Electronic health record functionality needed to better support primary care: Joint Statement AAFP, AAP, ABFM, and NAPCRG

Presented By:
Alexander Krist, MD, MPH; Christoph Lehmann, MD; Jason Mitchell, MD; James Mold, MD, MPH; and Robert L. Phillips, Jr., MD, MSPH

Moderated By:
David Meyers, MD, Agency for Healthcare Research and Quality (AHRQ)

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February 28, 2014
• Instructions for Question Submission
  ▶ Kristin Mikolowsky, MSc, Project Manager, PBRN Resource Center

• Welcome and Introduction of First Presenter
  ▶ David Meyers, MD, Director, Center for Primary Care, Prevention, and Clinical Partnerships, Agency for Healthcare Research and Quality

• Presentation: Electronic Health Record Functionality Needed to Better Support Primary Care
  ▶ Alexander Krist, MD, MPH

• Question & Answer Session; Introduction of Next Presenters
  ▶ Moderator: David Meyers, MD, Director, Center for Primary Care, Prevention, and Clinical Partnerships, Agency for Healthcare Research and Quality

• Presentations: Positions of Primary Care Organizations
  ▶ Christoph Lehmann, MD; Jason Mitchell, MD; James Mold, MD, MPH; and Robert L. Phillips, Jr., MD, MSPH

• Question & Answer Session
  ▶ Moderator: David Meyers, MD, Director, Center for Primary Care, Prevention, and Clinical Partnerships, Agency for Healthcare Research and Quality

• Instructions for Obtaining CME Credits
  ▶ Kristin Mikolowsky, MSc, Project Manager, PBRN Resource Center

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- Questions will be read aloud by the moderator.
Alexander Krist, MD, MPH

Ambulatory Care Outcomes Research Network (ACORN), Virginia Commonwealth University
Electronic Health Record Functionality Needed to Better Support Primary Care: Joint Statement AAFP, AAP, ABFM, and NAPCRG

Alex Krist MD MPH
Dept of Family Medicine and Population Health
ahkrist@vcu.edu

February 28, 2014
Author list

- Alex Krist
- John Beasley
- Jesse Crosson
- David Kibbe
- Michael Klinkman
- Chris Lehmann
- Chester Fox
- Jason Mitchell
- James Mold

- Wilson Pace
- Kevin Peterson
- Robert Phillips
- Robert Post
- Jon Puro
- Michael Raddock
- Ray Simkus
- Steven Waldren
NAPCRG HIT Working Group

• One of six working groups assembled in 2005 by the Committee for Advancing the Science of Family Medicine (CASFM)
  - HIT, economics, research methods, membership, practice based research, and education
• 43 members from the US, Canada, and UK
• Represent 38 unique universities and primary care organizations
NAPCRG HIT Working Group Interests

- EHR data architecture needs for research
- Ensuring EHRs support practice workflow
- Reframing Meaningful Use to better support primary care (this presentation)
  - Position statement submitted to ONC
  - Perspective manuscript submitted to JAMIA
- Researcher, physician, practice, and patient access to their data (current focus)
Theoretical Framework

- Systematically identified needed additions to EHRs to better support primary care
- Used Institute of Medicine (IOM) definition of primary care to define primary care needs
- Used stage 2 Meaningful Use (MU2) objectives to define EHR functionality
Analytic Steps

• MU2 objectives categorized by primary care attribute
• Unmet primary care needs identified and recommended EHR additions were made
• Categorizations and recommendations presented to primary care organizations
• Categorizations and recommendations presented to 148 members of 4 practice based research networks
IOM defines primary care as having the following attributes

Primary care is...
- Accessible
- Coordinated
- Sustained
- Comprehensive
- A partnership with patients
- Person-centered
- Integrated
MU2 objectives by attribute

• **Accessible care** – secure messaging
• **Coordinated care** – CPOE; eRx; patient summaries for care transition; ability to view, download, transmit information
• **Sustained care** – patient reminders; one patient list for outreach
• **Comprehensive care** – record vitals; record smoking status; med reconciliation; lab results as structured data; access imaging results
MU2 objectives by attribute

• **Patient partnership** – after visit patient summaries; patient-specific education resources; record advance directives

• **Person-centered** – record demographics; record family history

• **Integrated care** – 5 clinical decision rules; submit to immunization registries, public health agencies, and cancer registries; protect health information
Question #1: For which primary care attribute do you think EHRs need to make the most improvements?

1. Accessibility
2. Coordinated care
3. Comprehensive / sustained care
4. Patient partnership / person-centered care
5. Integrated care
Question #2: Which primary care attribute do you think EHRs currently best support?

1. Accessibility
2. Coordinated care
3. Comprehensive / sustained care
4. Patient partnership / person-centered care
5. Integrated care
MU focus has promoted integrated and coordinated attributes better than others.
Gaps: Accessibility

• Make documenting, accessing, and conveying information easier and less labor intensive
  – Take doctors out of data entry role

• Support enhanced asynchronous care
  – Virtual visits or texting

• Embed tools to access and monitor clinician accessibility
Gaps: Coordination

• Expand capacity to receive and aggregate information from all settings at point of care

• Coordinate care among teams internally and externally
  – Including ancillary and enabling services
  – Define roles and track task progression
  – Support secure communication across team members
  – Maintain shared library of local coordination services
Gaps: Coordination

• Dashboard to synthesize and prioritize information for individuals and panels of patients
  – Identify and sequence visits, changes, results
  – Span across care settings
  – Highlight urgent messages, alerts, and changes
Gaps: Sustained Care

• Track and support continuity of care
  – Allow patients to define primary provider
  – Allow clinicians to track and manage panel size

• Track and support care over time
  – Describe chronic conditions and episodes of care over time
  – Include trending tools to show health information over time and events
Gaps: Comprehensiveness

• Support the whole spectrum of care
  − Preventive, chronic, acute, and mental health
• Seamlessly support all settings for primary care
  − Residential, ambulatory, nursing home, emergency, and hospital settings
• Ensure the accuracy of EHR information
  − Engage patients in process
  − Auto-resolve outdated information and identify data inconsistencies
Gaps: Partnership with patients

- Incorporate patient perspectives into EHRs
  - Allow patients to enter their goals, values, beliefs, behaviors, psychosocial factors, and priorities

- Support patient-clinician shared decision-making
  - Identify who makes decisions, how decisions are made, and social support
  - Provide decision-making support – educational material, decision aids, and values assessment tools
Gaps: Person centered

• Support whole person care
  – Shift from disease focus (e.g. ICD 10) to defining who the patient is as a person

• Meaningfully record family history

• Identify environmental and community health factors
  – Link to community and occupational health data

• Integrate and share clinical and community based care
Gaps: Integrated

• Support the individual need of practices
  − Locally tailor to patient and practice needs
  − Application model for tailoring EHR functionality

• Support national health recommendations and priorities
  − Robustly integrate guidelines into EHRs
  − Update content as guidelines change
  − Make content actionable for patients and clinicians
Gaps: Integrated

• Allow enhanced population management
  − Move between tracking population measures to delivering care to individuals
  − Incorporate patient values and needs in quality measures

• Promote accountability for care
  − Capture important health outcomes – morbidity, mortality, patient reported outcomes
  − Collaboratively share information with public health partners
Question #3: What new function would you most like added to your EHR?

1. Receive patient data from multiple sources at the point of care
2. Team coordination support
3. Dashboard to prioritize and synthesize information
4. Incorporate patient perspectives into EHRs
5. Provide enhanced population management tools
Practice framework for implementing EHR functionality

Phase 1: EHR has functionality
   Promoted through EHR certification

Phase 2: Practice adopts/implements EHR functionality
   Promoted through tracking and assessing clinician process and use metrics

Phase 3: EHR functionality is used

Phase 4: Use of functionality improves outcomes
   Promoted through tracking and assessing outcomes measures

If outcomes are not improved, reassess functionality, adoption, implementation, and use
Question #4: What phase is your practice (or most practices) at with implementing EHR functionality?

1. Phase 1
2. Phase 2
3. Phase 3
4. Phase 4
Limitations

• EHRs have functionality not mandated by MU
• MU was not designed for primary care so objectives don’t fit neatly into attributes
• Recommendations were not prescriptively detailed, innovative interventions are needed
• Just because there is a gap in functionality does not mean adding functionality will improve outcomes
Concluding remarks

• We need much more from HIT to adequately support the needs of primary care
• Key enhancements include care coordination, relationship support, whole person care, and population care
• Solutions will require new HIT functionality, standardization, national infrastructure, new financial models, and policy changes
Question #5: What do you think is the best way to promote the advancement of EHR functionality?

1. Mandate changes through EHR certification
2. Incent changes through clinician meaningful use payments
3. Lobby vendors and policy-makers for desired changes
4. Let the free market drive EHR changes
5. Approach technology leaders to create new EHR systems
Questions or comments about the paper?


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Today’s Next Presenters

Jason Mitchell, MD
American Academy of Family Physicians

Christoph Lehmann, MD
Vanderbilt University / American Academy of Pediatrics

Robert L. Phillips, Jr., MD, MSPH
American Board of Family Medicine

James Mold, MD, MPH
University of Oklahoma Health Sciences Center / North American Primary Care Research Group
American Academy of Family Physicians

Jason Mitchell MD
Center for Health IT, AAFP
jmitchel@aafp.org
Putting the Family Back in Medicine

• Technology is a tool, not the answer
• Technological “walled gardens” are fragmenting care, not coordinating it
• Care teams and care plans must be comprehensive and continuously managed
• Population health management improves individual care and outcomes
American Academy of Pediatrics

• The American Academy of Pediatrics supports the use of Electronic Health Records (EHRs) as a means
  – To improve quality and reduce cost in care
  – To provide safe and effective care
  – To support the Medical Home for Children

• HIT is lead and supported by two leadership groups
  – Child Health Informatics Center founded in 2009
  – Council on Clinical Information Technology: 511 members to date
EHRs lack Functionality

- 2009:
  - Basic EHR: 19%
  - Fully Functional EHR: 6%
  - EHR lacking Basic Functions: 33%

- 2012:
  - Basic EHR: 31%
  - Fully Functional EHR: 14%
  - EHR lacking Basic Functions: 34%

EHRs lacking Basic Functions
EHRs Lack PEDIATRIC Functions!

Pediatric Functions:
- Calculate weight-based dosing
- Tracking well-child visits and immunizations
- Calculate catch-up immunizations
- Plot growth charts
- Automatically compute height/weight/BMI

Chart showing the increase in EHRs with pediatric functions from 2009 to 2012:
- In 2009, 3% of EHRs were fully functional with pediatric functions.
- In 2012, 3% of EHRs were fully functional with pediatric functions, and 8% of EHRs were fully functional.
Basic and Fully Functional EHRs are Not used by Small Practices
Electronic Data Exchange is limited
Electronic Health Record Functionality: Certifying Board Perspective

Robert L. Phillips, MD, MSPH
Vice President for Research & Policy
• Second largest medical specialty board—83,000 diplomates
• Nearly 75% have an EHR, ~60% comply with MU 1
• Need to reduce reporting burden
• Turn data into actionable information
  – Facilitate quality improvement
  – Population health
  – Decision support
• Move to domain-specific classification
  International Classification of Primary Care
  – Would facilitate ICD10 conversion
  – Better able to identify episodes of care
  – Create Framingham-like decision support
• Need better measures of primary care and construct HIT system to capture them
Harmonizing Primary Care
Clinical Classification and Data Standards

Conference Report 2007
Supported by AHRQ
<table>
<thead>
<tr>
<th>Attributes</th>
<th>Mechanisms</th>
<th>Intermediate Outcomes</th>
<th>Desired Outcomes</th>
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<tr>
<td>Accessibility</td>
<td>Greater Efficiency/Capacity</td>
<td>Fewer Preventable Diseases</td>
<td>Increased Length of Life</td>
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<td>Fewer Medical Errors</td>
<td>Fewer Low Birth Weight Infants</td>
<td>Improved Quality of Life</td>
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<td>Delivery and Receipt of More Preventive Services</td>
<td>Earlier Detection/Treatment</td>
<td>Increased Productivity (Home, School, Work)</td>
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<td>Better Informed and Activated Patients</td>
<td>Better Management of Chronic Diseases</td>
<td>Improved End of Life Quality</td>
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<td>Higher Level of Trust</td>
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<td>Investment</td>
<td>Improved Functioning</td>
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<td>More Family Support</td>
<td>Fewer Unplanned Visits</td>
<td>Reduced Health Care Costs</td>
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<td>Sustained Care</td>
<td>More Community Support for Good Health Practices</td>
<td>Fewer Diagnostic Tests</td>
<td>Enhanced Clinician Well-Being/Durability</td>
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<td>Greater Focus on Outcomes</td>
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<td>Enhanced Clinician Learning</td>
<td>Fewer Non-Urgent ED Visits</td>
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<td>Closeness Relationships with Consultants/Resources</td>
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<td>Enhanced Understanding; Better Decisions</td>
<td>More Appropriate, Effective Consultations/Referrals</td>
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<td>Psycho-physiological Effects</td>
<td>More Affirming Interactions</td>
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<td>Fewer Lawsuits</td>
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<td>Fewer Unnecessary and Futile Interventions</td>
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Questions or comments for any of the primary care organizations?

- American Academy of Family Physicians
- American Academy of Pediatrics
- American Board of Family Medicine
- North American Primary Care Research Group

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