Practical Insights on Meeting Objectives of Meaningful Use III

Presented By:
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Moderated By:
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Agency for Healthcare Research and Quality

Discussants:
Steven Ornstein, MD; Victoria Neale, MPH, PhD; Valory Pavlik, MPH, PhD

Sponsored by the AHRQ PBRN Resource Center
January 28, 2015

Agenda

- Welcome and introductions

- Presentations

- Q&A session with all presenters and discussants

- Instructions for obtaining CME credits

Note: After today's webinar, a copy of the slides will be e-mailed to all webinar participants.

Disclosures

- Presenters will not discuss off label use and/or investigational use of medications in their presentations.

- Dr. Fiks and Dr. Grundmeier are co-inventors of the Care Assistant software used to create the clinician side of MyAsthma. They hold no patent on the software and have earned no money from this invention.

- The rest of Dr. Fiks's study team and our other presenters do not have financial relationships to disclose.

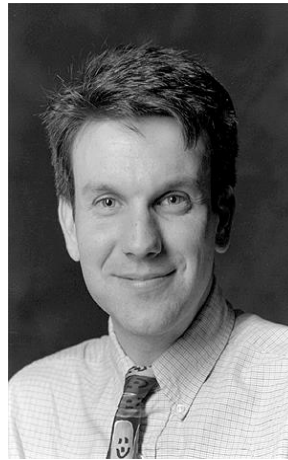# How to Submit a Question

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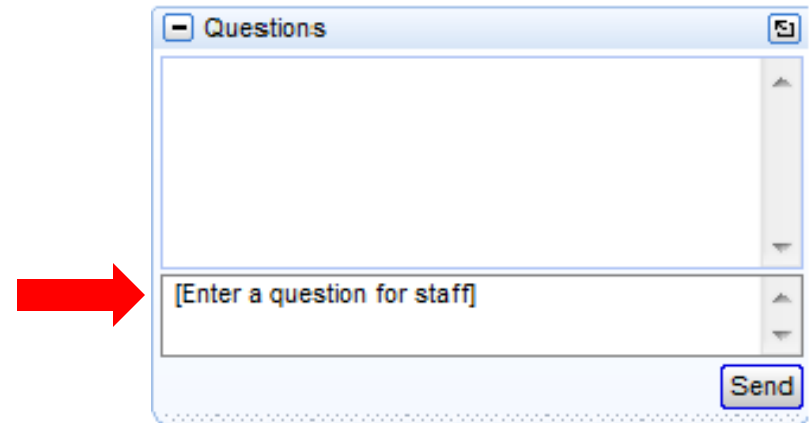
Spurring Adoption of Patient Portals to Collect Patient-Reported Outcomes: Lessons Learned

Alex Fiks, MD, MSCE

Associate Director, Pediatric Research in Office Settings, The American Academy of Pediatrics;

Associate Director, The Center for Pediatric Clinical Effectiveness (CPCE);

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Funding

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- Additional support from:

  ► The Children's Hospital of Philadelphia

  ► Eunice Kennedy Shriver National Institute of Child Health & Human Development (K23HD059919)

Background: Meaningful Use Program

- Created by the Health Information Technology and Clinical Health (HITECH) Act which was 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

Stages of Meaningful Use

A Conceptual Approach to Meaningful Use

Stage 1
Data capture and sharing

Stage 2
Advanced clinical processes

Stage 3
Improved outcomes
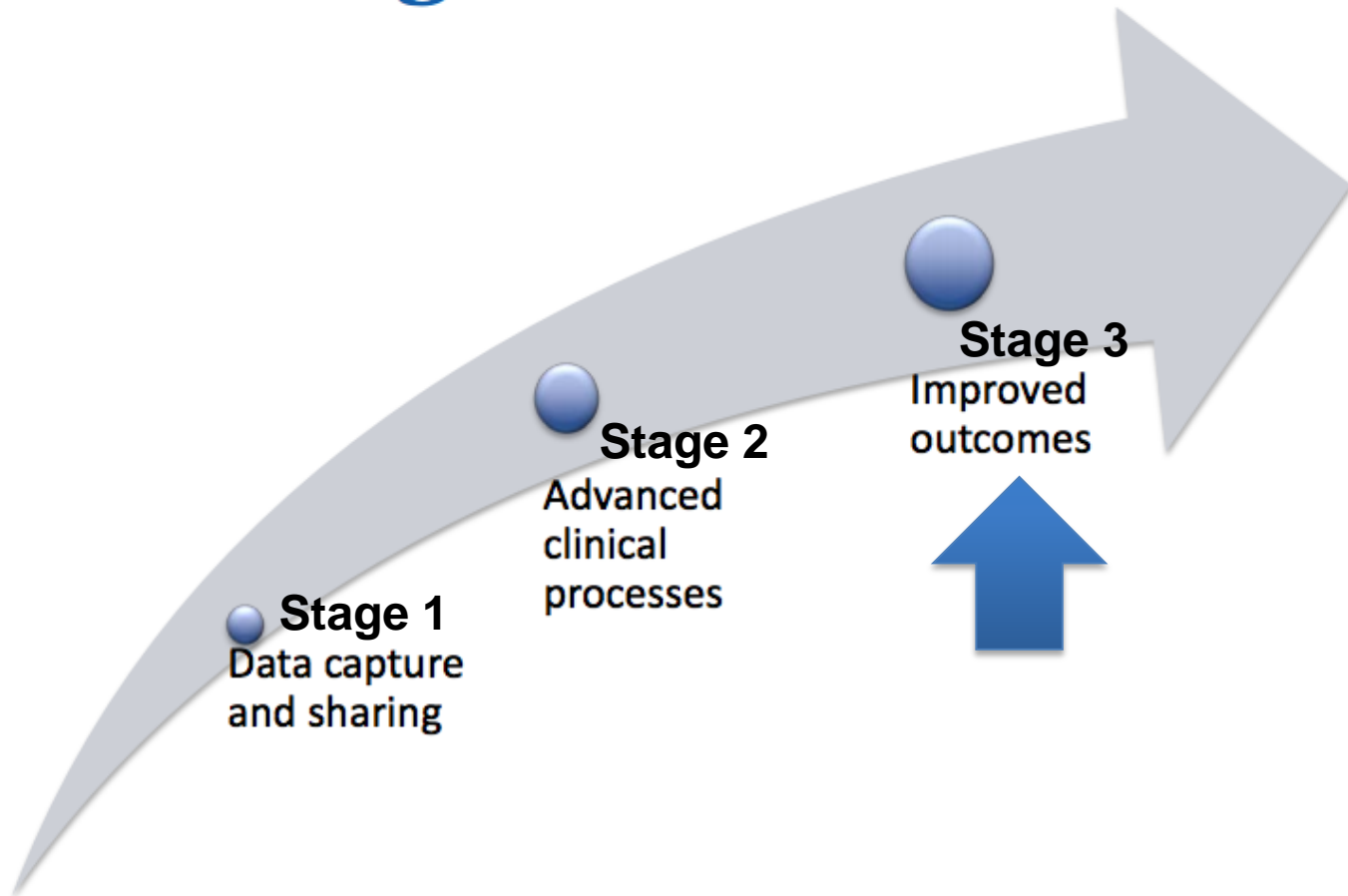
Meaningful Use Program: Pediatrics

- Fewer than half of pediatricians participate in the early stages of meaningful use

- Qualifications for pediatricians to participate in the program are different than in adult health care

Patient Portal

- A patient portal is a secure online website that gives patients convenient 24-hour access to personal health information from anywhere with an Internet connection.

Broad Questions

What innovation, organization, and structural characteristics influence portal implementation?

How might meaningful use incentives and supports be structured to promote adoption, sustained use, and clinical benefit?

Conceptual Model

Figure 1. Conceptual Model
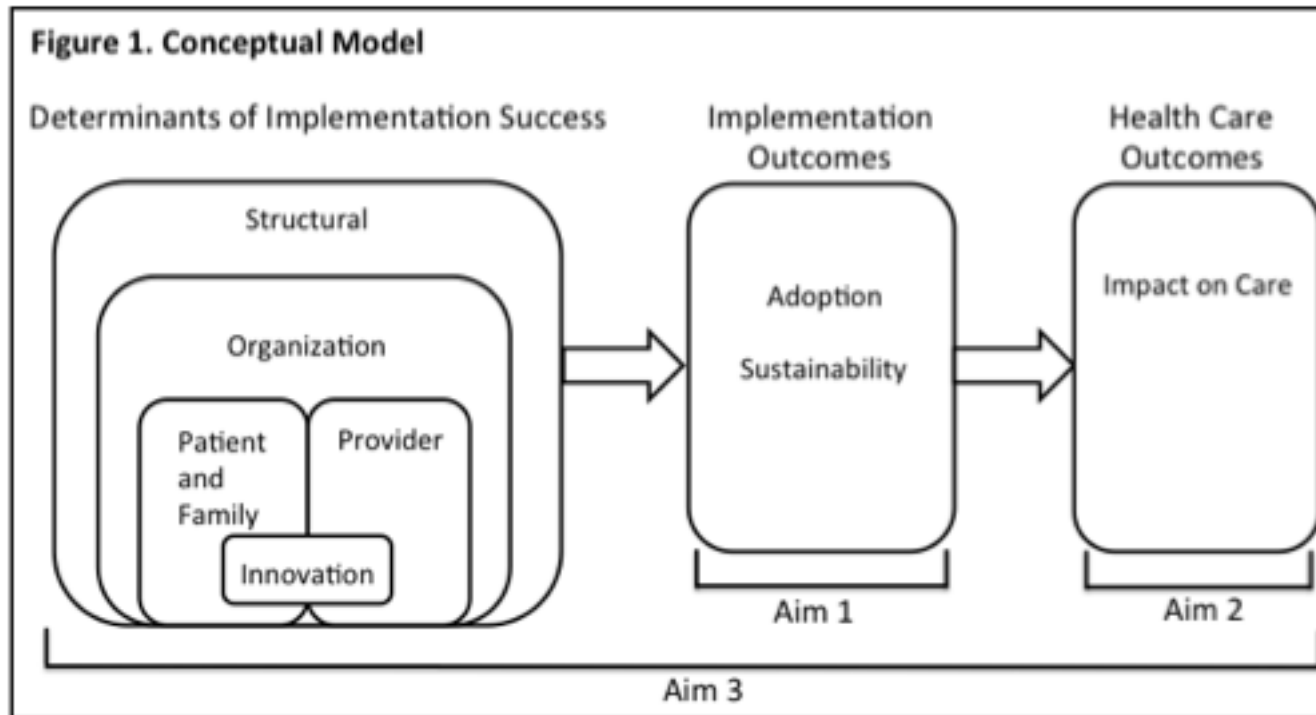
Model adapted from Chaudoir SR, Dugan AG, Barr CH. Measuring factors affecting implementation of

health innovations: A systematic review of structural, organizational, provider, patient, and innovation level measures.

Implement Sci. 2013;8(1):22. PMCID: PMC3598720

Our Specific Study

Aims:

- Evaluate the feasibility and effectiveness of a patient portal to help manage care for children with asthma

- Determine barriers and factors associated with portal adoption and sustained use

Portal Studied: "MyAsthma"

- Provides educational material
- Allows parent to identify concerns
- Allows parent and child to identify goals for asthma treatment
- Tracks symptoms, side effects, parent-reported medication adherence, and progress toward goals over time
- Provides decision support (ex: if asthma is poorly controlled that month, both parent and practice receive a message)

The Portal: Decision Support

MyAsthma

Check-in Results

Your child's asthma is: ⓘ UNCONTROLLED
You reported your child is experiencing medication side effects

Instructions: Please call your doctor's office to discuss your child's asthma control and side effects.

The results of the check-in have been sent to your doctor's office.

You can always call or send a message to your doctor's office with any questions.

If this is a medical emergency, please call 911.

Would you like to learn more about asthma with CHOP videos and handouts?

| Yes | No, thanks |

Back to the Home Page

The Portal in the EHR

MyAsthma

MyAsthma Home	Asthma Education	Care Plan	Care Team

Check-in Survey

✓ You are up-to-date!

Next check-in: Oct 1, 2014

Last check-in: Sep 11, 2014

Goals Edit

Parent's Goal:
not miss work due to child's asthma

Child's Goal:
NOT miss school

Concerns Edit

Steroids impacting growth
Cost of medication
Impact on life
Time to manage medications

Other: taste of prednisone

Check-in Survey Timeline

🟩 No concern   🟨 Of concern   🟥 Major concern

| Asthma Control Assessment	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Asthma control	Well	Well	Well	Uncontrolled	Uncontrolled	Poor	Well	Well	Well	Well	Well	Well
Meeting goals	Very much	Very much	Moderately	Slightly	Slightly	Moderately	Very much	Very much	Very much	Very much	Very much	Very much
Managing concerns	Very much	Very much	Moderately	Moderately	Definitely	Definitely	Very much	Very much	Definitely	Very much	Very much	Very much
Side effects	No	No	No	No	Yes	No	No	No	No	No	No	No
Missed school/day care	1	0	2	0	2	0	0	0	0	0	0	0
ER or urgent care visit	0	0	0	0	0	0	0	0	0	0	0	0
Hospital admission	0	0	0	0	0	0	0	0	0	0	0	0
Steroid by mouth	0	0	0	0	1	0	0	0	0	0	0	0
Home/school disruption	None of the time	None of the time	A little of the time	Some of the time	Some of the time	None of the time	A little of the time	A little of the time	A little of the time	None of the time	None of the time	None of the time
Shortness of breath	Not at all	Not at all	Once or twice a week	Once a day	2 or 3 nights a week	Once or twice a week	Not at all	Not at all	Not at all	Not at all	Not at all	Not at all
Symptoms at night	Not at all	Not at all	Once or twice a week	2 or 3 nights a week	2 or 3 nights a week	Once a week	Once or twice a week	Once or twice a week	Once or twice a week	Once or twice a week	Not at all	Once or twice a week
Rescue inhaler/nebulizer	Not at all	Once a week or less	Once a week or less	1 or 2 times per day	1 or 2 times per day	Once a week or less	Once a week or less	Once a week or less	Once a week or less	Once a week or less	Not at all	Not at all
Parent rating of control	Completely controlled	Well controlled	Well controlled	Poorly controlled	Somewhat controlled	Somewhat controlled	Completely controlled	Completely controlled	Completely controlled	Completely controlled	Completely controlled	Completely controlled
Taking medications	More than half	More than half	More than half	All	All	All	More than half	More than half	More than half	All	More than half	All

Impact of MyAsthma:
Prior Trial Results

- 60 families enrolled (30 control; 30 intervention)
- 57% used MyAsthma 5 of 6 study months
- 92% were satisfied with MyAsthma
- Families in the intervention group reported fewer flares
- Parents in the intervention group missed fewer days of work

The Pediatric Research Consortium (PeRC) of
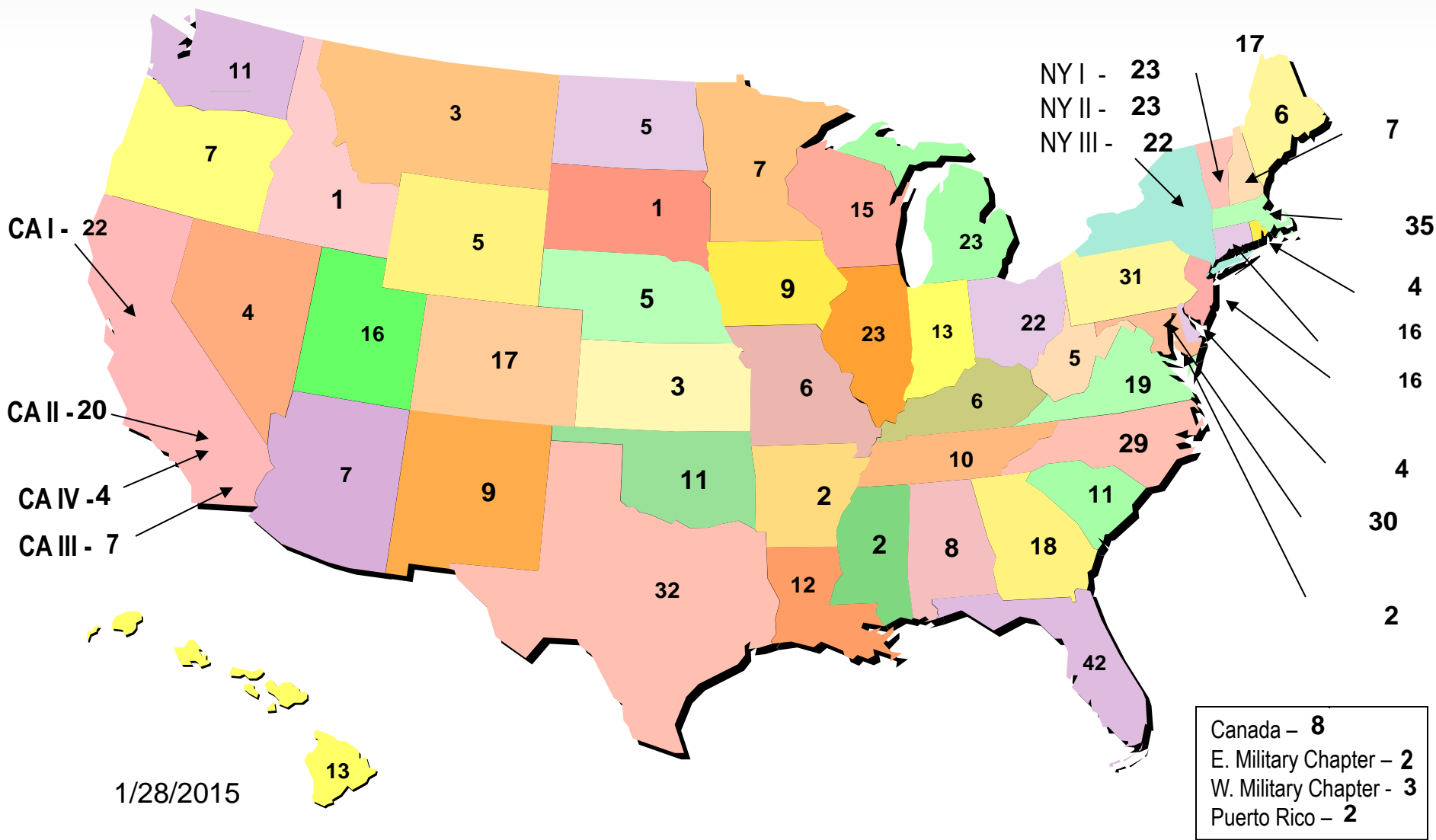
The Children's Hospital of Philadelphia

1 Hospital

3 Urban primary care centers

28 Suburban and rural practices

13 Specialty care centers with 6

Pediatric inpatient units at local community hospitals
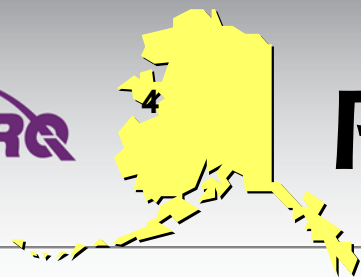
PROS Practices

Current Implementation Evaluation: Procedures

- 20 practices enrolled (9 PROS, 11 PeRC)
- 2,012 families of children with asthma (per EHRs) at PROS identified
- 7,227 families of children with asthma at PeRC identified
- 2 rounds of mailings, over 18,000 letters sent
- Study team then called 50 families at each practice
- Providers were given cards to refer families to the portal team
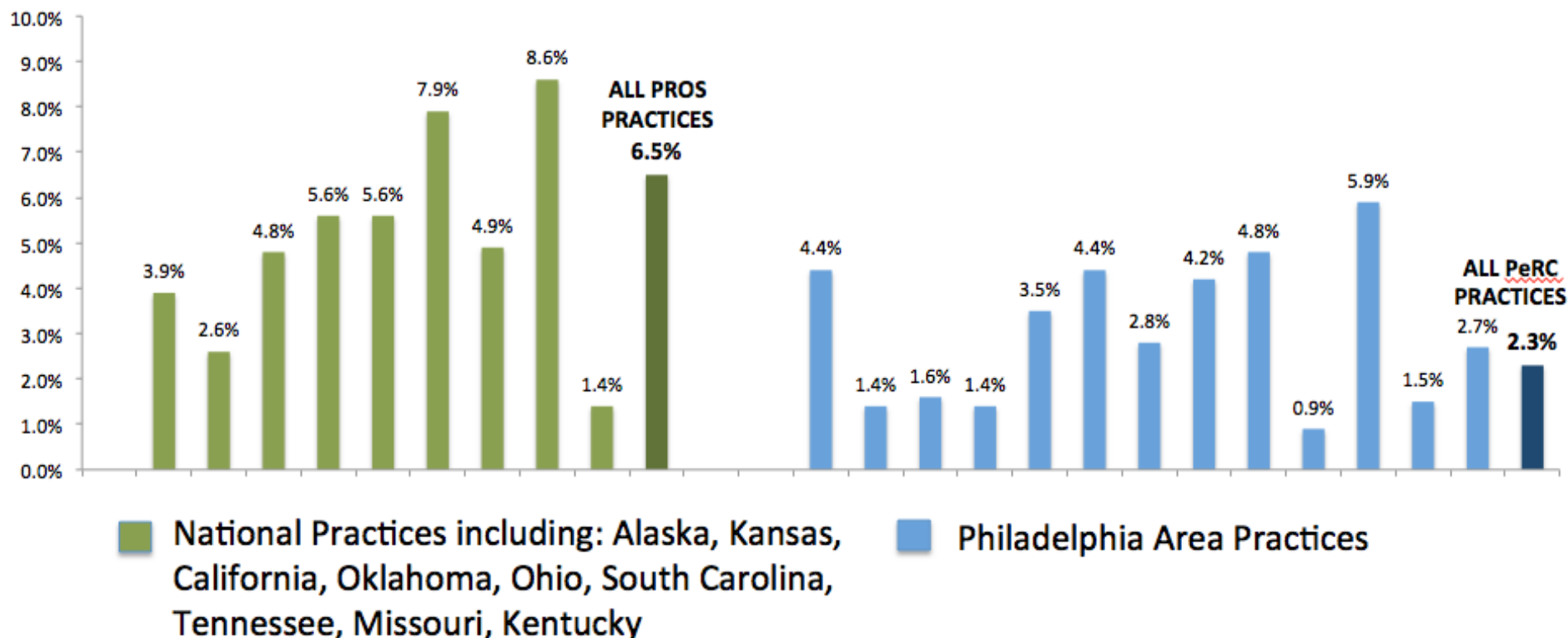
Preliminary Results

- Overall, enrollment was low
  - ► 130 children enrolled at PROS practices
  - ► 164 children enrolled at PeRC practices
- Nearly ¼ of those responding had active asthma symptoms requiring attention.

Range of MyAsthma Adoption Across Practices

Percentage of eligible families of children with asthma enrolled in MyAsthma

National Practices including: Alaska, Kansas, California, Oklahoma, Ohio, South Carolina, Tennessee, Missouri, Kentucky

Philadelphia Area Practices

Preliminary Results

- After completing the portal, 30% of families indicated they would take at least one new action to better manage their child's asthma

  ► 19% of families were more or much more likely to change environment

  ► 16% of families were more or much more likely to speak to their doctor

  ► 12.5% of families were more or much more likely to make a change to their child's medications

Themes Related to Adoption of MyAsthma: Provider Focus Groups

- Many families with asthma in the child's chart did not believe their child presently had asthma
  - ► 20 out of 50 in one practice
- Clinician referral for the portal may be better than letters/phone calls
  - ► But, even when cards to refer families for the portal, few clinicians did.
- Streamlining the sign up may increase enrollment.
  - ► Simpler enrollment in PROS practices

Provider Focus Groups

- Ongoing training and administrative assistance may be needed to further solidify portals as part of clinic's asthma workflow
  - ► "We haven't built a great infrastructure in terms of care coordinators…so until we feel secure that's in place and really well running, it feels like we are putting the cart before the horse."
- The portal was very helpful in identifying children with active asthma symptoms
  - ► "I had this one kid that was doing really bad, we didn't know that until the questionnaire went to them, which prompted an allergy evaluation. She's gotten more on board with things, she has filled [the asthma portal] out and [has] shown improvement"

Themes Related to the Adoption of MyAsthma: Parents Enrolled

- Portal helped identify children with poor asthma control
  - ► "At the beginning, I never would have thought that his asthma was uncontrolled…now I have it controlled."
- Parents responded positively to instant feedback
  - ► "I'm a single parent with three children so I thought that [the asthma portal] would definitely be a time saver…to be able to access the portal via the internet instead of having to call and wait for somebody to call me back"
- Parents cited the timeline as one reason for signing into the survey each month
  - ► "It allowed me to look really in depth about how often she was having a flare."
- Helped start conversations about asthma questions
  - ► "It propelled me to call my doctor more… and to ask more appropriate questions."

- Unaware of the portal; felt that letters were not an ideal method of communication

- Did not feel that child's asthma was a concern; felt asthma was well managed/controlled

  ► "My son's asthma is not very severe, so I think that if it was a significant daily type of problem for our family then I probably would have been interested…."

Conclusions

- Providing MU incentives for the use of portals is warranted because outcomes may be improved

- Participation thresholds should be low to start

- Synergy is needed between technology and office-based programs such as asthma care coordination—Practices need more than technology

- Tools such as this should be focused on children with active health problems—more work is needed to facilitate the identification of these children within EHRs
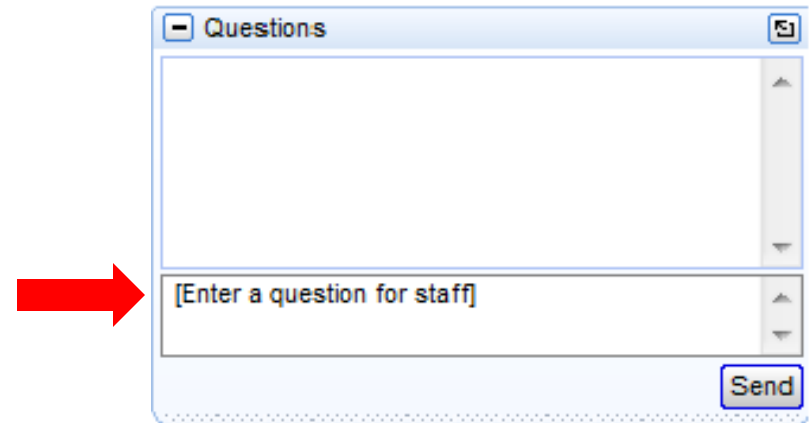
MyAsthma Study Team

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- Bob Grundmeier, MD
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- Vanessa Shorte

How to Submit a Question

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- Electronic health record system user community
  - 34 Federally Qualified Health Centers
  - 180+ clinical sites
  - 14 states

- Practice-based Research Network

- Member of CHARN (Community Health Applied Research Network)

The Challenge of Meaningful Use

Stage 1
• Data capture and sharing

Stage 2
• Support of advanced clinical processes

Stage 3
• Achievement of improved health outcomes

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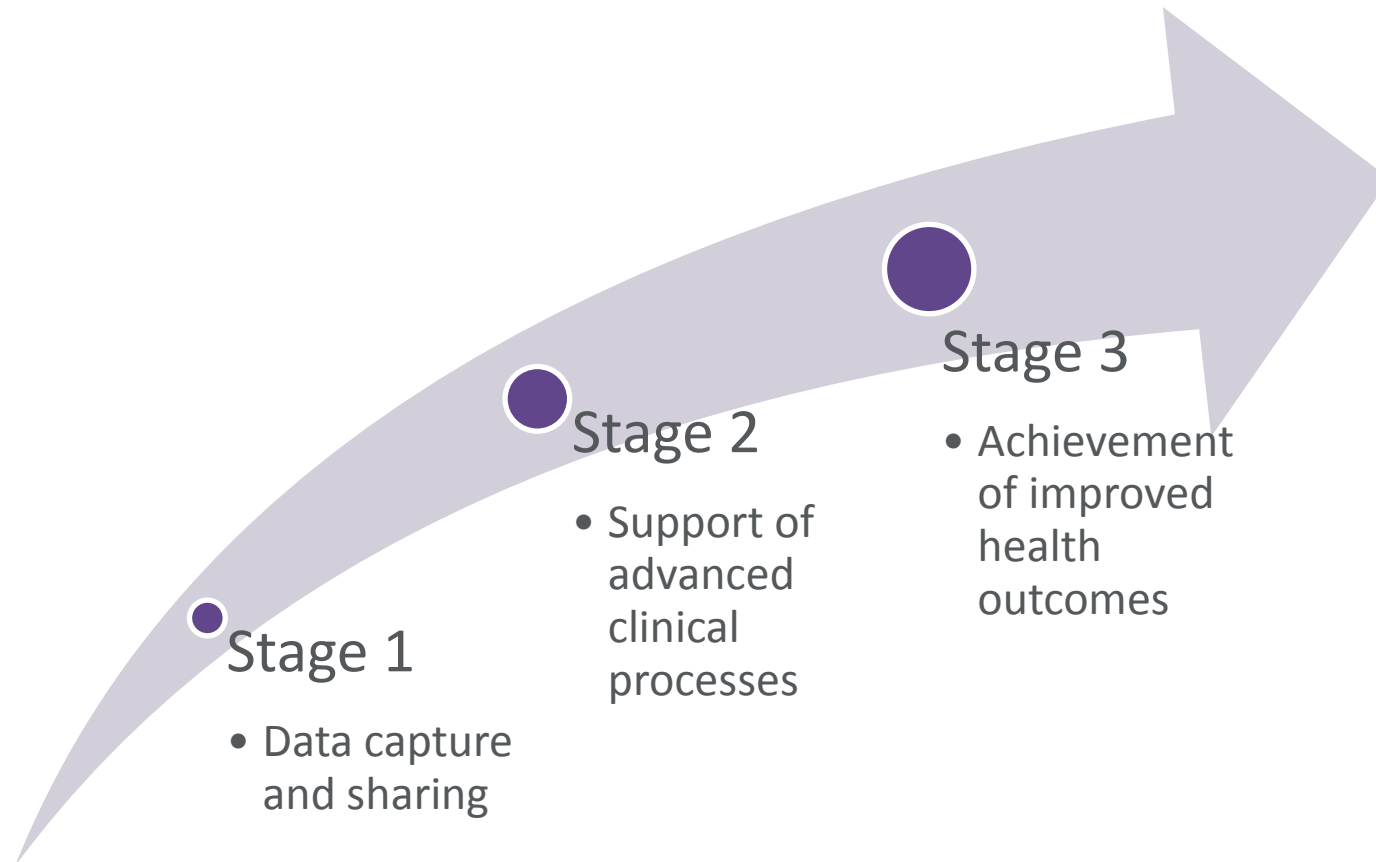
Clinical Decision Support

- Traditional Definition
  - *An electronic system designed to aid in clinical decision making, in which characteristics of individual patients are used to generate patient-specific assessments or recommendations that are then presented to clinicians for consideration*[1]

    ➡ alerts, reminders, order sets

- Contemporary Definition
  - *A process for enhancing health-related decisions and actions with pertinent, organized clinical knowledge and patient information to improve health and healthcare delivery*[2]

    ➡ people and processes are as important as the electronic system

1. Kawamoto et al. *BMJ* 2005;330:765.
2. Osheroff et al. *Improving Outcomes with Clinical Decision Support: An Implementer's Guide.* 2012.

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Clinical Decision Support and Clinical Outcomes

- The Evidence
  - CDS has had a modest effect on clinical processes
  - CDS has had a minimal effect on clinical outcomes

- Leading explanations
  - Lack of integration of CDS with clinical workflows
  - Lack of built-in capabilities to support population health management

- Potential Solutions
  - Implementation toolkits
  - Practice coaches

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Stage 3 Clinical Decision Support (CDS) Objective

- Objective
  - To promote the use of CDS to improve performance on high priority health conditions
  - To support higher levels of outcomes-oriented population health management

- Proposed requirements
  - Number of CDS interventions implemented
  - Target areas for CDS interventions
    - Preventive care
    - Chronic disease management
    - Appropriateness of lab/radiology orders
    - Advanced medication management
    - Problem list, medication list, and drug allergy list management
    - Checks for drug-drug and drug-allergy interactions

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Study Aims

1. To determine the intensity of support needed by Federally Qualified Health Centers (FQHCs) to achieve the goal of the Stage 3 Meaningful Use CDS Objective (to improve performance on high priority health conditions)

    ➤ Intensity of support
    - Low: CDS implementation tool kit
    - High: CDS implementation tool kit + practice coaching
    ➤ Health conditions
    - Cardiovascular disease prevention
    - Asthma

2. To determine how the intensity of support needed varies by the health center's care management infrastructure (measured by their patient centered medical home level)

Participating Health Centers

	CHC A	CHC B	CHC C
Geographic Characteristics	Urban	Rural	Urban
Demographic Characteristics	Predominantly Black and Hispanic	Predominantly White; 14% Hispanic, 12% Native American	Predominantly Black
# Annual Patient Visits	33,000	34,000	50,000
# Sites	8	10	14
PCMH Status	0	2	3

Approach

Site-randomized Trial
Six month duration

Low PCMH 4 sites	Medium PCMH 4 sites	High PCMH 4 sites
Tool kit 2 sites	Tool kit 2 sites	Tool kit 2 sites
Tool kit + Practice Coach 2 sites	Tool kit + Practice Coach 2 sites	Tool kit + Practice Coach 2 sites

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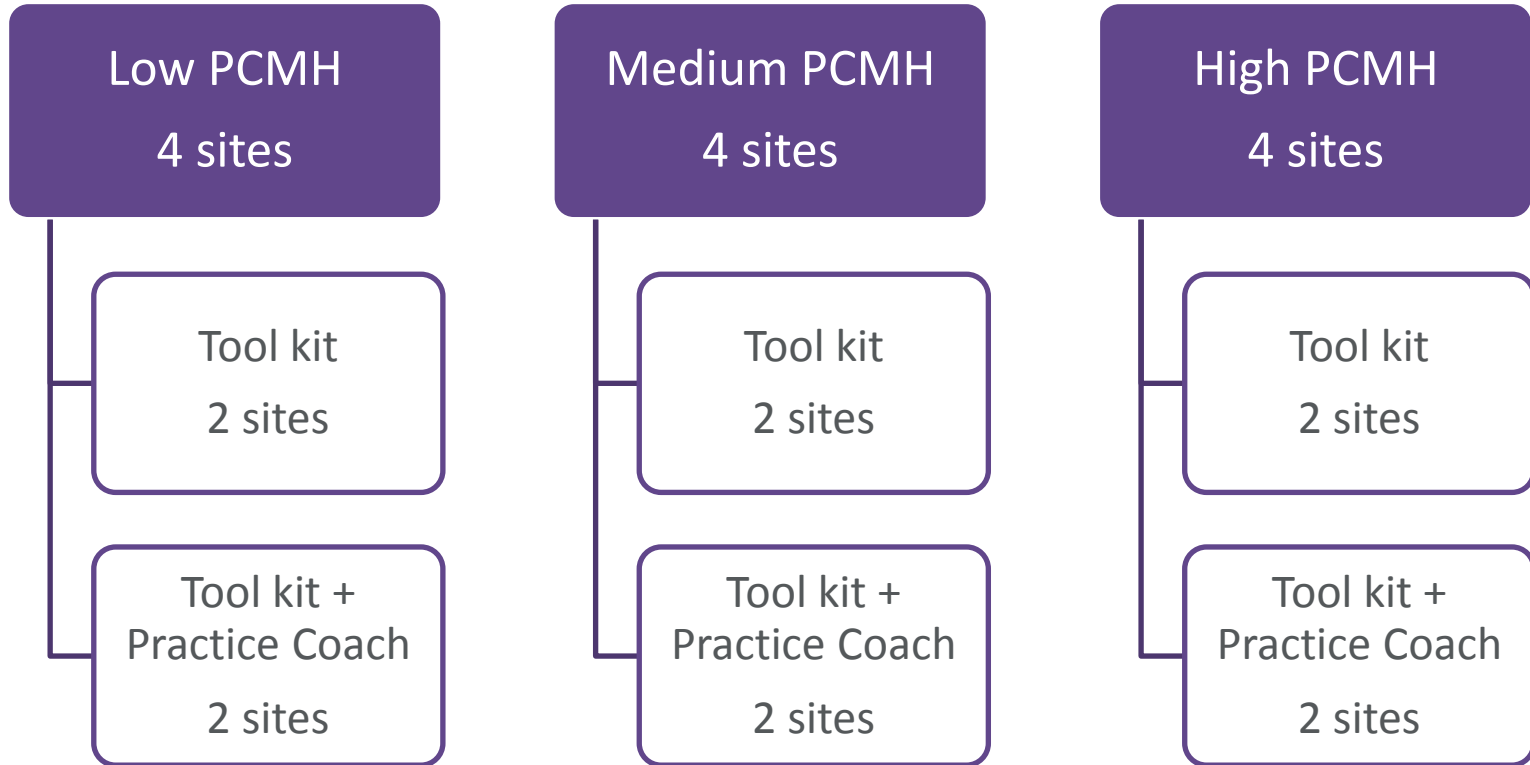
Outcomes

	Asthma	Cardiovascular Disease Prevention
Use of CDS Interventions	Assessment of asthma severity	Estimation of CVD Risk (Framingham Risk Score, ASCVD Risk Calculator)
Clinical Outcome (Appropriate medication prescribing)	Controller medication for patients with persistent asthma	Statin for patients with high estimated CVD risk

Intervention

CDS Implementation Teams

- 3 member "CDS implementation team" assembled at each site
  - Team members
    - Physician or mid-level provider (NP or PA)
    - Nurse (RN or LPN)
    - Medical assistant
  - Training
    - 2 hour training on CDS Implementation Tool Kit (pre-randomization)
  - Time
    - Each team member funded 2 hours/month x 6 months
  - Support
    - Monthly feedback on performance on target measures
    - Health IT support

Intervention

Study Arms

- Lower Intensity
  - 2 hours/month x 6 months
  - Teams work through CDS Implementation Tool Kit on own
  - Submit monthly progress reports
- Higher Intensity
  - 2 hours/month x 6 months
    - 1 hour/month with Practice Coach
    - 1 hour/month on own
  - Teams work through CDS Implementation Tool Kit
  - Submit monthly progress reports and receive feedback from practice-coach

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CDS Tools

- Primary Prevention of Coronary Heart Disease
  - Risk factor assessment reminders
  - Estimation of 10 year CVD risk using the Framingham Coronary Heart Disease Risk Score
  - Order sets to facilitate guideline concordant medication prescribing:
    - Statins for FRS ≥ 10%
  - Low health literacy appropriate patient education materials

- Asthma Management
  - Trigger assessment tool
  - Asthma severity assessment
  - Asthma control assessment (ATAQ)
  - Order sets to facilitate guideline concordant medications prescribing:
    - Controller medication for persistent asthma
  - Asthma Action Plan
  - Patient Education Tools

CDS Implementation Tool Kit

The CDS 5 Rights: A framework for guiding CDS implementation

1. The *right information*
    *   evidence-based, suitable to guide action, pertinent to the circumstance

2. To the *right person*
    *   considering all members of the care team, including clinicians, patients, and their caretakers

3. In the *right CDS intervention format*
    *   such as an alert, order set, or reference information to answer a clinical question

4. Through the *right channel*
    *   for example, an electronic health record, personal health record, or a more general channel such as the Internet or a mobile device

5. At the *right time in workflow*
    *   at time of the decision/action/need

CDS Five Rights Tool Kit

Helps users apply a structured approach

- Understand current information flow/workflow
- Consider each care flow step
- Identify opportunities to improve CDS integration, improve communication
- Brainstorm and implement enhancements

Patient-specific Activities

During Office Visit

| Not Visit Related | Before Patient Comes to Office | Daily Care Team Huddle | Check-in/ Waiting/ Rooming | Provider Encounter | Encounter Closing | After Patient Leaves Office |

Population-oriented Activities

Outside Encounters [Population management]
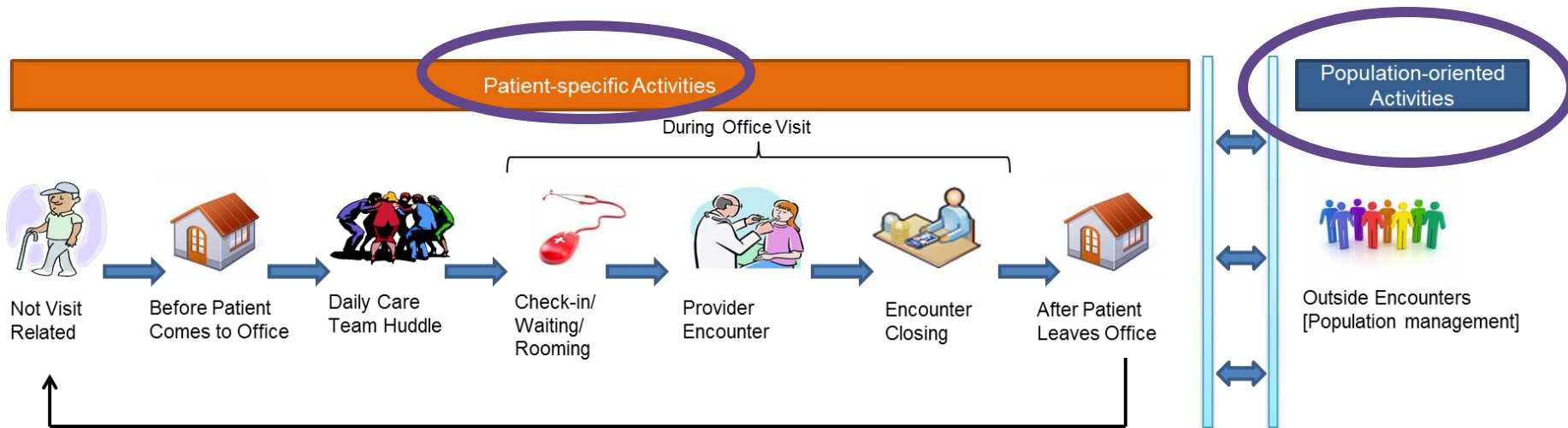
Example of Worksheet from Tool Kit

Target	
Current Performance on Target	
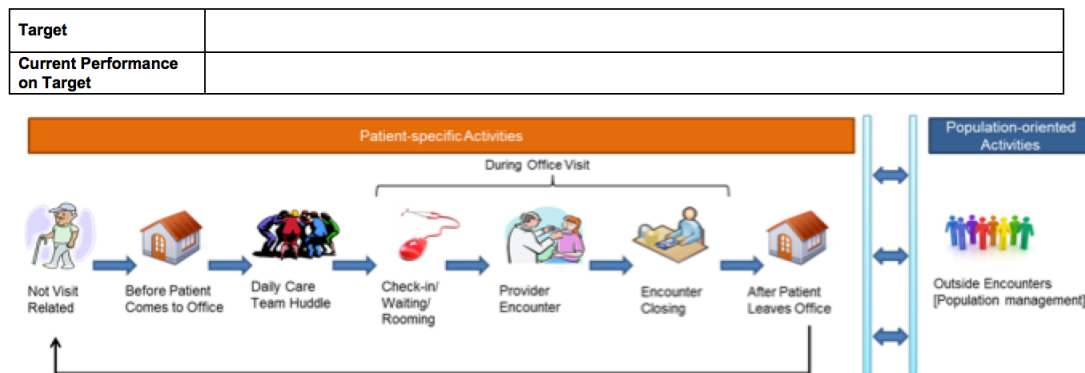
CDS/QI Approach Summary

	Not Visit Related	Before Patient Comes to Office	Daily Care Team Huddle	Check-in/ Waiting/ Rooming	Provider Encounter	Encounter Closing	After Patient Leaves Office	Outside Encounters [Population management]
Current Information flow								
Potential Enhancements								

	Not Visit Related	**Description:** Not related to a patient's visit to the office/clinic or just before or after that visit.
	Current Information flow	○
	Potential Enhancements	○

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Team Characteristics
Quality Improvement Training

Prior to working on the CDS 5 Rights team, how much training did you have regarding quality improvement methods?
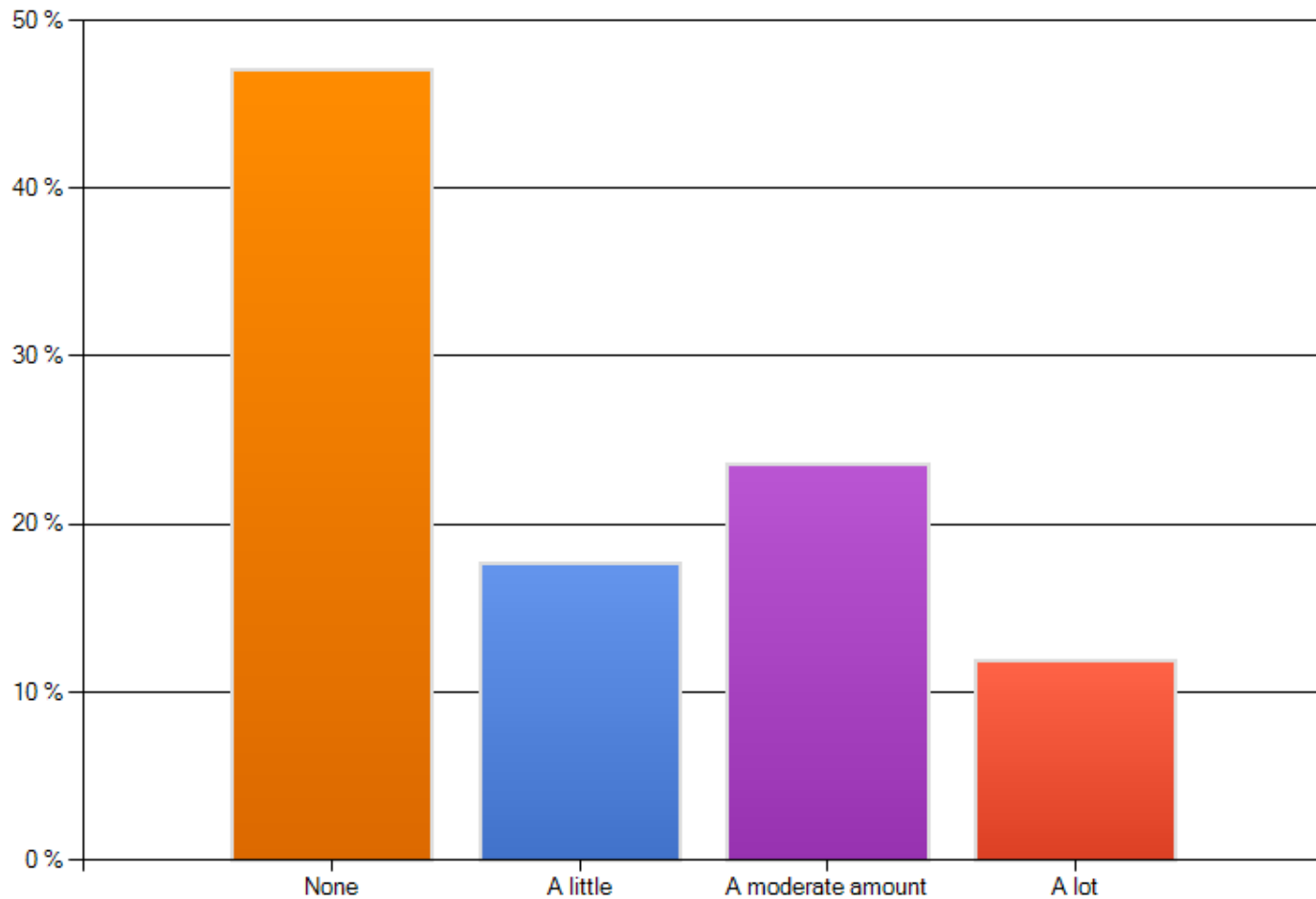
Team Characteristics

Quality Improvement Experience

Prior to working on the CDS 5 Rights team, how much experience did you have working on quality improvement projects?
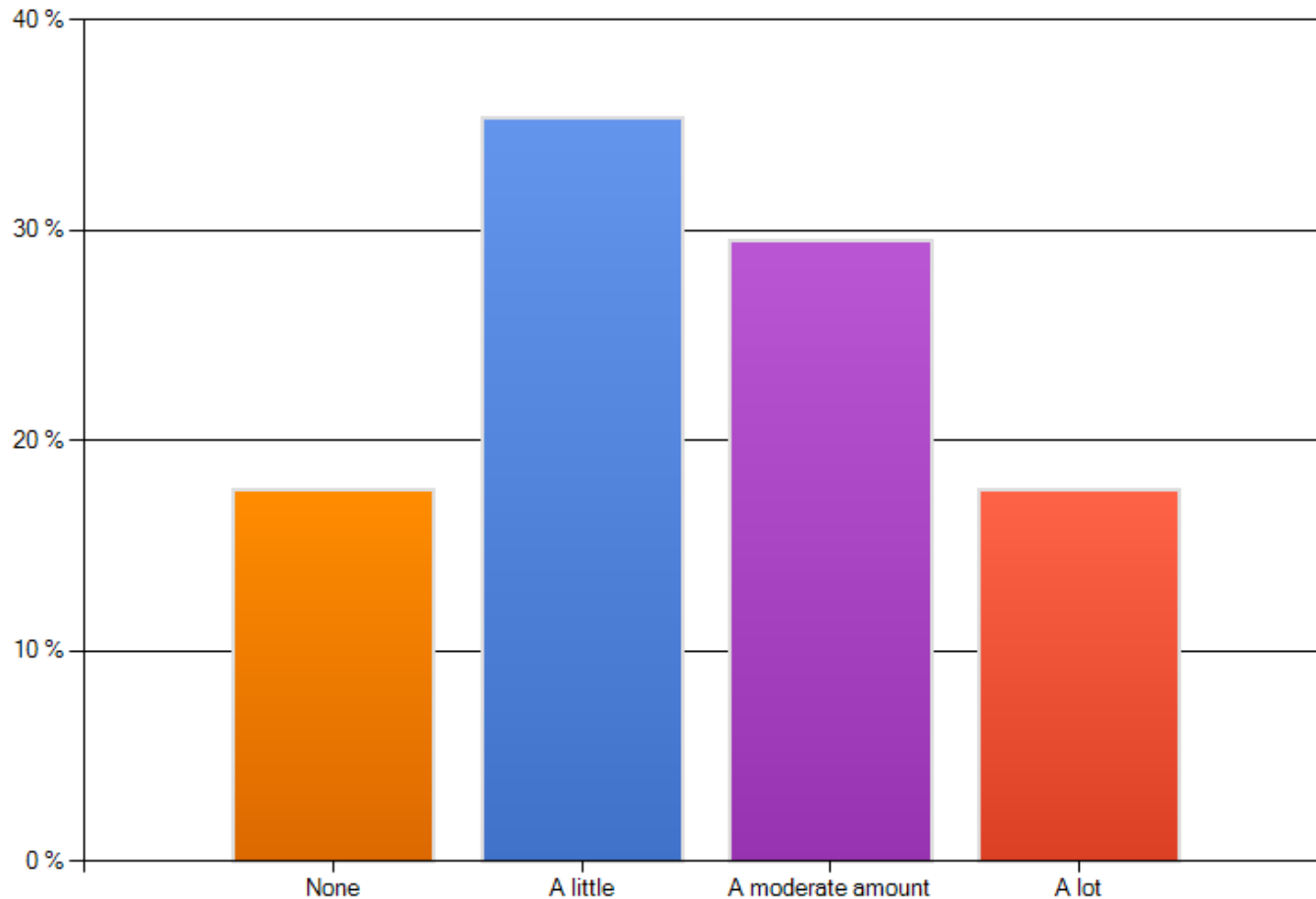
Staff Evaluation of CDS Tools

The asthma CDS tools help me to improve the health of patients with asthma.
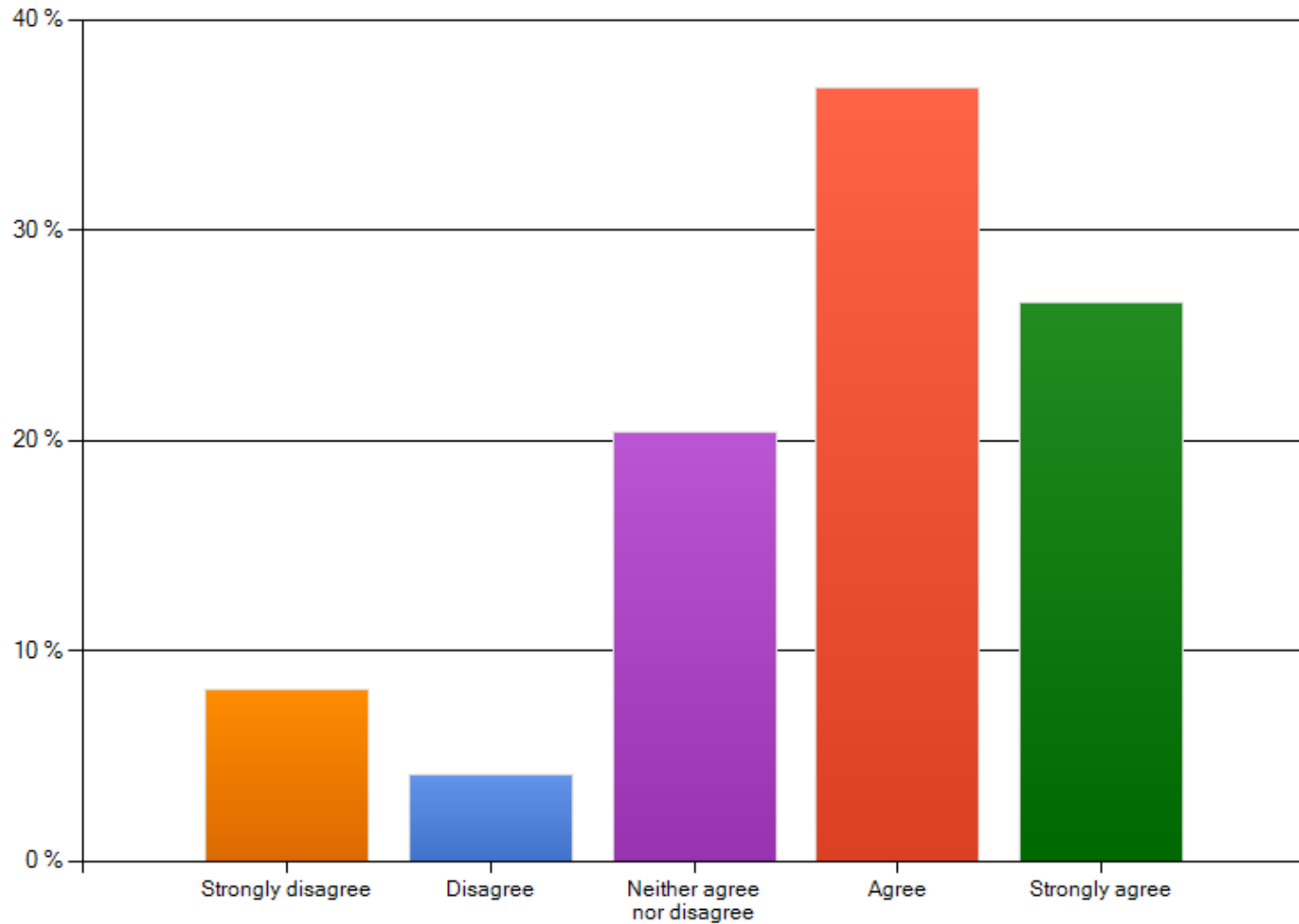
Staff Evaluation of CDS Tools

The cardiovascular disease CDS tool helps me to improve the health of patients at risk for cardiovascular disease.
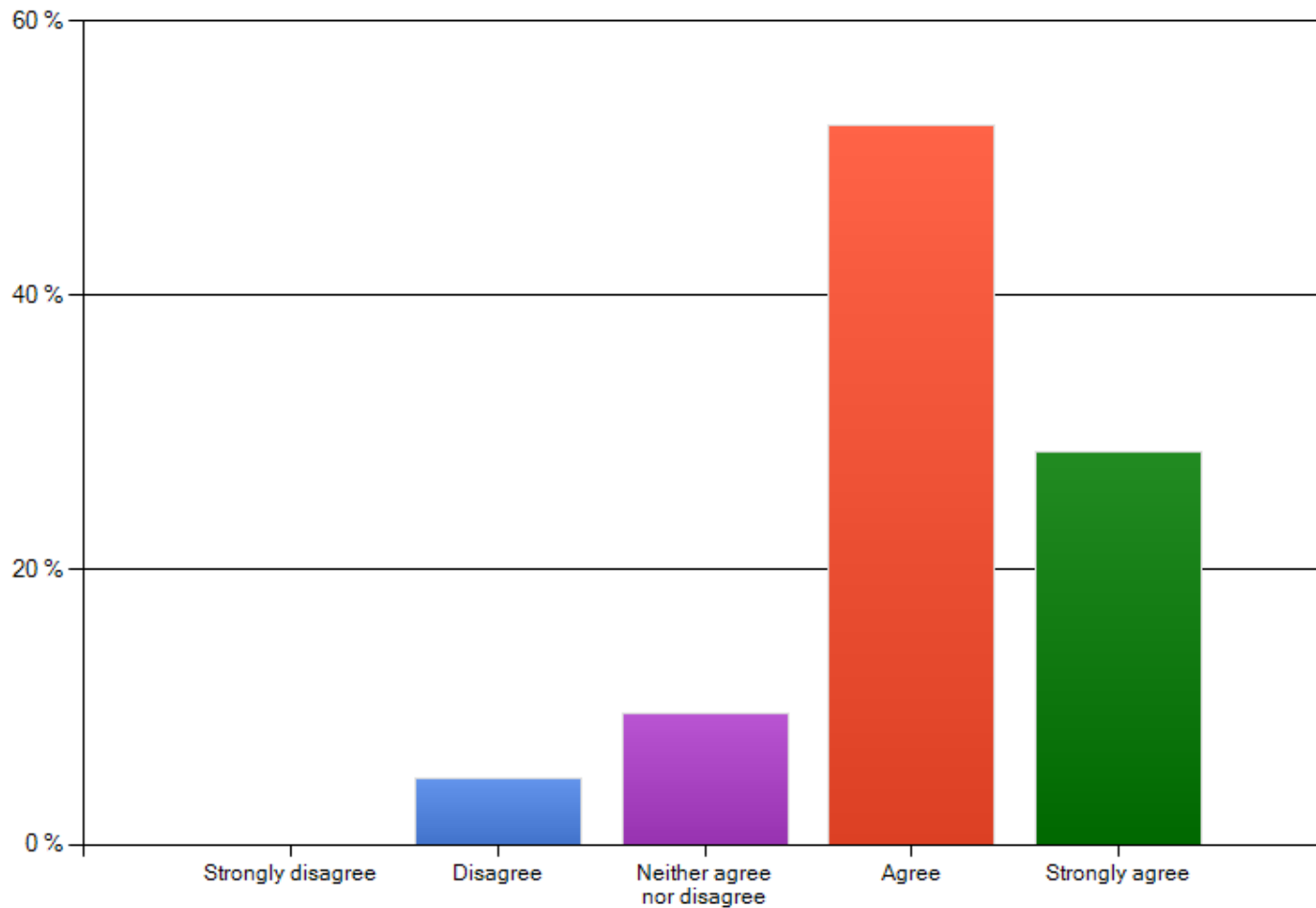
Team Evaluation of CDS Implementation Tool Kit

	Strongly Agree or Agree
Tool kit is easy to use	17.7%
Felt confident using tool kit	23.5%
Others could learn to use the tool kit quickly	29.4%
Tool kit is too complex	76.5%
Tool kit is too cumbersome	58.8%

Results

Change in CDS Use and Achievement of Clinical Targets for the Low and High Intensity Groups: 3 month baseline vs. 3 month post intervention

	Absolute % Change: Low Intensity Group	Absolute % Change: High Intensity Group	Difference in Difference
CVD Risk Assessed	-2.8**	4.3**	7.2%**
Statin Rx for High Risk	-4.7	-3.6	1.0
Asthma Severity Assessed	9.2**	7.3**	-1.9
Controller Rx for Persistent Asthma	0.6	-1.9	-2.6

**P < 0.01

* P < 0.05

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Opportunities for Improved CDS/Clinical Workflow Integration Identified by the CDS Implementation Teams

- Recognition that changing provider behavior is not the only target
- Leverage the full care team
- Leverage care opportunities outside the traditional patient-clinician office visit
  - Pre-visit preparation
  - Inter-visit outreach
- EHR enhancements
  - Increase CDS availability to nurses and MAs
    - Result templates
    - Phone templates
    - Vital signs
  - Attention to burden of data entry for highest level providers: MD, PA, NPs

Conclusions

- Use of a CDS Implementation Tool Kit, with or without practice-coaching, led to modest improvements in the use of CDS targeting CVD prevention and asthma management at 6 months
- Use of a CDS Implementation Tool Kit, with or without practice-coaching, did not lead to improvements in the CVD and asthma clinical targets at 6 months
  - CDS Tools
  - CDS Implementation Tool Kit
  - Short study duration
- Results did not differ based on the health centers' baseline PCMH infrastructure

Implications for Practice Improvement

- The use of relatively low intensity, publicly and freely available tool kits may help safety net practices to increase the use of priority CDS interventions

- Further study is needed to assess the impact of these tool kits on clinical outcomes
  - Simpler/revised tool kit
  - More experienced implementation team
  - More advanced "out of the box" population health management tools

- Continued attention to CDS/Workflow integration is important

Implications for Dissemination

- The CDS 5 Rights Tool Kit is a CDS implementation resources that can be applied to a diverse set of practice settings and EHR platforms

- Even without practice coach support, using the CDS 5 Rights Tool Kit requires the commitment of significant staff time and support

Policy Implications

- The Meaningful Use CDS Objectives have focused on the CDS intervention capabilities.

  - Consider providing more explicit guidance regarding the care processes that can optimize the impact of those CDS capabilities.

  - Consider directly incentivizing validated QI processes that are important for the delivery of high quality preventive care and chronic disease management, not just the (CDS) technology that is required.

  - Consider incentivizing improvement on a small number of conditions rather than weak use of multiple CDS interventions.

- Set higher standards for "out of the box" functionality to support population health management within certified EHRs.

  - Include higher standards for the usability of the CDS functions

Study Team

Northwestern
- Mya Carter
- Ji Young Li
- Kenzie Cameron, PhD

Other Collaborators
- Yunfeng Shi
- Jerry Osheroff, MD

Alliance
- Fred Rachman, MD
- Andrew Hamilton, RN
- Sarah Rittner
- Marjorie Altergott, PhD
- Anne Newland, MD
- Tim Long, MD

Thank you

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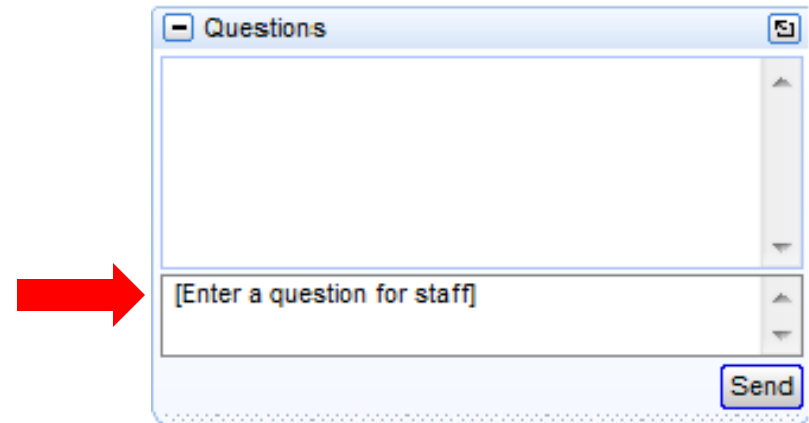
Care Coordination Enabled by Health IT: What Will It Take?

January 28, 2015

Disclosures

We have no financial disclosures.

Partnership

- **National Committee for Quality Assurance (NCQA)**

- **American Academy of Family Physicians National Research Network (AAFP NRN)**

- **Primary Care Information Project, New York City Department of Health and Mental Hygiene**

Project Overview

- **Goal to assess proposed care coordination objectives for Stage 3 of Meaningful Use Program**
  - **Feasibility**
  - **Clinical acceptance**

- **Mixed Methods**
  - **Survey of Patient-Centered Medical Home (PCMH) practices**
  - **Interviews and observations at selected practices**

Proposed MU Objectives for Care Coordination

1. The clinical summary for patients should be pertinent to the office visit, not just an abstract from the medical record.
2. Use computerized provider order entry for referrals/transition of care orders
3. Provide a summary of care record for each site transition or referral when transition or referral occurs with available information
4. Provider receiving referral acknowledges receipt of external information and provides referral results to the requesting provider, thereby beginning to close the loop.
5. Electronic notification of a significant healthcare event in a timely manner to key members of the patient's care team, (significant event = arrival at an Emergency Department (ED), admission to a hospital, discharge from an ED or hospital, or death)
6. Generate lists of patients for multiple specific conditions and present near real-time patient-oriented dashboards

NCQA Measuring quality. Improving health care.

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Respondents

	% of Survey Respondents N=350	% of Case Study Practices N= 13
Practice Type		
FQHC/Community Health Center	**26.0**	**30.8**
Hospital, hospital system, health care system, or HMO	**26.3**	**23.1**
Physician-owned, <5 FTE clinicians	**25.1**	**30.8**
Physician-owned, >= 5 FTE clinicians	**22.6**	**15.4**
EHR System		
eClinicalWorks	**20.7**	**30.8**
Allscripts	**14.6**	**23.1**
NextGen	**14.0**	**0.0**
Epic	**13.4**	**8.0**
GE/Centricity	**7.0**	**8.0**
Other	**30.3**	**30.8**

Variation in Performance of Care Coordination Activities

Horizontal bar chart titled "Perform Activity Routinely (%)"

- Provide clinical summaries: 81.4
- Send referral requests: 92.3
- Send comprehensive medical summary: 69.4
- Respond to requests for information: 90.0
- Track urgent referrals: 68.6
- Track non-urgent referrals: 57.4
- See consultation/diagnostic reports: 82.0
- Reminders for interventions/screenings: 74.3
- Identify hospitalizations: 75.4
- Identify ED visits: 63.1

■ Perform Activity Routinely (%)

Care Coordination Often Done Without Health IT Support

Chart: Horizontal bar chart comparing "Perform Activity Routinely (%)" and "Use Electronic System Routinely (%)"

Activity	Perform Activity Routinely (%)	Use Electronic System Routinely (%)
Provide clinical summaries	81.4	76.6
Send referral requests	92.3	68.6
Send comprehensive medical summary	69.4	45.4
Respond to requests for information	90.0	54.0
Track urgent referrals	68.6	51.7
Track non-urgent referrals	57.4	51.7
See consultation/diagnostic reports	82.0	53.4
Reminders for interventions/screenings	74.3	64.9
Identify hospitalizations	75.4	48.9
Identify ED visits	63.1	39.4
Have remote access to records		80.9

■ Perform Activity Routinely (%)   ■ Use Electronic System Routinely (%)

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Health IT Support Doesn't Always Match Importance
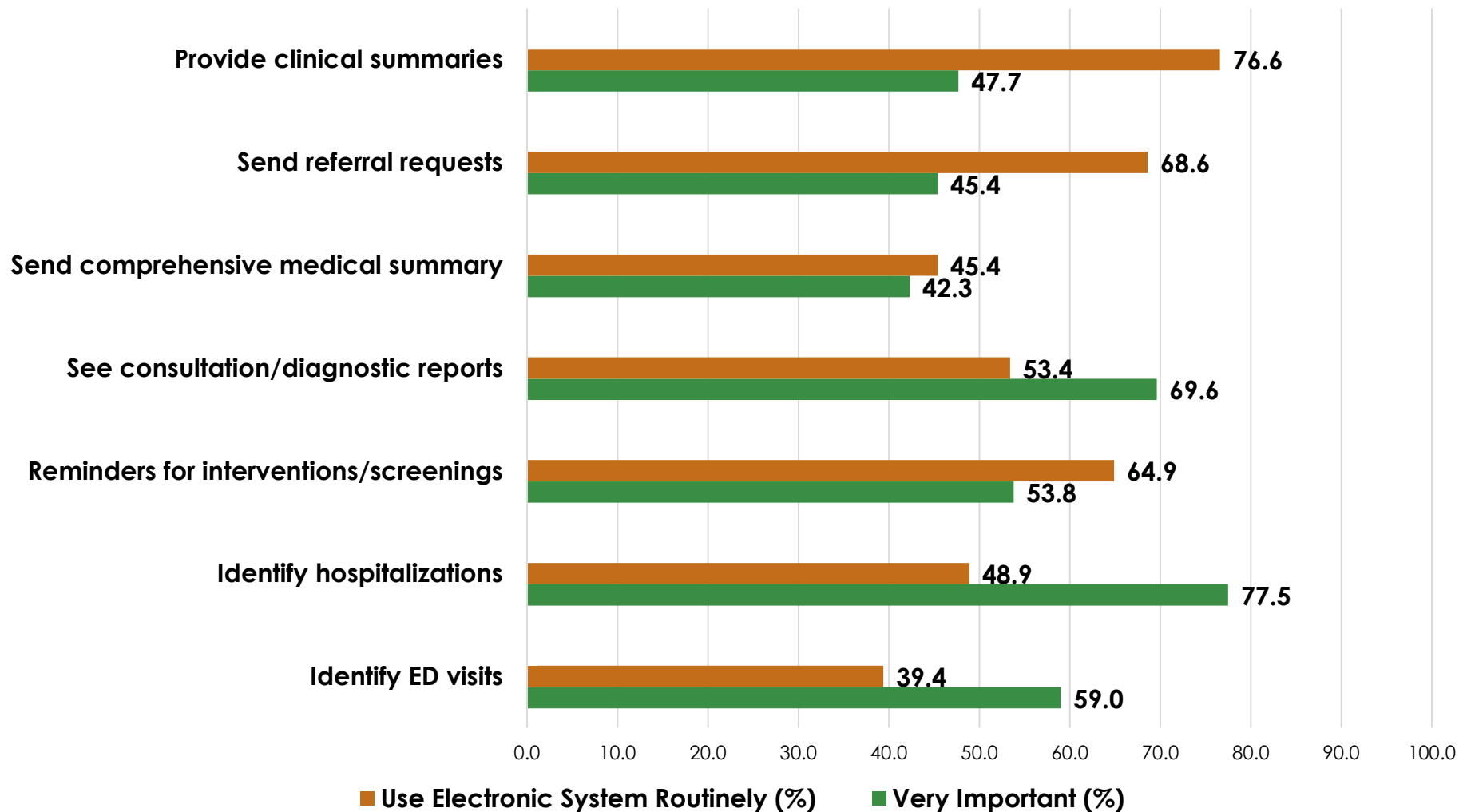
Practice Characteristics Associated with Care Coordination and Health IT Use (n=332)

	Care Coordination Index Odds Ratio (95% C.I.)	Health IT Index Beta Coefficient (p-value)
Rural/suburban	2.5 (1.2, 5.3)	NS
Financial concerns	0.4 (0.2, 0.8)	NS
Change strategies	1.1 (1.0, 1.2)	0.2 (p <.0001)
Have non-clinician in charge of care coordination	1.9 (1.0, 3.5)	0.7 (p=.01)
Consultation/Support	2.6 (1.1, 6.4)	0.6 (p=.06)

Practice type and PCMH level were not significant in either model.

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Case Study Analysis

Observations of:

- Workflow

- Technical capability

- Extent to which goal of objective achieved

Findings from Case Studies

	Workflow exists	Technical capability exists	Extent to which overall goal of the objective is achieved
Clinical summary that is pertinent to visit	Yes	Yes	Wide variation, mostly low
Referral order entry	Yes	Yes	Low
Summary of care record provided when referral made	Yes	Yes	Low
Acknowledgement of receipt *and* referral results provided	Partial	Partial	Partial
Generate patient lists and real-time dashboards	Partial	Varied	Moderate
Notification of significant health care events	Yes	Not within EHRs	Low

Summary of Themes

1. **Variation in perceived importance of objectives**

2. **High variation in workflow and how EHR and other health IT capabilities are used**

3. **Fax and telephone dependency remains high**

4. **Proactive population health management lower than expected (even when patient registries available and used for care)**

Summary of Themes, cont.

5. **Even with EHR capabilities and electronic information exchange, care coordination requires significant, dedicated staff and resources**

6. **Buy-in to MU care coordination is context-specific**

7. **Motivation/solutions to address fragmentation of care is local**

EHR System Vendor Engagement

- **Vendors want more information but not prescriptive rules**

- **Vendors want info on user perspective and clinical processes and workflow**

- **Standards necessary for the proposed objectives may not be mature enough to fully support interoperability (e.g., standard formats for referrals)**

Recommendations

- **Create standardized models for care coordination workflow with *explicit steps for engaging patients***

- **Enhance interoperability standards for systems**

- **Allow flexibility to use non-EHR systems for incentives**

- **Encourage payment models that support data sharing and care coordination**

- **Provide technical support to practices**

Conclusions

- **Practices vary in performance of proposed Meaningful Use objectives related to care coordination**

- **Clinical relevance does not always match current health IT capability**

- **Standard workflows and enhanced interoperability are needed**

- **Many practices need financial and technical support**

- **Engaging patients in care coordination should be a priority**

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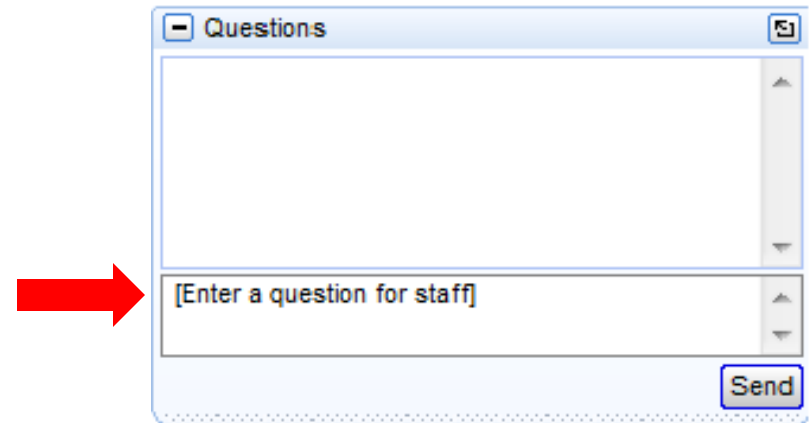
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