

Building the Health Information Technology (HIT) Workforce for Rural Primary Care Practices

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Definitions

- **Health Information Technology (HIT):**
“Technologies that manage and transmit health information for use by providers, consumers, payers, insurers, and all the other pertinent groups”
- **Electronic Health Record (EHR)**
“An electronic record of health-related information for a patient that contains information captured in clinical visits, lab and imaging studies, and other information important to the patient’s medical past”

PCAST (President’s Council of Advisors on Science and Technology) 2010

Background

- Effective implementation of EHRs and HIT is necessary to deliver the quality and payment reforms included in the Affordable Care Act.
- To enable rural primary care providers to keep pace, specific workforce needs and barriers must be identified and addressed.

EHR/HIT Incentives and Resources

- **Meaningful Use:**
 - requirement (linked to Medicare/Medicaid payment and funding) that EHRs possess functionalities needed to meet specific criteria (e.g., e-prescribing, exchange of information with other providers, reporting clinical quality measures to CMS)
- **HITECH (Health Information Technology for Economic and Clinical Health) Act:**
 - Direct dollars to hospitals and providers who adopt and "meaningfully use" an EHR system (\$14-20 billion over 5 years beginning 2011)
- **Regional Extension Center (REC) Program:**
 - Assistance to providers to purchase and implement EHR systems, with emphasis on primary care
- **Office of the National Coordinator for HIT (ONC)**
 - Community college and Baccalaureate curriculum for HIT workforce education

The HIT Workforce Needs of Rural Primary Care Practices



Building the HIT Workforce for Rural Practices

Your response to this survey is needed to help understand the workforce challenges you face in using electronic health records (EHR) and health information technology (HIT). Thank you for taking the time to complete this questionnaire.

Please direct this questionnaire to the person in your office who is most knowledgeable about staffing issues

Study Purpose:

- To assess HIT workforce resources needed now and in the near future by rural primary care practices, and workforce-related barriers to implementing and using HIT

I.e., Do rural primary care practices:

- need more staff with HIT skills? If so, what type?
- need more health informaticists?
- need more vendors and contractors to fill skill gaps?

Methods

- 2012 cross-sectional survey of 2,000 rural primary care practices in 13 states
- Complex sample identification process (no complete list of rural primary care practices exist)
 - practice sites identified from physician, physician assistant (PA) and nurse practitioner (NP) professional license addresses
- Mixed method (Paper questionnaire sent by mail with web response option)
- States: AZ, GA, IA, ID, KY, ME, MN, OH, OK, OR, TX, VA, VT (from all US Census regions)
- Rural areas identified using Rural-Urban Commuting Area (RUCA) codes



Key Questionnaire Components

- EHR/HIT implementation status
- EHR/HIT workforce demand
- Barriers to use of HIT
- EHR/HIT workforce skills available and needed
- Practice characteristics (size, type, geographic location)



National Trends in EHR Adoption

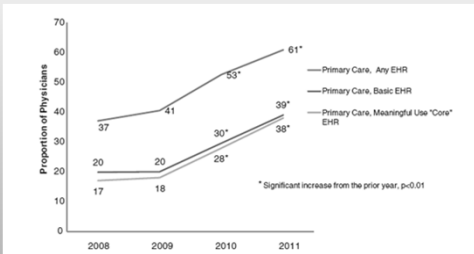
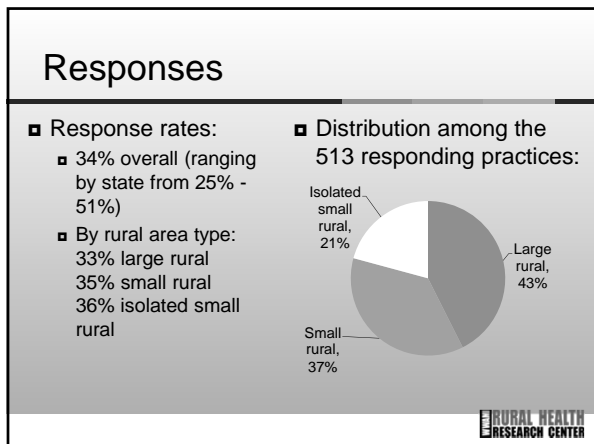


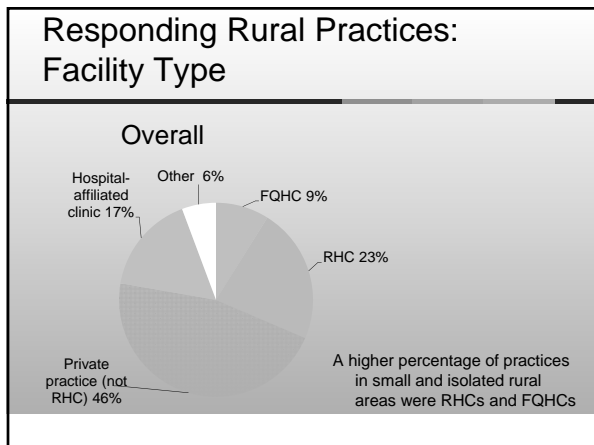
Figure 1. EHR adoption rates among primary care physicians: 2008–2011 (n=5,262).

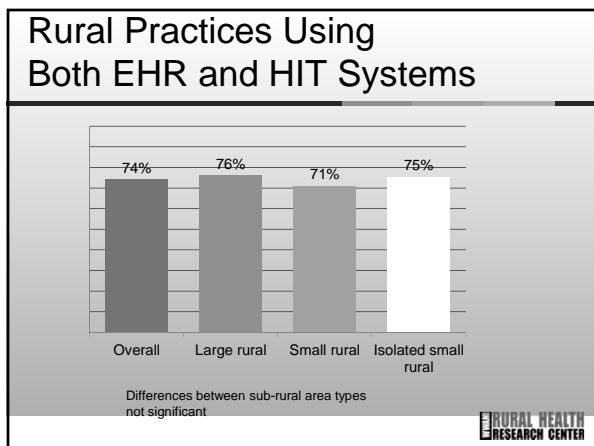
From: Patel et al., Variation in Electronic Health Record Adoption and Readiness for Meaningful Use: 2008 – 2011. *J Gen Intern Med*, 2013 Feb 1 (epub ahead of print) (Note: No significant difference rural vs. urban)

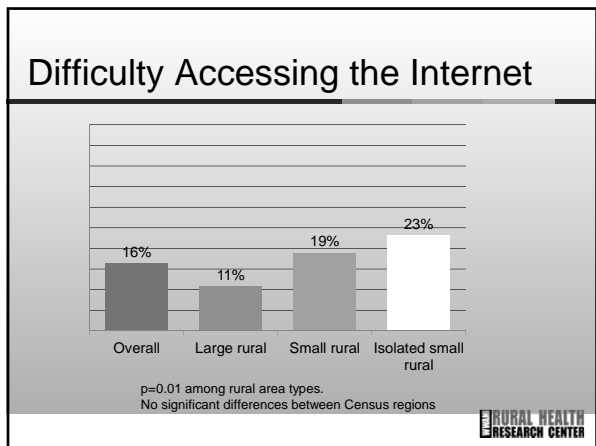
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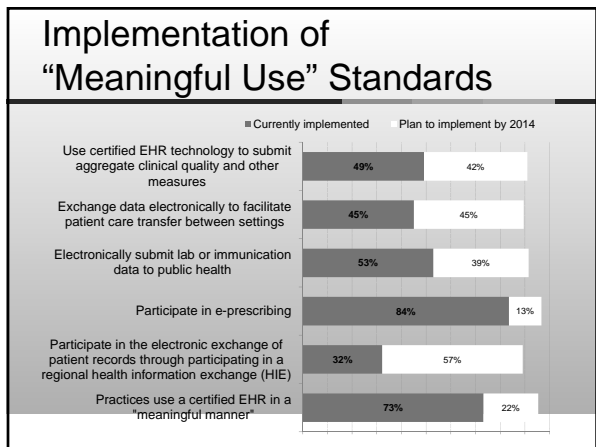


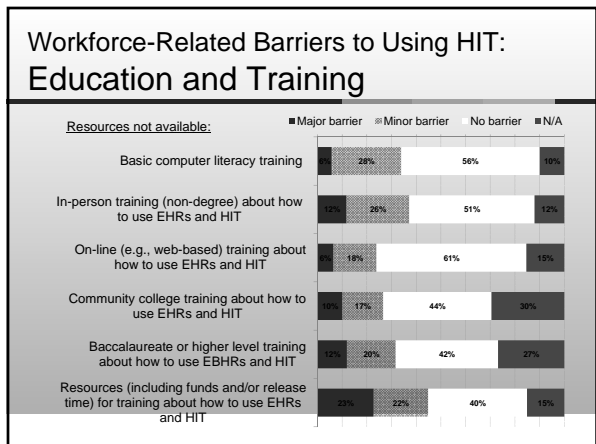


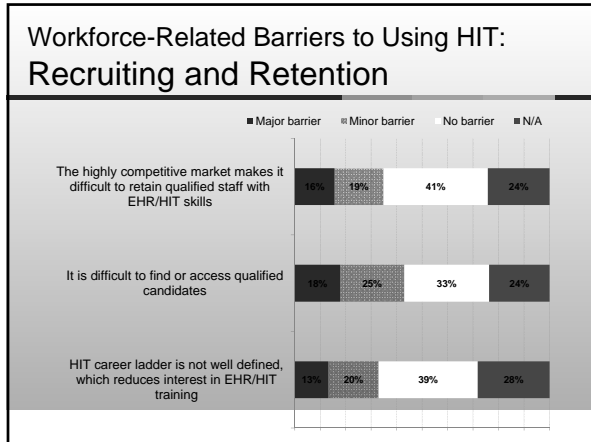


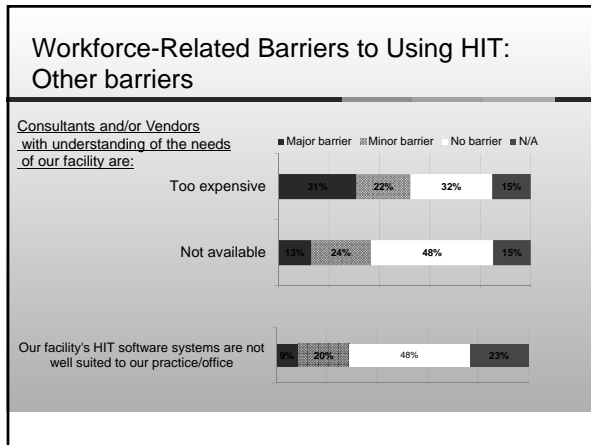













- ### HIT Workforce Skills: Questions addressed
- **Basic skills:**
 - Basic desktop/computer skills, operational medical terminology, patient information flow, understanding how data flow from EHR affects usefulness of information the system can provide.
 - **Intermediate skills:**
 - Knowledge of HIT products, contracting, privacy/security; meaningful use requirements; HIT for patient management/education; data management...
 - **Advanced skills:**
 - Management skills to direct staff in use of EHR/HIT systems, ability to use data from HIT systems to manage care for patient populations

Workforce Skills Gaps	
For basic, intermediate and advanced-level HIT skills:	Range of %
Our practice has adequately skilled staff	46-79%
We will obtain training for current staff	20-44%
We will hire new staff	3-6%
We will hire a contractor or vendor	0-7%
Our practice does not need	1-4%
Don't know	2-12%

Workforce Skills Gaps - Areas of Greatest Need	
Need staff training for:	
Data management, analysis, report creation and data sharing	44%
Understanding how the quantity and quality of data entered into an EHR affects the usefulness of information that the system can provide	41%
How to comply with meaningful use requirements	40%
Clinical knowledge and understanding of uses of HIT for individual patient management/education	39%
Ability to use data from HIT systems to manage care for patient populations	38%


CONCLUSIONS



Conclusions

EHR/HIT Implementation in rural primary care practices:

- Most rural primary care practices expect to have implemented EHR/HIT systems and be compliant with most "meaningful use" requirements by 2014




Conclusions

Personnel needed:

- Rural primary care practices expect to rely on the existing skills of their current workforce and/or obtain more training for these staff
- Few expected to hire a contractor or vendor for workforce training

Barriers:


- Many practices reported that the expense of consultants and vendors was a barrier to implementing and using EHRs/HIT
- Many practices reported barriers to accessing college EHR/HIT programs or said college programs were not applicable to their workforce needs



Conclusions

EHR/HIT skills training most needed:

- Data management, analysis, report creation and data sharing
- Data quality management
- Compliance with meaningful use
- Patient and population health management




Implications for Policy, Delivery, or Practice



Implications

- To overcome workforce-related barriers to EHR/HIT implementation and use in rural primary care:
 - Intermediate and advanced skills training are needed for staff, but where/how to get the skills?
 - Are community college HIT programs appropriately targeted to needs?
 - Will new HRSA rural HIT workforce grants strengthen community college-/rural practice ties?
 - How can vendors/contractors be more accessible and useful to rural primary care practices?



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