

# Multi-Grantee Technical Assistance Meeting — Provider Engagement: Recruitment, Engagement, and Retention

**Prepared for:**

Agency for Healthcare Research and Quality  
U.S. Department of Health and Human Services  
540 Gaither Road  
Rockville, MD 20850  
<http://www.ahrq.gov>

**Contract No. HHSA-290-2009-00014I**

**Prepared by:**

Booz | Allen | Hamilton

*Authors*

Sandy Lesikar, Ph.D.  
Barbara Lund

**AHRQ Publication No. 11-0051-EF**

**January 2011**



# Contents

- Chapter 1. Background ..... 1
- Chapter 2. Meeting Summary ..... 2
  - Presenters, Discussants and Facilitator ..... 3
    - Presenter: Lyle J (LJ) Fagnan, M.D., Associate Professor of Family Medicine, Oregon Health and Science University ..... 3
    - Presenter: Sarah Shih, M.P.H., Executive Director of Health Care Quality Information and Evaluation, Primary Care Information Project (PCIP) and New York City Regional Extension Center ..... 4
    - Discussant: Michael Richter, M.D. .... 6
    - Discussant: Chris Shanahan, M.D. .... 6
    - Discussant: Albert Thompson, M.D. .... 7
- Chapter 3. Questions and Answers ..... 8
- Appendix: Presenter and Discussant Bios ..... 12
  - Presenter: Lyle J (LJ) Fagnan, M.D., Associate Professor of Family Medicine, Oregon Health and Science University ..... 12
  - Presenter: Sarah Shih, M.P.H., Executive Director of Health Care Quality Information and Evaluation, Primary Care Information Project (PCIP) and New York City Regional Extension Center ..... 12
  - Discussant: Michael Richter, M.D. .... 12
  - Discussant: Chris Shanahan, M.D. .... 13
  - Discussant: Albert Thompson, M.D. .... 13

# Chapter 1. Background

Provider participation and input are critical to the success of many health information technology (IT) research projects. Thus, soliciting and maintaining the attention of providers is of key importance. Provider involvement is necessary for many research interventions, including workflow and system modification, patient surveys and data collection, data integration, clinical decision support research, and patient care plan tracking.

Because using health IT in research is relatively new, best practices have yet to be determined for many circumstances and settings. It is vital that researchers continue refining their methods to determine what works best in each situation. Provider engagement is essential for conducting many health IT research studies. Difficulties often arise when providers have limited time or resources, lack interest in the research initiative, or have previous negative experience with technology initiatives. Lack of provider buy-in can delay or stall research projects.

The Agency for Healthcare Research and Quality (AHRQ) National Resource Center for Health IT (NRC) has received a number of technical assistance requests regarding provider engagement. These requests have included:

- How to reduce the provider burden inherent in health IT research
- How to find alternatives to financial incentives for providers, specifically for quality of care initiatives
- How to demonstrate the value the proposed research will provide
- How to mitigate the challenges of engaging providers in rural settings
- How to involve providers in system design from the beginning to ensure their buy-in
- How to maintain providers in the research study

Based on these requests, the AHRQ National Resource Center for Health IT developed a Webinar to support grantees whose research involves engagement of providers as part of their study.

## Chapter 2. Meeting Summary

The “Provider Engagement: Recruitment, Engagement, and Retention” Webinar was held December 7, 2010, 2–4 p.m., EST. Its purpose was helping grantees learn about best practices for provider recruitment and engagement and helping grantees find solutions for specific retention issues.

The Webinar included content related to the following questions on recruitment methods, provider identification, and barriers or roadblocks to retention:

- **Identifying and targeting priority providers**
  - *Question #1:* How to determine the types of providers required for the research project
  - *Question #2:* How to collaborate with State licensing agencies, medical societies, and professional organizations to reach out to providers
  - *Question #3:* How best to engage community-based providers who are removed from research-based institutions
  
- **Overcoming provider resistance to involvement in research projects**
  - *Question #1:* Strategies for recruiting providers when they are already overcommitted
  - *Question #2:* Tips for scheduling introductory and ongoing meetings with providers
  - *Question #3:* How to minimize demands on providers based on research needs
  
- **Maintaining involvement from researchers during the course of the research study**
  - *Question #1:* How to “stay connected” with providers
  - *Question #2:* Use of electronic tools and social media to maintain research relationships with providers
  - *Question #3:* How to provide a return on investment (ROI) and other research follow-up reports to providers

The Webinar began with formal presentations by two presenters who discussed their experiences and lessons learned based on their research activities. Three physician discussants involved in field research in their medical practices provided responses to these presentations. The Webinar concluded with a question and answer session with grantees.

## Presenters, Discussants and Facilitator

### ***Presenter: Lyle J (LJ) Fagnan, M.D., Associate Professor of Family Medicine, Oregon Health and Science University***

Dr. Fagnan is the Principal Investigator of several practice redesign (Medical Home) Oregon Rural Practice-based Research Network (ORPRN) studies. The focus of the ORPRN's research is clinician-oriented outcomes. The research is based on the following four principles:

- Clinicians will not get home later for dinner than they do now
- Participation will not be a financial drain
- Participation will be stimulating and fun
- Clinicians will be proud of the research produced

To engage clinicians successfully, the ORPRN has several goals and objectives related to research and practice change. Key goals ORPRN's research approach are understanding how practices operate on a daily basis and determining what is unique about each practice. In addition, it is critical to understand how the research fits in with the values and goals of each practice and its community. Finally, the ORPRN aims to have long-term relationships with the practices.

To understand the motivation for practices' involvement in research projects, the ORPRN studied 50 practices and posed the following question: "What motivates you to participate in practice-based research and also what is a barrier?" The top response was as follows: "I do this because I think it will improve the quality of care I provide to my patients." Other positive responses included supporting new knowledge about rural primary care, supporting research that may bring direct benefits to their practices, and contributing to the pool of clinical knowledge.

The study also noted "de-motivating" responses, including lack of sufficient time and motivation to participate in studies. Other responders noted that staff do not often support research projects because projects interfere with practice efficiency and that often not enough staff members are available to perform the research. Dr. Fagnan suggested that a practice may be more accepting of research if it is referred to as a "project" or "study."

The ORPRN collected stories from 36 clinicians across the United States who identified several common motivators in practice-based research:

- Enjoying research without the restrictions of academic work or life
- Improving the quality of care, including systems of care with enhanced health IT; for example, the use of patient and disease registries
- Developing competence in the provision of population health care
- Allowing for connections with other inquiring community clinician minds (networking)
- Through practice-based research networks (PBRNs), creating mentoring relationships with academicians who helped clinicians withstand the challenges of day-to-day practice

To assist practices with their research efforts, the ORPRN has created the role of practice facilitators known as Practice Enhanced Research Coordinators, or “PERCs.” The six PERCs in Oregon serve as consultants, coaches, and guides for the practices. They function as patient advocates and develop strong relationships with the practice staff. One of the goals of the PERCs for them to become so familiar with the practices that they can enter the practice via the “employee-only” entrance and feel they are truly part of the practice. They understand how information flows and how decisions are made within each practice. Because of their strong relationships with practices, the PERCs are able to bring information back to the research team so modifications may be made in the study, if needed.

***Presenter: Sarah Shih, M.P.H., Executive Director of Health Care Quality Information and Evaluation, Primary Care Information Project (PCIP) and New York City Regional Extension Center***

Ms. Shih oversees reporting and dissemination of data transmitted from electronic health records (EHRs) at the New York City Department of Health and Mental Hygiene's PCIP.

The unique implementation challenges within each practice have provided PCIP with a forum for continuous learning opportunities. After several implementations, PCIP realized that many providers continued to struggle using the EHR, especially after the first month of implementation. As a result of this learning, PCIP deployed a quality improvement team in 2009 to work with providers and to help them transform and adjust their workflow to incorporate and optimize the EHR functionality. The quality improvement team is comprised of nurses and other staff with medical backgrounds. Realizing that quality improvement takes time and may take away from staff involvement in other clinical activities, PCIP decided to test “pay for quality”—an incentive designed to help providers see the value of implementing quality improvement activities.

Ms. Shih highlighted several research projects with which PCIP is actively involved, the first of which was an AHRQ-funded project titled “Bringing Measurement to the Point of Care”. The intent of this research is to understand if providers are documenting areas of the EHR to help support automated reporting. A second project, "Health eHearts", requires additional engagement from the providers beyond use of the EHR. PCIP recruited 140 practices; of these, 70 were randomly chosen to receive monetary reimbursement for their involvement with the “pay-for-quality” pilot. AHRQ funds the third research project, which focuses on patient-centered medical homes (PCMH). The intent of this project is to understand the transformation of practices that agree to become certified as PCMHs.

Ms. Shih reviewed common themes related to the recruitment, engagement, and retention of the providers involved in the PCIP research projects.

*Recruitment.* Before recruiting practices, it is important to evaluate whether or not the timing is right for a particular practice to participate in a research project. Practices may be overwhelmed with implementing an EHR and may not be ready for the additional demands of research involvement. Also, involvement in a research project may not be of interest to the practice; most practices do not want to be seen as “subjects for research.” Researchers should help practices understand the value of the research to the practice and its providers. If messaging focuses on how the research may help make providers’ lives easier and help them deliver better care to their patients, providers may be more willing to participate. PCIP has successfully engaged practices by determining ahead of time some positive and value-based messages, which help engage practices and allow them to see the value in the research programs.

Another key to successful recruitment is leveraging contacts and existing relationships. PCIP engages with community leaders to spread the word about research projects. PCIP has found that word of mouth from other providers or other neighboring practices plays an important role in helping recruit and engage providers. The use of personal networks and other community affiliations may also play a positive role in the recruitment process.

*Engagement.* Once practices are recruited for a research project, it is important to formally engage them and have them agree to all of the required research activities. It is often necessary to be persistent with practices and use multiple modes of communication to engage different staff. PCIP has found that it may take up to 10 phone calls, e-mails, and faxes to engage practices successfully. It may also help to talk with various staff at a practice, including the providers, front desk staff, and office managers.

It is also important to make it very easy to participate in the study—participation should not be viewed as an additional burden. Strategies include using interventions easily incorporated into existing workflows or routines and making judicious use of practice visits (e.g., 1 hour every 3–4 weeks).

*Retention.* Ms. Shih noted the importance of periodic follow-up with practices. By way of example, Ms. Shih highlighted the Health eHeart project, which has included more than 2 years of monthly visits with practices to remind them of the importance of ongoing practice participation and feedback. The use of incentives may help with retention in studies; PCIP provides at least \$100 for completing surveys. However, at times, offering recognition for the practice’s contributions or offering other resources can be as effective as incentives. Other resources may include having PCIP staff come to the practice to resolve a health IT issue or teaching providers how to use their EHR system more effectively.

Finally, simply thanking and acknowledging a practice’s contributions may be enough to retain a practice in the research. Many providers are grateful when they understand that their feedback or participation has helped further the provision of better clinical care, helped optimize EHR deployments for other practices, or allowed deployment of a new program.

### ***Discussant: Michael Richter, M.D.***

Dr. Richter is board certified in internal medicine and pediatrics. He believes EHRs could facilitate research in private practices because of their adaptability. He noted that many parameters are measured and documented in EHRs throughout the course of a normal day, and EHRs present an opportunity to conduct research with only minor adjustments to practice workflow (e.g., a few extra mouse clicks). Dr. Richter noted that although he would not be eager to become involved with research on paper, any research involving an EHR would be relatively easy. He warned that when researchers ask physicians to do extra work in the name of research, physicians will ask for some sort of remuneration.

Dr. Richter's practice is currently becoming a PCMH and is teaching Mt. Sinai medical students how to use EHRs. Dr. Richter also mentioned the formation of Medicare Accountable Care Organizations (ACO), which are government-mandated groups of physicians aiming to decrease the cost of health care while improving patient outcomes. He noted that ACOs would be ideal for conducting research because a system is already in place for sharing data and communicating.

### ***Discussant: Chris Shanahan, M.D.***

Dr. Shanahan is a general internist from Boston and is the director of the research and systems innovation unit and is a physician knowledge management consultant for IT at Boston Medical Center. According to Dr. Shanahan, a benefit of EHRs has been the ongoing projects and research opportunities that been available to the CHCs as a result of implementing EHRs. The CHCs in Boston and the surrounding areas are very familiar with each other, and trying to recruit clinicians and practices can be difficult because they are often oversubscribed. He explained that this can work against a doctor; on the other hand, doctors understand how CHCs work because there is so much research going on around them.

Dr. Shanahan emphasized that, when working with CHCs, it is vital to understand many elements, including who is in charge of the schedule, how clinician time is allocated, and what interventions will be done. He noted that it is not necessarily the physician who is in charge in a CHC and that it is crucial to engage the leadership and/or "Practice Champion", whether it is the head nurse, practice manager, or medical director. It is critical to work closely with the Practice Champion to successfully engage with a practice or CHC for research studies. Otherwise, as a researcher, you will not be able "to get a proverbial foot in the door." Another key point to consider when engaging CHCs in research is knowing the "lay of the land" and assessing which practices are more open and progressive in terms of their willingness to consider new ideas. According to Dr. Shanahan, "if you've seen one CHC, you've seen *one* CHC." Each is unique, and it is important to assess how the CHC operates and what its dynamics are. He also noted the importance of using whatever means possible to stay in touch with providers and practices and advocated the use of phone over a barrage of faxes and e-mails.

Dr. Shanahan noted that although one may think larger practices have more resources, in truth, every practice has limited resources, and it would be ideal if research grants were able to provide PERCs. In the Boston CHC EHR implementations in which he took part, the central control of the project was at the hospital; however, one analyst spent 95 percent of his or her time at the CHC and essentially became a part of the staff. This analyst was paid by the project and was accountable to the project for certain performance standards. Dr. Shanahan explained that the CHCs absorbed this analyst over time, after he or she had been an employee of the project for the initial 4 years. He felt that the concept of hiring centrally yet placing the workers into the community was effective.

According to Dr. Shanahan, another key element of maintaining provider engagement is providing feedback. It is critical to give feedback on the progress of the project and to ensure the provider can access the results of any activities in a timely manner, especially if quality is part of the intervention. If providers are entering data into systems, it is important to grant them timely access to reports that display that data in order to maintain engagement and ensure retention. Dr. Shanahan added that CHCs tend to create their own development processes; each CHC embraced the EHR at local sites and had flexibility in implementing it. Certain people at the CHC level had an interest in tinkering with the system and making it better, and researchers could benefit from engaging this core group.

### ***Discussant: Albert Thompson, M.D.***

Dr. Thompson practices Family Medicine and Emergency Medicine in Pacific City, Oregon. He believes the biggest factor grantees face in engaging physicians in research is the limited time physicians have available to them—especially when working with physician-owned practices. He noted that he is a sole proprietor, and, although he has three clinician colleagues, he alone bears the financial burden of the practice. The time and the number of patients he sees create the bottom line for the practice, so anything interfering with that can be a significant issue. Dr. Thompson pointed out that the PERCs become invaluable here because they assimilate into the practice and become acquainted with the staff.

## Chapter 3. Questions and Answers

***Question: Are EHRs being used to facilitate research in the studies being done by presenters working in rural areas?***

Dr. Thompson explained that a low percentage of practices have implemented EHRs in Oregon, which presents a significant challenge for researchers attempting to use EHRs as a key component of the research study. His group has been using a medical EHR for approximately 10 years and became completely paperless 2 years ago; however, his group is in the process of finding a new EHR vendor that can more adequately meet the group's needs. He noted that eight providers in Dr. Fagnan's clinic still do not have an EHR. In his opinion, the lack of EHRs is primarily related to finances—a common challenge true throughout the State.

***Question: What is the typical background of a PERC?***

Dr. Fagnan noted that PERCs come from a variety of backgrounds, live in rural areas throughout the State, and are based in one of four project offices. One PERC is a licensed clinical social worker with some experience working with projects, another PERC has an MPH and experience in research, another PERC has experience working in clinical trials, and another PERC is a recent college graduate who is just “learning the ropes.” However, Dr. Fagnan's group has designed a 2-day training curriculum in which PERCs interact with a variety of staff and learn about the research performed. They conduct chart reviews on paper records and EHRs to identify quality measures for diabetes placement. The PERCs meet on a weekly basis with both the Network Manager and their research section and are written into the proposals of any research project. Dr. Fagnan emphasized that PERCs are seen as a definite benefit, in part because they ensure the correct research protocol is followed. He also believes the presence of PERCs results in increased research integrity.

***Question: What are some of the obstacles to participating in research studies? Do you, the presenters and discussants, have any specific suggestions about research and how to overcome these obstacles?***

Dr. Thompson, Dr. Fagnan, and Dr. Shanahan responded to this question. Participants were referred to Slide 15 of the PowerPoint presentation (available on the [AHRQ NRC TA Web site](#)) for a summary of this topic.

The respondents highlighted the following issues: Time constraints of providers and lack of EHRs in provider practices.

Suggestions to help overcome common obstacles include the following:

- Having a practice champion with the appropriate background and expertise to assist with the research efforts
- Knowing what works and what does not work and not repeating mistakes

- Communicating with providers in person or by phone (rather than via e-mail or fax)
- Creating a service-level agreement or memorandum of understanding (MOU) with practices beforehand.

Dr. Fagnan discussed an MOU used by the ORPRN. Dr. Fagnan's group creates memos for projects, especially those that involve EHR implementation or significant amounts of effort for the research project. These documents contain two columns: one column contains the expectations of the practices and one column contains the expectations of the project team. Both parties sign the document. The document usually outlines compensation for the practices in order to recognize their effort and time but is not considered legally binding. Dr. Shanahan added that having an explicit, written agreement is vital for smaller practices of community-based providers because those practices may not have a thorough understanding of what is involved in a research study. He noted that setting expectations from the start of the project is key to successful collaboration.

***Question: A grantee asked the presenters/discussants for advice on how to regain the interest and excitement that their recruitment sites had initially shown in study participation.***

One suggestion was having the grantee visit the recruitment sites in person to check in with them directly. A face-to-face meeting with the sites could help get the recruitment sites back on-board. Another presenter noted that many providers do not understand the urgency regarding research timeframes and suggested that the grantee determine what pressure points could reinvigorate these particular providers and recruitment sites. Another suggestion was informing the recruitment site that it needs to respond immediately or would not be able to participate in the study. An alternative suggestion was applying a deadline, noting that the study would not be able to compensate the recruitment site for its participation if it did not respond by a certain date. A final suggestion was commenting on the involvement of other providers in the community. This information might invoke a provider's competitive instinct, and he or she may want to be involved in innovative research, especially with the 'threat' of others doing it first.

***Question: Do you have suggestions about how to schedule time for one-on-one face time with providers for interviews, cognitive task analysis, etc.? I don't have money to pay them for their time.***

An immediate response to this question was "feed the providers!" Provision of snacks and food for the practice can be a very effective engagement strategy. Dr. Shanahan also noted that if a researcher is unable to compensate providers, the researcher may find that the providers are interested in learning directly from the project. The researcher can offer them feedback and pointers to improve their processes or help with modifying their reports, workflow processes, etc. Both Dr. Shanahan and Dr. Thompson suggested meeting with providers during uncompensated time, so the provider is not losing time with a patient and thereby losing money. Dr. Fagnan added that it is very difficult to

reach providers on the phone, so it is vital to make use of an office manager or medical assistant to find a time to sit down with the provider. These employees often know the provider's schedule better than the provider and will often advocate for the researcher. Dr. Shanahan concurred that determining the primary contact person at the office who controls the provider's schedule and becoming friendly with that person is key. He suggested sending that person a holiday card or flowers and noted that a little bribery is acceptable when it comes to getting the provider to work with grantees on a project.

***Question: How do you make your research project seem more important or stand out more than others to boost recruitment, especially in an environment with high academic research penetration where providers may be inundated with requests to participate in projects?***

Dr. Shanahan and Dr. Fagnan both agreed that a good solution is forming long-term relationships with providers and involve them in formulating projects as they evolve, so providers feel they are a part of the process right from the start. Dr. Shanahan noted that it is important to involve providers early on, engage with them as colleagues, and discuss research ideas even before the projects are funded. Simply sending a quick e-mail to ask a provider's opinion on a research proposal will help him or her feel involved and want to work with researchers as the study progresses. Dr. Shanahan pointed out that CHCs, in particular, can be very protective of their patients—the more those providers feel they are on the same team as the researcher, the more willing they are to work with one. Dr. Fagnan also advocated the importance of interacting with the providers from time to time without asking them for anything. He suggested visiting them simply to get a sense of what they do and what is important to them. Regarding CHCs, Dr. Shanahan suggested participating in activities such as annual meetings, health fairs, and fundraisers, noting that providers will remember and appreciate a researcher's appearance at such an event.

***Question: Presenter Sarah Shih noted that it is difficult to perform evaluations when the environment is constantly changing. Ms. Shih asked the group about what other methods and strategies have been used by others to mitigate this issue.***

A grantee replied that his group worked on an ongoing medication reconciliation project that required educating providers in various settings at times convenient for the providers—a challenging task. His research group created a short training video to make the basic instructions required to understand the study and the provider's role in the study available online for the provider to watch at his or her convenience. This helped the principal investigator provide a unified message to a large group of participants in different locations and accommodated the difficult schedules of the providers. These researchers also hold monthly sessions for the providers at times that are convenient for the providers, even if it is inconvenient for the researchers and costs them a little extra time to organize.

***Question: Dr. Thompson posed the following question to Ms. Shih: "I am curious about what level of EHR penetration there is in general use in New York City. We***

*talked about this in relation to Oregon and it is not very high. I am curious to see what it is in New York City.”*

Ms. Shih explained that the city subsidized EHR software deployment and estimated that about 20 percent of the primary care providers have adopted some form of EHR. The providers that have implemented EHRs through PCIP are considered fully integrated because scheduling, billing, lab ordering, and e-prescribing are all on the same system. She explained that the goal is to get to 50 percent of providers in New York City live on EHRs by 2012; however, it has been very challenging to recruit and engage new providers even with the new regional extension center grants from the Office of the National Coordinator.

Initially, each practice had its own database and used a client-server model; however, the project has attempted to convert practices to a centralized database model via central servers. This model has pros and cons in relation to both upgrades and data extraction for reporting. Ms. Shih clarified that the centralized server model is preferred for ease of access to upgrades, especially upgrades for meaningful use functionality. Currently, between one quarter and one-third of providers using client-server systems are slowly transitioning to Web-based centralized data models.

## **Appendix: Presenter and Discussant Bios**

### ***Presenter: Lyle J (LJ) Fagnan, M.D., Associate Professor of Family Medicine, Oregon Health and Science University***

Dr. Fagnan is the principal investigator of several practice redesign (Medical Home) Oregon Rural Practice-based Research Network (ORPRN) studies, including Shared Decision-making in Rural Oregon Practices, the Rural Oregon Childhood Immunization Study, and Assessing the Clinical Impact and Business Case for Nurse-Based Care Management. Dr. Fagnan is a family physician at Oregon Health and Science University and directs the ORPRN. The research network, in existence since 2002, has been involved with approximately 45 studies that engaged 50 practices and 170 clinicians, all of whom practice in rural settings. ORPRN does not own any of the practices; they are all independent practices and chose to be involved with the research on a volunteer basis.

### ***Presenter: Sarah Shih, M.P.H., Executive Director of Health Care Quality Information and Evaluation, Primary Care Information Project (PCIP) and New York City Regional Extension Center***

Ms. Shih oversees reporting and dissemination of data transmitted from electronic health records (EHRs) at the New York City Department of Health and Mental Hygiene's PCIP. She leads a pilot pay-for-quality program called Health eHearts and the development of a local multi-payer incentive program. In addition, Ms. Shih directs the evaluation by assessing program activities to improve the quality of care.

Ms. Shih's other responsibilities at PCIP include overseeing a project database and conducting a program evaluation to understand and estimate the impact of each successive PCIP program implemented with providers. The program implements and deploys EHRs to small, independent primary care practices, with a focus on underserved communities; it is funded through city legislation and Federal and State grants. The goal of the program is to improve the delivery of clinical preventive services and the quality of health care overall in NYC, using "building blocks of quality." These building blocks include strategy and procurement of EHRs, EHR development and implementation, quality improvement, pay for quality, panel management, care coordination, and patient engagement.

### ***Discussant: Michael Richter, M.D.***

Dr. Richter is board certified in internal medicine and pediatrics and has practiced in Rego Park, New York, for 20 years. He went live with an EHR in June 2009 as part of the New York City Department of Health PCIP program.

***Discussant: Chris Shanahan, M.D.***

Dr. Shanahan is the director of the research and systems innovation unit and is a physician knowledge management consultant for IT at Boston Medical Center. In addition, he is an associate medical director for IT at mass screening, brief intervention, referral to treatment and the director of community medicine at Boston University School of Medicine.

Dr. Shanahan is a general internist from Boston with 20 years of experience working in community health centers (CHCs), including as a medical director of one CHC for 6 years. From 2001 through 2004, he was involved in EHR implementations for eight CHCs.

***Discussant: Albert Thompson, M.D.***

Dr. Thompson practices at Bayshore Family Medicine in Pacific City, Oregon. He has been on the Oregon Coast in private practice since 1982 and is board certified by the American Board of Family Medicine (ABFM) and the American College of Emergency Physicians (ACEP). His practice has had an EHR for about 10 years and went paperless about 2 years ago.