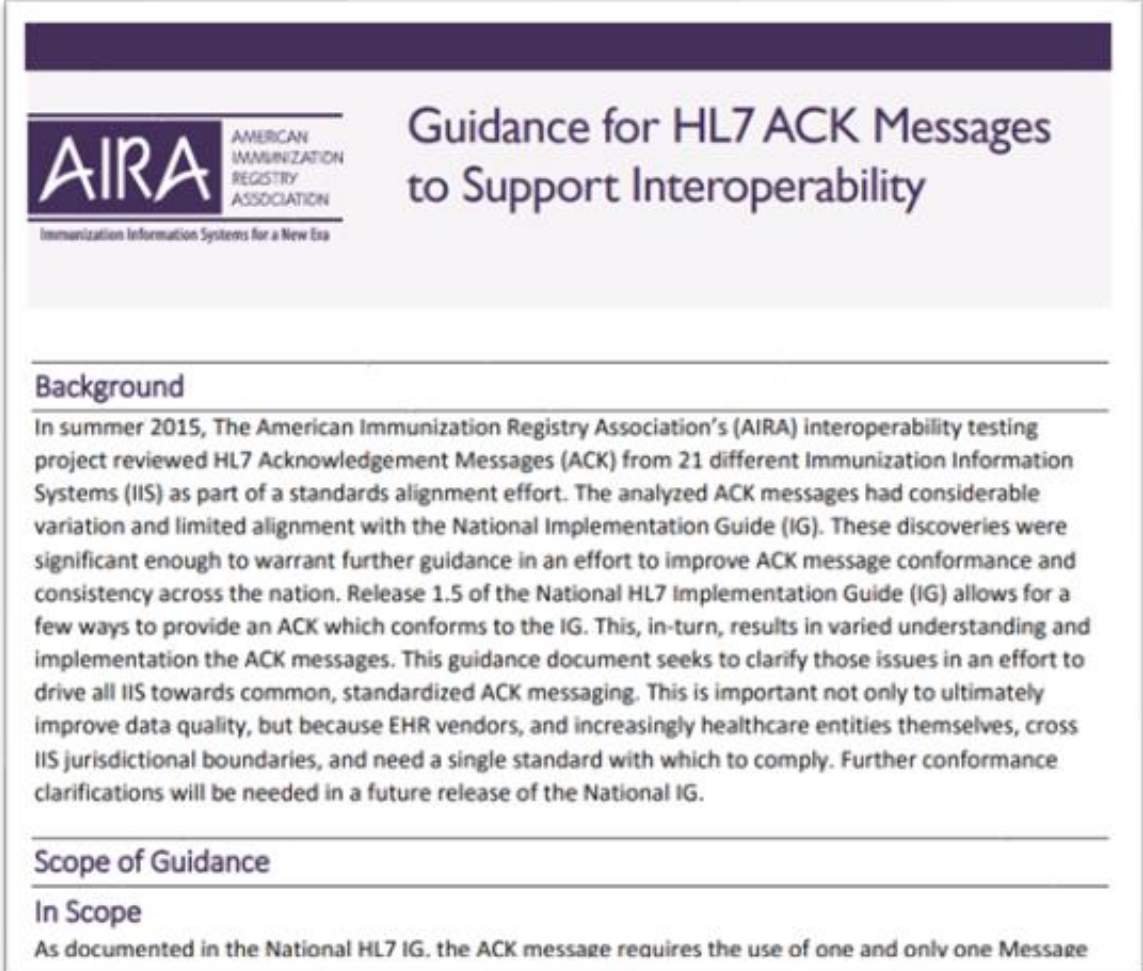


# ACK Guidance Document

Developed in AIRA's Standards Workgroup to further standardize the ACK message

Improves ACK to be meaningful and actionable for EHRs, pharmacies, clinicians, etc.

**Goal:** One standardized ACK message including the meanings of key fields for all IIS



The image shows the cover page of a document titled "Guidance for HL7 ACK Messages to Support Interoperability" published by the American Immunization Registry Association (AIRA). The AIRA logo is on the left, featuring the acronym "AIRA" in a stylized font and the full name "AMERICAN IMMUNIZATION REGISTRY ASSOCIATION" to its right. Below the logo is the tagline "Immunization Information Systems for a New Era". The title of the document is prominently displayed on the right side. Below the title, there are sections for "Background" and "Scope of Guidance". The "Background" section describes a 2015 interoperability testing project that found inconsistencies in HL7 ACK messages across 21 different Immunization Information Systems (IIS). It notes that these findings led to the creation of this guidance document to clarify and standardize ACK messaging. The "Scope of Guidance" section, under the sub-heading "In Scope", states that the document applies to the ACK message as defined in the National HL7 IG, requiring the use of one and only one message.

**AIRA** AMERICAN IMMUNIZATION REGISTRY ASSOCIATION  
Immunization Information Systems for a New Era

## Guidance for HL7 ACK Messages to Support Interoperability

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### Background

In summer 2015, The American Immunization Registry Association's (AIRA) interoperability testing project reviewed HL7 Acknowledgement Messages (ACK) from 21 different Immunization Information Systems (IIS) as part of a standards alignment effort. The analyzed ACK messages had considerable variation and limited alignment with the National Implementation Guide (IG). These discoveries were significant enough to warrant further guidance in an effort to improve ACK message conformance and consistency across the nation. Release 1.5 of the National HL7 Implementation Guide (IG) allows for a few ways to provide an ACK which conforms to the IG. This, in-turn, results in varied understanding and implementation the ACK messages. This guidance document seeks to clarify those issues in an effort to drive all IIS towards common, standardized ACK messaging. This is important not only to ultimately improve data quality, but because EHR vendors, and increasingly healthcare entities themselves, cross IIS jurisdictional boundaries, and need a single standard with which to comply. Further conformance clarifications will be needed in a future release of the National IG.

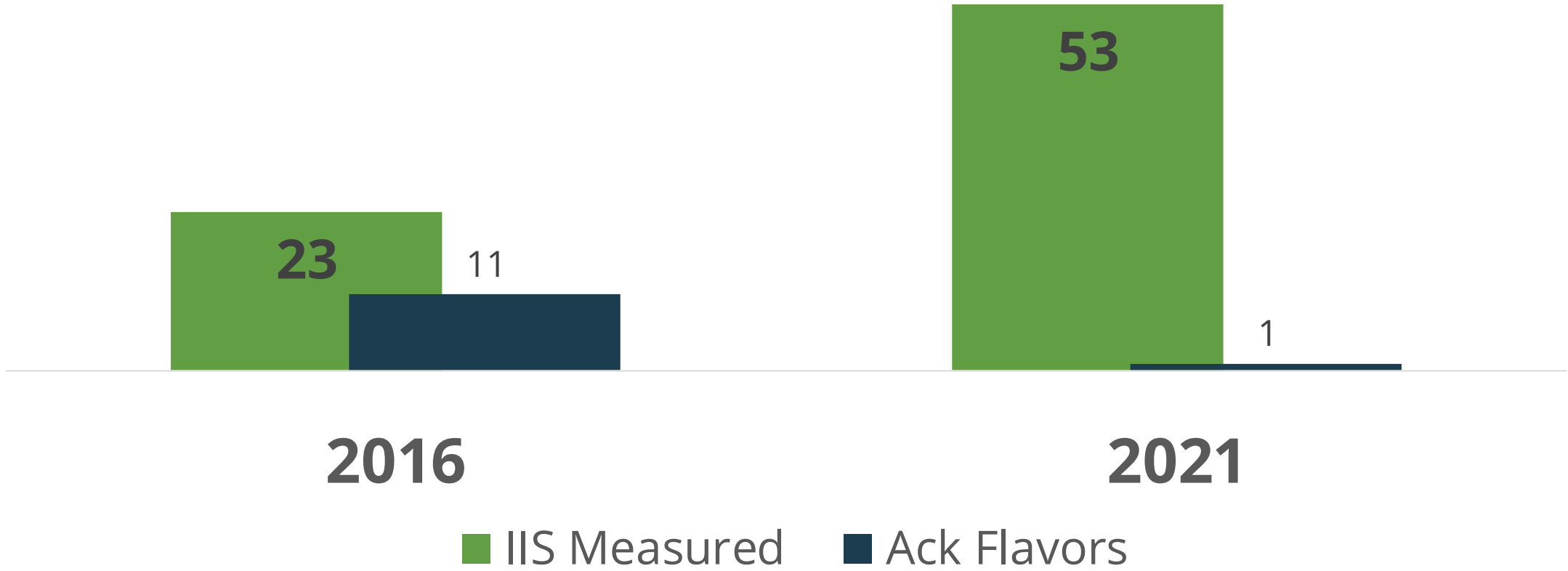
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### Scope of Guidance

**In Scope**  
As documented in the National HL7 IG, the ACK message requires the use of one and only one Message



# Tremendous Progress!



# ACK Usage in Production

Using ACKs to improve **data quality** in the IIS:

- Tennessee Department of Health
- Vanderbilt University
- Epic

HIMSS I&H/E Community

## Acknowledgment Message Handling

**ACK Workgroup Overarching Goal:**  
Improve quality, completeness of immunization data both within the IIS and the healthcare provider setting

- ✓ Improve the "handling" of acknowledgment messages
- ✓ Improve the percentage of "E" errors or rejections that are resolved
- ✓ Reduce the number of "E" errors or rejections
- ✓ Improve the understandability and actionability of messages
- ✓ Improve compliance with established standards



# “Successful” message

- Per the ACK Guidance Document:
  - Any ACK message that has no errors with a severity of “E” are considered successful.

## In HL7 Speak

- A message is considered successful if **either are true**
  - 0 ERR segments in ACK message OR
  - ERR segments exist, but none contain the code ‘E’ in ERR-4



# Selected Resources

- HIMSS Immunization Integration Program
  - <https://www.himss.org/resources/improving-immunization-data-quality>
  - <https://www.himss.org/sites/hde/files/media/file/2021/05/27/solution-area-basic-functionality-guidance-document.pdf>
  - <https://www.himss.org/resources/aggregate-immunization-acknowledgment-message-reports-guidance-white-paper>
- AIRA
  - <https://repository.immregistries.org/resource/guidance-for-hl7-acknowledgement-messages-to-support-interoperability/>





## Public Comment

To make a comment please call:  
**Dial: 1-877-407-7192**

*(Once connected, press “\*1” to speak)*

**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](mailto: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

## 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 Standards adoption and conformance measures	Ken Mandl, Jim Jirjis
Sept 9 HITAC meeting and vote	
Sept 16 Hold for follow-up task force meeting if needed	

# 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](mailto:HITCommittee@gao.gov) by **August 24, 2021**.
- Refer to the [Federal Register announcement](#) for more information.



**Meeting  
Adjourned**