NATIONAL QUALITY FORUM

COORDINATION OF CARE ACROSS EPISODES OF CARE AND CARE TRANSITIONS: IN-PERSON MEETING OF THE STEERING COMMITTEE

October 19, 2011

Committee Members Present: Donald Casey, Jr., MD, MPH, MBA *(Co Chair);* Gerri Lamb, PhD, RN, FAAN *(Co-Chair);* Dana Alexander, RN, MSN, MBA; Kathleen Aller, MBA; Ann-Marie Audet, MD, MSc; Juan Emilio Carillo, MD, MPH; Jann Dorman, MA, PT, MBMA; Karen Farris, RPh, PhD; Pamela Foster, LCSW, MBA/HCM, ACM; William Frohna, MD, FACEP; Jeffrey Greenberg, MD, MBA; Thomas Howe, MD; Suzanne Heurtin-Roberts, PhD, MSW; Christine Klotz, MS; James Lee, MD; Russell Leftwich, MD; Julie L. Lewis, MBA; Linda Lindeke, PhD, RN, CNP; Denise Love, MBA; Lorna Lynn, MD; Jean Malouin, MD, MPH; Matthew McNabney, MD; Eva M. Powell, MSW; Bonnie Wakefield, PhD, RN, FAAN; Alonzo White, MD, MBA [1]

NQF Staff Present: Helen Burstin, MD, MPH, Senior Vice President, Performance Measures; Lauralei Dorian, Project Manager, Performance Measures; Heidi Bossley, MPH, Vice President, Performance Measures; Nicole McElveen, MPH, Senior Project Manager; Wendy Vernon, MPH, MPT, Senior Director, National Priorities; Ann Hammersmith, JD, NQF General Counsel

Others Present: Lipika Samal, MD, Brigham and Women's Hospital; Arjun Venkatesh, MD, MBA, Brigham and Women's Hospital

The full transcripts and audio recordings from the meeting can be found on the project page.

WELCOME AND INTRODUCTIONS

Ms. Dorian commenced the meeting and welcomed the Steering Committee. The Co-Chairs made welcoming comments and expressed their enthusiasm for the project. The Committee was asked to disclose any conflicts of interest pertaining to the information under discussion. No disqualifying conflicts were reported; however, several members reported current or past involvement with grants and workgroups that may overlap with topics discussed during the meeting.

Ms. Dorian provided a brief overview of the project and meeting objectives:

- review the findings of an environmental scan of current care coordination measures;
- provide feedback on the development of a commissioned paper on care coordination and HIT capabilities; and,
- set the foundation for the care coordination pathway, including shaping the *Call for Measures.*

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[1] Marc L. Leib, MD, JD, was present via teleconference.

The Committee was reminded that this project will be conducted in two phases. This first phase, building on accomplishments of previous NQF work on care coordination, will examine the current landscape and gaps in care coordination measurement and will develop a pathway toward implementation of meaningful, emerging measures. Phase two will seek to review and endorse submitted measures of care coordination.

CARE COORDINATION AT NQF: PREVIOUS AND ONGOING WORK

Performance Measures and Care Coordination

Co-chairs Casey and Lamb provided background and contextual information on NQF's previous work on care coordination, which included:

- *The NQF-Endorsed Framework for Measuring Care Coordination* (2006), in which a definition and five-key domains for measuring care coordination were endorsed.[2]
- *Preferred Practices and Performance Measures for Measuring and Reporting Care Coordination* (2010), through which NQF endorsed a portfolio of 25 care coordination preferred practices and ten performance measures. [3]

Drs. Casey and Lamb also noted that during the 2010 Care Coordination consensus project, measures submitted were predominately condition-specific, process or survey measures, with very few measures crossing providers or settings. Furthermore, the endorsed measures only addressed two key domains within the Care Coordination Framework (proactive plan of care and transitions) and did not address healthcare home, communication or information systems. The Co-Chairs also stressed the unique opportunity presented by this first phase of the work to determine the ideal state of meaningful, cross-cutting care coordination measures and to signal the measure development field and shape the *Call for Measures* to reflect that state.

National Priorities Partnership (NPP) and Care Coordination

Ms. Vernon presented an overview of the work of the National Priorities Partnership (NPP), a group convened by NQF to provide input to the Department of Health and Human Services (HHS) on the National Quality Strategy (NQS). In particular, Ms. Vernon discussed the strong correlation between the following NQS priorities and care coordination:

- Person- and Family- Centered Care
- Effective Communication and Care Coordination

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[2] NQF-Endorsed Definition and Framework for Measuring Care Coordination (2006) available at: http://www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=972

[3] Preferred Practices and Performance Measures for Measuring and Reporting Care Coordination (2010) available at: http://www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=935

Ms. Vernon also noted the convening in 2010 of the NPP Care Coordination Work Group and stressed the unifying role of the NQS to encourage work towards a common vision of care coordination in healthcare, and, ultimately, to illuminate the pathway towards the implementation of that vision.

INFORMATION SYSTEMS TO SUPPORT CARE COORDINATION AND CARE TRANSITIONS (COMMISSIONED PAPER)

Dr. Samal, from Brigham and Women's Hospital, presented an annotated outline of the paper commissioned developed for this project: *"Information Systems to Support Care Coordination and Care Transitions.*"[4] The purpose of the presentation was to garner feedback from the Steering Committee on the further development of the commissioned paper, the first draft of which will be submitted to NQF by November 22, 2011.

The goals of the paper are to:

- Identify current capacity to quantify and measure aspects of care coordination;
- Identify current capabilities and data needs of electronic health records (EHR's) to support care coordination measurement; and,
- Discuss potential barriers to furthering the capabilities of EHR's to support care coordination measurement.

Dr. Samal posed questions to the Committee regarding what she labeled "core clinical data elements," data needs, and technical and organizational approaches, and sought suggestions of additional places in the literature that include primary data related to these concepts. The Committee noted the importance of determining whether the information collected meaningfully measures care coordination, in addition to evaluating how to transfer currently collected information into electronic formats. Also discussed was the need to look beyond data captured only in clinical settings and to begin envisioning care coordination within a broader spectrum.

ENVIRONMENTAL SCAN

Dr. Venkatesh, also from Brigham and Women's Hospital, presented the findings of an environmental scan of care coordination measures developed specifically for the first phase of this project. [5] The objective of the scan was to identify all current measures that are related to the 2006 NQF-Endorsed Definition and Framework for Measuring Care Coordination. Dr. Venkatesh additionally mapped the inventory of care coordination measures to the existing NQF and AHRQ Care Coordination frameworks to demonstrate gap areas.

Dr. Venkatesh's findings included the identification of 124 measures, of which almost all were process measures – only one outcome measure was identified – and patient experience surveys at the healthcare provider or practice level. Dr. Venkatesh discussed the evolution of care

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[4] Annotated outline attached at Appendix 1.

[5] Environmental Scan and presentation attached as Appendix 1.

coordination measures from surveys of patient experience, to condition specific measures using claims data, to process measures using electronic claims data.

The Committee anticipated that the percentage of electronic measures will continue to grow as a number of current measures are retooled into eMeasures. It was noted, however, that true care coordination will not be able to be measured until healthcare and community infrastructures are interoperable.

SETTING THE FOUNDATION FOR THE CARE COORDINATION PATHWAY

Vision of the Care Coordination Pathway

In order to frame the *Call for Measures* and set the pathway forward to advance the field, Committee members were asked to consider critical aspects of future measurement for care coordination. They were additionally requested to contribute their knowledge of any existing measures that should be brought forward for consideration in the consensus project (Phase 2).

The Committee emphasized the need to think of care coordination measurement in terms of incremental build, understanding that it is a rapidly evolving field. As NQF-endorsed measures are implemented and re-evaluated under the NQF measure maintenance policy, there exists the potential that a measure may work now, and in three years will have outlived its appropriateness as the field has further evolved. Deliberations, therefore, were not limited to what is only currently possible or supported by HIT infrastructure, but also addressed the ideal state of care coordination measurement as it develops in the future.

In discussing the broader themes relating to care coordination measures, the Committee was challenged to consider a number of issues, including the role of broader measures as opposed to condition-specific ones, care coordination for high-risk populations, potential outcome measures of care coordination, and the role of risk-adjustment and stratification in care coordination measurement.

Throughout this “vision” discussion, the following aspects of care coordination measurement were identified as those essential components of the pathway forward:

- **Cross-Cutting Measurement - Not Limited by Condition or Setting**
  - Committee members believed that future care coordination measures should move beyond clinical settings and begin capturing other vital components of care coordination, including: patient and family involvement, church programs, community programs, and home help. Members noted that the majority of care coordination is not a physician function, but a multi-disciplinary one, and measures must reflect these diverse and numerous roles involved in coordinating care.
  - While there still remains a need for condition-specific measures, the Committee agreed that the field should begin moving away from approaches targeting individual conditions alone, and towards more broad-based measures.

  - The Committee also mentioned the need to examine care coordination beyond the perspective of a disease or injury. Prevention and wellness plans, for example, are also vital components of care coordination, as well as population-based care coordination measures where the level of analysis would reveal the patterns that occur at a higher level than provider or health-plan.

- **Link to Outcomes**
  - The Committee agreed that care coordination measures should be as proximal as possible to patient-centered outcomes. However, members also noted the ongoing need to balance evidence and outcomes standards with innovation in order to prohibit excluding newer measures where benefits significantly outweigh risks.
  - When considering outcomes of care coordination measures, the Committee noted the importance and possible ambiguity in determining for which component of care those outcomes should be associated.

- **Process Measures**
  - While the field is moving towards outcome measures, process measures such as appointment-making continue to remain important indicators of care coordination. For example, the Committee may want to consider measures that ensure follow-up is completed successfully.
  - It was suggested that certain process and adherence measures could potentially be rolled into a bundle to indicate the level of coordination of one's care.

- **High Risk Populations**
  - Although all patients require some aspect of care coordination, there are certain groups for whom more in-depth and complex coordination is needed. Measures should strive to identify these high-risk populations through stratification by such elements as prior number of emergency-department visits or medication usage.
  - Committee members suggested that because the infrastructure needed to support high-risk populations may differ from the general population, there may be a justification for measures focused solely on these high-risk populations.

- **Shared Plan-of-Care**
  - The Committee suggested that an ideal way of standardizing the care coordination process is through the use of a shared Plan of Care, which would be applicable to the healthiest patients as well as patients with multiple illnesses.
  - There was agreement that an optimal Plan of Care would be updated on an ongoing basis and would not be owned by any one discipline, but driven by all care team members, including the patient, who could have the ability to access in its current state and upload home health information.
  - Measureable outcomes of goals were noted as being essential components of a Plan of Care.
  - The Plan of Care could additionally address issues of accountability, assigning different parties to various components of the Plan. However, the Committee

noted the difficulty with determining who is ultimately "in charge" of the Plan of Care.

- **Cost**
    - Understanding the resource utilization associated with coordinating care will be increasingly relevant as reimbursement strategies are aligned with these functions. Committee members stressed the need for measures to ultimately indicate the "return on investment" of care coordination.

- **Risk-adjustment/Stratification**
    - The Committee suggested risk-adjustment for outcome measures, particularly when reported at a population level or used for comparative purposes. Committee members further suggested that stratification by such units as number of visits to the ED and medication usage could identify high-risk populations and support appropriate, targeted care.
    - Committee members also noted the concern with risk-adjusting too extensively and potentially masking sub-optimal care or identifying disparities.

Shaping the *Call for Measures*

In order to ensure that measures submitted to the Care Coordination and Care Transitions Consensus Standards project are meaningful, the Committee agreed that the *Call for Measures* should reflect the themes that arose during discussions throughout the day. To the extent possible, it was agreed that electronic specifications should be included for measures submitted.

The following types of care coordination measures were identified as those that should be reflected in the *Call for Measures*:

- Broad-based measures not limited by condition: moving beyond condition-specific measures
- Cross-cutting measures not limited by setting: moving beyond clinical measures
- Measures with evidentiary links to outcomes: moving beyond process measures
- Measures that address the unique needs of high-risk populations
- Measures addressing issues of access (i.e. language barriers, disabilities, cultural competency)
- Resource allocation as related to care coordination
- Communication between care settings, transitions of care, care delivery team members, and patients and families that support care coordination
- Measures incorporating community services and home help
- Quality of life measures for both the patient and caregiver
- Patient and caregiver engagement and experience of care coordination
- Adherence to Plan of Care or patient goals
- Measures that reflect patient understanding
- Measurement of adverse events that could be markers of poor care coordination

- Patient access to personal medical information

NEXT STEPS

Ms. Dorian outlined the next steps that would occur after the meeting's close. NQF staff will provide the Committee with the draft report of the commissioned paper upon its submission on November 22, 2011. The Committee will then meet for a two-hour teleconference on December 5, 2011 to provide feedback on the paper for continued development.

The *Call for Measures* will be updated to reflect Committee discussion by the end of November, and closes on January 9, 2012.

The Committee will review submitted measures in Phase 2 of this project, beginning in late February, 2012.

Health Information Technology to Support Care Coordination and Care Transitions: Data Needs, Capabilities, Technical and Organizational Barriers to Improvement, and Approaches to Improvement

Detailed Outline of Commissioned Paper

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Contents

Outline of Commissioned Paper

I. Background: Measures of Care Coordination and Care Transitions

This section will describe a conceptual framework for care coordination and care transitions, provide support for using health information technology to measure care coordination, and summarize legislation governing care coordination standards.

- a. National Quality Forum (NQF) conceptual framework, Preferred Practices in the Information Systems Domain (1)
- b. Current measures of care coordination and limitations
    - i. Insurance claims-based – disrupted by changes in insurance plan or dual coverage, lack of clinical context (2)
    - ii. Patient-reported – costly interview or survey of patients
    - iii. Paper chart-based – time-consuming chart abstraction
    - iv. Condition-specific – do not support comprehensive care planning
- c. Health information technology - anticipated data sources
    - i. Hospital and long-term care clinical information systems
    - ii. Ambulatory electronic health records (EHRs)
    - iii. Personal health records
- d. Meaningful Use regulation (3)
    - i. Stage 1 Core Set includes one explicit measure of transfer of information across care transitions, as well as related measures categorized under different headings

        ii. Stage 1 Menu Set includes medication reconciliation and a summary of care record
        iii. Stage 2 proposed set includes measures for care plan goals, patient instructions, an electronic list of providers including PCP and other health care team members

II. Data Needs: Support for Care Coordination and Care Transitions

This section will summarize what is needed: essential data elements, features of a patient-centered comprehensive care plan, and EHR functionality to support care coordination tasks.

- a. Data elements, characteristics of desirable information, and functionality to support specific tasks
    - i. Key clinical information e.g., problem list, allergies, medication list, psychosocial complexity (4)
    - ii. Characteristics of desirable information: comprehensive, brief, legible (5)
    - iii. Discharge summaries: discharge date, discharge diagnosis, follow-up plan, pending tests, patient education (5)
- b. Comprehensive Care Plan
    - i. One care plan for all conditions
    - ii. Patient preferences
    - iii. Patient education
    - iv. Secure electronic access for patients
- c. Functionality to support specific tasks

        i. Medication reconciliation
        ii. Tracking laboratory and radiology tests
        iii. Tracking referrals
        iv. Secure communication within and across settings
        v. Ability to track progress of patient over time with longitudinal data views (6)
        vi. Population management tools

III. Current Capabilities: Health Information Technology and Exchange

This section will summarize the literature on existing capabilities of health information technology to support care coordination and care transitions.

a. Care coordination is facilitated by access to key clinical information (7)
b. Continuity with PCP
    i. Ideally a structured field exists to identify each patient's PCP , but often the PCP is only identified by searching a separate scheduling system (7)
c. Comanagement with other providers, referrals, and consultations
    i. Even in fully electronic practices referral requests and consultation reports are often transmitted by fax and scanned in as a .pdf file (7)
    ii. In multispecialty practices often there is no purposeful summarization – providers read each other's notes (7)
    iii. Referrals within integrated delivery systems – key reason for referral is unstructured data even when it is electronic (8)
    iv. Accessing ambulatory data from inpatient setting

      1. Only 44 out of 59 surveyed regional health information organizations (RHIOs) are capable of this (9)
      2. Otherwise, providers may log into their own system from the hospital (7)
    v. Accessing hospital data for primary care follow-up when the discharge summary is not available
      1. Only 32 out of 43 surveyed RHIOs are capable of this (9)
      2. Otherwise, providers may log into hospital clinical information system (8)
    vi. Computerized discharge summaries (defined by the authors of one systematic review as automatically populated from a clinical information system database, transferred via the Internet, and with capability for bidirectional communication) are only used in international centers and U.S. academic medical centers (5)
  d. Population management – difficult to use electronic tracking for future tasks (7)
  e. Personal health records
    i. Limited electronic communication with patients in most systems due to concerns about privacy and security (10)
  f. Integrated information from insurance claims
    i. Prescription refill data integrated in medication management function of EHR

IV. Barriers to Improvement: Technical and Organizational

This section will summarize barriers to improvement categorized as either technical (including technical policy, methodological limitations, information systems design) and organizational (including organizational management, implementation, training, support, financial incentives, and consumer protection).

a. Technical
    i. Lack of industry-wide standards
    ii. Legacy systems or older versions of commercial EHR
    iii. Measurement bias due to pre/post care transition data stored in different systems
    iv. Clinical decision support tools do not support audit and feedback and do not provide risk stratification (4)
    v. Encounter-based documentation instead of longitudinal, collaborative care plans
b. Organizational issues that limit opportunities for measuring and improving care coordination
    i. Resistance to upgrading legacy systems
    ii. Mediating care plans between disciplines for comanagement
    iii. Clinician training and support – providers interviewed described workarounds for tasks that could be accomplished with existing functionality (7)
    iv. Challenges around workflow redesign and change management (11)
    v. Documentation optimized for billing - encourages templates, copy/paste and hinders cognitive process (7)

        vi. Lack of vendor incentives to become interoperable and cooperation between vendors
        vii. Patient concerns about privacy and security related to transfer of sensitive information and electronic communication (10)

V. Approaches to Improvement: Technical and Organizational

This section lists potential technical and organizational approaches to improvement.

a. Technical approaches
    i. Data standards – HITSP at the federal level and alignment with state level and private sector approaches
    ii. List of everyone on the care team
        1. Include PCP
        2. Ability to send new information to everyone on the care team
        3. Share the information with the patient
    iii. Support medication reconciliation including at least 4 functions
        1. Importing medication data from other sources
        2. Displaying and comparing medication lists
        3. Ordering medications
        4. Support the ability to designate who ordered the medication and who is allowed to refill it
    iv. Transfer Summary Document conforming to Care Transitions Performance Measurement Set
        1. Reason for inpatient admission, procedures and tests performed and summary of results, principal diagnosis at discharge

        2. Post-Discharge/Patient Self-Management
        3. Current medication list
        4. Studies pending at discharge (e.g., laboratory, radiological)
        5. Patient instructions
        6. Advance Care Plan or documented reason for not providing advance care plan
        7. Contact Information/Plan for Follow-up Care
        8. Ability to confirm receipt
    v. Optimize documentation and clinical decision support to be efficient yet support measurement
    vi. Develop innovative interfaces to display longitudinal data to providers and patients
b. Organizational approaches
    i. Reimburse care coordination
    ii. Define responsibility of each member of the care team with a service agreement (12)
    iii. Incentivize health information exchange
    iv. Provide ongoing training and support to clinicians

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Information Systems to Support Care Coordination and Care Transitions

Commissioned Paper for NQF

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Purpose

- To garner feedback from NQF Steering Committee in order to write a useful report on this topic

Goals of Report

- Provide guidance to the NQF Steering Committee charged with the selection and evaluation of measures
- Identify areas where clinical information systems may improve upon existing measures:
  - Insurance claims, patient-reported, chart review
  - Condition-specific

Outline

- Meaningful Use
- Data needs
- Current capabilities
- Barriers to improving capabilities
- Approaches to improving capabilities

Background: Meaningful Use

- Stage 1 Core Set includes one explicit measure of transfer of information across care transitions, as well as related measures categorized under different headings
- Stage 1 Menu Set includes medication reconciliation and a summary of care record
- Stage 2 Proposed Set includes measures for care plan goals, patient instructions, an electronic list of providers including PCP and other health care team members

Data Needs

- Core clinical data elements
  - Problem list
  - Allergies
  - Medication list
- Comprehensive Care Planning
- Communication across settings

O'Malley AS et al, JGIM
Motamedi SM et al, BMJ Qual Safe

Data Needs

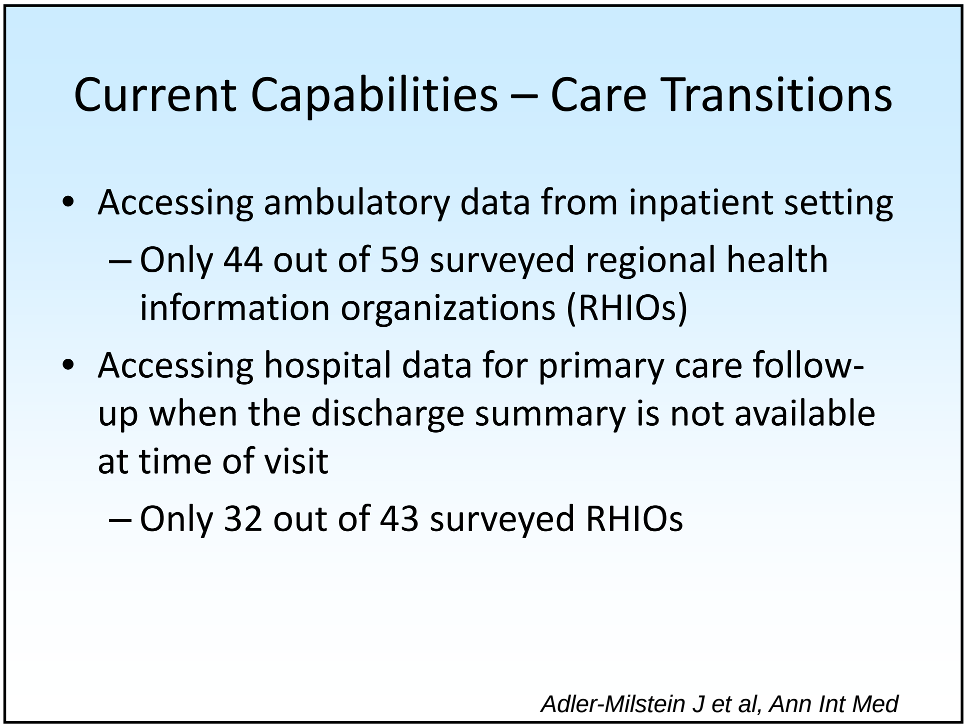
- Aspects of high quality discharge summaries
  - Comprehensive, brief, legible
  - Record of patient education
- Functionality to support specific tasks
  - Medication reconciliation
  - Tracking laboratory tests
  - Tracking referrals
- Population-oriented tools

O'Malley AS et al, JGIM
Motamedi SM et al, BMJ Qual Safe

Current Capabilities - Ambulatory

- Continuity with PCP - identified by searching a separate scheduling system
- Referrals - Even in fully electronic practices referral requests and consultation reports are often transmitted by fax and scanned in as a .pdf
- In multispecialty practices providers are expected to read each other's notes and there is no system for tracking referrals

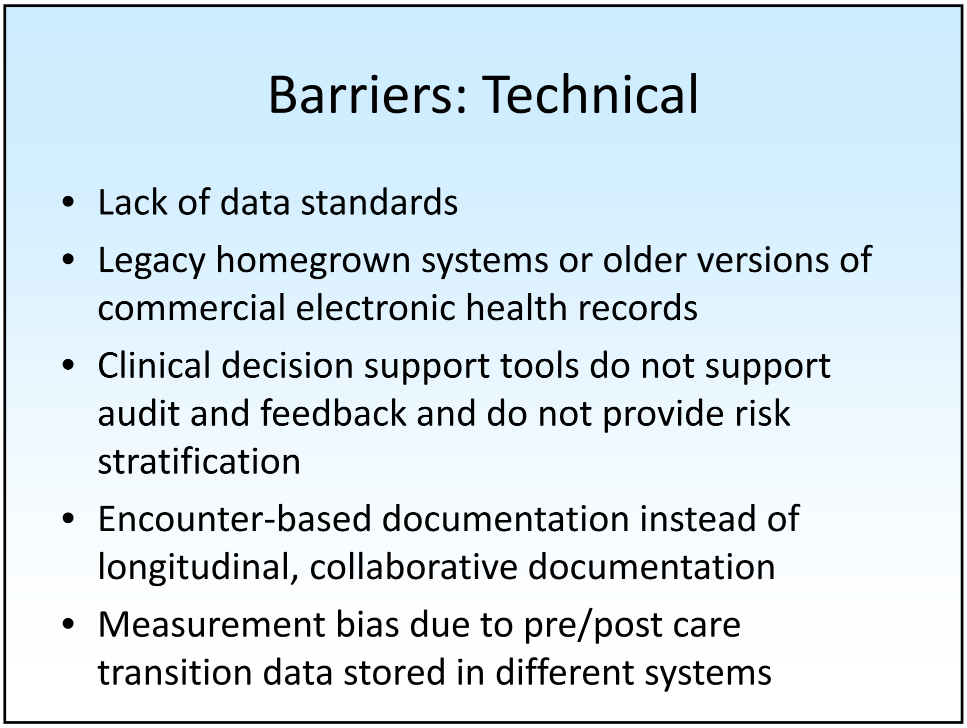
O'Malley AS et al, JGIM



Current Capabilities – Care Transitions

- Accessing ambulatory data from inpatient setting
  - Only 44 out of 59 surveyed regional health information organizations (RHIOs)
- Accessing hospital data for primary care follow-up when the discharge summary is not available at time of visit
  - Only 32 out of 43 surveyed RHIOs

Adler-Milstein J et al, Ann Int Med



Barriers: Technical

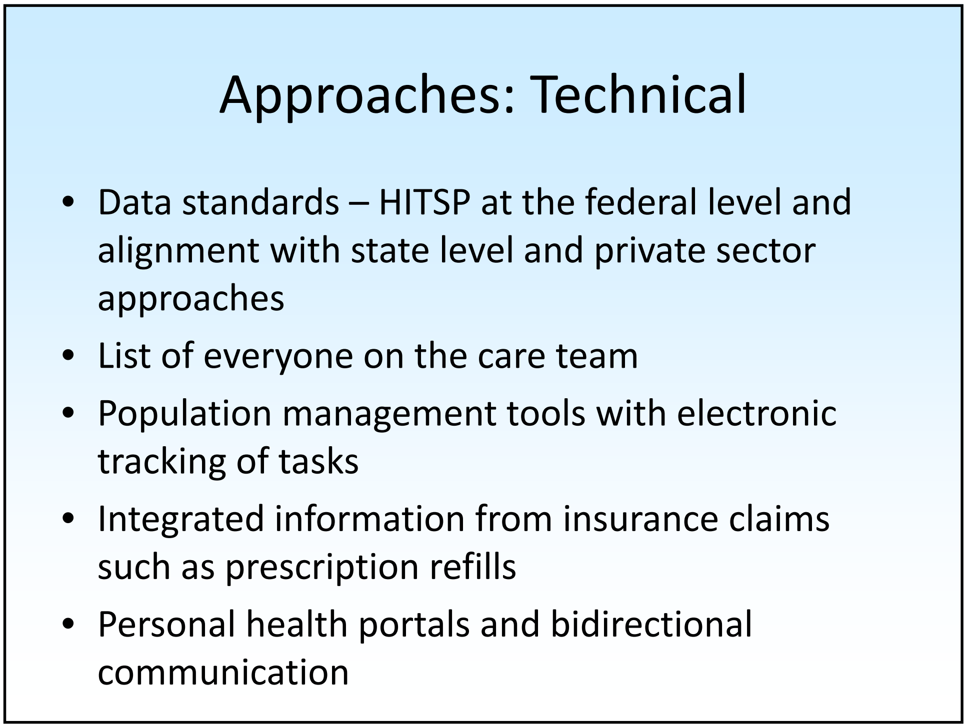
- Lack of data standards
- Legacy homegrown systems or older versions of commercial electronic health records
- Clinical decision support tools do not support audit and feedback and do not provide risk stratification
- Encounter-based documentation instead of longitudinal, collaborative documentation
- Measurement bias due to pre/post care transition data stored in different systems

Barriers: Organizational

- Resistance to changing legacy systems
- Mediating care plans between disciplines for comanagement
- Clinician training and support - providers describe workarounds for tasks that could be accomplished with existing functionality
- Challenges around workflow redesign and change management

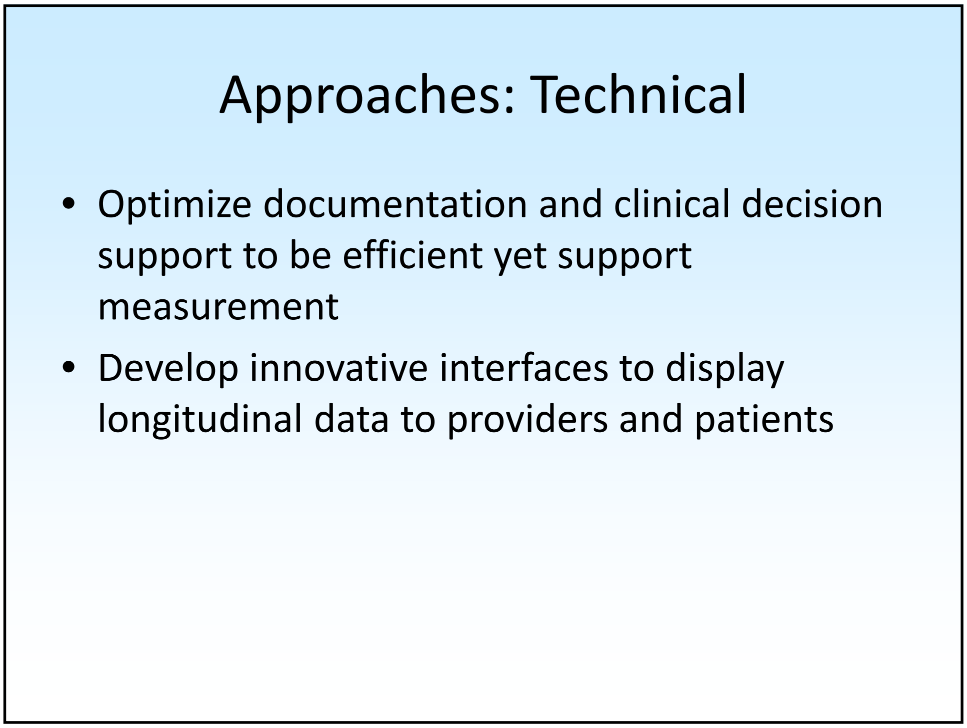
Barriers: Organizational

- Documentation optimized for billing - encourages templates, copy-paste and may contribute to cognitive errors
- Lack of vendor incentives to become interoperable and cooperation between vendors
- Patient concerns about privacy and security related to transfer of sensitive information and electronic communication



Approaches: Technical

- Data standards – HITSP at the federal level and alignment with state level and private sector approaches
- List of everyone on the care team
- Population management tools with electronic tracking of tasks
- Integrated information from insurance claims such as prescription refills
- Personal health portals and bidirectional communication



Approaches: Technical

- Optimize documentation and clinical decision support to be efficient yet support measurement
- Develop innovative interfaces to display longitudinal data to providers and patients

Approaches: Organizational

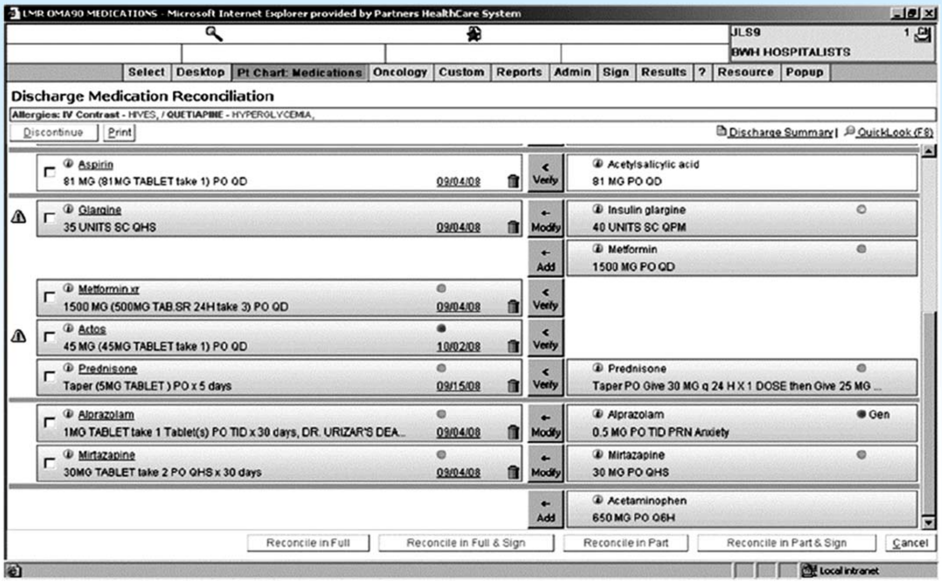
- Reimburse care coordination
- Define responsibility of each member of the care team with a service agreement
- Incentivize health information exchange
- Provide ongoing training and support to clinicians

Conclusions

- Barriers to supporting care coordination
- Approaches to improving capabilities
  - Interactive and longitudinal care plan
  - Tools for medication reconciliation and co-management
  - Patient access to list of care team
  - Ongoing training and support for clinicians

Extra slides

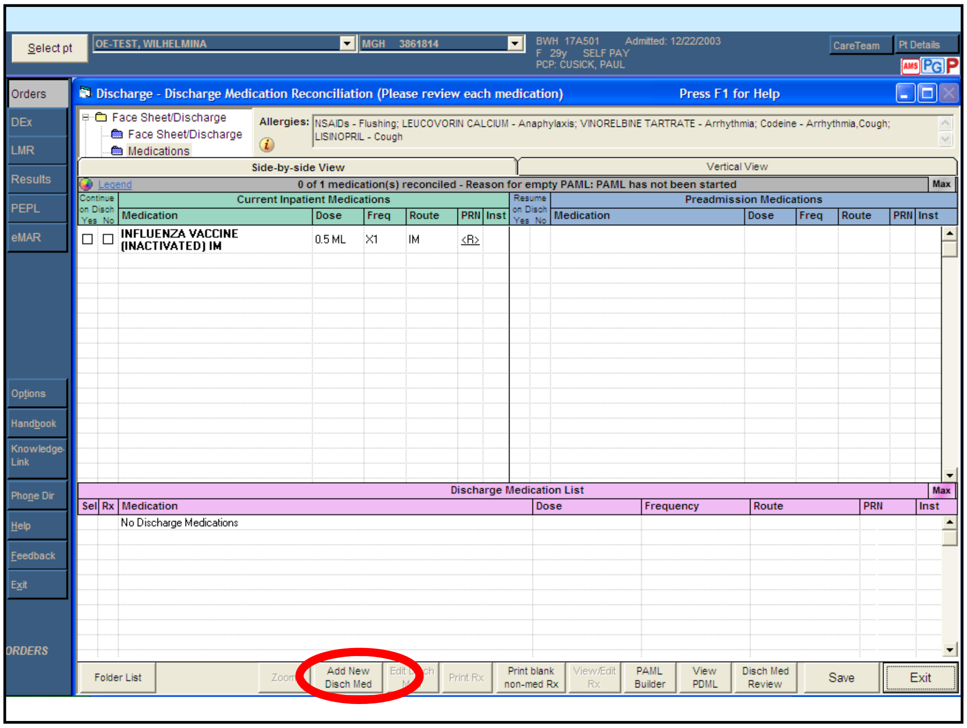
Medication Reconciliation tool



Discharge Medication Reconciliation

Allergies: IV Contrast - HIVES, / QUETIAPINE - HYPERGLYCEMIA,

	☐ Aspirin 81 MG (81MG TABLET take 1) PO QD	09/04/08	< Verify	Acetylsalicylic acid 81 MG PO QD
⚠	☐ Glargine 35 UNITS SC QHS	09/04/08	← Modify	Insulin glargine 40 UNITS SC QPM
			← Add	Metformin 1500 MG PO QD
	☐ Metformin xr 1500 MG (500MG TAB.SR 24H take 3) PO QD	09/04/08	< Verify	
⚠	☐ Actos 45 MG (45MG TABLET take 1) PO QD	10/02/08	< Verify	
	☐ Prednisone Taper (5MG TABLET) PO x 5 days	09/15/08	< Verify	Prednisone Taper PO Give 30 MG q 24 H X 1 DOSE then Give 25 MG ...
	☐ Alprazolam 1MG TABLET take 1 Tablet(s) PO TID x 30 days, DR. URIZAR'S DEA...	09/04/08	← Modify	Alprazolam ● Gen 0.5 MG PO TID PRN Anxiety
	☐ Mirtazapine 30MG TABLET take 2 PO QHS x 30 days	09/04/08	← Modify	Mirtazapine 30 MG PO QHS
			← Add	Acetaminophen 650 MG PO Q6H



OE-TEST, WILHELMINA
MGH 3861814
BWH 17A501 Admitted: 12/22/2003
F 29y SELF PAY
PCP: CUSICK, PAUL

Discharge - Discharge Medication Reconciliation (Please review each medication)

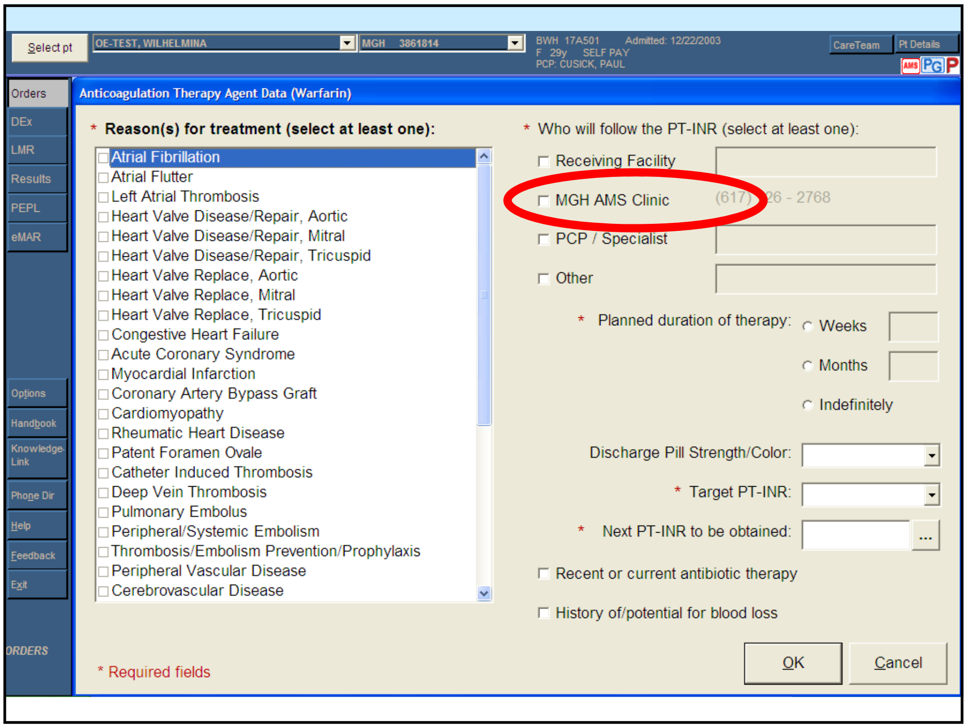
Allergies: NSAIDs - Flushing; LEUCOVORIN CALCIUM - Anaphylaxis; VINORELBINE TARTRATE - Arrhythmia; Codeine - Arrhythmia,Cough; LISINOPRIL - Cough

0 of 1 medication(s) reconciled - Reason for empty PAML: PAML has not been started

Continue on Disch Yes	Continue on Disch No	Current Inpatient Medications: Medication	Dose	Freq	Route	PRN	Inst	Resume on Disch Yes	Resume on Disch No	Preadmission Medications: Medication	Dose	Freq	Route	PRN	Inst
☐	☐	INFLUENZA VACCINE (INACTIVATED) IM	0.5 ML	X1	IM	<R>									

Discharge Medication List

Sel	Rx	Medication	Dose	Frequency	Route	PRN	Inst
		No Discharge Medications					



OE-TEST, WILHELMINA
MGH 3861814
BWH 17A501 Admitted: 12/22/2003
F 29y SELF PAY
PCP: CUSICK, PAUL

Anticoagulation Therapy Agent Data (Warfarin)

* **Reason(s) for treatment (select at least one):**

- ☐ Atrial Fibrillation
- ☐ Atrial Flutter
- ☐ Left Atrial Thrombosis
- ☐ Heart Valve Disease/Repair, Aortic
- ☐ Heart Valve Disease/Repair, Mitral
- ☐ Heart Valve Disease/Repair, Tricuspid
- ☐ Heart Valve Replace, Aortic
- ☐ Heart Valve Replace, Mitral
- ☐ Heart Valve Replace, Tricuspid
- ☐ Congestive Heart Failure
- ☐ Acute Coronary Syndrome
- ☐ Myocardial Infarction
- ☐ Coronary Artery Bypass Graft
- ☐ Cardiomyopathy
- ☐ Rheumatic Heart Disease
- ☐ Patent Foramen Ovale
- ☐ Catheter Induced Thrombosis
- ☐ Deep Vein Thrombosis
- ☐ Pulmonary Embolus
- ☐ Peripheral/Systemic Embolism
- ☐ Thrombosis/Embolism Prevention/Prophylaxis
- ☐ Peripheral Vascular Disease
- ☐ Cerebrovascular Disease

* Who will follow the PT-INR (select at least one):

- ☐ Receiving Facility
- ☐ MGH AMS Clinic (617) 726 - 2768
- ☐ PCP / Specialist
- ☐ Other

* Planned duration of therapy: ○ Weeks ○ Months ○ Indefinitely

Discharge Pill Strength/Color:

* Target PT-INR:

* Next PT-INR to be obtained: ...

☐ Recent or current antibiotic therapy

☐ History of/potential for blood loss

* Required fields

NQF Care Coordination Consensus Standard Endorsement Maintenance: Environmental Scan

Arjun Venkatesh MD, MBA

Executive Summary of 10/19/2011 Steering Committee Presentation

Background:

- Following the 2006 development of a Care Coordination Framework, NQF has only convened a single Care Coordination CDP in 2010 that endorsed 10 measures.
- The AHRQ Care Coordination Atlas published in 2010 was the last comprehensive assessment of care coordination measures while also presenting a more granular framework for measure classification. The Atlas identified no electronic measures.

Objective: To Identify and map all current measures of care coordination to the NQF endorsed™ Definition and Framework for Measuring Care Coordination

Approach: An organized, but not systematic, review of primary literature, grey literature and expert opinion was used to identify measures that were either published or presumed to be in active use. Each measure was mapped to the NQF and AHRQ frameworks.

Results:

- 124 measures found: 86(70%) had published specifications while 38(30%) are unpublished
- 78 (63%) of measures are broad or cross-cutting, while 46 (37%) were condition specific
- 30 measures (24%) were NQF endorsed (from various CDPs)
- Only 32 (26%) of measures were electronic, most of which are unpublished.
    - 45 (34% of all measures, 52% of all published measures) are surveys

Key Findings-Descriptive:

- Most electronic measures are not formally specified or published
- Almost all measures are process measures (only one outcome measure found)
- Most measures are patient experience surveys: therefore most measures are at the healthcare provider or practice level of measurement. Very few measures of hospital performance.
- Over 20 years, measures have evolved from surveys of patient experience→condition specific measures using claims data→process measures using electronic data sources.

Key Findings-Mapping: Major gaps in measurement found in this scan include:

- **Measure formats:** Electronic Measures/IS Process Measures
- **Measure Areas:** Healthcare home, Transitions within the ambulatory setting (between home and specialists, home and allied health, etc), Community Linkage, Transition needs assessment.
- While many measures currently fall within the Care Planning domain, most are measures of patient experience and fail to measure critical coordination activities including: Establishing accountability/Negotiating responsibility, Critical Information Communication, and

Conclusions:

- Applying different frameworks reveals distinct measurement gaps: we need a framewors that accounts for the sequential and networked nature of care coordination.
- There are significant gaps in process measurement, particularly with respect to areas of coordination vulnerability such as community linkage, establishing accountability and information management/transfer.

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Care Coordination Consensus Standards Endorsement Maintenance: Environmental Scan

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Brigham and Women's Hospital-Massachusetts General Hospital
Harvard Affiliated Emergency Medicine Residency

October 19, 2001

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Disclosures

- Unrelated Grant Support
  - Emergency Medicine Foundation
  - Massachusetts College of Emergency Physicians
  - Harvard Catalyst/NIH
  - Society of Chest Pain Centers
- Consulting
  - Agency for Healthcare Research and Quality
  - American College of Emergency Physicians

Outline

- Objectives and Background
- Framework considerations
- Methods
- Environmental Scan: Measure characteristics
- Environmental Scan: Measure mapping
- Future measurement gaps

Objective

- Identify all current measures that “are related to” the NQF endorsed$^{\text{TM}}$ Definition and Framework for Measuring Care Coordination.
- NQF Definition (2006)

  “care coordination is a function that helps ensure that the patient’s needs and preferences for health services and information sharing across people, functions, and sites are met over time”

Background

- 2010 NQF Care Coordination Project
  - 10 Measures and 25 preferred practices
- 2011 AHRQ Atlas of Care Coordination Measures
  - 61 measures
- Key themes and directions in 2011
  - HIT, Broad Based, Outcomes not Process
- Where are the current gaps in measurement?

1. National Quality Forum. National Quality Forum-endorsed definition and framework for measuring care coordination. Washington, DC: National Quality Forum; 2006.
2. National Quality Forum. Preferred practices and performance measures for measuring and reporting care coordination: a consensus report. Washington, DC: National Quality Forum; 2010.
3. McDonald KM, Schultz E, Albin L, Pineda N, Lonhart J, Sundaram V, Smith-Spangler C, Brustrom J, and Malcolm E. Care Coordination Atlas Version 3 (Prepared by Stanford University under subcontract to Battelle on Contract No. 290-04-0020). AHRQ Publication No. 11-0023-EF. Rockville, MD: Agency for Healthcare Research and Quality. November 2010.

Approach

- “System”atic review
  - Primary Literature search
  - Grey Literature search
  - Expert opinion Interview
- Anticipated outcomes
  - Inventory of existing care coordination measures
  - Mapping analysis to NQF and AHRQ frameworks
  - Qualitative conclusions about trend

Primary Literature
- Pubmed
- Cochrane
- Reviews: AHRQ Atlas

Databases
- Quality Measures clearinghouse
- National Guideline clearinghouse

Grey Literature
- CMS
- AHRQ projects
- AMA-PCPI

Measure Inclusions/Exclusions

- Included
  - Broad-based and condition specific
  - Paper survey, electronic, or claims based
- Excluded
  - Setting specific measures of team communication
  - Measures without completed testing or structured assessment of face validity (if published)
  - Measures of screening practices
  - Single intervention response (BP control at 6mos)
  - Measures designed to measure non-US systems
  - 30 day re-admission
  - ED throughput

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Analysis

- Key measure elements abstracted
  - NQF endorsement, electronic support, date, etc.
- Mapping to Care Coordination Frameworks
  - NQF: Assigned by single reviewer (AKV)
  - AHRQ: per Atlas if reported, otherwise by AKV

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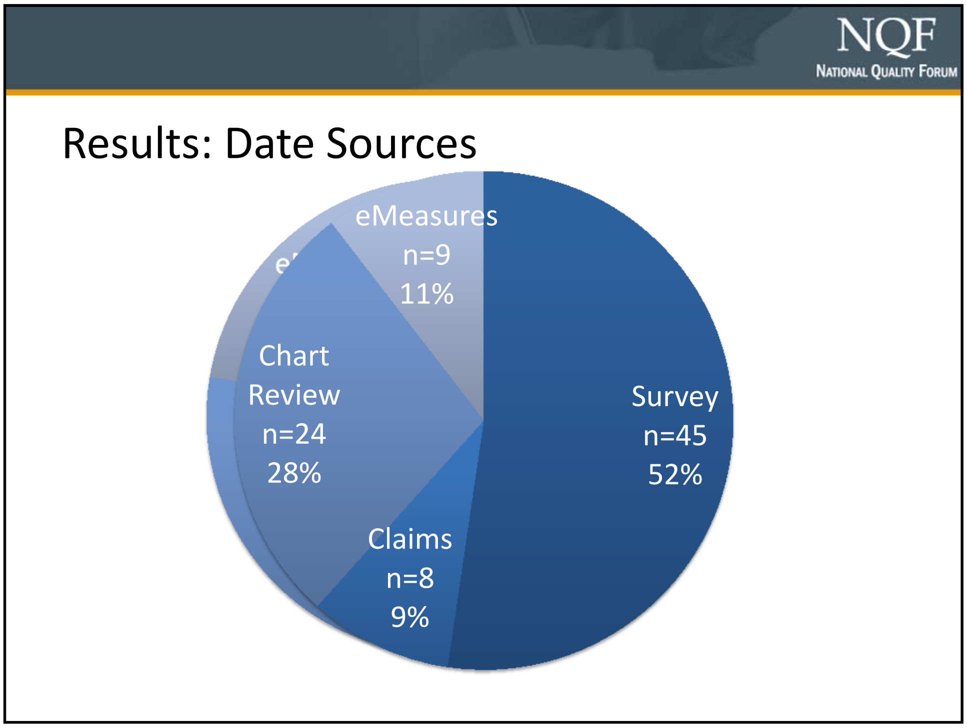
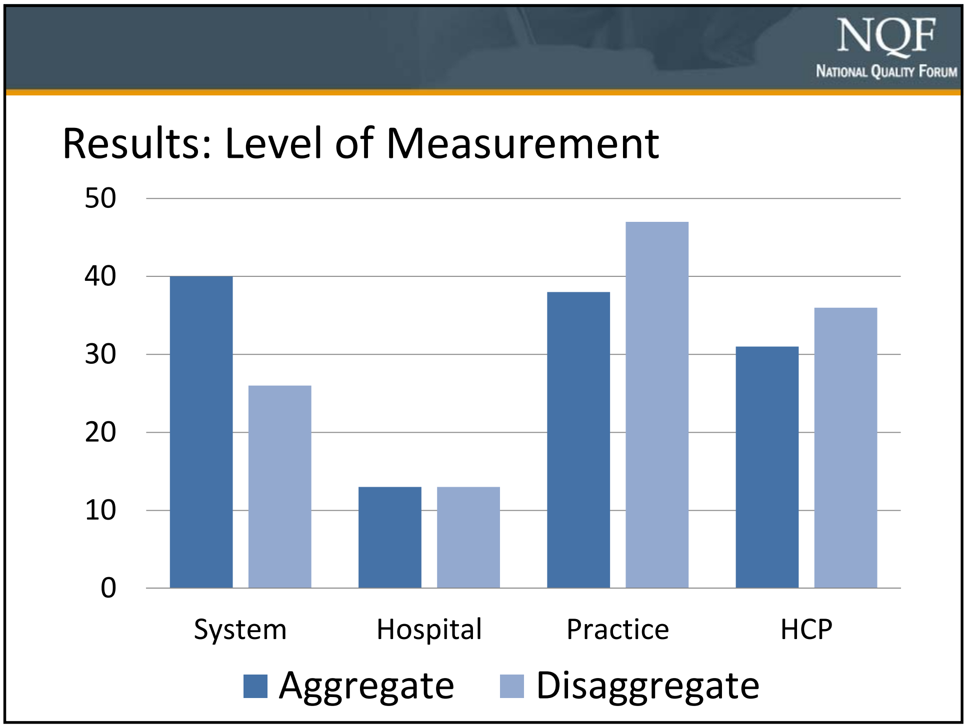
Results

- 124 measures identified
  - 86 (70%) published specifications
- 32 (26%) electronically measured
- Only 1 “outcome measure” (PDRM)
- 78 (63%) Broad / 46 (37%) Condition Specific
- 30 (24%) NQF Endorsed



Results: Date Sources



Results: Level of Measurement

Frameworks for Mapping

NQF Framework

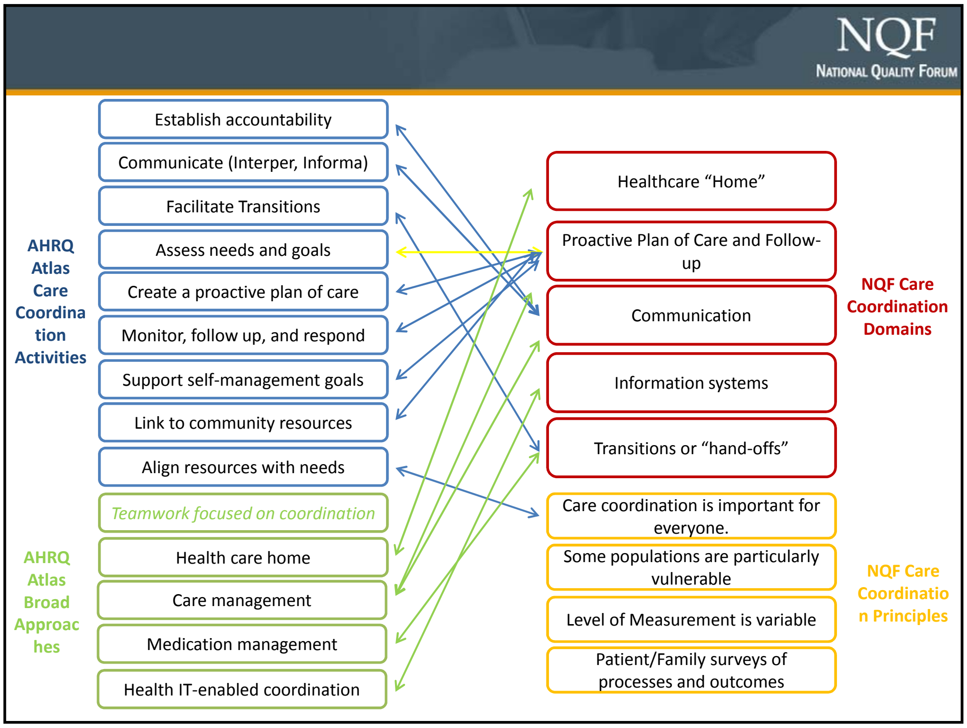
- 5 Domains
  - Healthcare Home
  - Proactive Plan of Care and Follow-up
  - Communication
  - Information Systems
  - Transitions
- Principles
  - Important for everyone
  - Vulnerable populations
  - Variable level of measurement
  - Need to ensure patient/family experience

AHRQ Atlas

- Mechanisms
  - Coordination Activities
  - Broad Approaches
- Effects (Perspective)
  - Patient
  - Healthcare professional
  - System
- Participants

Broad Approaches Coordination Activities **Effects**

McDonald KM, Schultz E, Albin L, Pineda N, Lonhart J, Sundaram V, Smith-Spangler C, Brustrom J, and Malcolm E. Care Coordination Atlas Version 3 (Prepared by Stanford University under subcontract to Battelle on Contract No. 290-04-0020). AHRQ Publication No. 11-0023-EF. Rockville, MD: Agency for Healthcare Research and Quality. November 2010



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AHRQ Atlas Care Coordination Activities

- Establish accountability
- Communicate (Interper, Informa)
- Facilitate Transitions
- Assess needs and goals
- Create a proactive plan of care
- Monitor, follow up, and respond
- Support self-management goals
- Link to community resources
- Align resources with needs

AHRQ Atlas Broad Approaches

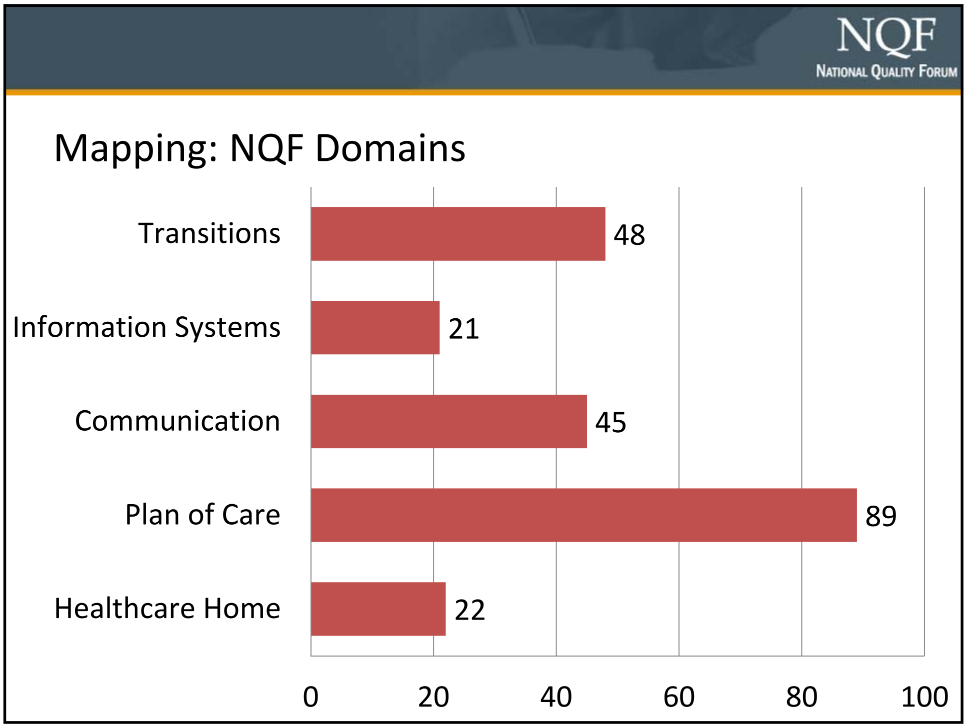
- *Teamwork focused on coordination*
- Health care home
- Care management
- Medication management
- Health IT-enabled coordination

NQF Care Coordination Domains

- Healthcare "Home"
- Proactive Plan of Care and Follow-up
- Communication
- Information systems
- Transitions or "hand-offs"

NQF Care Coordination Principles

- Care coordination is important for everyone.
- Some populations are particularly vulnerable
- Level of Measurement is variable
- Patient/Family surveys of processes and outcomes



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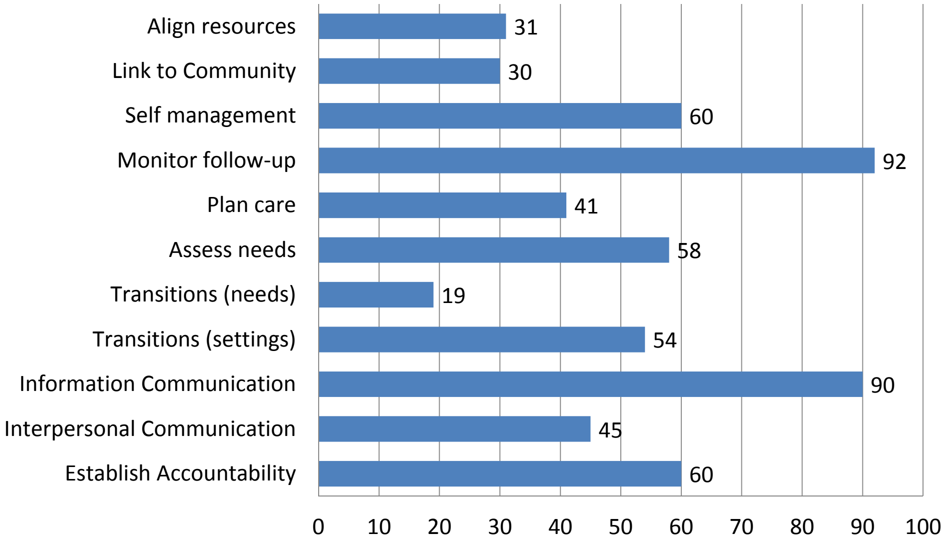
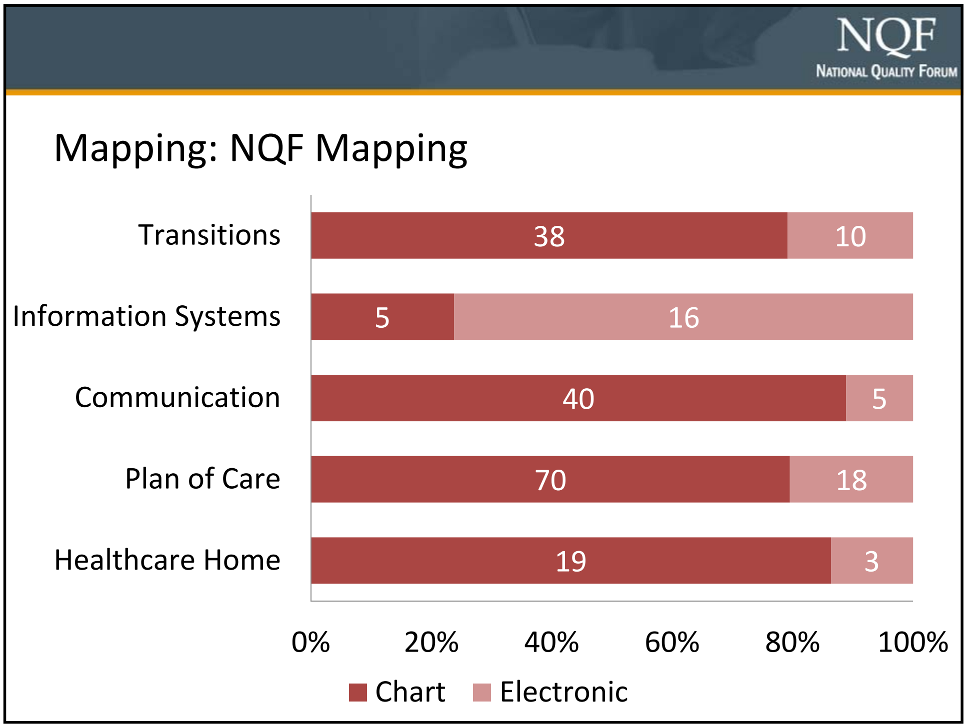
Mapping: NQF Domains

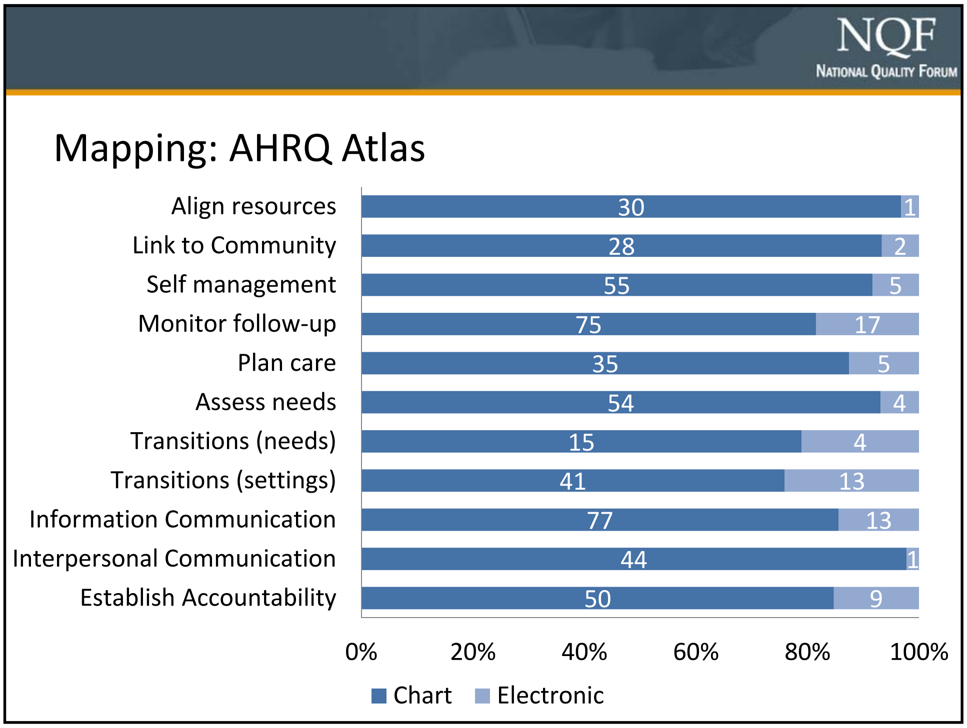
Mapping: AHRQ Atlas



Where are current gaps in electronic measurement?



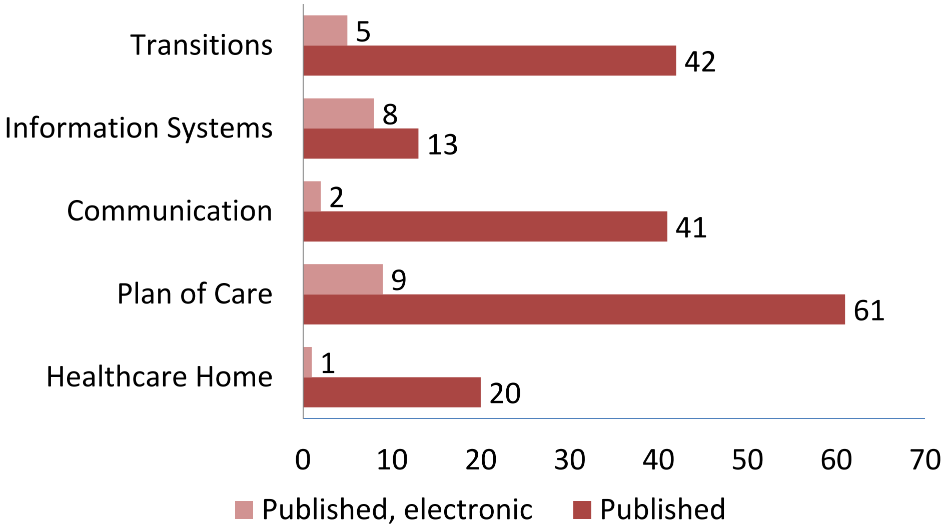
Mapping: NQF Mapping



Mapping: AHRQ Atlas

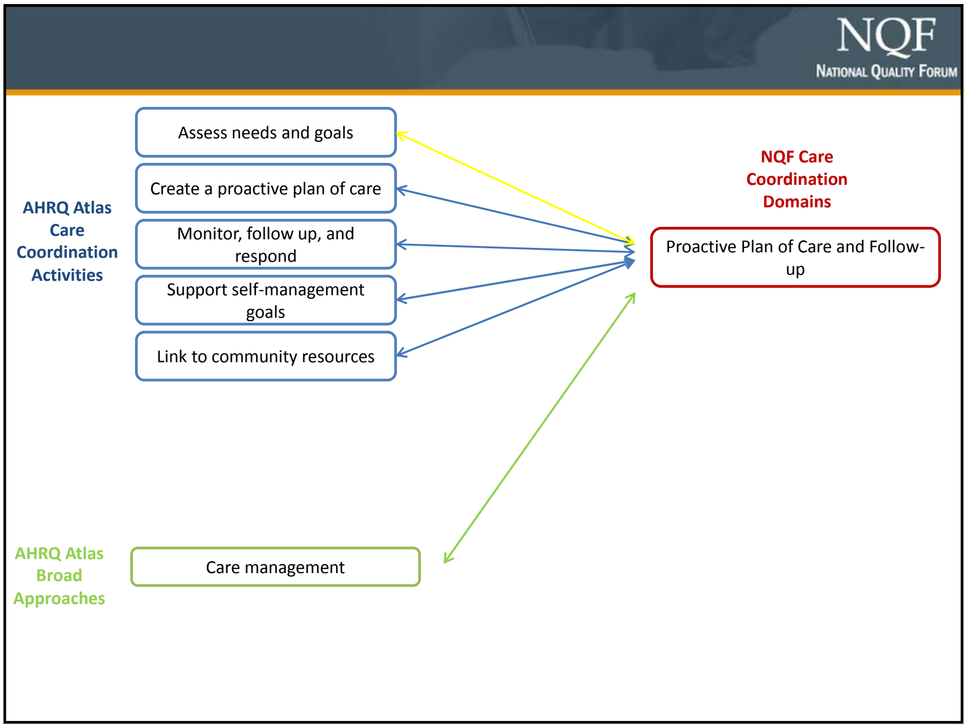
Does measure availability create apparent gaps?

Mapping: NQF Mapping



Mapping: AHRQ Atlas

How do frameworks alter the gap analysis?



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AHRQ Atlas Care Coordination Activities

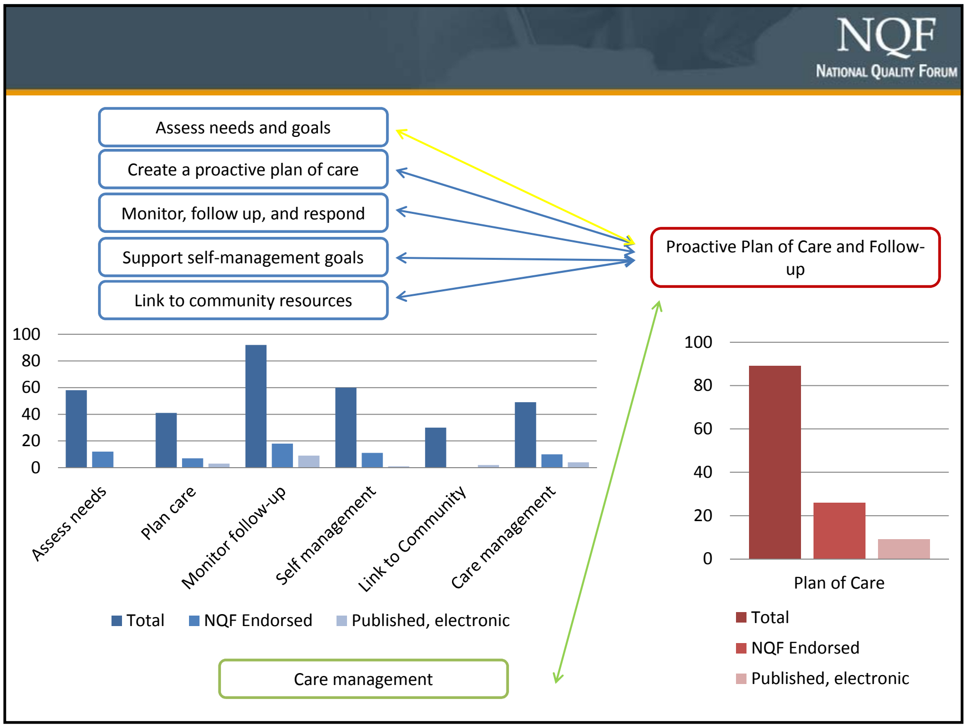
- Assess needs and goals
- Create a proactive plan of care
- Monitor, follow up, and respond
- Support self-management goals
- Link to community resources

AHRQ Atlas Broad Approaches

- Care management

NQF Care Coordination Domains

- Proactive Plan of Care and Follow-up



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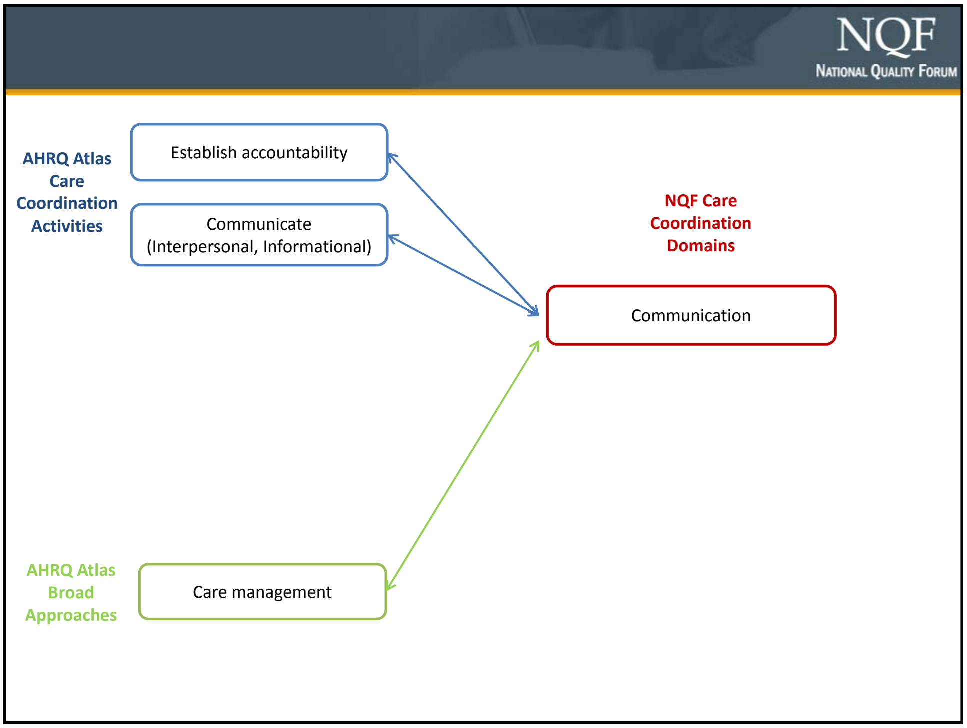
- Assess needs and goals
- Create a proactive plan of care
- Monitor, follow up, and respond
- Support self-management goals
- Link to community resources

Proactive Plan of Care and Follow-up

Care management



AHRQ Atlas Care Coordination Activities

Establish accountability

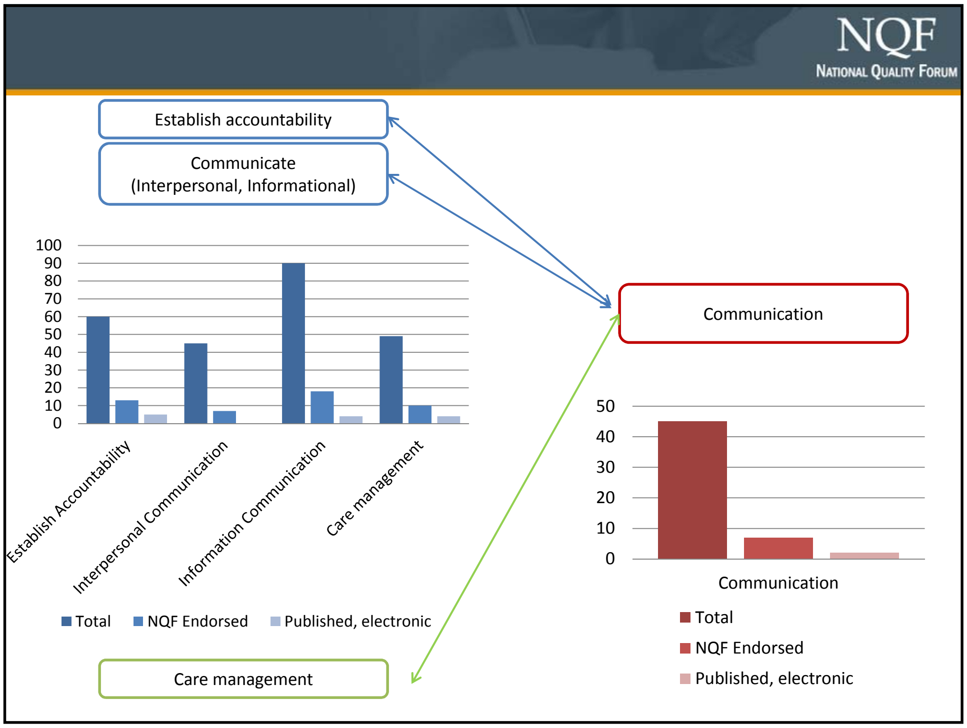
Communicate (Interpersonal, Informational)

NQF Care Coordination Domains

Communication

AHRQ Atlas Broad Approaches

Care management



Establish accountability

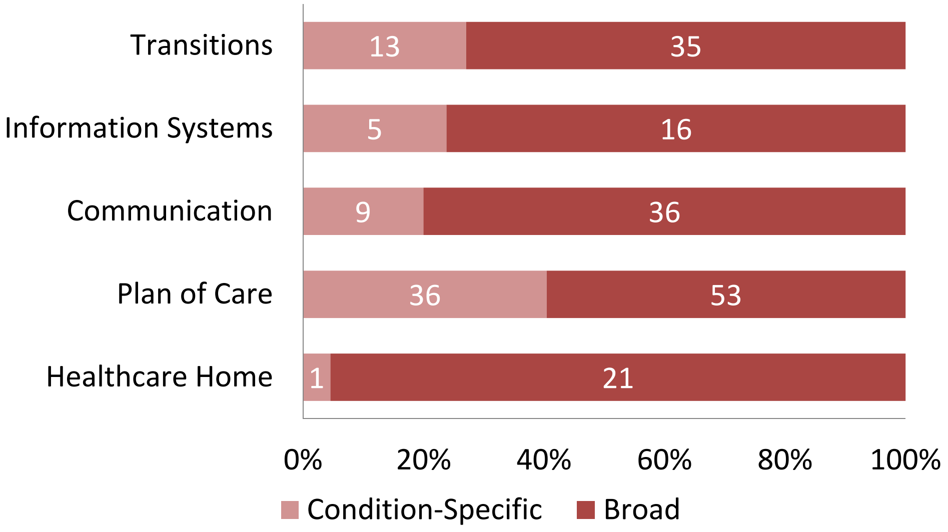
Communicate (Interpersonal, Informational)

Communication

Care management

Do gaps differ based on measure focus?

Mapping: NQF Domains



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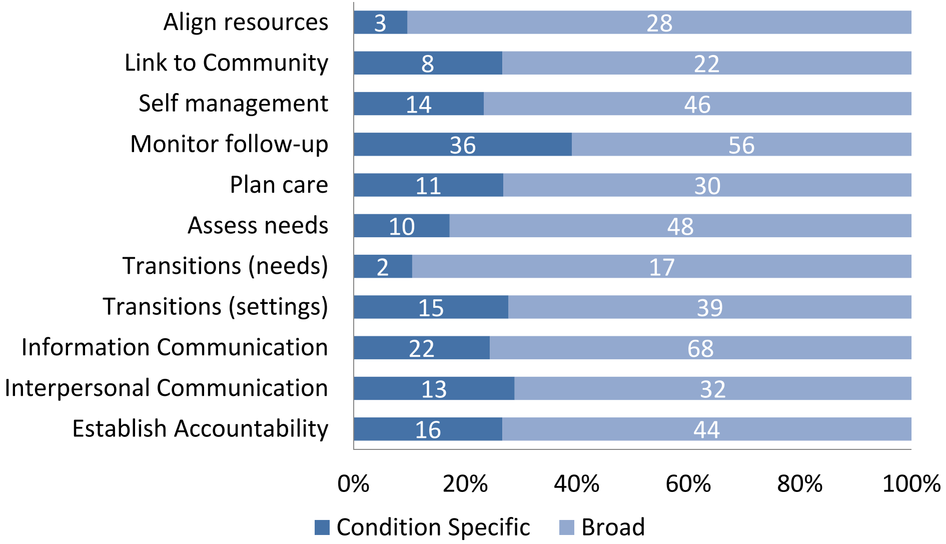
Mapping: AHRQ Atlas



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Key Findings and Conclusions

Descriptive Analysis: Key Findings

- Most electronic measures are not formally specified or published
    - Is there an electronic measure set our there?
- Almost all measures are process measures
    - What would constitute a care coordination outcome measure?
- Most measures are patient experience surveys
    - How can we comprehensively measure activities across the care coordination spectrum?

Evolution of Care Coordination Measurement

Framework Considerations

- HIT better described as a broad foundation rather than as an exclusive domain
- Need to consider sub-activities to ensure no measurement gaps across a spectrum
- Can a sequential or networked model for a framework help shape measure development?

Gaps in Care Coordination Measures

- Electronic Measures/IS Process Measures
- Measure Areas
  - Healthcare home
  - Transitions within the ambulatory setting
  - Community linkage
  - Transition needs
- Moving beyond the patient experience survey
  - Care plans
  - Establishing accountability/Negotiating responsibility
  - Information Communication
  - Patient Experience → Patient needs and goal assessment

Questions and Discussion

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October 19, 2001