Arizona Health Care Cost Containment System

AHCCCS

Medicaid Transformation Grant

Health Information Exchange & Electronic Health Record (HIeHR) Utility Project

Provider Focus Groups

February 1, 2008

Presented by Flanagan-Hyde Solutions, LLC and
Your Partners in Quality, LLC
In collaboration with

Arizona Department of Health Services

ARMA Arizona Medical Association

AOMA Arizona Osteopathic Medical Association

Arizona Latin-American Medical Association ALMA

AHCA

Arizona Association of Homes and Housing for the Aged

AZDA Arizona Dental Association

Community Partnership of Southern Arizona cpsa Regional Behavioral Health Authority

Magellan Health Services Getting Better All the Time

HIeHR Utility Project Research

Table of Contents

Executive Summary

To inform the design and development priorities of the AHCCCS Medicaid Transformation Grant *Health Information Exchange (HIE) & Electronic Health Record (EHR) (HIeHR) Utility Project*, qualitative, professionally-moderated focus group research was conducted from October through December 2007. One-hundred fifty-seven participants in 10 Arizona counties provided feedback during 28 focus groups. Participating providers and administrators also completed a quantitative Health Information Technology (HIT) Provider Survey during the focus group sessions. To ensure that all participants shared a common understanding of HIT and HIE, each focus group discussion was preceded by a standard slide presentation covering basic terminology, the Arizona HIT environment, and HIeHR project overview. Moderators followed a discussion guide developed in coordination with the HIeER team and captured responses to formal questions as well as the abundant spontaneous comments.

Forty percent of focus group participants were physicians and 60 percent were other types of health professionals. Participant areas of focus are summarized in **Table 1**.

Table 1: Area of Focus of Participants

Area of Focus	Number of Focus Group Participants
Primary & Acute Care	48
Specialty Care	7
Emergency Departments	24
Behavioral Health	25
Long-term Care	21
Dental	4
Pharmacy	2
Other (IT, Financial & Administrative)	26

Top Ten findings from the AHCCCS HIEHR Provider Focus Groups include:

1. Health Information Exchange (HIE) in Arizona will be valuable. Nearly all providers expressed a clear understanding of the benefits of sharing patient data through an HIE to support quality, safety, and continuity of care.
2. HIE should include all payers in the state so that records of all healthcare consumers are available for exchange, not just AHCCCS members.
3. Multi-stakeholder input is essential to ensure successful adoption of HIeHR use.
4. Data must be timely, easy to use, and accessible through high-speed Internet connections in all areas of the state.
5. Providers are concerned about who will bear the costs of adoption, including capital costs, training, implementation, and ongoing technical assistance.

6. Seamless interoperability is essential. It will be critical for HIeHR to interface with current Electronic Medical Record (EMR) systems, practice management systems, and systems used by hospitals, labs, radiology, and long-term care.
7. Liability and privacy issues are concerns, and participants were reassured to hear that the Arizona Health Privacy Project is addressing these issues.
8. Almost two-thirds of respondents to the quantitative survey currently use or are in the process of installing an EMR. Almost half of those without an EMR are undecided about purchasing a system.
9. The Regional Health Information Organizations (RHIOs) and AHCCCS were seen as trustworthy entities to manage and deploy Electronic Health Records (EHR) and HIE.
10. The top priority features of an EHR were identified as:

- e-Prescribing
- Clinical Encounter Management (includes allergies, problem lists, etc., as well as progress notes)
- Eligibility Inquiry/Verification

Unprompted, many participants suggested additional features to be included in the EHR and available through the HIE. These included patient advance directives and a management system to track patients, claims, referrals, etc. Participants suggested that urgent care centers and retail clinics ("minute clinics") be involved as part of the HIE.

In addition to the core content derived from the focus groups, other lessons have been learned. Identification and invitation of potential participants was initially hampered by data base information gaps. Tangible incentives (honoraria, gift, etc.) are associated with increased participant receptivity and attendance. The medication software subscription offered to second month of our participants validated the benefit afforded by budgeting for and advertising such at the outset. Finally, there is significant provider interest in national and state HIE and HIT initiatives. More public relations and outreach activities will be welcomed.

In summary, participants in the AHCCCS Provider Focus Group sessions provided abundant, consistent, valuable information. Providers need the following issues addressed:

- Develop a strong value proposition that will show benefits to healthcare providers in Arizona, including cost-savings and efficiency benefits.
- Implement the HIeHR Utility as an all-payer system versus a Medicaid-only system.
- Synthesize and organize patient records so that the Utility is friendly and intuitive for all users.
- Earn provider trust through the reliable performance of all aspects of the Utility.
- Clarify data ownership issues and other security, privacy and liability concerns.
- Maintain frequent and direct communication with the healthcare community (rural, suburban, and urban). Share successes and lessons learned to build social capital with providers.

The key findings, lessons learned, and recommended actions are summarized in **Table 2**.

Table 2: HIeHR Utility Project: Summary of Research with Providers		
Key Findings	**Lessons Learned**	**Recommended Actions**
HIE in AZ will be valuable.	Providers have clear understanding of benefits of HIE to support quality, safety, and continuity of care.	Develop strong value proposition to show benefits to healthcare providers, including cost-savings and efficiency benefits.
HIE should include all payers.	Providers less likely to use an AHCCCS-only system.	Implement HIeHR as an all-payer system.
Multiple sectors of the healthcare community want to offer input.	Multi-stakeholder involvement in development process will promote HIeHR use.	Maintain direct communication with the healthcare community (rural, suburban, and urban) including successes/lessons learned to develop a trusting working relationship and build social capital.
Data must be timely, easy to use, and accessible through high-speed Internet.	Quick, easy access to real-time data is critical for successful adoption.	Earn trust through the reliable performance of all aspects of the Utility.
A major concern is who will bear the costs of adoption.	Providers identified costs associated with capital investment, training, implementation, and ongoing technical assistance.	Provide information about costs and sources of financing assistance.
Seamless interoperability is essential.	Providers expect HIeHR to interface with systems currently in place.	Ensure reliable interface with existing EMR systems, practice management systems, and systems used by hospitals, labs, radiology, and long-term care.
Liability and privacy issues are concerns.	Participants were reassured to hear that the Arizona Health Privacy Project is addressing these issues.	Clarify data ownership issues and other security, privacy and liability concerns.
Survey respondents represented a mix of those on board with EMR and those undecided.	2/3 have or are installing EMR; of those without EMR, half are undecided about purchasing.	Effectively communicate cost/benefit ratio of EMR to those unconvinced about efficiency benefits.
RHIOs and AHCCCS seen as trustworthy entities to manage and deploy EHR and HIE.	Commercial vendors and commercial health plans seen as much less trustworthy.	Continue development efforts to provide EHR and HIE through RHIOs and AHCCCS.
Top priority EHR features are e-Prescribing, Clinical Encounter Management, and Eligibility Inquiry/Verification.	e-Prescribing top priority by substantial margin; providers also want fill and prescription history.	Develop these features first when introducing HIeHR.

Methodology

Recruiting Methodology and Results

Educating and Enlisting Support

The initial recruitment plan focused on the provider lists (stratified by encounter volume) furnished by AHCCCS. To educate the leaders of Arizona's healthcare professional societies and to enlist their assistance with recruiting, consultants conducted in-person meetings and follow-up phone calls and e-mails with leaders presented in **Table 3**.

Table 3: Professional Organization Partners

Organization	Individuals
Arizona Academy of Family Physicians	Laura Hahn, Executive Vice President
Arizona Association of Homes and Housing for the Aging	Genny Rose, Executive Director
Arizona Chapter of the American College of Physicians	Donna Seawards, Executive Director
Arizona Chapter of the American College of Emergency Physicians	Stephanie Butler, *Executive Director*
Arizona Dental Association	Rick Murray, *Executive Director*; Erin Raden, *Director of Government and Public Affairs*
Arizona Department of Health Services, Office of Oral Health	Anna Self, BSDH, MBA, *Community Development Coordinator*
Arizona Health Care Association	Kathleen Collins Pagels, *Executive Director*; John Linda, *Director of Member Services*
Arizona Health Care Cost Containment System	Robert Birdwell, DDS, *Dental Director*
Arizona Health-e Connection	Brad Tritle, *Executive Director*
Arizona Hospital and Healthcare Association	Adda Alexander, *Executive Vice President*; Debbie Johnston, *Director of Regulatory Affairs and Policy*
Arizona Latin American Medical Association	Adolfo Echeveste, *President & CEO*
Arizona Medical Association	Chic Older, *Executive Vice President*; David Landrith, V*ice President of Policy and Political Affairs*; Andrea C. Smiley, APR, *Assistant Vice President, Communications*; Bruce Bethancourt, MD, Past President
Arizona Osteopathic Medical Society	Amanda Weaver, MBA, *Executive Director*; Jeffrey Morgan, DO, *Immediate Past President*; Charles Finch, DO, *President*
Arizona Town Hall	Tara Jackson, *President*
Community Partnership of Southern Arizona	Miriam Kile, *Director, Clinical Operations*; Vanessa Seaney, *Network Development Manager*

Table 3: Professional Organization Partners	
Organization	**Individuals**
Covenant Health Network	Matt Luger, *CEO*; Pam Koester, *Director of Program Development*
Epocrates	Sheryl Lowenhar, *VP, Payer and Provider Services*
Health Services Advisory Group	Scott Endsley, MD, MSc, *Medical Director, System Design*
Magellan Health Services	Brenda Benage, *Chief System Transformation Officer*; Steven Scott, *Health Plan Liaison*; Gregory Gale, MD, *Adult Medical Director*; Andrea Smiley, *Chief Community Relations Officer*
Southern Arizona Health Information Exchange	Kalyanraman Bharathan; *Project Director;* Stephanie Healy, *President, Hospital Council of Southern Arizona*; William Pike, *Director of Public Policy and Community Affairs, Carondelet Health Network*

Additionally, the consultants appreciated the assistance provided by the individuals listed in **Appendix A** who volunteered to attend ad meetings and recruit participants as well as

Focus Group attendance:

- Collaborated with Arizona Town Hall to describe, distribute information, and recruit participants at 11 events on the healthcare Town Hall throughout the state in August and September 2007.
- Provided information and engaged the assistance of HIT leaders in support of HIeHR. Sharon Flanagan-Hyde attended meetings of the Arizona Health-e Connection Communications Committee (chaired by Debra Nixon).

Recruiting

The recruiting process resulted in a total of 157 participants as presented in **Appendix B**.

Dr. Anita Murcko, Medical Director, Clinical Informatics & Provider Adoption, AHCCCS, issued personal invitations to the initial "Proof of Concept" focus group on Oct. 2, 2007. Twelve individuals participated, in addition to seven AHCCCS observers.

Recruiting approaches and results for the remaining focus groups are presented in **Appendix C**. Letters were followed up with e-mail or phone call reminders a few days prior to the focus groups to those who had positively responded. Collateral materials used in the recruiting process are presented in **Appendix D**. Additionally, Epocrates made available 40, one-year subscriptions to Epocrates Pro as an incentive for physician participation. Unfortunately, this valuable incentive was not available to early and mid-recruitment waves.

Focus group participants were recruited in various areas of the state based on the proportions of AHCCCS members and providers in each county. Sessions were

scheduled with the intent to relatively homogenous groups providers with a specific area of focus, however, based on availability, not all focus groups were limited to a single specialty or practice focus. The focus groups session are summarized in **Table 4**. Focus groups specifically with pharmacists are scheduled for the first quarter of 2008.

Table 4: Summary of Numbers of Focus Group, Locations, and Participants October-December 2007

County	Primary & Acute Care	Specialty Care	ED	Behavioral Health	Long-term Care	Dental	Pharmacy	Other
Maricopa 9 FGs	10	1	14	9	8	2	1	9
Pima 7 FGs	9	3		16	4	1	1	15
Coconino 2 FGs*	6		5			1*		
Santa Cruz 2 FGs	4		2					
Yavapai 2 FGs			3		9			
Yuma 2 FGs	6	2						
Cochise 1 FG	9							2
Mohave 1 FG	1							
Navajo 1 FG		1						
Pinal 1 FG	3							
28 Focus Groups	**48**	**7**	**24**	**25**	**21**	**4**	**2**	**26**
*** Plus one personal telephone interview**								

Practice Locations

Analysis of the ZIP codes of the main practice site of respondents to the quantitative survey administered during the focus groups revealed the following distribution:

- 36% in Phoenix metropolitan area
- 25% in Tucson
- 42% in other areas, including Bisbee, Camp Verde, Casa Grande, Cottonwood, Douglas, Elfrida, Flagstaff, Kingman, Lake Havasu City, Marana, Nogales, Page, Prescott, San Simon, Sedona, Show Low, Sierra Vista, Winslow, and Yuma

A large majority of respondents treat AHCCCS patients and most also have a mix of Medicare, commercial insurance, and self-pay (uninsured) patients.

Content Development Methodology

A multidisciplinary team collaborated to develop a slide deck that was used during the focus groups to educate participants about the AHCCCS HIeHR Utility Project (**Appendix E**) and a focus group discussion guide and ranking form (**Appendix F**). In addition, a written survey was administered during each focus group (**Appendix G**).

The development process included five meetings, e-mail reviews, and revisions of the slide deck after the first several focus groups to enhance clarity. Team members are presented in **Table 5**.

Table 5: Multidisciplinary Research Development Team

Organization	Individuals
Arizona Health Care Cost Containment System (AHCCCS)	Dr. Anita Murcko, MD, Medical Director, Clinical Informatics & Provider Adoption Perry Yastrov, Project Director, EHR Systems and Services Lindsey Kroll, Provider Relations Manager, HIeHR Brent Bizik, MBA, Manager, Business Analysis, EHR Systems and Services Sina Mowsoon, EHR Systems and Services Srinivas Koka, EHR Systems and Services Laura Smith, Healthcare System User Analyst, EHR Systems and Services Pat Rennert, CPC, CCS-P, Healthcare System User Analyst, EHR Systems and Services Lupita Figueroa, EHR Systems and Services Mary Kelley, Senior Consultant, Global Health Solutions, Computer Sciences Corporation F. Lynn Hopkins, Project Manager, Information Services Division
Arizona Government Information Technology Agency (GITA) Arizona Health Privacy Project	Kim Snyder Emilie Sundie Kristin Rosati, JD, Coppersmith Gordon Schermer & Brokelman PLC
Consultants	Sharon Flanagan-Hyde, MA, President, Flanagan-Hyde Solutions, LLC Debra Nixon, MSHA, BSN, Your Partners in Quality, LLC

Focus Group Findings

It should be noted that while the moderator of each focus group followed a consistent discussion guide (**Appendix F**), in some cases participants raised issues outside of the scope of questioning. These are noted as unsolicited or unprompted comments.

This section of the report categorizes focus group findings and comments as follows:

1. Overall Perceptions
2. Interoperability, Integration, and Ease of Contribution
3. Application Service Provider (ASP)
4. Trust to Support the EMR and HIE
5. EHR features
6. Adoption and Implementation Assistance
7. Patient Privacy, Security, and Liability
8. Health Information Technology Provider Survey Findings
9. Recruiting Challenges and Lessons Learned
10. Conclusions

Quotes from focus group participants were chosen to represent the full spectrum of opinions about each issue.

1. Overall Perceptions

Health Information Exchange in Arizona Will Be Valuable

Across the board, providers expressed a clear understanding of the benefits of sharing patient data through an HIE to support quality, safety, and continuity of care. They described current "disconnects" in detail. Unprompted, many said they appreciated the fact that AHCCCS was asking them for their perceptions and suggestions at this time.

> *"I'm really excited about the process because there are a lot of information disconnects in our healthcare environment." (PCP)*

> *"The exchange is what we value most, not the EHR. Most physicians are going to have their own office systems in place. What we need is communication between systems." (PCP)*

Health Information Exchange (specifically HIeHR) Should Be All-Payer

Focus group participants strongly encouraged all-payer implementation of the HIeHR Utility Project so that records of all healthcare consumers are available for exchange, not just AHCCCS members.

> *"The negative impact on workflow would be enormous if we had to use different systems for patients with different payers." (PCP)*

Most providers said they would not use HIeHR if it is only available for the AHCCCS patients they treat. Those with a higher percentage of AHCCCS patients in their practice mix would be more willing to use an AHCCCS-only HIeHR, but they expressed concern

about what happens to the records when patients' eligibility status changes. They want to make sure that records remain accessible over time.

> *"If a patient falls off the AHCCCS roster, will the patient information be lost or not accessible for future coordination of care with the patient?" (PCP)*

Should AHCCCS Build a New System or Identify "Best of Breed"?

Unprompted, many participants asked why AHCCCS is developing an EHR and HIE given the many products on the market. They suggested that AHCCCS put efforts and funding toward determining the best commercial systems available and helping providers get up and running.

> *"Why reinvent the wheel?" (PCP)*
>
> *"It might be more cost-effective to evaluate and certify commercially developed products." (LTC Physician)*
>
> *"I worry about how robust a product developed by AHCCCS will be." (PCP)*
>
> *"There are enough systems in place across the state right now. Can AHCCCS use any of that in developing HIeHR? I'm not sure how all this will interface, given how hard it is to interface different systems within one facility." (ED Physician)*
>
> *"It's a pathetic waste of money that our tax dollars are going toward our government developing EHR and HIE. Why is AHCCCS building this instead of buying a commercial system?" (PCP)*

Multi-stakeholder Input Is Essential

As noted in the *Methodology* section, a number of providers invited (unprompted) their CIOs and IT professionals to attend the focus groups. CIOs indicated that they want the opportunity to give input during the HIeHR development process and offered to serve as advisors to AHCCCS.

Focus group participants also said that AHCCCS should work closely with hospitals, especially in rural areas, to ensure successful adoption of HIT.

> *"You need to include all clinicians, at all levels, physicians and nurses, in the decision process. If you lose sight of who is using this, you're going to create a system that is terrible." (ED Physician)*
>
> *"Hospitals and physicians are all in it together." (Hospital Administrator)*

Requires Culture Change

"Changing the culture" from paper to electronic records is a challenge, particularly for older providers. The workforce shortage in Arizona makes it more difficult to find staff willing to use electronic records. Participants suggested that AHCCCS seek feedback from current medical residents, and stressed that ongoing education and communication from AHCCCS about HIeHR is essential.

Keep HIT in Balance with Other Medicaid Issues

Unprompted, participants voiced concern that if/when HIE/EHR becomes a priority for AHCCCS, attention will shift from other important areas, such as access to care,

reimbursement, and ER overutilization. Several participants expressed the need for reassurance that AHCCCS will continue to work on all of the state priorities.

"AHCCCS must work on all these issues simultaneously." (PCP)

Data Must Be Timely

Providers want the EHR data to be accurate and available real-time to enable them to provide quality services to their patients without the fear of liability.

"It would be great to be able to get immediate access to recent test results." (ED Physician)

High-speed Internet Important

Participants expressed concern that PCP offices in rural areas would not have the capability to handle necessary transmission speeds. Participants were aware that broadband access is improving throughout the state and said that continuing to improve the availability of high-speed transmission in rural areas should be a high state priority.

Must Be Easy to Use

If the system is going to be effective and efficient, both the EHR and the HIE must be fast and easy to use for providers. A large number and wide variety of providers expressed strong skepticism about the feasibility of connection between existing systems and a new integrative system.

"If you don't make my job easier, it won't work." (PCP)

"Anything that wastes my time puts my patient's health in danger." (PCP)

"The software cannot be cumbersome." (ED Physician)

"It's all about time. If it costs me time, I absolutely would not use it." (Dentist)

"It sounds like a great idea, but I doubt that it can really be implemented. There are so many systems in use that can't talk to each other. I don't believe this can be done in a way that's easy for doctors to use." (PCP)

Must Improve Provider Productivity

Several providers are under the impression that the EMR reduces physicians' productivity by about 20 percent, even after the transition period. There is a need for accurate data to inform and educate physicians about the impact of EMR on productivity. Nonetheless, the physicians and providers recognize the benefits of EMR in helping to provide better quality of care more efficiently to their patients.

"There is a major loss of productivity…I don't expect to ever get back to 100 percent." (PCP)

"All of the experience so far is that it creates lots of additional work, and we're resistant to that." (ED Physician)

"There's value for a patient who is discharged one day and follows up with the PCP the next day. The information is at his fingertips instead of staff having to call around for information." (PCP)

"This would be very valuable for patients transferring among various care settings." (LTC Administrator)

Can Help Avoid Duplicate Testing

Most providers recognized that HIE could reduce duplicate testing if real-time information was available quickly. They expressed concerns about accuracy and ease of getting the data, but were receptive to receiving and using the information when it becomes available.

> *"It has to be very accessible and up to date. Busy ED docs would rather order another test and get the patient moving than take 10 minutes to wade through extensive records." (ED Physician)*

Cost Concerns

Although participants viewed an exchange as valuable, they voiced strong concerns about the ramp-up costs of moving from the status quo to the environment needed to make an HIE a reality. For many small practices, the cost of an EMR system is prohibitive. Providers pointed out that their administrative costs continue to increase. For many of those who have systems in place, ongoing costs for retraining staff require both time and money and are very expensive. Some providers recognized that there may be cost savings in the long run through an efficient electronic system.

> *"As physicians we are being paid less and less, and our overhead costs are going higher and higher. To now add another burden onto overhead costs, you'll have unhappy physicians who are not going to be interested in using it." (PCP)*

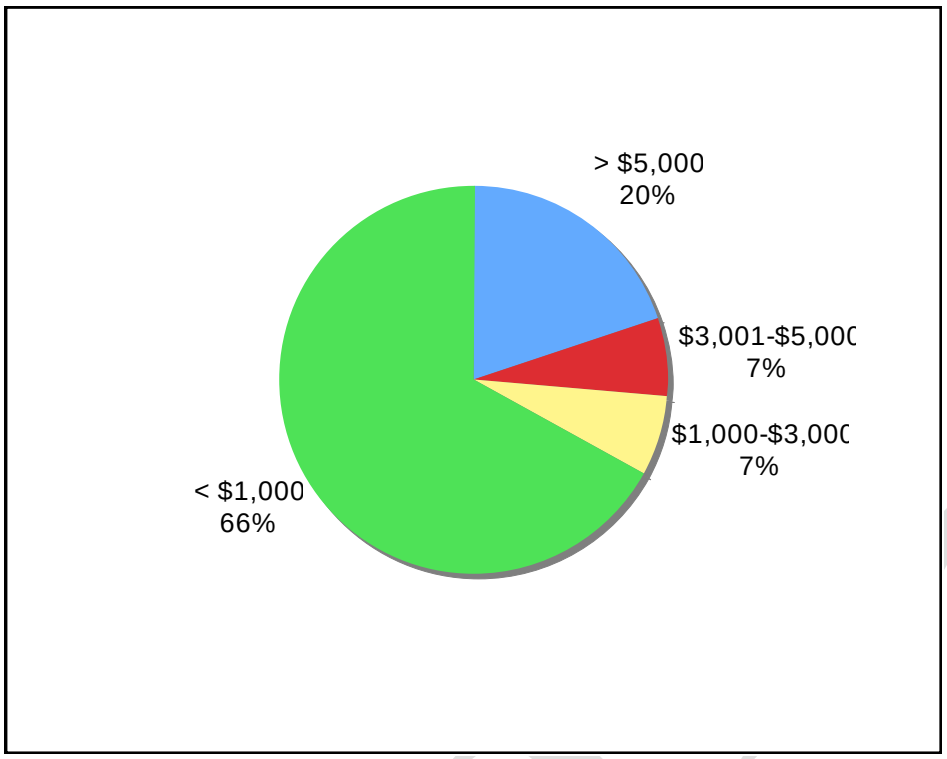
> *"It's important that we don't have to enter the same data twice." (Behavioral Health Provider)*

> *"This sounds like another unfunded mandate." (ER Physician)*

Transcription Costs

Quantitative survey responses (n=88) indicated that smaller practices reported spending under $1,000 per month for transcription services. As would be expected, very large organizations reported higher costs, as presented in **Chart 1**.

Chart 1: Approximate Monthly Transcription Costs



2. Interoperability, Integration, and Ease of Contribution

Universal Interoperability Is Essential

Focus group participants stated that seamless interoperability is essential. It will be critical to interface with current EMR systems, practice management systems, and systems used by hospitals, labs, radiology, and long-term care.

> *"I won't use anything that forces me to keep switching from one system to another on my computer while I'm trying to see patients." (PCP)*
>
> *"It seems very difficult to change anything in the Cerner system after implementation. It doesn't seem possible that AHCCCS would be able to develop something that would interface with all the systems out there." (ED Physician)*
>
> *"People would rather push back the start date so that it's tested and tested and tested. AHCCCS is going to need to make sure this really works. If it goes live before it's ready, you're going to lose the confidence of all the clinical people. (Behavioral Health Physician)*

Interfaces Must Be Functional

Participants expressed major concerns and skepticism about whether HIE will be successful in translating information among different systems. This perception is based on both perceptions about expense and their experiences with the hospital/office systems they are currently using.

"Until there is a uniform database that everyone uses to communicate between systems, it's going to be expensive to make those interfaces. No one is going to enter information twice." (PCP)

"We have huge problems in our own hospital system accessing electronic records in other departments." (ED Physician)

"It will not behoove software manufacturers to interface with other systems because that allows providers to drop that system and move on to another one that you like better." (IT Professional)

Uploading Data Must Be Easy

Several providers expressed concern about the amount of time it will take to contribute their data from the EMR to the HIE. If the system is able to do this easily, there will be more acceptance and buy-in. The system should be designed to make it easy for the providers and their staff to upload the information on a regular basis and schedule.

"We already have in-house electronic records and to go through the process of uploading data to an off-site web site for AHCCCS' benefit is going to be a pain in the butt." (PCP)

"I don't want to have to export data to yet another database to get paid." (PCP)

"Pulling information off an exchange would be good, but I'm concerned about populating it back up." (PCP)

3. Application Service Provider (ASP)

Opinions on ASP

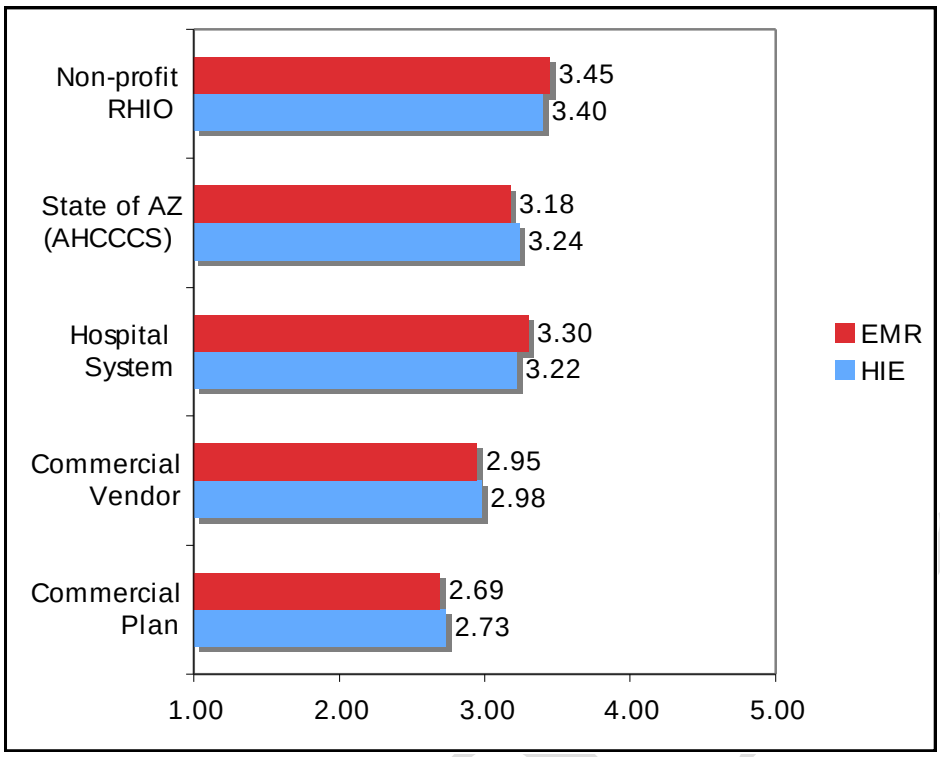
Most focus groups participants were neutral on the use of an Application Service Provider. Some acknowledged the benefits of off-site management and availability of local/statewide technical expertise. Others were concerned about the impact of technical problems on workflow, especially in the rural areas. Overall, participants assumed that whatever trusted entity guaranteed performance, backup would be appropriate, whether on-site or with ASP, and that their problems will be dealt with quickly.

4. Trust to Support EMR and HIE

The findings noted below are derived from the quantitative survey (**Appendix G**) distributed during the focus group meetings. Respondents were asked to indicate their level of trust in the State of Arizona (AHCCCS), a commercial health plan, a hospital system, a non-profit Regional Health Information Exchange Organization (RHIO), a commercial vendor, or another entity to support web-based EMR services and HIE services. The survey used a scale of 1 to 5, with 1 being low trust and 5 being high trust.

The RHIOs and AHCCCS were seen as trustworthy entities to manage and deploy EHR and HIE. The results of the ranking exercise are presented in **Chart 2**.

Chart 2: Degree of Trust to Support Web-Based Services



Non-Profit RHIO

Respondents reported the highest level of trust in a non-profit RHIO to support both EMR and HIE. Many participants said during the focus group discussions that it seemed like a good idea to have RHIOs serve in this capacity, but others noted that they do not enough experience yet to judge them. Some of the providers were aware of failures of RHIOs elsewhere in the country.

AHCCCS

AHCCCS scored second in the highest level of trust to support HIE and third highest to support EMR. During focus group discussions, participants said their level of trust in AHCCCS was influenced by negative past experiences with reimbursement, eligibility, and accuracy. Many expressed concerns that HIeHR project benefits AHCCCS more than providers or patients.

> *"I understand the security and stringency with which data is guarded by AHCCCS." (Pharmacist)*
>
> *"They are structured so the level of competency is there." (ED Physician)*
>
> *"One concern is the Big Brother factor. What is the State going to do with the data and how will it come back to screw my reimbursement?" (PCP)*
>
> *"The beneficiary of this whole project is AHCCCS. Secondary benefits are for the physicians, with better patient continuity at best. The real beneficiary is the payer. Data tracking, QA, and cost management—why should physicians pay money to participate?" (PCP)*
>
> *"AHCCCS can't even get people's names right." (Behavioral Health Provider)*

Hospital System

Hospital systems scored second highest in level of trust to operate EMR and third highest for HIE. Comments during the focus group discussions gave insight into differences in perceptions about hospitals and health systems. Hospitals' experience in HIPAA and security would be valuable, but hospital IT systems and support are historically inadequate. However, many providers are currently working closely with their local hospital system to implement a strategy to work together in implementing and integrating a HIT system between the hospital and physician offices.

> *"None of the hospital systems are stable to begin with." (ED Administrator)*

Commercial Vendor

Commercial vendors scored second lowest in level of trust for both EMR and HIE. Several focus group participants stated their belief that profit-making motives would negatively impact decisions about health information exchange. A number pointed out that commercial entities are inherently unstable and could go out of business.

> *"They have an interest in making a profit off proprietary information." (Behavioral Health Provider)*

Commercial Health Plan

Commercial health plans scored lowest in levels of trust for both EMR and HIE. Participants were concerned were how insurers would use the data and if information would be used to deny insurance coverage to patients.

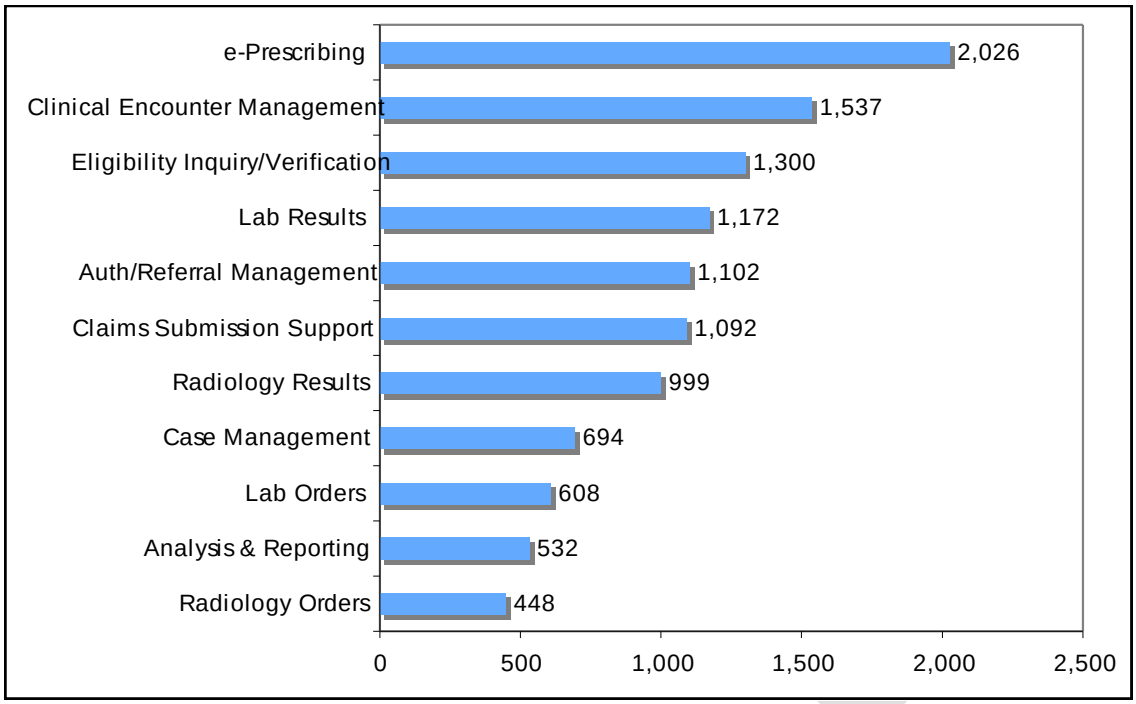
> *"They could have an ulterior motive for wanting the information. They'll use it to deny coverage." (Behavioral Health Provider)*

5. EHR Priority Features

The findings noted below are based on a Ranking Survey (**Appendix F**) distributed during the focus group meeting. Respondents were asked to consider the 11 potential EHR features summarized in **Chart 3**. Instructions indicated that each respondent could "spend" 100 points to indicate priorities for potential features.

The results of the ranking exercise are presented in **Chart 3**.

Chart 3: EHR Priority Features — Total Number of Points Received



e-Prescribing

Participants ranked the e-prescribing feature the most important priority overall by a substantial margin. Many focus group participants stated that this feature could save physicians and their staff time as well as reduce errors and improve patient safety.

PCPs who have experience with the electronic prescriptions feature as part of their current EMR indicated that it worked well. Many providers said that they would like to be able to see fill history as well as prescription history. Participants asked that informed consents be included within the feature and emphasized that universal interfaces are necessary.

> *"As someone who takes care of thousands of patients, my concern is the interfacing. If it can be done, it will be embraced. If it requires additional work, it will not." (ED Physician)*

Clinical Encounter Management

Clinical encounter management was ranked as the second place priority overall. Participants said that the format of this feature should be streamlined and easy to read. Some expressed concerns regarding exception charting and the quality of documentation overall with electronic charting. Several participants suggested that the SOAP note was outdated and that S-BAR should be used instead.

> *"All of these features would be tremendous. You'd have an accurate update constantly. Records of immunizations, medications, and allergies are very important." (ED Physician)*

> *"It's shocking to see the term SOAP appear on a slide for a new project—it's antiquated." (LTC Provider)*

Eligibility Inquiry/Verification

Eligibility inquiry/verification was ranked as the third priority feature overall. This feature is currently being used by many providers, who emphasized the importance of continuing its functionality and updating it daily for provider billing and payment of services. The ED physicians stated that this was less important to them since their work does not involve determining eligibility or verifying insurance; this function is handled by the hospital.

> *"It has to be real-time. It doesn't do us any good if it takes three weeks to be updated." (LTC Provider)*
>
> *"If available electronically, with a few clicks of the mouse…all of a sudden we are taking care of patients in the office instead of spending so much time on the computer." (Specialist)*
>
> *"This is needed because it changes monthly." (PCP)*
>
> *"Currently, the system in most offices is to check eligibility by phone; this consumes huge amounts of staff time." (Specialist)*

Lab Orders/Results

The lab orders feature was ranked ninth priority overall and lab results fourth priority overall. Most of the focus group participants agreed that the information is extremely useful and would help to avoid duplication of tests. In particular, the ED is interested in timely and accurate results for patient safety and appropriate treatment. Participants noted that the integration of the data in this area would be a challenge since many labs do not use the same language. Standards would be necessary for successful implementation.

> *"Physicians will like this because they can have access to the patient's medical record and review results for tests done the day before." (LTC Provider)*

Authorization/Referral Management

The authorization/referral management was ranked fifth priority overall. Participants noted that currently it takes a lot of time to track this information. If feedback was available online, it would be easier to track the status of authorizations and referrals to other providers for continuity of care. There would be a savings in time and improvements in patient safety.

> *"We spend a lot of nursing dollars to get authorizations." (LTC Provider)*
>
> *"This is helpful if up to date, accurate, and specific." (Specialist)*

Claims Submission Support

Claims submission support was ranked sixth priority overall. Participants said that the system is currently in place and needs to be continued. Electronic submission allows for faster reimbursement. Some said that a standardized format (for all payers) would be helpful.

> *"Payment confirmation!" (PCP)*
>
> *"It would be helpful to be able to track claim status." (ED Administrator)*

Radiology Orders/Results

The radiology orders feature was ranked eleventh priority overall and radiology results was ranked seventh priority. Most agreed that the information was extremely useful and would help avoid the duplication of tests. The ED providers were interested in timely and accurate results to improve the services they provide. Many physicians have this capability at the present time and find the usefulness varies by specialty.

> *"Being able to specifically see the image, not necessarily the report [is important], but both would be helpful." (ED Provider)*

> *"For orthopedic surgeons, the quality of the digital image is not sufficient to make the kinds of specific measurements needed prior to surgery. If I don't have film, I need to repeat the imaging." (Specialist)*

Case Management

Case management was ranked eighth priority overall. Most physicians stated that they were not directly involved with case managers, but that it would be important to have this information available to assist in the continuity of care for patients. Many providers currently work with the case managers from health plans and AHCCCS and understand the value of this service.

Analytics and Reporting

The analytics and reporting feature was ranked tenth priority overall. While it has proven to be very valuable to LTC facilities, it is of lesser value to physicians. However, many physicians recognize that it may be of value in the future with the implementation of Pay for Performance initiatives. It was the impression of many providers that this may be more useful to insurance companies, rather than to the providers themselves. Participants also stated that it would be useful to integrate the information with other registries and allow the system to track patients longitudinally over time.

> *"…if truly transparent, 'Big Brother System' is now looking at everything I am doing for the patient, seamless integration. How will reports be integrated into the system?" (PCP)*

Additional Features and Participants

Unprompted, many participants suggested additional features to be included in the EHR and available through the HIE. These included information on advance directives and a tracking system to track patients, claims, referrals, etc. Participants said that urgent care centers and retail clinics ("minute clinics") be involved as part of the HIE.

6. Adoption and Implementation Assistance

Hardware, Training & Support

Many focus group participants, especially those in the rural areas, stated that small providers should be subsidized in some way to make transition to electronic records economically feasible. Many also suggested that AHCCCS should provide education and training to clinical providers and staff during the transition from paper to electronic records, with a focus on HIPAA issues. Technical assistance would be needed when evaluating EMR systems during the purchasing process as well as ongoing technical assistance once the EMR and HIE are implemented.

Ongoing Communication

Focus group participants want to be kept informed and updated on the progress of the HIeHR Utility Project. Several of them worry that the State Legislature will not adequately fund HIeHR in the future and a lot of money will be spent needlessly. Frequent communication would be helpful to alleviate concerns and report on progress.

> *"Communicate about the progress of HIeHR development to all providers and hospitals." (PCP)*

> *"Given our legislature, I'm worried that AHCCCS will build this system, and then the state will cut off funding." (PCP)*

7. Patient Privacy, Security, and Liability

The following comments were unsolicited but provided by focus group participants as suggestions for consideration.

Patient Privacy

Several providers expressed a strong belief that patients should be able to control who has access to specific components of their clinical data. There were mixed perceptions on who should own the data, consumers or providers, and somewhat of a disagreement on the rights of consumers to all of the data. During the focus groups, participants said that they were reassured to hear that the Arizona Health Privacy Project was part of HIeHR development and the initiatives were being worked on simultaneously. Many voiced concern that insurers will use data to deny coverage. A number were afraid that hackers could view and change medical data.

Misinterpretation of Data

Uniformity and standards will be necessary so the data is not misinterpreted or misused. A number of participants voiced concern that the brevity of checkboxes and pull-down menus did not allow documentation of the provider's decision-making process, which could lead to misunderstandings when records are reviewed.

> *"Since the thought process is not written down, you may get dinged on something when I have actually done something in the best interest of the patient." (PCP)*

Liability

Most focus group participants expressed concerns about professional liability, including:

- How to prevent inappropriate access by office staff.
- The potential consequences of a provider's failure to access all the data contained in EHR when adverse events occur, given the potential for very large amounts of data to be available through HIE.
- Will providers be held liable if the available data were not timely and accurate?

8. Health Information Technology Provider Survey Findings

After focus group participants had viewed a slide presentation on health information technology and the HIeHR Utility Project and before the beginning of the facilitated discussion, the moderator asked participants to complete a four-page, written, quantitative survey (**Appendix G**).

A total of 129 participants completed the survey; others felt they had insufficient information to answer the questions or felt it did not apply to their situations. Unprompted, many participants commented that the survey was lengthy and complex and that they would need to consult with business staff to provide accurate information.

Data analysis revealed that many participants left a large number of data fields incomplete. Consequently, the research consultants recommend that the current survey and data be considered as a pretest for validity and reliability, that the survey instrument and collection methodology be revised, and that a more robust study be conducted.

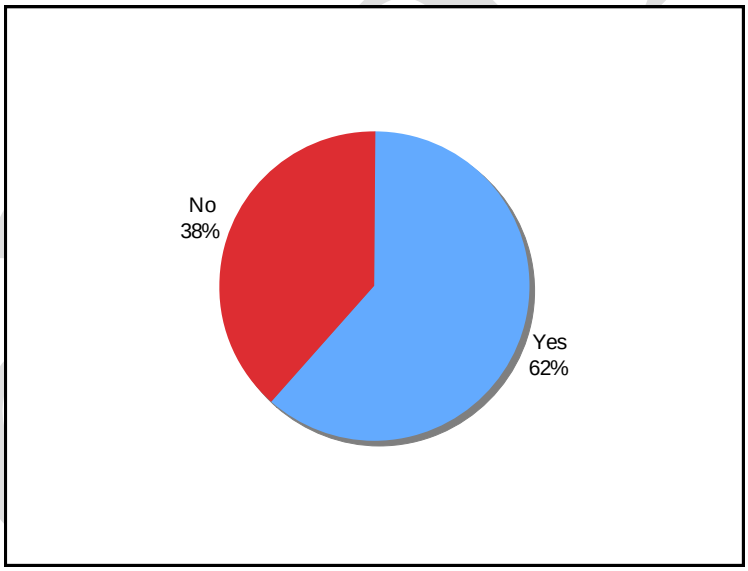
Internet Access

Almost all practices have high-speed Internet access at the main practice site and a large majority are satisfied with their Internet connection, as presented in **Appendix H, Charts A-C**.

Electronic Medical Records

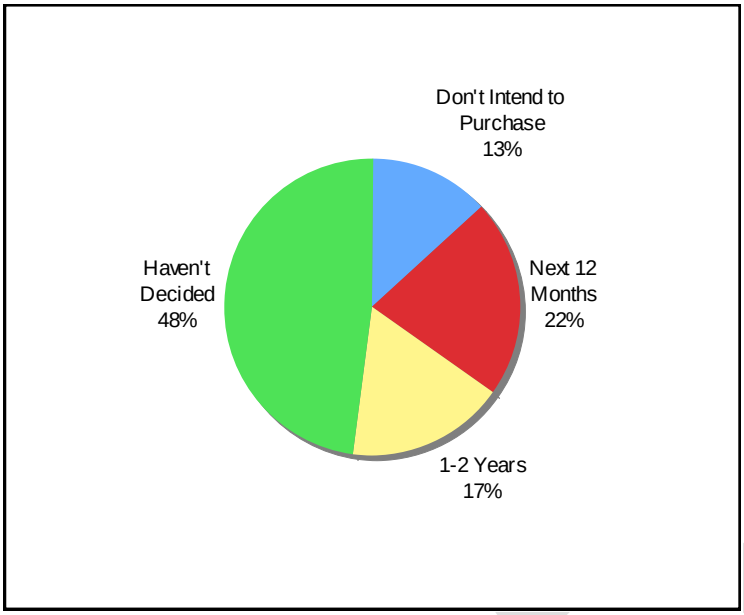
Almost two-thirds of respondents currently use or are in the process of installing an EMR system (n=120), as presented in **Chart 4**. Of those who currently have EMR or plan to purchase a system within the next two years, most would be interested in using a health information exchange, as presented in **Appendix H, Chart D**.

Chart 4: Currently Use EMR or In Process of Installing EMR



Almost half of those without EMR are undecided about purchasing a system (n=46), as presented in **Chart 5**.

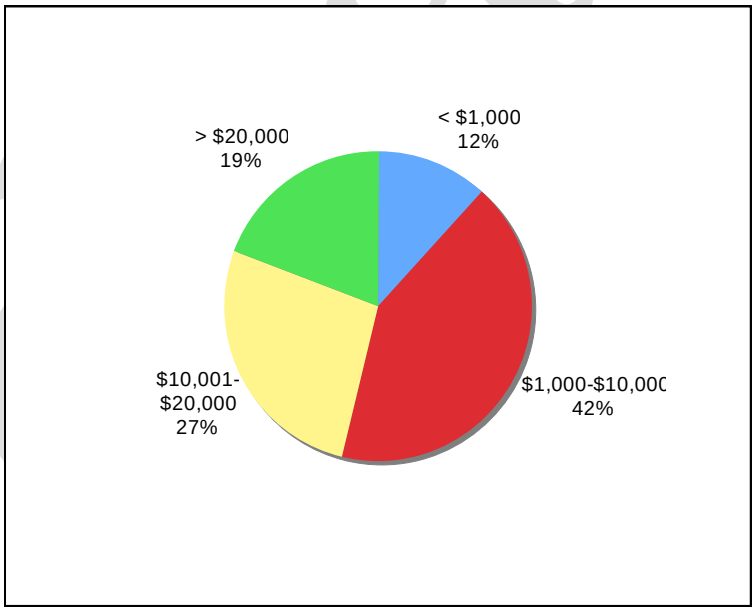
Chart 5: Intent to Purchase EMR



Planned Investment in EMR

There was wide variation in the amount of money respondents said they would invest in EMR per full-time physician (n=26), as presented in **Chart 6**.

Chart 6: Planned Investment in EMR per FT Physician



Willingness to Pay for HIE

Of those with an EMR system or plans to purchase one in the next two years, most would not be willing to pay for access to an HIE (n=65). About one-quarter of respondents said they would be willing to pay $100-$300 per month per full-time provider (**Appendix H, Chart E**). There was not a correlation between practice location and the amount a respondent was willing to pay for HIE.

Virtually all of those respondents who do not plan to purchase an EMR (42 of 43) would be interested in using an HIE to view information electronically, but most do not want to pay a monthly subscription (**Appendix H, Chart F**).

9. Recruiting Challenges and Lessons Learned

Recruiting Findings

- Most participants acknowledged the value of HIE and EHR.
- They appreciated being asked by AHCCCS to provide feedback through the focus group process.
- Recruiting responses suggested that there may be less interest in HIT among specialists compared to PCPs.
- Several of the clinical providers invited (unprompted) their IT and/or financial officers to accompany them to focus groups.
- Participants indicated that it is important to recognize the relationship between the hospitals and physicians when planning and coordinating the HIeHR Utility Project.
- Hospitals stated that fewer than 10 percent of physicians invited to hospital meetings attend due to limited time and interest so other incentives need to be included to encourage active participation by physicians. By working closely with the hospitals, a strategy to solicit physicians' participation can be developed.
- Physicians who were offered the Epocrates Pro incentive appreciated receiving the product and the thank you from AHCCCS. Other incentives could be offered as an incentive to attend as well as a thank you gift.
- The most effective method for recruitment is a personal peer invitation.

Recruiting Challenges

There were several recruiting challenges. The first was the lack of an approved vehicle to provide payment of honoraria to participants. The Epocrates Pro incentive became available too late in the recruitment process to effectively impact the process. When is did become available, it's potential value to the earlier recruitment process was clear.

The Epocrates Pro incentive was offered only to physicians; no incentive was offered to other participants.

In developing the physician list for invitations, the AHCCCS address database was difficult to work with and contained some inaccurate addresses. Significant consultant resources were devoted to cleaning up the list and working with the hospitals and other professional associations in identification of key physicians to participate in the meetings. Because the HIeHR Utility Project was new, there was a very low level of awareness prior to recruiting; a broader community knowledge base would be value to such efforts in the future.

Operational Opportunities for Improvement

Several lessons have been learned in the focus group process. Would consider, for future focus groups,

- Increase local public relations activities related to HIE, HIT and HIeHR.
- Identify vehicle for participant honoraria and allocate in budget.
- Identify and organize incentives prior to initial recruiting (such are highly appreciated by participants).
- Obtain full list of reliable contact information prior to scheduling focus groups.

10. Conclusions

Conclusions

In conclusion, participants in the focus group sessions shared valuable information. In planning the next steps for successful implementation, it is important for AHCCCS to address each of the following issues:

- Develop a strong value proposition that will demonstrate the benefits to healthcare providers in Arizona, including cost-savings, efficiencies, and source of funding.
- Clarify data ownership issues and other security/privacy concerns.
- Implement the HIeHR Utility as an all-payer system (versus an AHCCCS-only).
- Synthesize and organize patient records so that the Utility is friendly for providers and patients.
- Earn trust through demonstration of reliable performance in all aspects of the HIeHR Utility. Recognize the importance of social capital.
- Maintain regular and direct communication with the healthcare community (rural, suburban, and urban) to include sharing successes and lessons.
- *"Who wouldn't want an information exchange like this? It could provide huge benefits to patients and providers." (PCP)*

Appendix A

Individuals Assisting with Scheduling and Recruitment

- Jack Beveridge, President and CEO, Empowerment Systems
- Jerry Boehm, Director of Operations, Interim CEO, Arizona Council of Human Service Providers
- Jill Bullock, Education Program Specialist, and Kevin E. Driesen, PhD, Administrator, Southern Arizona, AHCCCS

- James Burke, MD, Sr. Vice President & Chief Medical Officer, and Irv Rollingher, MD, Medical Director, Scottsdale Healthcare
- Brad Croft, DO, Physician, Flagstaff
- Marty Dernier, Richard Stubbs, MD, Medical Director, and Becky Hall, Casa Grande Regional Medical Center, Assistant to the CEO
- Sandra Espinoza, Flagstaff Regional Medical Center, Director, Emergency Department
- Anita Hancock, Banner Good Samaritan, Director, Quality Management and Patient Safety
- Cindy Hisrich, ANP, Practice Manager, Nurse Practitioner, Camp Verde
- John Hoyt, Partner, InTech Health Ventures
- Bruce Norton, Sr. Vice President & CFO and Sandy Berry, Executive Assistant to the CFO, Sierra Vista Regional Health Center
- Rich Polheber, CEO, and Marlene Wade, Chief Nursing Officer, Carondelet Holy Cross Hospital, Nogales
- Gene Shaw, Vice President, Information Technology & Chief Information Officer and Lisa Roth, Director, Clinical Informatics, Yuma Regional Medical Center
- Julie Schourup, MD, Executive Director, Cochise Network Association
- Mardy Taylor, Director of Nursing, Robert Kec, MD, Emergency Department, and Brian Hoefel, CFO, Yavapai Regional Medical Center
- Tim Tracy, CEO/Executive Vice President and Linda Ott, Director of Emergency Services, John C. Lincoln Hospital – Deer Valley
- Carol Wagner, Associate Vice President of Operations, Arizona Medical Association
- Kelli Ward, DO, Physician, Lake Havasu City
- Donna Zazworsky, Manager Diabetes Care, Carondelet Health Network

Appendix B

Focus Group Participants

Adler, Ken, MD, Family Medicine, Arizona Community Physicians

Ahmed, Kamal, MD, Internal Medicine

Alcantar, Eduardo, MD, MPH, Primary Care Physician

Alster, David K., MD, Endocrinology

Apshire, Vance, MD, Internal Medicine

Barnes, Tom, DDS, Dentist, Coconino County Health Department Dental Clinic

Baron, Robert, MD, Director, Emergency Med. Services, Banner Good Samaritan

Beach, Bruce, CPA, Accounting/Bus.Advisory Firm, Beach, Fleischman & Co., PC

Bell, Charlie A., DO, Internal Medicine

Beveridge, Jack, , CEO, EMSYS Empowerment Systems, Inc.

Block, Joel, MD, Obstetrics, Carondelet Health Network

Bojorquez, Luz, VP, CFO, A New Leaf

Bolhack, Scott, MD, Practice Administrator, CIO, Tucson Long Term Care Medical Group

Brennan, Gary, CEO, Quality Care Network, Inc.

Cady, Sandra, Director, Medical Staff Services, Yuma Regional Medical Center

Calhoun, Brian, IT Staff, Sierra Vista Regional Health Center

Carpenter, Laura, RPh, JD, Pharmacist, Health Care Attorney

Chaney, Karen, MD, Terros

Colburn, Beth, RN, Nursing Administrator, Cochise Community College

Collins Pagels, Kathleen, Executive Director, Arizona Health Care Association

Conn, Jen, MD, Medical Director, ED, Flagstaff Medical Center

Corless, Todd, Administrator, Chandler Health Care Center

Cornell, Anne, Intensive In-Home Director, Arizona Children's Association

Cracovaner, Mike, New Pueblo Medicine

Crawford, Guy, MD, Family Practice, Carondelet Health Network

Croft, Brad, DO, Family Practice

Davies, Byron, Arizona Health IT Accelerator

Delaossa, Adam, Administrator/CIO, Marana Health Center

Denton, Judy, RN, MAM, MSN, FNP, Director, Emergency Services, Yavapai Regional Medical Center

Donahue, Michelle, RN, Administrator, Desert Cove Nursing Center

Dowling, Ronnie, MD, Orthopedic Surgeon

Dunaway, Carol, RN, Chief Nurse Executive, NOVA

Duncan, Duke, MD, Pediatrician

Dunlap, Ken, Clinical Director, Pantano Behavioral Health Services

Dunnigan, Anthony, MD, Indian Health Service

Durst, Linda, MD, Medical Director for Behavioral Health Services, University Physicians Healthcare Hospital at Kino Campus

Edwards, David, MD, Internal Medicine, Banner Health

Eller, Kent, MD, Magellan Health Services

Endsley, Scott, MD, MSc, Medical Director, System Design, Health Services Advisory Group

Espinoza, Sandi, RN, Director, ED, Flagstaff Medical Center

Ferrara, John, MD, Medical Director, Trauma Services, Banner Good Samaritan

Fisher, Charles, MSW, CEO, Catholic Community Services in Southeastern Arizona

Flatley, Paul, DO, Scottsdale Healthcare

Frederick, Fred, Director of Information Technology, Southwestern Eye Center

Garrity, Jim, Tucson Orthopedic Institute

Geete, Jayante, MD

Gentile, Edward, DO, Chief Medical Officer, Community Partnership of S. AZ

Gilson, George

Gonzales, Cindy, Billing Coordinator, Scottsdale Healthcare

Griffis, Michael, IS Director, TMC Healthcare

Hancock, Anita, Director, Quality Management and Patient Safety, Banner Good Samaritan

Hardesty, Chip, Radiology Ltd.

Haun, John, MD, Medical Director, Chiricahua Community Health Centers, Inc.

Haun, Melina, RN, Nursing Director, Chiricahua Community Health Centers, Inc.

Haydt, Suzanne, Informatics, Carondolet Medical Group

Healy, Stephanie, President, Hospital Council of Southern Arizona

Hightower, Celia, El Rio Community Health Center

Hippenmeyer, Carol, MD, Medical Director, ED, Holy Cross Hospital, Carondelet Health Network

Hisrich, Jim, DDS, Dentist

Hisrich, Cindy, ANP, Office Manager, Nurse Practitioner

Hoefle, Brian, CFO, Yavapai Regional Medical Center

Holbrook, Billie, DDS, Dentist

Holcomb, Sally, Community Development and Prevention Director, SEABHS/NewTurf

Howe, Carole, Senior Clinical Manager ED, Banner Good Samaritan

Hoyt, John, In-Tech Health Ventures

Jacobson, George, Administrator, Apache Junction Health Center

Joyce, Pat, RNP, Primary Clinician, COPE Community Services

Kalyanramam, Bharathan, PhD, UPH Director Quality Improvement, University Physicians Healthcare

Kazi, Nadeem, MD, Internal Medicine, Gastroenterology

Keberlein, Michael, MD, Internal Medicine

Kec, Robert, MD, Emergency, Yavapai Regional Medical Center

Kelly, Douglas, MD, Orthopedic Surgeon

Kile, Miriam, Director, Clinical Operations, Community Partnership of S. AZ

King, Matthew, MD, Chief Medical Officer, Clinica Adelante

Knickerbocker, Zacharias, VP of Clinical and Detox Services, Compass Health Care

Krohn, Lisa, Executive Director, Encanto Palms Assisted Living

Kubala, Diane, RN, Clinical Consultant, Residents First

Langford, Kathie, Mountain View Manor

Larsen, Brent, MD, Scottsdale Healthcare

Latham, Elizabeth, MSN, FNP-C, Interim CEO, Canyonlands Community Health Care

Leon, Jose, Site Administrator (3 sites), SEABHS

Levey, Larry, Arizona Community Physicians

Linda, John M., Director, Member Services, Arizona Health Care Association

Little, Carol, CEO, SAMHC Behavioral Health

Long, Cleo, Office Manager, Arizona Senior Care Pharmacy

Martin, Andrew, MD, Family Practice

Mayer, Jeff, MD, Internal Medicine

Metzger, Toby, IT Director, Director of Business Development, Dependable Medical Transport Services

Mitchell, Julie, RN, Administrator, The Gardens Care Center

Morris, Mitch, Deloitte

Murphy, Steve, MD, ED Medical Director, Banner Good Samaritan

Nash, Steve, Executive Director, Pima County Medical Society

Nguyen, Linh, MD, MS, Global MD Network, LLC

Norquist, Craig, MD, Scottsdale Healthcare

Northrup, Kathy, Director, Mendy's Place (Peds ED), John C. Lincoln Hospitals-Deer Valley

Norton, Bruce, Senior Vice President, CFO & Compliance Officer, Sierra Vista Regional Health Center

Ott, Linda, Director, Emergency Services, John C. Lincoln Hospitals-Deer Valley

Palmer, Jim, Administrator, Radiology Ltd.

Park, Richard, Nursing Home Administrator, Villa Maria

Parker, Cindy, RN, Director of Nursing, Winslow Campus of Care

Partovi, Shahram, MD, St. Joseph's Hospital & Medical Center

Patterson, Peter, MD, Pathology, Yuma Regional Medical Center

Paulis, Leslie, Arizona Evercare, Clinical Care Center

Pazzi, Nick, DO, Primary Care

Peak, Ashley, RN, Clinical Coordinator, Flagstaff Medical Center

Pelton, Dale, MBA, FACHCA, Executive Director, Valley Health Care and Rehabilitation Center

Perry, Sheila, Administrator, Meadow Park Care Center

Perry, Patti, MD, Pediatrics, Yuma

Peterson, Jayne, MD, Medical Director, IM Residents, Continuity Clinic, Banner Good Samaritan

Pike, William, Director of Public Policy & Community Affairs, Carondelet Health Network

Pitluk, Howard, MD, MPH, FACS, Associate Medical Director, Health Services Advisory Group

Porter, Radi Ann, RN, Home Health Director, Catholic Community Services in Southeastern Arizona

Prudence, Michael, Chief Financial Officer, Southeastern Arizona Behavioral Health Services (SEABHS)

Punnakkattu, Rajeesh, MD, Internal Medicine

Ranieri, Dan, PhD, President and CEO, La Frontera, Inc.

Reese, Joanne, Administrator, Kachina Point Healthcare

Riedel, William , Clinical Director, Family Service Agency

Rimsza, Mary, MD, FAAP, FSAM, Pediatrician

Rivera, Dona, VP for Adult Network Services, CODAC Behavioral Health Services, inc.

Rockney, Sue

Rogers, Stephanie, IT Director, SAMHC Behavioral Health

Rojas, Oscar, MD, Pediatrician, Carondelet Health Network

Rollingher, Irv, MD, Scottsdale Healthcare

Ross, Christy, RN, Process Improvement, Flagstaff Medical Center

Roth, Lisa, RN, Director, Clinical Informatics, IT, Yuma Regional Medical Center

Sall, Andrew, MD, FAAFP, Medical Director, North Country HealthCare

Schmidt, Joyce, MD, Scottsdale Healthcare

Schourup, Julie, MD, MPH, Executive Director, Cochise Health Network

Schwager, Edward, MD, Family Medicine, Carondelet Medical Group

Schwartz, Aimee, MD, Magellan Health Services

Seaney, Vanessa, Network Development Manager, Community Partnership of S. AZ

Seckinger, Rick, DO, Family Practice

Sedillo, Connie, Operations Coordinator, Flagstaff Medical Center

Shaw, Gene, CPHIMS, Vice President, Information Technology & Chief Information Office, Yuma Regional Medical Center

Shulman, Lynn, Senior Director of Adult Network Services, CODAC Behavioral Health Services, Inc.

Silcox, Mary Jo, VP of Operations and Performance Improvement, Compass Health Care

Simpson, Richard, IT Director, Chiricahua Community Health Centers, Inc.

Sisley, Sue, MD, Psychiatry & Internal Medicine

Smith, Joseph, Medical Director, Kingman Regional Medical Center

Smythe, Rob, MD, Internal Medicine

Spigner, Bruce, DDS, Dentist

Streitwieser, David, MD, ED Medical Director, Chief of Staff, Banner Good Samaritan

Stubbs, Richard, MD, Medical Director, Casa Grande Regional Medical Center

Sundag, Susie, Nurse Manager, ED, Holy Cross Hospital, Carondelet Health Network

Teplitz, Marilyn, BS, MBA, MT (ASCP), FHIMSS, Principal, MGT Associates, LLC

Thompson, Denise, The Resolution Group

Treeful, Patricia, CEO, Pantano Behavioral Health Services

Tritle, Brad, Executive Director, Arizona Health-e Connection

Vietti, Mark, MD, Internal Medicine, El Rio Community Health Center

Wade, Marlene, Chief Nursing Officer, Holy Cross Hospital, Carondelet Health Network

Wadleigh, John, DO, Subacute and SNF Care, Old Pueblo Medical Consultants

Wallace, Mark, MD, Internal Medicine, Partners in Medicine

Walters, Jane, Director, Health Information Systems, Banner Good Samaritan

Wang, Ching, MD, Internal Medicine

Ward, Kelli, DO, Primary Care

Warholak, Terri, PhD, RPh, Assistant Professor, Pharmacy Practice and Science, University of Arizona College of Pharmacy

West, Neil, Consultant

Appendix C

Recruitment Strategies and Results			
FG Date	**County**	**Recruitment Strategy**	**Results**
10/2/07	Maricopa	"Proof of Concept" initial focus group – personal invitations	12 participants
10/24/07	Maricopa	Letters mailed to 14 PCPs recommended by professional associations & societies.	2 participants
10/25/07	Maricopa	Letters mailed to 16 specialists recommended by professional associations & societies.	No participants
10/25/07	Pima	Invitations sent by Southern Arizona Health Information Exchange to 28 individuals.	19 participants
10/30/07	Pinal	Letters mailed to 32 PCPs listed in the Casa Grande Regional Medical Center Physician Phone List, Updated Oct. 16, 2007.	3 participants
11/1/07	Pima	Letters mailed to 15 dentists recommended by AzDA and Dept. of Oral Health.	1 participant
11/2/07	Pima	Letters mailed to 14 long-term care providers recommended by AHCA.	5 participants
11/2/07	Pima	Electronic invitations issued by AOMA to 13 primary care providers attending AOMA meeting.	3 participants
11/5/07	Cochise	Letters placed in 61 physicians' mailboxes at Sierra Vista Regional Medical Center.	11 participants
11/6/07	Coconino	Personal invitations issued by Dr. Brad Croft, DO, to 8 PCPs.	6 participants
11/6/07	Maricopa	Internal hospital e-mails to 15 ED physicians and administrators at John C. Lincoln Hospitals asking them to attend and to invite others in their departments.	2 participants
11/7/07	Maricopa	Letters mailed to 18 long-term care providers recommended by AHCA.	8 participants
11/8/07	Yavapai	Letters mailed to 9 long-term care providers recommended by AHCA.	9 participants
11/12/07	Maricopa	Initial invitation was sent to over 1,200 dentists in Arizona from the Arizona Dental Association. Separate invitations were mailed to 19 dentists recommended by the Dept. of Oral Health, followed by letters mailed to 87 dentists from AHCCCS database, with no positive responses. Personal invitations issued by Dr. Anita Murcko, MD, resulted in 4 participants.	4 participants

Recruitment Strategies and Results			
FG Date	**County**	**Recruitment Strategy**	**Results**
11/13/07	Pima	Letters mailed to 17 PCPs and 15 specialists recommended by professional associations & societies. Second mailing sent to 195 additional physicians.	1 participant
11/13/07	Pima	Letters mailed to 22 behavioral health providers recommended by Community Partnership of Southern Arizona.	17 participants
11/14/07	Maricopa	Letters mailed to 15 PCPs recommended by professional associations & societies. Second mailing sent to 200 additional physicians.	1 participant
11/14/07	Yuma	Letters mailed to 14 PCPs recommended by Gene Shaw and Lisa Roth.	4 participants
11/15/07	Yuma	Letters mailed to 27 specialists recommended by Gene Shaw and Lisa Roth.	4 participants
11/15/07	Yavapai	Letters mailed to 10 PCPs recommended by professional associations & societies.	No participants
11/20/07	Coconino	Internal hospital e-mails to 5 ED physicians and administrators at Flagstaff Regional Medical Center.	5 participants
11/26/07	Mohave	Letters mailed to 12 PCPs recommended by Dr. Kelli Ward, DO.	1 participant
11/27/07	Maricopa	Internal hospital invitations to ED physicians and staff (Scottsdale Healthcare).	6 participants
11/28/07	Maricopa	Letters mailed to 20 behavioral health providers recommended by Magellan Health Services and Arizona Council of Human Service Providers	11 participants
11/29/07	Maricopa	Internal hospital e-mails to 13 ED physicians and administrators at Banner Health.	8 participants
12/3/07	Yavapai	Internal e-mails sent to ED physicians and staff (Yavapai Regional Medical Center)	3 participants
12/4/07	Santa Cruz	Phone calls and hospital e-mails sent to ED staff (Holy Cross Hospital) recommended by Marlene Wade	3 participants
12/4/07	Santa Cruz	Phone calls and hospital e-mails sent to PCPs & Specialists (Holy Cross Hospital) recommended by Marlene Wade	3 participants
12/7/07	Navajo	Phone calls, faxes and e-mails sent to several physicians	1 participant
12/8/07	Pima	Phone calls and faxes to 30 participants at ACP meeting.	3 participants
12/10/07	Coconino	Phone calls and e-mails to 6 providers	1 participant

Appendix D

Collateral Materials

HIeHR Utility Project Overview

Sample Invitation Letter

Sample Fax-back Form

AHCCCS

Arizona Health Care Cost Containment System **Medicaid Transformation Grant Project**

Health Information Exchange & Electronic Health Record (HIeHR)

The **HIeHR Utility** Project

Higher quality healthcare through technology

The HIeHR Utility Project, under a Federal Medicaid Transformation Grant, will develop and implement a statewide, secure, online Health Information Exchange (HIE) and Electronic Health Record (EHR) system. A secure web portal will give authorized AHCCCS providers quick access to electronic health records—when and where the information is needed for care. To create a safer healthcare environment for all Arizonans, **HIeHR** is also working closely with other HIE initiatives in the state. Let's 'connect' Arizona so everyone has access to **HIeHR** quality care.

AHCCCS was awarded a Federal Medicaid Transformation Grant in 2007 to develop and implement an online Health Information Exchange (HIE) and a secure web portal to enable authorized AHCCCS providers to have fast and easy access to members' electronic health records (EHR) at the point of care by 2009. Benefits include:

- Creating a "virtual medical home" that makes critical healthcare information available when and where it is needed
- Enhancing coordination of healthcare across the continuum
- Improving quality and controlling costs by reducing duplicative services, medication problems, delays in care, and the likelihood of medical errors
- Reducing administrative costs and minimizing delays in provider payments

The **HIeHR** web portal will feature electronic medical record functions and integrated clinical decision support tools for better care management. Automated reporting for diseases and syndromes will enhance public health and bio-surveillance activities.

The **HIeHR** Utility Project is aligned with the goals of **Arizona Health-e Connection** (**AzHEC**), a nonprofit organization formed in 2007 to implement HIE and to coordinate the deployment of HIT in Arizona, and the **Arizona Health Privacy Project**, which is developing solutions to HIE privacy and security issues. **HIeHR** is also working closely with other HIE initiatives in the state. Foremost is the **Southern Arizona Health Information Exchange (SAHIE)**, a nonprofit organization sustained by a coalition of healthcare institutions and aligned stakeholders in the region.

Information technology can help improve the quality, efficiency, and effectiveness of care. Help Arizona get 'connected.' Participate in upcoming surveys, focus groups and other activities. For more information, visit **http://www.azahcccs.gov/eHealth/** or contact:

Anita C. Murcko, MD, Medical Director at 602.417.6987 or anita.murcko@azahcccs.gov
Lindsey Kroll, Provider Relations Manager at 602.417.6974 or lindsey.kroll@azahcccs.gov

Sample Letter

Arizona Health Care Cost Containment System *Medicaid Transformation Grant*

Health Information Exchange & Electronic Health Record (HIeHR)

The **HIeHR Utility** Project

Higher quality healthcare through technology

Plus other logos as appropriate to target audience

«First_Name» «Last_Name», «Credentials»
«Address»
«City», «State» «Zip»

Dear [Dr./Mr./Ms.] «Last_Name»:

Arizona Health Care Cost Containment System (AHCCCS) was recently awarded a Federal Medicaid Transformation Grant to develop a statewide online health information exchange (HIE) and electronic health record (EHR) secure web portal.

To ensure that we meet the needs and expectations of Arizona's physicians and other providers, AHCCCS, in collaboration with our state professional associations, is conducting a series of professionally-moderated focus groups with selected [physicians/providers] around our state. We hope that you will be available to join us on:

- Date
- Time
- Location

Please indicate your availability by using the attached fax-back form. Please let your office manager know that we will be calling to follow up on this invitation.

We thank you in advance for sharing your insights and time to help make health care in Arizona better for patients and providers.

Sincerely,

Anita C. Murcko, MD, FACP
Medical Director, Clinical Informatics & Provider Adoption
Arizona Health Care Cost Containment System (AHCCCS)

Attachments:
Transformation Grant Overview
HIeHR Fax-back Form

Sample Fax-back Form

Arizona Health Care Cost Containment System *Medicaid Transformation Grant*

Health Information Exchange & Electronic Health Record (HIeHR)

The **HIeHR Utility** Project

Higher quality healthcare through technology

Plus other logos as appropriate to target audience

«First_Name» «Last_Name», «Credentials»
«Address»
«City», «State» «Zip»

Dear [Dr./Mr./Ms.] «Last_Name»:

Yes, I am available to participate in the focus group on:

☐ [Date] at [time] at [location]

Please indicate the phone number and e-mail we should use to confirm this meeting:

Phone: _____

E-mail: _____

Please fax your response to 480-361-3577

Sharon Flanagan-Hyde, MA, Flanagan-Hyde Solutions, LLC, and Debra L. Nixon, MSHA, BSN, Your Partners in Quality, LLC, are facilitating the focus groups.

Please call Sharon Flanagan-Hyde at 480-361-1795 with any questions.

We look forward to your input. Thank you very much for your interest.

Appendix E

Slides Shown During Focus Groups

So that all participants would have a common understanding of the basic concepts of health information technology and the HIeHR Utility Project, following slides were shown and discussed at the beginning of each focus group.

[In Separate file]

Appendix F

Focus Group Discussion Guide and Ranking Sheet

Facilitated Discussion [50-55 minutes]

We have talked with you about the HIeHR project and its components; now we'd like to concentrate on the EHR. This is one key area of the project that we need your detailed feedback on: What it can do, what it should do, barriers to use, and its potential value to each of you. Or perhaps it's not needed. We'd like your opinion.

1. Let's get started with a show of hands—who currently uses electronic health records? [Moderator will make notes next to each participants name to guide further discussions—probe for whether they have a system installed in office or access using Internet.]
2. Who is considering EHR in the near future?
3. Has anyone used EHR and discontinued it? Why?
4. Anyone here with no interest in considering EHR for your practice? Why?
5. I'd like to talk for a few minutes about Health Information Exchange, HIE, and then we'll get back to a more detailed discussion of EHR. After seeing the slides, what are your thoughts on the concept of connecting with others using a health information exchange?
6. If you currently have an EHR or you are thinking about getting one, what is your level of interest in being connected to an information exchange? Tell me more about why you say that. What, if any, benefits do you see? What, if any, concerns do you have?
7. Now I'd like to shift gears and talk more about the Electronic Health Record or EHR. What assistance might be useful to you in adopting or making greater use of EHR?
8. As we saw in the slides, one option when implementing an EHR is using an Internet-based system, with patient records stored off-site, which is also known as an ASP, an application service provider. What is your level of interest in using an ASP? What, if any, benefits do you see? What, if any, concerns do you have?
9. Now I'd like to talk about specific potential web portal features of an EHR system. Please refer back to your slides handout, beginning with Slide 29, e-Prescribing. What are your thoughts on the value of features related to:
    a. e-Prescribing
    b. Clinical Encounter Management
    c. Lab Orders
    d. Lab Results
    e. Radiology Orders
    f. Radiology Results

g. Case Management

h. Eligibility Inquiry/Verification

i. Authorization/Referral Management

j. Analytics and Reporting

k. Claims Submission Support

10. How important would it be for these features to be integrated with your practice management system? (Probe: Would you use it if it were not integrated?)

11. Now I'm going to pass out a sheet of paper that lists each of these potential web portal features of an EHR system. As new technology is implemented, it's often important to set priorities. Each of you can "spend" 100 points in any way you'd like to indicate your priorities. You can spend all your points on one feature, or divide the points in a way that reflects your relative priorities. (*See Ranking Sheet on following page*.)

12. How willing would you be to use an Internet-based EHR if it were only available for the Medicaid patients you treat? Why do you say that?

13. A range of organizations could play a role in supporting electronic health records. What would be your level of trust in each type of organization to keep records secure and maintain a viable system? What would be the strengths of each in doing so? What concerns might you have? We'll go through the list of organizations one by one:

    a. State of Arizona (AHCCCS)

    b. Commercial health plan

    c. Hospital system

    d. Non-profit regional health information organization (RHIO)

    e. Commercial vendor

    f. Any other type of organization I haven't mentioned?

Conclusion [5-10 minutes]

Now I'd like to give our AHCCCS observers the opportunity to ask any additional questions.

As we finish, what else would you like to say about this topic that you have not had a chance to say already? Any concerns, challenges, or expectations we have not discussed?

Thank you very much for your participation today. Your comments have been extremely helpful and we very much appreciate your time.

Potential Web Portal Features of an EHR System

Please "spend" 100 points to indicate your priorities for potential features. You may spend all your points on one feature, or divide the points in a way that reflects your relative priorities.

Feature	Points
e-Prescribing	
Clinical Encounter Management	
Lab Orders	
Lab Results	
Radiology Orders	
Radiology Results	
Case Management	
Eligibility Inquiry/Verification	
Authorization/Referral Management	
Analytics and Reporting	
Claims Submission Support	
Total Points Equal	**100**

Appendix G

Written Survey

The following written survey was administered to focus group participants at the conclusions of the slide presentation, before the facilitated focus group discussion.

Electronic Health Information Technology Provider Survey

Throughout this survey, your "main practice site" refers to the site where you spend most of your time treating patients.

All responses are confidential. Results will be analyzed in aggregate by an independent research firm, Flanagan-Hyde Solutions, LLC, and no individual responses will be reported.

1. ZIP Code of Main Practice Site _____ **2. Your Position** _____

1a. If multi-site practice, # of other sites _____ **1b. ZIP codes(s) of other sites** _____

3. Which of the following best describes your clinical medical practice?

☐ Primary Care ☐ General Surgical ☐ Emergency ☐ Medical Specialty

☐ Surgical Specialty ☐ Long-Term Care ☐ Hospitalist ☐ Dentist

☐ Behavioral Health ☐ Pharmacist ☐ Other (describe): _____

4. How would you best describe the organizational setting of your practice? (Check only ONE)

☐ Solo primary care practice ☐ Solo specialty care practice

☐ Community Health Center ☐ Academic Medical Center

☐ Primary care group or partnership — # of physicians: _____

☐ Single specialty group or partnership — # of physicians: _____

☐ Multi-specialty group or partnership (Staff or group model HMOs) — # of physicians: _____

☐ Long-Term Care Solo, Group, or Partnership) — # of physicians: _____

☐ Urgent care

☐ Other (describe): _____

5. Including yourself and all full and part-time clinicians in your practice, how many are:

Physicians	
Nurse Practitioners (NPs)	
Physician Assistants (PAs)	
Registered Nurses (RNs)	
Licensed Practical Nurses (LPNs)	
Medical Assistants	
Administration	
Operations	
Other	
Total Staff	

6. Approximately how much does your practice spend each month for transcription services?

☐ < $1,000 ☐ $1,000-$3,000 ☐ $3,001-$5,000 ☐ > $5,000

7. Do you have Internet access at your main practice site?

☐ No ☐ Yes **7a. If yes, is it** ☐ Dial-up ☐ High-speed Internet (DSL/Cable/Other)

7b. Internet service provider (Cox, Qwest, etc.) _____

7c. How satisfied are you with your Internet connection?	☐ Very Dissatisfied	☐ Dissatisfied	☐ Neutral	☐ Satisfied	☐ Very Satisfied

8. To your best knowledge, what percentages of your patients are insured primarily by the following payors? (Place check marks √ as appropriate)

Type of Payor	0%	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Medicaid (AHCCCS)						
Medicare						
Commercial Insurance						
Self-pay (uninsured)						
Other						

The next set of questions pertains to an Electronic Medical Record (EMR) system (maintaining medical records in digital format).

9. Does your practice currently use an EMR or is in the process of installing an EMR?

☐ No ☐ Yes **9a. If yes, please give EMR name and version** _____

9b. When did you begin/plan to begin using your current EMR (month/year) _____

9c. Where is your EMR data stored (or will it be stored)? ☐ In-house ☐ Off-site

9d. Does (will) your EMR interface/connect with any of the following? Check all that apply.

☐ Hospital ☐ Pharmacy ☐ Laboratory ☐ Radiology Facility

☐ Other (describe) _____

10. If you DO NOT have EMR, is your practice electronically connected directly with any of the following to view results and/or order? Check all that apply.

☐ Hospital ☐ Pharmacy ☐ Laboratory ☐ Radiology Facility

☐ Other (describe) _____

11. If you DO NOT have an EMR, what are your plans to purchase an EMR?

☐ Next 12 months ☐ 1-2 years ☐ Haven't Decided ☐ Don't Intend to Purchase

12. If you are planning to buy an EMR, how much are you planning to invest per full-time provider?

☐ < $1,000 ☐ $1,000-$10,000 ☐ $10,001-$20,000 ☐ > $20,000

13. If you are planning to buy an EMR, would you consider an Internet-based system where the patient records are stored off-site, often referred to as an ASP (application service provider)?

☐ Yes ☐ No **13a. If no, why not?** _____

13b. If you would consider an Internet-based EMR where patient records are stored off-site, would you be interested in an EMR that combined your records with the records of other providers to allow easy access to patient records for continuity of care purposes?

☐ Yes ☐ No **13a. If no, why not?** _____

14. Has your practice discontinued or deinstalled an EMR?

☐ No ☐ Yes **9a. If yes, please give name, version, and reason** _____

Please answer EITHER Question 15 OR Question 16.

15. If you currently have an EMR or plan to purchase one within the next 2 years, would you be interested in using a Health Information Exchange (HIE) that allows providers in different settings to share clinical information electronically through a secure Internet utility?

☐ No ☐ Yes **15a. If yes, how much would you be willing to pay as a monthly subscription per full-time provider for a Health Information Exchange (HIE) capability?**

☐ Nothing ☐ $100-$300 ☐ $301-$500 ☐ $501-$700 ☐ $701-$1,000 ☐ >$1,000

15b. If no, why not? _____

16. If you do not have and do not plan to purchase an EMR, would you be interested in using a Health Information Exchange (HIE) to view clinical information electronically?

☐ Yes ☐ No **16a. If yes, How much would you be willing to pay as a monthly subscription per full-time provider for a Health Information Exchange service to view clinical information electronically?**

☐ Nothing ☐ $100-$300 ☐ $301-$500 ☐ $501-$700 ☐ $701-$1,000 ☐ >$1,000

16b. If no, why not? _____

17. Please indicate your degree of trust in the following types of organizations to support web-based services. Please use a scale of 1 to 5, with 1 being low trust and 5 being high trust.

(Place check marks √ as appropriate)

17a. Electronic Medical Record (EMR) **Low Trust** **High Trust**

Type of Organization	**1**	**2**	**3**	**4**	**5**
State of Arizona (AHCCCS)					
Commercial health plan					
Hospital system					
Non-profit regional health information organization (RHIO)					
Commercial vendor					
Other entity (describe):					

17b. Health Information Exchange (HIE) **Low Trust** **High Trust**

Type of Organization	**1**	**2**	**3**	**4**	**5**
State of Arizona (AHCCCS)					
Commercial health plan					
Hospital system					
Non-profit regional health information organization (RHIO)					
Commercial vendor					
Other entity (describe):					

18. Thinking about electronic features now available in your practice, level of use, and features you would like to have, please tell us about the following:

(Place check marks √ as appropriate)

	Answer this section if the feature IS AVAILABLE in your practice:					Answer if feature NOT available:	
Features	Name of Vendor	Low Use	High Use	Data Location		Would like to have	Not interested
				In-house	Off-site		
Online laboratory test results							
Online laboratory order entry							
Online radiology test results							
Online radiology order entry							
Electronic patient medication list							
E-prescribing (transmit prescriptions to pharmacy electronically or via electronic faxing)							
Electronic problem list							
Electronic visit notes							
Online EPSDT completion							
Electronic referrals							
Secure e-mailing between providers							
Online eligibility verification							
Online billing and claims submission							
Online appointment scheduling							
Secure Instant Messaging (IM)							
Online case manager interaction							
Online public health information exchange and alerts							
Online patient education materials							
Patient web portal							
Other (specify):							
Electronic decision support tools, e.g., online formularies; prevention and chronic illness reminders for care activities; health plan provider							
Online CME, Journals							

Thank you for completing this survey

Appendix H

Selected Charts from Health Information Technology Provider Survey

Chart A: Internet Access at Main Practice Site (n=127)

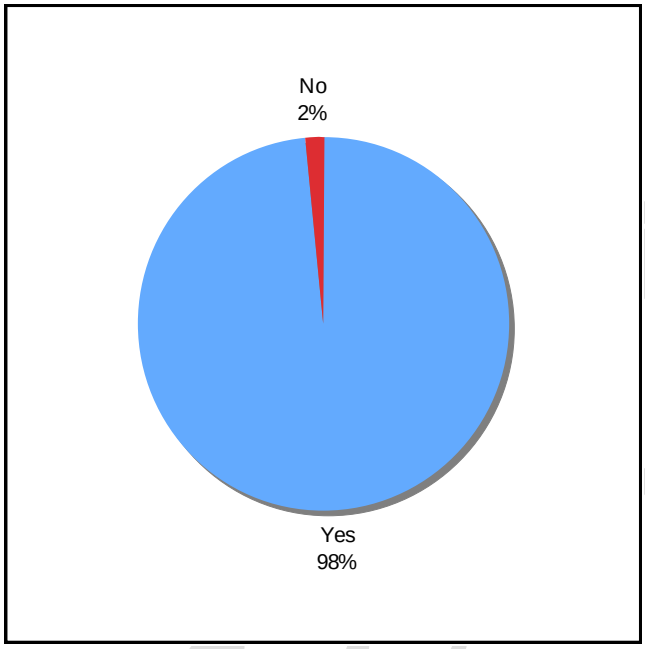


Chart B: Type of Internet Connection (n=127)

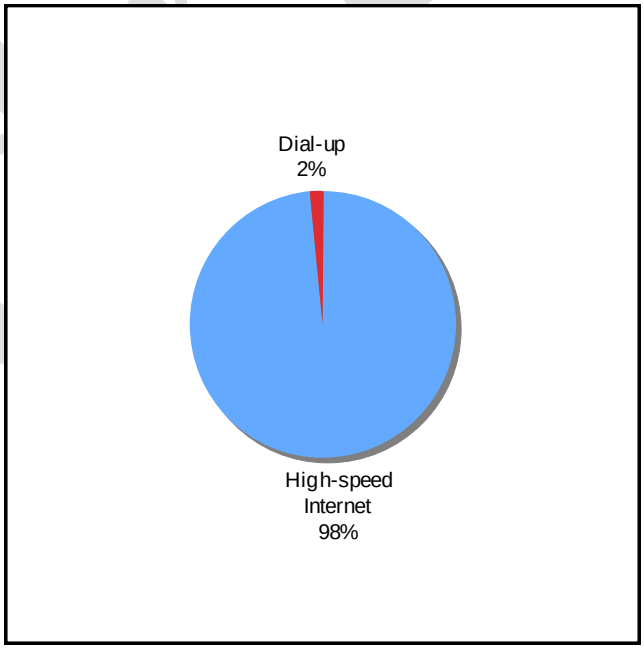


Chart C: Satisfaction with Internet Connection (n=122)

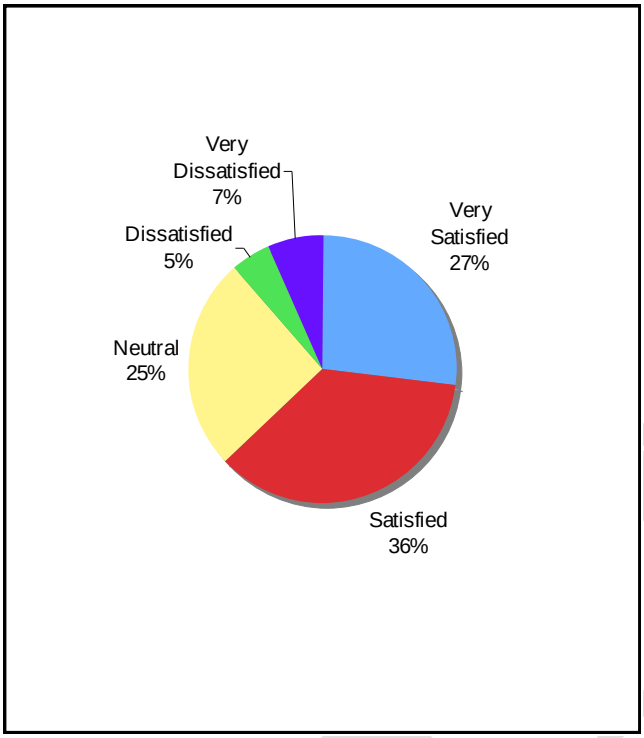


Chart D: Interest in Using HIE (n=88)

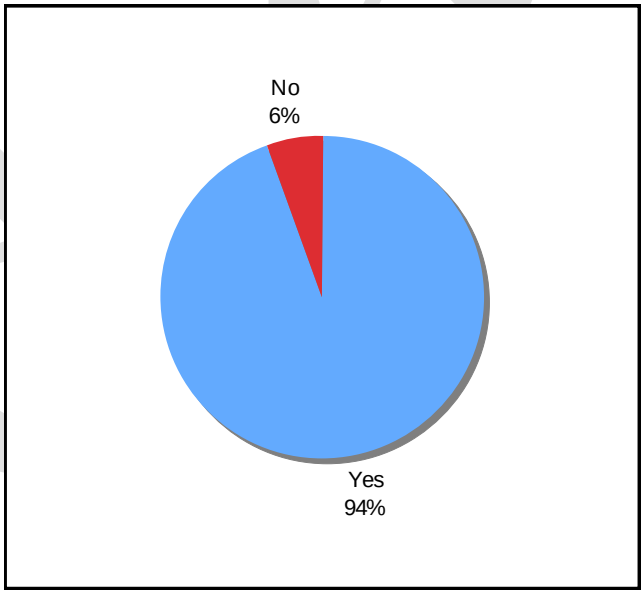


Chart E: Have EMR—Willing to Pay Monthly for HIE per FT Physician (n=65)

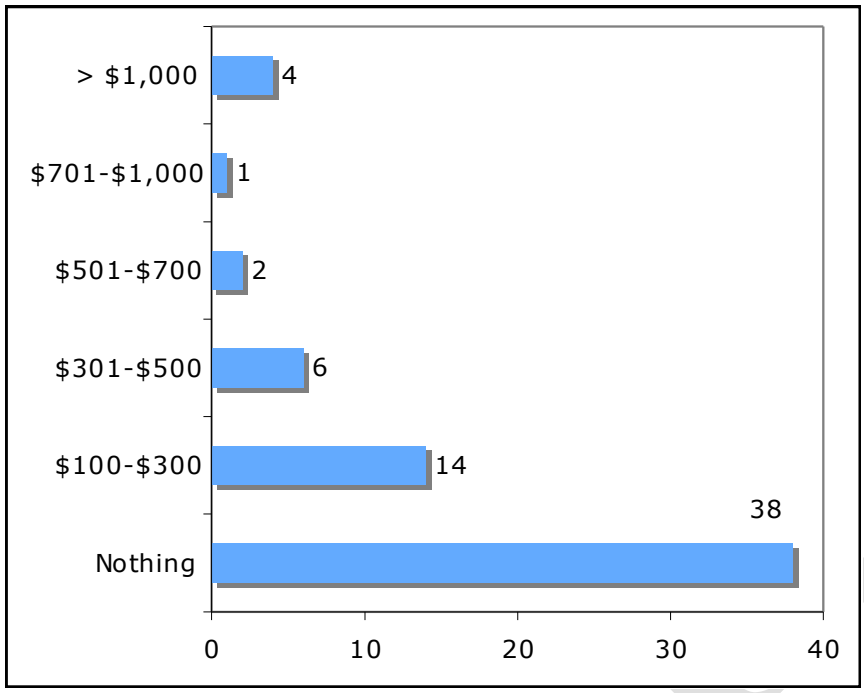


Chart F: Do Not Have EMR—Willing to Pay Monthly for HIE per FT Physician (n=43)