

FEDERAL COMMUNICATIONS COMMISSION  
CONNECT2HEALTHFCC TASK FORCE

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BROADBAND PRESCRIPTIONS FOR MENTAL HEALTH:  
A POLICY CONFERENCE

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WEDNESDAY  
MAY 18, 2016

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The conference session convened at the  
University of Houston Law Center, Bates Law  
Building Room 109, 4604 Calhoun Road, Houston,  
Texas 77204-6060 at 8:30 a.m.

**PRESENT:**

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**LEONARD M. BAYNES**, MBA, JD, Dean and Professor of Law, University of Houston Law Center

**NORA BELCHER**, Executive Director, Texas e-Health Alliance

**HENRY CHUNG**, MD, Strategic Medical Advisor, Big White Wall, Associate Professor of Clinical Psychiatry, Albert Einstein College of Medicine, Vice President of Care Management Organization (CMO), Montefiore Medical Center

**THE HONORABLE MIGNON CLYBURN**, Commissioner, Federal Communications Commission

**THE HONORABLE GARNET F. COLEMAN**, Texas House of Representatives District 147 (D-Houston)

**TIMOTHY R. ELLIOTT**, PhD, Professor, Department of Educational Psychology, Texas A&M University College of Education, Executive Director, Texas A&M University Telehealth Counseling Clinic

**FRANCISCO FERNANDEZ**, MD, Founding Dean, Vice President for Medical Affairs, and Professor of Psychiatry, University of Texas Rio Grande Valley School of Medicine

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Center for Integrated Health Solutions,

National Council for Behavioral Health

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BRIAN HENRY, MHA, Director of Telehealth, University of Texas Medical Branch at Galveston

SHING H. LIN, MBA, Director, Public Safety Technology Services, Harris County

JUDI MANIS, Regional Vice President-Business Development and Strategic Relations, Internet of Things-Healthcare, AT&T

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ROBERT C. ROBBINS, MD, President and Chief Executive Officer, Texas Medical Center

MARI ROBINSON, JD, Executive Director, Texas Medical Board

SUSAN RUSHING, MA, Chief Executive Officer, Burke

YAHYA SHAIKH, MD, MPH, Senior Advisor for Connected Health, Connect2HealthFCC Task Force, Federal Communications Commission

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SHARON L. STROVER, PhD, Philip G. Warner Regents  
Professor in Communication and Director,  
Technology and Information Policy Institute,  
University of Texas at Austin Moody College  
of Communication

THOMAS TSANG, MD, MPH, Chief Operating Officer  
and Co-Founder, Valera Health

ALLISON N. WINNIKE, JD, Director of Research and  
Research Professor, University of Houston  
Law Center Health Law & Policy Institute

THE HONORABLE JOHN ZERWAS, MD, Texas House of  
Representatives District 89 (R-Katy)

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Leonard Baynes  
Mignon Clyburn

## 1 P R O C E E D I N G S

2 (8:30 a.m.)

3 DEAN BAYNES: Good morning. How's  
4 everybody doing this morning? This is a great  
5 day -- great day for the University of Houston  
6 Law Center. Great day for the FCC. And a great  
7 day to discuss broadband technologies and its  
8 impact on mental health and health policy  
9 generally.

10 I'm Leonard Baynes. I'm the Dean of  
11 the University of Houston Law Center and I want  
12 to welcome you here today. It's my pleasure to  
13 welcome our guests in the audience and those who  
14 are joining us on the live webcast to the  
15 Broadband Prescriptions for Mental Health: A  
16 Policy Conference. So this will be both live and  
17 also on the web. Which is very fitting given the  
18 nature of this conference.

19 This conference is hosted by the  
20 Federal Communications Commission, it's  
21 Connect2Health Task Force under the leadership of  
22 the Task Force Chair Michelle Ellison who is not

1 with us, but she is watching. She told me by  
2 email last night that she's watching by live  
3 stream.

4 So this has been a unique partnership  
5 with the University of Houston Law Center and the  
6 FCC. It's been spearheaded by the Director of  
7 Research of the Houston Health Law Policy  
8 Institute Allison Winnike. Where's Allison?  
9 There goes Allison. Allison is wearing red as I  
10 am.

11 I know it's mental health month and we  
12 should be wearing green like the Commissioner,  
13 but I couldn't find my green tie which I usually  
14 wear for St. Patrick's Day. I couldn't find it  
15 today, but Allison is wearing -- as I always do,  
16 the school colors -- which are red.

17 And so if you have any questions,  
18 that's Allison and she'll be holding up cues for  
19 time and whatnot during the day. And she is an  
20 expert on the facilities and everything you need  
21 to know here.

22 I also want to recognize several of



1 our other distinguished members of the Health Law  
2 & Policy Institute. Our co-director Jessica  
3 Mantel. Is Jessica Roberts here?

4 PARTICIPANT: She's on her way.

5 DEAN BAYNES: Oh, okay, she's on her  
6 way. Among others, and of course, April Moreno  
7 and so many others. And our research -- two  
8 research professors, Steve Chin and Daphne  
9 Robinson who all worked with the FCC team to put  
10 this very important conference together.

11 We are so -- we also are in  
12 collaboration with the University of Texas Rio  
13 Grande Valley School of Medicine. It's a new  
14 medical school under its founding dean Francisco  
15 Fernandez.

16 We've been honored to work with the  
17 honorable FCC Commissioner Mignon Clyburn and the  
18 Connect2Health Task Force to bring this Beyond  
19 the Beltway Series to Texas and to the series'  
20 only stop at a law school that's going to address  
21 the legal, regulatory, and policy issues that  
22 impact mental health care access and improved

1 health outcomes.

2 And as many of you may know, I'm a  
3 recent transplant to Texas and the City of  
4 Houston from New York City. I love being in  
5 Houston. It's a great city and I love being in  
6 the State of Texas. Recently, we had a gala  
7 which was Texas Under the Stars and I wore a  
8 bolo. And I realized even wearing a bolo, was  
9 really acceptance of being a Texan. So it was  
10 even like that that was great.

11 So people have been very, very  
12 accepting of this native New Yorker to the great  
13 state of Texas; and Texas is a great state. It  
14 has a population of 27 million people. It's the  
15 second largest state in the country in land mass  
16 and population. It is racially, ethnically  
17 diverse. It's 43.5 percent white or Caucasian or  
18 Anglo, 37.6 percent Hispanic, 12.5 percent are  
19 African American, and 4.5 percent are Asian or  
20 Asian American.

21 We're home of some of the most diverse  
22 cities and population. The cities and the state

1 continues to grow. The U.S. Census Bureau  
2 recently announced that our four major  
3 metropolitan areas of Houston, Dallas, San  
4 Antonio, and Austin grew in size. And last year,  
5 their collective increase in population was more  
6 than any other state in the country.

7 The City of Houston has been  
8 recognized nationally as one of the top ten most  
9 diverse cities across four key areas: diversity,  
10 ethno-diversity, economic diversity, and  
11 household diversity. And the Houston metro area  
12 is now considered the most ethnically diverse,  
13 large metropolitan area in the country according  
14 to the Kinder Institute at Rice University,  
15 surpassing my native home city of New York City.

16 But while we have these bustling  
17 metropolises, Texas also has the most rural and  
18 sometimes isolated areas in the country. For  
19 example, Brewster County in West Texas is over  
20 6,000 square miles in size. It's larger than the  
21 State of Connecticut with its -- Connecticut's  
22 3.5 million people. Yet, Brewster County has

1 only 10,000 residents.

2 Another example of this divide between  
3 urban and rural portions of the state is the East  
4 Texas Region, which borders the States of  
5 Louisiana and Arkansas and includes 14 counties  
6 with a total population of 100 -- of 839,625  
7 people. Sixteen percent of that population in  
8 that 14 county area live in poverty.

9 The State of Texas is home to 7.6  
10 percent of all U.S. veterans making it the state  
11 with the second largest population in the country  
12 for veterans. The veteran population in Texas is  
13 also racially and ethnically diverse with 68.7  
14 percent being white, Anglo or Caucasian,  
15 non-Hispanic. 16.1 percent being Hispanic, 12.6  
16 percent being African American, .9 percent, Asian  
17 American, and 1.8 percent other.

18 In Texas 89.5 percent of the veterans  
19 are male and 10.5 percent are female. According  
20 to the Mental Health America of Greater Houston,  
21 over 200,000 veterans of military service live  
22 and work in Houston and Harris County; the area

1 making the city home to one of the largest  
2 populations of military service members and their  
3 families in the nation.

4 Research continues to show that  
5 veterans deployed in Afghanistan and Iraq may  
6 experience a variety of issues upon their  
7 successful return to their communities; 22  
8 veterans per day, or nearly one per hour, loses  
9 their life to suicide because of untreated mental  
10 illness.

11 However, innovators in mental health  
12 treatment communities are utilizing the  
13 telehealth counseling and telepsychiatry to  
14 reach veterans suffering from mental illness in  
15 some of the most remote areas of the state. As  
16 the technology grows and policies that regulate  
17 the field advance, it is our hope that mental  
18 health treatment will be extended to meet the  
19 veterans and other Texas residents wherever they  
20 may be.

21 In addition, Texas has physician  
22 shortages and access to broadband internet are

1 issues of concerns here as they are in other  
2 parts of the country. Texas has over 1,000  
3 federally designated health professional shortage  
4 areas, including 362 mental health shortage areas  
5 that's been determined by the U.S. Health  
6 Resources and Services Administration, HRSA.

7           These mental health shortage areas are  
8 defined as counties or geographic areas having a  
9 shortage of mental health providers and cover the  
10 entire state of Texas from right here in Houston,  
11 down to the Rio Grande Valley, out to the west,  
12 and up to the panhandle.

13           Texas is second only to California in  
14 the number of health shortage areas for a state.  
15 In response to our mental health care access  
16 needs, Texas Trail Blazers, including individuals  
17 attending today's conference and those  
18 participating on the program, have pioneered  
19 several broadband infrastructure projects  
20 developed -- developed that -- developed  
21 innovative health care technologies and advocated  
22 for legislative and regulatory policies to

1 improve mental health care and outcomes.

2 The University of Houston Law Center,  
3 which I'm very proud to be its dean for almost  
4 two years, is uniquely situated to deal with  
5 these issues and have this conference. As dean,  
6 one of the goals I have is to bring national and  
7 regional figures to the campus to bring and start  
8 conversations on many important issues.

9 Our Health Law Policy Institute  
10 recently has been recognized as the number two  
11 health law program in the nation. It is one of  
12 the oldest and most respected -- respected health  
13 law programs in the country.

14 The University of Houston is a member  
15 of the institution of the Texas Medical Center  
16 which gives the Health Law & Policy Institute a  
17 formal link to the world's largest complex for  
18 healthcare and biomedical innovation. The  
19 institute also maintains a strong relationship  
20 with the Texas legislature and its members,  
21 including two distinguished members will be in  
22 attendance today, the Honorable Garnet Coleman

1 and the Honorable John Zerwas, both members of  
2 the House Public Health Committee.

3 And the Health Law & Policy Institute  
4 is often called upon to advise legislators and  
5 other policy makers on issues related to the  
6 regulation of health and public -- public health  
7 and health care. We have an excellent program  
8 today which brings together mental health care  
9 and broadband technology policy makers, industry  
10 leaders, health technology innovators, consumer  
11 advocates, clinicians, rural health  
12 organizations, and others interested in  
13 leveraging technology to address and improve  
14 mental health.

15 This is an interactive policy  
16 conference where we aim to share ideas and  
17 develop proposals to improve the legal and  
18 regulatory landscape for mental health broadband  
19 technologies. Please join in the conversation  
20 with your colleagues and submit questions to  
21 speakers by tweeting with the hashtag -- #C2HFCC.  
22 That's #C2HFCC.



1           We have numerous speakers --  
2 distinguished speakers throughout the day,  
3 including our notable keynote speaker, Dr.  
4 Bernard Harris this morning on the future of  
5 broadband technologies. And this afternoon, we  
6 will hear from Dr. Lex Frieden on utilizing  
7 broadband health technologies to improve mental  
8 health care access for people with disabilities.

9           We have a feature on The Texas Story:  
10 An Overview of Broadband and Health in the  
11 Southwest with a special guest dean Francisco  
12 Fernandez of the University of Texas Rio Grande  
13 Valley School of Medicine, to discuss his new  
14 medical school and its efforts to address  
15 underserved populations in the Rio Grande Valley.

16           We have wonderful panels today. This  
17 morning we'll examine care challenges in mental  
18 health and behavioral health. And hear about  
19 some innovative programs around Texas to address  
20 these issues. This afternoon we will have a  
21 distinguished panel of policy makers, including  
22 Representative Garnet Coleman and Dr. John

1 Zerwas to discuss health legal and regulatory and  
2 policy issues in broadband enabled health care.  
3 Throughout the day we will hear from innovators  
4 using broadband technologies to address mental  
5 health care issues.

6 At this time, it's my pleasure to  
7 welcome Dr. Bobby Robbins, President and CEO of  
8 the Texas Medical Center and ask him to say a few  
9 words of welcome to all of you. Dr. Robbins.

10 DR. ROBBINS: Well, thank you Dean  
11 Baynes and Commissioner Clyburn. It's a pleasure  
12 to meet you. You are all in for an enormous  
13 treat as my good friend Dr. Harris will -- will  
14 be a treat to listen to today.

15 I -- I wanted to welcome you --  
16 especially Commissioner Clyburn. Thank you for  
17 making time to be here in Houston at this great  
18 facility. We all have to apologize because  
19 anytime we're on the campus we need to be wearing  
20 red. Chancellor Khator -- too bad that she's not  
21 here right now but she -- it shows how leadership  
22 in one person can really make a difference in an

1 institution. And I know that she's very proud of  
2 the -- the program that's going on here today.  
3 And thank you for being here and thank you all  
4 for being here and giving me a few minutes.

5 I also wanted to say hello, you know,  
6 by -- by Internet to -- to Dean Fernandez down  
7 in the Rio Grande Valley and thank you for  
8 hooking us up here so that -- that the remarks  
9 could be heard down there. Again, it's certainly  
10 appropriate for this conference.

11 I'm going to say a few words, but I  
12 actually have several slides. So I'm going to --  
13 I'm going to do my best to -- to tell you my  
14 usual hour presentation in five minutes.

15 So the Texas Medical Center, this is  
16 an enormous issue that you're addressing today,  
17 certainly, in our nation and, particularly, in  
18 our city. As Dean Baynes had mentioned, we are  
19 the most diverse city in America. We have the  
20 largest medical complex in the world, yet in the  
21 shadows of this incredible high tech facility  
22 with huge names of institutions that are really

1 leaders in the world, we have a population in  
2 this city that really doesn't have adequate  
3 access to medical care and mental health is a  
4 major problem. When I've heard over and over  
5 again that our largest health care facility is  
6 the -- is the county jail, we've got a problem.

7 So I -- I look forward to the contents  
8 of the con -- of the conference today. I'll have  
9 to shamelessly promote a conference that is  
10 starting right after this, so we can all just  
11 move -- you can all go hop on the train and go  
12 down to the George R. Brown, because we're  
13 opening the third annual Medical World of  
14 Americas that bring together multitudes of people  
15 from all over the world to talk about important  
16 issues, and especially the theme of this  
17 conference starting today and running through  
18 Friday is innovation.

19 And Dean Kamen, who is the inventor of  
20 the Segway and the wheelchair that can go up  
21 steps, he's a tremendous individual and he's our  
22 keynote speaker.

1           So just some facts. For those of you  
2           in Houston, you know all these things. It is the  
3           largest medical complex in the world. If you  
4           look at the \$20 billion aggregated, consolidated  
5           budget of all the 57 institutions that make up  
6           the Texas Medical Center and the 50 million  
7           square feet of space that is developed, that is  
8           increasing to 55 million square feet of space  
9           over the next three years, that would make it the  
10          eighth largest financial district in the country.

11           When you think of it in that terms,  
12          our little town of over 100,000 employees and  
13          60,000 students, residents, and trainees, it's  
14          really, as Barbara Bush said, you know, Houston's  
15          gift to the world.

16           We've got eight million patient  
17          encounters, over 9,000 beds. So if you took  
18          Central Park and you put all of the health care  
19          facilities in Manhattan in Central Park and named  
20          it the New York Medical Center, then you would  
21          have about the equivalent of -- of what we have  
22          here in Texas. These are some of the -- in

1 Houston.

2           These are some of the institutions:  
3 of course MD Anderson, UTMB has been a big player  
4 in telehealth, obviously, serving the -- the  
5 Texas penal system, and all of these great  
6 institutions that come together and make up the  
7 Texas Medical Center is a great consortium of  
8 health care institutions.

9           One of the issues though was that the  
10 institutions have not necessarily played together  
11 well and collaborated. So one of my jobs was to  
12 try to get them to collaborate well. And now,  
13 I'm down to 60 seconds.

14           So one of the things we did, was do a  
15 strategic planning process. We came up with five  
16 areas where we thought that collaboration and  
17 working together would be important. Of course,  
18 you see health policy is one of those areas, and  
19 the policy experts from the University of Houston  
20 Law Center participated in that nearly one year  
21 planning process. So I'm appreciative to all of  
22 the faculty that participated to help us to -- to

1       come together around health policy issues.

2                       These are just some of the systems  
3       that are leaders in mental health in the Texas  
4       Medical Center. I'm going to, very quickly, come  
5       through what we've done to try to bring together  
6       people around innovation and -- and collaboration  
7       in the innovative space.

8                       And it's apropos because, just down  
9       the road at the old Nabisco cookie factory at the  
10      corner of Alameda and Holcombe, we've got 120,000  
11      square feet of accelerator incubator space that  
12      makes us the largest life size incubator  
13      accelerator in the country.

14                      There are companies that have been  
15      through. We have had 21 companies in our first  
16      cohort. Particularly interesting are the -- and  
17      I wish that more of our companies were here for  
18      this conference, but there are -- this cohort of  
19      companies that are in the accelerator now are all  
20      focused on digital health and digital health  
21      solutions to improve human health.

22                      These are some of the companies: We

1 have a biodesign program that has two tracts.  
2 One for medical devices and one for digital  
3 health. And interestingly, the digital health  
4 company is working on nursing coordination in our  
5 emergency rooms, a lot of which see mental health  
6 patients.

7 We were lucky that Johnson & Johnson  
8 chose Houston as a place to put their flag and we  
9 have a beautiful 30,000 square foot incubator  
10 that we own and Johnson & Johnson, through their  
11 JLABS mechanism, operates for us. And that  
12 opened in March.

13 Finally, I would just say that we were  
14 lucky to secure AT&T putting a flag down in the  
15 cookie factory and opening one of their digital  
16 innovation centers that many people in the  
17 community and across the state will be able to  
18 take advantage of.

19 This is -- this was announced at the  
20 Consumer Electronics Show in Las Vegas in  
21 January. It'll be the first innovation center  
22 that AT&T is -- is focusing just on digital



1 health. So we're -- we're really appreciative of  
2 that.

3           There are many things that the Health  
4 Policy Institute is doing. These are just some  
5 of the slides -- some of the bullet points -- I  
6 don't have time since I'm already overtime, but  
7 one of course is improving access to healthcare  
8 for all of Texans. Particularly, that 30 percent  
9 of people in the third largest city in America  
10 that don't have access to health care. It's an  
11 embarrassment. So we're working with the Health  
12 Policy Institute which is a multi-institutional  
13 collaborative effort to address many of these  
14 important issues.

15           The last thing I would say apropos to  
16 this conference is, we just -- Tim Cook, the CEO  
17 of Apple just announced a major deal in  
18 collaboration with the Texas Medical Center where  
19 we'll be developing mobile care plans using the  
20 iPhone. And Apple is a consumer facing interface  
21 for patients to take care of them outside of the  
22 hospital. And one of the areas we are focusing

1 on is mental health, particularly in the  
2 adolescent and teenage and early adult patients  
3 who are often not compliant and may be able to  
4 use their iPhones or iPads to receive mental  
5 health.

6 The final thing I'll say is that we're  
7 developing this translational research campus  
8 that will bring together our major collaborators  
9 and partners, and this is just south of the bayou  
10 right next to the new Methodist McNair campus.

11 It will be about a two million square foot  
12 facility that will have a core facility in the  
13 middle there. You see this double helix, it  
14 will, actually, be a park on top with core  
15 facilities in the middle to house our five  
16 institute -- institutes and provide core services  
17 like genomic sequencing, high-throughput drug  
18 screening, imaging, and cell flow facilities that  
19 could be shared by all the institutions that  
20 participate.

21 I apologize for running over, but I  
22 thought it would be important just to show some

1 slides. Thank you for having me here. Welcome  
2 to all of you. Have a wonderful conference. Get  
3 on the train and come over to the Medical World  
4 of Americas, and Commissioner Clyburn thank you  
5 for making the time to be here. Thank you.

6 DEAN BAYNES: Oh, Dr. Robbins, are  
7 these your glasses? Dr. Robbins?

8 DR. ROBBINS: I won't get very far  
9 without those. These are my glasses. Thank you  
10 so much.

11 DEAN BAYNES: Thank you, Dr. Robbins.  
12 We are fortunate to have a wealth of health care  
13 experts and resources in Houston and in Texas  
14 Medical Center. The Law Centers Health & Policy  
15 Institute is a frequent collaborator with our  
16 Texas Medical Center partners to inform, define,  
17 lead health policy in Texas and at the national  
18 level.

19 Now, it's my privilege to welcome FCC  
20 Commissioner Mignon Clyburn to provide opening  
21 remarks for the conference. Commissioner Clyburn  
22 -- I'm going a little bit off script. We met --

1 well, we met a few times, but I worked for the  
2 FCC in the late '90's; I was a scholar in  
3 residence there. And I was in Washington, I  
4 guess, about a year ago and I stopped by her  
5 office and saw my former colleague Karen Onyeije  
6 and we talked about this Connect2Health. And I  
7 said, "Oh, I would love to do it here."

8 And so, I always like -- you know, I  
9 think leadership is often having a dream and  
10 being able to implement it, and I'm really  
11 thankful for the Health Law & Policy Institute  
12 team for making sure that my dream is actually a  
13 reality. So let me go back to script.

14 So she -- she -- she's in her second  
15 term as Commissioner. She was nominated by  
16 President Obama in 2009 and confirmed by the  
17 Senate. She served as acting Chair of the FCC  
18 and she was the first woman to serve in that role  
19 as Chair acting or otherwise in the FCC. So it  
20 was quite an accomplishment even though it was  
21 just a few years ago.

22 She, previously, spent 11 years at

1 the South Carolina Public Utility Commission.  
2 She's a noted champion for consumers and a  
3 defender of the public interest. She's a strong  
4 advocate for enhanced accessibility in  
5 communications for individuals with disabilities,  
6 and works closely with representative groups for  
7 the deaf and the hard of hearing.

8 She's fought to support strong  
9 competition across all communication platforms  
10 believing that the most robust and competitive  
11 marketplace is the best. It doesn't need  
12 necessarily as much regulation, but when the  
13 market fails and doesn't work effectively in  
14 addressing consumer needs, Commissioner Clyburn  
15 is a champion for the consumers and to ensure  
16 that the public interest is realized with  
17 targeted regulatory action.

18 She's pushed for media ownership rules  
19 that reflect the demographics of the United  
20 States of America for affordable universal  
21 telephone service and high speed Internet access,  
22 greater broadband deployment, and adoption

1 throughout the nation of -- with transparency and  
2 regulation.

3 So we're very honored to have  
4 Commissioner Clyburn with us today and the whole  
5 Connect2Health Task Force and to make -- that  
6 made all of this possible. So let us give a warm  
7 round of applause, Commissioner Mignon Clyburn.

8 COMMISSIONER CLYBURN: Good morning  
9 once again everyone. I thank -- oh no, no, no,  
10 no, no. Now, I know there's a debate whether  
11 we're in the south or southwest, but I'm from the  
12 south. So let's try this once more -- again, as  
13 we say. Good morning everyone.

14 (Chorus of good morning.)

15 COMMISSIONER CLYBURN: It is such a  
16 pleasure to be here despite your delay in giving  
17 me a good morning greeting. That's all right.  
18 We're here for a great cause. I really  
19 appreciate, Dean, that kind introduction and such  
20 a warm welcome here to Houston.

21 We are all grateful to the University  
22 of Houston Law Center, Dean Leonard Baynes,

1 Professor Allison Winnike, and all you for  
2 partnering with the FCC's Connect2Health Task  
3 Force and so -- for so, graciously, hosting this  
4 conference.

5 Some of you have been made aware that  
6 Dean Baynes is an alumnus of the FCC and we're  
7 very proud of that. He lent the agency his  
8 expertise on market entry barriers and  
9 competition policy, and he has been a part -- is  
10 a part of shaping the very conversations and  
11 focus when it comes to our national media  
12 diversity framework.

13 So if you know the Dean, you know he's  
14 oft -- you know he knows -- you know that he's  
15 often the smartest person in the room though he  
16 doesn't brag about it, but that's one of the  
17 reasons why we are so delighted to come to this  
18 critically acclaimed Health Law & Policy  
19 Institute to kick off this dialogue today.

20 I also want to thank, in his absence  
21 now, Dr. Robbins, who as you know runs the  
22 largest health care system in the world. They're

1 on the cutting edge on so many fronts and then  
2 there are several innovations that we'll  
3 demonstrate outside today that are a direct  
4 result of TMC's unwavering commitment to the  
5 future of connected care.

6 Now, we're all here today because we  
7 share a common truth, that broadband connectivity  
8 can transform. It can empower. It can enable.  
9 And this month, as we know, is Mental Health  
10 Awareness Month where we highlight our national  
11 commitment to meeting the needs of the 10s of  
12 millions of Americans with mental illness.

13 At the FCC, we firmly believe that  
14 broadband connectivity, in this case particularly  
15 through telepsychiatry, telemental health, and  
16 other connected health platforms can be  
17 transformative when it comes to mental health  
18 care.

19 But every time I hear the stats that  
20 I am about to quote, I pause. According to the  
21 Centers for Disease Control, mental health  
22 illness last year impacted one in every five



1 Americans. That's over 42,000,000 people that  
2 had a mental health illness or crisis last year.

3 That's more than the population of  
4 this state, Alabama, Arkansas, and Louisiana  
5 combined. Twenty percent of our most precious  
6 resources, our children, have a mental health  
7 disorder so serious that it affects their daily  
8 functionality. And that's more than the number  
9 of children who have asthma and diabetes  
10 combined.

11 Over 40,000 people commit suicide  
12 every year. That's the number -- the same number  
13 of deaths as breast cancer, the most common  
14 cancer as we know in women. It's more than the  
15 number of deaths from prostate cancer, which is  
16 the most common form of cancer in men. And it's  
17 three times the number of homicides that occur  
18 each year.

19 The bottom line is mental illness  
20 costs. It costs greatly. It costs our families.  
21 It costs our communities. Many caretakers are  
22 struggling with fragmented care. They're

1 constantly worrying about their loved ones.

2 We are -- to be honest -- and I'm  
3 going off script now. We are too often in a  
4 state of denial about mental health. We dismiss  
5 it. We see our families or our neighbors in  
6 crisis, and we act like we don't see it  
7 oftentimes. We explain it away. You know,  
8 they're a little different, but I think we can  
9 work with them. Too often we can't and the  
10 consequences, they're costly.

11 By one estimate, we spend about 150  
12 billion dollars for mental care each year, but  
13 including lost earnings and payments, it is  
14 actually costing our nation almost a trillion  
15 dollars per year because that money that we're  
16 spending is quite frankly not adequate. Millions  
17 are not receiving care. By one estimate, 60  
18 percent of adults with a mental illness do not  
19 get the type of care that they need.

20 So if you were not persuaded before  
21 these stats and before the day, you should be.  
22 And you should also understand why we are having

1 this conference at this point in time to focus on  
2 how we can do things better. How can broadband  
3 and connectivity be more of an enabler for us to  
4 tackle a mental health -- mental illness? And  
5 how the FCC can play a role in supporting all of  
6 these efforts.

7 Now, I know you all are anxious to  
8 hear about what Dr. Bernard Harris is about to  
9 share -- his galactic perspectives, but before we  
10 launch into that today, I want to offer three  
11 guideposts for our conversations.

12 First, when it comes to mental health,  
13 connectivity can be more than a simple medium to  
14 deliver care. Let's don't think of it just as a  
15 simple medium. Let's think bigger and bigger  
16 still. So as we hear more today, we'll talk  
17 about telepsychiatry, which has been shown to  
18 improve access to services, increase patient  
19 satisfaction, and produce real savings when it  
20 comes to time, cost, and travel.

21 And in the case of telepsychiatry  
22 we're taking physical interaction and we're

1 virtualizing it. We are facilitating the same  
2 type of interaction we have in a physical world,  
3 and we're delivering that over broadband pipes.

4 Put another way, connectivity is being  
5 used as a pillbox to deliver much needed  
6 medicine, but that is only one way that we can  
7 leverage broadband connectivity in mental health.  
8 Connectivity can be more than just a passive  
9 vehicle. It can offer support and care just when  
10 a person needs it, personalizing their clinical  
11 experiences and approaches. It can be a force  
12 multiplier addressing serious mental health  
13 professional shortages that exist. They so, so  
14 exist. Particularly, in these rural and  
15 underserved areas.

16 Take for example, a person with  
17 depression in the Grande area -- in the Valley --  
18 in the Rio Grande area who feels socially  
19 isolated and alone. They can use a connective  
20 platform to anonymously share their feelings and  
21 thoughts in a way that transcend time and place.

22 They can leave a comment about their

1 illness or what is on their mind on a virtual  
2 wall, and another user may come in, read it later  
3 and reply to that comment with experiences of  
4 their own. And imagine over the next series of  
5 days and weeks that these persons will connect.

6 They will understand that there are  
7 kindred spirits out there all over this country  
8 who are suffering, but they give each other  
9 affirmation and support and a reaffirmation that  
10 they are not alone because many studies -- this  
11 is important because many studies show that  
12 social isolation is as strong a risk factor for  
13 dying as is smoking. The lonely, the elderly,  
14 they die earlier and lose their mobility faster  
15 than those who are not lonely.

16 So that social -- that -- that  
17 isolation is very critical, but Internet usage,  
18 online video conference, and virtual social  
19 networks, they have been shown to greatly reduce  
20 those feelings of isolation. And -- and in this  
21 instance, it could be the very prescription that  
22 is needed.

1           And let's not forget those apps that  
2           are constantly being developed for people  
3           struggling with substance abuse, which is often a  
4           byproduct of mental illness. These apps use  
5           geo-location and an archive of a person so that  
6           they can be reminded, in their own voice, to  
7           guide themselves away from those temptations like  
8           bars or other triggers in their environment that  
9           would lure them back into destructive behavior.

10           There are so many connective  
11           technologies that are driven by algorithms to  
12           personalize even schizophrenic care, and offer  
13           support so that a person can have a sense of  
14           control and achievement in improving their  
15           adherence to medication, mood regulation, and  
16           social functioning.

17           All of this -- this empowerment and  
18           support would not be possible however, without  
19           connectivity, which is why we are here. This is  
20           an intrinsic ingredient.

21           So now I recognized that mental and  
22           behavioral health can be intensely personal when

1 it comes to causation, progress, and prognosis.  
2 Mental illness occurs in a context of lives lived  
3 in families and communities. It occurs along  
4 stresses of work and relationships, but here's  
5 the kicker for me. Connective technologies can  
6 place treatment and management in the hands of  
7 the person experiencing the illness.

8 Connective technologies can empower,  
9 and this sense of empowerment and engagement and  
10 personhood, that the connectivity enables, can  
11 often be just what that person needs and just  
12 what the doctor ordered -- orders.

13 Now here's a second principle I wish  
14 to share. The kind of transformative shift in  
15 mental care that we are discussing will require  
16 regulatory creativity and flexibility. Yes, I  
17 said it out loud. Regulatory creativity and  
18 flexibility so that at the end of the day we all  
19 win.

20 But it would also require clinicians,  
21 policy makers, and innovators, and all of you to  
22 exercise foresight and courage, to solve both

1 longstanding and spot emerging issues. This is  
2 our brave new world, but it isn't without  
3 pitfalls.

4 I for one am willing to listen. I am  
5 here to share what the FCC can and should do  
6 differently at the federal level.

7 And the final principle is this: we  
8 can leave no man or no woman behind. We must not  
9 accept the status quo; that connectivity gaps and  
10 health disparities go hand in hand. Let's not  
11 accept that as a foundation. For too long we've  
12 done that. We've looked at these chronic  
13 problems, particularly, when it comes to mental  
14 health, and we throw up our hands too often and  
15 say that we cannot solve it. We absolutely can.

16 Now, I know I'm in the big state of  
17 Texas where you all do things big and grand. So  
18 let's take that personality and that enthusiasm  
19 and tackle this head on. There are counties that  
20 you know, where 100 percent of the residents can  
21 get broadband and 100 percent can subscribe to  
22 the Internet, but there are counties in your fine



1 state where less than 20 percent can access  
2 broadband and one in two don't subscribe to even  
3 basic Internet services.

4 You've got some work to do. And these  
5 places that I mentioned with the latter stats,  
6 are usually the places with the worse health  
7 outcomes, with the biggest challenges, but we can  
8 change that. These disparities are playing all  
9 throughout the country, so you're not alone.  
10 Collectively, we can change that and this is why  
11 this forum is so relevant and so timely.

12 I shared a story last night, as I  
13 take my seat, about a neighbor that we had that  
14 we could tell that he might have been a little,  
15 you know, a little different. Functional, fully  
16 functional, married with children. We know he  
17 was struggling, you know, with a couple of things  
18 -- you know a couple of issues.

19 He even worked at a drug treatment  
20 center where he was helping everybody else with  
21 their adherence, but I cannot tell you what all  
22 happened. But after we read about his hanging,

1 self-inflicted, we all paused because too often  
2 the support system that other people give and  
3 deliver, are the very systems that they need for  
4 themselves. And we need to do a better job of  
5 recognizing that.

6 And that is why we're here, because  
7 it's going to take a community of a whole to  
8 tackle this problem that is costing our nation  
9 billions. It's costing this world over a  
10 trillion dollars a year, because honestly -- too  
11 honestly, we're too silent about mental health  
12 issues.

13 Today we break that silence. We  
14 collectively come together and say, what can we  
15 do as regulators, as attorneys, as clinicians to  
16 deliver better care for those who need it the  
17 most.

18 And I for one am incredibly grateful  
19 for being a part of that effort which launches  
20 here today from an attorney-centric perspective.  
21 Because this is the one time that I will admit  
22 and yield that we need you attorneys to make it

1 all possible. Thank you very much for this day.

2 MS. MANTEL: Good morning. I want --  
3 thank you. I just want to echo Dean Baynes'  
4 remarks and welcome you all this morning to the  
5 University of Houston Law Center. We are so  
6 excited to be able to host this really important  
7 conference and to further the conversation on how  
8 we can better use technology to connect consumers  
9 to mental health services.

10 It's my distinct honor this morning to  
11 introduce our keynote speaker, Dr. Bernard  
12 Harris. Dr. Harris has an incredibly impressive  
13 resume; I could probably spend the entire 15  
14 minutes allotted to his talk talking about him.  
15 My guess is you're more interested in hearing him  
16 talk than mine -- listening to me talk, so let me  
17 be brief.

18 Dr. Harris, currently, is the CEO and  
19 a managing partner of Vesalius Ventures; a  
20 venture capital firm investing in health  
21 technology companies. He previously was with  
22 Vanguard Ventures, where for six years he led

1 that company's telemedicine initiatives.

2 And before that, he was the Vice  
3 President and Chief Scientist with SPACEHAB, and  
4 the Vice President of Business Development with  
5 Space Media, an informatics company. He's also  
6 the President of the Harris Foundation, a  
7 non-profit organization that supports initiatives  
8 in education, health, and wealth.

9 Prior to becoming a member of the  
10 private sector, he was an astronaut with NASA.  
11 He flew several missions in space aboard the --  
12 in the 1990s aboard the shuttles Columbia and  
13 Discovery. And I understand he has the  
14 distinction of being the first African American  
15 to walk in space.

16 I think the most important thing on  
17 his resume though is that he is an alum of the  
18 University of Houston. He holds -- he holds both  
19 a bachelor's in Science and an MBA from the  
20 University of Houston. And along the way, he  
21 picked up degrees from a couple of other  
22 institutions.

1                   He has a medical degree from Texas  
2                   Tech as well as a master's in Medical Science  
3                   from UT Medical Branch in Galveston. So please  
4                   join me in welcoming Dr. Bernard Harris.

5                   DR. HARRIS: What's this -- a fourth  
6                   time good morning?

7                   MS. MANTEL: I guess so.

8                   DR. HARRIS: So I have also did a faux  
9                   pas. I wore a blue tie instead of a red tie.  
10                  You know Renu is going to be really upset at me.  
11                  Anyway, Jessica thank you for the introduction.  
12                  I really appreciate it.

13                  Commissioner Clyburn, it's great to  
14                  have you here. I know this is not the first time  
15                  you've been to Houston, but maybe to the  
16                  University of Houston, maybe? Is this your first  
17                  time you've been to Houston?

18                  COMMISSIONER CLYBURN: The university.

19                  DR. HARRIS: The university, okay.  
20                  All right. Well, welcome to the university. And  
21                  Leonard, thank you so much for letting me come  
22                  and say a few words. I had my office check

1 several times with Allison when they said that I  
2 was doing the keynote and I noticed it said it  
3 was from 9:00 to 9:15. I said: "15 minutes for a  
4 keynote?" Yeah, hardly can I talk for 15 minutes  
5 but I'm going to try it this morning with you.

6 You know, I think it's really good  
7 when Leonard mentioned to me, several months ago,  
8 that the FCC was focusing on broadband  
9 initiatives, and particularly mental health  
10 initiatives, and that he was trying to bring this  
11 conference here. I said, "Great." He knew that  
12 I was involved in telemedicine for many years.  
13 And I said, "How can I help?" Of course, I'm  
14 here because of that.

15 So again, I offer that help as -- as  
16 the Commissioner laid out before us. You know,  
17 her -- her goals for this organization and the  
18 impact that we'll have on the health and welfare  
19 of people all over this nation. I want to be  
20 part of that solution, too, okay.

21 Broadband enabled health care or  
22 health technologies for mental illness is what

1 we're talking about today. You know if you go to  
2 the website that focuses on this, it talks about  
3 the one in five people who suffer from mental  
4 illness.

5 It talks about the 40 percent of those  
6 folks that access health care -- only 40  
7 percent. That means 60 percent of the people  
8 don't access that health care, and over 80  
9 million people suffer or are in areas of shortage  
10 where they don't even have the opportunity to  
11 have access to health care. And we could go on  
12 and on.

13 And I think the Commissioner did a  
14 great job of underscoring why we are here today.  
15 I wrote down something that I think was really  
16 important that I want to underscore that she  
17 said; and that was that mental illness costs us  
18 whether we think about it or not. It costs us in  
19 many different ways, from a monetary standpoint  
20 and also from an impact to the community. So  
21 it's really important.

22 So all of these issues can be

1 addressed by what we're talking about this  
2 morning, and that is broadband technologies in  
3 the healthcare space or what I call telemedicine.

4 Now, I -- I have been involved in  
5 telemedicine for quite some time and, believe it  
6 or not, it started when I was a young man --  
7 actually, a young boy back in the 60s living on a  
8 Navaho Indian reservation.

9 Now, that's when everybody should  
10 pause and say, "How in the world does an African  
11 American end up on a Navajo Indian reservation"?  
12 It's because my mother was an educator and she  
13 worked for the Bureau of Indian Affairs and was  
14 the first civil servant before I became a civil  
15 servant. And actually, took her kids out there.

16 So I grew up from age seven to around  
17 15 on the Navajo Nation where I saw the impact of  
18 the scarcity of health care out there and the  
19 effect that it had on a population of people that  
20 have been so impacted by this nation in many  
21 different ways.

22 And so I -- I grew up with this notion



1 that we need to provide care in these underserved  
2 areas -- in these rural areas around the nation.

3 Poor care was highlighting those  
4 things. Watching the suffering that was  
5 happening out there led to my career -- or my  
6 decision to go into a career of medicine. I was  
7 also impacted by being out on that reservation in  
8 my career in space, in that, when the sun would  
9 go down at night, and I would watch the lights  
10 appear -- I don't know if you guys ever played  
11 this game as we did a kid -- as a kid.

12 As the sun goes down, you see the  
13 first stars and, you know, on the first star you  
14 make a wish, well, my wish was that one day I'm  
15 going to travel in space. I'm going to follow in  
16 the footsteps of Neil Armstrong and Buzz Aldrin.  
17 And so I set on a course to do that, with those  
18 two things in mind.

19 Now, I know that sounds like a crazy  
20 kid, you know, think about that. How many kids  
21 at the age of 13, watching men land on the moon  
22 would decide that they want to follow in their

1        footsteps and actually do it? Not very many. So  
2        dreams can come true.

3                        That dream eventually led me through  
4        the education that you heard Jessica talk about  
5        and eventually, I ended up working in NASA,  
6        initially at Ames Research Center out in  
7        California where we simulated bed rest. We used  
8        bed rest to simulate weightlessness.

9                        So on earth, we don't have any way in  
10       which to turn off gravity, so what we do is we  
11       put them in bed for months at a time and measure  
12       different parameters. Some people would call  
13       that a torture chamber. At least I would. I  
14       couldn't be able to do that, but it gave us a  
15       foundation for what eventually them -- me and  
16       them and us -- the foundation for, eventually,  
17       what I would end up doing.

18                       I subsequently, moved near to the  
19       Johnson Space Center where I continued my  
20       research, and one of the things we found out is  
21       that people would lose bone and muscle and heart  
22       shrinks in size because of the issues in

1 microgravity.

2           And so, at NASA Johnson Space Center,  
3 I was in charge of developing in-flight medical  
4 hardware that could be used on the space shuttle  
5 and the space station to do remote -- remote  
6 diagnosis and treatment -- and provide treatment.  
7 And so that's how I got involved in telemedicine.

8           So we developed exercise equipment to  
9 -- to get away from the issues around the loss of  
10 bone and muscle. We developed an echocardiogram  
11 for looking at the inside of the body, the ECG's.

12           We developed ways in which we could do  
13 stress tests while we are in orbit. And all of  
14 those devices needed to have communication  
15 ability to bring that information back down here  
16 to Earth. And that's what I did for about two or  
17 three years.

18           And then in 1990, I applied to the  
19 Astronaut Corps and became an astronaut. Now,  
20 you know, when I tell people that I'm an  
21 astronaut, people always have this question -- I  
22 know you have it in your mind, what is it like to

1 travel in space?

2 So let me give you, as we say now in  
3 the venture capital business, the elevator pitch  
4 of launching in space. So imagine -- when I flew  
5 in space, we flew the space shuttle. It weighs  
6 about five million pounds. In order to get that  
7 five million pounds in the air, we have to light  
8 five engines that produce a thrust of seven and a  
9 half million pounds. I'm here to tell you this  
10 morning that when those engines light, you're  
11 leaving this planet in a hurry.

12 By the time we cleared the launch  
13 tower, we're going faster than the speed of  
14 sound, 750 miles per hour. And within a short  
15 two minutes in flight, we're already reaching an  
16 altitude of 100,000 feet above the ground. At  
17 that point, we drop off the solid rocket motors.  
18 They fall back to earth and we recover those.  
19 And now, we're above most of the atmosphere which  
20 means this, we speed up.

21 So at this point we're going 2500  
22 miles an hour. And over the course of the next

1 six and a half minutes, we go from 2500 miles an  
2 hour to 5,000 to 10,000 and eventually to 17,500  
3 miles an hour. At 17,500 miles an hour, we go  
4 from being pushed back in our seat to about three  
5 to three and a half times our weight.

6 I weigh 220 pounds, so you do the math  
7 on that and that's -- that's the force then which  
8 we feel. So we go from that force to zero  
9 gravity just like that. And then, we're floating  
10 in space.

11 I'll share just one story with you.  
12 When those engines stopped and gravity or the  
13 lack of gravity occurred, the checklist that I  
14 was using to -- to go through as we were blasting  
15 off to space, slowly begin to rise in front of  
16 me, and I thought that was pretty cool that it  
17 was neat to see that. So I unhooked the  
18 checklist, and I threw it, and I saw it go end  
19 over end. That was kind of cool.

20 And then, of course we're in a  
21 spacesuit, a suit that weighs about 120 pounds,  
22 so it's pretty heavy. It comes in different

1 sections. So I began to take off some of my  
2 equipment; my glove -- and I threw my glove to  
3 see it go over and over. I mean it's just  
4 wonderful. You know, this is the first time  
5 that, you know, I'd been in space so it was a --  
6 it was -- it was just great to have all the  
7 experience.

8           And then, I looked around and I  
9 realized that I was the only one in my seat and  
10 everybody else had gone. And I was the rookie on  
11 the flight, so everybody knew what they were  
12 doing. They had been there before. They were  
13 not enamored with what I was going through, but  
14 -- so I rushed and grabbed my seatbelt and  
15 unbuckled it and I popped out like toast out of a  
16 toaster.

17           And being the first time that I was in  
18 zero gravity, I was out of control and I was  
19 kicking switches and trying to get my space legs  
20 together. And I realized why those guys got out  
21 of their seat, because I was going to be doing  
22 that flailing and kicking. And they were getting

1 the hell out of the way for that.

2 So you've heard that I've had -- had  
3 a wonderful opportunity -- an opportunity that  
4 very few people have had. On my second mission,  
5 I got a chance to do a space walk, this time  
6 donning a 350 pound suit and walking outside. It  
7 was incredible.

8 When you're outside in space and you  
9 look back at the earth, it -- it -- you look at  
10 things differently, right? You don't see any  
11 lines of latitude and longitude. You don't see  
12 any lines that divide countries. And it makes  
13 you start thinking about the well -- welfare of  
14 this nation, of people that's on this planet.

15 After all, I jokingly say that, you  
16 know, if aliens came to this planet, would they  
17 worry about what our ethnic backgrounds are and  
18 try to sort us out by that? No, they would look  
19 at us and say, "Earthlings." And they would  
20 either embrace us or shoot us on sight. So it is  
21 with that perspective that I returned to earth  
22 with a different mission -- an enhanced mission.

1           You know, as I said earlier, being on  
2           that Navajo Indian reservation and looking at the  
3           plight of the Native American people, I realized  
4           that there were more people that were affected  
5           that needed health care. And so, I began to get  
6           into a field that utilized my experience as a  
7           physician and also my experience as a developer  
8           of technology, to begin to invest in these  
9           technologies. So I created the -- the Vesalius  
10          Ventures, a venture capital firm.

11           And so we focused, specifically, on  
12          telemedicine. When I went out to try to convince  
13          investors to invest in my company, I had to  
14          define it in ways in which they understood. I  
15          said that, you know, if you're interested in  
16          investing in medical devices, we're the company.  
17          If you're interested in looking at  
18          telecommunications, we're the company. If you're  
19          interested in IT, we're the company. And our  
20          real interest is in that sweet spot, in that  
21          intersection of all those -- those areas.

22           So for the last 14 years, we've been



1 investing in this space and have a number of  
2 companies that -- that are answering or providing  
3 solutions in the broadband enabled health care  
4 technology area that we're talking about today.

5 I want to share with you just a couple  
6 of them just to highlight. So we invested about  
7 three years ago, in a company called Salus. And  
8 it actually was an offshoot of one of the CMS's  
9 research projects -- telemedicine research  
10 projects where they provided telehealth networks  
11 into rural areas and they connected hospitals and  
12 schools with academic medical centers.

13 And they came to us and said that, you  
14 know, that there is such a need for this; we want  
15 to privatize this. And so we helped them create  
16 that providing the capital. And now, they're  
17 doing this, not only in an area in Georgia, but  
18 they're doing it in South Carolina, which I think  
19 you're from or your family is from, right? North  
20 Carolina, and Florida. And so that company we're  
21 helping to take this product nationally.

22 Another company that we are currently

1 involved in that's, specifically, targeting what  
2 we're discussing today, mental health, is GSA  
3 Health which is a local company here that does  
4 telepsychiatry. And that company, last year,  
5 begin to expand from Texas and now is in  
6 California. And of course our goal is to take  
7 this -- this -- the services across the nation  
8 and -- and we will do that. We have a distinct  
9 plan.

10 And then, one last company -- I said  
11 a couple -- and I mention one other company  
12 called Lifebond which is a company that's a  
13 technology solution that allows you to have a  
14 transportable telemedicine unit that is able to  
15 collect -- and connect different ethereal  
16 devices, like blood pressure, heart rate, ECG,  
17 you name it, to be connected to it. And it -- it  
18 can be carried anywhere in the world.

19 And the secret sauce is the  
20 communications package that allow you to deliver  
21 those services or send that data either through  
22 cell phones, SAPphone, or land line. And so

1 those -- those are the areas in which -- which we  
2 are focused in and which, I think, are  
3 contributing to the answer today.

4 The company provides 24 hour -- here's  
5 my commercial. Twenty-four hours access to  
6 community health clinics, academic medical  
7 centers, to ERs, to correctional care facilities,  
8 to rural and urban and to school base. So -- so  
9 all of this allows us to do what is required in  
10 the 21st century.

11 So technology, the way I look at it,  
12 is going to be utilized for everything that we do  
13 as a physician and being a physician. And it  
14 will happen in all settings.

15 I was President of the American  
16 Telemedicine Association and one of our goals  
17 when we originally started the organization was  
18 that, we said, one day, all of this technology  
19 that we're advocating is going to be in place;  
20 it's just going to be the way in which we -- we  
21 do business and we won't have a job. That was  
22 our goal; that one day we won't have a job. We

1 -- the organization will go away because that  
2 would be just the way in which we operate. And  
3 indeed that's what's happening.

4 Now, we're using the Internet more  
5 for providing health care. We're using smart  
6 phones to provide health care. iPads, all of  
7 these different types of devices; wearable  
8 devices, implantable devices. All those  
9 technologies are being utilized right now in the  
10 21st century. And let me remind you, sometimes I  
11 have to do this, we are in the 21st century where  
12 technology drives everything we do.

13 All of those things, that vision I  
14 have for health care, are enabled by broadband.  
15 It's enabled by broadband and that's how and why  
16 it's so important that we have this discussion  
17 today about how do we get that broadband more  
18 pervasive into disadvantaged areas so that we all  
19 can have access to health care.

20 So with that, I'm going to say good  
21 luck with the conference today. And I look  
22 forward to hearing a number of you. I know we

1 have a number of experts here today that are  
2 going to help to provide that solution that we  
3 are all looking for.

4 DR. WINNIKE: Thank you Dr. Harris.  
5 That was a wonderful overview. Next we're going  
6 to move on to The Texas Story and we have some  
7 really great speakers coming up next. This is a  
8 conference in collaboration with the FCC, so  
9 we're going to bring a little bit of technology  
10 in this morning. And we have a remote guest,  
11 Dean Francisco Fernandez, from the new University  
12 of Texas Rio Grande Valley Medical School.

13 And we will have a -- an innovative  
14 armchair session with the distinguished  
15 Commissioner Clyburn, and also, Dr. Chris  
16 Gibbons, also from the FCC, who is the FCC  
17 Connect2Health Task Force Chief Innovation  
18 Officer. And we are going to have a conversation  
19 with Dr. Fernandez to talk about some of the  
20 underserved populations in the Rio Grande Valley.  
21 This is down in south Texas, and some of their  
22 particular needs and what Dean Fernandez's new

1 medical school is doing to be able to address  
2 some of those issues.

3 COMMISSIONER CLYBURN: Well, thank you  
4 so much Professor Winnike.

5 My goodness. First, let me tell you  
6 about someone you already know. There's a  
7 Renaissance man that is peering through our  
8 cyberspace, who is intent on making a huge  
9 difference in the Rio Grande area and beyond.

10 Dr. Fernandez, as you know, is a national leader  
11 in academic medicine and joined the University of  
12 Texas Rio Grande Valley in 2014, as the inaugural  
13 Dean.

14 You're going to tell me what that  
15 feels like, sir, of this new school of medicine  
16 scheduled to open this summer. He's also Vice  
17 President of Medical Affairs and a Professor of  
18 Psychiatry.

19 Dr. Fernandez has been active in the  
20 education of medical students and residents,  
21 serving as the Editor in Chief of the American  
22 College of Psychiatric -- Psychiatrists,

1       Psychiatric resident in training examination -- I  
2       want to say that three times -- and Chairing the  
3       Pride Commission.

4               Dr. Fernandez has extensive service in  
5       organized medicine, psychiatry, and in the  
6       community. He is President of the American  
7       College of Psychiatry and served as Chair of the  
8       Commission on AIDS in American Psychiatric -- of  
9       the American Psychiatric Association as well as  
10      other AIDS -- HIV-AIDS organizations.

11              And in 2007, if I could -- if you'll  
12      indulge me if can say more, he received the  
13      American Psychiatric Association's Simon Bolivar  
14      Award for his words -- work with Hispanic and  
15      AIDS and Depression in Latino Men.

16              In 2015, he received a Physician of  
17      the Year Award from the National Hispanic Medical  
18      Association. And today, you're receiving a  
19      special award from -- for us, because you have --  
20      I cannot believe what you've done to join us  
21      considering every challenge in the world that you  
22      have had. We are so pleased, however, to welcome

1 you here, Dean Francisco Fernandez. My pleasure  
2 to welcome you, sir.

3 DEAN FERNANDEZ: Thank you  
4 Commissioner and thank you Dean Baynes. Can you  
5 hear me okay?

6 COMMISSIONER CLYBURN: We can hear you  
7 just fine. It's working.

8 DEAN FERNANDEZ: I promise that I  
9 didn't cause these orthopedic challenges to  
10 purposely test my connectivity between --

11 COMMISSIONER CLYBURN: I thought it  
12 was -- I thought it was personal, sir. I thought  
13 you did -- somebody warned you about me and you  
14 didn't want to meet me in person.

15 DEAN FERNANDEZ: No, I am really sorry  
16 though. After hearing your remarks about mental  
17 health and mental illness, it was spoken from the  
18 heart. I want to thank you, because it's -- it's  
19 very few people that will speak publicly, as you  
20 did today, and even talk about your personal  
21 experience with the gentleman that you knew that  
22 had hung himself.



1 COMMISSIONER CLYBURN: Yes.

2 DEAN FERNANDEZ: And I would only add  
3 one thing to what you said, and that is, think  
4 about those suicides that are occurring annually  
5 in the United States, and think about the  
6 isolation that you -- as you've mentioned is a  
7 critical factor in the sense of belonging that  
8 really people need no matter what their illness  
9 is.

10 But in this case, there is no other  
11 illness, really, when you think about that. We  
12 are all wired for survival and there is no other  
13 medical illness which extinguishes that survival  
14 instinct.

15 And so, the connectivity and being  
16 able to provide people with a sense of belonging,  
17 is absolutely key and I thank you for bringing  
18 that to everyone's attention in the audience.  
19 And all through the internet. Thank you.

20 COMMISSIONER CLYBURN: Well, thank  
21 you. We could end it there, actually, but I --  
22 well we won't. And you summed it up so

1 beautifully. So let us -- what's keeping you  
2 busy these days? You know, a couple of things  
3 are happening down in the Valley. It could have  
4 something to do with this -- the medical school  
5 that's opening, but, tell us if you can kind of  
6 sum it up for -- for us about what you've been  
7 doing over the past couple of years and what  
8 difference will it make to that area, especially,  
9 the four county area and the state of Texas?

10 DEAN FERNANDEZ: So think of it this  
11 way. We have -- since 1947, when the first  
12 statute was, basically, registered to create a  
13 medical school in the Rio Grande Valley, it's  
14 actually one of the few things I can say is older  
15 than I am.

16 People spoke about a dream, and this  
17 is really a dream come true for this region, not  
18 just because it's a medical school, but because  
19 of, as you have there at the University of  
20 Houston Law Center, the power of education in  
21 creating successful programs that will, instead  
22 of being dream busters for the students of this

1 population, will be dream catchers, and allow  
2 them to really expand their horizons. And also  
3 bring great things back to the Rio Grande Valley.

4 But our -- our goal was to provide  
5 for the healthcare of the region, and improve  
6 access to the healthcare of the region, and  
7 improve both education and research. And our  
8 whole trajectory began with keeping busy, of  
9 course, with accreditation.

10 But we began this process of trying to  
11 think about connecting science to the community,  
12 and instead found ourselves looking at precisely  
13 what the theme of this conference is, which  
14 beyond science, we really needed to create a way  
15 to have access to health.

16 So if you think about the region, you  
17 have, basically, the four counties of which we  
18 serve which is about 2,000 square miles. And  
19 we've got about 1.3 million people in these  
20 areas. And it became critical -- and by the way  
21 the stretch of the University in terms of its  
22 distributed campus from Rio Grande City down to

1       Brownsville, is about 100 miles.

2                   And so, you have to be innovative in  
3 terms of your ability to be able to reach the  
4 community, whether that's a community of learners  
5 throughout the Rio Grande Valley or a community  
6 of individuals that are seeking care for  
7 themselves and their families.

8                   And that's how this trajectory began,  
9 creating a curriculum, but creating the network  
10 that would be able to facilitate an activity  
11 throughout our area for the distributed campus  
12 and beyond.

13                   COMMISSIONER CLYBURN: So when you  
14 talk about that network sir, you know, you had --  
15 I know you had 10,000 applications to the various  
16 programs. I mean, I know there will be an  
17 infusion of personnel and the like.

18                   You know, tell me a bit about if  
19 there's any difference, you know, I don't know  
20 about the medical school process, but you know,  
21 tell me a bit about the committee, admissions,  
22 and what you anticipate -- again, what a

1 difference this will make in -- in the Valley.  
2 Who are the students? Are they reflective of the  
3 community? Is that important? What about the  
4 cultural sensitivities?

5 I have a tendency to ask -- ask  
6 compound sentences and you can just pick any --  
7 you know, any -- any question you care to launch  
8 from.

9 DEAN FERNANDEZ: Well, you know when  
10 you look at the number of applicants, the 10,000  
11 really is roughly 8,000 applications for the, so  
12 called, graduate medical education programs,  
13 which are the residency training programs, many  
14 of which are new.

15 There were two legacy programs, one in  
16 internal medicine and one in family medicine.  
17 But now we have obstetrics and gynecology,  
18 surgery, psychiatry -- just got approved for that  
19 medicine, and we're hoping to complete the  
20 application for pediatrics.

21 So we're really creating the  
22 infrastructure for not just the education, but to

1 be able to keep these physicians that are  
2 interested in the type of community programs that  
3 we've initiated to be able to stay. As you know,  
4 roughly, 80 percent of -- of residents that train  
5 in a community will stay in that community to  
6 practice.

7 The medical is roughly 2700 applicants  
8 in a short period of time. But then, we  
9 screened, and we screened not just looking at the  
10 usual sort of metrics, but, the reality is we use  
11 a holistic approach. We were interested in  
12 people who had particular life experiences, that  
13 were interested in being community and patient  
14 advocates, and that were beyond desires of  
15 lifelong learning opportunities to really focus  
16 on lifelong problem solving.

17 And so, it was a constellation of  
18 factors and our curriculum that's caused success.  
19 Students uniting culture, care, empathy, science,  
20 and skills. So cultural attunement and  
21 sensitivity was one of the areas in which, of  
22 course, we had to create the -- the necessary

1 framework, for people to be able deal with the  
2 needs of the community here, which is roughly 90  
3 percent Hispanic.

4 Now that being said, we were  
5 interested in educating a diverse group of  
6 students, so we were very fortunate in terms of  
7 being able to attract individuals, like I said,  
8 that were community focused, patient advocates,  
9 culturally attuned, and were interested in being  
10 lifelong problem solvers.

11 And the diversity of these 50 students  
12 that are coming to the Rio Grande Valley, is  
13 inclusive of African American students. We have  
14 also a Native American, Asian, and, obviously,  
15 about 30 percent of the class is Hispanic, of  
16 which, many are from the Rio Grande Valley.

17 DR. GIBBONS: Dr. Fernandez, this  
18 sounds fantastic. As you know, we -- it's not  
19 just the Rio Grande Valley, but the whole country  
20 is living in times of physician shortages,  
21 healthcare professional shortages. Some people  
22 estimate as many as 90,000 physician shortages by

1 2025, 800,000 nurses by about that same time.

2 So this -- this medical school is just  
3 what the doctor ordered as they say. But, will  
4 it be enough? What do you think? Your bringing  
5 50 more young doctors to the area. What kind of  
6 impact do you think this program will have in the  
7 future if it's successful?

8 DEAN FERNANDEZ: Well, as you know, 50  
9 would be a drop in the bucket, really. The  
10 reality is that -- and we're keeping it at 50 so  
11 that you know, because remember what I said, I  
12 want to be able to keep them in the Valley.

13 And in order to be able to address  
14 that we thought that we needed to have sufficient  
15 graduate medical education programs. So if the  
16 students came because they were attracted to  
17 being part of the community and part of the  
18 solutions to the issues in healthcare that are in  
19 the Valley, we wanted to be able to assure them  
20 that if they wanted to stay, they could stay in  
21 other than primary care areas.

22 So we're building, if you will, both



1 a medical school and the graduate medical  
2 education programs, simultaneously, in order to  
3 be able to achieve that goal.

4 But it's critically important that we  
5 do the same thing for all the health  
6 professionals. That is part of our goal. In  
7 other words, we could not do this and address the  
8 needs of the area unless we have a team  
9 collaborative effort.

10 So we have created a network that we  
11 call STITCH, or the South Texas  
12 Inter-professional Team Collaborative for Health.  
13 And STITCH is really for two things. One is  
14 we're going to stitch things up in terms of not  
15 just the counties, but being able to provide care  
16 and access to care.

17 But we're going to have a stitching of  
18 the inter-professional disciplines treating  
19 inter-disciplinary care which is very much  
20 needed. And in fact, even the teaching at the  
21 medical school, is going to do that, by the way.

22 And you -- you work through the

1 history of the patient jointly with different  
2 disciplines. You engage in which tests you're  
3 going to order, engage in the differential  
4 diagnostic process and therapeutics with  
5 everybody bringing something to the table to  
6 solve the problem.

7 Dr. GIBBONS: That's fantastic. You  
8 kind of answered my next question. What is your  
9 -- what's your sort of short or medium term  
10 vision in the next 10 years? What -- what does  
11 it look like? It sounds like you're beginning to  
12 answer that already.

13 DEAN FERNANDEZ: We are trying to do  
14 that and addressing it ahead of time inclusive  
15 of sort of destigmatizing which sometimes if you,  
16 for example, bring people from different  
17 disciplines together and you survey them and you  
18 ask them, "What would you think of that other  
19 discipline and so on?"

20 But -- but even though they all are  
21 within health they really don't know much about  
22 each other.

1 COMMISSIONER CLYBURN: Right.

2 DEAN FERNANDEZ: And then you're  
3 throwing them in a hospital room, together in a  
4 federally funded healthcare center, ambulatory  
5 health center, and now they have to work together  
6 in a team and really don't know the contributions  
7 that people made to each of the components of the  
8 care.

9 So we thought about the need for that  
10 from the beginning, and being able to serve  
11 everybody at -- on the same wavelength in terms  
12 of what was needed for the community. But also,  
13 the partnership is essential in order to reach  
14 everyone or as many people as we can in this  
15 area.

16 COMMISSIONER CLYBURN: Dean, I'm  
17 wondering how much you've heard from others when  
18 you talk about this approach. Particularly, how  
19 targeted you have been when it comes to not only  
20 the student ,you know, what you've been  
21 attracting in terms of the student demographic  
22 makeup.

1           But again, that commitment to serving  
2           the -- the four county region. Are you hearing  
3           from other institutions about your -- your --  
4           what I think is a unique approach to education  
5           when it comes to the medically underserved  
6           communities.

7           DEAN FERNANDEZ: But again, there's  
8           been great interest as people have learned more  
9           and more about the different initiatives in the  
10          curriculum, an outpouring of support. And then,  
11          they all close their comments by saying then, how  
12          are you going to do this? You know when -- when  
13          -- you really even look at the disciplines'  
14          specific requirements in education, people start  
15          worrying about -- well, wait a minute you know.  
16          Nursing requires this. Medicine requires that.  
17          Physicians Assistants need this and  
18          pharmaceutical needs this other.

19                 The reality is that the regulatory  
20          environment, even in education, sometimes  
21          presents challenges in this regard as well as the  
22          regulatory bodies in terms of licensure, and

1 scope of practice, and things of that nature.

2 COMMISSIONER CLYBURN: Right.

3 DEAN FERNANDEZ: So we really have to  
4 work -- as I said, we're interested in advocacy  
5 and people that are interested in being advocates  
6 and we see everybody that, whether it be faculty  
7 or students, will be serving in that capacity to  
8 address the challenges that we face.

9 Even though people think it was a  
10 great model, then there's always how were you  
11 able to do that and get it successfully through  
12 the process of all the necessary regulatory  
13 agencies and so on for certification purposes?

14 Thus far, we've been very successful  
15 I would say, including the Liaison Committee for  
16 Medical Education which is the one that accredits  
17 medical schools throughout the U.S. and Canada.

18 So I think we're on a good -- a good  
19 path. We -- we thought about what several of my  
20 good friends in Florida had told me that had  
21 recently started new medical schools. Be as  
22 innovative as you can without -- without the

1 risk. Of course there is a risk not getting  
2 accredited, but being as innovative as you can.  
3 Not to sound like Donna Summers, but this is the  
4 last chance.

5 COMMISSIONER CLYBURN: No you didn't.  
6 No you didn't.

7 DEAN FERNANDEZ: But, the thing is be  
8 as innovated as possible to bring as many  
9 strategies and groups to the table as you can to  
10 solve the problems of the healthcare needs of the  
11 Rio Grande Valley.

12 And what are likely to be the  
13 healthcare needs of the country and globally  
14 really, when you look at all of the initiatives  
15 that align with some of the needs here.

16 COMMISSIONER CLYBURN: Now, if I can  
17 get disc -- disco out of my brain, I'm going to  
18 ask you this. The focus here of course is on,  
19 you know, mental health issues. And I want to,  
20 if you could kind of give us -- if you could  
21 answer this in the context of, not only the  
22 institution, but that four county area that you

1 are -- where -- where you serve.

2 What are the more common mental and  
3 behavioral issues in the Valley? And you know I  
4 understand -- are there any cultural differences  
5 in the type of health issues and the desire to  
6 seek treatment for these challenges?

7 DEAN FERNANDEZ: I think first of all  
8 that they don't really, fully, recognize what  
9 mental disorders are, like we would. So as you  
10 were speaking to how people might think of  
11 somebody suffering from a psychological symptom,  
12 for example, they all view it quite different.

13 So that's a challenge, especially,  
14 when you want to bring about therapeutic  
15 interventions for those things that might be  
16 ailing them. But the major disturbances that we  
17 see are depression. And I'm going to, instead of  
18 calling it addictions, or chemical dependency, or  
19 -- or abuse, I'm going to call it repetitive  
20 drives of all types.

21 So by that I mean, that it's not just  
22 food, or drugs and alcohol, but it could be

1 gambling, it could be pornography. And so, all  
2 repetitive drives we see disturbances of, and  
3 family and domestic violence.

4 So those are the top three, I think,  
5 as we move into, particularly, in the most  
6 underserved of the communities which lie in the  
7 unincorporated areas called colonias. It's --  
8 it's where we see these types of problems.

9 And these are people that already  
10 because of the -- their history -- their personal  
11 history, have suffered a significant amount of  
12 personal trauma getting to where they are in the  
13 United States. And so, it compounds the issues  
14 and the problems that they see and are  
15 re-traumatized by many of the things that they  
16 encounter when they arrive in the United States  
17 and being part of a community.

18 COMMISSIONER CLYBURN: I'd like to  
19 close this out. Do you want to close this out?  
20 Well, Chris has another question and then we are  
21 going to close this out.

22 DR. GIBBONS: Well, I was just going



1 to ask you Dr. Fernandez if you could talk to us  
2 a little bit more about the colonias? You know  
3 we don't have colonias up in Washington D.C.

4 COMMISSIONER CLYBURN: Well, we don't  
5 call them that anyway.

6 DR. GIBBONS: Exactly. Right, right.  
7 We have something else that I'm wondering if they  
8 are similar in any way? And what -- do you have  
9 any special ideas or thoughts about how to really  
10 address these tough issues in these tough areas?

11 DEAN FERNANDEZ: Well, we've begun a  
12 process of being able to reach out. It's a  
13 process of going through the county, the  
14 commissioner's courts, and churches, and being  
15 able to sort of gain access to the colonias so  
16 that we can provide first and foremost the  
17 community health assessment to determine their  
18 needs and have them help us -- tell us what they  
19 need in terms of the care they need.

20 And by that I mean even beyond  
21 healthcare, so what we're looking at we're --  
22 we're defining inter-professional needs. We're

1 defining really quite broadly. So it's beyond  
2 just the usual aspects in health.

3 So including education or including  
4 the business community or business school. We're  
5 including health affairs obviously. But even  
6 within health affairs, we're involving  
7 communication disorders, and rehabilitative  
8 college and strategies that are not typical of  
9 the usual health team that you see in  
10 communities.

11 So if someone, for example, tells us  
12 that they have a problem with education and  
13 dropouts from high school, we may bring in  
14 individuals that allow us to bring a GED program  
15 to that particular area.

16 It serves two purposes because the  
17 reality is that you cannot engage in these  
18 communities without gaining the trust of the  
19 individuals that are there. And so the fancy  
20 mobile van with all sorts of promises -- they've  
21 been there before. And -- and really we need to  
22 do better than just providing immunizations,

1       although that's greatly needed. I'm not saying  
2       that it's not.

3               But we need to do more for the  
4       community and, obviously, anything that we can do  
5       to improve the overall well being of that  
6       community by redefining community engagement and  
7       outreach we will do as a part of this project.

8               We were very fortunate to obtain a  
9       grant from the United Health Foundation that has  
10      served to create a multipurpose van that's one  
11      stop shopping. That van will have oral health  
12      that will allow for procedures. It will allow  
13      for telehealth creating a hot spot.

14              It would have a lab and a pharmacy so  
15      it works as for one stop shopping, really, for  
16      diagnostic purposes and therapeutic purposes. It  
17      allows us then to do for example, take the  
18      Promodores and we have developed one certificate  
19      already but have added qualifications for  
20      behavioral health.

21              So that the Promodores instead of  
22      being navigators beyond health promotions could

1 help us identify what the problems behaviorally  
2 are in the community. And how best to also began  
3 intervene in a preventive way with each of the  
4 communities; and their needs may be different.

5 And our next certificate will be an  
6 oral health. And so, we will continue to extend  
7 the capacity of each community. Remember the  
8 Promodores of the caseworkers live in those  
9 communities. They are part of those communities.  
10 So we just recently graduated one of our original  
11 cohort Promodores from a training -- a trainer  
12 module which -- now, I know it may be difficult  
13 for some of you to comprehend this.

14 Somebody that's orange blended with  
15 somebody that's not red, but crimson. So UT  
16 collaborated with Texas A&M on the national  
17 workers center -- should be able to offer this  
18 certificate.

19 Now, we're training our former  
20 Promodores to be trainers to come down and be  
21 able to sort of train other Promodores in these  
22 other areas like behavioral health, and mental

1 health, and so on. And have the programs be here  
2 in the Valley as opposed to elsewhere.

3 DR. GIBBONS: Fantastic.

4 COMMISSIONER CLYBURN: Dean --

5 DEAN FERNANDEZ: When you're moving in  
6 different directions do like GE would say, "Bring  
7 good things to light."

8 COMMISSIONER CLYBURN: Well, on that  
9 note I can say Dean, thank you so very much. You  
10 use a term to define or describe your building in  
11 the -- in the complex. You use the word  
12 fantabulous. We think that you are fantabulous.  
13 Thank you so very much and please join me in  
14 thanking the Dean.

15 And you promise we'll meet in person,  
16 correct? It's not personal, right? We're going  
17 to see each other in person one day.

18 DEAN FERNANDEZ: Most definitely.  
19 Without a doubt when I come out of my shell here  
20 that I'm in right now, I won't be any handsomer,  
21 but I'll be much better and be able to greet you  
22 in person.

1                   COMMISSIONER CLYBURN: Well, let me  
2 say that what I see is marvelous. Thank you so  
3 very much Dean, again. Thank you.

4                   DEAN FERNANDEZ: So I'll just take  
5 being fantabulous.

6                   COMMISSIONER CLYBURN: Thank you so  
7 much.

8                   DR. WINNIKE: Thank you so much Dean  
9 Fernandez. Thank you Commissioner Clyburn.  
10 Thank you Dr. Gibbons. We're going to move on  
11 with our State of the State, looking at broadband  
12 and healthcare here in the State of Texas.

13                   It is my pleasure to introduce Dr.  
14 Sharon Stover from the University of Texas where  
15 she is the Philip G. Warner Regents Professor in  
16 Communication, and she directs their Technology  
17 and Information Policy Institute.

18                   She is -- has done many projects  
19 looking at the digital divide and the economic  
20 benefits of broadband particularly in rural  
21 areas. And she is going to give us a really  
22 great overview of the state of broadband here in

1 Texas. Thank you so much.

2 DR. STROVER: And thank you. Thank  
3 you for the invitation as well. It's been a real  
4 pleasure to be here. I've really enjoyed the  
5 talks so far. They've been illuminating. I  
6 didn't know all of these things about the State  
7 in which I've lived for so long.

8 I'm a professor at UT Austin and --  
9 and direct the Research Institute on Information  
10 Technology and Policy. And over many years I've  
11 looked at broadband adoption and digital divide  
12 issues not just in Texas, but nationally and even  
13 a little bit internationally. And I thought that  
14 today I would try to provide a kind of 10,000  
15 foot level look at broadband.

16 And it all kind of -- it actually  
17 goes back, for me at least, to LBJ. You can't --  
18 I know I'm not color coded today for either for  
19 UT Austin or the University of Houston, but  
20 coming from Austin it's hard to ignore the  
21 presence of LBJ.

22 And he was an early advocate,

1 actually, of pushing out electricity into rural  
2 areas in Texas, and he highlighted the -- the  
3 fact that this was a big State that really needed  
4 to get moving and needed to bring infrastructure  
5 to rural areas. And my talk is -- is about  
6 infrastructure.

7 It's the stuff that we often don't  
8 see. We're very used to devices. We all have  
9 our phones. We have our laptops. But, the wires  
10 and the poles, those kinds of ugly things, and  
11 spectrum, which is all around us. is -- is more  
12 of -- more of what I focus on. And LBJ was a  
13 real believer in infrastructure, electricity  
14 specifically.

15 He knew that Texas was very rural,  
16 especially, when he was around. And it's as  
17 we've already heard, it's a state characterized  
18 by an immense area. Very long distances between  
19 cities. We have low population densities. And  
20 in -- and we're an extraordinarily diverse state  
21 as well at this point.

22 But, it was the arrival of electricity



1 that -- and the creation of some companies,  
2 actually, that filled in the gaps where other  
3 companies did not want to go to create the kinds  
4 of services that folks in rural areas needed.  
5 They were largely ignored by a market that was  
6 focused a little bit more on population -- the  
7 populous -- the populous regions of the -- of the  
8 State.

9 So what I'm going to talk about is  
10 really the inter -- the interdependencies of the  
11 things that we all know, the computers and  
12 devices, and try to link that to infrastructure.  
13 What I'll call connection to what we've largely  
14 recognized as connections.

15 And I'm also going to highlight the  
16 role of digital literacy which we haven't really  
17 addressed -- addressed yet. But basically, you  
18 can't have a well functioning broadband internet  
19 society, and you can't have broadband delivered  
20 health services unless all three are in place and  
21 unless they are all operating in a robust way as  
22 well.

1           If we look at who's doing what with  
2 devices, well the big story now is cell phones.  
3 Cell phones and smartphones, in particular, have  
4 escalated their presence. It's a technology that  
5 a lot of people have -- 92 percent according to  
6 one of the -- one of the Pew surveys.

7           And I'm -- and I'm going to bracket  
8 anything I say that has a statistic in it -- a  
9 number in it. But these numbers are changing  
10 constantly. They're changing in some fairly  
11 predictable directions. Not always predictable  
12 directions, however, for example, the second most  
13 cited technology here, desktop or laptop  
14 computers.

15           Well, laptop computers going up;  
16 desktop computers going down. It's emblematic of  
17 our becoming an increasing mobile society. So  
18 technologies shift. Our preferences shift. With  
19 them, comes certain things that we can do more  
20 easily with certain technologies than with other  
21 technologies.

22           So these other various technologies

1 can all figure into our involvement in a digital  
2 environment in some very different ways. Some of  
3 them are very useful for health applications.  
4 Some are less helpful right now for health  
5 applications.

6 I didn't have a wearable on here. I  
7 don't have Fitbits for example on this chart. We  
8 know that they're in about, give or take, 30  
9 percent of the population.

10 We also know people quickly abandon  
11 them. And we know that there are -- that not  
12 everybody is as interested in them as certain  
13 other people. They skew to -- to younger people,  
14 primarily. So and that's another story about  
15 devices.

16 There are embedded in-device uses,  
17 certainly. I'll call them biases, if you will.  
18 Certain population segments use them. Others use  
19 them less. Right now, as the chart before you  
20 shows, about 90 percent of adults in this country  
21 have a cell phone. About 58 percent a  
22 smartphone, now 64 percent as of the more recent

1 statistics. Many people use e-readers and office  
2 tablets.

3 So what do they mean for healthcare  
4 and mental health specifically? Well, when we  
5 look at what we use cellphones for, these are the  
6 most predictable uses: Sending and receiving  
7 email. I'm seeing a lot of email delivering  
8 right now. That's first.

9 Accessing the internet, and it turns  
10 out -- it turns out people get a lot of health  
11 information from the internet. Not everybody  
12 goes to the internet for this health information.  
13 But a surprisingly high percentage of people say  
14 that they do.

15 Texting, of course, tops everything  
16 that we do on cellphones. Using applications has  
17 come on strong in the last five years. So of  
18 course that's extremely pertinent to healthcare  
19 and a few people have already mentioned this.

20 But there's lower adoption for  
21 cellphones and for smartphones, in particular,  
22 among older people, among poorer people, people

1 who make household incomes under 30,000, and who  
2 are less well educated.

3 So to the extent that certain health  
4 conditions might be exacerbated or present in  
5 these populations, then the utility of smart  
6 phones as one particular device could be  
7 diminished.

8 And I'd like to point out to that, if  
9 we are talking about low income people and using  
10 certain technologies to reach low income people,  
11 about half of the low income population has a  
12 very tenuous income -- income environment and  
13 they constantly drop service, re-initiate  
14 service, drop it again. There's a lot of  
15 unreliability in what they have with respect to  
16 technology, with respect to what they have with  
17 smart phone service and data plans in general.

18 Some people, increasingly, talk about,  
19 and I believe Commissioner Clyburn mentioned  
20 social media in particular has come up. And Pew  
21 Research showed that the presence of social media  
22 and people's engagement in social media is, in

1 fact, related to certain health conditions.

2 If you have -- I mean, the bottom line  
3 is if you have certain chronic conditions and if  
4 you have more than one chronic condition, there  
5 may be far more utility in engaging in certain  
6 kinds of social media beyond sending and  
7 receiving email.

8 But going in and reading commentaries,  
9 getting that social support that came up a little  
10 bit earlier, finding out -- finding more  
11 information, expanding one's health information  
12 repertoire, and so forth. So there's a clear  
13 intersection between the presence of a medical  
14 condition and the utilities of engaging in social  
15 media.

16 I would add that some of our research  
17 in south Texas looked, specifically, at the use  
18 of social media among -- among -- among  
19 Hispanics. And in that particular region of the  
20 country, one thing we saw -- we saw was that  
21 social media was used a little bit differently  
22 there in the sense that it was used less often to

1 reach out to people that one didn't know and more  
2 often to deepen relationships among the people  
3 that you already knew. That too has some  
4 implication for healthcare.

5 So trends are mobile access, more of  
6 these devices that we've just been talking about,  
7 social media, social support and information  
8 seeking, and more increasing attention to the  
9 nature of what we do with social media, whether  
10 we reach out and look for new ideas from  
11 strangers, from people with whom we might have  
12 some interest shared, or whether we deepen our  
13 existing networks. That's called -- the latter's  
14 called bonding and the first is called bridging  
15 -- bridging capital.

16 When it comes to broadband adoption  
17 and availability in this State, Texas has a lot  
18 on its plate. Actually, Texas the access, which  
19 is to say the ability to actually get a broadband  
20 connection, lags the overall statistics in the  
21 United States.

22 It's particularly when the FCC raised

1 the definition of broadband to 25 Megabytes per  
2 second. What we find is that, well, about a  
3 little over half of Texas households do, in fact,  
4 have access to that threshold that's not as high  
5 as the national level. Most regions that lack  
6 this access are quite predictably in rural  
7 regions.

8 We had, as all states did, a  
9 broadband mapping effort in Texas. This was one  
10 of the last maps that they produced. I think the  
11 data comes -- it was published in 2015, so the  
12 data's from about 2014. And this is an  
13 interesting illustration, I thought, of how we  
14 define -- how when we define broadband  
15 differently the State really looks a little bit  
16 different.

17 The lower threshold definition is the  
18 map on the left and there's a lot of little dots  
19 on the map of Texas. But you can see by the more  
20 intense red on the map that a lot more  
21 connectivity at that 3 Megabytes downstream level  
22 existed.



1           When you look at the 25 Mbps level,  
2 not so much. Texas really does have a ways to  
3 go. Why is that important? Because a lot of  
4 medical applications increasingly require higher  
5 speeds. Not all of them, but many do.

6           This was an interesting illustration  
7 of some of the progress Texas made in just the  
8 span of about three years. But then again,  
9 there's a lot of empty space in Texas where that  
10 threshold simply does not exist -- that kind of  
11 connectivity does not exist.

12           So we lag in access when it comes to  
13 adoption if a connection is available. If these  
14 high speed connections are available. Who  
15 actually subscribes? Well, here too, we lag  
16 national statistics. About 26 percent of our  
17 population does not have home broadband. That's  
18 a fixed line in the home.

19           Nevertheless, almost half the  
20 population uses these mobile devices to access  
21 the internet. And I would imagine that most of  
22 the people in this room do exactly that.

1           However, most of the people in this  
2 room probably have fixed lines at home and also,  
3 mobile on the go. That's not the case for many  
4 people. Many people are on the go only on phone  
5 base access.

6           And when that enters the picture, one  
7 has to consider what the different affordance  
8 might be when you are accessing the internet on  
9 an extremely small screen. Or even if you're  
10 using it as an hot spot with somewhat a bigger  
11 screen, there are very different utilities  
12 associated with it.

13           When we ask people why they don't have  
14 broadband, many people, especially old people,  
15 say they're just not convinced that it's relevant  
16 to their lives. Affordability is extremely  
17 important and they cite the lack of skills. And  
18 generally, in that order. Affordability seems to  
19 be creeping up, relevance may be diminishing in  
20 importance a little bit.

21           I was glad to hear someone bring up  
22 veterans, because Texas does have a lot of them

1 about seven percent of them live below the  
2 poverty threshold, many have disability status,  
3 and they truly represent a significant divide  
4 when it comes to important health needs and our  
5 -- our -- the need to really redress what's going  
6 on with veterans.

7 What are some of the factors  
8 predicting adoption? In very general terms,  
9 these are negative and positive relationships.  
10 If you are older, you have less access. You  
11 adopt less frequently. Education and income are  
12 positively associated. Being African American or  
13 Hispanic negatively associated and income --  
14 well, income, I already mentioned.

15 So we know that these have been  
16 statistics, not only in the State that come out  
17 in Texas, but all over the country.

18 Nevertheless, a lot of people do use  
19 the internet around -- this is a national level  
20 statistic, about 87 percent as of about a year  
21 ago, use the internet in some way shape or form.  
22 It doesn't really speak to how or how often and

1       how intensively people use the internet. How  
2       much they rely on it. When we broke down data,  
3       FCC data, looking at the difference between world  
4       and metro areas. Difference that is very  
5       important in Texas because we have so much rural  
6       territory here. We found a very consistent  
7       difference across a seven year period.

8               Even as we -- we knew adoption was  
9       growing and availability of networks was growing,  
10       we continued to see a 13 percent adoption gap  
11       between metro areas and rural areas. We haven't  
12       done the statistics to plot this for more current  
13       data, but that -- the fact that that gap could  
14       endure for so long is really quite striking.

15              Then the third factor I wanted to talk  
16       about was different -- was digital literacy.  
17       It's a term like telemedicine that means a lot of  
18       different things to different people. It's  
19       measured in different ways. Sometimes it's  
20       confidence. Sometimes it's actual competence.  
21       Sometimes it's a specific skill set. We know  
22       that smart phone literacy is very different from

1 the computer literacy. We know that people who  
2 are lower income especially with data caps do  
3 fewer things on their smart phones than do people  
4 who don't have those data caps. And especially  
5 than do people who have -- who have both fixed  
6 home broadband as well as mobile broadband. And  
7 the same set of factors have a lot to do with  
8 digital literacy that we see coming up when it  
9 comes to adoption generally.

10 So I really think of this mesh of  
11 availability of networks, adoption of broadband,  
12 and the ability to use broadband as being kind of  
13 a pyramid. You have to have some kind of network  
14 at the base. But you also have -- you have to be  
15 able to access that network. You have to have  
16 the skills in order to do so, in order to make  
17 use of what is available on the network.

18 And when it comes to practices, those  
19 skills, and abilities, and relevance has to be  
20 imbedded in one's daily life in some way, shape,  
21 or form. That's the key to the relevance  
22 question. If -- if you don't need the internet

1 or access to health information for something  
2 that's very routine in your life, everything  
3 begins to -- to crumble a little bit. They -- I  
4 think of them as a pyramid. They interact.

5 Very quickly then, just a few comments  
6 on health facilities. I've talked a lot about  
7 end users, individuals. When it comes to actual  
8 health facilities it's a very different story.  
9 I'm glad my comic is at least getting one smile,  
10 here. Everybody's interested in cost savings,  
11 but we're also interested in reaching larger  
12 constituencies and this is where location of  
13 health facilities is key. The presence of  
14 competition can drive prices down. Middle mile  
15 costs we know in Texas are extremely large  
16 because distances are large here.

17 What this has meant, just to share one  
18 -- some very recent data with you, my colleague  
19 Brian Whittaker analyzed some of the Community  
20 Anchors Institution data that the FCC is  
21 gathering. And this is data that anchors report  
22 to the FCC, but they don't all report it.

1                   So this map simply shows how many  
2 health care facilities in this case reported data  
3 to the FCC. And he was especially interested in  
4 looking at speeds available to different  
5 healthcare facilities. And this is a lot of  
6 numbers that I don't expect you to grapple, but  
7 I'd like you to focus on the area of purple in  
8 these bars.

9                   On the lefthand in particular are  
10 download speeds, metro and non-metro comparisons  
11 over time. So we see huge growth over here in  
12 the purple. Those are the high speed metro  
13 speeds in non-hospital facilities. And I chose  
14 non-hospital because a lot of rural areas don't  
15 have hospitals. So this is a good indication of  
16 what's going on in rural.

17                   Metro, lots of growth in these non-  
18 hospital facilities. Look at the growth in  
19 non-metro. And look at the comparison to metro.  
20 Texas has a long way to go in terms of getting  
21 higher speeds to medical facilities in  
22 particular.

1           So telemedicine as I said, means a lot  
2 of different things. I -- I especially like this  
3 particular diagram that compares telemedicine in  
4 terms of functionalities, applications, and  
5 technologies, because each one of those has  
6 different implications for telecommunications.  
7 Not just devices, but speed needs and so forth.

8           And I think I'll just leave you with  
9 -- with the idea that there are a lot of  
10 different kinds of medical applications that are  
11 very pertinent to the direction that we're moving  
12 in the 21st century. Some like text, this is the  
13 example on this particular chart which is from  
14 the 2010 FCC Broadband Plan, refers to text of  
15 the clinical document.

16           A text message doesn't -- doesn't need  
17 much bandwidth either. The text is not bandwidth  
18 intensive. Anything with video however is.  
19 Anything realtime has certain network demands  
20 that non-realtime does not. So these are a lot  
21 of -- there are a lot of different considerations  
22 that go into assessing the utility of network



1 connectivity for a variety of medical  
2 applications.

3 And what I've tried to do is  
4 underscore that the network, the users, the  
5 devices and the needs of particular medical  
6 applications are all different -- there are a lot  
7 of different combinations at work here that --  
8 that we as -- as an audience of people who are  
9 interested in this field and developing this  
10 field have to be aware of. I'll end there.

11 DR. WINNIKE: Thank you so much, Dr.  
12 Strover. Next I would like to introduce our  
13 next speaker, Brian Henry, who is the Director of  
14 Telehealth at the University of Texas Medical  
15 Branch in Galveston. And he has 25 years of  
16 experience in telehealth here in the State of  
17 Texas to give us a broad overview of our  
18 activities here in the State. Thank you so much.

19 MR. HENRY: Good morning, again.

20 And again, my name is Brian Henry and  
21 I am the Director of Telehealth at the University  
22 of Texas Medical Branch in Galveston. And I'm

1 here to provide a very brief synopsis of  
2 telemedicine in the State of Texas addressing the  
3 challenges for expansion and highlighting some of  
4 the work being done to bridge the gaps in access  
5 to care.

6 Before moving forward, I would really  
7 like to thank the Commissioner, and the FCC  
8 Connect2Health team, and the University of  
9 Houston for hosting this great event. How and  
10 why I was included in this credible list of  
11 speakers I'll never know. A very accomplished  
12 group.

13 I started my career in healthcare  
14 right about the same time that telemedicine was  
15 starting to be used in two academic institutions  
16 here in the State. That would be Texas Tech  
17 University in the west and then the University of  
18 Texas Medical Branch in the southeast.

19 The internet was not -- or this was  
20 roughly 25 years ago when the technology was  
21 large and cumbersome and extremely expensive.  
22 The internet was in its infancy and access to

1 commercial broadband was non-existent.

2 Despite the almost insurmountable  
3 technological challenges these two institutions  
4 faced, both pressed forward with a vigor to  
5 develop and expand their telemedicine efforts as  
6 they had identified the new technology to be the  
7 answer for access to care in this large, mostly  
8 rural, State of ours.

9 Jumping ahead to the present, a lot  
10 has changed for telemedicine over the last 25  
11 years. Technology has improved, access to  
12 broadband has increased, and stakeholders in  
13 health systems have warmed to the idea of  
14 telemedicine adopting the idea that telemedicine  
15 could and should be part of the portfolio of  
16 services they provide. Despite these advances,  
17 barriers still exist in this great state of ours.

18 For the largest state in the lower 48,  
19 geography and rurality is the most obvious  
20 barrier to access to care in Texans. With 254  
21 counties and most of them being deemed medically  
22 underserved areas, distance and logistics make it

1 almost impossible for some of our residents to  
2 receive care they need.

3 Reimbursement for telemedicine  
4 services or the lack thereof, also impacts the  
5 adoption and expansion of telemedicine.

6 Fortunately -- I'm staying on topic -- behavioral  
7 health was given an early path to reimbursement  
8 and continues to be the most utilized service in  
9 the telemedicine portfolio.

10 Physician shortages. The Texas  
11 Medical Association reported the Texas ratio of  
12 psychiatrists per capita is only 58 percent of  
13 the U.S. total per capita ratio. The lowest  
14 comparison of the 40 major medical specialties  
15 included in that TMA study.

16 It would take an additional 1100  
17 psychiatrists and another 200 more child  
18 psychiatrists to bring Texas up to the national  
19 per capita workforce totals. This would require  
20 our state to recruit every single graduate of  
21 every single residency program in the country and  
22 half the graduates of the child psychiatrist

1 fellowships in the United States for a single  
2 year to achieve this goal. Mind blowing point  
3 intended.

4 Exacerbating these barriers is the  
5 commonly held perception that Texas is too  
6 restrictive to telemedicine when considering the  
7 Texas Medical Board Rules of Governance. Further  
8 fueling the myth, the American Telemedicine  
9 Association gave Texas, one of three states, a  
10 failing grade when evaluating the State's  
11 telemedicine landscape.

12 As someone who's committed the last 10  
13 years to developing and implementing telemedicine  
14 programs for large health systems, I take a more  
15 conservative and optimistic view. I believe the  
16 rules do not restrict the delivery of care via  
17 telemedicine, but instead, it ensures that care's  
18 delivered in the safest manner possible all while  
19 providing guardrails that help to limit both  
20 fraud and abuse.

21 Despite these barriers, there are  
22 many great things happening in the State, and a

1 lot to look forward to in the advancement and  
2 expansion of telemedicine, especially, in the  
3 realm of behavioral health. Some of the programs  
4 that are pushing telemedicine forward here; the  
5 formation and the establishment of the Texas  
6 E-Health Alliance providing a forum and a voice  
7 for vendors in the health information technology  
8 sector, to help drive advocacy and policy in what  
9 I consider to be the wild west of health care.

10 Nora Belcher is the Executive Director  
11 of that group and she is here today to do a  
12 deeper drill in practice and policy.

13 The Texas Medical Board's efforts in  
14 establishing a telehealth stakeholder committee,  
15 this is to ensure the topic of telemedicine is in  
16 the forefront of their consideration and  
17 governance. The State legislature is taking a  
18 more serious look at the topic of telemedicine  
19 and the benefits for patients and health systems  
20 by accessing or employing the practice. This is  
21 supported by the increasing number of telehealth  
22 bills you are seeing every single legislative

1 session.

2 The injection of private investment in  
3 healthcare technology in telehealth platforms.  
4 Over 1.1 billion in 2015, 250 million of that,  
5 specific to telemedicine platform technology.

6 The surge of adoption and development  
7 of telehealth programs by large health systems in  
8 the State. Some of these examples being,  
9 Children's Hospital in Dallas with their school-  
10 based telehealth program expanding to 57 schools  
11 in the Dallas-Fort Worth area in just the past  
12 two years.

13 The Ethan Project here in Houston,  
14 which you'll be treated to a discussion and demo  
15 later in the program.

16 Texas Tech University's pursuit and  
17 award of a federal telehealth grant establishing  
18 the Tex-lit Telehealth Resource Center, a  
19 non-profit entity providing assistance and  
20 guidance to health systems and providers in Texas  
21 and Louisiana.

22 Texas Tech is also now offering a

1 curriculum for health care professionals to  
2 pursue a certification specific to telemedical  
3 care, one of the first in the country.

4 Ascension Health's efforts in Austin,  
5 Texas in conjunction with the new University of  
6 Texas Dell Medical School, delivering a wide  
7 portfolio of telemedical services to central  
8 Texas. The primary being behavioral health and  
9 psychiatry.

10 And probably the biggest news of late,  
11 and something that's very near and dear to me, as  
12 I will be responsible for the implementation, is  
13 the approval and the appropriation of funds by  
14 the University of Texas regents, endorsing  
15 Chancellor McCraven's initiative to establish a  
16 state-wide virtual health network.

17 The University of Texas systems are in  
18 a very unique position to leverage its world  
19 class health science centers and medical schools  
20 to create a model for coordination and care  
21 delivery through the VHN.

22 The network will provide coordinated



1 inbound and outbound support for telemedical  
2 services from all eight locations, including the  
3 Valley, into care settings such as other  
4 hospitals and clinics, nursing facilities,  
5 schools, employee work sites, patient residences.

6 The UT VHN will be a centralized  
7 coordinating entity with virtual care hubs of  
8 excellence, as an integrated healthcare provision  
9 model for quality care management, in a highly  
10 constrained cost environment in the community and  
11 public health settings.

12 The systemic integration of  
13 technology, leveraging the State's broadband  
14 network, would help providers, care protocols,  
15 and support systems would work to deliver  
16 healthcare more efficiently and effectively.

17 By nature of its connections, the UT  
18 system will be able to cast a wide net of service  
19 across rural, urban, and under-served areas,  
20 truly bridging the gap in access to care.

21 So in conclusion, the nature of an  
22 effective and a proficient telemedicine practice

1 depends largely on its operational protocols and  
2 sustainable business models. But most important  
3 is the broadband network these programs run on.

4 With access to high speed  
5 interconnectivity we have the opportunity to  
6 enhance healthcare information sharing, expanding  
7 access to care, and improving quality and  
8 outcomes for patients in the great State of  
9 Texas.

10 Again it was an honor to be a part of  
11 today's discussion and I hope you enjoy the rest  
12 of the program. Thank you very much.

13 DR. WINNIKE: Thank you so much,  
14 Brian. As we move along, we have a really  
15 exciting demonstration for you right now. We  
16 have Dr. David Persse, who is the Physician  
17 Director for the Emergency Medical Services for  
18 the City of Houston Fire Department. And he has  
19 an amazing, innovative program that you may have  
20 heard of; it's called the Ethan Project.

21 And he has his ETHAN Project EMS  
22 ambulance outside, and he is going to give us a

1 live demonstration on how they do remote  
2 telemedicine on their -- on their runs when they  
3 have 911 calls. Thank you so much, Dr. Persse.

4 DR. PERSSE: Thank you, once again.  
5 While our IT people are getting set up -- oh, I  
6 see -- oh, Bernard stepped out, I was going to  
7 give him a shout out because this ETHAN Program  
8 started a couple of years ago. It's 1115 waiver  
9 funded. And actually, its origins have his  
10 fingerprints on it. So years ago, he had the  
11 vision to see that -- that there was some  
12 potential here and helped us out with it.

13 And so what screen is it on? So that  
14 screen is dark. Is that going to be dark? It's  
15 up now? It's up -- it's up now? Okay, good.

16 So let me sort of set the stage for  
17 you. This is the ETHAN Project. ETHAN isn't  
18 named after a person. It stands for Emergency  
19 Tele-health and Navigation. Now, there probably  
20 is somebody named Ethan that at some point we'll  
21 come across. You'll see that this is a program  
22 for people that have very low acuity issues and

1 I'm sure at some point we'll come across a  
2 patient ETHAN who will embody the -- the benefits  
3 of this program.

4 But it stands for Emergency  
5 Tele-health and Navigation. And I just want to  
6 point out Dr. Michael Gonzalez is the Project  
7 Manager, and he is a veteran of the United States  
8 Air Force where he worked with the Air Force  
9 doing a lot of telemedical applications in moving  
10 patients in the theater in the Middle East. And  
11 so we were fortunate to have him be part of the  
12 project.

13 As I said, it stands for Emergency  
14 Tele-health and Navigation. The problem for  
15 which this is a potential solution is that we  
16 have all heard on the news about emergency  
17 department overcrowding. People using emergency  
18 services for things which may not be a true  
19 emergency.

20 And historically, we use -- when  
21 people call 911, we use the single most expensive  
22 form of transportation to get them to the single

1 most expensive form of unscheduled healthcare,  
2 which is about as inefficient a system as we  
3 could come up with.

4 You know we would never have purposely  
5 designed it this way, except we actually did. So  
6 it's time for us to go back and change it.

7 So you know Houston is a -- we've  
8 already heard of all the accolades. But in  
9 Houston there's a lot of, you know, great brain  
10 trust here and potential. We've got telemedicine  
11 infrastructure and so we're trying to apply it to  
12 this problem that I just described.

13 And we're very fortunate that we got  
14 some start-up funding, if you will, through the  
15 1115 Waiver Project, which is very complicated  
16 and I'm not going to go into it because it's so  
17 complicated, but if you just want to know -- for  
18 those of you who are not familiar with it just  
19 Google Texas 1115 Waiver and you'll be greatly  
20 informed and have a very good night's sleep.

21 It's, basically, a way of  
22 Medicare/Medicaid funding in this State. It is a

1 waiver from the usual way that that money is  
2 distributed in order to come up with innovation  
3 projects -- to fund innovation projects to lead  
4 to more efficient ways of funding healthcare. So  
5 that's how we got it funded.

6 Very quickly, the Houston Fire  
7 Department is one of the largest in the nation.  
8 Depending on who you talk to, we're either the  
9 third or fourth largest EMS provider in the  
10 nation.

11 We go out on about 800 runs per day;  
12 we transport just over about 50 percent of those  
13 runs. Which means we don't transport just under  
14 50 percent of those runs. And so what happens to  
15 those folks? Do they actually get the care that  
16 they need? It's done with about 100 plus fire  
17 stations, and we've got about 3800 firefighters,  
18 EMTs, and paramedics.

19 So in a synopsis, and we're going to  
20 demonstrate this in just a couple of minutes,  
21 people call 911. We dispatch folks out there.  
22 It could be an ambulance, and the way our system

1 is designed, it could actually just be a fire  
2 truck depending on what the caller says. If they  
3 make it sound like it's a very low level  
4 emergency, we don't send -- we run out of  
5 ambulances on a daily basis.

6 We run short of ambulances on a daily  
7 basis. So we send the fire trucks out to  
8 investigate first. Fire trucks are staffed with  
9 four EMTs, and ambulances are staffed with two  
10 EMTs. We also have paramedics in addition, but  
11 you definitely -- the only piece of medical that  
12 is not on a fire truck is the stretcher. They  
13 have the other medical equipment and training so  
14 you get good medical care quickly.

15 They -- of all the units, the fire  
16 trucks, the ladder trucks, the ambulances, the  
17 paramedics units, they all have the G1 Panasonic  
18 Toughpads. And I've got one right here. And  
19 that's how they do their routine records. And  
20 they happen to come equipped with a camera and a  
21 microphone.

22 And so, we have the ability to

1 connect. And this is a picture of Dr. Gonzalez  
2 actually as he is staffing the ETHAN desk as a --  
3 as a physician. So the crews go out; they  
4 interview the patient, determine if it's a low  
5 level emergency, maybe doesn't need an ambulance,  
6 maybe doesn't need an ER. We'll talk to the  
7 doctor and find out what else we can do.

8 And so, the doctors have a couple of  
9 options. We can set the folks up if we think  
10 they still need to be seen in the emergency  
11 department, for example, if it's a hand  
12 laceration that needs to be sutured today, it  
13 can't wait til tomorrow really, it doesn't need  
14 an ambulance, we can put that person in a cab and  
15 still get them to the care that they need.

16 If they have something less acute, as  
17 we'll see in our demonstration in a moment. If  
18 it's less acute, maybe they don't even need the  
19 emergency department. We can put them in a cab  
20 and get them to a clinic.

21 Sometimes, we just give the people  
22 some home healthcare advice. They take care of



1 their own problem, see their private physician a  
2 day or two later, saving the entire expense of an  
3 ambulance ride and the emergency department.

4 But one of the key things that ETHAN  
5 -- that it stands for Emergency Tele-health and  
6 Navigation. And so the "and Navigation" part is  
7 what we call the Care-Houston Links.

8 And this is where -- and not all are  
9 called -- the doctors pick them and identify the  
10 ones that get referred to the Health Department  
11 where a social worker and a public health nurse  
12 will follow up with that individual to find out  
13 what is it in your life that caused you to call  
14 911 for this -- for this apparently minor problem  
15 that apparently or you may think anybody would  
16 know better than to call 911, but what is it in  
17 your life that caused you to do this?

18 And what we find out is, in about 80  
19 percent of these cases, they actually can solve  
20 the problem. These are predominantly social  
21 problems not medical problems, and the nurses are  
22 about 80 percent successful in getting these

1 folks not to call 911 again.

2           They get them medical home and  
3 educate them about the resources that are  
4 available to them. And that's important because  
5 the other thing we don't want to do is, we don't  
6 want to set up a system where people call 911 to  
7 get a free cab ride to free clinic appointment.  
8 We don't want to create another problem.

9           So we've been going for about two  
10 years now, and you'll see that in 82 percent of  
11 the cases -- this is a complicated slide -- but  
12 the percent of EMS transports -- so many times  
13 the doctor thinks you know what she really does  
14 need an ambulance.

15           The flip side of that is that 82  
16 percent of the time the doctor says we don't need  
17 an ambulance. Still a large percentage of these  
18 patients are going to the emergency department as  
19 opposed to going to the clinic.

20           Part of the problem is that our hours  
21 are greater than the clinic hours. We go from  
22 eight in the morning until ten at night. The

1 clinics generally shut down around six in the  
2 evening. And we're open on weekends and the  
3 clinics generally aren't open on weekends.

4 So that percentage of patients going  
5 to the clinic would be greater if we had greater  
6 clinic capacity which is beyond the control of  
7 Houston Fire Department, unfortunately, or the  
8 Houston Health Department.

9 And we also map these cases of where  
10 they're occurring, so we're finding that in  
11 somewhat predictable neighborhoods we see other  
12 health disparities. So that helps the Health  
13 Department as we start working with other  
14 community partners to start resolving these  
15 problems and to try to get ahead of it before  
16 they call 911 in the first place. And of course  
17 this required a large number of folks to help us.

18 Medic 29 MD1, go with the demo.

19 So what we're going to do now is hope  
20 that Medic 29 is parked outside and you'll be  
21 able to see during the break. They're going to  
22 call me and I am going to use this computer which

1 I believe is going to show up on that screen over  
2 there. And keep your finger crossed and we'll  
3 see if this works.

4 And then, the other thing while I've  
5 got a moment here -- the other thing we've also  
6 got a mobile stroke unit out -- out there, which  
7 I've just got a couple of slides when we get  
8 done. Maybe I'll jump ahead on those slides  
9 while we're waiting for them to connect.

10 And the mobile stroke unit is looking  
11 at -- we put a CAT scan in the back of an  
12 ambulance. And the reason for that is, that we  
13 know -- and this is the slide that shows that for  
14 patients who are treated with acute strokes  
15 within the first three hours, there's a potential  
16 to reverse the stroke.

17 But it's clear that the earlier the  
18 patients are treated, the better their outcomes  
19 are going to be. And so this shows that at three  
20 hours the benefit of the clot dissolving drugs  
21 wears off, and it says that for 90 minutes or  
22 less, it appears that the benefit may be greater,

1 but there is a small number of patients who were  
2 -- met that time window.

3 So the question is, well, what if we  
4 were able to get them treated earlier? So the  
5 answer is, bring the hospital and bring the Cat  
6 scanner to the patient. And so that is what we  
7 have. And we have that out there to show you.

8 And this is one of two money slides.  
9 This one shows that what we're -- to draw your  
10 attention to the bottom -- the number of patients  
11 who are treated within the first hour of symptoms  
12 if the mobile stroke unit goes out, is 42 percent  
13 versus zero percent of the patients get treated  
14 in the hospital.

15 It's just our inherent delays within  
16 a hospital. I'm an emergency physician. I work  
17 in the ER. What is the ER? It is a place with X  
18 doctors, Y nurses, and 7X patients, right? So  
19 you've got this patient-to-physician ratio that's  
20 out of whack there, and sometimes the same thing  
21 with a scanner.

22 And you can see that, you know, for

1 the next -- for the next 20 minutes it goes up 37  
2 percent, and that's where we first start seeing  
3 some patients treated in the hospital. And it's  
4 basically -- it's inverted statistics there. And  
5 the bleep is, that the earlier you treat  
6 somebody, the better off that they're going to  
7 be, and so this is going to have a huge impact on  
8 their outcomes.

9 So here's the other money slide. This  
10 is the additional costs for the CT scanner  
11 ambulance, and it comes to about over five years  
12 and it's about an additional 1.5 million dollars.  
13 And again, I wish Dr. Harris was still here  
14 because here's the opportunity for him.

15 He believes that he can successfully  
16 treat seven patients and it costs about \$200,000  
17 per patient to care for those stroke -- the  
18 outcome of their stroke. The -- the financial  
19 impact of the stroke is at least \$200,000.

20 And if any of you in the room has  
21 family with -- who has had a stroke and been  
22 debilitated, you would probably scratch your head

1 and say "gee" that seems awfully small. This  
2 list includes all strokes. The worst stroke  
3 would be more.

4 But at seven patients in five years,  
5 it's cost-neutral. And so going back up, if you  
6 look at these numbers, in the first year we  
7 treated 135 patients. So we look like the  
8 numbers are going to run in the right direction.

9 DR. PERSSE: Medic 29 to MD1.

10 MEDIC29: Medic 29, go ahead.

11 DR. PERSSE: Hello, Medic 29. Can you  
12 hear me?

13 MEDIC29: I can hear you.

14 DR. PERSSE: I can hear you; you're  
15 coming in real faint though. Let me try to turn  
16 up the volume a little bit. Can you guys hear?  
17 But can you hear her? Oh, you can hear her. All  
18 right, go ahead Medic 29, give me your report.

19 MEDIC29: Yes, sir. I have a 21 year  
20 old male. He does have a primary complaint  
21 today. His complaint is he takes medication for  
22 schizophrenia and depression.

1           He's a few days from running out of  
2 his medication. He's new to the area and he  
3 doesn't have a primary care physician or any way  
4 to get the medication refilled. He called 911  
5 today asking for assistance so that he can get  
6 his medication refilled. He says he knows that  
7 once he runs out of his medication that he starts  
8 having symptoms within a day or so. He has  
9 stable vitals. Were you able to download his  
10 vitals?

11           DR. PERSSE: Okay.

12           MEDIC29: He has blood pressure 118  
13 over 72. His pulse rate is 76. His respiration  
14 is at 160. He's at 99 percent aware. He is  
15 awake, alert, and oriented. His pupils are  
16 equally reactive. Everything else is good. I  
17 was calling you to see if we possibly could get  
18 him a clinic appointment.

19           DR. PERSSE: Okay. Did you upload the  
20 record?

21           MEDIC29: I did.

22           DR. PERSSE: All right. It's not



1 coming through. Let me try again. All right.  
2 So the record isn't coming up, but normally what  
3 would come up would be an electronic patient care  
4 record on this screen for me to then start  
5 filling in the data.

6 But it would already come  
7 pre-populated with his name, his age, and his  
8 date of birth, and his vital signs. So I would  
9 look at that and then I would be able to add into  
10 that. But so -- okay. Why don't you let me talk  
11 to the patient?

12 PATIENT: Good morning, sir.

13 DR. PERSSE: How do you do, sir? I'm  
14 Dr. Persse. Can you hear me okay?

15 PATIENT: Yes, sir.

16 DR. PERSSE: And why don't you tell me  
17 a little bit about why you called 911?

18 PATIENT: I'm not feeling well today,  
19 and I'm running low on medication.

20 DR. PERSSE: Okay. You need to speak  
21 up a bit, because I'm having a hard time hearing  
22 you.

1                   PATIENT: I'm a little low on my  
2 medication.

3                   DR. PERSSE: Okay. So you've got a  
4 history of schizophrenia. Are you hearing any  
5 voices from people you know aren't there?

6                   PATIENT: No, not really.

7                   DR. PERSSE: Are you seeing anything  
8 that you know isn't there?

9                   PATIENT: No.

10                  DR. PERSSE: I also understand you  
11 have a history of depression. Do you have any  
12 intention of hurting yourself?

13                  PATIENT: No, sir.

14                  DR. PERSSE: Okay. So you're on your  
15 medicine now but you're about to run out; is that  
16 right?

17                  PATIENT: Yes.

18                  DR. PERSSE: Okay. Would you like to  
19 go to a clinic? Would you like to go and be seen  
20 by a doctor?

21                  PATIENT: Yes.

22                  DR. PERSSE: Okay. So normally we

1 might be able to send you to an emergency  
2 department, but I actually have the ability to  
3 get you seen by a psychiatrist today. How's that  
4 sound?

5 PATIENT: That sounds great.

6 DR. PERSSE: All right. And so I'm  
7 going to go in and enter in our zip code here.  
8 What is the zip code here? 20004. And this then  
9 will re-sort the clinics and bring up the mental  
10 health ones. And so I've actually got a clinic  
11 appointment available at 2:30 today. Would that  
12 be good for you?

13 PATIENT: That will be great.

14 DR. PERSSE: Okay. So now I would  
15 normally go in here, and I'm not going to do it  
16 now because I don't have the operation, but it's  
17 very simple. I put in a phone number for him,  
18 his name, his date of birth, his gender, and I  
19 put in a brief description of what's going on,  
20 and then we'll schedule the appointment.

21 Sir, do you need a ride to the  
22 appointment or do you have your own

1 transportation?

2 PATIENT: I need a ride.

3 DR. PERSSE: You need a ride. Okay.

4 So I'm going to go to -- okay. This will just  
5 take a second and we're going to get a cab  
6 squared away for you. No, really. We're going  
7 to get a cab squared away for you. It just takes  
8 a second. Okay.

9 And then again, for the -- for  
10 everyone in the audience, it will be simply  
11 putting in a phone number that works for him so  
12 the cab driver can call if he needs to, the  
13 location where he wants to get picked up.

14 And I can, actually go ahead in here  
15 and I can pick the Memorial Hermann clinic that I  
16 just saw from the other web page. And that auto-  
17 populates it into this order for the -- for the  
18 cab driver.

19 And so I'll then pick a time which  
20 would then correlate with his appointment. So I  
21 picked a 2:30 appointment this afternoon, so I  
22 can would set it up to pick him up about 2:00.

1 Is that okay? That work for you?

2 PATIENT: Yes.

3 DR. PERSSE: All right. So at 2:00  
4 you be looking for the cab. He's going to pull  
5 up in front of the location we agreed to pick you  
6 up. He's not going to come up to the door and  
7 knock. You need to be watching for him, and then  
8 he'll get you to the clinic and they'll also get  
9 you back home. Okay?

10 PATIENT: Okay.

11 DR. PERSSE: All right. Good luck,  
12 sir. I hope you're feeling better soon.

13 PATIENT: Thank you.

14 DR. PERSSE: All right. Let me talk  
15 to the firefighter again. Vicki, do you need  
16 anything else from me?

17 MEDIC29: No. Do you need anything  
18 else?

19 DR. PERSSE: No, we're good. Thank  
20 you. And he's done. And that is the demo. So  
21 we had a little technological difficulty, but for  
22 the most part it went pretty well. Thank you.

1 DR. WINNIKE: Amazing. Thank you so  
2 much Dr. Persse. This is such an amazing piece  
3 of technology and we're so glad that we're -- we  
4 have this pioneering program here in Houston.  
5 And we know we're running a little bit behind  
6 time. We're trying to make up our schedule, but  
7 I have -- Shing Lin is coming up next.

8 He is the Director of Public Safety  
9 Technology Services for Harris County, which is  
10 the county that surrounds Houston. And he's  
11 going to talk a little bit about the Harris  
12 County Public Safety LTE Broadband Network. And  
13 then they also have a mobile demonstration  
14 outside that you guys will be able to see during  
15 the lunch break.

16 MR. LIN: Thank you. Good, almost  
17 lunch, I guess. I'll try to make it quick and you  
18 can throw things at me if I'm running too long.

19 My name is Shing Lin. Again, I'm with  
20 Harris County. I'm the Director of the Public  
21 Safety Technology Services team, so yes, that  
22 means I'm an IT guy. So I apologize for any

1 mis-speaking.

2 I want to spend a few minutes today to  
3 talk to everybody about what the county is doing  
4 with the Public Safety LTE network. Anybody in  
5 here -- has anybody heard about the initiative  
6 that we've been working on this? You can't  
7 answer this. Has anybody heard of FirstNet?  
8 Okay. We need to get FirstNet out here,  
9 Commissioner.

10 You know, this meeting has been real  
11 interesting because we've, as the Public Safety  
12 Technology Services team implies, we work with,  
13 you know, the Public Safety First Responder  
14 teams. Not just the Harris County agencies, but  
15 just then and around, right? And we're trying to  
16 provide technology that can help them do their  
17 work. And one of the things we're responsible  
18 for is this broadband network that -- that we are  
19 currently building.

20 For those that don't know, there's a  
21 nationwide initiative going on through FirstNet  
22 or the First Responder Network Authority that is

1 trying to build out a ubiquitous coverage  
2 broadband LTE network not just in the metro areas  
3 but as well as rural coverage areas, right?

4 So the county is actually one of  
5 five first early builders within the country  
6 undergoing this initiative. And we're just a  
7 pilot builder. And the idea is that we're trying  
8 to figure out what it's like to have a network,  
9 to operate it, to work with the end users on how  
10 to make the network better, so that there are  
11 lessons learned that FirstNet can take in as they  
12 are deploying this network nationwide.

13 It's important to point out that the  
14 network is standards-based, right? So it's very  
15 much like what all the major carriers are doing,  
16 right? The AT&T and the Verizons of the world.

17 And that's an important thing because  
18 as we've talked about here, cost is a factor,  
19 right? And so if we go on a commercial standard,  
20 you know the hope is that the infrastructure, the  
21 devices, all of the costs will get driven down  
22 over time so that access to the network is



1 easier.

2 Important to point out is that we're  
3 talking Public Safety First Responder only  
4 network, right? So what that means is we're not  
5 fighting everybody else who's trying to Facebook,  
6 or Instragram, or doing whatever it is that they  
7 do on their network while, you know,  
8 professionals need the network and they need the  
9 band --

10 So commercial capacity -- all right,  
11 the equipment we're using -- the equipment that  
12 FirstNet should be using going forward is the  
13 exact same as what the commercial carriers use.

14 So that's important to consider. Now,  
15 if you look at the number one and number two  
16 carriers in the Houston market, they are each  
17 running, I would say roughly around 2,000,000  
18 subscribers, right?

19 We're looking at maybe 20-25,000  
20 subscribers, but we're leveraging the same type  
21 of equipment. In fact, with one of the carriers  
22 we're using the exact same equipment. And that's

1 important because when you need it, you don't  
2 want it to fail, right?

3 So that's where this Public Safety  
4 gray conversation comes in. You know, for all  
5 our sites we're ensuring availability. So that  
6 means battery backups, generators, multiple paths  
7 of back haul connectivity to the sites so that --  
8 in a lot of ways we're building a network for  
9 that 2 percent, right? And -- and that -- that  
10 does get expensive, right? So -- so why build  
11 the network?

12 I think we -- we touched on this for  
13 the last hour and a half. Application use  
14 growth, data growth, and we just saw the ETHAN  
15 demo over here. I mean, this is what most users  
16 expect, right? This is what we're used to.

17 Think about our own personal use of  
18 and dependencies on the internet and on our own  
19 personal life as well, as well as a professional  
20 life. That growth is -- is probably -- the cat's  
21 out of the bag. That -- that one we can't pull  
22 back, right? And so all of that just leads to

1 congestion. The idea of needing access but not  
2 being able to get to it.

3 And if you focus in on these two  
4 pictures on the bottom. This is actually a  
5 picture here in the Houston area. I believe it's  
6 290 -- maybe not, it's too big. But it's of Rita  
7 evacuation. And if you actually look at the  
8 lower right picture, there's actually an  
9 ambulance there and it's -- they're actually  
10 trying to work on somebody.

11 So what -- what are the odds that they  
12 are able to get access to -- to any connectivity  
13 other than say radio at that moment. Probably  
14 pretty slim to none.

15 So -- so this is why, you know, we're  
16 looking at building off of this network. This is  
17 why FirstNet exists is to solve this connectivity  
18 problem. So the county's build out will be in  
19 two main phases.

20 The first phase is focused mostly on  
21 outdoor coverage, okay? We planned 37 sites, but  
22 we think we'll end up with about 40 sites around

1 the county. And we're thinking that all of these  
2 should be in place fall of this year.

3 One thing to point out about coverage  
4 of this network versus a commercial network is  
5 commercial providers will go where there are  
6 subscribers, right? That's where the money is.  
7 That's how they're going to need to feed this.

8 Our coverage consideration is quite  
9 different. You know, we talked a lot about  
10 rural. The City of Houston is of course a real  
11 dense metro area, but once you leave the second  
12 loop, our Beltway, it starts to get, you know,  
13 thinned out pretty quickly. And in what I call  
14 the rabbit ears of the county, I mean, there are  
15 more cows out there than there are people, right?

16 So but -- but we're still providing  
17 medical services and healthcare to those regions,  
18 right? So our coverage model is quite a bit  
19 different as far as consideration for where we  
20 need to go.

21 The Phase two of our build out should  
22 take us to about 92 sites, and that's primarily

1 focused on filling in different holes as well as  
2 indoor coverage. We don't currently have an ETA  
3 for that, but we think that growth will be quite  
4 organic. Because once we deploy and once things  
5 get out there, I think there's going to be a lot  
6 of requests to fill in gaps and in different  
7 things like that.

8           So what are some of the use cases  
9 then? You know we talked about that today,  
10 right? It's getting access to data when you need  
11 it. It could be day to day activity, patient  
12 transport, in some cases non-transport, right?  
13 In-house patient visits, wearables -- we  
14 discussed those. Sensors -- different biometric  
15 sensors.

16           And as, you know, a lot of discussion  
17 is around the larger events. You know we've all  
18 been to a ball game or a parade, or -- or you  
19 know, evacuations of some sort and not be able to  
20 connect. Well, this network, again, is dedicated  
21 to public safety. So imagine your own freeway  
22 coming down I-10 to get to downtown every day,

1 right? That's what we're discussing here.

2 And then of course disaster recovery.  
3 You know we, of course, have a lot of hurricanes  
4 in the area, and that's what we tend to focus on.  
5 But -- but it could be any sort of evacuations.  
6 You know, we had a big chemical fire recently at  
7 a warehouse around here they actually had to  
8 evacuate the whole neighborhood, right? So in  
9 that scenario, this kind of connectivity will be  
10 in there.

11 So I'll just leave with -- with what  
12 Allison mentioned. We actually have a mobile  
13 command unit outside that is designed to provide  
14 coverage -- band 14 -- so public safety LTE  
15 broadband out there, for additional capacities,  
16 or even taking it to places that don't currently  
17 have LTE broadband.

18 So I think it's after lunch, I  
19 believe, Yeah. All right. Thank you.

20 DR. WINNIKE: Thank you so much,  
21 Shing Lin. We are going to take a break right  
22 now -- a truncated break, because I know that

1 we're running behind time. It is 5 til 11:00.  
2 So how about a 10 minute break. We will start  
3 back at 5 after 11:00.

4 DEAN BAYNES: But before we take a  
5 break I want to recognize Ivan Sanchez, who is  
6 representative of Congresswoman Sheila Jackson  
7 Lee. She couldn't be here with us today because  
8 of her obligations in the U.S. Congress, and we  
9 welcome you here on her behalf. Thank you so  
10 much for coming.

11 (Whereupon, the above-entitled matter  
12 went off the record at 10:55 a.m. and resumed at  
13 11:29 a.m.)

14 DR. WINNIKE: Let's get started. For  
15 our next panel on Care Challenges and Mental  
16 Health and Behavior Health and look at Connected  
17 Solutions. So we have a wonderful panel with us  
18 today including part of our panel is virtual  
19 going with our -- our virtual theme here.

20 And really quickly, I would like to  
21 introduce our moderator for today's panel, Dr.  
22 Mickey Slimp. He is the Executive Director for

1 the Texas -- East Texas Interactive Healthcare  
2 Network based at the University of Texas Health  
3 Science Center at Tyler.

4 And he also is the Executive Director  
5 of the Northeast Texas Consortium on Colleges &  
6 Universities. And he is a noted expert in  
7 Broadband Connectivity in healthcare, especially  
8 up in East Texas which is a rural area of the  
9 State and is very familiar with a lot of the  
10 issues we face in both rural and urban areas.

11 And so, Mickey, I'm going to turn it over to you.  
12 Thank you.

13 MR. SLIMP: Okay. Thank you very  
14 much. It's a pleasure to be with everyone today  
15 and I'd like to thank the Commissioner and the  
16 law school for having our session here and  
17 pulling everything together for us. We're still  
18 pulling our panel together because of the  
19 shortened break, so -- so we'll be doing a little  
20 movement over the next few minutes.

21 But it's kind of exciting today for  
22 me. I've met a couple of the panelists so far



1 that I have wanted to meet for a number of years  
2 knowing what their programs are doing. And it's  
3 a big step. So with the size of us, it's hard  
4 for everyone to know each other, even though it's  
5 a small business in the state.

6 We have five panelists today. Laura  
7 Galbreath will be our first person, from the  
8 Substance Abuse and Mental Health Services  
9 Administration working with the Center for  
10 Integrated Health Solutions and the National  
11 Council for Behavioral Health.

12 Susan Rushing is with Burke Center out  
13 of Lufkin, Texas, working on rural telehealth and  
14 telepsychiatry. Timothy Elliot is a Professor at  
15 Texas A&M in the Department of Educational  
16 Psychology and also the Executive Director of the  
17 Texas A&M Telehealth Counseling Center.

18 Travis Hanson is an attorney and is  
19 the Executive Director of the West Texas Health  
20 Information Technology Regional Extension Center.  
21 He's affiliated with Texas Tech University, their  
22 Health Sciences Center.

1           And Yahya Shaikh is the Senior Advisor  
2           for Connected Health and Chair of the  
3           Connect2Health Task Force with the FCC.

4           So we're going to be moving pretty  
5           quickly and so I'm going to go directly to Laura  
6           who's talking to us remotely and have her share  
7           some of the things that she's doing.

8           MS. GALBREATH: Hi, good morning  
9           everyone. I'm really excited to give you a quick  
10          contact. We're focused on the integration of  
11          primary care and behavioral health. No matter  
12          where you present it, additional area of  
13          technology and broadband enabled solutions is  
14          just going to be critical. And so we're ---

15          MR. SLIMP: Laura, if I could  
16          interrupt. Your audio is clipping for us. Try  
17          speaking just a little slower and see if that  
18          helps at all.

19          MS. GALBREATH: Certainly. I think  
20          the opportunity at the federal level would -- you  
21          know, across federal agencies -- is going to make  
22          an impact on having more providers of technology.

1 But, what I want you to know is that the  
2 framework that we're using when we think about  
3 band-enabled or certainly part of the ---

4 MR. SLIMP: Laura, I'm going to  
5 interrupt one more time. To the audience, can  
6 you follow her well enough or is it too gappy?

7 THE AUDIENCE: It' too gappy. It's  
8 pretty gappy.

9 MR. SLIMP: Pretty gappy. Laura,  
10 we're going to take a break for a minute. I'm  
11 going to let our technical folks work on this for  
12 just a minute. It's a real good demonstration of  
13 why we need the FCC initiative on broadband,  
14 because this is definitely the issue that we have  
15 when we try to do telepsychiatric services in  
16 rural areas. And I guess that's a good start for  
17 me to bring mine up. Guys, if you'll go ahead  
18 and bring up the slides.

19 I'm going to talk about our project in  
20 East Texas. That is exactly what we see in East  
21 Texas when we try to do broadband. I've got a  
22 slide up there that you see just to give you a

1 little perspective of size when we talk about  
2 East Texas.

3 This is a wonderful slide that was  
4 shared with me by Dr. David Lakey, who is the  
5 Associate Vice Chancellor of UT Health -- Public  
6 Health program. And if you see New England  
7 there, basically minus Maine, it could fit in to  
8 what we're talking about with rural East Texas.

9 And it's an area much the same. It's  
10 a forested area. It's got a rural population  
11 that's spread fairly evenly across the area  
12 without that many major urban centers in it. So  
13 that's kind of the area that we're looking at.

14 If you look at the County of ranking  
15 for health outcomes, this is from a couple of  
16 years ago -- well, from one year ago -- and you  
17 look at the darker areas, meaning that health  
18 outcomes are poor in these locations.

19 And so this is an area where, even  
20 compared to Texas, you'll see a 65 percent higher  
21 suicide rate than in the rest of Texas. You've  
22 got an older population. The statement that was

1 made earlier about isolation being a greater  
2 killer than smoking really hits home here,  
3 because you have a lot of older adults having  
4 isolation.

5           You have a problem with education in  
6 this region, and the project that I'm on was  
7 actually built out of the education need that  
8 there is, actually, an aversion that's been  
9 identified in much of this region to higher  
10 education. Why? Because young people gain a  
11 higher -- college degree, they leave home and  
12 they isolate the family.

13           Mom and dad, grandmom, granddad are  
14 there to take care of themselves. No one wants  
15 to face old age that way. And so you see these  
16 problems in this region.

17           We have a number of issues. We're  
18 trying to do a network that was built upon  
19 microwave, and so 15 years ago we received a nice  
20 allocation from the state -- 20 plus million  
21 dollars -- to build a microwave system throughout  
22 east Texas. And it was to connect the major

1       universities -- major -- the regional  
2       universities here, and to connect the community  
3       colleges here and to provide services to those.

4               We built on top of that the East Texas  
5       Interactive Healthcare Network, which basically  
6       tied telephone based services, T1 lines, into  
7       these microwave systems to try and get services  
8       out there. We played with UTMB to do  
9       telemedicine services, with other groups to do  
10      this with various levels of success. Only in the  
11      past few years have we really started to see  
12      success in this region.

13              We had the Underlying Wireless network  
14      you see there. You're going to hear from the  
15      Burke Center here just in a minute. And what we  
16      have been able to do, and I am just so grateful  
17      to the FCC for this, because we're gaining about  
18      50 million dollars in subsidies, annually now to  
19      support both medical programs at the colleges and  
20      connectivity for rural psychiatric centers in our  
21      region.

22              Burke Center, you'll hear from in just

1 a minute. They are one of our first major  
2 deployments. And you see these areas that go  
3 from Jasper, Texas -- not that far from Houston.  
4 You really just get into rural outreach on the  
5 Texas/Louisiana border.

6 Going up to Lufkin, going over to  
7 little towns like Crockett, and in many cases our  
8 telepsychiatric unit there provided an anchor  
9 institution. It's the first fiber that's gone  
10 into those communities.

11 So it -- it's expensive. I'll see  
12 bills each month for that gigabit connection  
13 anywhere from \$30,000 to \$60,000. And the FCC  
14 program, of course, subsidizes that, so I pay  
15 what I would pay in Austin or Dallas which is  
16 absolutely wonderful.

17 Ideally, it's getting internet to  
18 those who communities and fibers to those  
19 communities, and it's being capitalized by those  
20 high end charges for the first five years. And  
21 so that's been a really nice thing. And you see  
22 the outreach there.

1           Our second project was a similar  
2 center called the Andrews Center that works  
3 outside of Tyler, Texas, going to about four  
4 rural counties around it. And it tied into -- we  
5 actually had a B-type grant, grant for those of  
6 you who know what that is. A stimulus grant in  
7 the northern part of our district, and it ties  
8 into that.

9           This is what our map looks like now  
10 and we're getting ready to add about 10 more  
11 sites going into northeast Texas this next year  
12 with Community Health Core, another group that's  
13 up that area. But that's the kind of help that  
14 we're getting. We've been working on a long  
15 range plan. We're doing leased services now, but  
16 I know that in the future that's not going to  
17 work for us.

18           You know, those of you who are in  
19 urban areas in Houston, you know that you need  
20 dark fiber. You need access to unlimited growth  
21 in the future, so we're trying to map out a plan  
22 to do that in our next round. We actually looked



1 at what we're spending. Now we're looking to be  
2 spending about 250 million dollars over the next  
3 10 years.

4 Well, we can build quite a network for  
5 about 125 to 150 million to serve the region and  
6 hopefully find commercial partners and other  
7 folks, business partners and non-profits to work  
8 with us in that. And that's the idea of the  
9 FCC's rural health program.

10 It's to build out that way, find key  
11 partners. A lot of FCC money is going to E-Rate  
12 which serves public schools. We've had an issue  
13 that we haven't been able to necessarily combine  
14 our health connections with our public school  
15 connections. And we've got to solve that. I'm  
16 hoping forums like this and our attorneys in the  
17 audience will help us to come up with good  
18 solutions like that.

19 But with that, I'm going to go ahead  
20 and wrap my section up. We'll come back to it,  
21 but I'm going to introduce Susan Rushing. Susan  
22 is the CEO of Burke, which manages exactly what

1 we're talking about today, psychiatric  
2 connections throughout a large rural swath about  
3 the size -- I don't know if it covers  
4 Massachusetts --

5 MS. RUSHING: Yes.

6 MR. SLIMP: But at least --

7 MS. RUSHING: And Rhode Island.

8 MR. SLIMP: And Rhode Island together.

9 So quite a section. Susan, go ahead.

10 MS. RUSHING: Thank you.

11 MR. SLIMP: And will one of you pass  
12 the baton down to Susan?

13 MS. RUSHING: Let's see if my slides  
14 are there.

15 MR. SLIMP: You've got to -- it's a  
16 new slide show.

17 MS. RUSHING: Well, let me go ahead  
18 while he's getting that up there. I'm with  
19 Burke. Mickey's talked a little bit about the  
20 connectivity that we have. But we serve a 12  
21 county area. It's 11,000 square miles, 400  
22 people, and as he mentioned, we are a health

1 shortage area in an area of the State that's  
2 older, and poorer, and less insured than Texas as  
3 a whole.

4 I want to tell you a story about how  
5 we have used technology to really be a game  
6 changer for us. We've used telemedicine since  
7 the year 2000 in order to extend our physicians  
8 and get them out from behind the windshield and  
9 in front of people and use their time better.

10 But about 2000 the last of the  
11 psychiatric beds that served our area closed.  
12 All health -- all the free standing psychiatric  
13 programs in our region went out of business.  
14 They couldn't make any money. It wasn't a  
15 business model that worked for us. So when those  
16 beds closed, we didn't have a place for people in  
17 crisis to go.

18 Go to 911, and after 911 you remember  
19 there was a -- sort of an economic downturn in  
20 the United States. Texas felt that hard. We had  
21 budget deficits. They cut our funding so we had  
22 to cut services. So that on top of a lack of

1 inpatient beds really created a problem for us.

2           The real turning point came in 2005  
3 when hurricane Katrina hit next door and we had  
4 people coming in to live in our area who had been  
5 traumatized. Within a month, hurricane Rita hit  
6 and we were victims of a disaster.

7           You can predict about six months after  
8 that the people were at their wits end. We saw a  
9 surge in the demand for crisis services in an  
10 area with no surge capacity whatsoever. And what  
11 happened was we inundated both law enforcement  
12 and our local hospitals with people who needed  
13 help, who needed psychiatric help and there was  
14 no appropriate place for them to go.

15           We had people boarding in the  
16 emergency rooms. We had people diverted to jail  
17 who were mentally ill. We reached out to our  
18 county governments, our local hospitals, we said  
19 the cavalry isn't coming to rescue us; we've got  
20 to figure out what we can do.

21           So what we had to do is to decide --  
22 since we knew that building a psych hospital

1 wasn't a sustainable model that had been proven  
2 in our area -- what would work? What would work  
3 for us?

4           What our stakeholders wanted was a  
5 place where people in crisis could go and get the  
6 help they need and get them out of the emergency  
7 room and let law enforcement return back to their  
8 home counties and do public safety things. So  
9 telemedicine was the answer for us.

10           And what we did, we reached out to JSA  
11 which was mentioned earlier, it's a telemed  
12 practice here, they specialize in emergency  
13 psychiatry and created the Mental Health  
14 Emergency Center in Lufkin, Texas, the first free  
15 standing rural emergency observation program for  
16 people who are in mental health crisis.

17           And the thing about it is, it is  
18 staffed 24/7 with psychiatry provided via  
19 tele-medicine. We have nursing staff; we have  
20 mental health professionals there.

21           But, we are able to see and treat 70  
22 percent of the folks who present in crisis to us

1 that we would have otherwise sought a psychiatric  
2 bed for successfully at this level of care. And  
3 we are diverting about 30 percent into  
4 psychiatric inpatient.

5 Mostly, these are people whose level  
6 of acuity is such that they need a secure setting  
7 or they have a co-morbid medical condition that  
8 requires their hospitalization for other reasons.  
9 So it's really worked effectively for us.

10 Here's a few statistics about it.  
11 Length at the stay is less than four days. We do  
12 follow up. And we've been able to divert --  
13 we've added with 1115 funding medical detox to  
14 that component. So -- so we've expanded what  
15 we're able to do.

16 Based on that, Burke has doubled down  
17 on our telemedicine. We've been using it for our  
18 psychiatric services, but we have been adding to  
19 that. You can see our trend lines for the use of  
20 telemedicine visits have gone up in the last few  
21 years.

22 And we have more plans. We are now in

1 additions for emergency serv -- in addition to  
2 our emergency services and our psychiatric staff,  
3 we are adding intake to our telemedicine offering  
4 so that we can do open access. If you need an  
5 appointment, show up at your area clinic. We  
6 will see you via teled and get an assessment  
7 done.

8 And we are also adding the first  
9 psychiatric visit to our teled offering so that  
10 can be -- we can move our wait for first doctor  
11 visit from four months to 10 days. So adding  
12 that has really been transformational for us.

13 We want to do more. We want to get  
14 outside the four walls of our center and add more  
15 home based services, but here's the rub. The  
16 folks that we serve don't have broadband. Many  
17 of them don't have smart phones; many of them  
18 don't have cell coverage. They don't have WiFi  
19 in their homes.

20 We can go out there and bring our MiFi  
21 devices, but if there's no coverage, we're sort  
22 of dead in the water with that. So that's a

1       problem for us. The other issue is the Texas --  
2       Texas Medical Board allows physicians to do a  
3       home visit for mental health, using the patient's  
4       home as a clinical setting. It's allowed, but  
5       it's not reimbursable. So those are some things  
6       that we need to -- to work on in order to make  
7       this move forward.

8                 We're starting a first episode  
9       psychosis project. This is addressing young  
10      people. I think the use of apps and online  
11      resources for them will be great. So we're  
12      looking forward to finding a suite of  
13      applications we can use with that population. So  
14      I'm going to wrap it up.

15                MR. SLIMP: Thank you, Susan. And  
16      Susan if you'll pass the baton down this  
17      direction to Tim. And let's give it another try  
18      and see if we have Laura back on the line now.  
19      And you can bring her up.

20                MS. GALBREATH: Hi, I'm dialing in on  
21      my cell. Is the audio better?

22                MR. SLIMP: Much better.



1 MS. GALBREATH: Great.

2 MR. SLIMP: Laura go ahead.

3 MS. GALBREATH: Do you want me to go  
4 ahead?

5 MS. RUSHING: Yes.

6 MR. SLIMP: Please.

7 MS. GALBREATH: Okay. So I'll make  
8 mine I think really quick. I think at a national  
9 level certainly we're really excited by the  
10 innovation that's happening across the country.  
11 I think that all agencies are coming together to  
12 develop tools to support stakeholders and  
13 providers and communities to do this good  
14 innovation and work that we're seeing good  
15 outcomes.

16 I think certainly there are unique  
17 challenges that we need to think about. A lot of  
18 the work that we're doing, I was saying is around  
19 the framework that we're kind of focused on is  
20 around, how do we support the delivery of care?

21 And thinking about the use of  
22 broadband-enabled health solutions for that

1 delivery of care. How do we support, kind of,  
2 what we call treatment extension or treatment  
3 extenders in using technology to help support  
4 self-management and then really assisting with  
5 care coordination.

6 And I think some of the -- just a  
7 couple of things to think about is when you think  
8 about the delivery of care, if we have some of  
9 this wonderful technology but we're also  
10 experiencing quite a -- a workforce shortage.

11 And so there are -- this is a  
12 wonderful tools to support that, but then we also  
13 have to think about what are the competencies and  
14 training for staff to be able to utilize these  
15 technologies? What is the appropriate mechanism  
16 given the clinical need? You know, is it  
17 emergency services as you're hearing from Burke  
18 that really kind of responded to that need that  
19 was in the community?

20 You know, and then, for -- as we think  
21 about engaging as a treatment extender around  
22 self-management, there's so much there around

1 providers that are concerned around, well, what  
2 -- what are the new ethical requirements and  
3 needs and questions are going to be coming up as  
4 we take advantage of the technologies?

5 How do we allow people some  
6 experimentation to support self-management and  
7 care coordination? But also knowing that, you  
8 know, we really want to think about what's  
9 responsible levels of care and safety. So these  
10 are questions that are coming up at kind of a  
11 provider level.

12 And certainly, how are we tying these  
13 technologies and resources into actual outcomes?  
14 I especially think when we think about  
15 self-management, we think about the proliferation  
16 of apps. And while there's certainly wonderful  
17 apps out there, well what's the evidence base  
18 that's been used to develop the app as it relates  
19 to clinical care? And then, certainly, what are  
20 the unique needs of the population being served?

21 Accessibility. We had a project where  
22 most of the folks had a cell phone, but they

1 didn't even have data plans. They weren't smart  
2 phones. They didn't have great cell coverage or  
3 limited minutes. Yet, they were really  
4 interested in how to use these tools.

5           And so, providers are being creative  
6 given some limitations. So I think, you know,  
7 certainly that the digital divide that we talk  
8 about with -- especially our -- our impoverished  
9 communities and our rural communities, it's  
10 really important to just acknowledge and how do  
11 we take advantage of these opportunities given  
12 that.

13           And then, just around care  
14 coordination I think there's some great efforts  
15 going on at a federal level to really support  
16 this. I think it's one of the biggest questions  
17 in confidentiality when we talk about the  
18 behavioral health. People want to know how are  
19 we protecting it, but also how is it with the  
20 current regulations around things like 42 CFR and  
21 HIPAA?

22           How is that a barrier to using the

1 technologies when it comes to mental health and  
2 addiction treatment? And so we are, you know,  
3 there are new guidelines in terms of stuff coming  
4 out for 42 CFR, but I think there are still many  
5 unanswered questions about how do we ensure that  
6 there's good processes in place for sharing  
7 information in that way.

8 Because through technology we could  
9 have malware, lots of things that could crop up  
10 that really make a lot of providers and  
11 stakeholders very risk-averse, if you would.

12 I just want to share one stat because  
13 I think we're hearing a lot about innovation. I  
14 think there's a lot more we can continue to do to  
15 educate and engage people around these wonderful  
16 opportunities. We did a Webinar and surveyed  
17 about 200 providers and asked them kind of when  
18 it comes to using health apps, in particularly,  
19 in care delivery, where were they?

20 Only seven percent said that they were  
21 actively using some kind of apps in technology as  
22 part of their -- in the healthcare setting. 10

1 percent said they were just getting jump-started.  
2 Almost half said that they were familiar but they  
3 really needed more information about how to make  
4 it happen.

5 And then 37 percent said that this was  
6 a completely brand new idea to them, that they  
7 had never thought about how do I use these  
8 technologies -- these wonderful innovations to  
9 support the care that we're providing.

10 So huge opportunities, certainly some  
11 barriers that we're trying to address at the  
12 federal level. And I'm going to stop there so we  
13 can get through the panel and have some  
14 interactive Q&A. But really looking forward to  
15 continuing this conversation.

16 MR. SLIMP: Thank you, Laura. I'll  
17 let you know that even in Texas we've trained our  
18 technology to have folks coming in learn to speak  
19 more slowly.

20 Tim -- Timothy Elliott, Dr. Elliott is  
21 with the Texas A&M Telehealth Counseling Center.  
22 We'll let you share what you have.

1           MR. ELLIOTT: Well, excuse me. Thank  
2 you. And thank you for inviting me to be here.  
3 For several years now we've been involved in the  
4 development of the Telehealth Counseling Clinic.  
5 You'll understand the name much better as we go  
6 along here.

7           But it was predicated on the notion  
8 that we have needs in the academic training  
9 environment that can address by -- by meeting  
10 those needs we can address some of the mental  
11 health disparities that we see in our  
12 communities. And specifically, we've been  
13 collaborating with colleagues in the School of  
14 Public Health to prepare our students and to work  
15 with local stakeholders in meeting these needs.

16           I think it's important -- we've heard  
17 the term health provider shortage area. What you  
18 see here is a map of Texas concerning mental  
19 health provider shortage areas. And we in Texas  
20 have over 67 percent of all licensed clinical  
21 psychologists in five metropolitan areas.

22           Ideally, this is probably we use the

1 term, but we use the numbers to reflect also what  
2 we would like to see in psychiatry; about one  
3 provider for about 30,000 individuals.

4 Throughout Texas outside these five  
5 metro areas there is one provider -- one  
6 psychologist for 86,000. And in the counties you  
7 see with diagonals there are counties without a  
8 licensed psychologist.

9 Incidentally, this was taken from the  
10 2014 report entitled Mental Health  
11 Shortages/Workforce Shortages in Texas that was  
12 given to the 83rd legislative session written by  
13 the Department of State Health Services. If you  
14 don't have that document, it's a very important  
15 document to have, let me know if you would like  
16 one from me.

17 In the Brazos Valley. all of our  
18 counties are mental health provider shortage  
19 areas. Brazos County has psychologists, but we  
20 don't have enough for the population that we  
21 have. What we do, however, working for the  
22 Center for Community Health and Development is



1       conduct health surveys throughout the -- the  
2       Valley.

3                 Dr. Jim Verdun has headed this center  
4       for many, many years. And that information has  
5       been spooled back to county leaders. So for many  
6       years, and as a matter of fact I think this goes  
7       back to the year 2001 or '02, that they have an  
8       assessment, an ongoing documentation of their  
9       needs based on the surveys that come back.

10                And from that, we know and county  
11       leaders know that mental health services are  
12       used. There are many barriers, of course, access  
13       is the greatest disparity, and individuals having  
14       problems with transportation back and forth to  
15       Bryan College Station.

16                But as you saw on the previous slide,  
17       we simply do not have doctoral level providers  
18       living in these areas, and frankly I don't think  
19       we're going to see any change in that anytime  
20       soon.

21                So using telecommunicative long  
22       distance technologies is certainly the wave of

1 the future for us to meet this need. But how do  
2 we go about doing this? We've been discussing --  
3 I don't want to criticize it as top down, but we  
4 work more from the ground up level.

5 So with the Center for Community  
6 Health and Development and local constituents and  
7 stakeholders, this information is spooled,  
8 discussed, and local solutions are then decided.  
9 This is a classic model in community psychology  
10 that certainly permeates much in through public  
11 health now. Working with local leaders -- and  
12 this would not happen without local leaders -- we  
13 go into each county, work with the data they  
14 have, what their needs are.

15 The first county to collaborate with  
16 us was Leon County, that's Centerville. For  
17 those of you who drive the interstate between  
18 here and Dallas, that's Woody's Smokehouse; the  
19 number one employer in Leon County. We know it  
20 well.

21 But we in the Counseling Psych program  
22 were identified as a potential solution to

1 provide services. And I credit Judge Ryder and  
2 his colleagues there in Leon County for getting  
3 the funds to build the Leon County -- building  
4 for the Leon County Resource Center.

5 We then, developed a -- from funds  
6 from HRSA using T1 lines, doctoral students under  
7 the supervision of licensed psychologists to  
8 start providing services throughout the week to  
9 individuals there.

10 We've been there since 2009, so most  
11 of the papers we've published and data we've  
12 published come from that site. I'll tell you  
13 more as we go along here, because we have since  
14 opened up -- that's how we first looked by the  
15 way. That young woman there was my doctoral  
16 student. She is now the Clinic Director and  
17 licensed psychologist of the TCC.

18 In 2013, Madison County was a little  
19 jealous and wanted their own telehealth service.  
20 We were able to procure another grant from HRSA.  
21 We opened up there and what you see here is again  
22 county officials, and colleagues, and students

1 who participated.

2           What we do includes routinely  
3 visiting with the site and with individuals who  
4 were there. Each site provides a space and  
5 there's some hookup fees involved. Most of the  
6 other costs now are covered by our 1115 Medicaid  
7 Waiver Project which permitted us to expand to  
8 Health For All, the low income clinic in Bryan,  
9 Texas.

10           But also to a facility provided by  
11 St. Joseph's Hospital in Navasota, over in Grimes  
12 County. And in a very unique partnership with  
13 Faith Mission in Brenham working with Washington  
14 County and, in fact, Judge Brieden's been one of  
15 our biggest supporters.

16           And what I think it's important for  
17 you to know here is, what some of our  
18 accomplishments have been. We are able to provide  
19 services both in English and Spanish. We've had  
20 to date over 4700 sessions, over 1900 sessions in  
21 the last calendar year. And to my knowledge, we  
22 are the only accredited doctoral training program

1 in psychology that operates its own  
2 telepsychology clinic that's led us to reports on  
3 outcome research.

4 We've also have had over 30 students  
5 train with us. Some now work as  
6 telepsychologists in the VA system, in the  
7 Department of Defense. Ours are the only  
8 students who were able to go out and say that  
9 they've had this experience. And that includes  
10 for some of them now, opening up their own  
11 private practice and providing telepsychology  
12 services.

13 Incidentally, we use the term  
14 telehealth because of stigma issues. We're in  
15 resource centers. We're in Faith Mission. The  
16 mental health issue even though we all know how  
17 much these costs are to counties, to taxpayers,  
18 and to -- to our local institutions. The issues  
19 are such that telehealth is a much better rubric  
20 for us to have and for people to feel more  
21 comfortable with.

22 Connectivity, you should know this

1 issue. I haven't heard this issue spoken. This  
2 is just a hard sell for county governments. We  
3 initially started with T1 lines, but with  
4 deregulation the costs became astronomical.  
5 Previously, we were working through at about  
6 \$1,000 of cost for each site, but we've had to go  
7 to Business Class.

8           Excuse me, we've had to go to Business  
9 Class because of these costs. Up to a thousandth  
10 percent and these counties could not afford these  
11 costs. So with Business Class, comes some other  
12 issues including the timeliness of paying the  
13 monthly bill. It's signed by each Executive  
14 Director. It has to be approved by a  
15 Commissioner's Court. Also issues with peak time  
16 including a slowed signal.

17           The other issue that we have faced in  
18 meeting our metrics. Just in general we can get  
19 the numbers, but we see chronically ill people.  
20 I want to impress upon you, when you are dealing  
21 with health shortage provider areas. We are  
22 working with people, the majority of our

1 clientele are women. Then we have a lot of  
2 people who have been in the mental health and the  
3 mental retardation system for a long time  
4 particularly for chronic schizophrenia or  
5 bipolar.

6           These individuals do not necessarily  
7 respond well to treatment even though we see a  
8 reduction in depression over four sessions.

9 There problems are chronic, lifelong, and they  
10 have many co-morbid health conditions. And what  
11 we've seen in our outcome research is that those  
12 with more health conditions, pain, diabetes,  
13 hypertension problems, others, they are the ones  
14 who become more problematic in response to  
15 treatment over time.

16           It's also very difficult for us to  
17 think about evidenced based treatments when you  
18 have several co-occurring problems all at once.  
19 And so we think in terms of lifestyle management,  
20 life skills management, in addition to treating  
21 the presenting problem.

22           My times up. That's about as fast as

1 I could talk, you all. Thank you.

2 MR. SLIMP: If you'll pass that to  
3 Travis.

4 MR. ELLIOTT: And so, now we're going  
5 to keep going west back out to Texas Tech  
6 University. Travis is going to share some  
7 information from the Regional Extension Center  
8 there.

9 MR. HANSON: Thank you. I'm with  
10 Texas Tech University Health Sciences Center.  
11 One of the programs that I run is the West Texas  
12 HIT REC. The project is the Innovative  
13 Healthcare Transformation Division and it  
14 includes all of our Health IT programs, including  
15 telemedicine.

16 I don't think there is any slides that  
17 are up for this, but, I can talk about some of  
18 the projects that we do, mainly the ones that  
19 relate to mental health. We do have the  
20 Telehealth Resource Center that Brian Henry spoke  
21 about, about an hour ago. That's one of 12  
22 telehealth resource centers in the country and



1 that covers Texas and Louisiana and that's for  
2 education and outreach.

3 We host correctional managed care  
4 contracts and telepsychiatry contracts where we  
5 help keep prisoners in prison while they are  
6 being treated rather than being transported to  
7 the hospital, which cuts down on cost and on the  
8 safety of those who are working with them.

9 The main project that I'm going to  
10 talk about is the Telemedicine Wellness  
11 Intervention Triage and Referral Project. This  
12 is funded by the Governor's office Criminal  
13 Justice Planning department.

14 And the main focus of this -- and I'm  
15 just going to forward to -- I'll start with the  
16 map. We do cover the 108 westernmost counties of  
17 Texas. However, for this project, we're focused  
18 on these rural areas; these are cities that are  
19 outside of the bigger cities if you can call them  
20 big cities in west Texas.

21 But they focus around Lubbock mostly.  
22 Because that's what our funding was for. And

1 what this does, it allows our project to focus on  
2 junior and high school students who are in  
3 school, who are exhibiting dangerous or violent  
4 behavior to themselves or to other people that is  
5 somewhat of immediate threat to themselves or the  
6 school safety or the people there.

7 And they contact us after we train  
8 them. The school systems are all trained by our  
9 psychiatry services and by our licensed -- by our  
10 LPCs, our Licensed Professional Counselors.

11 When you have a student that exhibits  
12 this behavior, they call us, we go out there --  
13 our LPCs go out there on site and counsel with  
14 the student with the parent there, and ascertain  
15 whether or not additional treatment is necessary.

16 And the first year we had 47  
17 referrals. The second year, we had 35 referrals  
18 and this year, we've only had about 25 referrals,  
19 which has been good. So it's gone down, we've  
20 see the trend go down, but we haven't added more  
21 school districts and the need is there.

22 And the good thing about this project

1 is, it's getting these students that have a  
2 immediate problem and they're deemed dangerous  
3 and we're able to get them assistance with their  
4 mental health issues.

5 And that's when we do help, is when  
6 it's mental health, if it's not, then we call the  
7 criminal justice system. They take care of the  
8 child -- we'll call their parent and the take  
9 care of the child.

10 But, what's good about it is, we're  
11 able to triage them on site of our telemedicine  
12 capabilities where we link up to Texas Tech and  
13 get a psychiatrist on the line at the moment that  
14 the student is with the LPC.

15 And at that point, our psychiatrist is  
16 able to ascertain whether or not more treatment  
17 is necessary, where a referral is needed to be  
18 made to the primary care provider, or if the  
19 child actually need to be removed from school and  
20 taken to a hospital or somewhere else to get them  
21 the help that they need.

22 And we've seen a trend over the last

1 few years that we've been doing this, is that  
2 students that are a part of this program -- first  
3 of all, their getting the help they need and not  
4 just getting a citation or an arrest or something  
5 that's not really going to be there to help them  
6 long term. And their actually seeing progress  
7 and several of them have been reintroduced back  
8 in school and are doing well. So that's good to  
9 know. And we hope and we think that we have been  
10 also able to prevent dangerous situations from  
11 occurring at school by identifying these problems  
12 as they occur.

13 And our referral process looks a  
14 little bit like this. First of all, before we  
15 get to this point, we train -- we go on site and  
16 train the school districts. We're in 10  
17 different independent school districts within  
18 rural west Texas.

19 We train the staff to know what to  
20 look for because sometimes kids are just going to  
21 be -- have a behavioral problem, it's not  
22 necessary that we need to triage them for

1 immediate harm to themselves or somebody else.  
2 So they're trained to know what to look for. And  
3 when that happens, a referral is made to us, like  
4 I said, and then we do the assessment.

5 And a lot of them are triaged by our  
6 psychiatrist and it's been a good program. Our  
7 psychiatrist is loving the program. The problem  
8 with this project in west Texas is, there is not  
9 a lot of child and adolescence psychiatrists in  
10 the area. There's actually a shortage of them.  
11 And that's been a problem because the Governor's  
12 office wants to expand this program and we have  
13 the availability to expand this program to many  
14 more west Texas cities, but we need to make sure  
15 that the psychiatry is there and available. And  
16 we also need to make sure the connections are  
17 there.

18 We haven't had any huge roadblocks  
19 with broadband. We've had slow broadband. We've  
20 had some choppy connections, but for the most  
21 part, a telepsychiatry visit is pretty simple.  
22 It's a laptop, it's a web cam, it's a microphone

1 and the connection to Texas Tech is strong. So  
2 there isn't any issue there.

3 But for the rural cities that are  
4 outside of the more urban areas that we identify,  
5 that might not be the case. We have tested it a  
6 little bit in the field, speaking like way up  
7 north and towards the border of New Mexico where  
8 there's a need. It's not as strong.

9 So this is a good conference to  
10 identify that it is needed and I appreciate the  
11 time to be here to discuss these issues. So  
12 thank you.

13 MR. SLIMP: Thank you, Travis. And  
14 now to finish us up, my bookend, on the other  
15 side of the panel, Yahya Shaikh, is the senior  
16 advisor for Connected Health with the FCC. And  
17 Dr. Shaikh, if you will.

18 DR. SHAIKH: Well, thank you so much  
19 for everybody being here. And thank you to the  
20 University of Houston for hosting us and being a  
21 collaborator in this forum. So it's been really  
22 gratifying seeing and hearing about all the

1 different tele-site programs that have been  
2 happening across Texas.

3 One of the things that I want to  
4 mention is, when we think about mental health and  
5 behavioral health, it has a unique position in  
6 relation to broadband and health. So we can  
7 think about, for example, chronic conditions and  
8 we can think about surgical conditions, but,  
9 mental health is unique, and I'll tell you why.

10 So mental illness, if you consider  
11 what mental illness is, and if there is a  
12 psychiatrist here. If you think about what  
13 mental -- including what assessing mental health  
14 -- treating mental health. What it is is,  
15 basically, an external manifestation of some  
16 internal state that an individual has.

17 If you look at how the information age  
18 has progressed through connectivity, when you  
19 think about the benefit through the internet, I  
20 don't think that there is any other discipline in  
21 medicine that have benefited more passively than  
22 psychiatrist.

1           I'll tell you what, if you look at  
2           what Google does, if you go to Google right now  
3           and you type in a search term, right? It can try  
4           to predict your intent and it can serve up  
5           results based on what they think your intent is.

6           If you look at what Amazon is putting  
7           out, for example, its AI, Alexa, where you can  
8           communicate. You look at Microsoft Cortana. You  
9           look at Google Smart Home, right? Their entire  
10          machine algorithms are based on predicting and  
11          understanding what the person wants. And serving  
12          up what that individual wants in relation to  
13          other individuals.

14          If you go to Netflix, and if you go to  
15          Ebay or even Amazon store, and you try to buy  
16          something, once you purchase it, it will suggest  
17          the next item that you might want to suggest. It  
18          predicts -- tries to predict your behavior. And  
19          it suggests what you want before you might even  
20          want it, right?

21          So if you think about how these are  
22          actually an attempt to understand the internal



1 states of individuals, we see that the private  
2 sector has been engaging in the psychiatry model  
3 and the mental health model in a very profit-  
4 driven way.

5 But then, if you think about how that  
6 data and how that connectivity is informing their  
7 business models, we see that there's something  
8 really powerful there. And I want us to be able  
9 to think about connectivity and mental health  
10 beyond virtualization of physical services.

11 If we can think about, for example,  
12 sensors and devices in a connected environment,  
13 those are actually possibilities to expand  
14 therapeutic options and diagnostic abilities.

15 For example, in psychiatry, if you're  
16 going to treat a person for schizophrenia or  
17 psychoses, you do have to follow up in order to  
18 see how the conditions are. How they set  
19 symptoms, do they have ratcheting or do they have  
20 -- are they responding appropriately to the  
21 treatment that you prescribed them, right?

22 Well, there are sensors now that can

1 actually detect movement disorders that can be  
2 deployed inside the home. In fact, your  
3 smartphone can be used to detect Parkinson's  
4 symptoms.

5 A smartphone can be used to detect  
6 ratcheting. And not only the sensors be  
7 deployed, but the device within a connected  
8 environment can feed back to a person in order to  
9 improve their symptoms.

10 For example, the Commissioner eluded  
11 to an application that I think the VA was  
12 developing. Where if there was a person that was  
13 having a substance abuse issue and they want to  
14 be able to, for example, avoid triggers in their  
15 environment, for example, going to bars that they  
16 typically frequent, then what that would -- what  
17 this particular app would do, is you record a  
18 message prior to your engagement to the app  
19 saying why you think that app is not -- why you  
20 shouldn't be engaging in that behavior.

21 For example, you can say, "I really  
22 want to break this habit, because I hate the look

1 in my little girl's eye when I come home all  
2 drunk." And that uses geo-location technology so  
3 that when you are about to approach a bar that  
4 you normally frequent, because you have a -- the  
5 geo-location of all the other bars in the town.

6 If it detects that you are about to  
7 approach a bar, then that app that you had  
8 engaged in, it will automatically kick in that  
9 reminder in your own voice. So it's a very  
10 powerful enforcer of what you want to be able to  
11 do in your intentions.

12 Data had the ability in a connected  
13 environment to personalize care. So if you think  
14 about depression, not everybody responds to  
15 therapy in the same way. There are some folks  
16 that respond to medication in addition to  
17 additional therapy.

18 And not only does data in a connected  
19 environment of personalized care, but it  
20 contextualizes care. So for example, folks who  
21 have PTSD within the VA environment, what are the  
22 triggers in their communities that might -- what

1 are the time frames, what are the holidays or  
2 what are the days and months that are  
3 anniversaries, perhaps, a platoon having -- you  
4 being the sole survivor of an event that happened  
5 to your platoon?

6 So these are things that data can help  
7 you detect, in terms of care. So what I would  
8 encourage us to do, because my time is almost up.  
9 What I encourage us to do is move beyond the  
10 paradigm of virtualizing physical services.

11 But imagine a model within a connected  
12 environment. What would it look like if we have  
13 sensors that are already deployed? Or devices  
14 that are already deployed or data that can inform  
15 us? And think about how other companies are  
16 pushing their models forward using these kind of  
17 technology-enabled services.

18 MR. SLIMP: Thank you very much. And  
19 let's give a round of applause for Dr. Shaikh.

20 COMMISSIONER CLYBURN: Well done.

21 MR. SLIMP: We would like to open this  
22 up for questions from the audience. Roger, I

1 don't know if we have any coming in from our  
2 online, too, but we may have some you can share  
3 in that direction. I saw a question, I thought,  
4 from up in this corner.

5 Okay. Well, our audience did quite  
6 well and our panelist did quite well. I wanted  
7 to comment, I saw an article on Time Magazine,  
8 it had on the cover the coming of robotic cars.  
9 And my first thought is, how are those going to  
10 perform in rural Texas.

11 And I thought about, really, how there  
12 is an alignment here, because, we're going to  
13 have to saturate the nation with broadband. We  
14 will not be able to have empty gaps in 10 years.  
15 And rural health is exactly the same way.

16 If we're going to serve the needs of  
17 the population across the country, we're going to  
18 have to saturate areas like we did with rural  
19 electricity 60 years ago. And make sure that  
20 broadband, not just minimal broadband like we're  
21 talking about reaching with a T1 line or just a  
22 couple of kilobytes. But we're going to have to

1 have significant connectivity.

2 Not only to every house, but just  
3 about to ever pine tree in every corner of the  
4 road in the country. So thank you all for being  
5 a part of this today and sharing with us and  
6 thank you to our host and I think it's about  
7 lunch time.

8 MS. WINNIKE: Thank you so much to our  
9 panel this was a really wonderful discussion.  
10 And before we break for lunch, we have one extra  
11 interactive demonstration for you. And I would  
12 like to bring up Professor Ron Scott to do the  
13 introduction for our virtual demo. And thank you  
14 Laura, you can disconnect. Thank you.

15 DR. SCOTT: Hopefully we will soon  
16 have Dr. Henry Chung on the screen. Dr. Chung is  
17 Vice President of Care Management Organization of  
18 Montefiore Medical Center and associate professor  
19 of Clinical Psychiatry at the Albert Einstein  
20 College of Medicine.

21 Well, while they are bring him up, in  
22 that role, he provides medical leadership for

1 care management activities for over 300,000  
2 patients in value based programs. More  
3 importantly today, he's strategic medical advisor  
4 for a company or an organization called Big White  
5 Wall.

6 Big White Wall is an innovative on  
7 line early intervention service for people in  
8 psychological distress that can be accessed  
9 through an app -- a smartphone app or through an  
10 internet browser. I have it downloaded on my  
11 phone, but, unfortunately, I don't have the code  
12 that allows me to get into access it fully.

13 Dr. Chung, welcome. I just started  
14 your introduction. And today, he's going to talk  
15 to us about the in-roads that Big White Wall is  
16 making in meeting the mental health needs of  
17 Texans through connected technologies.

18 Dr. Chung, I assure you I gave you a  
19 sterling introduction. So welcome to our  
20 program.

21 Can you hear us?

22 DR. CHUNG: Hello?

1 DR. SCOTT: Dr. Chung, I was just  
2 saying, I gave you a sterling introduction which,  
3 unfortunately, you missed. But we welcome you to  
4 our conference and look forward to what you have  
5 to say today.

6 DR. CHUNG: I appreciate the great  
7 intro even though I didn't hear it. And I  
8 apologize to all of you for not being there with  
9 you. I had injured my foot unfortunately, and  
10 I'm in a cast. I would show it to you to prove  
11 it to you that I'm actually in one.

12 It would actually cause me to fall  
13 back on my chair, so I'm not going to do that.

14 Let me go ahead and try to pull up my  
15 slides and see if I can get my slide set going.  
16 Can everybody see my slide at this point?

17 Okay. Hold on. I'm going to have to  
18 do this. Is it showing? So let me go back to  
19 functionality as provided. All right. And now  
20 I'm going to go to my presentation.

21 Okay. How is that?

22 UNIDENTIFIED MALE: Good.



1 DR. CHUNG: Okay. Great. So let me  
2 just -- first of all, I know I'm between you and  
3 lunch, so I'm going to have to be very very  
4 precise. But I just want to extend my  
5 appreciation to the FCC and the organizers. I  
6 know that when I was approached by the FCC, I was  
7 really presently shocked to hear about the FCC's  
8 interest in health care.

9 And I think that this is incredibly  
10 timely. And I'll talk to you about a program I'm  
11 involved in where I'm the strategically medical  
12 advisor, called Big White Wall. And I'll show  
13 you some slides. I won't be able to do a full  
14 virtual demo because it's a lot of private  
15 information.

16 I'm just going to give you some flavor  
17 of how marshaling the support of a peer community  
18 can really help improve people behavioral health  
19 symptoms. So the product is called Big White  
20 Wall. And it's been available in the United  
21 Kingdom for about five years.

22 Only in the last couple of years in

1 the United Kingdom, it's really taken off. Such  
2 that, it's broadly available to about one quarter  
3 of the United Kingdom population.

4 Here in the U.S., the Big White Wall  
5 decided to come to the U.S. and tried to  
6 implement this product in the big market which is  
7 significantly more complicated. I'm sure many of  
8 the previous speakers have talked about some of  
9 the challenges related to the U.S. marketplace as  
10 it relates to these types of virtual solutions.  
11 But let me go through, kind of, what this offers  
12 and we can talk about some of the challenges  
13 during the Q&A period.

14 So the Big White Wall is a --  
15 literally, a virtual wall that is designed to  
16 allow patients and customers and consumers who  
17 have mental health-related needs to come on  
18 virtually at any time 24/7 to get support from  
19 peers, fellow consumers, in a moderated --  
20 clinically moderated format. Now, that's very  
21 important.

22 When I say clinically moderated, what

1 I mean is that, unlike say, a lot of blogs and  
2 Facebook communities where you don't have  
3 clinical moderation and you could have really  
4 unfortunate situations where people are, perhaps,  
5 giving people inappropriate advice or trolling or  
6 abusing or bullying, all of those kinds of  
7 situations. That does not happen when you have  
8 clinically trained monitors who are supporting  
9 the conversation, as well as helping people one  
10 on one who are really in a lot of trouble.

11 So the wall provides validated health  
12 assessments, the PA29 and GAD7. PA29 is for  
13 depression and GAD for anxiety. It allows, as I  
14 said, for people to connect to other community  
15 members, either as a group or one on one.

16 It allows people to use what we call  
17 "useful stuff," which is curated materials for  
18 behavioral health. As I said before, it's part  
19 of a peer community, which I'll show you some  
20 samples of.

21 The Big White Wall fundamentally is  
22 unique in the sense that it allows creative

1 expression. There are people, many people, who  
2 prefer to express themselves in artistic ways or  
3 in what we call bricks, and I'll show you some  
4 examples of that. And that can foster a  
5 dialogue.

6 And then you can take courses, which  
7 are organized along the lines of clinical --  
8 cognitive behavioral therapy so that people  
9 really get evidence-based exposure to depression  
10 management or insomnia care, which they can do on  
11 their own, usually with a group of people working  
12 with them.

13 Let me go into what this is all about.  
14 We're going to use some terms here that's unique  
15 to the Big White Wall community. Talk about some  
16 online discussions, so that's just simply a  
17 British term that we carried into the U.S.

18 It's the online discussions that can  
19 occur openly in the community, or they can occur  
20 as part of a closed group, or they can occur one-  
21 on-one with individuals or with our wall monitor  
22 or a wall guide.

1           Our support network allows people to  
2 do creative art and writing therapies, as well as  
3 mood tracking, tracking of mood, as well as  
4 setting goals for themselves in terms of their  
5 level of improvement in what they'd like to shoot  
6 for in any form.

7           Useful stuff, again, is the patient's  
8 educational materials, which includes validated  
9 self assessments. Many insurance plans really  
10 want this type of information. It helps them  
11 with their quality metric. And then guided  
12 support as I talk about is sort of asynchronous  
13 courses that people can do on a two to six week  
14 basis, usually with the support of a wall guide  
15 or a monitor, as well as the support of other  
16 peers who are going through the course at the  
17 same time.

18           Here is a login screen. We've  
19 recently improved this. But this is literally  
20 the screen that we had last month that's now been  
21 redone. But this is what people enter into when  
22 they get into Big White Wall. Currently, in the

1 U.S., it's a paid subscription, usually provided  
2 by a sponsoring health plan or a sponsoring  
3 provider. That's the typical model in the U.S.

4 And this is the homepage. This is  
5 going to be a glimpse at how people can  
6 personalize that. The homepage allows people to  
7 create things that they are interested in. So  
8 they can decide what kinds of topics they're  
9 interested in, what kind of threads they would  
10 like to follow. They can document what their  
11 mood is at any point in time that they log on.  
12 And this can be to share with people on the wall,  
13 in terms of what their mood is. If they don't  
14 want to put words to it, people can support one  
15 another.

16 Like Facebook, they can create a  
17 public profile for themselves. But what is key  
18 here is the anonymity piece. I should really  
19 talk about that for a second. Everyone who comes  
20 into the Big White Wall creates an anonymous  
21 identity. This person is called Trinity3. It's  
22 an anonymous identity.

1           And the reason we do that is because  
2           it lowers stigma. People don't know who the  
3           actual people are that they're interacting with.  
4           They can describe themselves. But we tell  
5           consumers as part of the house rules that they  
6           are not supposed to reveal any identifying  
7           information like where they live, what region of  
8           the country they're in. Anything that could lead  
9           someone to look them up, do a Google search or  
10          something along those lines.

11           We think that protects everyone. It  
12          also allows a level of spontaneity and a level of  
13          discussion at an extremely high level. And here  
14          on the bottom of this screen or in the middle of  
15          the screen, we have bricks.

16           These are, again, artistic works that  
17          people can do or write into. It really briefly  
18          expresses what people are thinking and talking  
19          about. And people can choose to respond to these  
20          bricks any time as part of an online discussion.

21           Or if they don't want to do a brick,  
22          they can just post an online discussion and not

1 do anything artistic. So it really allows a lot  
2 of room for people to utilize the platform.

3 This is an additional sort of level of  
4 personalization. As part of registration, people  
5 can talk about what kind of topics they're  
6 interested in. And they can change that at any  
7 time.

8 By doing this, they can then get  
9 materials provided to them, bricks that are  
10 related to these topics or online postings that  
11 are related to these topics. And they can  
12 quickly look at what they want to read or learn  
13 about or respond to.

14 And again, I think this is very  
15 unique. We're really talking about marshaling  
16 the power of peer support in a virtual way. We  
17 know that peer support works. It's evidence-  
18 based. But it's very, very hard to scale. This  
19 allows a scaling of something we know that is  
20 evidence-based, but also provides a lot of  
21 benefits.

22 Like here are some sample bricks, Big



1 White Wall bricks. The wall really comes from  
2 the notion that people have a blank canvas, and  
3 they can use that blank canvas to create a new  
4 reality that hopefully is more positive, but also  
5 if not positive, they can get help in terms of  
6 sharing their feelings.

7 This is one example here, if you can  
8 read that. It says, "Can you find hope with a  
9 bleeding heart?" And a photo here of some  
10 flowers. It looks like it's partially frozen.  
11 You know, really sort of -- really quite  
12 poignant, if you think about it. And the wall is  
13 full of these kinds bricks and artistic work.

14 This one is a photograph here from  
15 another wall. It says it will all be okay. And  
16 it's expressing something that folks are feeling.

17 These are probably a little bit more  
18 disturbing. This is one of a person who is --  
19 who is potentially demonstrating that on a day-to  
20 day-basis they're putting a positive effort and  
21 spin on their day-to-day activities, but in the  
22 inside it feels like something deathly would like

1 to emerge. A little bit more disturbing,  
2 provoking a lot of comments from fellow peers.

3 In this one, this person is struggling  
4 with smoking and tobacco use. We have other  
5 images that relate to alcohol use and substance  
6 use. I'll just give you a sense of the type of  
7 material that people are very honest about.

8 Moving on quickly, this is the talk  
9 about. This is online postings. And this is one  
10 example of a talk about. And if you scroll from  
11 the bottom here, this person posted originally  
12 and said, "I've been away from the wall for some  
13 time. Things have been going pretty well, but  
14 today I feel slammed. So I've decided to  
15 reconnect with the community."

16 And then, very quickly, if you have a  
17 robust community, people are coming on board,  
18 reading things and hopefully supporting one  
19 another.

20 When people are not supporting one  
21 another, our wall guides and our wall monitors  
22 intervene to try to keep the momentum going so

1 that people don't feel alone. That's really the  
2 key thing. We don't ever want members who post  
3 something to feel alone.

4 This is an example of an assessment,  
5 the PHQ-9. They've taken a PHQ-9 test. It's a  
6 maximum score of 27. High scores represent a  
7 high level of depression. They took the test on  
8 the face, and then we provide them some automated  
9 advice, given their level of scoring what they  
10 might want to do. And then at the same time we  
11 also provide them with resources based on their  
12 score.

13 So the idea is, look, if you're really  
14 scoring, as this person is, very high for  
15 depression symptoms, we want them to utilize the  
16 resources on the platform but also to recognize  
17 that they may need to seek help professionally.

18 Now, I mentioned the wall guides.  
19 Wall guides are very active from the standpoint  
20 of governance of this. And again, many of you  
21 have looked at blogs and looked at where people  
22 post things, you recognize some of the obscene

1        comments and some of the negative energy that can  
2        occur. We really don't want that to happen on  
3        the Big White Wall.

4                And so wall guides, who are clinically  
5        trained, really moderate any content that is, we  
6        feel, triggering to the community or could really  
7        provide more harm. So we can remove content and  
8        let people know why we're removing the content.

9                We can support and encourage members  
10       and keep the conversation threads going with some  
11       clinical observations, but we're not doing  
12       clinical treatment. We're providing clinical  
13       observations to help the members to help  
14       themselves. We're trying to foster a sense of  
15       independence and autonomy.

16                Although folks are in this virtual  
17       community, remember they have real lives to live  
18       outside of the community. So these are not  
19       avatars. We want them to go outside and to try  
20       new skills and to really practice the things that  
21       they're learning and to use the advice that peers  
22       are giving them.

1                   And we also have the wall guides  
2                   facilitate some of the online courses. But most  
3                   of all, what we do is we assess member risk.  
4                   There are people that come onto the wall who are  
5                   suicidal. There are members that come onto the  
6                   wall who are really, really struggling with  
7                   impulses.

8                   And here our wall guides intervene  
9                   very much in a one on one way and try to get them  
10                  to use the resources on the wall and then also  
11                  try to get them support, life line support, if  
12                  it's really necessary, escalate them to a 24/7  
13                  resource like the National Suicide Prevention  
14                  Hotline. This is incredibly important in terms  
15                  of the work we do.

16                  This is an example of the PHQ-9 scale.  
17                  Let me just do a quick time check here. Okay.  
18                  This is a PHQ-9 scale. This should be familiar  
19                  for any of you who are doing work in the  
20                  behavioral health arena. These are the symptoms  
21                  of depression. And people rate how often they're  
22                  feeling these symptoms over the past two weeks.

1           A score of ten or more indicates some  
2 level of abnormality. And a score of fifteen or  
3 greater would indicate clinical levels, where  
4 most professionals would say someone should get  
5 themselves into some form of treatment.

6           Now, why do I bring that up? We've  
7 done some interesting studies around word  
8 analysis and we want to -- we've been able to  
9 demonstrate that we can actually predict a level  
10 of depression severity based on words alone.

11           So if someone doesn't take the test,  
12 because only a third of our community members  
13 take the PHQ-9 test, but you'd like to assess how  
14 severe people are, we can actually design a  
15 computer algorithm based on the number of words  
16 that people are posting, either on bricks or with  
17 the online postings.

18           And if they write roughly 20 words or  
19 more, we can predict whether someone's postings  
20 indicate severe levels of depression with an AUC,  
21 or an area under the curve score of .87, which is  
22 quite good at discriminating whether someone has

1 severe depression or not, based on scores alone.

2 Which is really, kind of the way I'm  
3 sure other vendors and other folks are doing on  
4 virtual platforms now, which is looking at how  
5 you detect depression without having to go  
6 through validated scales. A tremendous  
7 advantage.

8 Now, these are some obvious words  
9 pairs that connote high PHQ-9 scores, just to  
10 give you an example of the kind of words that  
11 come up in posts that connote high PHQ-9 scores.  
12 They seem somewhat obvious, but when you have  
13 lots and lots of people writing content, you  
14 can't review -- no wall guide can possibly review  
15 who has severe depression and who doesn't.

16 So the use of these computerized  
17 algorithms are very helpful to getting our wall  
18 guides to have on their dashboard the writings  
19 and postings of people they need to focus on and  
20 to help right away.

21 This shows you a bit about the power  
22 of virtual platforms. This is time of day usage.

1 And we were able to look at people who have  
2 severe PHQ-9 scores in the -- using the  
3 methodology I've just described.

4 And what we've been able to show is  
5 that people who have severe depression symptoms  
6 here in the blue, many of them start to come on  
7 in the evening hours and in the wee hours of the  
8 dawn, when they are the least likely to get  
9 support.

10 So in our view, this is a tremendous  
11 benefit for consumers because they can come onto  
12 the wall, and they can get access. And our wall  
13 guides are able to respond to their needs. And  
14 this makes sense. When you're clinically  
15 depressed, you're likely to have trouble  
16 sleeping.

17 And when you feel the most vulnerable,  
18 who are you going to reach out to? Your  
19 professional is not available to you. Only the  
20 ERs or some kind of suicide hotline. This  
21 provides an alternative.

22 Here are some key findings. As I



1 mentioned, a vast majority of logins occur  
2 outside of the usual business hours. That is one  
3 of the key features of having virtual online  
4 access, which is that people can get home. And  
5 when they need support, that's when this is  
6 available to them.

7           As I said before, many people post  
8 content after midnight. We have found, based on  
9 member self report, that 48 percent of people  
10 joining Big White Wall had not received any  
11 mental health treatment in the month prior to  
12 joining Big White Wall. So about half are in  
13 mental health treatment, and half are not.

14           And a whole set of people report  
15 sharing an issue for the very first time on Big  
16 White Wall, which shows that the anonymity  
17 combined with the 24/7 access really does allow  
18 people to share very, very personal things:  
19 issues of abuse, issues of trauma that they might  
20 not have revealed to anyone else, including a  
21 mental health professional.

22           We have had some relatively good

1 outcomes, certainly for those patients that take  
2 cognitive behavioral type courses. We can lower  
3 their PHQ scores significantly.

4 Based on self report in the UK,  
5 patients say that they are able to avoid using  
6 services because of the Big White Wall. These  
7 are not by our own analyses. These are just  
8 patient perceptions of what they might not have  
9 utilized.

10 They also report reduced absenteeism  
11 as a result of using the Big White Wall. They  
12 improve productivity. Now again all the usual  
13 caveats of patient self reported data as opposed  
14 to data that is validated claims or attendance  
15 records.

16 Seventy percent report at least one  
17 well-being improvement as a result of the use of  
18 the Big White Well. As you can imagine, the vast  
19 majority will say it's reduced isolation, but  
20 also improved coping skills with strategies,  
21 achieving new insights and so on and so forth.

22 The bottom line here, I think, is it

1 just really shows the power of what virtual  
2 platforms can do. But combined with the power of  
3 a peer community, I do think that all of us  
4 believe that when you communicate with people  
5 with lived experience, there is a higher level of  
6 empathy than even meeting with mental health  
7 professionals.

8 And that's really the piece of the  
9 dimension that is so missing from mental health  
10 treatment and behavioral health treatment.

11 In terms of here in the U.S., what the  
12 company is trying to market to, health plans and  
13 systems are a key customer. Employers, hopefully  
14 they get augmentation to PAT. And then also  
15 directly the providers. Many providers are  
16 taking on more financial risk, with all the  
17 Medicare changes and commercial changes. So  
18 providers now are beginning to recognize that  
19 adding behavioral health services improves  
20 behavioral quality and may improve their bottom  
21 line.

22 This is my final slide so we can get

1 to the discussion period. But the bottom line  
2 here is that Big White Wall offers something very  
3 unique, certainly in the U.K. And what they're  
4 trying to do is bring this model to the U.S.  
5 We've had some early experience. I can tell you  
6 that the U.S. market is a lot more complicated,  
7 and also because of the heterogeneity of the  
8 patient population in the U.S., there are, I  
9 would say, certain challenges that we need to  
10 continue to work through.

11 So with that, I want to thank you for  
12 your attention and turn right to discussion  
13 period. Thank you.

14 DR. SCOTT: Thank you.

15 (Applause.)

16 DR. SCOTT: Looks like we will have  
17 time for a few questions. You have a microphone  
18 so let's have a couple. Over here we have a  
19 question.

20 MS. APPLEBEE: Janet Applebee,  
21 Northeast Houston. Are there any U.S. insurance  
22 companies or other reimbursement providers that

1 are currently providing Big White Wall for  
2 clients in the U.S.?

3 DR. SCOTT: Could you hear the  
4 question?

5 DR. CHUNG: Could you repeat the  
6 question? I heard something about clients in the  
7 U.S.

8 MS. APPLEBEE: Any U.S. insurance  
9 providers or reimbursement agencies that are  
10 providing Big White Wall for clients in the U.S.?

11 DR. CHUNG: Okay. Yes. So right now,  
12 we have an active contract with Kaiser Permanente  
13 in the Oregon region. And also a new contract  
14 coming up with Anthem in Indiana.

15 The Kaiser contract has been in force  
16 for about a year now with some early experience.  
17 And they are paying for the service on behalf of  
18 Kaiser members. And the Anthem experience is  
19 going to be launched towards initially the  
20 Medicaid population, where the State of Indiana  
21 has mandated that Anthem provide some form of  
22 peer support.

1                   And so they're using Big White Wall as  
2 one of the scalable ways of providing peer  
3 support. So those are the two insurance  
4 companies right now that Big White Wall has  
5 contracts with.

6                   DR. SCOTT: Over here we have a  
7 question. I believe this is our last question  
8 before lunch.

9                   MR. DAVIS: Chris Gibbons with the  
10 FCC. Can you tell us a little bit about who's  
11 using and who's not using the service? Are there  
12 any ethnicities and race disparities in who's  
13 using and taking advantage of the system?

14                  DR. CHUNG: Very much so. And this is  
15 one of those challenges where I think FCC and  
16 other policymakers really can play a key role.  
17 First, let me give the U.K. data because it's so  
18 much more rich than what we have in the U.S.  
19 right now.

20                  But in the U.K., basically, what you  
21 see is that you see folks who are highly educated  
22 or at least have completed high school education

1 or equivalent high school education who are more  
2 likely to utilize the Big White Wall.

3 With regard to the race and ethnicity,  
4 it's still a majority of folks who identify  
5 themselves as white, although it is growing in  
6 the U.K. among other ethnic minority groups. But  
7 education seems to be the key. That having at  
8 least a high school education completion is  
9 associated with utilizing virtual platforms.

10 Clearly language is an issue. Those  
11 who have English as a primary language feel much  
12 more comfortable. You can see that we use quite  
13 a bit of writing here. And so think about that  
14 for a second from the U.S. context. It's got to  
15 be folks, at least with this platform, who feel  
16 comfortable writing and typing, whether it's on a  
17 smart phone or whatever.

18 And because it's there for everyone to  
19 see, people can get embarrassed unnecessarily for  
20 spelling mistakes and all kinds of things. And  
21 we have heard from some consumers who have tried  
22 it and ultimately didn't stick with it, that they

1 felt some of these kinds of issues, some of these  
2 concerns.

3 So we know that the U.S. being much  
4 more heterogeneous than the U.K. that these are  
5 real issues for us. And bringing the reading  
6 level down as much as possible, perhaps offering  
7 more wall guide intervention, one on one  
8 interaction or small group interactions that are  
9 perhaps more private for some of these folks who  
10 feel like they really don't even want to reveal  
11 themselves to everyone in the community.

12 There's a little brainstorming through  
13 various ways of doing that. The other one, quite  
14 frankly, is broadband access. I mean, the U.S.  
15 -- I mean, it's striking to me.

16 But, you know, I work in the Bronx  
17 County of New York City where I have my full time  
18 job with Montefiore Medical Center. And we can  
19 try to engage folks on multiple online platforms.  
20 And I would say the uptake has been very, very  
21 low for folks in the Bronx. They do use phones.

22 They do text. But their comfort in



1 using apps, their comfort in using broadband,  
2 their ability to afford broadband, all of that is  
3 a real challenge to try and engage folks who are  
4 normally -- who are quite vulnerable and  
5 disenfranchised.

6 So these are real challenges. And as  
7 I have said before to some of the folks at the  
8 FCC that we need to sort of help people see that  
9 access to broadband should be a right and that  
10 it's a utility.

11 And that just like any other utility,  
12 we need to support people's ability to use the  
13 utility appropriately for health reasons, for  
14 safety reasons and provide perhaps some way of a  
15 subsidy for folks to utilize it.

16 Otherwise, they will be left behind.  
17 Because I'm sure you have talked to a lot of  
18 exciting vendors today who do other aspects of  
19 mental health. And they're going to be left  
20 behind and then even more isolated.

21 So that's a long-winded way of saying  
22 that definitely there are differences we see.

1 DR. SCOTT: I think we have time for  
2 another couple of questions. Yes.

3 MS. WINNIKE: Hi, Allison Winnike,  
4 University of Houston Law Center. Big White Wall  
5 has been so successful in the U.K. And I wanted  
6 to know if you could talk a little bit about any  
7 sort of legal or regulatory challenges you faced  
8 as you've move into the U.S. market.

9 With our federal system, we're  
10 regulated differently. And is there anything you  
11 can speak to about some of those challenges  
12 between the two countries?

13 MR. CHUNG: This is really a fantastic  
14 question. I mean, first of all, the state by  
15 state differences and the state regulations  
16 really has prohibited us from -- well, I wouldn't  
17 say prohibited us, but it has made Big White Wall  
18 in the U.S. somewhat incomplete. Because Big  
19 White Wall in the U.K. actually allows people to  
20 do live therapy online, virtual online.

21 And in the U.K., because it's just one  
22 big country, you can put online therapists

1 available so that as people use the Big White  
2 Wall platform and they decide, you know what, I  
3 am really ready to cross over into that threshold  
4 and get professional treatment, and they would  
5 like to do it online, that's incorporated in the  
6 Big White Wall platform.

7 Here in the U.S., as part of its  
8 initial rollout, that's not possible because  
9 there are so many state by state regs about how  
10 you get people licensed in forms of teletherapy.  
11 So that's one issue. And I know that other  
12 teletherapy services are doing that and  
13 overcoming that, but at this point Big White Wall  
14 has not done that.

15 The second thing I would say is that  
16 the whole issue of managing risk, people --  
17 providers get very gun shy about people posting  
18 thoughts of suicide on the Big White Wall, even  
19 though it's anonymous and even though they're  
20 better off posting it where you have an  
21 opportunity to intervene than people struggling  
22 with this alone.

1           The notion of liability here in the  
2 U.S. is just a huge problem compared to what  
3 people in the U.K. feel, because it just makes  
4 sense from a public health standpoint that you'd  
5 rather have people talking about this openly and  
6 honestly where you have a chance to engage people  
7 than to say, oh, gosh. I wish they wouldn't put  
8 that on the wall, because that's going to  
9 increase my liability.

10           So with the health plans we've had to  
11 really talk through this quite a bit. And a lot  
12 of lawyer-to-lawyer type discussion that I think  
13 has really hurt innovation. That's another  
14 issue.

15           And then third I think is just the  
16 whole idea of professionals. I mean this for our  
17 own field. Behavioral professionals are largely  
18 lagging the rest of the health field in terms of  
19 our adoption of a virtual and an electronic means  
20 of working with patients.

21           It's improving year by year, but you  
22 would be surprised. And when we talk to

1 professionals about this, what they'll say is  
2 that this can't work. And letting peers just  
3 talk to themselves is not a healthy situation.  
4 Or it's dangerous in some way.

5 And I have to say that when I hear  
6 that from fellow behavioral health professionals,  
7 I am quite shocked. I am quite shocked that they  
8 don't understand the evidence. I am quite  
9 shocked that they don't see how this augments  
10 their work. It doesn't replace their work.

11 That there's so many people that need  
12 treatment that they will never see in their  
13 offices. That this kind of a platform really  
14 offers a real public health intervention. I just  
15 think that's another -- it's not regulatory, but  
16 it's really a professional barrier.

17 I'm a little bit outspoken about this,  
18 but I have to be honest with you that the  
19 behavioral health field still needs the sort of  
20 -- through our training and our schools, we have  
21 to do a better job getting people ready for the  
22 21st century, which we're already in, by the way,

1 by over a decade.

2 DR. SCOTT: Well, Dr. Chung, we thank  
3 you so much for visiting with us today. I think  
4 it was just as effective as if you could have  
5 been here personally, which kind of shows the  
6 power of connected technology. And we thank you  
7 for sharing your expertise.

8 DR. CHUNG: My pleasure.

9 MS. WINNIKE: All right. Thank you.  
10 Thank you, Dr. Chung. I have a couple of  
11 announcements.

12 Number one, it's time for lunch. We  
13 made it on time. And I wanted to explain a  
14 little route to get to lunch. Basically, you're  
15 going to make about three right turns. Go  
16 outside the door, take a right through the double  
17 doors. The next set of doors, take another  
18 right. You'll see a set of stairs.

19 You'll be downstairs in the law center  
20 commons where we have lunch for you. We also  
21 have technology exhibits to showcase some mental  
22 health and other excellent health care

1 technologies that we have here on the University  
2 of Houston campus and within the other Texas  
3 Medical Center institutions.

4 And also we have outside available  
5 ETHAN, EMS. We have the University of Texas  
6 Mobile Stroke Unit where they bring their stroke  
7 CT scanner in the ambulance to cut down on the  
8 critical hour in stroke response. As well as we  
9 have the Harris County Public Health broadband  
10 LTE mobile command unit out there.

11 So you can -- you are free to take  
12 your lunches out in the common and just come and  
13 visit around. Check out all of our great  
14 exhibits down in the commons and outside.

15 And I would like to remind you that  
16 promptly at 1:30 -- I'll even say 1:28 -- please  
17 be in your seats, because we have a wonderful,  
18 wonderful treat for you all. Our afternoon  
19 keynote speaker, Dr. Lex Frieden, the architect  
20 of the American Disabilities Act.

21 And he is going to come talk about  
22 using broadband health technologies to help

1 improve mental health access for special  
2 populations and those in the disability  
3 community. You are not going to want to miss  
4 this.

5 So thank you and have a good lunch.

6 (Whereupon, the above-entitled matter  
7 went off the record at 12:33 p.m. and resumed at  
8 1:33 p.m.)

9 MS. WINNIKE: Good afternoon,  
10 everyone. I hope that you had a great lunch and  
11 you got to visit some of our great exhibits  
12 outside and down in the commons.

13 We want to get started right on time  
14 this afternoon. We have a fabulous program. And  
15 to kick things off we have a keynote speech from  
16 Dr. Lex Frieden. And I'd like to invite the  
17 Commissioner up here to say a few words about  
18 him.

19 COMMISSIONER CLYBURN: Thank you.  
20 Thank you. Welcome back, everyone. I hope you  
21 had a chance, as was mentioned, to eat lunch and  
22 see some amazing technology on the exhibit.



1           This is -- serves as a perfect  
2 backdrop for our next segment. The following --  
3 the speaker to follow, I should say, is no  
4 stranger to adaptive technology and the promise  
5 of independent living.

6           We are so honored to have one of the  
7 true pioneers of disability advocacy with us  
8 today. Lex Frieden is a living legend whose  
9 work has not only transformed the daily lives of  
10 millions of people with disabilities, but the  
11 fabric of society itself.

12           During my tenure at the FCC, I am  
13 proud to say that I have been a part of an agency  
14 that is working to ensure that everyone,  
15 including those with disabilities, have access to  
16 advanced telecommunication services and  
17 equipment, including telecommunications relay  
18 services, closed captioning, video description  
19 and hearing aid compatibility.

20           And one of the core objectives of the  
21 Connect2Health FCC Task Force is to encourage the  
22 development of broadband enabled health

1 technologies that are designed to be accessible  
2 to people with disabilities. This is why it is a  
3 particular treat for me to introduce Mr. Frieden.

4 The professor of health informatics  
5 and rehabilitation at the University of Texas  
6 Health Science Center at Houston has served as a  
7 chairperson for the National Council on  
8 Disability, is the president of the  
9 Rehabilitation International and chairperson of  
10 the American Association of People with  
11 Disabilities.

12 Mr. Frieden received several  
13 presidential citations, and is recognized as one  
14 of the founders of the independent living  
15 movement by people with disabilities. He was  
16 instrumental in conceiving and drafting the  
17 historic Americans with Disabilities Act of 1990.  
18 I just did not think I would live long enough to  
19 meet someone so incredible outside of my parents.  
20 I have to always say that.

21 Mr. Frieden has led national research  
22 studies evaluating the impact of the ADA and

1 identifying disparities related to employment,  
2 transportation and housing, and community living.  
3 And as a colleague noted, his work has  
4 transcended politics and personalities. He is an  
5 intelligent, gentle and profoundly honest giant  
6 among giants.

7 It is such a pleasure for me to  
8 welcome you, my new friend, Mr. Lex Frieden.

9 MR. FRIEDEN: Thank you, Commissioner,  
10 for that very warm and generous introduction. I  
11 wake up every morning with the notion that today  
12 is a new opportunity. And it's a new day that  
13 gives me the chance to do something that will  
14 affect the lives of other people in a positive  
15 way. And that's the way I approached this  
16 morning, thinking about what I would say to this  
17 group.

18 Now, over the last few weeks since  
19 Professor Winnike invited me to take part in this  
20 program I've done a good bit of research about  
21 broadband, mental health and disabilities. And  
22 it's raised a number of questions as well as

1 answered a number of questions.

2 Among the research I did was to look  
3 at the FCC and see what the FCC actually has been  
4 doing since I was chairman of the National  
5 Council on Disability in the 2000's. And I was  
6 impressed. I was most impressed when I Googled  
7 the Commissioner's name along with disability and  
8 discovered three pages of remarks that she has  
9 made about disability and health. And I think  
10 that's instructive.

11 The FCC has, for decades, been  
12 supportive of people who need access to broadband  
13 and people who need access to communications  
14 technologies. But it takes somebody with an  
15 intuitive sense of passion, an intuitive  
16 understanding, to effect consistent and reliable  
17 change.

18 So while the FCC has done great things  
19 over the years, we can note that there are  
20 periods of time during which they make giant  
21 leaps forward. And I believe that as a result of  
22 the Commissioner's leadership, the Chairman's

1 leadership and the other members of the  
2 Commission now, we have the rare opportunity to  
3 take some giant leaps forward. And I applaud  
4 them frankly on reaching out to the community of  
5 people who have mental health needs.

6 It's sometimes a forgotten community.  
7 It's sometimes an overlooked community.  
8 Sometimes it's a quiet community, and that may  
9 account for the other dynamic. But I'm telling  
10 you from personal experience that people with  
11 disabilities, all sorts of disabilities, may also  
12 have mental health impairments.

13 I observed earlier today that the  
14 Commission seemed to have a bit of a dichotomy in  
15 regards to mental health issues and disability.  
16 As I Googled their website, I found great  
17 technical assistance information pertaining to  
18 disability.

19 There's information about how to  
20 access things if you have a mobility impairment,  
21 if you are blind, if you are deaf or hearing  
22 impaired, if you have an intellectual disability.

1 And on the same page there's nothing -- nothing  
2 -- about a psychiatric impairment or a mental  
3 health issue. Nothing.

4 And yet there's another set of pages  
5 that talk about mental health. And they describe  
6 mental health and disabilities almost as if it's  
7 two different things.

8 But I can tell you again, from  
9 personal experience and from a lot of people that  
10 I work with and know, the same kinds of dynamic  
11 that affects access for people with physical  
12 disabilities, sensory impairments, intellectual  
13 disabilities, affects people with mental health  
14 impairments. The same dynamic is at work.

15 People who don't know you. People who  
16 only know about you by a title, sometimes a  
17 diagnosis that a doctor has given you, make  
18 judgements about you. They do that all the time.

19 Just this week, the Department of  
20 Justice filed a complaint against Beaumont,  
21 Texas, because they had housing restrictions,  
22 zoning restrictions, against people who were

1 living in halfway houses. And these people were  
2 genuinely afraid of someone who would live in a  
3 halfway house, because they weren't familiar with  
4 the kinds of people who lived in halfway houses.

5 Had they known that the people who  
6 live in halfway houses are just families and  
7 would behave just like any other extended family  
8 who might be living, sharing the same residence  
9 in their community, they might not have passed  
10 that rule. They might not have had to pay a  
11 million dollar fine, but that's beside the point  
12 right now.

13 The reality is, we sometimes fear that  
14 which we don't know and which we don't  
15 understand. And behavioral health issues are  
16 among the most feared. And part of that is  
17 because the history of treatment of people with  
18 behavioral health issues in the United States.

19 It wasn't too long ago that people who  
20 were deemed "mentally impaired" were  
21 institutionalized. Today there are tens of  
22 thousands of people with disabilities, not only

1 with mental health issues, but also with other  
2 types of disabilities who are institutionalized  
3 simply because we have disabilities.

4 If your mother falls down at home and  
5 breaks her hip and goes to the emergency room, in  
6 most cities in the United States, she -- or he,  
7 if it's your grandfather or your father -- will  
8 be referred to a nursing home for recovery. And  
9 the odds of ever getting out of there are very,  
10 very low.

11 And the same thing happens to people  
12 with behavioral health problems. If they are  
13 referred to an institution, sometimes that stage  
14 of diagnosis and early treatment extends and  
15 extends and extends. And after awhile, if you're  
16 a patient, you forget how to behave in the  
17 community, in the real world.

18 So what about broadband? Let me tell  
19 a little bit, just quickly, about mental health  
20 and disability. I -- I think -- and I would, you  
21 know, with due respect to the professional  
22 clinicians, I would say that there is equally as



1 much, if not a great deal more, therapy that  
2 occurs between individuals than there are between  
3 individuals and professional counselors.

4 And the -- the social networks that  
5 provide support to people with all types of  
6 disabilities and particularly mental health  
7 disabilities are very, very important.

8 So why don't we look at telehealth?  
9 When we get preoccupied with what the rules and  
10 licensing rules are, regulations and so on and so  
11 forth for physicians practicing in a telehealth  
12 environment with people who have psychiatric  
13 conditions.

14 Don't forget that the social  
15 relationships that people depend on are equally,  
16 if not more, important than the telemedical  
17 relationships. And as the Commission moves  
18 forward, I hope they'll consider that.

19 I asked before I came here, two weeks  
20 ago after I was invited to come. I sent out on  
21 social media an announcement to my friends that  
22 said, "I have the opportunity to go and talk to

1 the FCC and a group of people who love the FCC  
2 and want to know what they're doing in telehealth  
3 and connectedness and health. And what do you  
4 want me to say to them? What can I do to  
5 represent you?"

6 And I got back numerous, numerous  
7 responses. And I tried to organize them. I'm a  
8 researcher so I have these methods of qualitative  
9 research, but in reality, it's pretty simple when  
10 you look at what I got back.

11 People are concerned about access.  
12 And the major barrier to access is money. Simple  
13 as that. Two thirds of the population of people  
14 with disabilities, and perhaps a higher  
15 proportion of people with behavioral health  
16 issues in the United States today, are indigent.

17 And, you know, to talk about getting  
18 online, and chatting with friends or meeting a  
19 physician or anything else, is ludicrous. They  
20 can't get online because they can't pay the bill.  
21 That's access.

22 We're also talking about access for

1 people who are deaf, who can't tell what's being  
2 said in a oral conversation, or people who are  
3 blind who can't read the notes. And here, by the  
4 way, is a big one. And I'd like for the -- for  
5 those of you that are going back to Washington to  
6 take this one with you.

7 So many of these teleconferencing  
8 technologies are out there and none of them --  
9 not a single one, is completely accessible to  
10 people with all types of disabilities.

11 They're built on graphical user  
12 interfaces. People who are blind or using other  
13 kind of technology to read those screens don't  
14 know what's being said, what's being shown or  
15 anything else.

16 So the FCC took a leap forward when  
17 they tried to encourage Adobe to fix their darn  
18 PDFs or at least have a work around for that.  
19 Now, let's get serious about these companies that  
20 are providing web conferencing services.

21 And I don't even know, quite frankly,  
22 why they're allowed to sell those services in the

1 United States unless they're completely  
2 accessible.

3 And that's the other thing I'd like to  
4 raise here today, and leave with you. FCC knows  
5 what the issues are. These hearings have been  
6 had before. I looked last night and the National  
7 Council on Disability that I led in -- in the  
8 1980's and again in the 2000's produced numerous  
9 reports about the superhighway access for people  
10 with disabilities. And FCC responded to all of  
11 those reports in a very progressive and -- and  
12 constructive way.

13 And I think the Commission knows what  
14 these issues are. The question is how -- are  
15 they willing to put their foot down? Are they  
16 willing to get serious, you know, there's only so  
17 much conversation can do with the big boys who  
18 are producing these websites and this software  
19 and providing this platform for us to use the  
20 highway on. Only so much they can do with  
21 friendly chit chats and -- and meetings where  
22 they, you know, sponsor receptions and so on and

1 so forth.

2 At the end of the day, these people  
3 are motivated mainly by profits and mainly by a  
4 desire to have as many people using their --  
5 their platforms as possible. And they don't  
6 consider people with disabilities as valid users.  
7 And the one reason they don't is because they  
8 know the demographics. They understand that most  
9 people with disabilities don't have access to  
10 that highway anyway.

11 So why should they be motivated so  
12 much to do it other than to say, "We are working  
13 on it." And if you go on their websites now,  
14 they all have posts -- and I'm sure their  
15 attorneys have told them to do this. They all  
16 have posted a one page. They all read about the  
17 same. I wonder who actually wrote it for them,  
18 that says, "We're aware of the requirements to  
19 have full access and we are sympathetic with that  
20 perspective and we are working on it." And how  
21 many years will they have to work on it before  
22 they actually do it? Well, they may work on it

1 forever unless somebody makes them do it.

2 So I -- you know, I have some real  
3 issues when it comes to talking about access and  
4 -- and using the bully pulpit versus making  
5 people actually behave the right way. So that's  
6 -- you know, those are the kinds of -- I want to  
7 share with you one quick anecdote.

8 After I broke my neck in 1967, I went  
9 to rehabilitation here in Houston at Memorial  
10 Hermann. And I moved back to Tulsa and applied  
11 to go to the University of Oral Roberts. And I  
12 was turned down, not because I wasn't qualified,  
13 but because I used a wheelchair for mobility.

14 They were very clear about that.  
15 "It's our policy not to admit students with  
16 disabilities on our campus." That depressed me.  
17 When I had that conversation with the Dean, I  
18 couldn't talk for three days. After that, I was  
19 depressed even though I could talk for years.

20 Until I had taken advantage,  
21 coincidentally, of an FCC provision that allowed  
22 me, as a person with a disability, to take an

1 exam for an amateur radio license in my home by a  
2 volunteer, and I passed the exam and became an  
3 amateur radio operator.

4 And I was one time on the air asking  
5 anybody to call back that heard me and I heard a  
6 deep, British voice respond, "My name is JY1."  
7 That's a call sign. And anybody who's an amateur  
8 radio operator knows that JY1 in 1968 belonged to  
9 one Hussein, King of Jordan.

10 And I -- I said -- when I responded to  
11 him, I said, "King, this is just amazing. I'm,  
12 you know, sitting here feeling sorry for myself.  
13 I can't go outside with my friends. I can't play  
14 basketball in the street. And -- and here I have  
15 the opportunity to do something they can't do.  
16 I'm talking to a king. And I really do  
17 appreciate you taking the time. I can't imagine  
18 you having the time to do this."

19 And the king said to me, he said,  
20 "Lex, you're the one doing me a favor." He said,  
21 "If I step outside now I'll be shot." He said,  
22 "You're helping me at least as much as I'm

1 helping you. You need to put your life in  
2 perspective."

3 I don't think a professional counselor  
4 could have told me any better that I needed to  
5 stop feeling sorry for myself. And after that,  
6 my life changed. And I attribute that to that  
7 one mental health counseling moment from one JY1.

8 Thank you all very much for giving me  
9 the attention today.

10 MS. WINNIKE: Thank you so much, Lex.  
11 You always are inspiring and we love to hear  
12 about your vision on how to improve things for  
13 the future. And we very much appreciate you  
14 coming to share that with us today and for being  
15 such a leader and a friend to the law center. So  
16 thank you so much.

17 So we will move forward now into the  
18 program. And we're going to do a spotlight now  
19 on some innovative partnerships in data analytics  
20 in mental health. And so I would like to invite  
21 up Dr. Yahya. There you are. Sorry, in the  
22 back. And our panelists, Dr. Tsang and Judi



1 Manis.

2 MR. SHAIKH: Well, I want to thank you  
3 all for being here after lunch. And I want to  
4 thank Judi and Tom for joining us for this  
5 fantastic session. What we're going to talk  
6 about today is -- in this particular panel is a  
7 personal interest of mine. It's around  
8 innovation.

9 And this is really particularly  
10 interesting because Judi -- I'll get into intros  
11 in just a second -- but Judi is actually running  
12 a foundry. She's head of business development at  
13 the AT&T Foundry here. And one key part of  
14 innovation is it doesn't happen in a -- in  
15 isolation of everything else around it. It has  
16 to be driven by a business model. It has to be  
17 driven by need. It has to be driven by a system  
18 -- an ecosystem around it that can support it.  
19 So she's really engaged in that aspect of it.

20 And Tom actually, he's -- he's here in  
21 the capacity of CEO of Valera Health. And what  
22 -- what they do is they're actually a start-up

1 that's focused on one particular aspect of the  
2 health care system. And he will talk a little  
3 bit more about it.

4 I want to properly introduce Judi. So  
5 Judi is the senior vice president of health care  
6 strategic initiatives and business development of  
7 AT&T's IOT health --

8 MS. MANIS: Very long title. I know.

9 MR. SHAIKH: Help me out. IOT Health  
10 Care Services.

11 MS. MANIS: Health care.

12 MR. SHAIKH: And she's also running  
13 business development at I think TMC and AT&T's  
14 foundry over here. It's one of six foundries in  
15 the world. So it's quite a privilege for her to  
16 be able to do that.

17 One thing I really liked about her bio  
18 is that she got her M.A. in marketing from Cal  
19 State Poly and I'm from California.

20 Tom -- Tom is -- actually, he's pretty  
21 distinguished in health care himself. And I  
22 think he's made an impact that all of us can

1 feel. Right now he's the CEO of Valera Health.  
2 He's also -- previously he was the CMO at Mertz  
3 Health Care Services and Health Care Solutions.

4 He's also a senior advisor to the  
5 governor of Hawaii, where he advises them on  
6 health care transformation, which makes sense  
7 because he was also a legislative staffer on the  
8 House's Ways and Means Committee, which led to  
9 writing the HITECH Act and the ACA Act, which led  
10 to, you know, EMR adoption around the country.

11 He has also made many other changes,  
12 obviously with ACA. But he went on to join the  
13 Office of the National Coordinator of Health IT.  
14 He worked there for quite a few years as the  
15 medical director. And now he's the CEO of Valera  
16 Health.

17 I'll -- I'll hand it over to Judi now.  
18 And she has a presentation. And then we'll have  
19 a demo from Tom.

20 MS. MANIS: Thank you very much.  
21 Thank you for that introduction. And it's nice  
22 to meet all of you in the room. And thank you so

1 much for this opportunity. It's really an  
2 exciting thing that AT&T is moving into.

3 And as you had mentioned, I wear a  
4 number of different hats with AT&T. Leading  
5 strategic relations and strategic initiatives  
6 within health care, I get an opportunity to meet  
7 innovative doctors across the nation that are  
8 really working on leading in innovations.

9 And then through the foundry, leading  
10 the health care side of business development, I  
11 have an opportunity to bring in companies that  
12 are really working to find technologies that can  
13 shore up the gaps in a very challenging health  
14 care industry where it's key and critical to be  
15 able to provide the level of care -- same level  
16 of care no matter what the income, no matter what  
17 the demographics, no matter the location. So  
18 it's an exciting role that I get to play.

19 Today I'm going to talk specifically  
20 about our connected health foundry. Our  
21 connected health foundry is actually going to be  
22 opening up next month in early June. Let's see

1 if I've got this -- oh, no. Okay.

2 So our connected health foundry here  
3 in Houston is in addition to foundries that we  
4 have currently in existence. So we have four  
5 other foundries throughout the world. The  
6 foundries are focused on creating an open and  
7 collaborative environment to really solve  
8 problems where there isn't a clear line of sight  
9 to the solution.

10 And it's slightly different than the  
11 way that we do things in Bell Labs, just because  
12 it's set up as a, kind of, like a think tank,  
13 fast-paced opportunity to bring things from the  
14 initial problem into pilot.

15 At AT&T, sometimes our solution  
16 development can take months, years. But through  
17 our Innovation Institute, we start almost  
18 instantaneously once we've determined that there  
19 is an issue that we want to work on. And the  
20 solution can come from ideation to pilot in a  
21 matter of weeks.

22 It -- so taking it from the foundry,

1 now, down to the internet of things. Obviously,  
2 there's benefit and value of being able to  
3 provide connectivity to all sorts of things.  
4 It's interesting in the internet of things,  
5 foundries, we've been working on projects such as  
6 a connected refrigerator. You might think, okay,  
7 well, what does the connected refrigerator do?

8 Well, here's a use case. Red Bull.  
9 Many of you may have tried that. Needs to be  
10 kept for ultimate taste and -- and whatever  
11 impact it gives at 32 dot something degrees.

12 So with a smart refrigerator, Red Bull  
13 can totally determine whether or not the Red Bull  
14 cans are being kept at the ultimate temperature,  
15 if the door has been open too long, if there's an  
16 issue with the refrigerator.

17 And another used case is the smart  
18 tractor. Farmers that manage large pieces of  
19 property and a huge farm, being able to know  
20 where their tractors are, how their tractors are  
21 running, how much productivity that particular  
22 tractor and tractor driver covered, brings great

1 benefit and value.

2 So some of the -- those are some of  
3 the things that we're doing from an overall  
4 foundry -- internet of things foundry.

5 So that brings me to where I get to  
6 get involved and where I'm really, really excited  
7 about. And that's our connected health foundry.  
8 And our connected health foundry is going to be  
9 unique specifically focused on health care. And  
10 it's going to be assisting in device and design  
11 technology, helping to design solutions to bring  
12 benefit and value to the overall care process.

13 And why is that unique? It's unique  
14 because, as I mentioned, the connectivity of  
15 devices can bring benefit and value. And  
16 connectivity of health care devices can aid in  
17 the overall care plan and provide an opportunity  
18 to improve the level of care.

19 So within our foundry, we are going to  
20 give the access to resources and tools in order  
21 for us to do those collaborations. We're going  
22 to be focusing on four specific areas. Post

1 acute care, emerging devices connectivity, aging  
2 in place and then innovation in a clinical  
3 environment, within the medical offices and  
4 within the hospitals.

5 And so the way that we're setting up  
6 that foundry is that it's going to have specific  
7 areas. It will have the hospital area, the  
8 doctor's office and the home area. And in each  
9 of those respective areas, we'll have the  
10 resources and the tools to do the collaborations,  
11 to do the innovations and to demonstrate some of  
12 the technologies that we've already brought to  
13 bear in the market.

14 So why did AT&T select the opportunity  
15 to collaborate with Texas Medical Center? As I  
16 mentioned, we have other foundries throughout the  
17 world. And when Texas Medical Center came to us  
18 and shared with us the work that they are doing  
19 in innovation, it was very exciting to AT&T.

20 We have the opportunity to now sit in  
21 the middle of Texas Medical Center, where they  
22 have 54 medical institutions. They've got 21



1 hospitals, not to mention the medical students,  
2 the doctors, the resources, etcetera, that are  
3 available to us.

4 And then in addition to that, we have  
5 access to TMC X's and TMC X pluses. Now, what --  
6 what does that mean? Well, that means that the  
7 way that TMC has set up their Innovation  
8 Institute -- and Thomas is -- is one of the TMC  
9 X's, so you'll learn more about that in a minute.

10 But the way that TMC has set up their  
11 Innovation Institute is that they have an area  
12 for small start-ups, incubator companies. And  
13 they have the ability to come into TMC, have  
14 access to the resources, the real estate, the --  
15 all the things that TMC has to offer as the TMC  
16 X's are building their business.

17 Beyond that, once they continue to  
18 grow in the market, which I know Valera is doing,  
19 they have an opportunity to join what's called  
20 the TMC X plus. And that's an area for our mid-  
21 sized businesses to then have at a lower cost  
22 than normal market values to be able to access to

1 resources, to real estate, etcetera.

2 So exciting for the TMC X and exciting  
3 for the TMC X pluses, but super exciting for AT&T  
4 to have that opportunity. Our foundry is smack  
5 dab in the middle of the TMC X arena. So we are  
6 really excited about the opportunity to  
7 collaborate with these start-ups to see where the  
8 synergies are so that we can bring health  
9 innovations to market.

10 I didn't know these slides were  
11 builders. Sorry about that. And the other thing  
12 that's mentioned up there in the last place was  
13 J&J Labs. So, AT&T is not alone in investing in  
14 TMC. There are a number of other enterprise  
15 businesses that are engaging in this great  
16 opportunity, inclusive of J&J Labs, who's built a  
17 beautiful foundry co-located with us in the TMC  
18 Innovation Institute.

19 One of the examples that we have of  
20 the innovations that have been created within our  
21 foundry is this connected wheelchair. Permobil  
22 came to us and said that they really needed a way

1 to be able to determine whether or not their  
2 wheelchair was working most efficiently and  
3 effectively. In addition, they wanted to know  
4 how the patient was doing within the chair.

5 So we worked with them to create a  
6 smart wheelchair, where we're able to sense how  
7 the tire pressure is, how the batteries are  
8 operating, be able to take the blood pressure,  
9 weight, the important stats from the patient, as  
10 well as being able to monitor the wheelchair. So  
11 that's just one of the really exciting things  
12 that we are going to be working on within the  
13 Innovation Institute.

14 Additionally, another innovation that  
15 we are working on that's very exciting for us is  
16 -- it's a way to measure and monitor true levels  
17 of pain. So you know when you go into the  
18 hospital or a doctor's office and you see the  
19 happy to sad faces and that's the way they ask  
20 you how you're feeling? This is actually a  
21 really nice looking headband that you put on your  
22 head and it's able to sense an individual's true

1 level of pain.

2 So you can imagine all of the amazing  
3 use cases that are becoming available as a result  
4 of that sensor. Once they determine an  
5 individual's true level of pain via a tablet,  
6 they push distractionary content out so the  
7 individual's mind is taken away from the pain  
8 that they're dealing with and being able to relax  
9 and enjoy content that they find of benefit and  
10 value and enjoyment.

11 The brain sensor is able to determine  
12 if you're enjoying the content, and if you are,  
13 it pushes more of that content to you. If you're  
14 not, it sends you other type of content. So  
15 really exciting there.

16 And they're also finding so many other  
17 use cases. As an example, in the arena of  
18 dementia and Alzheimer's, they are able to  
19 determine an individual's level of focus and  
20 attention over time. So you're able to see the  
21 impact of what the disease is having on an  
22 individual's brain.

1 I may have gone way over. So I  
2 apologize about that. But this is just an  
3 exciting opportunity for us. Obviously, if you  
4 look at the overall health care arena, technology  
5 can play a key and critical role.

6 And we think utilizing our foundry and  
7 being able to collaborate with such -- companies  
8 such as Valera that we're going to be able to  
9 help via technology improve the level of care and  
10 provide consistent care throughout, so thank you  
11 for that.

12 MR. SHAIKH: Thank you.

13 MR. TSANG: I'm just going to say  
14 thank you very much for having me join. And  
15 thank you, Commissioner and thank you for the FCC  
16 -- and as well as the University of Texas Law  
17 Center for sponsoring this.

18 A little bit about my resume and my  
19 background. When you -- when people introduce  
20 me, people kind of wonder, "Does this kid have  
21 ADD or something like that?" Because I -- I  
22 certainly have kind of done it all from clinical

1 practice to -- to policy, to regulations, to  
2 pharmaceuticals, and now entrepreneurship.

3 But, you know, when I was working with  
4 your dad on Ways and Means, my mom said, "Don't  
5 touch my Medicare," and she was, like, 75. She  
6 just didn't understand why I'd finish med school  
7 and then not practice. Anyway --

8 So Valera Health is a digitally  
9 enabled company that uses a precision-based  
10 approach. Because I think for the last six  
11 years, as Dr. Henry Chung said before, you know,  
12 one of the key areas in terms of using data  
13 analytics and digital technology is mental health  
14 has been lagging in the field.

15 And so what we want to do is really  
16 leverage analytics in precision-based concepts  
17 and approach to actually stratify individuals, to  
18 get the exact information of how individuals are  
19 feeling and then coordinate care and develop a  
20 managed-care plan with that.

21 The only thing I'm going to say about  
22 the background is that I believe I've been

1 listening since the morning and no one has quite  
2 yet mentioned the Mental Health Parity Act, which  
3 is in the Affordable Care Act. And that brings  
4 mental health benefits on par with medical  
5 benefits.

6 And that basically says to the  
7 insurance company, "You can't put administrative  
8 hurdles on people with depression or  
9 schizophrenia. And you can't cap utilization,  
10 because we don't cap diabetics to see their  
11 primary care docs, so we shouldn't do it for  
12 people with mental illness."

13 And then the other piece I want to  
14 bring up is that a lot of patients have co-morbid  
15 conditions, both congestive heart failure and  
16 depression, are people who cost the highest and  
17 probably the greatest need in the health system.

18 So for example, if the average per  
19 capita expense for an individual with congestive  
20 heart failure is maybe about 12,000 a year, it  
21 would be three times that for someone with  
22 depression.

1           Because at the end of the day, if a  
2           stage four congestive heart failure patient feels  
3           depressed and they're eating a bag of potato  
4           chips with all that sodium, they're gaining  
5           weight, five or ten pounds later -- boom --  
6           they're going to end up in the ER.

7           So our company is based on evidence  
8           and based on science. And I just want to show  
9           you that there have been studies proving that  
10          monitoring behavioral health using digital cell  
11          phones and what we call a digital phenotype  
12          actually works.

13          So this is the study coming out of  
14          Dartmouth with about 45 college students that  
15          they tracked over ten weeks. And they actually  
16          showed and demonstrated that the data that you  
17          collect from the cell phone, and that's  
18          geolocation, the amount of light that you've been  
19          exposed to, the pitch of your voice, the amount  
20          you text, all of that data could be analyzed, and  
21          using machine learning algorithms, we can predict  
22          the level of stress and an exacerbation of



1 depression.

2           So our solution is composed of four  
3 pockets of activities. The first piece is  
4 analytics. So we take big data sets, claims data  
5 from the pairs, and we actually identify people  
6 with a propensity for behavioral health issues.  
7 But we also take individuals and we stratify them  
8 according to cost and need.

9           And then we ask the patient to  
10 download a digital application that sits on their  
11 cell phone. And we start collecting data from  
12 you. So we use the same exact metrics that the  
13 Dartmouth researchers are using.

14           So we're collecting geolocation.  
15 We're collecting your activity. And we're  
16 working on the pitch of the voice. And we can  
17 actually collect the light sensing -- use the  
18 light sensing technology as well.

19           So we stratify individuals. Not every  
20 single individual has the same level of  
21 depression. And so because of the limited  
22 resources we have in this country, we can

1 actually focus and hone in who needs what. And  
2 then once we collect the information, if the  
3 person is getting worse in terms of the  
4 depression screening and then we see the  
5 geolocation going down and they're staying in bed  
6 all the time, we can actually contact them.

7 This is the mobile application. I'm  
8 going to run really fast through this because I'm  
9 running out of time. Our mobile application is  
10 designed so that we can actually have a fully  
11 engaging process and we start collecting  
12 information once you download it, with your  
13 consent.

14 Our coaches can actually do a private,  
15 secure messaging piece that can actually  
16 coordinate and get pre-data -- pre-visit data and  
17 coordinate post-visit information.

18 And then we have a -- a HIPAA-  
19 compliant secure telemedicine feature as well.  
20 One of our pilots that we're going to launch is  
21 with McLean Hospital connected with Harvard. And  
22 we're going to focus this on the use case of

1 schizophrenics.

2 We're working with -- one interesting  
3 partnership is that we're working with the  
4 Louisville Metro Correction Facility to look at  
5 designing a pilot where they fast track the  
6 release of patients with dual diagnoses. And  
7 they would -- and we would sense where the  
8 patient is going to.

9 And if there's drug activity going on  
10 from police data, we can send an alert to that  
11 patient and send an alert to the case manager.  
12 So this is to enhance reintegration and to reduce  
13 recidivism.

14 The other pilots we have a monitor,  
15 which is an ACL care more, which is a managed  
16 Medicaid plan. Green Door has 1,600  
17 schizophrenics.

18 And we're hoping to achieve these  
19 outcomes. Reducing costs avert high sentinel  
20 events and actually disrupt the traditional model  
21 in terms of how we deliver meds and services.

22 I'm going to talk about the challenges

1 later, but while I have three minutes I'm going  
2 to go to this. And I hope you can see it. This  
3 is the dashboard when you sign on. You're going  
4 to see a roster of patients that the care manager  
5 has. And then I'm going to go to my own profile  
6 and show you three months of data that I've  
7 collected on myself using my cell phone.

8           So here you're going to see steps.  
9 We're going to go actually one month. You're  
10 going to see steps. And on May 2nd, I had 12,000  
11 steps. On April 26th, I had 1,000 steps. And so  
12 you see a trend, right? So you see this -- I  
13 probably average about 5,000 steps or 6,000 steps  
14 a day. And on these days when I'm not averaging  
15 6,000 steps, I'm probably low activity. And then  
16 you can go into my geolocation to see how many  
17 miles I've traveled from my home.

18           And then look at my depression score,  
19 which is the PHQ-2 and the PHQ-9. And you can  
20 see whether on that day when I'm low activity,  
21 whether I scored a very high depression scale,  
22 which is 23, which is very high.

1                   And then at the same time, we can  
2 import data from peripheral devices. From the  
3 blood pressure monitoring devices, from  
4 Bluetooth-enabled scales and then we can also do  
5 glucometers.

6                   So we can treat diabetics and  
7 congestive heart failure patients with depression  
8 and actually look for incremental change. And  
9 then when that happens -- I'm going to go back.  
10 Sorry.

11                   You're -- you're seeing my app right  
12 now, my cell phone. And I'm going to say,  
13 "Hello, Tom. You have a message from your care  
14 manager." I'm going to go to the app. And this  
15 is a -- but then when we want to do a telehealth  
16 visit, you can just press a quick button.

17                   You're the patient today, and I'll be  
18 the doctor. I think the broadband here, we're  
19 not capturing the WiFi. It's taken a little bit  
20 longer. But as you can see, we have the data  
21 capturing system where we can actually do the  
22 remote monitoring. And then we can actually do

1 the messaging and do -- do the telehealth -- a  
2 reimbursable telehealth visit all at the same  
3 time.

4 I just want to go back to some of the  
5 issues that is quite challenging, I think, for  
6 innovations. And that's the lack of  
7 reimbursements for using digital health  
8 technology. I think the varying telehealth  
9 regulations that vary from state to state. I  
10 think someone else had mentioned about inability  
11 to actually put together the 42 CFR that  
12 prohibits information from mental health notes,  
13 putting it into the primary care doctor's notes.

14 And then really trying to speak with  
15 CMS and HHS in terms of developing new delivery  
16 reform models and payment models that can  
17 encourage this type of technology.

18 In terms of technology itself, I think  
19 we need better standards. I -- I'd love to work  
20 with Judi about software that can actually reduce  
21 battery life. And connectivity and memory. And  
22 then, of course, interoperability of EHR and this

1 type of data.

2 So thank you very much. I know I went  
3 very quickly, but everyone can help me help  
4 others, and join me in the fight. Thanks.

5 (Applause.)

6 MS. WINNIKE: Thank you so much. What  
7 wonderful presentations and wonderful and  
8 innovative technologies. We love to hear about  
9 this.

10 We are going to take a very quick  
11 break as we bring in our very last panel of  
12 distinguished policymakers, and give you guys an  
13 opportunity to ask questions. So how about a  
14 quick five minute break? And then we will get  
15 started and wrap this up at the end of the day.  
16 So thank you guys so much. This has been  
17 wonderful so far.

18 (Whereupon, the above-entitled matter  
19 went off the record at 2:17 p.m. and resumed at  
20 2:25 p.m.)

21 MS. WINNIKE: Thank you, everyone.  
22 This is our final and perhaps the most important

1 panel of the day, because it covers the legal and  
2 regulatory issues that's touched on throughout  
3 the day. We have seen so many great innovations  
4 going on in the state. We have seen so many  
5 new ideas, some challenges related to broadband  
6 access, mental health care access. And it's  
7 really been leading up to this. And this is our  
8 policy conversation on the policy issues and to  
9 see if we can come up with some prescriptions for  
10 broadband-enabled healthcare.

11 And so it is my great pleasure to  
12 introduce our very, very distinguished panel  
13 today. We have Dr. Chris Gibbons, who you may  
14 remember from earlier in the program.

15 He is the Chief Health Innovation  
16 Officer for the Connect2Health Task Force at the  
17 FCC. He is a physician. He specializes in  
18 informatics, healthcare disparities, urban --  
19 he's an urban health expert. And his academic  
20 research has really focused on the use of  
21 technology in consumer health informatics to help  
22 improve healthcare disparities. And he's really



1 looking at the intersection of population  
2 science, medicine, and health informatics.

3 And then next on the panel we have the  
4 Honorable Garnet Coleman, which I'm sure many of  
5 you in the room are quite familiar with. He is  
6 our state representative in District 147. And he  
7 has served quite admirably since 1991. And he is  
8 a noted expert in mental health and also a  
9 champion in the area of telehealth. He is the  
10 senior ranking member on the Public Health  
11 Committee in the House of Representatives. He is  
12 the chair of the County Affairs Committee and  
13 House of Representatives. And very important to  
14 us, he's a member of the House Select Committee  
15 on Mental Health. And so we're very happy to  
16 have him with us today.

17 And next to Representative Coleman, we  
18 have Representative, and Dr., John Zerwas, who  
19 also many of you may know. He represents over in  
20 the Katy area. He is chair of the House  
21 Committee on Higher Education. And he is really  
22 an advocate for increasing access to higher

1 education and growing opportunities for graduate  
2 medical education, which is something that we  
3 have touched on earlier today in the program.

4 And again, like, Representative  
5 Coleman, he also sits on the House Public Health  
6 Committee and where he is a very valued member  
7 with his medical background. He's been a  
8 physician for over 30 years. And he's a past  
9 president of the American Society of  
10 Anesthesiologists.

11 Next to Representative Zerwas, we have  
12 Mari Robinson. She is the executive director of  
13 the Texas Medical Board. And I would also like  
14 to note that she is the first lawyer executive  
15 director of the Texas Medical Board, which here  
16 at a law school we very much appreciate that.

17 And so what she does as the executive  
18 director of the Medical Board is she oversees the  
19 Medical Board in their addition to the legal and  
20 the administrative issues within the agencies.  
21 She is very well regarded throughout the country.  
22 She worked with the Federation of State Medical

1 Boards, which is the federal group and she works  
2 on their work groups and committees quite  
3 regularly and is known nationally for her work.

4 And then last, but most certainly not  
5 least, is Nora Belcher. And she is the executive  
6 director of the Texas e-Health Alliance. And the  
7 Texas e-Health Alliance is a non-profit advocacy  
8 group of health information and technology stake  
9 holders. And their group works for the use of  
10 information technology to improve healthcare  
11 systems for patients here in the State of Texas.

12 And so it's my pleasure to welcome  
13 this distinguished group here this afternoon.  
14 And we hope to work in some questions at the end  
15 so we can sort of bring together some of the  
16 issues we've seen throughout the day when we're  
17 looking at some policy solutions.

18 Okay. I'd like to start with Dr.  
19 Gibbons. If you could give us, briefly, an  
20 overview from the national level about some of  
21 the issues that you've been working on,  
22 especially with special populations, issues with

1 underserved populations, health disparities  
2 issues, and particular with mental health. And  
3 what are some of the policy issues that you see  
4 at the national level that may also be an issue  
5 here in Texas?

6 MR. GIBBONS: Okay. Sure. Well,  
7 first, let me say this has been a fantastic day.  
8 I've had a great time hearing and learning. And  
9 it's hard for me to add on top of that.

10 But let me say this. I think that,  
11 while we heard about a few specific mental health  
12 issues, depression and a few others, we have  
13 those kinds of problems in the Northeast, in the  
14 West, in the North, all over. And so there are  
15 many, many, both problems that need to be  
16 grappled with, as well as solutions.

17 And so the first sort of take home, I  
18 would say, is we shouldn't be looking for a one-  
19 size-fits-all paradigm in terms of technology,  
20 technology policy and health.

21 You know, I often say -- used to say  
22 to my medical students: Just imagine for a minute

1 I was a perfect doctor, which I am. And I always  
2 made the perfect diagnosis. I had the perfect  
3 medicine and the patients were always perfect.  
4 And I gave it to those who came and saw me. What  
5 would that do the amount of disease in the  
6 community? Those who got it understood it would  
7 be great for those I saw, but do nothing for  
8 those that I couldn't see. Right?

9 And so we've got to think about  
10 different solutions to different problems or  
11 different populations of people, even for common  
12 problems. You'd think I was crazy if I said  
13 there was one pill to treat all of cancer, even  
14 one person. So it's the same kind of thing. Not  
15 a one size fits all approach.

16 I think we saw from Lex Frieden an  
17 amazing example of something that I also think is  
18 very important from a policy perspective. You  
19 know, it's one thing for me as a physician, and  
20 other physicians and other lawyers, to sort of  
21 talk about what people with mental health  
22 problems need, people with disabilities need,

1 people of underserved populations.

2 And, you know, we would be right, I  
3 guess, some percentage of the time. But I've  
4 never been amazed. When you ask them what they  
5 need, you will learn something. You will  
6 inevitably learn something.

7 And I think that's another -- we need  
8 to think from a policy perspective, how do we  
9 bring more of the communities that we're talking  
10 about into the ecosystem, into the developmental  
11 ecosystem, into the policy arena so it's not just  
12 us people doing things for them? Which we  
13 believe are right, and may be right, but again,  
14 involving them in the whole spectrum of  
15 activities or getting their perspectives in a  
16 more succinct and more systematic way, I think,  
17 is important.

18 I think the other thing that we heard  
19 today is another principle that I think is very  
20 important to look at from a policy perspective.  
21 And I'm a physician, right? So I get it. But  
22 it's not just about doctors. It's not just about

1 hospitals. And that's where the big -- that's  
2 the story of the Big White Wall, right? It's  
3 about allowing patients to talk to patients,  
4 consumers to talk to each other.

5 And even Lex Frieden said, when he  
6 opened up, he said, you know, "I think there's  
7 more therapy going on between patients than  
8 between patients and caregivers." And I've long  
9 said that that's true.

10 If you think about how much time does  
11 any patient spend in front of any practitioner  
12 over the course of their life, right? One  
13 percent, three percent of the time? So if we're  
14 perfect in that one percent of time, have no  
15 influence on the other 99 percent of the time,  
16 how effective can we be as a healthcare system  
17 and as a society reaching our national health  
18 goals?

19 And so we've got to think about  
20 caregivers as well and bringing them into the  
21 picture, being formal or informal caregivers, and  
22 I think technologies one of the few ways that

1 we're going to be able to do that.

2           And, you know, it's not just  
3 healthcare systems thinking about health anymore.  
4 We talked a little bit about smart cars and  
5 autonomous cars. But the automakers and Google  
6 and others are already thinking about healthy  
7 cars and how when you sit down in your car it can  
8 measure blood pressure and other things.

9           We have talked a little bit about  
10 smart homes and smart cities initiatives. And  
11 soon, at some point, smart homes are going to be  
12 connected to smart cars. They're going to be  
13 connected to smart cities and maybe eventually to  
14 smart hospitals too. But at least somewhere in  
15 that realm.

16           But if we can incentivize these things  
17 to work together, not just for those who have  
18 good insurance, but for everything and for  
19 everyone, as a policy initiative, then we can  
20 perhaps leapfrog over this problem.

21           One final example is we -- Dr. Stover  
22 talked about health literacy as an issue. I'm



1 beginning to wonder if that's an issue, although  
2 I think it's real, that may lose its meaning in  
3 the future, right? Because we talk about it as  
4 people don't know how to use this and they can't  
5 get the benefit. But if it's built into the  
6 house, into the walls, into the car and does it  
7 for you automatically, you don't need to know how  
8 to do anything, right?

9 That's the potential of where we can  
10 go. We can do it and benefit you, even if you  
11 can't use it. So I think it's exciting times.  
12 And thanks for the opportunity.

13 MS. WINNIKE: Thank you. Thank you so  
14 much.

15 I wanted to follow on with our two  
16 distinguished Representatives here. One thing  
17 that we have been looking at throughout the day  
18 are issues in urban areas and issues in rural  
19 areas. And sometimes we have the same issues  
20 about broadband availability and access. And  
21 sometimes we have the same issues about physician  
22 shortages and access in both of those areas.

1           And so your district here in Houston,  
2 urban district. You're out in the Katy area and  
3 you have sort of a mix. You do have some rural  
4 areas in your district.

5           And I wanted to start with you,  
6 Representative Coleman. You have been a champion  
7 for mental health issues for so many years. You  
8 have been a champion in using health technology  
9 to try to increase access. You have authored  
10 numerous pieces of legislation over the years,  
11 passed some really great, innovative pieces of  
12 legislation over the years.

13           And I just wanted to get your take on  
14 why is this such an important issue, especially  
15 for the folks, your constituents in your  
16 district? How does this make a difference?

17           MR. COLEMAN: Well, I think you  
18 brought it up. Providers shortages are real. We  
19 can't build enough medical schools to create  
20 enough psychiatrists to take care of all the  
21 people here in the State of Texas. And I know  
22 Dr. Zerwas will talk about residencies, because

1 that's a really big part of that.

2 But we do have other medical  
3 professionals and providers, like MSWs -- masters  
4 of social work, clinical social work, licensed  
5 professional counselors, doctors in psychology.  
6 Those are folks who can provide counseling.  
7 But they don't often live in rural areas. And so  
8 we have to have some way of getting both  
9 counseling, med management, and all of those  
10 different things that people with mental illness  
11 need to places where the professionals just  
12 aren't readily available.

13 So we can do that through  
14 telepsychiatry or through telecounseling as well.  
15 And that means those folks can get the same types  
16 of care that people anywhere else have.  
17 Particularly if our LMHAs, our mental health  
18 authorities that are providing that care to  
19 people who do not have insurance and access.

20 So I think those are really important.  
21 The Speaker gave us a charge in two interims ago  
22 on the education of mental health professionals.

1 So we are now looking at how do we create these  
2 teams of people who care for individuals?

3 We also had an incident that -- with  
4 Ms. Sandra Bland where we -- and along with that,  
5 we've had a lot of suicides, too many for any of  
6 us to tolerate in our county jails. Well, we can  
7 use telepsychiatry or telescreening in our county  
8 jails when somebody who comes in and indicates  
9 that they may have a problem with a mental  
10 illness and at risk in a prison.

11 But the real challenge is in rural  
12 areas. Again, we've talked about this, in  
13 certain communities, they don't have broadband  
14 access. So they can't do the tele -- can't use  
15 the television to actually do those screenings  
16 and work with the magistrates to determine  
17 whether that person needs to be monitored in the  
18 jail. And that, along with the better screening  
19 tools, really makes a difference.

20 So we're still working on that. But  
21 clearly, we can't get the ability, the technology  
22 to those places. Those are the communities that

1 have the hardest time paying for it, because  
2 they're low populations that doesn't raise a lot  
3 of tax revenue.

4 The other piece I think really good  
5 and -- and I know Dr. Zerwas will add to this --  
6 is that under our 1115 transformation waiver from  
7 the Center for Medicaid and Medicare Services, we  
8 have implemented telepsychiatry and telehealth  
9 mental health with our schools and with children.

10 It gives them better access to the  
11 needs that they have, even if their parents can't  
12 get them to provide. So, you know, we always  
13 like to rag on certain people, but that's  
14 something that Governor Perry was the catalyst  
15 behind and the reason why it worked. And that  
16 was a very good thing. Because that worked with  
17 the increases that Dr. Zerwas put in for our  
18 mental health treatment.

19 So with all of that, I think we have  
20 a good start. Outside of that, we're still  
21 struggling with how do we expand telemedicine  
22 through people, you know, companies like Teladoc

1 and others. You know, there's a struggle between  
2 where there's a physician on both sides of the  
3 swing. Who is taking responsibility for that  
4 patient? And we still haven't gotten there yet.

5 Although, I believe the private sector  
6 hospitals are moving ahead of us to use that  
7 technology for follow-up with patients that have  
8 been discharged.

9 MS. WINNIKE: Those are some really,  
10 really great points. I wanted to move next to  
11 you, Dr. Zerwas, to get the physician  
12 perspective. I mean, you've been working on this  
13 for a long time. And I know another thing that  
14 you're interested in is issues related to  
15 veterans.

16 And so, that's something we talked  
17 about earlier today, about making sure that we  
18 have mental healthcare access for some special  
19 populations. Populations related to veterans or  
20 individuals with disabilities.

21 And from the physician side -- and  
22 Representative Coleman mentioned this -- about

1 through these sort of new care teams who are  
2 doing integrated care and integrating mental  
3 health.

4 And I want to sort of get your  
5 perspective on that and if you think that that's  
6 the way we should move forward and if that would  
7 be the proper way to address some of these  
8 underserved populations.

9 MR. ZERWAS: Sure. Well, thanks for  
10 having me. Appreciate it that you've allowed me  
11 to participate in a very distinguished panel  
12 here. And General Coleman, it's always a  
13 pleasure to be on with him. He and I do a lot of  
14 these together, and we don't agree on everything,  
15 as you might imagine, but we agree on most  
16 things. And when it comes to the mental health  
17 issue, I will tell you we are right in line with  
18 each other on this. And the question is not  
19 whether we agree, it's coming together so we can  
20 push through. You know, we sort of test the  
21 system periodically when we do that.

22 A general comment I'll make about, you

1 know, utilizing technology by moving into the  
2 digital age of healthcare and medicine is a story  
3 that I was told, Dr. Gibbons you may remember,  
4 somebody may have told you.

5 But back when there were the horse and  
6 buggy days of the doctors getting around and  
7 stuff like that and taking care of their patients  
8 and making some house calls and things like that.  
9 You know, this younger doctor that might have  
10 been about my age might've asked that grandfather  
11 or great-grandfather, "What was the greatest  
12 innovation in your era, you know, Grandfather, in  
13 terms of your days of the horse and buggy and so  
14 forth?" And, you know, most of us would think  
15 like some kind of, you know, breakthrough with an  
16 antibiotic, even though that was well after that,  
17 or something like that.

18 But he said, "Roads." He said, "Roads  
19 was the greatest breakthrough." And, well, you  
20 scratch your head and say, "Why?" He said,  
21 "Because it let me get to my patients faster so I  
22 could get there to take care of them."



1           And we all know that that's an  
2           incredibly important thing. There's the golden  
3           hour of taking care of a trauma patient for  
4           which, you know, air ambulances have made a  
5           tremendous improvement in and so forth.

6           But the digital age is allowing us to  
7           get to our patients faster, with better  
8           knowledge, with less redundancy. So you're  
9           improving care, enhancing cost-effectiveness and  
10          so forth. And so I think this age that we're in,  
11          and a lot of us that are in the middle of it as  
12          doctors, especially in my generation, we kind of  
13          come kicking and screaming a lot, but we come.

14          You know, I mean, the fact I'm  
15          carrying this thing around and not a notebook and  
16          paper is an example of that, you know? I don't  
17          necessarily like it, but it works and my staff  
18          make me use it.

19          But it makes, I know, me a better  
20          doctor. I'm an anesthesiologist so I'm in a  
21          field full of technology. Absolutely full of  
22          technology. We don't have intubations in the

1 esophagus anymore. It was a common death under  
2 anesthesia. You put the tube in the wrong place,  
3 and you don't transfer much oxygen when you stick  
4 it in the stomach instead of the lungs. And so,  
5 you know, patients died under that. It was  
6 always a horrific outcome.

7 Well, we have technology that came  
8 about in the '80s that basically eliminated that.  
9 You stick it in there, you get carbon dioxide  
10 back, you're probably in the right place. Very  
11 likely. Stick it in there and you don't get it  
12 back, then you're in the wrong place, you know,  
13 or your patient's dead. So you've got to do  
14 something about it either way.

15 But, you know, I think that where we  
16 have seen -- you talked about specific  
17 populations, you know. I think the reality is  
18 all populations are having a challenge in mental  
19 health. One in four individuals across the  
20 country has a mental health issue. I think  
21 that's the number that we commonly use.

22 Now, it could be severe mental

1       impairment or it could be a more moderate,  
2       controlled mental impairment. But it is probably  
3       one of the most common maladies that we have out  
4       there. But yet, we separate it from physical  
5       health, which is a problem that we who are  
6       trained in medicine, you know, have built. You  
7       know, we have allowed that to happen.

8                So we have moved forward starting to,  
9       in effect, combine that. So that, you know,  
10      there is, you know, a combined physical and  
11      mental health approach to people.

12             You know, put some things in place to  
13      try create -- take down those barriers so that,  
14      you know, when we see people, we don't see them  
15      just for their heart or their lungs or the kidney  
16      and pancreas and all that. We see them also for  
17      their brain and for their mental health  
18      conditions and things like that.

19             And we know that that's probably one  
20      of the most important things that we can do,  
21      because the average age of death of somebody with  
22      a severe mental illness is 50. You know, that's

1 tragic.

2           And so it's an area that I think  
3 deserves a lot of focus by us as health  
4 professionals, people who are interested in  
5 health, and us as a state in terms of how we  
6 appropriate money to make sure that we're  
7 addressing certain areas where there are  
8 tremendous needs.

9           You know, the veterans are a group  
10 that all of us, I think, our heart goes out to  
11 them. You know, they come back traumatized.  
12 There's billboard going into Austin that shows  
13 what's killing our soldiers, and they show it  
14 different. They show a bullet and then they show  
15 other things. And then they show a big opioid  
16 capsule. And that's the biggest thing that's  
17 killing our veterans right now. And, you know,  
18 opiate drug abuse, controlled prescription drug  
19 abuse, is one of the biggest challenges we have  
20 right now.

21           So mental health is not just a single  
22 -- it's not just depression, schizophrenia,

1 bipolar disease. It's a whole spectrum of  
2 conditions that can dramatically impact people.  
3 And we're not going to get it by trying to  
4 connect everybody with a psychiatrist or a  
5 psychologist or a mental health person. We're  
6 not going to get where we need to be without  
7 addressing the technological advances that are  
8 out there for us to use.

9 Telemedicine is -- and I know Teladoc  
10 is just a phone call of a doctor talking to a  
11 patient that's never even seen. You know, it's  
12 separate -- a little more controversial than the  
13 video telemedicine-type activity that we have out  
14 there. I think that's much more well accepted  
15 out there.

16 But I don't think we have come close  
17 to really leveraging the value of that technology  
18 and meeting urban and rural population needs out  
19 there, mental health needs. Any other needs, in  
20 fact, that you have out there.

21 So I'm excited about where we're  
22 going. We, as a state legislature, don't get

1       there fast. But I would say there's a reason for  
2       that, because as Ms. Robinson will attest to, the  
3       role of the Texas Medical Board is not to protect  
4       the doctors. It's to protect the public.

5               And, you know, sometimes moving fast  
6       on certain types of technology might put the  
7       public at risk. And that's the last thing that  
8       any of us want to do. But my personal feeling  
9       is, the most remarkable use of telemedicine has  
10      been in stroke care.

11             You've got a stroke unit right out  
12      here in the parking lot, I noticed when I walked  
13      in. But, you know, to witness somebody who comes  
14      in with a total paralysis through an embolic  
15      stroke, and they're in Beaumont or they're in  
16      some other "remote location" from the fantastic  
17      Texas Medical Center. But yet, through  
18      telemedicine and robotics and education on both  
19      ends of the camera, you know, you can witness  
20      somebody actually totally recover their impaired  
21      limb, total hemiparesis resolved just like that,  
22      which only happens because you've got

1 telemedicine connecting the best doctors with the  
2 excellence that they have, with people at the  
3 other end with fantastic, you know,  
4 pharmaceuticals doing magical things almost.

5           And what would have resulted in a  
6 person living in a totally disabled state for,  
7 who knows, 10, 15 or 20 years, and the enormous  
8 cost that would be, not to mention the quality of  
9 life. They within days walk out. You know, I  
10 think it's just one of the most amazing things.  
11 And it's happened because we have leveraged  
12 telemedicine, in addition to all of the other  
13 great breakthroughs that we have made out there.

14           So, for me, telemedicine and the whole  
15 digital enterprise with medicine is highways.  
16 You know, it gets us to our patients faster,  
17 quicker, with more accurate information, and  
18 therefore more effective therapy systems.

19           MS. WINNIKE: That's such a great  
20 metaphor with the highways, because we always  
21 hear about the golden hour in medicine.  
22 Especially in trauma, to make sure that a person

1 gets care right away.

2 And we've seen with your example with  
3 the mobile stroke unit. We heard earlier about  
4 the programs out at Texas Tech in West Texas  
5 trying to get care to folks, you know, as  
6 quickly. And it makes a huge difference. It  
7 saves lives. It improves quality of lives trying  
8 to get care faster.

9 And also it saves money. Because like  
10 you said, if you're the difference between, you  
11 know, a completely -- a person who is very much  
12 incapacitated for many, many years is a higher  
13 cost and burden on themselves and their families  
14 versus someone who's able to get those kind of  
15 medicines very quickly, because we now have all  
16 kinds of technologies just to connect people.

17 MR. ZERWAS: One other just quick  
18 thing I'll share with you that's along those  
19 lines of what we're seeing happen is my sister is  
20 a now retired trauma surgeon from the Army and  
21 did several deployments over in the Middle East  
22 and Afghanistan.



1                   And we were chatting one day about,  
2                   you know, things that were happening there. And  
3                   she said that the greatest thing that has allowed  
4                   for us to save, you know, the warriors is we can  
5                   actually do so much at the site of the injury.

6                   So when somebody, you know, falls  
7                   victim to an IED or something and gets four limbs  
8                   blown off and there's nothing but a torso left,  
9                   they live now. They live. Now, you know, the  
10                  question is if God intended them to live. You  
11                  know, that's a different story out there. But we  
12                  have been able to save people with that magnitude  
13                  of trauma.

14                  That has led to the huge advancements  
15                  in prosthetics now. So with the prosthetics that  
16                  you're seeing today -- every war brings some  
17                  great advancement in medicine. Vascular  
18                  surgeries from the Korean War and World War II  
19                  and other things.

20                  But I am convinced that this period of  
21                  war that we've been in, the prosthetics have just  
22                  been amazing that have been able to be put in

1 place. Connecting them now to the brain, you  
2 know, so it's a much more natural response that  
3 the injured person gets. And they become, you  
4 know, engaged citizens again. They're not just  
5 people that are, you know, in supportive care.  
6 You know, they actually get around and do things.

7 And there's no shame about having a  
8 prosthetic device. Good grief, I mean, if  
9 anything, it's just the opposite, you know. And  
10 people love to look at the technology and see  
11 what great advancements have been made and stuff.

12 So it's a very, very exciting time to  
13 see what's happening, and I know we're a little  
14 off topic here for you. But it's, again, just  
15 what's happening in the whole sphere of  
16 technology out there.

17 MS. WINNIKE: Thank you. I wanted to  
18 bring in Mari Robinson. I'm so happy that she's  
19 able to join us, as a regulator with the Texas  
20 Medical Board. And we have here the FCC, also  
21 federal regulators.

22 And a lot of times, you know, in

1 healthcare and other areas, people say, "Oh,  
2 regulations. Bad." Or "Regulations, we don't  
3 know what's going on." And so I would love for  
4 you to just give us an overview about what does  
5 the Texas Medical Board regulate and where is  
6 their role with our mental health regulations  
7 here in Texas relating to physicians?

8 MS. ROBINSON: Okay. So I've heard  
9 several different threads of this argument sort  
10 of touched on today. You've talked about, you  
11 know, funding and where that's all going to come  
12 from. You've talked about scope of practice,  
13 which is going back to this idea of teams and  
14 who's going to do what.

15 And then obviously just the very  
16 basic, most on-point regulation, which is what  
17 does the Medical Board rules say about  
18 telemedicine, particularly, in line with  
19 behavioral health, right?

20 And so I'm going to start with that  
21 piece, because obviously it is the most pragmatic  
22 of all of that. And right now, actually, with

1 the Texas Medical Board, when you're talking  
2 about behavioral health -- and I should note.  
3 This is an issue that TMB has been working on  
4 with the stakeholder group for seven years now.  
5 And we've gone through lots of iterations.

6 As the technology continues to  
7 develop, the rule continues to change. And they  
8 foresee that continuing to happen, because you  
9 can't know a year from now what it's going to  
10 look like. The rule will need to adapt to take  
11 in that newness, right? Like now we're working  
12 on expanded call coverage and things like that.

13 So, going back to behavioral health.  
14 The Medical Board rule is very, very broad in  
15 relation to medical health, in that, you can  
16 absolutely do behavioral health over any  
17 telemedicine device. And you can treat a patient  
18 that way and establish care that way, unless they  
19 are having what is defined as a behavioral health  
20 emergency. And we're relying on the definition  
21 assigned by Health and Human Services for that.

22 But to save you all from reading that

1        tonight, I'll tell you what that is. And that is  
2        definitionally that a determination has been made  
3        that any attempt at talk therapy has been deemed  
4        to be ineffective and that the individual is a  
5        present danger to themselves or the people around  
6        them.

7                        So obviously, that is a very high  
8        standard for that to have to kick in. Otherwise,  
9        behavioral health can absolutely be done via  
10       telemedicine. It can be used to establish that  
11       relationship. It can be used to continue that  
12       relationship. And it can be done in any physical  
13       setting.

14                        That's what the medical board allows;  
15       however, the limiting factor on this is twofold.  
16       Number one, there's a federal law and it's called  
17       the Ryan Haight Act. And I'm not sure how many  
18       of you are familiar with it. Probably a lot you  
19       if you're attending a health law conference.

20                        But in general it says you cannot  
21       prescribe a controlled substance to an individual  
22       without examining them in person first. Not face

1 to face. Not through a telemedicine medium of  
2 any kind. It could be the most heightened  
3 telemedicine thing that you could think of. It  
4 could be a hospital ER with a nurse standing  
5 there. It still doesn't meet the standard under  
6 federal law. The doctor has to see them in  
7 person.

8 Now, why is this? I will tell you  
9 this law was created for an entirely different  
10 purpose. This was before telemedicine was -- it  
11 might have been a twinkle in someone's eye, but  
12 that's about it, right? And what was happening  
13 is folks were selling opioid drugs online over  
14 the internet. And unfortunately, a poor soul,  
15 Ryan Haight, died from an overdose of purchasing  
16 those drugs.

17 So what we would up with was a very  
18 broad law prohibiting all controlled substances,  
19 which unfortunately a lot of psychotropic drugs  
20 fall into that category. They are controlled  
21 substances.

22 So there is no way to prescribe those

1 over telemedicine under current standards. The  
2 most common drug you're going to see that with  
3 for a particularly children are ADHD medicines.  
4 Those are schedule two and schedule three drugs.  
5 So you cannot start that care relationship, under  
6 federal law, without seeing that child in person.  
7 That is not a medical board rule. That is a DEA  
8 law.

9 Now, the federal law does contemplate  
10 the idea of creating a registry to allow for  
11 exemptions of this. And there has been an  
12 ongoing dialogue with the DEA from several  
13 parties in Texas to try to see if there is a way  
14 to get this registry up and running,  
15 particularly, for state programs for behavioral  
16 health in the underserved areas. And it is my  
17 understanding that they are presently working on  
18 that.

19 Now, I haven't seen anything be  
20 published yet. I'm told that passing a rule is  
21 still faster than passing a federal law. So we  
22 are following that. And I'm actually meeting

1 with some DEA representatives on that in a couple  
2 of weeks. But right now, your limiting factor --  
3 at least as far as the legal aspect is concerned  
4 -- is that federal law, not the board rule.

5 Your other issue that has been touched  
6 on is the serve, skip or practice issue that  
7 you're talking about. And when that dials back,  
8 what you're looking at in the State of Texas is  
9 the idea of diagnosis and prescription of drugs.

10 These are the two areas that are the  
11 most tightly controlled and regulated, deemed to  
12 be the practice of medicine as far as the statute  
13 is concerned. And as it stands right now, that  
14 can be done by a physician. It can be done by an  
15 advance practice nurse. It can be done by a  
16 physician assistant, with the latter two having  
17 had established a supervisory and delegatory  
18 relationship with a physician.

19 And that's where that stands in the  
20 State of Texas right now for that level.  
21 Obviously, when you're talking about  
22 psychologists, you're talking about talk therapy,



1 that type of thing, that's not necessarily going  
2 to fall under that realm. But when you're  
3 getting into the more advanced stages of  
4 diagnosis and prescribing of drugs, you've got  
5 that factor that you have to consider when you  
6 are putting out these programs.

7 And this is actually statutory. This  
8 is not a board rule. So for something to change  
9 in that, that would be a legislative  
10 consideration, whether they thought that was  
11 appropriate to do or not. But that's how that  
12 exists right now.

13 The idea of follow-up after being seen  
14 in a hospital is absolutely permitted right now  
15 under the board rules. So if you went to a  
16 hospital and you got a diagnosis and they wanted  
17 to do follow-up with you through any modality,  
18 that would be permitted. Because that  
19 physician/patient relationship or PA or a PN or  
20 whatever the appropriate provider was, was  
21 established through that hospital visit.

22 And as long as the standard of care is

1 being met, you're golden. The board thinks  
2 that's great. They want that sort of expansive  
3 thing to happen. And the west Texas stuff  
4 overseen by Dr. Phillips, is a wonderful example  
5 of that.

6 Using the ENTs, stocking them with  
7 technology, sending them out into the community  
8 to gather that diagnostic information to make  
9 that initial diagnosis, to establish that  
10 physician/patient relationship and then allow  
11 follow-up to up to a year through whatever other  
12 modalities are important.

13 Now, I mentioned one other limiting  
14 factor and here's what it is. It's the standard  
15 of care, right? That is always going to be the  
16 bedrock of what the Medical Board is falling back  
17 on. And I am not going to in any way represent I  
18 can tell you what it is. You remember the lawyer  
19 intro stuff, right? I can tell you what the law  
20 says. It's up to our board to say what the  
21 standard of care is and the medical community at  
22 large.

1           But, I can tell you that in general  
2 when you're talking about a lot of psychotropic  
3 medications that are out there, testing is  
4 required. You know, you have to have blood work  
5 done to check for certain enzymes. You have to  
6 have follow-up done that is going to require --  
7 as of right now -- somebody to draw that blood,  
8 somebody to analyze that blood, et cetera.

9           Urine screens may be necessary if  
10 we're talking about addiction treatment in this  
11 realm. It really just depends on what it is  
12 you're talking about. Every diagnosis is unique.  
13 Every diagnosis has its own standard of care.  
14 And every diagnosis is going to have to have that  
15 plan. Not all of it can be done over the phone  
16 as we sit here today.

17           My joke has always been, someday my  
18 iPhone will take my blood and tell everyone I  
19 want it to what's going on with me, right? And  
20 I'm hoping I'm retired by that time, quite  
21 frankly. I don't think I will be though, given  
22 the rate that technology is going.

1           But as it stands right now, we don't  
2           have that capability. And what the board's  
3           primary concern is, the idea of subverting the  
4           standard of care for the sake of convenience.  
5           And that is the primary issue that they see with  
6           some of the models that exist.

7           Most of the models that exist  
8           absolutely are permissible under the law. They  
9           meet what the board's standards are. And I think  
10          just a lot of people don't flat out know about  
11          them unfortunately.

12          I've had somebody say to me, "Well, I  
13          hate seeing that burn victims have to come to the  
14          hospital after they've been there once for  
15          follow-up. It's a terrible trip for them to have  
16          to make." And that broke my heart a little bit,  
17          because they don't have to come back to the  
18          hospital. They don't. And I would hate the idea  
19          that they're making that trip because somebody  
20          doesn't understand the law.

21          And so that's sort of where we are.  
22          We are in an area of misinformation in a lot of

1 cases. Not every case, but in a lot of cases.  
2 And so the challenge is to tailor the laws and  
3 the regulations in a way that balances safety  
4 with the available technology to leverage that to  
5 get care of effectively to the most people they  
6 can.

7 But, I can tell you that the board is  
8 never going to think it's okay for it to be  
9 convenient if the standard of care is not being  
10 met. And that's just sort of their fine line on  
11 all of this.

12 And I also appreciate the ability to  
13 participate today also. Thank you for having me.

14 MS. WINNIKE: Thank you for coming.  
15 This is actually an excellent description of how  
16 there are so many complexities with our, you  
17 know, State of Texas laws, the federal laws, our  
18 regulations here, federal regulations. It's not  
19 a monolith. There's a lot of things going on.  
20 And like you said, a lot of information.

21 In my own plug, it's good to know a  
22 health lawyer here at the University of Houston

1 Law Center, number two ranked health law program  
2 in the country. So I know where to find some if  
3 you're looking for some. That's my own little  
4 plug.

5 But this really moves onto Nora and --  
6 who is with the Texas e-Health Alliance. And you  
7 represent all of these great organizations and  
8 companies in Texas who have these great  
9 technologies. And I wanted you to talk a little  
10 bit about the types of technologies that your  
11 alliance members use and want to use and where  
12 you would like to see things moving on the  
13 legislative and regulatory side.

14 MS. BELCHER: Sure. So, my wishlist.  
15 That's a dangerous question to ask a lobbyist in  
16 the summer before our legislative session.

17 I think there are three things that  
18 are really important here. We talk about  
19 broadband -- and I've been in this fight since  
20 the 1990's. So I used to be fighting about how  
21 fast can we move the data. And now, my people  
22 can literally build you anything. Isn't that

1 exciting and terrifying all at the same time?

2 If you can conceive of an app or a  
3 delivery methodology, we really can build it and  
4 craft it. So I think the first thing is it's  
5 incumbent on our industry to listen very  
6 carefully to our providers and to our patients.  
7 And the most successful models that I am seeing  
8 are coming from providers and patients coming to  
9 the technology community and saying, "Can you  
10 build us a telemedicine model that helps us with  
11 call coverage?" "Why, yes we can." And we can  
12 pitch that to the medical board and they'll think  
13 it's a good idea and they'll help us make it  
14 real.

15 So it's not so much that we are  
16 sitting in our basement laboratories, like,  
17 cooking up stuff. I mean, there's a little bit  
18 of that. Some of that's kind of cool. Don't get  
19 me wrong. But the models that are going to stick  
20 are going to be the integrated models.

21 The models that engage the consumer,  
22 their family, their providers, their care team,

1 their community in all sorts of ways. Because  
2 it's going to be different depending on if you  
3 have a mental health diagnosis, if you're post  
4 discharge with a knee injury.

5 I like to use the phrase "the last  
6 mile." And telecom people always look at me and  
7 they're like, "You're stealing our phrase." Yes,  
8 I'm stealing your phrase. It's very important.  
9 Because to me that last mile is the gap between  
10 the physician visits.

11 Because what do people do? We go to  
12 the doctor. They tell us what to do. We nod  
13 politely. We maybe pick up our drugs, maybe we  
14 don't. We don't make the behavioral changes. We  
15 come back in six months and we're pissed because  
16 our health status has not changed.

17 So the models that we're seeing,  
18 whether it's what Valera showed today, other  
19 things that being cooked in the incubator. I  
20 work with South by Southwest. They had 5,000  
21 people come to the health care expo at South by  
22 Southwest in Austin this year to look at the



1 virtual reality apps.

2 We're going to have virtual reality  
3 apps that are going to let physical therapists  
4 move patients at a distance and participate in  
5 therapy without having to be in the same room.  
6 There is -- I mean, I get goosebumps talking  
7 about it. There's extraordinary stuff coming  
8 down the pipe.

9 But at the end of the day, there is --  
10 there are those things. We have to listen to our  
11 providers. We have to listen to our patients.  
12 We have to focus on closing those gaps in care.  
13 And we have to not forget that high tech doesn't  
14 always mean we don't have high touch.

15 The really successful implementations  
16 to me are the ones who are going to automate the  
17 routine, like my watch is going to take my blood,  
18 check my insulin periodically and send that to my  
19 doctor. And that's going to relive my stress and  
20 my provider's stress, because now I know it's  
21 being checked. But that's also going to mean I'm  
22 actually having more contact with my nurse

1 practitioner, because they know what's happening  
2 with my blood sugar levels.

3 It's the combination of high tech and  
4 high touch that is transformational when it comes  
5 to these technologies. And so when I look at  
6 what my companies are doing, the place where  
7 we're seeing the most success is not where we  
8 brought technology in and we expect you, doctor,  
9 to change and adjust to the technology. It's  
10 where the technology comes in and it solves a  
11 problem and it frees up our very precious  
12 resources so they can be used in the most  
13 effective way possible.

14 It's an extraordinarily exciting to be  
15 in this space because of what's possible. But  
16 it's got to be collaborative and it's got to be  
17 built around the patient and it's got to engage  
18 with providers. And if you do those three  
19 things, the sky's the limit. And that phone app  
20 that she's talking about, it's on its way. Home  
21 blood testing is one of the hottest start-ups in  
22 the market right now.

1           People want access to their  
2 information, because the consumer revolution is  
3 coming, people. And as providers, you all better  
4 be ready. Because when the Baby Boomers wake up  
5 and realize how lousy the health care system is,  
6 do you really think they're going to settle for  
7 things as it currently is as a generation? Wait  
8 until they hit the long term care system. That  
9 is going to be epic and not in a good way. So if  
10 you're looking to make an investment, that's a  
11 space that's in desperate need of innovation and  
12 technological change.

13           And I will stop there because I know  
14 we're over time. But thank you for having me.  
15 Thank you for not having me interrogated by these  
16 two. That's usually my life.

17           This is an amazing event. And I so  
18 appreciate the FCC coming to Texas and signaling  
19 that there are partnerships that we can have with  
20 federal partners as well. That's extremely  
21 important. Very, very important.

22           MS. WINNIKE: Thank you so much. And

1 I want to be able to open it up for questions.

2 But I actually have a person I want to ask a  
3 question to first, because I want to bring this  
4 back to Lex Frieden's keynote earlier talking  
5 about access to care.

6 And I know how important it is -- and  
7 you mentioned this earlier -- to have access,  
8 especially for individuals with disabilities.  
9 It's a real issue. And that you feel like  
10 technology is a way that we can increase access.

11 And access is an issue for a wide  
12 spectrum of folks in your particular expertise  
13 with disability. And I wanted to open the floor  
14 to you and see if you had any questions or  
15 comments related to that about things coming up  
16 in the new legislative session that will start  
17 soon and things that you might be looking for on  
18 the access side.

19 MR. FRIEDEN: The House has a number  
20 of issues. Pointing to the analogy very quickly.  
21 Thanks. In 1989, the first congressional hearing  
22 on the bill outside of Washington was here in

1 Houston, Texas at the service center. And  
2 Congressman Steve Bartlett, who was the ranking  
3 member of the committee that was leading the bill  
4 negotiation, was a friend of mine. And we picked  
5 him up the airport and dropped him off at his  
6 hotel.

7 And my wife, who was driving, said,  
8 "Congressman, let me know when you'd like me to  
9 pick you up for dinner." And he said, "Well,  
10 I'll just give you a call." And he reached  
11 inside of his bag and he pulled out a brick. And  
12 my wife said, "What's that?" And he said, "Oh,  
13 it's a mobile phone. Doesn't everybody have one?  
14 You should have one, particularly if you have a  
15 disability and you might get stuck on the  
16 roadside." And my wife was like, "Wow. You  
17 know, he doesn't really get it?"

18 And I had the same feeling when I come  
19 to these kinds of meetings and hear high tech  
20 companies talking about the next step forward.  
21 You know, the wheelchair with brains and all  
22 that. Most people that need a wheelchair like

1 that don't ever get it. And I'm not sure that  
2 the people who are racing ahead with the  
3 broadband development even get it.

4 Because in doing so, without starting  
5 from the bottom to be sure that it is inclusive  
6 technology, they are missing a large part of our  
7 society and a large opportunity that we have to  
8 make lives better for people.

9 And I just think we have to  
10 concentrate on what happens in the beginning of  
11 the process. And in Texas, we're proud to say,  
12 "If you're not going to play our rules, don't  
13 play." Why don't we in Texas say, "If you're not  
14 going to provide accessible software in our  
15 state, you're not going to play. You can't sell  
16 it here." You know, where are we going to reach?

17 And over the internet. There is  
18 internet a lot of places, but if you're not ready  
19 to go into a restaurant and pay for a meal,  
20 you're not going to get that password. Why is  
21 that? I mean, every restaurant on the block has  
22 the internet. Why aren't we saying if you have a

1 public internet, then make it open to the public?

2 I'm not saying every individual that  
3 has in effect put in a modem has to make their  
4 wi-fi internet to people on the streets open.  
5 But if Xfinity -- most people don't know that if  
6 Xfinity is using your modem for a public/private  
7 internet that they've got where you have to a  
8 subscriber. You know, why not make that open to  
9 the public so that people who need it, who can  
10 use it and perhaps benefit from it the most, have  
11 it?

12 MS. WINNIKE: Thank you. Thank you.  
13 Would anyone like to respond a little bit about  
14 the access issue?

15 MR. COLEMAN: Well, access is real.  
16 It's a real problem. In Texas, we were supposed  
17 to expand broadband across the State and we voted  
18 on a bill in 2006. But what got squashed was  
19 municipal wi-fi and municipal connections, which  
20 were to be free. So we actually lost the  
21 opportunity to have free broadband in the State  
22 of Texas actually operated by our larger

1 municipalities.

2 Now, that of course, wouldn't help  
3 every other region of the State. We were also  
4 supposed to have connections into all of our  
5 schools, which meant that public schools, which  
6 meant that that would take that throughout every  
7 community and have that availability. And that  
8 just didn't happen.

9 There still is a digital divide.  
10 There are some people who, you know, get it --  
11 just like you said, they may get it at a  
12 restaurant. But libraries have not been able to  
13 keep up with the demand and also the cost of  
14 being able to afford connections to the internet.

15 I think I pay -- at one time I had  
16 three internet connections and I think I had --  
17 it cost me \$200 a month. That's a lot of money,  
18 folks. And it hasn't gotten much better. But  
19 it's getting better. But it hasn't got much  
20 better. But the promise of municipal or other  
21 types of wi-fi or connection dying is really what  
22 has exacerbated the divide, because it requires



1 the kindness of others in order to be able to  
2 afford it.

3 MR. ESCRIBANO: Thank you. Thank you  
4 very much. Glad to be here at the University of  
5 Houston, for the Center for U.S. and Mexican Law.  
6 And my question is for Ms. Mari Robinson. I have  
7 seen great fear -- have great fear of the system  
8 allow doctors to treat after this first interview  
9 or consultation.

10 Now, I think -- and I know the rule  
11 isn't new. The initial rule going from year to  
12 year. I would like to know the Texas Medical  
13 Board's advice, for instance, we've been hearing  
14 before that we have at Texas Medical Center's 21  
15 hospitals. Much of that is one pretty much -- or  
16 very much focused in cancer.

17 A person that is restricted with  
18 cancer here, but then that goes outside from the  
19 State. Then this possibility is not -- is not  
20 for the doctor. So I mean you will listening --

21 MS. ROBINSON: I'm trying to figure  
22 out your question. Are you saying that if you

1 got treated in the cancer center here, and then  
2 you went to somewhere else, you moved out of  
3 Texas, whether you could get care or not from  
4 that Texas physician? Is that what you're asking  
5 me?

6 MR. ESCRIBANO: Yes, I mean, your  
7 example was very clear as if the person that got  
8 burned that came. You said he shouldn't come,  
9 because he could have had treatment with  
10 telemedicine.

11 This person could have had treatment  
12 being burned in California with a doctor here?

13 MS. ROBINSON: So you're touching on  
14 a fourth issue. Okay? And that is licensing,  
15 right? That's a completely different issue. And  
16 that is almost -- well, I'm not aware of any  
17 state that would tell you that it is okay for you  
18 to provide health care in their state without  
19 being licensed, right?

20 And hold on. I see you're right. But  
21 let me finish up. The reason for that is,  
22 there's no way to oversee the practice if they're

1 not licensed in your state. What you would do  
2 would be to drive the incentive towards treating  
3 people who are in your state so that you would be  
4 liable to no one, right? Because you would treat  
5 California people. You live in Nevada. You  
6 don't have California license and California  
7 can't do anything to you if that all goes badly,  
8 right?

9 I've had people say to me, "Well, why  
10 don't we have a national license the way that you  
11 have a driver's license and you can go from state  
12 to state to state?" And my response is, "You can  
13 absolutely do that, as long as you are willing to  
14 be liable to the state of New Mexico for whatever  
15 goes wrong with your treatment of New Mexico  
16 patients." You could create that. Just like if  
17 you were driving through New Mexico and you got  
18 pulled over, you would have to pay that New  
19 Mexico speeding ticket.

20 But every time I've said that, every  
21 doctor looks at me like I've lost my ever loving  
22 mind, because they do not want to be responsible

1 to all the other medical boards in the State.  
2 But you could absolutely create that if you  
3 wanted to. But there's got to be an oversight  
4 piece to that.

5 Licensures is only one half of the  
6 regulatory scheme. That's the gatekeeping half.  
7 We're ensuring that you're able to get through  
8 this door. The other half is once you're through  
9 that door, we want to make sure that if anything  
10 goes on or you stop being able to do it, we have  
11 a mechanism to take care of that for the public.

12 So if you can create a situation that  
13 addresses both sides of that, you could have a  
14 national license. And then it wouldn't matter  
15 where the patient was or the doctor was.

16 MR. ESCRIBANO: Yes, but I mean,  
17 hearing your -- your prior proposition, you could  
18 -- I understand really this person shouldn't be  
19 moving. But then only the Texas person. And  
20 that's what my question was actually.

21 MS. ROBINSON: Right. It's licensure.

22 MR. ESCRIBANO: What is the Texas

1 Medical Board doing in order to really make the  
2 telemedicine effective because telemedicine  
3 intends to actually go beyond the frontiers. And  
4 it will help us fight shortage of medical doctors  
5 to educate.

6 MS. ROBINSON: It's licensure.

7 MR. ESCRIBANO: And then, like, federal  
8 assistance. It's federal assistance or it's Texas  
9 Medical Board trying to influence the legislature  
10 in order to say, "Yes, we can introduce this  
11 position into the law, telling with this aspect  
12 and with this and solving the problem.

13 MS. BELCHER: Right. And I understand  
14 exactly what you're saying. In the Veterans'  
15 Administration, they are liable to the Veterans'  
16 Administration so both pieces are there.

17 If you want national licensure, you  
18 have to have both sides. And the problem with  
19 the things that have been proposed, they only  
20 have the first. They only have the licensing  
21 aspect. They don't have the follow-up aspect.  
22 There is -- you can't -- well, you can. If you

1 don't care anything about enforcement you can  
2 say, "Anyone with any license can practice on any  
3 patient anywhere." But then there is no  
4 oversight or follow-up, because no one has the  
5 authority to do that.

6 I, as the Texas Medical Board, would  
7 not have the authority to do anything about a  
8 doctor living in Louisiana who did something to a  
9 Texas patient. That's how the jurisdictional  
10 laws are created. There's no jurisdiction.

11 So unless when you create a national  
12 license, you create that enforcement  
13 jurisdiction, you're only solving one half of the  
14 problem, right? And you get rid of the other  
15 half of all of that.

16 So unless that can be addressed,  
17 you're going to continue to have these walls  
18 between who can treat what. It's not to say the  
19 issue can't be fixed. It can. But it can't be  
20 fixed intelligently by simply saying, "Now  
21 everyone can do anything everywhere and there's  
22 no oversight at all."

1                   MR. ESCRIBANO: It's not that  
2                   simplistic. But if we know exactly how to deal  
3                   with these three issues you mentioned, there is  
4                   the possibility of really making telemedicine 100  
5                   percent.

6                   MS. BELCHER: Well, there's that pesky  
7                   10th Amendment where the states retain some  
8                   sovereignty to make some decisions. And states  
9                   regulate things differently.

10                  So there is not even agreement  
11                  necessarily on the standard of care of practice  
12                  when you cross state lines. So the solution the  
13                  industry is using is actually just to have our  
14                  physicians credentialed in multiple states.

15                  And there is an interstate compact for  
16                  the exchange of licensure, which we made a run at  
17                  in this last session and we'll make a run at it  
18                  again. Nurses have one. EMS just did one up.  
19                  That expedites the credentialing, but protects  
20                  the sovereignty of the individual states and  
21                  their ability to protect their individual  
22                  patients.

1           So until you get rid of the 10th  
2 Amendment, you're going to have this sticky  
3 wicket of the States' sovereignty over the people  
4 who live in their states. For the companies that  
5 I represent, who I have doctors credentialed in  
6 all 50 states. It's a pain in the butt, but it's  
7 doable within the current regulatory framework.

8           Congress has shown no enthusiasm for  
9 national licensure. So the interstate compact is  
10 the compromise. And we have, what, 14 states  
11 onboard at this point?

12           COMMISSIONER CLYBURN: Yeah. It went  
13 live. More are looking to pass.

14           MS. ROBINSON: So at some point, if  
15 all 50 states are in the compact, your problem is  
16 solved because then it will be easy to get  
17 expedited licensure in whatever state you want to  
18 treat a patient.

19           MR. COLEMAN: We can find the  
20 solutions, I think. But I find it -- maybe it's  
21 my on perspective. I'm sorry about this. It's  
22 just more integration is that thinking that we



1 have this human capital extremely trained.

2 MS. BELCHER: Again, that pesky 10th  
3 Amendment in our Constitution. You all don't  
4 have it. We do. And it's very, very  
5 jurisdictionally and legally important, because  
6 if you've been to one state in the U.S., you've  
7 been to one state. We have an enormous amount of  
8 variation culturally, regulatorally. The north  
9 eastern states are different from the western  
10 states. And we like it that way. So I think  
11 it's unlikely that there's going to be a change.  
12 I'm speaking here as the lobbyist again. I think  
13 it's very unlikely that there's going to be a  
14 change along those lines.

15 MR. COLEMAN: The technology is there.

16 MS. ROBINSON: That's not the issue.

17 MR. COLEMAN: You can do it.

18 The other side of this is -- is  
19 develop medically liability body of law. Texas  
20 has some very strong protections in there with  
21 regard to medical liability. It makes it a very  
22 attractive place for people to practice medicine

1 in a less onerous, you know, perspective when it  
2 comes to the Court and stuff, you know.

3 So, you know, there are some states  
4 where it's still not very comfortable out there.  
5 You know, so -- and there's lots of different  
6 ways that people have tried to deal with that  
7 particular aspect of medical practice.

8 So, again, there may be similarities  
9 between certain ones. You know, Texas and  
10 California have some similarities in their court  
11 laws, you know. But Louisiana, Florida, they've  
12 done different things. You know, and some haven't  
13 done anything. And they continue to pay, you  
14 know, pretty enormous medical liability insurance  
15 rates as a consequence of some of those things.

16 MS. WINNIKE: And I think we have time  
17 for one more question.

18 MR. GIBBONS: And if I may give Dr.  
19 Zerwas credit, because he has been working on the  
20 compact. And it's very important. And he's done  
21 a really good job on that. And I think that  
22 needs -- the preliminary.

1           MR. PARKS: Hi. My name is Michael  
2 Parks. I'm from Bryan-College Station, Texas. I  
3 guess this is for Dr. Gibbons dealing with the  
4 FCC. We're getting ready to submit for about a  
5 27 million dollar fiber bill for one gig in our  
6 region for Healthcare Connect Fund with  
7 healthcare consortium.

8           And I'm just curious if there's  
9 another outside-the-beltway Congress plan for  
10 access to the funding for these things. We've  
11 talked about access all morning and all  
12 afternoon.

13           In the rural areas it costs a lot. It  
14 costs a lot to get that farther out there. Under  
15 some of the old Healthcare Connect Fund rules,  
16 the match wasn't quite as great as it is now at  
17 35 percent. And actually, we went backwards for  
18 our local communities to actually fund their  
19 portion of that.

20           So is there anything in -- in the  
21 whole bag of tricks at FCC or USAC where it makes  
22 it a little easier for us rural communities?

1           MR. GIBBONS: Well, let me say one  
2 thing. You're familiar with what he's asking me.  
3 Does everybody know what he's talking about?

4           COMMISSIONER CLYBURN: Again, we've  
5 made -- as you just put forth -- some great  
6 strides in terms of addressing some of the  
7 issues, and the biggest issue is cost. Some of  
8 the other challenges, when you talk about -- I  
9 think it was mentioned this morning about some of  
10 the cost -- just sheer cost of T1. I believe my  
11 new friend had mentioned that earlier.

12           What we're debating, what we're  
13 talking about, is how to normalize or, you know,  
14 how do we get more harmonization as it relates to  
15 price? Because when you go from one county to  
16 another and there are vast price differentials,  
17 what's the justification for that? It can't all  
18 be topography. It can't be all of that.

19           And so I'd encourage you to really  
20 challenge the FCC and challenge the providers and  
21 challenge the lawmakers when it comes to these,  
22 you know, sometimes price disparities or, you

1 know, these other disparities. Because if you  
2 don't speak up, it remains the same.

3 MR. GIBBONS: But it's disparities is  
4 what caused it. We're actually building it  
5 because there are no providers.

6 COMMISSIONER CLYBURN: Oh, yeah. So  
7 there are a number of issues, you know, that --  
8 it's expensive because of the cost disparities  
9 from some of the, you know, providers.

10 MR. GIBBONS: Sure.

11 COMMISSIONER CLYBURN: There are areas  
12 -- I call them "unhealthy donut holes" -- where  
13 there's no -- and you mentioned some of the  
14 issues with some people -- with some entities  
15 wanting to provide their own services. There are  
16 state laws in place, including my home state,  
17 that have high barriers for local municipalities  
18 that might want to address the digital divide.

19 So, you know, these are all the things  
20 that we have to, you know, kind of reset our own  
21 current way of thinking and challenge ourselves.  
22 What do we really want here? I mean, do we truly

1 want our communities to be connected affordably?  
2 Do we truly want ubiquitous service? And we  
3 really -- and I think conversations like this --  
4 and I guess I'm almost incorporating my closing  
5 -- conversations like these really help. Because  
6 we all need to be -- you know, have resets and  
7 re-calibrations and get re-challenged to exactly  
8 what the issues are, because we get comfortable  
9 in our norms.

10           The biggest thing that bothers me  
11 today, with all due respect -- and this is not  
12 your question. But I'm a PK, a politician's kid,  
13 so we ask questions the way we want. Is that we  
14 get -- we are very satisfied with what we  
15 experience and what is defined as normal, even  
16 when the consequences are abnormal and  
17 dysfunctional.

18           And I think if we continue to  
19 challenge ourselves that this is unacceptable.  
20 You know, having 35 million people with no  
21 prospects of connectivity, that's unacceptable.  
22 Having millions more -- you know, being unable to

1 afford it, that's unacceptable. Having two  
2 thirds of the 53, four, five, six -- 56 million  
3 people with disabilities not even beginning to  
4 afford what could just propel all of us to the  
5 next level, this is unacceptable.

6 So if we accept that baseline as being  
7 unacceptable, then I think some of the questions  
8 and challenges that you and I will have offline  
9 and the particulars, and we will have that in a  
10 few minutes, that we can tackle them. Because I  
11 just do not believe that -- I don't know if it's  
12 the southern in me or the what in me. I just do  
13 not believe that the norm is not working for  
14 every single American is acceptable.

15 I refuse to believe we can't solve it.  
16 Technology will propel us there. But just like  
17 you said, that touch is going to be the magic  
18 key. Because the last thing you will hear me say  
19 when I am -- which is not the last one -- I  
20 always say that technology is agnostic. And  
21 that's the one time you will hear a southern  
22 person use the word agnostic. You know,

1       southerners don't use the word agnostic, because  
2       we believe in some religion.

3                But what I will say is it -- this  
4       enables. So technology will make us better at  
5       what we are proficient or good at. And if we're  
6       better or proficient at perpetuating divides,  
7       then the divides will get wider. If we want to  
8       be better at building and bridging and improving  
9       connectivity, we will do that and we will do it  
10      soon.

11               Chris, you want to really answer the  
12      question?

13               MR. GIBBONS: Only one thing.

14               COMMISSIONER CLYBURN: Thank you so  
15      much.

16               MR. GIBBONS: If it weren't for the  
17      FCC, you would not have this opportunity. So I  
18      thank you very much for allowing us to have an  
19      opportunity like this.

20               MS. WINNIKE: So I want to thank our  
21      distinguished panel right now for their  
22      wonderful, wonderful contributions today before



1 we have the Dean and the Commissioner, give our  
2 closing remarks. So please join me in thanking  
3 our panel. Thank you so much.

4 COMMISSIONER CLYBURN: Again, you saw  
5 the preacher in me. Sorry about that. Again, if  
6 you will join me in thanking -- thank you,  
7 Professor, Allison and the Law Center. I'm sorry.  
8 Everybody at the Law Center for today. And the  
9 FCC, of course. The Connect2Health Task Force.

10 We want to hear from all of you going  
11 forward. And we don't want to trip up a law.  
12 Hopefully, this will just -- is just the  
13 beginning for some of us of what will be an  
14 ongoing, elaborate and beautiful friendship.

15 So let me say again how amazing this  
16 dialogue has been today. Every panel and speaker  
17 brought different perspectives that we all needed  
18 to hear. And it was enlightening, stimulating.  
19 It was just absolutely terrific.

20 We have an ongoing commitment to  
21 supporting innovation and health. And we want to  
22 ensure that connectivity is reality in all of our

1 communities. We have no desire to stifle  
2 innovation, and we will prove that each and every  
3 day with proactive and forward moving innovation  
4 and regulatory policy.

5 But none of this will happen if we do  
6 not work together to solve any existing policies  
7 or regulatory bottlenecks that we currently have.  
8 And we have a couple. We have enumerated many of  
9 them today.

10 So Dean, Professor, and all of you,  
11 this has been an incredible visit to Houston.  
12 I've enjoyed my trip to Texas. I'll figure out  
13 how to do that Southwestern plane a little bit.  
14 And I am really looking forward to really working  
15 together with all of you today and going forward.

16 And Dean, please, if you would close  
17 us out.

18 DEAN BAYNES: Sure.

19 COMMISSIONER CLYBURN: Help me out  
20 here. Thank you so very much. I appreciate it.

21 DEAN BAYNES: Thank you, Commissioner  
22 Clyburn. It's been a pleasure working with you

1 and with the Connect2Health Task Force. Michelle  
2 Olsen, I know you're looking and participating  
3 via stream. And all the rest of the  
4 Connect2Health Task Force who have worked with  
5 our health law policy institute to make this  
6 happen.

7 This has been a very memorable  
8 conversation and conference where you learn from  
9 each other about very important issues and ways  
10 to make sure that we provide access to broadband  
11 technologies to all communities, especially in  
12 the context of mental health.

13 And I think it's the beginning of a  
14 great partnership with the FCC. We're very  
15 pleased. And we volunteer to have additional  
16 conferences here. As I said, we will be the  
17 southwest outpost for the FCC into the community.  
18 And so we love that.

19 And so I want to thank the whole  
20 Connect2Health Task Force, Michele Ellison, Karen  
21 -- used to be Brown -- Onyeije -- I knew her when  
22 she was Brown. She went from a name that were

1 millions in the white pages to one that was more  
2 exceptional.

3           The entire Connect2Health Task Force.  
4 Our own professor, Allison Winnike. Let's give  
5 her a round of applause. She's made this dream a  
6 reality. And all of the health law and policy  
7 institute folks. Our co-director, Jessica Mantel.  
8 Our Director, Jessica Roberts and two research  
9 professors, Daphne Robinson and Stephen Chen.  
10 Without all of their efforts this wouldn't be  
11 possible.

12           And as I always talk about, this is  
13 sort of the power of legal education of bringing  
14 people together to learn about really important  
15 issues. And it's one of my aims as dean of this  
16 great law school is to be this place, this forum,  
17 for us to discuss these hard issues and to come  
18 to resolutions of them. So again, thank you so  
19 much.

20           (Whereupon, the above-entitled matter  
21 went off the record at 4:00 p.m.)  
22

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This is to certify that the foregoing transcript

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Before: US Federal Communications Commission

Date: 05-18-16

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Court Reporter

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