



Telehealth and Telemedicine: Adopting New Tools of the Trade
Alliance for Health Reform
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FEMALE SPEAKER 1: Take you live now to Capitol Hill where the Alliance for Health Reform is going to be talking about new ways to save money and time, and get better access to healthcare with telemedicine and other technologies.

ED HOWARD: Good afternoon, my name is Ed Howard. I am with the Alliance for Health Reform. I want to welcome you on behalf of Senator Rockefeller, Senator Blunt, our board of directors, to this program to look at one of the most dynamic aspects of health care in America right now, and I'm talking about telehealth, telemedicine. When I first heard those terms more than 20 years ago, it was from the head of the West Virginia University Health System who explained to me this new system he was having installed all around the remote corners of that rural state to make the rich resources of the University Health System available to the remote areas with scarce or no resources.

Telehealth is still important to rural areas for sure allowing better access to healthcare services, but it may surprise you to learn, it surprised me, that a patient benefiting from telehealth was more likely to be an urban resident than a rural resident so the tasks accomplished through telehealth are far broader than they were a generation ago; everything from remote patient monitoring to robotic

surgery, to better behavioral health, to allowing primary care providers to consult with the most highly skilled, but distant specialists around.

We are less than three weeks away from the scheduled beginning of some key components of the Affordable Care Act. Millions of people are projected to obtain health insurance coverage under the new law. How is care going to be delivered to those millions? Perhaps there is a partial answer in telehealth and telemedicine. There are some potential barriers to tapping this new technology; everything from reimbursement practices, licensure rules, cost factors, and we are going to try to explore some of those in our discussion today.

We are pleased to have as our partner WellPoint, Incorporated, the operator of Blue Cross/Blue Shield plans in a dozen states, covering one in nine Americans, I believe. You are going to hear from John Jesser from WellPoint in a few minutes.

Let me just handle a little bit of housekeeping first, in the packets you are going to find a lot of good background information including speaker bios more extensive than I am going to have time to give them, and copies of the Power Point presentations of the speakers. If you are watching on C-SPAN and you have access to a computer, if you go to our website, allhealth.org, you can find these same presentations, the

slides, and follow along if you would like to. There will be, for those in the room now and your colleagues you want to inform, a webcast that will be available on that same website in just a couple of days and a transcript a few days after that. There are, in your packets, green question cards that you can use during an extensive Q and A session to query one of our panelists or more and a blue evaluation form that I hope you will fill out before you leave so that we can improve these programs and respond to what you think we ought to be bringing to you in the way of topics and speakers. If you are part of the twitterverse you can see on the screen there is a hash tag telemed. That is not tell 'em Ed that is telemed, so feel free to spread the word by social media.

Let's get to the program. We really have a terrific panel for you today to discuss this issue which is, itself, complicated and multifaceted, but I think we have a group that is going to be able to give you the understanding that you need to pick this issue up and run with it.

We are going to start with Neal Neuberger. Neal is the head of Health Tech Strategies who are consultants on policy aspects of health care technology and he is the executive director at the Institute for e-Health Policy of the Health Care Information and Management Systems Society Foundation, better known and more economically known as HIMSS. Neal's been

educating Congressional audiences on technical issues for as long as the Alliance has been around for sure in a series of very respected briefings. He's chaired the American Telemedicine Association Policy Committee and we have asked him today to give us an overview of the state of telehealth, telemedicine, how they're affecting change in the delivery of health care. Neal, thank you so much for being part of our program.

NEAL NEUBERGER, CISSP: Well, thank you Ed. It is great to be invited back. As Dianna [misspelled?] of the Alliance and Ed both told me I only have about an hour to do this presentation today and describe the whole—is he laughing? Is Ed laughing?

ED HOWARD: I'm shocked.

NEAL NEUBERGER, CISSP: We each have eight minutes. I've been warned. I'll do this in that length of time. My presentation has to do with the state of affairs, the policy adoption status, such as it is or is not in many cases over the years. Just given what Ed just said, maybe we should call this telemedicine; it is not just for rural anymore because truer words were never said. As Gary Capps, Fran, folks from the American Telemedicine Association who are here in the audience would tell you, it is very much different than it was 20 years ago when I got started in this whole field.

We talk about technology, we do not use it. At least not effectively and I do not recommend it for anybody actually. What's driving all of this activity? Health care reforms writ large meet health IT. Starting in the lower right, we're all concerned about some of the following at a 30 thousand foot level: public health or population health, and how we can drive personal health and consumer engagement, something that has been of issue for as long as I've been involved in health care which is now more than 30 years including things like personal status monitoring. I'll show you a couple examples of that. As you continue around this circle, disaster preparedness mitigation, response DOD, VA; I used to do a lot of work with NASA life sciences and microgravity applications. It has for years been involved in natural, man-made disaster activities and the triple aims of the Affordable Care Act and other reforms having to do with quality driving efficiency, and providing access in rural, remote, underserved minority and disparate communities and populations which is a big issue for telehealth and related technologies.

Here's a definition from the American Telemedicine Association. It's morphed and changed a little bit over the years. Telemedicine is the use of medical information exchanged from one site or another via electronic communications to improve patient status including things like

video teleconferencing, transmission of still images, e-Health including patient portals, monitoring of vital signs, continuing medical education, and more.

We started exploring these issues, as Ed mentioned, in 1993 at the same time as the American Telemedicine Association was formed. We formed the Capitol Hill brown bag lunch series; very informal around telemedicine issues including all rural state US senators starting with Senator Rockefeller really and Kent Conrad from North Dakota, Al Simpson from Wyoming, Ted Stevens from Alaska, Conrad Burns from Montana, Mike Synar, a congressman from Oklahoma, and some others. Our very first program was about HCFA, what are we going to do about reimbursement? The more things change the more they stay the same because not much has changed in reimbursement in telemedicine in 20 years. Maybe Karen and some others want to get into that. Fast-forward, we have done 190 lunch programs over that time; lunch demonstrations, technology demonstrations. Next week for your information is NHIT week in Washington for those of you interested. We'll be doing showcases, both up here in the visitor center and on the House side. You can get all that information on line.

Here's the definition of electronic health record by my current organization HIMSS, the electronic record is a secure, real-time point of care, patient-centered, information resource

for clinicians. It automates and streamlines the clinicians work flow. It's not new. There have been community health information networks that have come and gone over the years and all sorts of efforts. The big trick is the convergence of technologies towards some of these overarching goals that I described in my first slide. This is a well used slide by the Office and National Coordinator and Markel Foundation called bending the cost curve towards transformed health. If you start at the lower left of this arrow, you see where telemedicine and the EHRs or the data capture and the sharing, or the interoperability of that information, their data points, at the end of the day, whether it's electronic data in a medical record or whether it's audio or video data in telemedicine, and you start to capture that towards advanced clinical processes and eventually improved outcomes. These are tools that are meant to E-enable the health care environment, nothing more.

One of my thesis is that's the easy part, the technology is the easy part. Here's a little bit about that. Karen may have some similar slides. Today there are hundreds if not thousands of various technologies, applications, and content areas that constitute this growing field that we don't even know what to call it anymore; telehealth, e-Health, m-Health, who knows. It's a 27 billion dollar industry just on

the telemedicine side. If you look at the lower left and you see down there a wrist watch that checks for lifestyle management [misspelled?] for intrepid runners like me; prevention, arguably not a lot to do with clinical care.

The more sophisticated applications as you move from left to right, including the next box over which is remote chronic disease monitoring in homes and in nursing homes. Further right, roll about units in EICUs, or as Ed mentioned, robotic surgery that started out as remote telepresence robotic surgery by DARPA; very sophisticated, hundreds of technologies just in that alone. My take away here is that the march of technology for health care far exceeds our ability to adopt, diffuse, incorporate, and govern, here comes the policy part, in a public and private sector setting.

This is yours truly. These are highly disruptive technologies. This is a disruptive slide. My point is that you should choose the appropriate technology. In 1974 my project at the Chicago Science Fair when I was a senior in high school was determining a stone tool used from edge wear. I'm the first person to prove that you could do so. My story really starts in '74. No, it starts 200 thousand years ago with Paleolithic tools from Torralba, Spain. The guys and women on either side of me had wooden boxes with Plexiglas fronts and a lot of electronics in them. Can anybody guess

what they were doing? The Illinois Institute of Technology judges were all over them and they didn't care too much about lithic technology. Anybody? The first PCs, 1974, they were putting together the first PCs. Two things about that, the first is that if you do this and you pursue this field what happens is you should be Bill Gates, instead you are doing this. The second thing is if you dress like this even then you will never get a date.

Major policy issues, I've only got about another minute. There's a whole series of major policy issues, I've used this slide for about 20 years having to do with reimbursement standards, infrastructure, and human dimension issues, put positively, there are no problems, just insurmountable opportunities, as Pogo says, and there are a whole series of players at a federal, state, private sector level, and I'll let you read these at your leisure, having to do with all of this. Just yesterday, Congressmen Nunes and Pallone introduced legislation that would make it easier for federal licensure for DOD and VA types. Next week a bipartisan bill is going to be introduced to move telehealth and remote monitoring closer to reality. Congressman Greg Harper's staff is here in the room. What they are doing is advantaging some of the programs Ed talked about through the ACA and other reforms, because as FT [misspelled?] of the Nationals says, you

take what the game gives you. What the game gives you is doing things at low or no cost, or saving funds. This bill is designed to incrementally chip away at some of the issues we've been facing for a long time, but at little or no cost, because I think we finally learned, as an industry.

A whole series of other provisions relating to ACO is medical home, telehealth, kinds of things, and various shared savings efforts at different levels. Value purchasing and quality reporting that are both in ACA and in the HITECH legislation. Over time, my closing point is that there are many opportunities, as Ed alluded to, to begin finally getting a coherent federal policy around some of these issues at various levels in Congress, the Administration, which you are going to here from in a minute, and at a private sector level. Thanks so much and I would glad to answer any questions, thank you.

ED HOWARD: Terrific, thank you Neal. We're going to turn now to Sherilyn Pruitt and if you doubt that the roots of telemedicine and telehealth are in rural America, note that Sherilyn heads the Office for the Advancement of Telehealth within the Office of Rural Health Policy within the Health Resources and Services Administration within the Department of Health and Human Services. Her agency resides within HRSA and HRSA is the locus of a lot of telemedicine activity. We have

asked Sherilyn to guide us through some of these programs and initiatives that are most relevant to telehealth. We're very pleased to have you with us.

SHERILYN PRUITT, MPH: Thank you very much for inviting me. I am excited to see so many young people here. A lot of you grew up with technology so it's not as new to you as it is to some of us who are just trying to catch up. I am going to talk a little bit about the Office for the Advancement of Telehealth. Before I get started I am going to just give you a quick overview. OAT is the Office for the Advancement of Telehealth, ORHP is the Office of Rural Health Policy, HRSA is Health Resources and Services Administration, and HHS is the Department of Health and Human Services. You'll see that feds have a tendency to slide into acronyms so I just want you all to know what I am talking about so when I rush through my eight minutes, and I have to do it lightening speed you'll know what I mean.

I'm just going to start talking about the mission of the office is to advance the use of telehealth technologies to improve access for the underserved. Even though we are located in the Office of Rural Health Policy and our grant funds go to support rural communities, we realized that telehealth can benefit both urban and rural populations. Also, the focus is not on the technology, the focus is on what the technology can

do to improve the health of people living in rural and isolated areas.

We have four different grant programs; the Licensure Portability Grant Program, Telehealth Network Grant Program, Telehealth Resource Centers, a new program to us which is the Flex Rural Veterans Health Access Program, and then we have partnerships. These programs work together hand in glove to improve access to health care for people through technology.

I'll talk a little bit about the Licensure Portability Grant Program. This grant program has awarded two, three year grants, one to the federation of state medical boards, and one to the Association of State and Provincial Psychology Boards. The purpose of these grant programs are to reduce or eliminate barriers to cross state licensure. That's to help facilitate through telehealth or other—you live in a tri-state area and you want to go to your doctor, but your doctor is in the next state. It's just to reduce barriers to help those states that are willing to make it easier for patients who see their doctors no matter what modality they choose to use. Both of these grantees use uniform online applications, centralized credentialing, and they use expedited licensure processes.

The Telehealth Network Grant Program is our biggest grant program. Right now we have 20 different grantees. We just funded a new cohort of six grantees. The purpose is

demonstrate how telehealth can be used to improve access to health care. Our grant funds go to support rural spoke sites, but the lead applicant entity [misspelled?] can be located in an urban area or a rural area.

The funding is up to four years at 250 thousand dollars a year. One of the things that we've done this year as a result of something we're going to talk about it a little bit later, is we were able to shift the focus from does the technology work because we're at the point now in the evolution of telehealth, we know the technology works, but how does it improve health outcomes and is that the same as a face-to-face visit? That's one of the things we are working on with our new cohort of six grantees. We ask people to submit in their application baseline data and then we're going to follow that over the three year period. We're going to use this cohort of six grantees as a test bed for the future of this grant program.

This next slide talks about our telehealth resource centers. That's one of my favorite grant programs. Karen Rheuban is one of our grantees. I'm sure she's going to talk a little bit about the program in a little bit. The telehealth resource centers are centers of excellence. We have 12 regional or statewide resource centers and then we have two national resource centers. One resource center, the Nashville

[misspelled?] resource center focuses on technology and the other one focuses on policy. The technology resource center, they're there to keep up to date with all of the technology. As Neal was just mentioning, the technology evolves so fast that we have difficulty coming up with words to describe it; the words come behind the technology. We have one resource center that all they do is focus on the technology. That resource is available for everybody. That's funded through our Telehealth Technology Assessment Program, TTAC, but you can get to all of our resource centers through telehealthresourcecenters.org. Additionally, our telehealth policy resource center just did a statewide Medicaid reimbursement document. That's from the Center for Connected Health Policy. Once again, you could reach that through the telehealthresourcecenter.org.

You see our map there. The telehealth resource centers have grown from just four resource centers to almost covering the entire country except for my home state, New Jersey. Maybe one day we'll be able to serve them. Karen is very generous. She keeps taking more and more states because she is able to help them and she is great at helping them but we do not have any extra money.

No matter where you are in the country, if you need help, if you are interested in starting or enhancing a

telehealth program, you can go to telehealthresourcecenters.org. You can find your statewide or your regional resource center, and also they have monthly webinars you can log into anytime. They have information archived. They're a great resource. I highly recommend that you check it out.

The Flex Rural Veterans Health Care Access Program, we just funded a second cohort of grantees, three grantees and it was just announced yesterday that the winners of this cohort are Alaska, Maine, and Montana. The first round, the grantees were Alaska, Virginia, and Montana. The purpose of this grant program is to make sure that veterans that live in rural areas have access to health care services via telehealth no matter whether they are close to their visit or not. We want to make sure that veterans do not have to drive an inordinate amount of distance to get to the health care that they deserve. We're working very, very closely in partnership with the Veteran's Administration to make sure that the rural veterans in these days have access to health care services no matter where they are located.

Another thing that we've done is last year we were able to have a partnership with the Institute of Medicine. We did a two day workshop on the role of telehealth in an evolving health care environment. Karen Rheuban was the chair of the

planning committee and Tracy Ludsig [misspelled?] is our IOM contact. There she is. She's in the audience. We had a great two day meeting. A workshop summary was published, here it is. It was made available in November. If you want to get a copy for yourself you can download it for free. Just go to the Institute of Medicine's website and Google telehealth and it is a free PDF download. One of the things that came out of this meeting that was so important was that there needs to be more of an evidence base that looks at outcomes of health care delivered via telehealth. Our change of our Telehealth Network Grant Program was a direct result of what came out of the Institute of Medicine two day workshop. This is a great resource. I highly recommend that anybody check it out and download it. There are a couple of copies in the room. Feel free to thumb through it and take a look at it. It is a great resource available for everybody.

The last thing I want to talk about is Fed-Tel; that's the next innovation of the joint working group on telehealth which Neal referenced briefly. What it is, it's a cross governmental workgroup on telehealth. When I started this job about three years ago, not only did I want to know what was going on in my office in ORHP and in HRSA, I wanted to know what was going on across the federal government with regard to telehealth. What we did we called all of those people that

were part of the joint working group and we said hey, what is happening with telehealth? Would you like to know what is going on in other parts of the government? We had an overwhelming response. We've been meeting for two years now. We meet every other month via conference call then we meet face-to-face twice a year. We have representatives from CBC, VA, CMS, Commerce, Justice; it is amazing how many different federal agencies have some sort of investment in telehealth. We meet every other month, we have two speakers that present, and then we talk about what we are doing in our own offices, then we work on actual things together. One of the things we are working on is a paper on the federal definitions of telehealth. It is very interesting. With that, thank you very much for your time. I just went a little over, thank you.

ED HOWARD: Great, thanks very much Sherilyn. By the way, let me endorse your endorsement of this IOM report. It is a terrific resource. It has everything you are going to want to know at this level about what the issues are in telemedicine and telehealth and it is readable at a level that, frankly, some Institute of Medicine documents might not be from time to time.

That is a trigger for introducing the chair of the planning committee of that workshop, Dr. Karen Rheuban. She has a long list of accomplishments. I commend the biographical

information in your kits to you about her, but her primary connection with us today is her position as director of the Center for Telehealth at the University of Virginia. There are 108 sites in UVAs telemedicine network so we're looking to hear about, among other things, about some of the day-to-day challenges and the policy barriers that exist in trying to make the best use of telehealth techniques. Karen, thank you so much for coming with us.

KAREN S. RHEUBAN, MD: It is a privilege to be here, thanks for inviting me Ed, and Dianna. Thanks for so many of you coming and joining us today. This is a very important issue as we look at access to health care services, access to quality and certainly, post-Affordable Care Act. Our program was established almost 20 years ago and we have fought the battles, we talk the talk and walk the walk as best as we can, but we have faced challenges and many successes as well.

I'd like to say that we are a proxy for the many telemedicine programs around the country. All 50 states have a telemedicine programs and we have a great resource in the American Telemedicine Association. Gary and LaToya [misspelled?] are here from ATA so I want to thank them for all of their efforts on behalf of all our states and all our patients.

Who are the primary beneficiaries of telehealth service? It's the patients. It allows for timely access to locally unavailable health care services and in particular for vulnerable populations, homebound patients as well. Patients are spared the burden and cost of transportation, improves quality care, and increases patient choice. For health professionals there're benefits as well especially in this era of huge workforce shortages, access to consultative services, access to continuing health professional education, and for communities this is a huge benefit as well. More than 90-percent of patients who are engaged in telemedicine encounters stay in their community settings. That's important for families, it's important for community health care systems, it drives broadband adoption, and it creates an enhanced health care environment, and economic empowerment [misspelled?] for the community.

Again, consider UVAs program as a proxy for the many programs across the nation. We offer video conferencing for patient care, live, interactive, HD video conferencing connecting health professionals, mostly specialists with patients and their providers in the remote settings. We do store-and-forward telemedicine which is the asynchronous transfer of medical images and medical data for interpretation. A classic example of that is teleradiology, but there are many

other applications in the world of ophthalmology and dermatology as well.

We've established a remote patient monitoring program. We call it our C3 or care coordination center to monitor patients in the home care setting. We use our network for clinical trials, for distance learning, for health professionals, for patients, and even for our students as they are sent out into rural and remote communities. We also have a program now of workforce development. We have created a certified telehealth technology program with HRSA funding, in fact, because we believe there needs to be a cadre of workers who are comfortable with the use of technology and that the providers themselves do not have to be technicians because they've got tons of patients to see in their own clinics.

As I mentioned, we have a 108 site network in the Commonwealth of Virginia and with technology it does not have to be at our traditional referral area which has always been the western half of the Commonwealth of Virginia. Although, you will see we have a preponderance of sites in far southwest Virginia, primarily because, at least when we started, that was a rural area. A lot of the grant funding and a lot of our legislative partners were in southwest Virginia. We have sites in Tangier Island in the middle of the Chesapeake Bay and on the eastern shore of Virginia as well.

While this is not about technology it is really important to choose technologies that are interoperable. That has been our guiding force is to choose things that work with one another. Plug and play, and there is a continual health alliance of equipment manufactures that have pledged to create interoperable devices. We have desktop video conferencing, mobile video conferencing, carts [misspelled?], fixed video conferencing and even iPad and other tablet devices. We've used robotic technologies as well.

As far as our dashboard, we've supported more than 33 thousand patient encounters. When we first started our program we did not connect to a lot of sites so you can see our volumes were rather low. We had a dip, which is, I think, very interesting between 2011 and 2012 when one of our fellows went into private practice of telepsychiatry so she took a fair amount of business from us. I say it is workforce development and she is serving patients in Virginia so that is a good thing and we're marching back up again.

More than 40 specialties participate in our telemedicine program at the University of Virginia and a metric that I want to share with you, which we're very proud of. We have saved Virginia patients more than 7.9 million miles of driving for access to health care. That is a lot of dollars

and transportation costs for our Medicaid program and for our patients as well.

Our program is need-based and metrics-driven. You've heard about clinical data being very important in evaluation. Some quick examples, high risk OB telemedicine, we've reduced preterm delivery by 25-percent in our network. That translates into healthier babies, healthier mothers, lower cost for the Medicaid program, and lower costs in a lifetime of care for children. We have a telestroke program. Again, these are just two of the 40 different specialties. HRSA funded grant program as well connecting rural community hospitals to improve access to the use of TPA, a clot busting medication. We have increased the use of TPA from zero to 17-percent of stroke patients that show up in those hospitals, huge outcomes and benefits to patients.

I mentioned remote patient monitoring in home telehealth. This is a very effective tool for chronic disease management and post-Affordable Care Act, very important for hospitals around the country, because there are penalties for readmissions that our hospitals are facing. This is a fabulous tool to reduce readmission, reduce ER visits, and there's a lot of data, both from the VA as well as from community hospitals and academic hospitals that shows a tremendous reduction in emergency visits and re-hospitalizations.

We believe telehealth should be both state and federally based and a market-driven service line. Our Commonwealth of Virginia has been incredibly supporting of telehealth since the inception of our program, but in particular under Mark Warner's administration when he expanded it. Is anybody here from Senator Warner's office? Senator Warner, when he was governor blew open telemedicine for Medicaid beneficiaries. Urban and rural Medicaid beneficiaries are now eligible to receive telemedicine services anywhere in the Commonwealth of Virginia. Is anybody here from CMS? We have negotiated in our dual enrollee contract, which are Medicare and Medicaid patients. We have 77 thousand covered in Virginia to have an expansion of telehealth services including, we're hoping as we go through our final negotiation, urban Medicare beneficiaries, because they are covered under Medicaid in Virginia, why not under Medicare. Tune in, we hope to have that announcement shortly.

Virginia Department of Health has been very supportive in our consult origination sites and has funded programs. Our state Stroke Systems of Care [misspelled?] task force has embraced telehealth. Our Tobacco Commission has funded telehealth programs in south side and southwest Virginia. Our Joint Commission on Healthcare, which is a Virginia legislative body, did a work force analysis and really created a road map

for what ultimately became Virginia Mandate that passed in 2010 from the Virginia General Assembly to mandate third party payment of telemedicine services and we are very grateful for that.

Our Virginia Health Reform Initiative and our health benefits exchange all include telemedicine. We're a pretty progressive state when it comes to telemedicine. I mentioned the Virginia Health Work Force Development Authority Initiative, a HRSA funded grants to train health professionals in telehealth.

We would not be where we are without the federal government. We have received grant funding from HRSA, from US Department of Agriculture, USDA, anyone here from USDA? They funded rural phone service. They have a distance learning and telemedicine grant program and we have relied on that for the procurement of equipment remotely. NIH has funding, Department of Commerce, ARC, all the federal agencies have some involvement.

Sherilyn talked about 16 agencies and departments. There are at least 16 agencies with some involvement in telehealth; Indian Health Service, the VA, Department of Defense, again, a huge shout out to Tracy in the IOM. That was just awesome for us.

One of the things we need more than anything else as we are trying to advance telehealth nationwide is to improve Medicare reimbursement of telehealth service. It's still low. In 2011 CMS reported less than six million dollars in reimbursements for telehealth services, telemedicine services nationwide. That isn't very much. One of the challenges is some of the limitations in originating sites, the rural requirement for telemedicine, and even the definition of rural. I am thrilled that the 2014 CMS physicians proposed payment rule has an expansion in the rural definition, which currently now is only non metropolitan statistical area. There's a rural requirement for ACOs. This changing definition of rural limits sustainability models, and more importantly, access to care for our vulnerable seniors. Also, the rural definition is very poorly aligned with specialty work force shortages.

There are many issues that need to be addressed, reimbursement being one, credentialing and privileging. CMS issued a new regulation two years ago, which was very facilitatory [misspelled?] of telemedicine. We obviously have to be aware of HIPAA, very important, licensure portability is a challenge, medical malpractice is a challenge. If we go across state borders we need to be aware of the malpractice cap or non caps in other states. Stark and anti-kickback, we cannot buy equipment for a referring site because it might be

viewed as an inducement for referrals. Telecommunication venues are very important. The FCC has a wonderful program, the Rural Health Care Support Mechanism that provides discounts for rural providers. Integration with the MRs, I know Neal touched on that and health information exchanges. Wouldn't be nice to be able to just call up the continuity of care document when we see a patient and we are all in the states moving forward to HIEs, standards for interoperability and then a plea for interagency alignment related to policies? Great opportunities at the National Organization of Black Elected Women, legislative women have model legislation in the states and now 19 states plus the District of Columbia have passed a mandate. Congressman Harper's Telehealth Enhancement Act of 2013 about to be introduced. The Vets Act to expand the one state license model at the VA. The Telemedicine for Medicare Act, Nunes/Pallone to expand licensure across state lines for Medicare beneficiaries and whatever can be done for the elimination of the rural definition eventually under CMS.

I just want to give just an example of some of the areas in Virginia that are considered urban areas by the current CMS definition. Scott County, Virginia, far southwest Virginia, that county has one federally qualified health center in the middle of the mountains. It is an urban area. Giles County, Virginia; another Appalachian county has a critical

access hospital, but it's considered an urban area by CMS. Washington County, there's the mountains. That's an urban area by CMS definition and the Grand Canyon. Thank you for your attention. We look forward to all of you continuing to be champions for telehealth and I'll make myself available at any time, thank you.

ED HOWARD: Thank you Karen. Finally, we are going to hear from John Jesser who is the vice president of Provider Engagement Strategy for WellPoint. WellPoint being not only our partner in today's program, but the outfit that has charged John with finding ways to improve care and improve affordability and improve consumer experience and access. It's a pretty big job for a company that insures one out of every nine Americans. Telehealth is one major part of the portfolio that John has developed in response to that charge. He heads WellPoint's LiveHealth Online project which is designed to improve the connections among doctors, and hospitals, and consumers, and their health plan. We've asked him to tell us a little bit about those efforts today. John, thanks for coming with us.

JOHN F. JESSER: Thank you Ed, good afternoon everybody. I will tell you a little bit about it. Ed mentioned some of the key points here. From a health plan perspective, you may not know this but your health plans are

often looking for ways to make health care more affordable, to improve access to care, and also to improve the consumer experience. That's not something health insurance companies used to historically be known for, but it really is important, especially in the advent of the oncoming of exchanges where consumers are going to choose a health plan one by one.

We've been fortunate at WellPoint to have a family of Blue Cross affiliates across the country that tend to attract a lot of the best and brightest ideas in the market that we get to take a look at. I was very fortunate about four years ago to run into a company in Boston called American Well. American Well was founded by two physicians. It is a technology company that built an online care platform that really redefines telemedicine and all the ways that we have been talking about it. I'll share that with you and hope you understand why.

We work with American Health and we built this product called LiveHealth Online. The question is then, what is LiveHealth Online? It's you, it is Friday night, you are at home, you do not feel well and today you have a couple of options. You can go to an emergency room. It's going to cost a lot of money. You are going to sit for a couple of hours and wait. You can find an urgent care center if there happens to be one around that is open and that's still going to cost you north of about 120 bucks. Maybe you live near a CVS, or a

Walgreens, or another retail chain, Kroger that has retail clinics. There's another option. You can see a nurse practitioner. You may wait for an hour. You've got to drive there. Those are really your options today or do no nothing.

What LiveHealth Online has done is we are introducing a fourth option. You can open up your laptop with a webcam or your mobile device, tablet or cell phone, whether it's an Android or Apple and have near immediate access to a board certified primary care doctor on demand from the comfort of wherever you are; your home, your hotel, relative, wherever you are. Right now that visit's priced at about 49 dollars. It's affordability; it improves the affordable options that consumers have. It gives you more access to care, and it improves the consumer experience. People value their time more than anything.

Clearly, the doctor cannot put hands on the pt and draw blood, so there are some limitations to what could be seen, but there're an awful lot of things that people would feel a lot better if they could just talk to a doctor. Same scenario happens when it's a Monday at 10am and you're at work and you do not feel well. Oftentimes you're going to have a hard time getting in to your doctor that day or even the next day. The ability to go to a quiet room, to have access to a webcam, and have a consult with a physician who, in many states, based the

information you exchange with them in live, real-time audio and video, can be used for them to write a prescription to help you feel better and it will be electronically sent to the pharmacy that you choose. The payment is done by credit card. If you happen to have Anthem or one of the other WellPoint family of health plans it may be integrated and that claim will be submitted and you will only be charged your co-pay, no paperwork involved.

Sound too good to be true? It really is happening. We are live now in Ohio and in California. I'll show you a map here soon as to where we're going but we are introducing this to national employers. I know many of you are in the Federal Employee Benefit Plan saying when it is going to come to us. That's also on the list. Anyone can use this as a consumer. The website is livehealthonline.com. It's that simple. I'll talk to you more about that in a minute.

Why does that matter in this discussion? There's been so much wonderful work done in telemedicine bringing people access in rural areas to urban doctors and improving access to care. The barrier, though, to that is you need grants, you need money, you have to put expensive equipment in one site and expensive equipment in another. People still have to drive. This whole idea of originating site, all that goes away with the new technology that's coming. Thanks to people like Steve

Jobs at Apple, high definition video compression, high speed internet, the bandwidth keeps improving. Many of you use FaceTime or Skype. If you think about that technology in a secure, structured, HIPAA compliant manner, built for health care, that enables people no longer to need grants to put a lot of expensive equipment around you can think about a Medicaid plan, you can go to a public library and put an iPad in a room and you suddenly have a virtual clinic. If you want to attach some biometric devices, a stethoscope, an otoscope and some other things, even have a nurse there, you can even expand further. I want to walk you through a couple of slides and give you more insight.

I mentioned this, this is meeting consumers wherever they are, whether you are at a hotel, whether you are at work, it addresses convenience, prevention. There're many people, because of barriers to transportation and barriers to care they just do not get seen. There are costs of care savings. At that price point when you avoid an ER, when you avoid an unnecessary urgent care visit you're actually saving money and the patient enjoys the experience. These are some of the points that we give our sales people when they are out talking to employers because there're some other solutions out there, some of them are purely telephonic, they're not as robust. We make sure that they know the strengths of what we have here

with LiveHealth Online. I'll let you read that on your own for the sake of time.

This is really the key screen here. This is the home screen when you log in. It matches you up with the state or, in this case, the District of Columbia, with where you live, and we'll show you doctors that are licensed in that area. Right now the model is, if you will, an urgent care in a cloud. This is primary care, urgent care, the kinds of things that can be treated. It is not dermatology yet, but I'll tell you, think about things like behavioral health. It's fascinating how the mind begins to work when you start thinking about it. Two years ago I had people telling me who would ever get care like this? Six months ago I had the CEO of a major academic medical center say, I don't think anyone under 30 is going to come into the doctor anymore. Somewhere in between here and there is the truth, but the ability to see the doctors up front, read about them, find out where they went to medical school, find out if they speak different languages, and choose. That's very important to the consumer experience. There are solutions out there where you dial an 800 number and someone has a doctor call you back who you have never heard of, we're trying to achieve something that is really better than that. The website is just like Zappos, or Amazon, or anywhere you shop online. You go online and you register, it costs nothing,

and it takes just a couple of minutes, then you have it whenever you need it.

I mentioned both IOS and Android platform coming next month. We're testing those final testing stages right now. I think that's going to be very powerful because an iPad is really one of the simplest video conferencing devices. You wouldn't have to teach your mother how to configure a webcam or anything. You turn it on and it's ready to go.

This is the map. This is really important. There are asterisks in some states, there are none in others. Some states are red. Let me just tell you in the next nine seconds what the issue is here. Rules with medical boards, pharmacy boards, and even state regs around telehealth have so many different definitions that it's almost impossible to decipher what is allowed, what's not, but we take it very seriously because if we're going to go into a market and have doctors practicing this way we don't want to put those doctors in a position to jeopardize their license; so many of these rules have terms like originating site, which applies to the old technology, but not to the new.

What I would ask this group to stay tuned and to think about, and to help with all the smart people at this table is let's come up with a modern definition of telehealth that doesn't talk about originating site. The important thing is,

and we're working with American Academy of Family Practice and with organized medicine, can a doctor through live interactive technology gain enough information to examine a patient? If so, that should be how we define it. What are those things around it that need to be there that are important? We have that information we'll share with you, a draft. Then, does that doctor, in their judgment, have enough information to write a prescription? Not for narcotics, not for Viagra, but for non-controlled medications that are going to help resolve that patient's problem. If so, let the doctor use their judgment to do that. That's what we are seeking and that is what we are involved in a lot of this activity. My time is up. Thank you very much. We will be talking later.

ED HOWARD: Thank you so much John. One of the nice aspects of our format is that you are going to get a second bite of the apple if you did not get the first bite of the apple when we get into the questions and answers. As I mentioned, there is a green card in your materials you can write a question on and someone will pluck it from your fingers and bring it forward for a response by our panel, or we have some microphones there and there on either side of the room. If you come to the microphone, try to keep your question as brief as you can so we can get through as many as we possibly can and identify yourself.

Let me start us off if I can. John made repeated references to something that was mentioned earlier as well and that is originating site. I wonder if I could ask whoever feels the urge on our panel to tell us a little bit more tangibly how is telehealth reimbursed now under Medicare and under Medicaid if there is an answer to that are there, as there is with most other aspects of Medicaid, 51 different answers? Karen?

KAREN S. RHEUBAN, MD: For Medicare there's a specific number of originating sites, office of a practitioner, clinic, community health center, hospital, under Medicare. For the reimbursement then there's only a set number of types of providers that can be reimbursed under Medicare. Then for the originating site, Medicare puts a limit in terms of the location and that's where, currently, it is the Non-metropolitan Statistical Area definition of rural. Again, that is a bit of a challenge for us. The home is not an originating site under Medicare. Under Medicaid it falls to the states to make that decision, so 50 states could have 50 different definitions, right Gary? In Virginia it's primarily clinics and hospitals, community health centers, community mental health centers, again, not the home, although we have gotten approval to patient monitoring in the home. The private payers, we have not really tested the home with the private

payers yet in our program, but certainly I see Virginia is one of the state that is covered under collaboration so certainly, at least for your program, the home is an eligible site not under Medicare though.

JOHN F. JESSER: Right, we made a big, bold move in being the first payer nationally to commit to reimbursing for these online care visits that I just described. The reason was, I spent a lot of time with doctors over the years and they say, why don't pay us for telephonic care? We're doing so much work on the phone and there is a disincentive that makes us want to have the mother to bring their child in the office because that is the only way we can get paid. Quite honestly, the answer among payers is rational, it's that we do not know what happens on the phone. Did you talk for two minutes? Did you talk for 20 minutes? How much cognitive thinking was involved? If payers were to say, okay, we will pay for telephonic visits what does that mean? With the kinds of technology I described, when there's documentation of the patient's complaint, what their issue is, the doctor gets to review that, the doctor and the patient have a live video interaction, the doctor creates a medical record from that. If there's a prescription written it's done through e-Prescribing and documented and there is a permanent record. So many of the things that happen in the office visit are built into that

technology that we felt comfortable saying, okay, that's a visit. Whether it is in the building or not, the same room, we really do not care, and there is a CPT code for that. It is 99444 for the coding geeks out there and that's online care. That makes sense to cover telemedicine from a private payer standpoint and we've gotten national employers to agree.

KAREN S. RHEUBAN, MD: One other thing, skilled nursing facilities and dialysis facilities are also eligible originating sites, and then we bill E and M codes with a GT modifier is how it's done under Medicare.

NEAL NEUBERGER, CISSP: Here's my quick answer to that. Technology eliminates both time and distance to the point where we need to stop thinking about everything being done remotely. It doesn't matter if the patient is here and the clinician is in India, for that matter, if you get enough of the correct information. Endoscopic surgery right within the operating room is telemedicine. The image goes all the way from inside the patient to the physician who's viewing it on a screen no more than five feet. What's the difference? There is none is the short answer. There're a limited number of sites, a limited number of codes that have grown up over the years through a patchwork of crazy quilt stuff through first HCFA then CMS, and the states around Medicare, Medicaid, and then the private insurers are scratching their heads trying to

figure out how do we make sense of this nationally? The short answer is, we've got to get a handle on this. I think John's suggestion that we start to deal with what it is and begin paying for it is the only rational one and we've got to deal with licensure as part of that, and stop the fence-me-in practice of state by state licensure which has zero to do with science or health or the human body and everything to do with business practices in states by physicians. It is time to stop that.

ED HOWARD: I do not want to tromp on either our questioner who is waiting or on your applause line, but getting back to payment for a second, Medicare differentiates one place from another and we know that the payments vary substantially from one market to another, what rate applies when you are in one county and your patient is in another county? Is it the originating site again or is that not a consideration?

KAREN S. RHEUBAN, MD: It hasn't been a consideration, actually, in terms of the actual rate. We bill the E and M code with a GT modifier and it is on a par. For Medicaid in Virginia we are paid on a par with face-to-face care if we are paid and the same is true for private pay as well. That's part of our mandate was parity legislation.

ED HOWARD: And it doesn't make any difference in Medicare, for example, if you're in upstate New York or in

Manhattan, presumably the rates for a particular service are different.

KAREN S. RHEUBAN, MD: If the University of Virginia is billing a telemedicine code it would be the same as if we did the face-to-face for our hospital system [misspelled?] [interposing].

ED HOWARD: In Charlottesville.

JOHN F. JESSER: I think the concept of site of service code will become obsolete as Neal was saying. It had to do with how much resources were used. If it was in patient that meant it was a hospital so there was a load there for overhead, then there was outpatient, and then when you get into home and all this, what does it matter whether it was a hotel, home, or down the hall here in a quiet room? I don't think it'll serve us. You can come up with enough place of service codes but that will be for another day.

ED HOWARD: Alright, you have been very patient, please identify yourself and ask your question.

Andy Shin: Thanks, Andy Shin, Potomac Research Group. Acknowledging Neal's last point, I think this question is more geared towards the other type of telemedicine, not endoscopic procedure, but more to those [misspelled?] remote sites. Karen, I noticed that in your slides you have some good process and outcome measures, reduce preterm delivery, reduce missed

appointments which are all good. I'm wondering about one other piece of data which is the effect of telehealth on the total cost of care; specifically, what sort of data do you have either now or forthcoming that would describe, in that latter part of the definition of telehealth, the sort of effect that you could have on lowering the total cost of care? I would assume from John's example that he did the analysis, the folks at WellPoint decided this was going to be better for our patients, quality wise and lower our total cost as well. I'm wondering was there a point, John, where you think there's a point of diminishing returns where the needs of the patient are such where there really isn't an improvement in quality and lower costs? Do you need to target telehealth in a certain way or how do you for your patients who participate in the program?

JOHN F. JESSER: I'll take the first swing at this, thank you. Let me just tell you this. It makes sense even if was break even. If it did nothing to the cost of care, did not improve affordability and improved the consumer experience, and it widens access to care, that would be good enough. However, things need to be funded to grow so there is an affordability play here. Blue Cross of Minnesota actually did a study with their own employees and after each online care visit they would be asked the question, if this was not available what would you have done? We quantified that, they did, and we also ran it

across our numbers. Some people would have went to the ER, a small percentage. A large chunk would have went to an urgent care. Some would've waited a day and gone to the office. Some would've done nothing. Actually new costs were incurred for people who might not have done anything. Net-net when you add it all up, on average the savings estimates go from 45 to 100 dollars for every online care visit of avoidable other costs. That's just for primary care. That makes it make sense. It also makes us target, to your question. Let's look at frequent flyers in the ER that are going to the ER for non emergencies. Let's at least reach out and make them aware there is another solution. This is really all about marketing and creating consumer demand. If you look at Amazon, the original days of Amazon.com, it was very flat for five years. Nobody knew about it, and nobody used it, and then it went like that. It's going to be the consumer who decides, but we want to make sure we get it front of the people who need it the most.

KAREN S. RHEUBAN, MD: I'm not a health economist, but I will tell you, we have tried to get a lot of this data. We can extrapolate some cost of care if we reduce the burden of preterm delivery and the reduced days in our neonatal ICU or reduce hospitalization days for patients with stroke. Really, it's the payers themselves who have that comprehensive look at the data. We tried recently to gather data for a CMMI proposal

on high risk obstetric telemedicine. It was very difficult to get costs of care, even from our Medicaid program on babies who didn't get hospitalized at our hospital because they ended up being born in their community at term. Attaching infant numbers to the number, those data streams are very, very difficult for us as a hospital system and not being a payer to get, but we're trying our darndest. The ORI is there. I think ATA commissioned a study with Avalere to see the tremendous costs savings that is associated with it, but for us as a health care system it's very hard to gather that data just because of the mix of patients, and payers, and hospital systems.

JOHN F. JESSER: One more piece to factor in, for an employer it is productivity. There're teachers in teachers unions and they have to take four hours or a half a day of their PTO if they need to go to the doctor so the teacher doesn't want to use a precious half a day of their vacation time to go to the doctor, and so they are gone. On average, people are gone 90 minutes to two hours to try to get to a doctor. We're actually commencing this study as we roll this out in such a big way with some smart people and some actuaries and we'll be able to come back to you in a year and have some very sound data.

KAREN S. RHEUBAN, MD: And figure out the miles saved too. Those 7.9 million miles, unless it's borne by the Medicaid program or the correctional programs, it's borne by the patients themselves.

NEAL NEUBERGER, CISSP: It's difficult. There aren't enough health economists and folks who have longitudinally done those kinds of studies. There are some anecdotal studies and it's great to see that the insurers, and we are finally now starting to get some of that data, but frankly the industry is falling short in that department. We've not committed enough resources to it. That said, we also knew in the back of our minds that the Congressional Budget Office was not necessarily going to consider any of that forward thinking or forward leaning information. What does telehealth do down the road to save Medicare, Medicaid, or private insurance dollars, because that's not how CBO scores things. That's a major legislative or Congressional fight that's also looming in the background and has for 20 years. It's something that effects health care broadly. How is CBO going to consider all of that when it comes to scoring the Nunes and other legislation that's pending and that kind of thing? We've got to get our act together better in that department.

ED HOWARD: Yes, go right ahead.

Laura Woolf: Hi, Laura Woolf from the Department of Health and Human Services. Mr. Neuberger had mentioned the role of telehealth and telemedicine in disasters so I was wondering if you could speak more to that role and maybe to the barriers to its use.

NEAL NEUBERGER, CISSP: There're good examples and there have been many conferences. There's language in POPO [misspelled?], the Disaster Preparedness Act from four or five years ago, post Katrina, and there are examples from within Katrina where, say for example, clinics in New Orleans in many unheralded ways and some hospitals who had some of the early- what are those grants called that no longer exist for communities? Community development and block grants, used some of that for EHRs and telehealth-like activities, and actually preserved their systems while all else went down. The tornados, most recently, in the Midwest a year ago, there're some very good examples of this ANGELS [misspelled?] program that I had in one of my slides and others that have gone in and done some really good remote planning in disaster assistance. The Armenian earthquake through NASA about 18 years ago when I first started to become involved, we did a consult, as I think I mentioned, to Russia from the Hart Senate Office Building following the revolution when this *New York Times* reporter had gotten shot and Senator Rockefeller sat there, talked to the

New York Times reporter, his name was Otto Pole [misspelled?], this is pre-HIPAA, and he was laying in the military Kremlin hospital, this is 20 years ago. There is a long history of NASA, DOD using in deployed instances all over the world, in Somalia, in Bosnia-Herzegovina, in almost every deployment, the Haitian earthquake and others. There's a whole discipline and my former partner is big into this stuff involving USAID, State Department, and the various multilateral organizations and overseas governments around just this issue. Karen?

KAREN S. RHEUBAN, MD: I'd like to comment. The Commonwealth of Virginia has invested emergency preparedness dollars in telehealth and we connect all the hospitals. Probably almost every hospital in Virginia is connected and we test regularly for disaster preparedness so that we can communicate, and manage, and triage together. Then you think about it also, look at the data that can be mined in terms of disease surveillance; pharmacy utilization in terms of identification of influenza outbreaks or other outbreaks, anthrax, these networks could be used [misspelled?] to increase awareness in a very timely fashion.

NEAL NEUBERGER, CISSP: Epidemiology and disease surveillance is the low hanging fruit in many ways for Boltella Health [misspelled?] and for electronic health records and interoperable health records because you do not have some of

the same business and other issues that you otherwise face with competing interests in various locations around disease surveillance and community care records and that sort of thing. That's a really good place to start where there's a common level set of expectations and people's interests and groups interests.

ED HOWARD: Yes, go ahead.

Ron Klein: [Misspelled?] Hello, I am Ron Klein, I am a pediatric hematologist/oncologist by training, but a Robert Wood Johnson health policy fellow this year. As a pediatrician I was thinking of Mr. Jesser's point about prescribing antibiotics for an ear infection I didn't actually examine. Clearly there're going to be examples where you're going to miss medical problems through telemedicine that you might not miss if you actually examine the patient. Do you envision a separate standard of care in terms of malpractice for telemedicine interactions as opposed to ones where you actually see the patient, and has that been a problem in Virginia?

JOHN F. JESSER: Make sure that I clarify first of all that I'm not a physician, but I'll tell you that our goal here, the point is to allow the doctor to use their clinical judgment based on the amount of information they can obtain from the patient through that interaction. If they do not believe that they can adequately diagnose otitis media and that they should

not write an antibiotic then that's exactly what they should do. The technology simply now enables that person to get in front of the doctor for many things that are symptoms-based that can be described and diagnosed by listening to the patient, seeing the patient, and really it's up to the practicing doctor and the malpractice standard does not change. Most of us that work with computers, and I would imagine that is most in this room, don't often have live webcams in our workplace at the desk, so there is now, responding to that call, some very interesting and fascinating designs of kiosks, and I have some in the slides that you'll take a look at, that you can put in the workplace with a digital otoscope and a digital stethoscope, and a digital dermascope, and some additional peripherals that will give the doctor more information. Think about an employer that could not afford a worksite clinic because they cost of employing a doctor, and a nurse, and all of that, now if they set up a quiet room with some basic technology and the internet, can have a nurse or a medical assistant take vitals and do some things to expand what the doctor can treat. It's really a matter of what can the doctor obtain and what they comfortable in their license in treating.

NEAL NEUBERGER, CISSP: In our network, in our model, and I am a pediatrician as well, so in our model we have used

video otoscopy, we have an ophthalmoscope, stethoscope, so that's a slightly different model, which I think your model certainly works well for triage, but we don't establish a separate standard of care. We want our physicians to feel comfortable that they have as much information, and to be able to manage a patient as well as they would in their own offices and if not, then the patient has to be sent.

JOHN F. JESSER: In no way is this designed to replace someone's primary care doctor and that relationship. I'll tell you that there are physicians who take phone calls today and they write antibiotics without having physically examined the patient that goes on, so whatever the standard is today, we're not trying to change it.

NEAL NEUBERGER, CISSP: From a policy perspective in terms of the technology, quality is job one, obviously. You're a clinician, that is what we all care about, do no harm, make things better, which is the case, in some cases, like in mental health care, they actually think that oddly it's more receptive and some consults can be better, it is strange. There's role for the Food and Drug Administration, and there will be, and there's been ongoing discussion for the last year around mobile and wireless guidance of various technologies, and what buckets they're going to fall into for purposes of five, 10K approval processes. That's a really good discussion point at which to

enter. All of the groups, HIT Now, Coalition HIMSS, ATA, all of them are actively engaged in how do we ferret out those issues and how does it all relate to the quality reporting and other metrics that are in the Accountable Care Act.

Male Speaker 1: There are three pediatricians here. I'm the pediatric cardiologist. The question I have is, isn't this just simply replacing, as you said, physician taking call like they used to before we went to nursing centers and a way to get the physician or an entity reimbursed for that call as opposed to when you took call and I took call, we weren't reimbursed for it.

KAREN S. RHEUBAN, MD: For phone calls right, but isn't so much better to be able to see the images. Our colleague, Joe Tracy [misspelled?] in Pennsylvania has a teleburn clinic and there is a huge difference in terms of what a physician can evaluate over the telephone. The picture is worth a thousand words. I also want to give a shout out to the American Telemedicine Association which is developing practice guidelines along a whole host of different specialties including primary care, urgent care. Those guidelines will be out later on this year, but they have practice guidelines in a number of different specialties.

If anything, I would say we are improving the standard of care in many communities. I will give you an example. In

our network, no names because of HIPAA, but a patient was being treated in the local community for shingles, not getting better, and they asked for an emergency telemedicine consult after three days, saw a dermatologist in our program, and it was necrotizing fasciitis or flesh-eating strep, not shingles. Suddenly the axis to the specialty service was really life saving. That's really the case across our country in terms of the use of telemedicine.

ED HOWARD: Can I ask for the forbearance of the folks at the microphones, we have got to segue way to a question on the card that is on point here and actually it's a follow up also to the previous question about whether there're data on costs. Are there studies that are available yet on whether it's a population health basis or anything else that describes the impact of telemedicine on outcomes? In other words, are people getting better, on average, or is it just the individual incident? Are we imposing quality standards by anecdote at this point?

KAREN S. RHEUBAN, MD: There are studies, many.

ED HOWARD: Okay.

KAREN S. RHEUBAN, MD: Stroke [misspelled?]

[interposing].

ED HOWARD: Have I just got to the end of my—?

KAREN S. RHEUBAN, MD: No, ARC has commissioned studies as well, so yes, there are studies. Post Affordable Care Act, there aren't a lot of studies that look at the ROI now because the environment has changed, but there are groups that are doing very careful studies on these very issues.

NEAL NEUBERGER, CISSP: Many of them are documented in the *Journal of Telemedicine* which is an arm, in a way, I guess of the American Telemedicine Association. It has been for 15, 20 years, and there are many good peer reviewed, quality related, and outcomes-like studies that show the benefits of various teleologies [misspelled?] in the different disciplines and subspecialties.

SHERILYN PRUITT, MPH: In the IOM summary report there's a whole chapter on the current evidence base.

ED HOWARD: Actually, thank you for bringing that up, Sherilyn. One of the reasons that I wanted to get to that question is in that summary there was among, at least, some of the participants some question about how robust the evidence base was. Is that still a concern? Was that one of the major takeaways that we needed to do more or are we at a position where we can make those judgments?

SHERILYN PRUITT, MPH: Yes. There was a very, very comprehensive discussion about the current evidence base. It was really, really well done. It just pointed to the fact that

many, many studies have been done but there is room for more to be done in terms of more robust, larger studies.

KAREN S. RHEUBAN, MD: And economic analyses as well.

SHERILYN PRUITT, MPH: Yes.

NEAL NEUBERGER, CISSP: Absolutely, and there is a role for the Agency for Healthcare Research and Quality, both within its current mandate of a billion plus dollars under HITECH funds for these sorts of things. Whether or not it's on point in terms of telemedicine, a lot of it has to do with HIEs and things, and other directive kinds of things that shouldn't ought to take place through the Office of Technology and Science policy in the White House, AHCPR, and through CMS in terms of energizing that evidence base, it has to be done.

ED HOWARD: If your left arm is holding out so that you can keep the laptop there I think this lady was at the microphone first.

Jacqueline Watson: Good afternoon, my name is Jackie Watson, I'm the executive director for the Board of Medicine in the District of Columbia. Thank you to all the panelists for an informed presentation. This question is for Mr. Neuberger. You made a comment about state licensure. I am a great proponent of telemedicine and just want to explore with you your recommendation for how licensure should be handled for physicians and then probably, more importantly, the

disciplinary aspect; how do states actually control and regulate those who may not be licensed in their state, but have performed poor outcomes in the state? How are those issues to be handled?

NEAL NEUBERGER, CISSP: There was, I do not actually know the current status of it, some progress within at least one of the councils or the Committees of the American Medical Association to at least explore the whole notion of the Interstate Nursing Licensing Compact which has not been that widely adopted, but has been by maybe 12, 15 states in the last several years [interposing] which allows reciprocity and interchange of nurses licenses. I think we have to at least get more real about going down that road so that there is that reciprocity or some sort of federalized system to start to approach it. It's just been too long.

In terms of disciplinary actions, maybe ATA, and AMA, and others who have thought more about that, Karen and others, but it can be done. It can be handled.

Jacqueline Watson: That's the challenging part. I think most people believe that a doctor licensed in Colorado should be able to get a license in the District of Columbia or Maryland. I do not think there are any issues with the licensing, but you only have the control over the provider unless they are licensed in your state. Each state has

different laws and rules around discipline. The challenge is, a license for partisan is not a big deal because you take the US simile [misspelled?] and pretty much it is standardized now. The discipline part is the issue, and I would say that state boards really aren't in the business of necessarily making money. It is really to protect the public. So from that aspect that's what we look at.

NEAL NEUBERGER, CISSP: No, I didn't mean they are making money.

JACQUELINE WATSON: Okay.

NEAL NEUBERGER, CISSP: I mean, they're protecting the making of money in some ways, like in places like California they have "too many clinicians" but not enough of the right kind and not enough of the distributed right kind in rural and some inner city urban areas [interposing]. It could be viewed that those laws are archaic, they're way out of date, they stem from the 40s and 50s, and they were a construct of state medical associations. I used to work for the state medical side in Wisconsin. They fell out of the back side of medical associations. That has to all be reviewed including the disciplinary part of it.

Jacqueline Watson: I think that is where we'll need some help because I think state boards are actually on board. They understand the importance of telemedicine, the technology,

getting access to care, the issue though is that we are in a position where we get complaints. We have to be able to address those complaints and we can only do that and have control over the person who is licensed in our state. That's the challenging part. Whoever comes up with that will be great.

NEAL NEUBERGER, CISSP: We actually deal with that too.

ED HOWARD: Gentleman with the laptop, you have been waiting.

JIM SWEET: Thank you.

ED HOWARD: Go ahead.

JIM SWEET: [Misspelled?] My name is Jim Sweet, I am working on a mobile app [misspelled?] for emergencies and I have seen health care providers who embrace this new technology and some who are not. I am wondering what demographics of doctors such have you seen embracing telehealth? Who are the early adaptors?

JOHN F. JESSER: Telehealth is such a broad term so let me speak to primary care and then I think Karen or others can speak to the specialties, but in primary care this is a fascinating time for doctors. We're working with a group in Indiana, American Health Network and they have over 200 doctors, independent primary care doctors around the state, but their experience has been that their average length of career

for the working mom, working parent physician is about 10 years. After having a second, maybe a third child because of the limitations of coming to the practice in those hours, there is a physician shortage and health care reform will bring more and more people trying to get appointments with the same doctors, yet we have these highly trained and able physician parents who are no longer in the workforce because of brick and mortar time distance. This is a group that is very interested in practicing evenings, after the kids are in bed, maybe weekends, tapping into that physician with, let's say for example, a physician with a disability who has trouble getting from room to room in the office but is an outstanding physician. Physicians who are maybe thinking about retirement or lifestyle and don't want to have a staff and an office and all that expense and overhead. Telehealth for primary care allows you to suddenly start tapping physician supply that's dormant and available along with other great physicians who just like the idea.

NEAL NEUBERGER, CISSP: Dr. Rheuban may want to comment on this, but behavior health, mental health has been surprisingly robust. We have chart like this, don't we, through HEA? They have bar graphs that show the adoption rates and the uptake rates which we can get for you offline, I didn't bring them, but correctional health, big, big, big, and was one

of the early things through a lot of the state corrections programs somewhat oddly. Primary care, as John said, EICUs so that parents, as Karen said, of newborns and others can monitor into the NICU or the adult ICU kinds of monitoring and that sort of thing. There's a bunch of specialties and subspecialties that have just kind of taken off; remote monitoring for cardiac patients. What else Karen, Dr. Rheuban?

KAREN S. RHEUBAN, MD: I'd like to address the gray hair versus non gray haired physicians or other health professionals. The adoption rate has been phenomenal across the spectrum, quite frankly. We have as many gray haired physicians who participate in our telemedicine program and don't say no to us, but I will say it is the younger generation for whom it's second hand. The good news is with the proliferation of advanced technologies and with HD video conferencing, being there is like really being there. For those of us who are driving all over our states to see patients it's a whole lot better for us sort of gray haired physicians who used to travel and who can do it via video teleconferencing as well. I think it's an option that is pretty uniform, maybe driven a little bit more by the younger generation who is much more creative in developing the apps as well such as yourself.

ED HOWARD: There're several questions in this very large stack that folks have sent forward that have to do with

payment. We've talked a little bit about that. One question has at its base the question of whether changes in payment, particularly moving toward capitated payments would free up some of the restrictions that we have heard today that flow from the lack of reimbursement for a particular service for a particular professional.

KAREN S. RHEUBAN, MD: I'd like to make a comment, it would be really great if you talk about capitation with the accountable care organizations that are not allowed to pay for telemedicine for urban patients. We need other changes. Yes, I think in the capitated models it's a great idea, but we still have some ways to go.

ED HOWARD: You are talking about the-

KAREN S. RHEUBAN, MD: Under Medicare.

ED HOWARD: The Medicare ACOs, what about private ACOs which are almost as numerous? Do they reimburse telehealth regularly?

KAREN S. RHEUBAN, MD: I don't know that information.

NEAL NEUBERGER, CISSP: They are accounted for in the pilots, absolutely.

KAREN S. RHEUBAN, MD: CMMI?

NEAL NEUBERGER, CISSP: Yes, CMMI, 10 billion dollars worth of pilots have every sort of thing you can imagine going on as far as I know in terms of both telehealth and disease

monitoring technologies; ACOs medical homes, Medicare model homes, all of it. The thing is, it's a very prescient question or point because it may be that the ground is changing out from under us, as I mentioned, and others. While we've been waiting for 25 years for fee-for-service reimbursement to make some sense and not be incrementally done. Thanks to Senators Conrad and Stevens, and Rockefeller, and a whole bunch of members for getting us that far, the ground is shifting, so we can't let this train pass us by without consideration of capitated care and all of the various shared savings models that are being so actively pursued both within the Accountable Care Act and in the private sector. It doesn't matter what you think about the Accountable Care Act, it's happening in the public and private sector.

JOHN F. JESSER: We look at telehealth as really a power tool to the physician that's in an ACO or in a capitated environment. It's just a matter of getting the money right, but if ultimately what the ACO or the patient-centered medical home means, and our health plans were rolling out patient-centered primary care model across the country, but what it means is now when the doctor is tired at the end of the night and finally goes home to eat dinner they're still worried about where these patients are going to end up. Before it did not matter to them, but if they wind up in the ER or the urgent

care and they didn't need to be and it is taking thousands of dollars out of the risk share, now they are responsible for the total of care, they're concerned. Knowing they had a service to refer to when they wanted to finally go home where there would be certified doctors seeing their patients, not threatening to take them away, and that they'd be able see the chart in the morning is really a very helpful thing. Then to those practices that do want to provide that care round the clock, they no longer have to say, well we have six locations and this one's open until 11 and everyone has to drive there. they can say, we're available online until 11 or 24/7, and now they are actually able to capture revenue for those people that would have wandered into the ER or the urgent care, or to a retail clinic, and keep it in their practice, so it provides a lot of flexibility for that kind of physician.

KAREN S. RHEUBAN, MD: The other capitated model is managed care under Medicaid, very low hanging fruit and very easy to do the managed Medicaids if the Medicaid program of each state does endorse telemedicine that's a managed care model that works very, very well in a capitated model.

NEAL NEUBERGER, CISSP: Let me just add one other thing about HITECH and disconnects in the government if I could. HITECH does a lot of good things, 33-and-a-half billion over 10 years in BA and outlays for Medicare and Medicaid adoption of

meaningful users of three stages of adoption of health information technologies. For no good reason but for the speed with which it was done and lack of funding, and all the rest, there were some groups that got, frankly, left out on the outside looking in, so the question becomes, from a policy perspective, even more complicated when it comes to continuity of care around issues. Richard Brennan's here somewhere, I saw him, from the National Association of Home Care. Home care and nursing homes are on the outside looking in, in terms of HITECH as is behavioral health, as are emergency medical providers, and a couple other categories, nurse practitioners and some others and telemedicine, to a degree, because it's not really mentioned or that talked about in HITECH but it is more so in the Accountable Care Act. Those are just some things that go to the issue of alignment of all the incentives and the various reimbursement and other models as we look at all of these various laws for continuity and to see whether we are pulling on the same side of the wagon on behalf of these organizations and the goals of having care flow through these systems and things.

ED HOWARD: I apologize to those of you who put your questions on cards. We are not going to get to all of them, so if it is something that cannot wait, you'd better go to a microphone sometime in the next 15 minutes.

What types of health care services, the questioner asks, are least amenable to telehealth? Do you think that will change with new technologies, or is everything amenable to telehealth?

KAREN S. RHEUBAN, MD: If you look at our model and our pie chart that I had earlier, the number one services requested for us is behavioral health, telemental health services; more than 50-percent of our encounters have been in the behavioral health sphere, but we have 40 specialties who participate. If you have to physically touch the patient, you have to feel a nodule, DOD has done some research in tantric [misspelled?] on virtual gloves, that's really not proliferated yet into a general practice. If the patient needs to be touched, and frankly, if they need surgery, yes, we have some robotic surgery examples, but in general, you need to see a surgeon in the hospital, the specialty surgeon that you need. While there is robotic surgery it's not mainstream for everything that we do connecting remote hospitals to hubs. If you have to feel it, probably best to actually travel.

Some of our specialists request that the first encounter be face-to-face in the office on follow up visits being seen. It just depends on the specialty, subspecialty, and the comfort level of the provider, but 40 of our different subspecialties actually participate in telemedicine.

ED HOWARD: Does any of you foresee there coming a day when the consumer may pay a penalty or a premium fee to actually visit a doctor as compared to telehealth? You want to talk to a teller, is that right? You'll pay a premium. What do you think?

JOHN F. JESSER: I don't see it that way, I see these as a series of tools that enable health care and the changing, morphing, advancing goals of health care and a physician's nurses who provide much of the hands-on care, and allied health practitioners. The notion that the technology is going to somehow replace the clinician is, to my mind, absurd. I was reading an article about poker machines now that can play better than humans. That's not health care. These inference reference engines and things that they are doing in computers, it's still an art. There's still judgment involved. There's still hands-on high touch kinds of things that are going to have to take place and should take place and that is what consumers want. I just do not see it.

ED HOWARD: We have somebody who absolutely, positively, had to get their question asked so there you are. Let me just say as we move into these last few minutes, I would appreciate it if as you listen to the question and response you pluck the blue evaluation form out of your packet and fill it out while we are listening. Yes, go right ahead.

Candice Cliat: Hi, my name is Candice Cliat

[misspelled?] I'm an intern with the ABA Commission Online Aging [misspelled?]. I just have a general question. Has any thought been given to those older Americans, especially those who live in rural areas, who may not have access to a Best Buy or an Apple store to purchase these materials such as a computer or a laptop? Will they be completely excluded from telehealth or telemedicine because of their lack of technology?

NEAL NEUBERGER, CISSP: Chapter 11 of the Broadband Plan for the Federal Communications Commission about two years ago discusses this and related issues at some length and the need to level the playing field in terms of rural, older populations who, for a lot of reasons, cannot get good care; not enough technical support, as you mentioned, they do not have access to broadband and computers, and all the rest, or may not be technology savvy, and that sort of thing. Historically, studies have shown that rural, underserved, minority, disparate populations are far less in terms of users. However, there is some good news and that is mobile telephony is a leap-frogging technology that obviates at least some of those problems I just mentioned like broadband, hard wired communications through fiber, or T1, or whatever connections into rural areas. We see this around the world in developing countries, in Africa, and in Asia, tremendous explosion. There

are billions of handsets. It's incredible. There are two or three for everybody on the planet or something in wireless, mobile technologies. That may be an instance where the technology actually offers a really good solution to the problem you describe. Everybody's got smart phones now or increasingly.

KAREN S. RHEUBAN, MD: I would like to add that there are some terrific programs in remote patient monitoring, Bonnie Britton's program that she developed in association with the federally qualified health center in rural North Carolina for Medicaid patient and then subsequently with the Vidant health care system. She used algorithms to identify the most at risk patient and then in cooperation with the hospital and the nurse, send the patient home with technology, train them on how to use it. They took the most vulnerable patients and had the best outcomes. We shouldn't give up on those patients and I think as the Affordable Care Act and the implementation happens with the penalties for readmission, hospital systems are incented to embrace these technologies for those most vulnerable patients. I think you'll see more projects going forward in the future.

NEAL NEUBERGER, CISSP: That did not go lost on the architects of HITECH. there are provisions in HITECH that require one of many reports back to the Senate and the House

committees; to Energy, and Commerce, and Labor and Human Resources, and Senate Finance on Appropriations, and everything, about just that issue. Staff in the room, hold the various agency's feet to the fire; the Office and National Coordinator for HIT and others, HRSA and the rest, when it comes to that kind of reporting. They want to do that, it's just that they have all been so busy standing up these Meaningful Use and other related kinds of efforts. It is all hands on deck that they have not had a chance, but they are now. There's rural efforts, as Sherilyn mentioned, not only driven by HRSA, but also at the Office and National Coordinator for HIT. At Veterans Health Administration there's a lot of money for rural veterans as Sherilyn mentioned. The agencies are well aware of all of that and it's a matter of resources and focusing attention I think also.

ED HOWARD: For those of you who do not have an acronym list in front of you, some of you may not know that HITECH in this context is not an adjective it is a noun. It is a piece of legislation that was part of the stimulus package.

Let me try to follow up on this question because we have several cards asking about different aspects of the FCC's involvement in this issue. How persistent is the lack of a durable, broadband availability in rural areas these days? Is it still as big a problem as it was two or three years ago?

NEAL NEUBERGER, CISSP: I think not, there's not as much. There's like seven billion out the stimulus act that was made available through, as Karen mentioned, the Rural Utility Service, not for the Distance Learning and Links program which is a long time grants telemedicine program, but for broadband into rural areas; like five billion there and through the Commerce Department, through National Institutes for Standards and Technologies, a total of 7.2 billion, I think, in ARA [misspelled?]. That, coupled with investments by AT&T, Verizon, and some of the other big carriers in the tens of billions, is starting to cause some better penetration of broadband, wired and wireless out into those rural areas. It is definitely, I think, getting better. It's hard to get good maps of all of that. we've done some conferences on just that issue as it relates to rural and much of it tends to be anecdotal, but the companies tend to know and the FCC is definitely working in that direction. Many of their policies, many of their programs are designed for exactly that issue.

KAREN S. RHEUBAN, MD: We also know the cable also passes something like 97-percent of homes across America. We have had no problem going anywhere including on top of the highest second highest mountain in Virginia. There was nothing there and we called a telecommunications company and within four months we had a very big pipe to the top of that mountain.

That was supported by the FCC program, the Rural Health Care Support Mechanism. I urge you, for those who are interested in exploring further that's been a fabulous resource for our program.

NEAL NEUBERGER, CISSP: And was one of Senator Rockefeller's initiatives, the Snowe/Rockefeller provisions in the Telecom Act of 1996 created that program. It was pretty ineffective for a lot of years. They did as much as they could administratively over the years without a reauthorization of the act because there has not been since then to make it more effective so that more of that 400 million or so per year that gets collected and a few cents on your phone bill does get used for that Connect program and the other FCC rural connectivity programs. It's starting to have an impact.

ED HOWARD: We've got a question that I think everybody's going to want to weigh in on. I'm certainly interested in the view of all of our panelists and its maybe the simplest question that we've heard all day, who are the winners and losers if telehealth becomes widespread?

KAREN S. RHEUBAN, MD: The patient's the winner.

SHERILYN PRUITT, MPH: Yes, I do not know-.

ED HOWARD: That would be the winner part, right?

KAREN S. RHEUBAN, MD: Yes, actually I do not see any losers. It all depends on favorable public policy.

Everybody's a winner quite frankly. Once our mandate passed in Virginia, suddenly all the health care systems became engaged in telehealth. I didn't see any losers, just come on board.

JOHN F. JESSER: This is one of the rare things that we see where the patient wins, the physicians win, the employers win. I suppose you can say when the internet came about, who were the losers? It might have been the printing presses, some of the print. Maybe it's the petroleum companies because of taking people off the road to get health care. There's always some loser, but we move on.

KAREN S. RHEUBAN, MD: That is very good.

ED HOWARD: Eight million miles worth, right?

NEAL NEUBERGER, CISSP: It's a win-win and it's fun to work on these issues for that very reason. As Dr. Rheuban and John both alluded to, for my part I never met a member of Congress, either side of the aisle, either house, and I've met a lot around these issues that didn't think this was a good idea. These folks are there because of their political skills. Not much could be said about almost any other issue in Washington these days, correct me if I am wrong, but this is one that is almost a no-brainer which causes us so much angst in the field as to why it hasn't happened faster on the regulatory and legislative side.

ED HOWARD: Sherilyn, do you have a loser?

SHERILYN PRUITT, MPH: No losers.

ED HOWARD: How disgustingly positive as a way of ending this discussion. I have to say, this gives the light to the idea that it's bad luck to attend an Alliance program on Friday the thirteenth. I think this is one of the most lively and informative discussions that we've had on almost any topic in a long time. I'd like to thank our colleagues at WellPoint for helping us put this program together. I'd like to thank you for being such a good audience and providing us with lots of good questions and ask you to help me thank our panel for one of the best ones we have had in a long time.

KAREN S. RHEUBAN, MD: Thank you.

ED HOWARD: Nicely done across-.

FEMALE SPEAKER 1: Just a reminder if you missed any of this conversation about telemedicine, you can find it at C-SPAN.org. We'll have it in its entirety later today.

[END RECORDING]