U.S. Department of Health and Human Services

Agency for Healthcare Research and Quality
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A National Webinar on Projects To Inform Stage 3 Meaningful Use Requirements Through Evidence

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February 24, 2015

Agenda

- Welcome and Introductions
- Meaningful Use Background
- Presentations
- Q&A Session With All Presenters
- Instructions for Obtaining CME Credits

Note: After today's Webinar, a copy of the slides will be emailed to all participants.

Presenters and Moderator Disclosures

The following presenters and moderator have no financial interest to disclose:

- Gurvaneet Randhawa, M.D., M.P.H., AHRQ
- Sara Galantowicz, M.P.H.
- Julia Rose Adler-Milstein, Ph.D.
- Anjali Jain, M.D., discloses that she is an employee of The Lewin Group, a wholly-owned subsidiary of UnitedHealth Group that also owns UnitedHealthcare.

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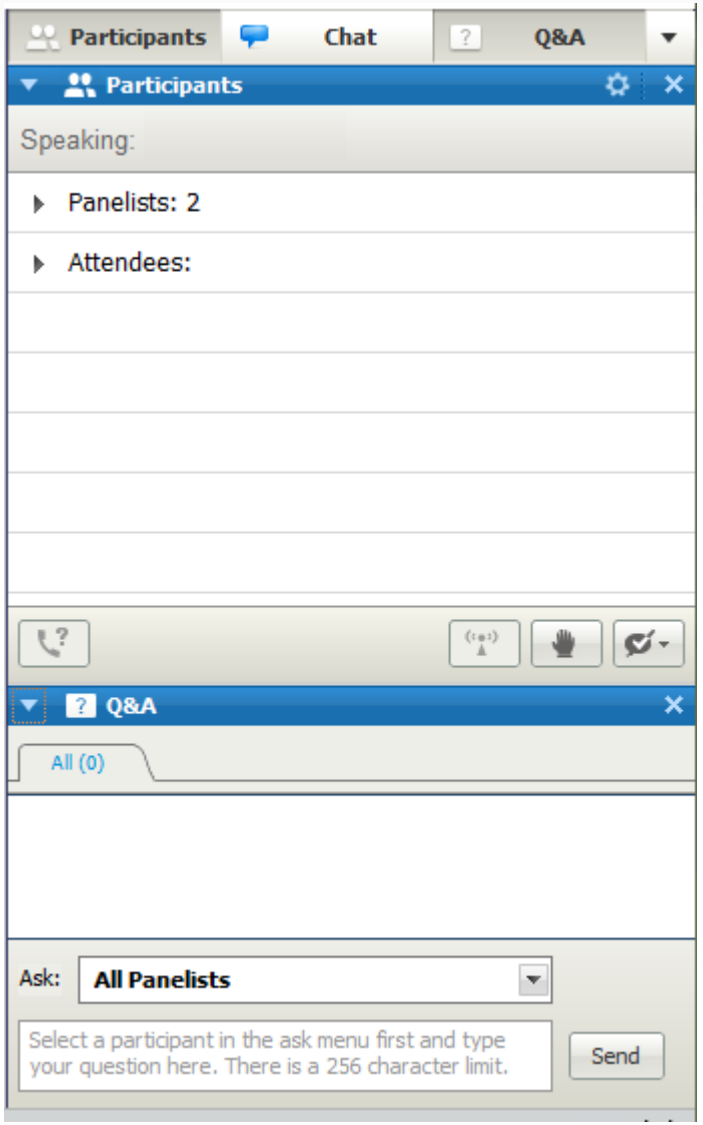

Learning Objectives

At the conclusion of this activity, the participant will be able to:

1. Identify the barriers for practices and hospitals in implementing the proposed Meaningful Use Stage 3 (MU3) objectives related to care coordination, interoperability, and patient and family engagement.
2. Describe two recommended innovations for enhancing the use of electronic health records (EHRs) to meet Meaningful Use Stage 3 proposed objectives related to the use of clinical decision support (CDS) tools, specifically provider adherence and addressing alert fatigue.
3. Discuss successful strategies for using EHRs to meet Meaningful Use Stage 3 care coordination objectives in primary care practices.

Background: Meaningful Use Program

- Created by the Health Information Technology and Clinical Health (HITECH) Act, a part of the American Recovery and Reinvestment Act of 2009 (ARRA, aka “The Stimulus”)
- A program to promote the spread of electronic health records to improve health care
- Objectives of Meaningful Use
  - Stage 1: Data Capture and Sharing
  - Stage 2: Advance Clinical Processes
  - Stage 3: Improved Outcomes

Background

- Rapid cycle research on Stage 3 Meaningful Use
- February 2013: AHRQ solicited research applications to evaluate proposed Stage 3 objectives.
- September 2013: 12 grants and contracts awarded.
- June 2014: Final results for helping inform final MU3 objectives
- Spring 2015: Final reports posted to healthit.ahrq.gov
- For more information on the projects: http://healthit.ahrq.gov/ahrq-funded-projects/evaluation-of-meaningful-use

Evaluation of Stage 3 Meaningful Use Objectives: Analysis in Pennsylvania and Utah

Sara Galantowicz, M.P.H.
Abt Associates

Project Goals

- To identify:
  - Potential improvements to selected MU3 objectives and criteria at the policy level
  - EHR innovations required to meet the selected MU3 objectives and criteria
  - Strategies for health care organizations to increase the internal value of MU3 objectives
- Proof-of-concept:
  - Obtain industry input to inform policy *prior* to the official Notice of Proposed Rule-Making
  - Real-time evaluation techniques

Main Findings

- Stakeholders expressed support for the goals inherent in MU3 and emphasized the importance of integrating MU3 objectives into existing workflows.

However, this is challenging:

- Even highly "wired" health care organizations must depend on vendors for robust, automated solutions.
- Hybrid solutions—combining automated and manual reconciliation, and building off of functionality that already exists in a local health IT system—may be most feasible.

Methods

- Partnered with two leading health systems that selected draft MU3 objectives and certification criteria for trial implementation
  - Geisinger Health System
  - Intermountain Healthcare
- Gathered feedback on implementation experience, using iterative evaluation techniques.
  - Biweekly calls with each partner
- Convened one-time panel of representatives from other hospitals and health systems.
- 12-month project, limited implementation

Patient and Family Engagement

Objectives evaluated:

- SRGP 204A: Summary of care to patient-designed recipient
- SGRP 204B: Patient-generated health information
- SGRP 204D: Request amendments to EHR
- SGRP 205: Office visit summaries to patients or patient-authorized representatives*
- SGRP 206: Availability of patient education materials in non-English languages

*Not implemented

Patient and Family Engagement (cont.)

Key Findings:

- Better mechanisms needed for:
  - Patient and provider identification
  - Authorization
  - Attestation of patient-provider relationships
- Flexibility needed for sending/receipt of information by patients.
- Guidance on using electronic health information to support patients and caregivers
  - Providing data for their EHR
  - Consuming data from their EHRs

Care Coordination

Objectives evaluated:

- SRGP 302: Medication, allergy, and problem list reconciliation
- SGRP 303: Care transition summaries
- SGRP 308: Notification of significant health care events

Care Coordination (cont.)

Key Findings:

- Challenge in identifying patients and providers for data transfer
- Lack of standard codes for medications, allergies, and problem lists
  - Mismatched notations could compromise patient safety.
  - Tracking individual reconciliations
- Potential overlap between summary of care, notification of significant health care event, and other transition summaries
- Overload from too many notifications
  - Varying need for timely response

Interoperability

Criteria evaluated:

- IEWG 101: Sending and responding to patient queries
- IEWG 102: Querying provider directories

Interoperability (cont.)

Key findings:

- Automated solutions for validating patient identity and locating provider addresses may require designated entities/databases
- Allow for semi-automated solutions.
  - Consider hybrid (semi-automated) solutions until information partners' capabilities and HIE infrastructure improve.
- Vendor products need to adjust automatically to the receiving entity's capabilities.
  - Single front-end workflow for users

Policy Recommendations

- Allow hybrid means to meet MU objectives that leverage existing, successful approaches.
- Establish standards for the lifecycle management of patient-provider relationships, including ownership and timeline for attestation and refutation of continuing the relationship.
- Establish standardized notation for medication and allergies to facilitate reconciliation.

Policy Recommendations (cont.)

- Define parameters/ timeframe for responding to shared health data.
- Address recording authorization in certification standards.
- Consider centralized national provider directory.

Vendor Recommendations

- Allow users to customize care summaries, with ability to share/view supported file types across settings and vendor platforms.
- Support functionality to verify patient identity across vendor platforms.
- Support provider address lookup and updating of new provider credentials.

Vendor Recommendations (cont.)

- Enable segregation of specially protected data from other HIPAA-protected data for selective sharing to different providers.
- Enable retrieval of specific documents or data elements from larger files (of varying file types).
- Enable functionality to integrate validated incoming data into record.
- Distinguish between provider-generated vs. patient-generated data.

Conclusions

- Allowing for flexibility in language and certification criteria and for hybrid approaches will facilitate MU3 implementation.
  - True interoperability limited by a lack of partners with whom to trade health information
  - Flexibility won't penalize early adopters and innovators.
  - EHR certification should be progressive with manual solutions when necessary.

Conclusions (cont.)

- Acknowledge role of vendors.
  - Instrumental in building required functionality to support patient engagement, care coordination, and the necessary interoperability capabilities
  - Trade off between creating new functionality and optimizing existing features.
  - Fully automated approaches may be years off.

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Evaluation of Stage 3 Meaningful Use Objectives: Analysis in Oklahoma and the District of Columbia

Anjali Jain, M.D.

The Lewin Group

Background: Purpose

Project Purpose

To evaluate the implementation of nine proposed Stage 3 Meaningful Use (MU3) objectives in rural and urban settings within both ambulatory/ outpatient and inpatient environments.

Background: Partners

Partners

- **Oklahoma Foundation for Medical Quality (OFMQ)**
  - Oklahoma City, OK
  - Rural setting
  - Adult outpatient services
  - Primary care physicians and specialists

- **Children's National Medical Center (CNMC)**
  - Washington, DC
  - Urban setting
  - Pediatric; inpatient, outpatient, and emergency services
  - Primary care physicians and specialists

Background: Procedure

Procedure

- **Data Collection**
  - Qualitative/Quantitative
  - October 2012* to March 2014

- **Electronic Health Record (EHR) Vendors**
  - eClinicalWorks
  - e-MDs
  - Cerner

*CNMC collected data between October 2012 and September 2013, which represents the current Medicaid EHR Incentive Program Reporting Period since Medicare patients are not seen at CNMC.

Background: Objectives Studied

- **SGRP 113: Clinical Decision Support (CDS)**
- **SGRP 121: Structured Electronic Lab Results**
- SGRP 119: Family History
- SGRP 120: Electronic Notes
- SGRP 206: Patient-Specific Education
- SGRP 207: Secure Messaging
- SGRP 303: Summary of Care for Transitions of Care
- SGRP 305: New Patient Referral
- SGRP 308: Notifications of Significant Healthcare Event

SGRP 113: Clinical Decision Support (OFMQ & CNMC)

Proposed Objective Measure:

1. Implement 15 clinical decision support interventions or guidance related to five or more clinical quality measures that are presented at a relevant point in patient care for the entire EHR reporting period.
2. The eligible provider, eligible hospital, or critical access hospital has enabled the functionality for drug-drug and drug-allergy interaction checks for the entire EHR reporting period.

Source: www.healthit.gov/sites/default/files/hitpc_stage3_rfc_final.pdf

SGRP 113: Clinical Decision Support (OFMQ & CNMC) (cont.)

- **Key Findings**
  - High rate of attainment and provider interest
  - Concerns about EHR reporting capabilities
  - Challenging for specialists to identify relevant CDS interventions
  - Resource-intensive to develop suitable CDS tools

- **Recommended Innovation**
  - Improve tracking mechanisms to document use and compliance with CDS interventions
    - Tools to track usage of CDS interventions
    - Personalized feedback to improve quality of care

SGRP 121: Structured Electronic Lab Results (CNMC)

Proposed Objective Measure:

1. Hospital labs send (directly or indirectly) structured electronic clinical lab results to the ordering provider for more than 80% of electronic lab orders received.

Source: www.healthit.gov/sites/default/files/hitpc_stage3_rfc_final.pdf

SGRP 121: Structured Electronic Lab Results (CNMC) (cont.)

- **Key Findings**
  - High provider participation rate
  - Alert fatigue occurs because:
    - EHR does not always identify clinically significant lab values.
    - Small but significant error rate has led providers to develop and rely on backup paper system and further discount alerts.
- **Recommended Innovation**
  - Modify visual cues to mitigate alert fatigue for the presentation of critical information within the EHR.
  - Consider mandatory acknowledgement of alert for true emergency alerts.

EHR Innovation Implications

- **Improve CDS Tracking**
  - The need to measure providers on actions within their control with fair and accurate reporting is a common theme across the objectives that were achieved.
  - Providers responsive to feedback.
- **Modify Visual Cues**
  - Alert fatigue observed for multiple objectives.
  - Improved visual cues can encourage MU3 adoption.

Lessons Learned

- **Customization of tools encourages adoption.**
  - Tools tailored to the needs of the provider/practice
  - Resource-intensive

- **Functional alerts needed to direct provider behavior.**
  - Easily observed
  - Staggered intensity
  - Clinically urgent alerts should require mandatory acknowledgment within the EHR.

Next Steps

- **Improve CDS tracking (SGRP 113)**
  - Resources needed to customize and optimize CDS interventions/tools.
  - Develop accessible clearinghouse of evidence-based CDS interventions for widespread use.
  - Expand provider access through other technological avenues (e.g., mobile devices).

Next Steps (cont.)

- **Modify Visual Cues (SGRP 121)**
  - Communicate suggestions to vendors.
    - More pronounced visual cues can improve rapid detection of clinically abnormal lab values (e.g., subtle color change from orange to red status indicator within eCW is not clear enough).
    - Make notifications visible on an EHR dashboard for each provider (across patients).
    - Allow flexibility for multiple providers involved in the care of a given patient to access lab or other important data to ensure timely review/response and prevent duplication.

EHR Innovations: Other Considerations

- **Upgrades and resulting lag time**
  - Delays due to upgrades.
  - Inaccurate data and reports.
  - Changes in MU objectives may require backfilling of structured data fields.
- **Static vs. dynamic information**
  - Need to quickly distinguish between more static (e.g. family history) and dynamic (e.g. new lab result) information.
  - Within EHRs, date stamp (date of entry, update) individual fields.

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Assessing Readiness, Achievement, and Impact of Stage 3 Care Coordination Criteria

Julia Rose Adler-Milstein, Ph.D.
University of Michigan at Ann Arbor

Initial Proposed MU3 Objectives

1. Provide summary of care record when patients are referred or transition between care settings.
   - 65% of transitions; 30% electronic
   - Summary of care must include *a free text narrative.*
2. Reconcile medications (>50%) and medication allergies and problems (>10%)

Updated Proposed Stage 3 MU Objectives

1. Provide summary of care record when patients are referred or transition between care settings
   - ~~65%~~ 50% of transitions; ~~30%~~ 10% electronic
   - Summary of care must include *a free text narrative.*
2. Reconcile medications (>50%) ~~and medication allergies & problems (10%)~~

www.healthit.gov/facas/sites/faca/files/muwg_stage3_draft_rec_07_aug_13_.v3.pdf

Why Might These Be Challenging for PCPs?

1. Not clear that practices have the **ability** to send and receive patient information electronically.

2. New **workflow** required.

   - Learn how to use EHRs to *generate* (and send)—and (receive and) *incorporate* patient information.

3. New **approach** to clinical decision-making

   - Learn how to factor data from other settings into clinical decisions.

Research Aims

Aim 1 - Readiness:

Assess current readiness of eligible primary care practices to achieve proposed Stage 3 care coordination criteria.

Aim 2 - Achievement:

Identify *barriers and facilitators* to meeting proposed Stage 3 care coordination criteria.

Aim 3 - Impact:

Assess the *potential impact* of proposed Stage 3 care coordination criteria, and identify *changes to the criteria and other strategies to increase their value.*

Setting

- M-CEITA, Michigan's Regional Extension Center, is working with approximately 1,600 primary care sites with ≈4,000 providers across the State.

Characteristic		Potential Research Groups	Number of Practices	Number of Providers
	Size	1–2 Physicians	378	457
		3–5 Physicians	128	483
		6–10 Physicians	49	350
		11+ Physicians	9	135
	Primary Care Specialty	Internal Medicine	169	311
		Family Medicine	204	552
		General Medicine	10	33
		Pediatrics & Adolescent Medicine	78	249
		Obstetrics and/or Gynecology	102	287
		Geriatrics	2	3

Methods

ANALYTIC APPROACH

Statewide survey of Stage 1-attested primary care practices

- Stratified random sample of ≈450 practices; stratified by size
- Questions for practice manager and physician
- Survey covers readiness, perceived impact on care coordination, and strategies for enhancing impact of the criteria

Implementation study of 12 practices with confirmed ability to meet criteria

- Provide **technical assistance** services to support their meeting care coordination criteria.
- **Study implementation process** using a variety of methods (e.g., interviews, implementation tools, pre-post impact survey).

Findings Targeted to *Three Audiences*

1. Policymakers
   - Should the bar be lowered or raised?
   - How could the criteria be changed to make them more impactful?
2. EHR vendors
   - What EHR innovations would help support meeting the proposed criteria?
3. **Primary Care Practices**
   - **What specific changes to workflow and decision-making are required?**
   - **What strategies help ensure that meeting criteria improves care coordination?**

Results: *Readiness to Meet Criteria*

- Approaches to Information Sharing

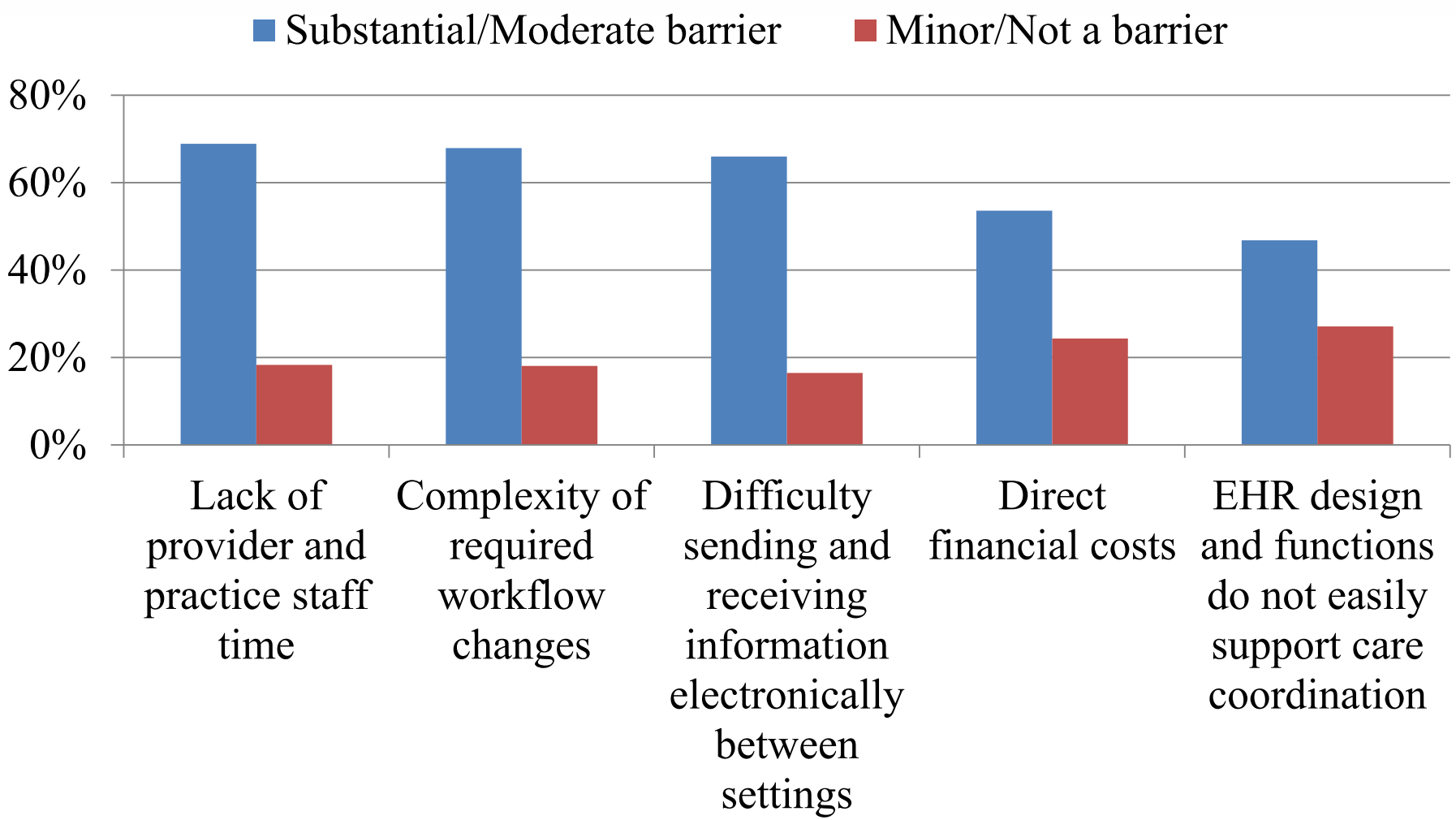
Fax/eFax	**56%**
Shared EHR	20%
Mail	15%
HIE Effort	8%

Results: *Readiness to Meet Criteria*

- Readiness to Meet Criteria

Criteria	Yes	No	Unsure
Reconcile medication allergies during a relevant encounter for >10% of TOCs	86%	9%	5%
Reconcile problems during a relevant encounter for >10% of TOCs	78%	17%	5%
Provide a summary of care record for at least 65% of TOCs and referrals	66%	29%	4%
Receive referral results for at least 50% of referrals	60%	34%	6%
Provide an SCR electronically for at least 30% of TOCs and referrals	45%	51%	4%
Include in the SCR a concise narrative in support of referrals	43%	44%	14%
Receive at least 10% of referral results electronically	38%	58%	5%

Results:
Barriers to Meet Criteria



Results: *Overall Strategies To Increase the Impact of Meeting the Criteria*

- Maximize effective use of available EHR and HIE functions.
- Utilize the lowest level of staff appropriate for managing referrals, information exchange, and integration of information related to care coordination.
- Engage the local community and referral network to learn strategies for EHR and HIE use, and to set community norms.

Results: *Specific Strategies To Overcome Barriers*

- Barrier 1: Difficulty generating referral materials from the EHR, including a usable Summary of Care Record
  - *Create processes to clearly identify required data and reduce extraneous data for referrals.*
- Barrier 2: Tracking referral requests throughout the referral process
  - *Leverage existing HIE options and develop standard processes with individual specialists where possible.*

Results: *Specific Strategies To Overcome Barriers (cont.)*

- Barrier 3: Processing incoming information from referrals and discharges
  - *Establish clear protocols for where referral report and discharge information is documented, by whom and when, and leverage automated processes when possible.*
    - *Personnel and process strategies*
    - *Technology strategies*
    - *Community strategies*

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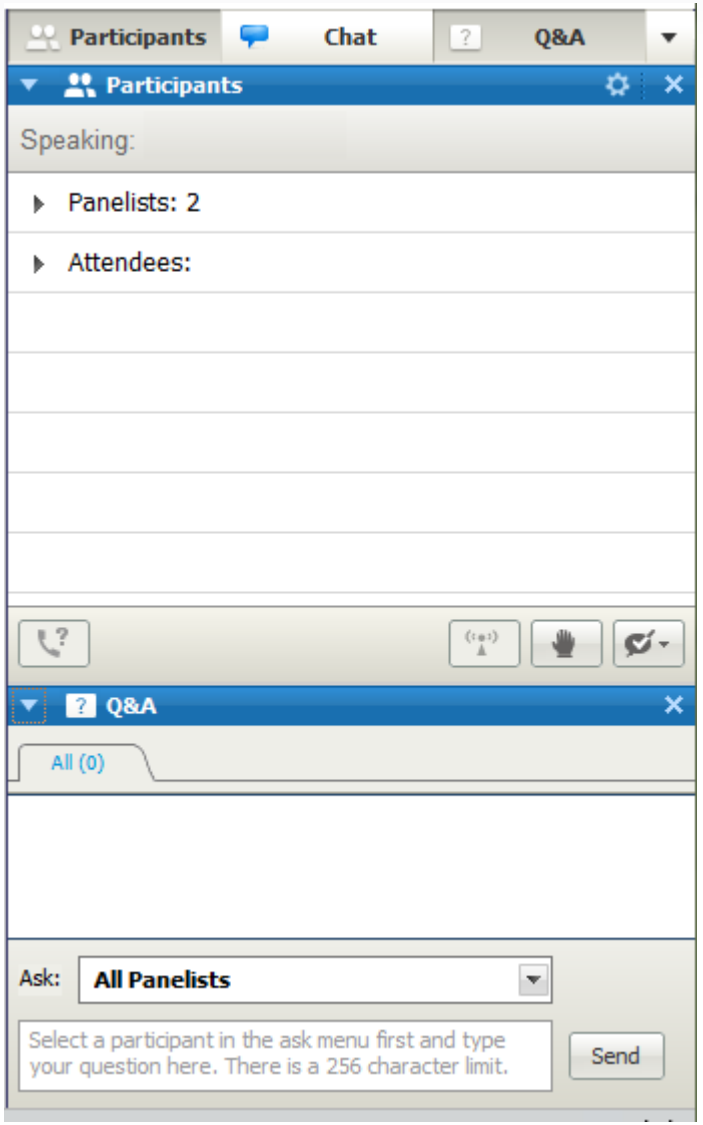

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