



**BHW (Health Workforce)**

**Health Resources and Services Administration**

# Leveraging Health IT for Evaluation

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7/25/2017

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Submitted by: Branch, Michael (HRSA) [C], *Adobe Connect Team*

**Primary Care Training and Enhancement  
(PCTE) Program  
Evaluation Technical Assistance (TA)  
Webinar Series**

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**Webinar #3: Leveraging Health IT for  
Evaluation**

**July 25, 2017**



**Event:** Leveraging Health IT for Evaluation

**Date:** 7/25/2017

**Event Coordinator:** Stahl, Anne (HRSA)

**Adobe Connect License:** Seminar (<500 participants)

**Unique Users:** 80

**Audio:** Universal Voice/ Conference Bridge

**Start and End Time:** 3:00pm – 4:30pm ET

**Duration:** 90 Minutes

**URL:** [https://hrsa.connectsolutions.com/leveraging\\_health\\_it/](https://hrsa.connectsolutions.com/leveraging_health_it/)

## **Problems Encountered with Adobe Connect Pro**

No Problems Encountered

### **Recording**

<https://hrsa.connectsolutions.com/p2r96co01oj/>

## Attendees

7648580	Erika Tait	Maria Montoro Edwards
Alyssa Thomas	Erin McGinley	Mary Pileggi
Amanda Gmyrek	Esther Jones	Meaghan Ruddy
Amy Bethge	Geri Tebo	Michela Bull
Amy Cunningham	Harry Mazurek	Michelle Salerno
Anne Patterson	Heather Miselis	Nancy
Anne Stahl	Heather O'Hara	Natalie Truesdell
Annette Reboli	Jamie Curran	Norman
April Paschal	JBS-IT	Oliveira
Arif M. Rana	Jesse Ungard	Patrick Romano
Bob Konrad	JonesBG	Ram Chakraborty
Bonnie	Joy Bowen	Rebecca Morgan
Candice Chen (HRSA)	K Hills	Rich Sutphin
Carmen Ingram-Thorpe	Karen Bell	Ruth Dufresne
Center for Child Health and Policy	Karin Bengtsson	Ruth Heitkamp
Christina Gentile	Katherine Mott	Saif Ullah
christine schudel	Keesha Goodnow	Sarai Padilla-Faulkner
Craig Stevens	Kelly Morton	Sheena D. brown-Waller
Crystal Krabbenhoft	Kristin Baughman	Sridhar Chilimuri
Cyril Blavo	Lauri Lennon	Susan Hibbard
Daniel	Linda Neville	Taylor Grimm
Darby Ford	Lisa Lessun	Tess Chandler
David Sacks	Lisa Miller	Tom Bik
Deborah Center	Liz Vice	Tom Campbell
Dorothy Lane	M. Davis	Union Hospital
Elizabeth Mercer	Mallory Johnson	Valentin Garcia
	Manu Singh	Wake Forest

## Chat History

N/A

## Polls

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<b>Tom Bik</b>	Tom Bik, Researcher, Southern Illinois University School of Medicine, tbik95@siumed.edu
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<b>Valentin Garcia</b>	Valentin Garcia, Financial Tech, Idaho State University, garcvale@isu.edu
<b>Wake Forest</b>	Wake Forest

**Q&A**

Q/A Done Over the Phone





## Transcript

### Primary Care Training and Enhancement (PCTE) Program Evaluation Technical Assistance (TA) Webinar Series

**Webinar #3 Title:** Leveraging Health IT for Evaluation

**Date:** Tuesday, July 25, 2017 at 3:00pm ET – 4:30pm ET

**Meeting Details:**

- **URL:** [https://hrsa.connectsolutions.com/leveraging\\_health\\_it/](https://hrsa.connectsolutions.com/leveraging_health_it/)
- **Conference Number:** 1-800-593-9995
- **Participant passcode:** 7648580

You will be in listen only mode until the question and answer session of today's conference. At that time to ask a question, please press star and the number one on your phone and record your name at the prompt. This call is being recorded – if you have any objections, you may disconnect at this time. I will now turn the call over to Mr. Craig Stevens. Thank you, you may begin.

Thank you. Good afternoon everyone. I'm Craig Stevens from JSI and I'm the project director for the HRSA Primary Care Training and Enhancement, or PCTE, evaluation technical assistance contract. The overarching purpose of HRSA's PCTE program is to strengthen the primary care workforce by supporting enhanced training for future primary care clinicians, teachers and researchers. As you very well know, the PCTE program focuses on supporting innovative training in three primary ways. One is to encourage high quality primary care in underserved areas. Another is to enhance diversity in the workforce. And third to produce clinicians who will practice in and lead in transforming healthcare delivery models.

Thank you for joining us today for the third in a series of six PCTE evaluation technical assistance webinars. We're very pleased to offer this webinar series designed to provide PCTE awardees with evaluation resources aimed at increasing your capacity to develop and conduct your evaluations. These educational webinars will focus on the application of evaluation topic areas and concepts of relevance to PCTE awardees. I'm going to turn the webinar over to Manu Singh, a member of our JSI/JBS evaluation technical assistance team, who will provide some details about the webinar logistics.

Thank you, Craig. Thank you again for joining today's webinar. My name is Manu Singh, and I'm with JBS International and I am a part of the JSI/JBS evaluation technical assistance team, as Craig mentioned. Really, what I want to do is just go over a few housekeeping items with everybody. First, I just wanted to



let you know that at the end of today's presentation, we will have the question-and-answer session; rather than sort of sprinkling questions throughout the presentations, we'll ask that you wait until end. I mean, excuse me, you can go ahead and put some questions into the Q&A box that you will see in front of you on the side of the presentation screen. But we will hold all the questions at the very end. When it is time for the Q&A, we will have the operator give you instructions on how you can ask the questions. It will involve, sort of, getting off of mute and asking that question. And again, if you are not able to be on the audio portion and are just looking at this from the web and your computer, you can type the questions into the Q&A box and we will read those aloud towards the end. So, the other thing is, today's meeting materials will be available on the HRSA webpage in the near future. We will notify you when those are available. If you're having any difficulties with the technical aspects of the webinar, please use the Q&A box for questions related to those as well and we'll provide assistance as soon as possible. Please type your questions into the box and push send. Either myself or another JSI/JBS member or IT support will assist you. Also, one more thing to note. There is a box on your screen titled polling questions, actually I believe it's titled contact information now. We just changed it to say contact information. You should see the contact part, if not the whole word information. If you were not able to provide your contact information when you entered the audio component of the webinar, please go ahead and enter your contact information into the polling box. Provide your name, discipline (for example, family medicine, physician, psychiatrist), your organization's name and your email address. This box will remain open for the remainder of the webinar, so that you may enter the information at your convenience. Thank you, that's all I have for housekeeping. Now I am going to turn it back over to Craig Stevens, who will provide you some context, purpose and goals of the webinar and then introduce our speakers.

Thank you. So, I am going to take a very brief moment to give some context as to why we are choosing this particular topic. Our evaluation team, at the beginning of this work, both did site visits and then, over the last year, we've interviewed folks and provided some technical assistance and collected information about the challenges that folks are engaging as they are conducting their evaluations. So, this really represents some of the summary teams that we heard from the PCTE awardee feedback that I wanted to share with you and is the reason for conducting this particular webinar. So, there were a few overarching themes that folks underscored. Clearly HIT is very central, particularly electronic health records, to the PCTE evaluation that folks are doing. The data sharing agreements with partners. One aspect that was mentioned was interoperability between systems. Adding new data collection elements,

which was a significant focus of some the PCTE awardees, and then attribution of data, caps, clinical quality measures and claims. And then more specifically as we think about, sort of, the triple aim in three areas, we heard that there were challenges with identifying specific sources of ongoing care, in terms of, again back to the overarching, attributing patients to individual providers or to trainees to be able to measure access in terms of quality, the data definitions and standardization of data. Again, that was within organizations, between staff and between organizations that have common data definitions, standardization and good quality data to be able to evaluate your program. And then in terms of cost and the lack of interface with billing and claims systems, and disparate systems between clinics and hospitals. For example, to measure reduced hospital usage as a proxy for cost. Again, as you very well know, even though a number of the hospitals may have honed some of the primary care practices, not all hospitals and their own practices have the same electronic health records. So, even within systems we see that there are some disparate systems. But across your partners, you're not always having the same electronic health systems and those are posing challenges. So, that is the root of our webinar today. We're actually going to skip questions until the end. If you have any questions or need some follow-up from this presentation, start with your program official, your PO, or Anne Stahl is the COR. She can be contacted as well. And we can try to be as helpful as possible. And I going to go over the introduction of our presenters.

So, Dr. Bell is from JBS International and brings wide and varied expertise in health information technology, quality assurance, clinical practice, academic medicine and public health, in both the private and public sectors. Between 2005 and 2008, Dr. Bell was Director of the Office of Health Information Technology Adoption, Office of the National Coordinator [ONC], U.S. Department of Health and Human Services. And in 2006 served as Acting Deputy of ONC when the national coordinator position was under recruitment. She has been the chair of the certification commission for health information technology since 2009. She currently serves on the Massachusetts HIT Council. That's the governance body, which oversees the development of the state's HIT infrastructure. Dr. Bell received her medical degree from Tufts University's School of Medicine in Boston, and her Master's of Medical Science degree from Brown University in Providence, RI. Dr. Bell has clinical experience as a board-certified physician in internal medicine and was an associate professor at the University of Rochester, and a clinical instructor at Harvard University's School of Medicine.

Let me take a moment to talk about our Wake Forest team. Dr. Sudano is the Director of Behavioral Science at Wake Forest, a family medicine residency in Winston-Salem, NC. She earned her Ph.D. in human development with emphasis in marriage and family therapy from Virginia Polytechnic Institute and State University, and Master's degree in family therapy from the University of San Diego. She completed her practicum and training at the University of California at San Diego, family and sports medicine and fellowship at St. Mary family medicine residency in Grand Junction, Colorado.

Dr. Kirk is a professor in the Department of Family and Community Medicine at Wake Forest School of Medicine. She has held this post for 25 years, leading teaching of pharmaco-therapy for family medicine residence, medical and pharmacy students. She attended UNC Chapel Hill, where she received her B.S. in pharmacy, followed by her Doctorate, and also completed a residency and fellowship. Dr. Kirk has expertise regarding study design, evaluation and continuing education. She has been involved in a multitude of research efforts, including the design, implementation and evaluation of an integrated healthcare model.

Mr. Davis is an Assistant Professor in Family Medicine at Wake Forest Baptist Health and has over 25 years of experience as a statistician, data manager and co-investigator for externally-funded projects. He is currently a co-investigator on this HRSA-funded grant fully integrating behavioral healthcare into an academic family medicine and an FQHC [federally qualified health care] clinic, preparing residents to work effectively in an integrated care team. Other research interests include diabetes, obesity, sports medicine, health education, research methods, and information technology. He has extensive experience accessing medical records for departmental administrative—for example, patient panels—educational, such as ACJM reporting and research projects, including resident QI and new faculty research. For the last five years this has included working with EPIC software. He's also an adjunct professor on the undergraduate campus where he teaches a class on research design and multivariate analysis to psychology students and supervises their honor research projects. He has a Masters in experimental psychology from Wake Forest University.

Now with that, thank you to our speakers. We are humbled by having your presentations and we appreciate your time. And now I will turn this over to our first speaker, Dr. Karen Bell.

Thank you very much, Craig. This is Karen Bell. And I not only want to thank you not only for the kind introduction, but also for the opportunity to think through with everyone today how are our evolving

HIT ecosystem can really help them, help us all actually, achieve better care through HIT. I know that all of you are familiar with the use of an EHR at point of care. But I'd like to make the point that the HIT infrastructure goes far beyond that the use of an electronic health record. I frequently like to break it down into these four categories. There are software programs that record patient data, and clearly electronic health records is one of those. But so are clinical registries, such as the immunization registry, that one could have at state public health departments. There are other health-related databases, as well. To think through what's available, again at the state level, on social determinants of health with the respect to housing, nutrition and conservation. There is, again, a plethora of data that's available and other databases that you don't have access to in your EHR. Research databases, public health, again, same. So, in addition to those technologies that record and house the patient data in certain ways, there are those platforms that allow data to be shared. Now we know that it's difficult to it share across disparate health information systems with providers. But, in a number of state, there are statewide exchanges that allow that to occur or regional exchanges. Some can even be proprietary. EHR vendors have ways of sharing data among all users of their EHR products such as EPIC anywhere in that particular situation. So, the sharing of data becomes a whole another set of technologies that are important to achieving our goals. Technologies that collect, normalize and analyze data, again, are critical elements moving forward. Those can be warehouses. And as you, I think, are all aware there are a plethora of products on the market right now that propose to analyze data in a way that makes it very useful to you. Because we all know that data is not information and it does need to be analyzed, in order to get to useful information. So, again, those can be internally developed, they can be part of the electronic health record or be completely separate vendored products. But they are a third category that needs to be considered. And, lastly, I'd like to point out that telehealth or communications technologies have been in many ways the forgotten stepchild of an HIT infrastructure. But they are becoming more and more important. There is a full spectrum of telehealth technologies and we'll talk about some of them in a little while. But it's this entire infrastructure that we need to consider if we are trying to move forward with essentially reaching the triple and now the quadruple aim.

It was back in 2004 that the federal government really started exhibiting interest and recognition that HIT could in fact help move towards the goals of the triple aim. But it wasn't until about 2010, with the ARRA, the American Recovery and Reinvestment Act, that a significant investment was made to the tune of over \$2 billion dollars. Some of you may fondly remember all the work that went into meaningful use and the program that some of you I'm sure have been a part of. But again, it was all with the idea of

moving forward and meeting the triple aim of better patient experience, which is both quality and satisfaction, more cost-efficient care and a healthier population. More recently, I think this is something that we are all very glad about, there's been emphasis on the quadruple aim. And since it's more recent I put it in parentheses, but that quadruple aim also takes into account the fact that HIT has to improve our work environments, as well to meet the goals of the federal government.

Now, we all know that there is a fairly deep chasm, I want to say a very deep chasm, between plunking down \$2 billion dollars on the one side of that chasm and getting to your goals on the other. In order to bridge the chasm, there are several promises that HIT are expected to fulfill. So, the first of these is the promise of the ability to access comprehensive patient data, recognizing that you would decrease fragmented care if every one of us as a clinician knew what goal the rest of us were doing around individual patients. Eliminate gaps and appropriate care. If we know what's being done, then we know what hasn't been done and can fix it. It would also decrease duplicative services and minimize adverse outcome associated with the lack of data. And we have all heard, I don't know, for the last ten years how important it is to have allergy alerts. So, all of this was to happen through the development of physician support mechanisms, health risk assessment tools and care coordination programs that involve sharing of data among multiple users, and notification services. Those notification services included both the ability to message patients and remind them that perhaps they needed to have a procedure done or have an appointment to keep. Or perhaps more importantly, notification services to physicians when one of their patients was admitted, discharged, or transferred in the hospital acute or post-acute settings. So, that was one of the promises, the key promise, that I think really started this whole ball rolling. However, we're not quite there yet, as was mentioned a little bit earlier. Clinical data is mostly limited to provider systems or sites of care, or to a particular vendor's client. And not only is it limited at the point of care sometimes to an individual healthcare system; you can't get it if it's in a system across town. It's also limited with respect to access to social determinants of health data, cost of care and other insurance data, and patient-generated data. Behavioral health, but particularly with certain federal regulations, is especially difficult with respect to substance abuse disorders, because of the privacy rules which accompany its sharing. So, it may not be included, even if you do have access to another system's health data. There now are state laws that may preclude sharing of data related to sexually transmitted diseases and various gynecological conditions. Then lastly, a number of community-based services, including a lot of long-term post-acute care facilities, that have not had access to EHRs or the entire ability to share data. And then again there are plethora of [inaudible] clinics and other forms

of virtual care where you might not know what has happened to your patients and those kinds of perspectives.

Now, in spite of all of that, there is hope for the future. There is significant emphasis at the federal level on structured data and interoperability. I know we've been hearing for the last 20 years, it feels like, how within the next ten years everything will be interoperable. We have heard it at least twice. So, I would say we are at least halfway there. But we spend a long time for that first 50%. I think the next 50% will come much, much quicker, and I think particularly with all the emphasis right now on interoperability and some of the new approaches that are being used. Some of the fire technologies through HL7 and the push to have apps interact and interface with EHR's, is going to make a significant difference in the not-too-distant future. In addition to that, we are evolving our privacy policies and the technology that goes along with that, whether it's segmented use of data, being able to segment out certain sections and input different types of secure access approaches to that, or it's simply changing the policy. Things are moving in that direction. And as I mentioned just a moment ago, there is increasing interoperability among different types of technologies here, in apps, and in the EHRs and communication strategies. Telehealth is growing by leaps and bounds. Perhaps most important though is that there are reimbursement structures being put into place that pretty much demand better access to and use of health data. So, the IT industry is following that very closely. I think the bottom line on this particular promise is that we are not there yet, yes, but we've made significant progress – and it will not take as long to get to where we need to be as it took to get this far. However, in the meantime, we will still need to rely heavily on the information that we get from our patients. It's not all going to all be available electronically for some time. So, the important message here is that we do what we can with what we have, but we still need to listen to the patients and understand and record and generate information directly from them.

So, let's move into the second promise of health IT – and that was the ability to really understand and measure what was going on. You can't manage it if you can't measure it. This is particularly important, as I'm sure you know, for payers. They are not only interested in knowing about the quality and cost of health care, but they are also interested in knowing about how various providers perform on those levels. Now the IOM [Institute of Medicine] had some pretty lofty goals on this, and I don't anyone would have any reason to argue with any of them. However, and I know you are all on mute, but I think I am hearing a collective groan, CMS has over 1000 clinical quality measures. Now very few of them are

directly obtainable from an EHR, and those are the ones that we call e-CQM. So, most clinicians only focus on a handful and hope for the best. Another interesting thing is that patients generally are not too interested in filling out satisfaction surveys. You just get bombarded with them every time you purchase something or access a service, including every time you interact with the healthcare system. So, there's quite a bit of burnout on that. So, we're not getting a whole lot on that score. But I think that one of the bigger problem is that most of the measures are process measures associated with effectiveness. There are few that truly assess clinical outcomes. There are the measures for blood pressure, for A1C, for depression, for BMI. But, for the most part, it's all about process. So, when we maybe start thinking about patient-oriented outcome measures and functional measures, we have a ways to go here on this. We all know that measures may not be appropriately risk adjusted. They may not reflect provider control. Attribution is always an issue. And that each payer has its own specification for any given measure and require different reporting mechanisms. So, all in all, your groan was justified, this is a very administratively burdensome process. But, again, there's a little bit of hope here. There's a strong emphasis everywhere on the development of outcome measures appropriate to both provider type and patients, increasing emphasis on measures derived from existing electronic sources, so there will be less in the way of hybrid measures. I think that one of the things that might be news to many of you is that there has been a coalition of national payers and CMS that has come to agreement on a standard set of measure specifications. Now it hasn't yet been implemented, but at least the agreement is there to implement so that you no longer have to compute an A1C differently with different exclusion factors, for instance, for one commercial payer versus CMS versus Medicaid. And I think also there is a lot of talk and a lot of recognition that social determinants of health and the environment heavily influence outcomes. So, in summary, again, there is a lot of progress that's been made already, but it's still a burdensome process. In the end, most of the performance measures are related to what payers need and want rather than to what you might need in the clinical setting. So, again, it comes back to really understanding your patients, in getting information from them on what they expect their outcomes to be. So, increased communication with patients is important on this one still as well.

So, if we move on to the third promise, it has to do with patients, as I just said before, you really do need to engage with them. And that's not news to any of you, so I apologize for carrying coals to Newcastle on that. But, this whole concept of activated patients was thought to evolve from patients having greater access to their clinical information. And if they had greater access to the clinical information, they would be more engaged in shared decision-making and shared care planning and would ultimately



assume more control of their own health. A second expectation or second promise of health IT is that it would make us as clinicians think differently about our patients. Here, I describe doing things “to,” moving from “to” to “for” and “with” our patients. And that’s a mnemonic device I’ve borrowed from Charlotte Yeh, who’s the Medical Director of the AARP services division. But I think it’s a very good way of thinking about how we have evolved in our thinking of patients. I remember, certainly, the time when every patient was a battleground where we would fight disease and pestilence through poking and prodding, cutting and pasting or patching. And that was doing things to our patients and primarily as we focused on acute illness. But as we moved more into understanding that we needed to help manage chronic care problems, we began to do things for them. We would schedule their—or we still do—schedule their eye exams, if they are diabetics. We ensure that they get the kind of home-based services that they might need. We monitor them at home. But in the end really what we need is to partner with them, to truly be with them as they think through what it takes to be a part of our team, as we become a part of that team. And that means getting to really know them, really sharing information with them, communicating with them more and to really help with mutual understanding of common goals. All of which can be helped with health information technology. However, there’s always the but, when we think about where we are right now, when we think about that first expectation, very few patients actually access their provider’s patient portal for clinical information. They might do it to check an appointment or ask for a refill, but not so much for getting clinical information.

The second problem is shared care plans and shared decision tools that are evolving. So, even when we have them, lots of people are not using them. There is limited emphasis now on patient-directed goals and the use of virtual and health services by the [inaudible] system is still quite limited. So, what does that mean? It means that patients, if they really are feeling activated are primarily going to the Internet. And I’m going to share one simple little quick story with you. Yes, I’m an internist and I trained in infectious diseases as well, University of Chicago and in Boston. So that whenever my daughter has a problem with one of her kids she usually checks with me first, unless it’s a big emergency. So, when she asked me to look at some spots that the nine-year-old had last week, I was able to quickly say, “Oh, that’s molluscum contagiosum, not a big problem. I told her about it, what to do and what to expect. But it wasn’t until she spent the evening reading everything online that she could get her hands on molluscum contagiosum that she felt comfortable in terms of just letting it be and not dragging the poor child to a pediatrician necessarily the next day. And it isn’t just her. Pretty much everyone these days is turning to the Internet for many of their questions. The other thing that they’re turning to is telehealth. I

had mentioned that a little earlier and I'm going to talk about that for a few moments, because it is the future. There's the use of telehealth services for actually providing care through the interactive audio-visual approaches for direct care, though the interactive A/V is also used for case conferencing, assessing home environments and other uses as well. Asynchronous telehealth technologies are particularly helpful for triaging, determining whether someone should be seen immediately by a specialist or if it can wait, or perhaps you could even take care of it yourself, as a primary care clinician. It's also very useful and not only in terms of quality of care, but in cost savings in terms of consults. A lot of recent workers have done on that, particularly in dermatology, in cardiology, in neurology with stroke programs. There's a tremendous amount going on in that area.

In addition to direct patient care, telehealth can also be used in terms of tracking what's going on with patients with respect to remote monitoring devices. Robotics can not only provide care when somebody can't actually touch the patient, but they're also useful in terms of dispensing controlled meds, and in a number of other ways as well. And then lastly app health is becoming a way of truly interacting with patients through text and with avatars and a number of other approaches. This is a field could easily lend itself to a couple hours of discussion on its own, so I'm just introducing you to these concepts right now, because it's really one of the ways that patients are self-activating in the future. And that's really the take-home here on patient activation. It's not necessarily about the tethered personal health record, where a patient can see what their results are, even though that's important. It's really about embracing and celebrating the fact that we have access to a lot of information through HIT that you may or may not know about, and it's worth pursuing with them.

The fourth promise of HIT is still in its infancy. It is a long-term vision where data can be pulled in from multiple sources for clinical research, for precision medicine, understanding public health solutions, national resource planning. There are number of different ways that this can play out in the future. There actually are a lot of pilots in progress right now. NIH, under a program called All of Us, is collecting health data on over a million people to really begin to understand relationships between health and other factors that might influence that health. There are pilots called Sync for Science and Sync for Genes, which are part of the physician medicine initiative, where various apps can actually go into an EHR and extract data and that can be used for research, in terms of both science and genetic information, in terms of genes. Legislation is supporting all of this. It wasn't just high-tech, as part of the ARA. But Macro clearly is willing to give clinicians more points if they are using HIT in ways that will

improve care. Twenty-One First Century insurance, as I had mentioned before, has emphasized the importance of interoperability. And, as I also mentioned, they are increasing the availability for new forms of data. So, all of this is going to go into supporting a learning network. Though, as I mentioned in the beginning of this slide, it is a long-term vision. It isn't going to happen immediately. But, there are a number of forces that are driving the HIT evolution that I'm talking about right now, and not the least of which is patient demand. Particularly with all the talk and whatever else is going on with the healthcare debate in Congress right now, people are beginning to recognize the need to pay attention to their insurance. They need to pay attention to their healthcare. It's not something that's just going to automatically happen for them. They have to be engaged. So, they are looking for more information, and they are using technology to learn more about their health. And those technologies are improving, as I mentioned earlier.

And lastly, I think I don't think we can underestimate the force of changing reimbursement structures, as HIT will help various provider groups perform better under various new payment models that support value-based payments as opposed to fee-for-service payment.

So, the bottom-line of all of this is that the future is bright, there will be more data, we'll be having increased access to available data and increased emphasis on outcomes. And I'd like to just spend a little bit more time talking about those outcomes, particularly those that are patient reported, because it's one of the more important points that I'd ask you to remember from this talk. If you haven't had a chance yet to read the article in the July 6 New England Journal of Medicine, it's on page 6 of the July 6 NEJM, it's a nice report out of the University of Rochester Orthopedics Department that have been collecting patient-reported outcome data based on NIH's patient reported outcome medical information systems, which have a number of domains and a number of questions in each domain to really understand what works for patient and what doesn't. So, they collected measures appropriate to orthopedics and compared them with measures obtained through a very expensive proprietary system and found that the – free, because it's NIH – measures were actually more helpful and more useful, as well as free, in helping them accomplish three things. One, predicting the likelihood of meaningful benefit of a particular procedure in a particular patient. So, they did this by looking at the pre-op's scores. They had enough information to know what pre-op score for a particular patient would lead to a better outcome for a particular procedure. Secondly, the pre-op scores could help them predict the post-op functional curve, whether it would take them a long while to get to full functionality or whether

they could do it fairly quickly. And then lastly, what could help them assess which intervention had the best outcomes for different patients. Now, they are not the only healthcare system doing this. They are listing half a dozen others that are doing it and you about to be hearing from Wake Forest, which is another health system who is doing exactly that, as they are assessing their behavioral health primary care integration initiative. So, the bottom-line here, again, and this is my last slide, is that as you prepare for the future, not only, and you do have a long future here, we've been watching HIT evolve for some time, really look at what you've got right now. Look at the advantages and the challenges of the system you have – and when you look at the system don't just look at your EHR. Look at all of those four things that I just mentioned. What is it that your system can do for you that you can use? And if you are moving to another setting, ensure that it too would have goals, financial structure and an HIT strategy that align with what you would need. And then lastly, and this gets back to my comments about being innovative, while all of this evolution is going on, do the best with what you have. But don't forget that you really are focused on patient care and getting your patient to better outcomes. So, do everything you can to listen to them, hear from them, find out what their needs are, and consider implementing ways of collecting and reporting on patient-reported outcomes and using them to improve their care. So, with that, I thank you for your time and I'm delighted to introduce you now to the Wake Forest group.

And thank you so much, Karen. This is just a quick note for folks that we will have some time for questions at the end. We, as a part of JSI and JBS's evaluation work, we are working with HRSA to have a webpage dedicated for materials but, we will send out materials to you directly. So, any of the PCTE awardees and anyone that has put their email address into the poll today will receive a copy of that. And Dr. Bell also mentioned an article that we will obtain the citation for. So, with that, again, we thank you so much for sharing your wisdom and let's hear from our Wake Forest partners.

Good afternoon and welcome from the Wake Forest team. My name is Julienne Kirk and I'll be starting us off with my team. Dr. Laura Sudano and Mr. Steve Davis, who will be following after I present the first nine slides. On the first slide, we are trying to move toward a voice of the patient, to listen, intervene, and provide the best healthcare we can. And to that end, we receive a five-year grant funded to fully integrate behavioral healthcare into an academic family medicine and FQHC clinical care here at Wake Forest and Southside United Health. We're not only delivering the care, but we're also in tandem preparing residents to work effectively in our integrated care model. This is through the Department of

Family and Community Medicine here at Wake Forest School of Medicine. If we go to the next slide, you'll see our goal was several focuses. But our integrated team, which we built and now provide, underlines an infrastructure to support the two practices to become [a] fully integrated patient-centered medical home. We have behavioral health and mental health needs that we address and increase the potential for our practicing medical residents and family medicine students to be attracted and remain in family medicine, both exposing them to the academic environment here at Wake Forest as well as our partner in our FQHC.

We wanted to create an educational infrastructure to transform our clinical operations as we became fully integrated in our patient-centered medical home. And to that, we had to ensure effective care and safety for all patients. We went and had our protocol reviewed, evaluated through our institutional review board, making sure that we were fully transparent in what we were collecting in our medical records and how we were going to use that aggregate data to inform our process and our evaluation. And we also wanted to make sure that we collected appropriate data and that we served underserved patients as well as met behavioral healthcare needs. And through this, as I said earlier, we provided a model to teach our 30 practicing residents, faculty, and other healthcare professional learners to function in integrated healthcare teams.

The overall project goals were to develop, implement, evaluate and sustain this integrated patient-centered care model through a curriculum and practice for the learners in our staff serving our patients, including advanced practice providers, nursing staff, everybody from the people checking the patients in to anybody providing care all under the same roof. We also developed, implemented, and evaluated a sustainable model for all clinician providers, learners, and staff to enhance the resident and health professional's learners' education. So, I am going to step us through a couple of pieces that we put together to try to capture some components of our model that we developed. So, going to slide 5, with our evaluation pieces. It was important for us to capture the patient experience, the patient clinical outcomes and sustainability and the provider experience. First, let's talk about the patient clinical outcomes and sustainability. There are a number of measures there and we've tried to define everything in the alphabet soup from what we described earlier. Capturing the social determinants of health, we created a structure within our EPIC chart to be able to capture that information from routine GAD-7, which is our generalized anxiety disorder questionnaire, along with our PHQ-9 patient health questionnaire. I have examples of all these if anybody would like them. As well frequency of office visits,

follow-up screenings on all of those measures, missed [and] no-show appointments capturing frequency and cost, hospitalizations, ED visits and also with that capturing frequency and costs associated with those.

On our next slide, we also are giving you a timeline of how the universal screenings of our PHQ-9, GAD-7, and SDOH, how we're collecting those and tracking those to look at the patient clinical outcomes, as well as the sustainability piece. Within that we also map out over the five years how—and we'll go over in detail in a little while—about capturing office visits baseline through the provision of the integrated care model with our behavioral health clinicians and other providers. So again, we have tried to define everything, what we were capturing, looking at that quadruple aim to integrate into our model and how we were able to try to think of everything.

With that, on this next slide is the patient experience. So, we wanted to be able to go back and say, within the process of what we're doing right now, how can the patient experience inform what we're doing so that we could add any needed change. With that, we chose the clinician group adult survey which I call the CAHPS [Consumer Assessment of Healthcare Providers and Systems]. And that is a validated survey in its third edition, which is our tool to assess and measure patient experiences and how they gathered their overall view of their provider and the practice along with their behavioral health clinician that they work with. We will accomplish this upcoming with individual patient interviews. We have both English and Hispanic groups that we'll be eliciting information from, and then we will take that and also look at [a] patient advisory council to elicit feedback to inform our process and tweak out, change anything that we can do better, within the delivery of our care.

The next slide is the patient experience and evaluation timeline. So, as you can see we've got the CAHPS survey, that we're going to be doing, but we will also start beginning to take that information and collect, evaluate, and implement. With that I'll switch over to Dr. Sudano, who's going to talk about the practice experience.

Thanks Dr. Kirk. So, I think you all here have the format of how we're going through these evaluation pieces, so hopefully this is helpful to review. So, with the practice experience we chose two different types of assessment, one being the main health access foundation, or the site self-assessment, which I'll refer to as Me-HAF SSA, as well as a provider satisfaction instrument. So when we talk about that quadruple aim, that fourth aim that has been added to it to make sure our providers are satisfied with

the service and that it is actually helpful to their work rather than a hindrance. So, for those of you who are using the Me-HAF, I'm sorry I'm going to go through this, but an overview of this tool is that it's an 18-item instrument, and it's got two broad categories, one that assesses integrated services and family/patient centeredness. The second one being practice organizations. And each category has 9 items which participants rank on a 1 to 10 scale. So, the participants in this situation are our clinic providers. So, we've identified a few champions within our clinic who are involved in the integrated care effort. And then each of us has sat down to fill this out individually and then collectively we come together as a group and have a facilitator walk us through each item to air out what is a 4 and a 5, the difference between those two, and to come to some sort of consensus, so we can get a good baseline and then track our progress and hopefully not [have] regression going forward.

The second one is the provider satisfaction. And this is something that was a web-based survey that was created, not validated or reliable. And, as many of you have probably looked through the literature, there's not a really great measurement right now for provider satisfaction when you're looking at building an integrated care program. But you do the best with what you have. And, so, we've worked with someone who helped us with that 20 web-based survey questionnaire that looked at categories, such as what's your satisfaction with behavioral health service, their perceived competency and the competency of the providers to address any psychosocial issues that come up as well as the coordination of care of these issues. The perceived quality of the overall behavioral health service, and then also recommendations for improvement. And we have some of that data which we'll share in just a bit.

So, when we look at the overall evaluation plan, we're trying to look at it in terms of the qualitative and quantitative components. I think most of us think as we think about health information technology that's going to be mostly quantitative-driven. But there's also opportunities for us to use patient stories and use that qualitative piece and whatever type of integration of those two research strands that you want to make of it. But we felt strongly that having these two pieces can provide rich feedback into the model and then help us revamp it and grow going forward. So, this is compliments of Steve Davis. When you're thinking about "Okay, this is great. As a clinician, I want to be able to track these clinical outcomes. Let's not only see if my patient's depression or anxiety or other presenting issue is getting better, but then also at the end, figuring out if this program is in fact effective." But when trying to marry those two worlds of research and clinical, it kind of gets messy, especially when you look at

incorporating these measurements into the EHR. So, one of the things that we've done here at Wake, and we use EPIC, or we call it Wake 1, we've created doc flow sheets. And these flow sheets, with the help, the very, very great help of our IT department – they're very gracious for their patience to work with us, but also their timeliness of getting this together as we launched this program – we created doc flow sheets, which allowed us to put discrete variables into the EHR so that we can get the data in and then extract the data. So, this is an example of the screenshot on our behavioral health provider navigator is when they open up Encounter and they go to the documents, this has been set up for them, so they have little clicking to do going forward. So, mainly we use PHQ-9, the GAD-7, the social determinants of health, obviously the progress note pad as well as the diagnosis, follow-up and we close that encounter afterwards. Some of you in primary care settings that have perhaps a pediatric focus we have built out the PSC-17, which is the pediatric symptom checklist and the Anenberg, which looks at postpartum depression. And we did that for folks, because in our setting there are people who are very interested in looking at this data. So, when we early on were building this into EPIC we also requested this. So, this is an example of a flow sheet. Many of you who are using a PHQ-2, this might look familiar. This is our PHQ-9 flow sheet. And one of the lessons learned that I know we will cover at the end, is the less human error you can have with research, the better. So, this is an example of radio buttons. That we not that perhaps a patient might mark down a '1' in the PHQ but big fingers get in the way and record a '2'. It just reduces the risk of human error in collecting this data and putting it into a chart.

This is the example of social determinants of health. We are collecting about five items and a patient's response to it on a 5-point Likert scale. So, we felt strongly that we should move away from a dichotomous yes or no to more of a continuum, to see if there are deficits going on with a patient in terms of them accessing any services. How much, if any, is it helping when a care manager gets involved, for example, and we can retest that and see and record this on the flow sheet.

This is the example of our integrated care flow sheet. So, in addition to just the quality measures like the PHQ and the GAD-7, we also want to make sure we're working in this integrated care model where we're not seeing patients for 30, 40 sessions. And that's why we have put these other variables into the flow sheet, to be able to track. And it's nice to have elements like this in an integrated care flow sheet, so that you can pull data once every two weeks or so to see if you're on track. Meaning that, if I pull data or Steve pulls data and somebody's seeing a patient for 42 sessions, you know we may want to have a discussion of thinking about is this person appropriate for this type of setting. Or maybe they



would be better referred somewhere else for their follow-up care, as we're try to work more within that 8 to 12 sessions or so. The arrows pointing up to the time and as well as date— and this is also the lessons learned, I'll just throw in as a little nugget. That is, you have to match the date and time of each of the flow sheets in order for the other flow sheets to pull in to the other. So, meaning if this is an integrated care flow sheet, as we see here, we have items such as GAD-7, that's about halfway down, and the SDOH, as well, which is right under that. If you're inputting those numbers into the other flow sheet those will be automatically pulled into this one and captured. And if the date and the time are not exact or equal amongst the flow sheets, you're going to lose some data. That's kind of been the messiness we're trying to work out with our IT folks right now. Okay, so Steve will talk to us a little about data tools and get into some of the results.

Okay guys, thank you for listening today. Before we start talking I wanted to tell you one of my guiding principles in being a stats person is Gregg Easterbrook said that 'If you torture numbers, they will confess to anything;' so, you have to be really careful about that and that's one of my guiding principles. If you look at the data tools that we use, like Dr. Bell pointed out, you have multiple sources. We have multiple sources here. And so, what I'm going to talk about is the multiple sources we use here at Wake Forest may be different from yours, may be similar in some ways. But you probably have something. If you don't have these particular ones, you probably have something similar I hope. [With] EPIC you have a couple of different ways, you have a reporting workbench and you have crystal reports. And then they have a thing called Healthy Planet. I'll talk about the first two today. Because Reporting Workbench is used a lot by individual physicians; Crystal reports is used a little bit more by data folks and statisticians and administrators, that kind of thing. Healthy Planet is a population health tool, which we don't use quite yet. They're kind of still developing it. Data Mark is a built-in Excel type spreadsheet that they use here, and I'll go over that in a minute too. Commercial software, Tableau is a very good way to graphically look at your data. And then we have stats packages, SPSS and SAS. I will mention right here, it's a good time, that we have 2 stat people on this. Dr. Eddie [inaudible] is not here today. He's actually on an airplane right about now, I think and that may be a little bit too far to conference from an airplane. He uses SAS and I use SPSS, but they talk to each other very well. Like Laura said, IT personnel are your friends. We've been very lucky to have some folks here who have worked with us, who worked with for a long time – and they've done a really good job of meeting our needs and meeting them very quickly. One of my other rules of thumb is to look at the raw data. When it comes to the reports that you get out of anywhere, out of EPIC or anything, you need to pretend like you're from Missouri, which

is the Show Me state. So, show me the raw data. So, what I do, what I've done here, is always check a random sample at 5 percent, 10 percent or whatever to make sure it matches. One challenge you have in EPIC, you need a pretty high security clearance to do a lot of this. Because lots of individual doctors can do reporting, they tend not to because they're just so, so busy. I do a lot of stuff – I think mine is high clinical manager clearance or something like that. But that's a good way to avoid some problems in the long run is to do that. Another challenge with EPIC is, you buy it as a package and they have a lot of built-in variables, and then you add your own variables, variables being columns or whatever. Not all of them are populated. So, you have to be really careful as to what's in there, and what's not in there. You may ask for something and come up with nothing – I got no cases or no patients that have such-and-such a thing. It's not necessarily the case; just keep looking until you find something. Another challenge we have is that we have more than one EHR. The majority of us are in family medicine, but in some of our outlying clinics we do not; we have something else. Although theoretically, every computer or most computer programs can talk to each other, sometimes it's kind of hard. Another challenge that we have is that a lot of data is cross-sectional and a lot of it is longitudinal. Being the fact that if you look at how patients do in a year to see if their depression or anxiety gets better or not, there are different enrollment dates. We could have an enrollment date for every single day that a patient comes in.

EPIC reports. Just a little bit about this, you guys have probably seen some of this. This slide is kind of tiny, sorry – EPIC reports just to give you some hints on how I do it. Not necessarily the right way, but it's the way that works for us. EPIC reports cover a variety of domains. If you look on the right, there's some filters there. The ones that we use a lot are enterprise billing, inpatient laboratory, outpatient criteria and professional billing. There are lots of reports out there with a lot of people. We have 4 or 5 report writers here that are in the IT department and then a few people outside of the department. But, to keep track of them all, what you need to do is, just a little thing that may help, I put my initials on every report and the date I did it and a description of what it is. Now what I do, so I have a file that says, like the first one that says SWD March 14, etc. When I download that to an Excel file, which I will, I'll keep the same name with a different extension, and then I'll most likely turn that into an SPSS file. So, I keep the same name every time, so when I can go back and say where the data came from – a month or six months later – I'll know.

EPIC report writer allows for multiple search criteria from simple patient demographics to searches by diagnosis, procedures, including results, medications and health maintenance. Just one thing, real quick,

medication searches are awesome. I've worked with Dr. Kirk for a long time doing various medication searches and it's so nice to be able to do it on EPIC, as opposed to having somebody have to go through every chart. Diagnosis searches – there is an art to a diagnosis search. You can either use the number, 311 you're all familiar with or you can use a name, depression, or you can use a group – there's a thing called Grouper. And there's a thing called a Large Grouper – you just kind of have to mess around to figure out what you want. A couple of things to be aware of – at the very top is from what date to what date, 3/23/2016 to 3/22/2017, the reason I'm using that date is that is our first year of clinic – so our first behavioral health services started on 3/23/2016. Again, like I already mentioned, complex data can be displayed and downloaded. EPIC files are easily transportable to SPSS or SAS. I just download them as Excel files and then change to SPSS or SAS. And if you look at some of this, I'll use this example. This is a recent patient parameters, like latest lab days, HBOC, triglycerides, etc., etc. on the right. This is a pretty handy report, so you can see physiologically where everybody is. Like, we do this for our interns when they come in and they just want to see what their... This is not really for the ICG grant, but we reuse it for those patients, so they can see this is their patient panel. I have so many people that have HBOC's over 7 or over 8, I have so many with blood pressures that are elevated.

EPIC Crystal reports. The big difference between the EPIC reporting workbench report and a Crystal report is what you can do with it. EPIC workbench reports can be done by doctors only on their data again – although I, as a clinic manager person, can see where their stats, can see everybody's. Crystal reports are better for high chunks of data – like year-to-date reports. One problem you have with EPIC sometimes, those of you who have used EPIC before, is sometimes you can only do 30 days at a time. Sometimes you have a limited number of records you can look at. If I'm looking through 70,000 to 80,000 records and believe it or not I have actually not crashed the system but had it run for 45 minutes and not getting anything out of it, so you got to beware. So, EPIC system, these reports are pretty good. You do have to get them modified by the IT people, which is a disadvantage to that.

The next slide is Datamark reports. Datamark is an enterprise application maintained by the IT department here and its reports are Excel pivot tables, so these pivot tables are pretty cool to work with. They refresh almost in real-time and are customizable. So, what they'll do, they'll put all of these variables out there, not necessarily all the variables are available in EPIC, although the data comes directly from EPIC. What I can do is ask for what I want. You'll see department, fiscal month, appointment status, appointment type on the right. And there's are all kind of parameters I could

choose for each one of those. Datamark reports provide a plethora of financial information. For example, on this one, you can see what type of appointment they had. And again, I can look, and I want to, particularly for cost measures, I can see other departments as well. At least that's the way it's set up here. So, I can stick in a patient name or patient medical record, or a list of them, or I can stick in something that says, 'Are they in integrated patient and family medicine,' and I can look at all these things. For example, one really good thing is looking at no-show rates for my ICD patients versus everybody else, and again we have significant no-show rates, as does every family practice around. Another thing to emphasize, hospital data is available as well. It can be split by any number of variables. For example, this one here, I made this up, this is split by 'no' would be 'not an integrated care patient,' 'yes' would be 'yes, an integrated care patient.' And I also probably, giving this as an example, I probably should have made this just the opposite, shouldn't I?

Financial information is hard to get a handle on. Because, like, theoretically you want to cut down something like hospital visits or ER visits for mental health issues. But, if I look at this I can say they had a hospital visit but what was it for. Was it for mental health visit, did they break their arm, etc. So, you have to be very careful. You can also do this by diagnosis; this helps a little bit. Hospital Datamark reports can also show individual patient data. You can see in our practice, obviously, we couldn't use real data because of HIPPA, but if we did, you'd see we have a lot of baseball players and artists in our practice. But, it's kind of nice because what I can see here, like for the amount of money that was spent, this is actually three family practices – they obviously changed the names. I did spell Vincent Van Gogh's name wrong, however. And what this can tell you is, okay, so patient Mordacia Brown had \$296 worth of family practice visits during May of 2015. So, he's probably not a real active patient. Compare that to Shoeless Joe Jackson, who had a few more. So, that kind of data is there. Now, just really quickly, I'm going to show you some of the data that we have done from the past year. The source of these data are Datamark, Workbench and Crystal reporting – we kind of put them together. So, we've got tons of patients, some with multiple visits, and all kind of age and sex groups. This is for the first year where we've had 2,200 appointments, patient distinct count is 978. One thing I'm continually doing, and I have to clarify when I get a request for reports, be it for this grant or for other things, is [asking] do you want visits or do you want patients? So, they're two obviously different things. Datamark will do some of that. SPSS can do that really easily.

Psychological STOH scores for enrolled patients. Now, one thing we found really quickly and is a really good example of how we really need some good communication – again, our IT folks are really wonderful. When we first asked for that, we said we wanted something that looks in the medical record like what are their blood pressures over time? – so, you have to be able to measure it. But what we got instead was—and it’s our fault for not communicating it well—these are the most recent PHQ-9, most recent GAD-7 and most recent SDOH. Which, by itself, it’s okay cross-sectionally but doesn't tell me anything longitudinally. So, you've got to be very careful about what you ask for.

PH scores by number of therapy sessions. So, again we have I can track that, which is important to me that, you know, for quite a few folks who have more than five sessions and it looks like they’re doing okay. This is cross-sectional obviously, since they go down. Five sessions sound like a lot, but this could be over the course of a year – it’s not like going to Sigmund Freud, if you would have many more than that.

The next one, I think the last slide is data for 3/23/2016 to a year – these are different types of diagnoses we have. Again, you can get patient distinct counts and number of diagnoses. This happens to be patient distinct counts. If you look at this, and I think it's interesting because it’s all over the place in terms of what can happen. A lot of them have some component of anxiety and some component of depression. For some of you who still work with ICD-9 for a long [time], we’re still kind of adjusting to ICD 10. Because it makes a difference. Anyway, I think the result is we're doing okay, and I hope we continue to. Thank you very much.

Great! And this is just some of the data, as I mentioned before from our web-based provider satisfaction. Just to highlight here “how helpful have the behavioral health services have been for your patients?” People are in favor of this, but again quantitatively it's nice to look at it and have some numbers. “Do you think the behavioral health services has improved your willingness to recognize, assess and treat the behavioral health problems of your patients?” A few of them said ‘probably not’ or ‘might or might not,’ but the majority is trending upward on ‘yes,’ they do think so. Which is again, when we look at impact on resident education and their ability to identify and intervene with behavioral health issues, this kind of links back to our outcomes. This last one looks at “when you have included a behavioral health provider in your workflow, has it affected the speed of your visit?” And, yes, either it's slowed down or if it has sped any of that work flow up. And we know in primary care we’re fast-pacing providers and so we want to make sure we’re trending upwards or [inaudible] the workflow more

considerably. So, to wrap things up about the lessons learned, I know Dr. Kirk was going to review some of these things as final thoughts.

Yeah, and I know we're almost out of time here. But, we really tried to make sure to try to reach out, to have communication from all sides informing our process, both within our smaller research team, as well as in the larger interdisciplinary team and in our clinic. Because at the end of the day we've remodeled patient flow in our clinic, which took a lot of players all agreeing that this was the right thing to do, from the scheduler, to the person greeting the patient, to those that were escorting them to the elevator to go home. So, it was important that everybody understand the roles and responsibilities to be successful, from the warm handoff to our behavioral health clinicians, to getting the patient back to where they needed to do to get their lab work done, all on the same floor with very little transition of the patient as possible. And that, we were very important to make sure that all the partners in the process from the HRSA side, as well as others who looked at her grant, that we kept our HIPAA concerns where they needed to be, followed all the rules with aggregate data and individual patient data from the institutional review board. I'd stress that it was really important because it is different doing population health and large clinic intervention to make sure you approach that in the right context. And again, what we just saw, getting data in and out, which has been a learning process, Steve Davis and Eddie have done an excellent job on our team, and we can share our best practices and experience with you along with our shared visions that we've tried to project today.

Great! Thank you so much Dr. Bell and the Wake Forest team for your presentations. We've reached at the Q&A [question-and-answer] portion of the webinar, so we would like to turn it over to the operator to provide instructions about how to ask questions. And for those of you who aren't on the telephone line, you can enter questions in the chat box. Somebody from the JSI/JBS team will read them to our presenters. So, I'm going to turn it over to our operator.

Thank you. If you would like to ask a question from the phone, please press \* and the number '1'. Please make sure to unmute your phone and record your name at the prompt. Again, that is \*1 for any questions from the phone. One moment while questions come through please.

I'm showing no questions at this time. Just a reminder that it is \*1 for questions.

There are still no questions at this time.

Thank you so much. It looks like we have questions coming in the chat potentially. And I wanted to open it up for any additional comments from Dr. Bell or the Wake Forest team or any of our HRSA representatives on the line to comment at this time as well.

Hi, this is Candice Chance from HRSA. First, I wanted to thank the speakers. I thought it was really interesting, both the overview of HIT and where HIT is going, and the hopeful promise there. And then also what Wake Forest is doing. I have to admit, and I will completely confess that it's been quite some time, well been a little bit of time, since I've been in the clinical world. For the Wake Forest team, you seem to be pretty advanced at the point of actually making changes to your electronic health record to be able to get to the data that you really wanted. And I was wondering if you could talk a little bit about 1) I think the question is almost, how did you get there, and how do you, kind of, convince your organization that it's a worthwhile investment?

Laura may be able to answer from an institutional standpoint. But, from a personal standpoint I was real lucky in that I've been doing EPIC reporting for a while. And my chairperson gave me a lot of time to play with it, and to see what I could get out before the integrated care grant even started. So, I kind of knew the basics and I could do some pretty okay reports before that. And at that point is when I happened to have a really good contact with one of the report writers in the IT department who was more than willing to work with us and get this kind of thing. At that point Laura, Julie and all of us figured out what we wanted to get out of the data. And we still have a long way to go. I will say that generally cross-sectional is a little bit easier to get than longitudinal – and you really need both of them. So, that's one thing we're really kind of struggling with, but we're even making progress there.

Yeah, I think even just being at different institutions, this is Laura, I've been very fortunate enough to work alongside folks within institutions. But, coming to Wake [Forest], I think it was a really lot of those personal connections that Steve really fostered a relationship with somebody over in IT. With the support of our chair who's also the V.P. in population health, he was really gung ho on incorporating more behavioral health measures. So, I think that's all to say—you know I hate to say that it's all about relationships—but I think one of the first steps in terms of creating your vision and what's the mission, and then figuring out from an institutional perspective of what are people's mission and vision. And you'll find what really jives with you. And then, figuring out how do you do this in a way that makes sense. You have to get all the players, IT, privacy officer, compliance, and just kind of get them all around one table and just have these discussions and try to troubleshoot.

I will say one comment that it has not been easy. And it takes several iterations of data crunching to put out and understand when we built the flow sheet for the behavioral health specialists that we would be able to track their interactions with patients, and how many, and to what extent, and making sure we hit our numbers. It's taken, and we're still working through out FQHC to try to sequester the data in a meaningful manner. And it's still a work in progress.

Can you talk at all about, and I know now I'm monopolizing, but what have you done with the data within your organization? Have you found value? And I know it might be a little bit early, but not only for the purposes of the HRSA grant (you know we required it) but [also] within your own organization?

This is Laura again. One of the things that I think we were able to develop from this grant was more of a stance on the importance of integrated care in the institution. And so what developed into that was an integrated care practice unit for the institution. And so, we are starting to write some white papers and using this data to incorporate into those white papers to bring up to those administrators within the hospital to show that this is added-value and this is what the impact on practice looks like from the provider level as well as the operational level, of just clinic flow.

Great, thank you!

This is Irene Sandvold from HRSA. And I wondered, did you have vendors working with you or did you have all the expertise for the IT support initiative within your institution with you?

We've been really blessed with having people within. We really didn't work with a vendor, as far as I know. We had an IT person who was a very, very good report writer that I worked with for a couple of years before the grant started. She may have consulted a vendor occasionally, but she was really good at it and we were lucky that we could get it all done in-house. I could never have done it all by myself, absolutely not. We were just so lucky to have them here.

We put in requests very early. We were patient. We didn't try to get data [that] we needed in a week. We were always trying to be ahead of the game.

The other thing I tended to do on this, which I think has really helped, is I try to do it myself first. But I obviously know what my limitations are, so I know when I need to ask for help. And I think that's a really good approach as opposed to saying, can you just do this for me.



Thank you very much!

I'm just checking with the operator to see if we've received any questions from the teleconference line.

There are no questions on the phone.

This is Irene Sandvold again from HRSA. And I wondered if you have incorporated any lifestyle measures or self-care measures in your data collection variables.

That's a really neat question. No, we haven't. One of the things that's out there is, I believe it's called behavioral health vitals. And the idea behind that is creating what you're saying, these lifestyle variables to help measure patients within those domains. But we just mainly, strictly kept to things like mental health, such as the PHQ, GAD-7 and the other [inaudible] issues.

Thank you.

Any additional questions at this time?

No questions from the phone.

Great! Well, a huge thank you to Dr. Karen Bell and the Wake Forest team for their presentations today. Again, we will be distributing the materials following the webinar. Thank you all for attending today.

[Event concluded]