

HEALTH CARE IN RURAL AMERICA: EXAMINING EXPERIENCES AND COSTS

HEARING
BEFORE THE
SUBCOMMITTEE ON PRIMARY HEALTH AND
RETIREMENT SECURITY
OF THE
COMMITTEE ON HEALTH, EDUCATION,
LABOR, AND PENSIONS
UNITED STATES SENATE
ONE HUNDRED FIFTEENTH CONGRESS
SECOND SESSION
ON
EXAMINING HEALTH CARE IN RURAL AMERICA, FOCUSING ON
EXPERIENCES AND COSTS

SEPTEMBER 25, 2018

Printed for the use of the Committee on Health, Education, Labor, and Pensions



Available via the World Wide Web: <http://www.govinfo.gov>

U.S. GOVERNMENT PUBLISHING OFFICE

32-296 PDF

WASHINGTON : 2020

COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS

LAMAR ALEXANDER, Tennessee, *Chairman*

MICHAEL B. ENZI, Wyoming	PATTY MURRAY, Washington
RICHARD BURR, North Carolina	BERNARD SANDERS (I), Vermont
JOHNNY ISAKSON, Georgia	ROBERT P. CASEY, JR., Pennsylvania
RAND PAUL, Kentucky	MICHAEL F. BENNET, Colorado
SUSAN M. COLLINS, Maine	TAMMY BALDWIN, Wisconsin
BILL CASSIDY, M.D., Louisiana	CHRISTOPHER S. MURPHY, Connecticut
TODD YOUNG, Indiana	ELIZABETH WARREN, Massachusetts
ORRIN G. HATCH, Utah	TIM KAINE, Virginia
PAT ROBERTS, Kansas	MAGGIE HASSAN, New Hampshire
LISA MURKOWSKI, Alaska	TINA SMITH, Minnesota
TIM SCOTT, South Carolina	DOUG JONES, Alabama

DAVID P. CLEARY, *Republican Staff Director*
LINDSEY WARD SEIDMAN, *Republican Deputy Staff Director*
EVAN SCHATZ, *Democratic Staff Director*
JOHN RIGHTER, *Democratic Deputy Staff Director*

SUBCOMMITTEE ON PRIMARY HEALTH AND RETIREMENT SECURITY

MICHAEL B. ENZI, Wyoming, *Chairman*

RICHARD BURR, North Carolina	BERNARD SANDERS (I), Vermont
SUSAN M. COLLINS, Maine	MICHAEL F. BENNET, Colorado
BILL CASSIDY, M.D., Louisiana	TAMMY BALDWIN, Wisconsin
TODD YOUNG, Indiana	CHRISTOPHER S. MURPHY, Connecticut
ORRIN G. HATCH, Utah	ELIZABETH WARREN, Massachusetts
PAT ROBERTS, Kansas	TIM KAINE, Virginia
TIM SCOTT, South Carolina	MAGGIE HASSAN, New Hampshire
LISA MURKOWSKI, Alaska	DOUG JONES, Alabama
LAMAR ALEXANDER, Tennessee (<i>ex officio</i>)	PATTY MURRAY, Washington (<i>ex officio</i>)

C O N T E N T S

STATEMENTS

TUESDAY, SEPTEMBER 25, 2018

Page

COMMITTEE MEMBERS

Enzi, Hon. Mike, Chairman, Subcommittee on Primary Health, and Retirement Security, Opening statement	1
Sanders, Hon. Bernard, Ranking Member, a U.S. Senator from the State of Vermont, Opening statement	2

WITNESSES

Glause, Tom, Commissioner, Wyoming Department of Insurance, Cheyenne, WY	5
Prepared statement	6
Reed, Morgan, President, App Association, Executive Director, Connected Health Initiative, Washington, DC	9
Prepared statement	11
Levine, Alan, Executive Chairman, President, and Chief Executive Officer, Ballad Health, Johnson City, TN	31
Prepared statement	33
Richter, Deborah, MD, Family Physician and Addiction Medicine Specialist, and Chair, Vermont Healthcare for All, Cambridge, VT	39
Prepared statement	41

HEALTH CARE IN RURAL AMERICA: EXAMINING EXPERIENCES AND COSTS

Tuesday, September 25, 2018

U.S. SENATE,
SUBCOMMITTEE ON PRIMARY HEALTH AND RETIREMENT
SECURITY,
COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS,
Washington, DC.

The Subcommittee met, pursuant to notice, at 3:42 p.m., in room SD-430, Dirksen Senate Office Building, Hon. Mike Enzi presiding.
Present: Senators Enzi [presiding], Alexander, Young, Roberts, Sanders, Bennet, Kaine, Hassan, and Jones.

OPENING STATEMENT OF SENATOR ENZI

Senator ENZI. I'm going to go ahead and open this roundtable of the Subcommittee on Primary Health and Retirement Security, and when Senator Sanders is here we'll give him an opportunity to do an opening statement.

Today we're talking about healthcare in rural America, examining experiences and costs and looking for solutions. One of the things I always appreciate about my people in Wyoming is when they complain to me, they usually have some idea for how to solve it. Sometimes they don't work, but sometimes they're an excellent idea, and sometimes they are in-between there where there's a germ of an idea that just needs to be grown a little bit to see if it will work.

I thank everybody for coming today for this roundtable. I want to thank the Ranking Member, Senator Sanders, and his staff for working to put together a conversation about rural healthcare. I'd also like to thank all my colleagues that are here today for being ready to engage in this important discussion. I appreciate all of the participants for taking the time and making the effort to come today to be part of the discussion. I know several of you traveled great distances to be here.

Chairman Alexander has held a series of important hearings at the full Committee level to take a close look at healthcare costs throughout the system. We hear too often that Americans are struggling to afford and understand their medical bills, particularly to understand their medical bills, so it's important to examine what drives healthcare costs and how we can create more value for patients particularly, and specifically in rural areas.

Several years ago I formed a rural caucus, and I found that almost every state wanted to be represented in that caucus, plus the

District of Columbia. I have a little trouble finding rural in the District, but I'm sure it's there, and as long as they join us in solutions, that's okay, because the purpose is to unite and help rural areas.

I'm from Wyoming, which is the least populated state in the Nation. Our biggest city is only 60,000 people. All of our towns are at least 40 miles apart, and there are only 17 towns where the population is greater than the elevation, and almost every one of those towns are at least 100 miles apart. People love Wyoming's close-knit communities, the wide-open spaces, but Wyomingites also face some of the highest healthcare costs in the country, in part due to the challenges that come with delivering care in a cost-effective manner when our low population is spread across those 97,000 square miles.

It struck me that as we explore the healthcare costs in more depth, we need also to take a serious look at healthcare in rural America to understand the unique challenges that rural patients and providers face, how those challenges can affect the cost of care, and learn more about how our current policies are working and where they might be improved.

The purpose of a roundtable is to gather information. I appreciate the witnesses being willing to testify. This works a little different than a regular hearing. After the opening statements and then your statements, we'll ask some questions. But at any point, rather than it just being directed to one person, anybody that wants to comment on that, just stand your name tag up on end and we'll know you want to speak on it, because we need as many ideas as we can possibly get.

A lot of people have told me that their insurance premiums are unaffordable, and some of them said that they have to pay more than their mortgage. But a lot of that's related, all of it's related to healthcare costs: the provider, the amount of choice that there is, how to recruit them, if you're able to get specialties—probably isn't going to happen in rural areas. So how do you get them the healthcare? Maybe price transparency. Another area is more competition in the individual market, and telemedicine, of course, is gaining some support, and examples in rural states. Then, of course, a little bit with the privacy issue. So those are all things I hope we can get into a little bit today.

First I'll have Senator Sanders speak, and then I'll introduce the panel and we'll get going.

OPENING STATEMENT OF SENATOR SANDERS

Senator SANDERS. Thank you very much, Senator Enzi, for calling this important hearing.

Senator Enzi and I have at least two things in common. One, I like him. Number two, we both come from very rural states. We don't have big cities like 60,000 in the State of Vermont. We only have 40,000 as the largest city, so we kind of are more rural than you are, maybe.

My views might be just a tad different than Senator Enzi's, just a tad. The bottom line to me is it is an international disgrace—and the day will come, and more and more people understand it—that we are the only major country on earth not to guarantee healthcare

to every man, woman, and child in Wyoming and Vermont as a right, not a privilege. That is the basic issue. Do we believe healthcare is a right, or do we not? And if you don't, and if we think that the function of healthcare is for insurance companies and drug companies to make billions in profits, fine, then you're over here.

But if you agree with what I believe the vast majority of the American people believe—and I should tell you that the latest poll that I saw from Reuters found that 70 percent of the American people, including a majority of Republicans, now believe in a Medicare-for-all, single-payer system—then you hold a different view.

Second issue is we have got to ask ourselves—Senator Enzi appropriately says the cost of healthcare is very, very high. Of course it's high. We pay almost twice as much per capita for healthcare as any other nation on earth, and we're going to have to deal with that. I know my Republican friends don't want to deal with it. In Canada, it's about half as much. Other countries, less than half as much, and that healthcare outcomes in terms of the outcomes in other countries is often better than it is in ours in terms of life expectancy and infant mortality and how we treat many of the diseases.

In terms of prescription drugs, I'm sure a major issue in Wyoming, certainly a major issue in America, are we satisfied that we pay, by far, the highest prices in the world for the same damn drugs that are sold around the world for a fraction of the price that is sold in the United States? Are we happy that the five major drug companies in the world made \$50 billion in profit last year, pay their CEOs exorbitant compensation packages, and yet one out of five Americans cannot afford the medicine that doctors prescribe? How insane is that? You go to the doctor, they write a prescription, and you can't afford to fill that prescription, and then you end up in the emergency room or you end up in the hospital. Are we satisfied that in rural America, parts of urban America, there are no doctors?

I think Senator Roberts a couple of years ago—Senator, correct me if I'm wrong, but you were telling me I think in parts of Kansas there are counties where there are no doctors. That's what you said a couple of years ago. Is that correct? Yes. And I was in Mississippi. In large parts of Mississippi, there are no doctors. And yet we have a system that says if you are a doctor, you're going to graduate medical school \$400,000 in debt, so you're going to become a dermatologist on Park Avenue, New York, but you're not going to go to rural Vermont or rural Wyoming. So we have to rethink healthcare in general.

But I'm glad that Senator Enzi has called this hearing, because when we look at healthcare, it is a really, really serious problem in rural America, part of many other problems that rural America faces.

I was told recently by somebody who seemed to be knowledgeable that two-thirds, Senator Enzi, two-thirds of rural counties in America are depopulating, two-thirds. I know in our most rural areas in Vermont, it's happening. In Burlington, Vermont, doing very, very well economically, rural American farms going out of business, et cetera, et cetera.

We have to do a lot of thinking. But I would hope that at the end of the day, we understand that healthcare is a right, not a privilege, that the function of healthcare is not to make huge profits for insurance companies and drug companies, that there's something obscenely wrong when we spend twice as much per capita on healthcare as the people of other nations, who often have better healthcare outcomes than we do.

But thank you again, Senator, for calling this meeting.

Senator ENZI. Thank you, Senator Sanders.

I'll now provide a brief introduction of our panel and then invite each of you to give a 5-minute statement, and then we'll do some questions.

First, I'd like to introduce the Wyoming Commissioner, Tom Glause. He was appointed Commissioner of the Wyoming Department of Insurance by Governor Mead on January 3, 2015, and he has a deep understanding of the elements of what drives healthcare costs in the State of Wyoming and is an active participant on several committees and working groups at the National Association of Insurance Commissioners. He is also a prime source for me when I have a question about healthcare and comes out regularly to appear.

Next I welcome Morgan Reed of App Association. Morgan Reed is originally from Alaska, so he understands rural health issues personally, and he's an expert on the ways that health information technology can improve patient care.

Senator Alexander apologizes for not being able to be here to introduce the next witness. Mr. Levine is Executive Chairman, President, and Chief Executive Officer of Ballad Health, which operates 21 hospitals in Virginia and Tennessee. In April he had the pleasure of visiting Children's Hospital in Johnson City, which is part of Ballad's system, where Senator Alexander witnessed firsthand some of the great work Mr. Levine and his team are doing on the front lines of opioids by helping treat newborn children who suffer from neonatal abstinence syndrome. Prior to Ballad Health, Mr. Levine was President and CEO of the Mountain States Health Alliance. He has significant experience in state government as Secretary of Louisiana's Department of Health and Hospitals and as Secretary of Florida's Agency for Healthcare administration under Governor Bush. In those roles he helped oversee the response to 12 hurricanes and led the effort to improve Louisiana's child immunization rates from 48th in the Nation to second. Tennessee ranks second in the Nation with the highest number of rural hospital closures, so Mr. Levine knows very well the challenge facing rural providers today. I look forward to hearing his thoughts.

Then, Senator Sanders, did you want to introduce the next witness?

Senator SANDERS. I'm very pleased to welcome Dr. Deborah Richter to be with us. I've known Dr. Richter for many, many years. She is an expert and a hard worker in dealing with people with addiction issues. But more importantly, in Vermont, she has probably been the leader in the fight to make sure that all of our people have healthcare as a right, not a privilege. In Vermont we're making some progress in that area, and the progress we're making Dr.

Richter has a lot to do with. So, Dr. Richter, thanks so much for being with us.

Senator ENZI. Okay, we'll get started on the testimony.

Mr. Glause.

**STATEMENT OF TOM GLAUSE, COMMISSIONER, WYOMING
DEPARTMENT OF INSURANCE, CHEYENNE, WY**

Mr. GLAUSE. Thank you, Chairman Enzi, Committee Members. I'd like to invite you to pull on your cowboy boots and take a walk through rural America with me as we discuss the issues regarding healthcare delivery in rural areas. My son Seth is a professional bull rider—

Senator ENZI. Is your mic on? There should be a little red light that comes on.

Mr. GLAUSE. I'll talk closer to it.

Senator ENZI. That works. Thank you.

Mr. GLAUSE. My son Seth is a professional bull rider. In 2012, he was on the verge of winning a world championship. At the fifth round of the national finals rodeo that year, he had drawn a bull named Canadian Tuxedo. That bull came out of the chute spinning hard to the right. Somehow, Seth managed to stay on for the entire eight seconds. But as he was dismounting the bull, his arm came over the back of the bull as the bull kicked and hyperextended his shoulder. During the course of the next two years, he had four major surgeries on his shoulder. None of those surgeries occurred within the State of Wyoming, which leads me to the first topic that I would like to address with you, and that is a lack of providers in rural areas.

Wyoming only has 179 doctors per 100,000 people and, mind you, our population is only 585,000 to start with. So to do the simple math, that means we only have about 1,100 doctors servicing over 97,000 square miles. That's only 50 doctors per 100,000, below the national average.

It's no secret that it's more expensive to deliver healthcare in rural areas. Wyoming has the second-highest insurance rates in the country. Contributing to those costs are long distances between towns and fewer providers. Smaller communities simply cannot afford the multi-million-dollar equipment that is necessary to practice medicine in today's world. Thermopolis, Wyoming, a town of 2,000 people in central Wyoming, simply does not have the population base to amortize the cost of an MRI machine over the more urban areas.

Also contributing to the problem is 70 percent of the population in Wyoming lives within 70 miles of a state border, and we see a large out-migration of healthcare delivery to more populated areas.

Another area of concern in Wyoming is the Medicare reimbursement rate. The two largest hospitals in the state report that Medicare reimburses them only 65 percent of their actual cost and that Medicare patients account for 50 percent of their book of business. This amounts to a large cost shifting to the non-Medicare population. In short, that means that they have to make up for the cost of that care by passing it on to those with private insurance.

Please remember, healthcare costs drive insurance costs, not the other way around.

In the short time I have here, I would like to ask you to consider several suggestions for improvement.

We need to find a way to incentivize residents entering the medical profession in rural areas. Simply stated, we need more doctors in rural areas.

We need to increase programs to reduce smoking. Wyoming has a higher than national average rate of smoking. I believe it's 19.6 percent. The image of the Marlboro Man riding down off the mountains chasing the horses needs to disappear as we improve our health status in Wyoming.

We also need to increase price transparency. People need to know that they're getting low-cost medical care, but they need to be assured that they are also getting quality care. Try finding out how much it costs to get a procedure done at a local hospital and it's nearly impossible.

We also need to increase the Medicare reimbursement rate so we don't have that cost shifting. I would encourage you to support suspending the health insurance tax after 2019.

Air ambulance also needs to be addressed to give states greater flexibility in addressing air ambulance service in rural communities.

The people in Wyoming and all of rural America deserve quality, affordable, and accessible healthcare. Thank you.

[The prepared statement of Mr. Glause follows:]

PREPARED STATEMENT OF TOM GLAUSE

Good afternoon. My name is Tom Glause. I am the Insurance Commissioner for the State of Wyoming. I would like to thank this Committee and especially Wyoming Senator Mike Enzi for the opportunity to address you today. In our short time together, I plan to discuss several of the issues and concerns facing health care delivery and health insurance in rural or frontier states like Wyoming and to provide you some considerations for changes.

Numerous studies report that access to healthcare is important for many reasons that effect the physical and mental well-being of our citizens.¹ However, in rural settings healthcare and health insurance face additional access and affordability challenges.

Rural residents often experience barriers to health care that limit their ability to obtain the care they need. Increased cost of health care in turn increases health insurance costs. We must remember that health care costs drive insurance costs.

I would like to outline several areas in which rural residents face challenges in health care and health insurance:

Access. Rural areas often have fewer medical providers and transportation limitations to reach services that may be located at a considerable distance. Further, rural residents have difficulties in the ability to take paid time off of work to use such services. Frankly, farmers and ranchers don't have "days off" from tending to livestock. Further, 43.4 percent of uninsured rural residents report that they do not have a "usual source of care."^{2, 3} Only 24 percent of rural residents can reach a top trauma center within an hour. Rural areas suffer 60 percent of America's trauma deaths despite having only 20 percent of the Nation's population. Necessary and appropriate services must be available and obtainable in a timely manner.

¹ Health care effects include overall physical, social, and mental health status, prevention of disease, detection and treatment of illnesses, quality of life, preventable death and life expectancy as identified in *Healthy People 2020*, <https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Access-to-Health-Services>.

² June 2016 ASPE issue brief, <https://aspe.hhs.gov/system/files/pdf/204986/ACARuralbrief.pdf>.

³ "Usual source of care" (USC) refers to the provider or place a patient consults when sick or in need of medical advice.

Available and Affordable Health Insurance Coverage. Rural areas tend to have fewer insurance companies offering plans.⁴ Wyoming has just one carrier on the Marketplace and two carriers in the Small Group market. Premium increases tend to be higher where there is less competition among insurers. Although 2019 rates are flat, Wyoming saw 2018 plans average increases of 48.6 percent for individual plans and 30.7 percent for small group plans.

Hospitals in Wyoming report that Medicare reimbursement is just 65 percent of the actual costs. This low reimbursement rate results in cost shifting to the non-Medicare population. Rising costs of care result in rising insurance rates.

Rural residents often have limited financial resources to pay for services, including available and affordable health insurance that is accepted by their provider. Rural uninsured are more likely to delay or forgo medical care because of the cost of care compared to those with insurance. Nearly 30 percent of rural residents report delayed care or report they did not receive care in the previous year due to the cost.

Workforce Shortages—Having an adequate health workforce is necessary to providing that “usual source of care.” A shortage of healthcare professionals in rural America can limit access to care.⁵

Medical Service Delivery Challenges—It is more challenging to deliver healthcare services in sparsely populated areas. Small communities are unable to support full-time physicians for many medical specialties, and the fixed costs of multi-million-dollar hospital equipment cannot be spread across as many patients as in urban or densely populated areas. Rural uninsured face greater difficulty accessing care due to the limited supply of rural healthcare providers who offer low-cost or charity healthcare.⁶ Advanced technologies and expensive medical equipment are cost prohibitive to smaller facilities and communities.

Privacy/confidentiality. Social stigma and privacy concerns are more likely to act as barriers to healthcare access in rural areas. Rural residents need confidence in their ability to use services without compromising privacy. Residents may be concerned about seeking care for issues related to mental health, substance abuse, sexual health, pregnancy, or even common chronic illnesses due to privacy concerns. This may be caused by personal relationships with their healthcare provider or others that work within the health care facility. In addition, concerns about other residents noticing them utilizing services such as mental healthcare can be a concern. Integration of behavioral health services with primary care can help.

Impact on Wyoming. All of these rural population factors affect the people of Wyoming. As a result, Wyoming’s insurance rates are generally regarded as the second highest in the Nation.⁷ Wyoming is truly the land of wide open spaces, but that claim comes with a price. We are the least populated state in the Nation in the tenth largest geographic area of approximately 98,000 square miles.⁸ We know the impact of long distances between towns and medical providers and we know the effect on health insurance costs. Wyoming knows the impact of having fewer medical providers and limited specialists. Wyoming has just 178 physicians per 100,000 population compared to the national average of 229.⁹

Additional factors that contribute to Wyoming’s high insurance rates are that many residents seek medical care from out-of-state providers. Approximately 70 percent of Wyoming’s population lives within 70 miles of a state border and larger urban centers with medical care.

⁴ *Geographic Variation in Health Insurance Marketplaces: Rural and Urban Trends in Enrollment, Firm Participation, Premiums, and Cost Sharing in 2016*, researchers from the RUPRI Center for Rural Health Policy Analysis, August 2016.

⁵ In September 2018, rural areas made up 57.27 percent of the primary care health professional shortage areas. See *data.HRSA.gov Preformatted Report*, “Shortage Areas, Health Professional Shortage Area (HPSA)—Basic Primary Medical Care: Designated HPSA Statistics.”

⁶ Kaiser Family Foundation, 2014, 2016 issue briefs, <https://www.kff.org/uninsured/report/the-uninsured-a-primer-key-facts-about-health-insurance-and-the-uninsured-under-the-affordable-care-act>.

⁷ Survey rankings vary depending upon criteria evaluated. Price alone doesn’t reflect access, availability, quality of care, and effect. See e.g. “Health Insurance Coverage of the Total population,” Kaiser Family foundation, KFF, <https://www.kff.org/other/state-indicator/total-population/currentTimeframe>, “Health Insurance Rates by State,” <https://howmuch.net/articles/health-insurance-rates-by-state>; “Best and Worst States for Health Care,” <https://wallethub.com/edu/states-with-best-health-care/23457/>.

⁸ Wyoming has a total population of 585,501 in a geographic area of 97,814 sq. miles.

⁹ Skillnan SM, Dahal A. Wyoming’s Physician Workforce in 2016., Seattle, WA:WWAMI, Center for Health Workforce Studies, University of Washington, Feb 2017.

Lastly, according to the Centers for Disease Control and Prevention (CDC) the prevalence of cigarette smoking among U.S. adults is highest among those living in rural areas.¹⁰ Unfortunately, Wyoming has a higher than average smoking rate.¹¹

Possible Solutions or Areas for Development:

I don't believe in merely exposing a problem without offering areas for development or change. I offer the following suggestions:

1. **Allow a lower medical loss ratio (MLR) for insurance carriers who cover rural areas** because the administrative costs per person are higher for rural areas. Allowing insurers to have a somewhat higher allowance for higher administrative expenses and profits would make it easier and more attractive for them to operate in rural areas. If more insurers are willing to operate in rural areas, their presence can increase competition and bring premiums down even more than the amount that the premium would increase because of the lower MLR. Also, if there were an increase, subsidized consumers would be protected by the structure of the premium tax credit, though of course unsubsidized consumers are not.
2. **Allow states more flexibility in setting rating areas** or rating rules to provide more affordable options in rural areas. States could use rating areas to help spread the higher cost of rural coverage across both rural and urban areas of a state.
3. **Create a Federal grant program** to help states work with providers and carriers to provide lower-cost and higher-quality care in rural areas. The funds could be used to assist rural hospitals and clinics, promote telemedicine, and improve transportation. By funding these kinds of services through Federal grants, they don't have to be paid for by enrollee premiums, leading to lower rates for all consumers.
4. **Fund Association Health Plans for Farmers/Ranchers** to provide more options as proposed in the Farm Bill reauthorization. Providing initial funding for associations of farmers can help introduce needed competition to rural insurance markets. While co-ops under the ACA did not prove to be successful, agricultural associations—like the Western Growers Association—have demonstrated a proven model for independent businesses to band together to meet their health care needs.
5. **Increase the availability and proper use of telehealth.** Through telehealth, rural patients can see specialists in a timely manner while staying in their home communities.
6. **Increase transparency** in cost of services. Studies have documented wide differences in the cost of services, even when accounting for differences in income, demography, and health status within regions. Increase transparency on Medicare reimbursements, cost shifting, and rate determinations.
7. **Increase provider competition.** Lack of provider competition in some geographic areas gives available providers market power to set rates for services. A study by the National Bureau of Economic Research found that prices charged by hospitals in monopoly markets was 12 percent higher than in markets with four or more hospitals.¹²
8. **Increase competition** among health insurers. When there is more competition insurers seek lower rates and gain greater market share. More enrollees means insurers can spread risk across a greater population base and reduce premiums.
9. **Increase programs to reduce smoking.** The negative health impact of smoking is widely known. Greater education and programs to reduce smoking in rural areas may go a long way in reducing health and insurance costs.
10. **Support legislation** to continue the suspension of the Health Insurance Tax (HIT) beyond 2019 and to restrict balance billing. The HIT tax is paid by insurers but the cost is passed on to consumers.¹³ Consumers too often receive unexpected bills from out-of-network providers, often for

¹⁰ <https://www.cdc.gov/tobacco/disparities/geographic/index.htm>.

¹¹ <https://truthinitiative.org/tobacco-use-wyoming>.

¹² "The Price Ain't Right, Hospital Prices and Health Spending on the Privately Insured," Cooper, Craig, Gaynor, van Reenen, NBER Working Paper No. 21815, May 2018.

¹³ See e.g. "Legislation to suspend the Health Insurance Tax Will Help Make Premiums More Affordable," AHIP, <https://www.ahip.org/legislation-to-suspend-the-health-insurance-tax/>.

thousands of dollars. This can occur even when consumers choose in-network facilities. While some states have taken action to limit this practice, congressional action is needed to address federally regulated plans and to spur further state protections. Balance billing has been particularly egregious with some air ambulance companies.

In Wyoming, we depend on air ambulances and want to keep the industry strong, but we do not want consumers caught in the middle of billing disputes between insurers and service providers. Wyoming and other states are prevented by Federal law from addressing the excessive billing practices of some companies. With the Federal Aviation Administration (FAA) Reauthorization moving through Congress, there's an opportunity to address this concern and give insurance commissioners the authority they need to regulate effectively in their states. Although FAA is not within the jurisdiction of this Committee, but I hope all Senators will support the language in the House version of the FAA bill to bring more transparency and consumer protections to the air ambulance industry.

Thank you again for the opportunity to provide some input on the health care and health insurance picture in rural America.

Senator ENZI. Thank you.
Mr. Reed.

STATEMENT OF MORGAN REED, PRESIDENT, APP ASSOCIATION, EXECUTIVE DIRECTOR, CONNECTED HEALTH INITIATIVE, WASHINGTON, DC

Mr. REED. Thank you, Mr. Chairman. My name is Morgan Reed. I'm the President of the App Association and the Executive Director of the Connected Health Initiative, a coalition of doctors, research universities, patient advocacy groups, and leading mobile health tech companies. Our organization focuses on clarifying outdated health regulations and using digital health tools to improve the lives of patients and their doctors.

Constituents in rural America face serious challenges in getting cost-effective, quality care. People are too far away from healthcare services. The cost, frankly, is too much, and it's likely to get worse. By 2030, more than 70 million Americans will be over the age of 65. By 2025, we will have a shortfall of more than 90,000 physicians. And while about 20 percent of Americans live in rural areas, only 10 percent of physicians practice there. Finally, 44 percent of rural hospitals are currently underwater and are at risk of closure.

Yet we live in a world where every person can pay their mortgage, monitor their package delivery, review their child's homework, all while sitting in the waiting room of their doctor, who, by the way, can't use those same technologies for digital health. What's going on that rural caregivers can't better engage with patients using the tools that every single one of you currently have in the palm of your hand or on your wrist? Why is it that CMS reimburses \$1 trillion a year but can't reimburse telehealth and remote monitoring in rural areas in a meaningful way? Why doesn't the system help doctors to treat patients and not the keyboard?

This hearing takes place at a critical moment for healthcare in rural America, and it is of personal importance to me. I was born and raised in Alaska, and my father is from a town of 500, and I have friends and family where there are no roads and where there is not a single healthcare professional within 500 miles. So I guess we're all kind of out-ruraling each other. I've got the 500-mile

range. And yet Federal agencies can't even agree on what rural means.

There's a great chart in my written testimony which shows four qualified rural health clinics in extremely remote counties in Virginia that agencies like USDA and FCC rightfully consider rural. Yet incomprehensibly, CMS does not consider these objectively rural areas to be rural. The University of Virginia Center for Telehealth finds itself unable to help the very people for whom getting to a doctor quickly is an insurmountable problem.

It's not just a Virginia problem. Throughout America, academic and other medical centers find CMS' system governing telehealth is basically broken. Rather than attempt to get five Federal agencies to agree on the definition of rural, we think it's best for all of your constituents to have access to telehealth and digital medicine, regardless of how close they are to Main Street.

For patients, remote monitoring technologies are life-saving tools. One of our steering committee members makes a foot mat you stand on for 20 seconds when you're brushing your teeth. It detects foot ulcers up to 5 weeks before they present clinically. This tech is not only more efficient than other methods, but it cuts down on hospital bills and ultimately saves limbs. Doctors like it because the patient stays engaged, but reimbursement under Medicare remains a question mark.

We're all familiar with the horror stories from doctors about EHR adoption and the epic burnout we see as a result. Doctors find EHRs can create extra work and ultimately prevent entered data from being used predictably as part of machine learning or augmented intelligence systems. For taxpayers, it's about providing the right incentives for the right things at the right time. And when it comes to preventive health, this begins with expansion of the CBO scoring window, and I want to thank Senator Bennett for his support for the Preventive Health Savings Act. That's a good start. Preventive medicine can do much more.

You mentioned Mississippi. The University of Mississippi Medical Center's telehealth program would save the State of Mississippi \$189 million in Medicaid if just 20 percent of Mississippi's diabetic population were enrolled. Just think of the taxpayer savings for the whole country if CMS actually supported what UMMC is doing today.

Here are a couple of actions that Congress can hit in order to make the mark.

First, pass the Connect for Health Act. I want to thank Senators Kaine, Bennet, and Murkowski for co-sponsoring. It would clarify that Medicare covers tech-driven tools that enhance efficiency and clinical advocacy, including the removal of outdated restrictions on 1834(m).

Second, CMS should provide reimbursement and incentives for collecting and using patient-generated health data.

Third, Congress should file down regulations like the anti-kick-back statute and Stark Law that allow providers to get technology into the hands of patients.

Finally, Congress should support the use of unlicensed spectrum, including television white space technology, to help cover rural pop-

ulations and give them the high-speed broadband that can help make this a reality.

We are all part of the system, either as patients or caregivers. The least we can ask is for a system that treats us, whether we are in rural or urban areas, as real people, not just boxes on a spreadsheet.

Thank you very much, and I look forward to your questions.

[The prepared statement of Mr. Reed follows:]

PREPARED STATEMENT OF MORGAN REED

I. Executive Summary

I am president of ACT | The App Association and current executive director of the Connected Health Initiative (CHI), an organization that has pulled together a broad consensus of healthcare stakeholders, including physician groups, patient groups, device manufacturers, software companies, venture capital firms, and research universities.

Your constituents in rural America face serious challenges in accessing cost-effective, quality care. Much of the problem is straightforward: people are further away from the healthcare services they need than in more densely-populated areas. This lack of access compounds the cost and effectiveness issues, further complicating the important task of addressing healthcare challenges in rural America. Enabled by a broadband internet connection, tech-driven tools that App Association and CHI members create must play a central role in bringing care teams to people where they are, and in facilitating greater patient engagement that lowers costs and improves outcomes through proactivity and prevention. But getting these technologies into the hands of patients and their caregivers is not a simple, one-step process. The U.S. healthcare system, bound up in labyrinthine, legacy regulations and payment policies, presents serious challenges to the incorporation of innovative tech-driven tools that offer the ability to make the best care available and accessible to all American located in rural areas.

This hearing takes place at a critical moment for healthcare in rural America. Moreover, this Subcommittee's wide-ranging jurisdiction from mental health and substance abuse to "health care disparities" puts it at the center of decoding the discrepancies between rural and urban healthcare. The costs of healthcare delivery continue to soar, and demographics are applying increasing pressure to the system, as Baby Boomers move to Medicare. With the number of Americans over age 65 jumping from 40.3 million in 2010 to a projected 55 million in 2020—and up to 70 million in 2030—older Americans constitute an increasing percentage of the population. And as life expectancy increases, so does the expectation of staying home as we age. Currently, 87 percent of Americans over the age of 65 say they want to stay in their current home as they get older.

Meanwhile, reports indicate that by 2025, the United States will face a shortfall of 46,000 to 90,000 physicians.

^[1] And while 20 percent of Americans reside in rural areas, only 10 percent of U.S. physicians practice there.^[2] Compounding this shortage, of the 133 million Americans with chronic conditions, most are in rural areas. With 44 percent of rural hospitals operating at a loss—a 4 percent increase since 2017—almost one-third of them are at risk of closure. Not only does the closure of these hospitals cut off access to care for thousands of rural inhabitants, but each closure can also represent a 20 percent reduction of a rural area's local economy. The confluence of these resource, demographic, and geographic factors, along with buy-in from an unprecedented breadth of stakeholders who are recognizing the efficacy of the hardware and software technology tools available to medical professionals (not to mention what is being developed by American innovators like CHI members), makes now the right time to incent the adoption of these tools to address the looming American rural healthcare crisis.

In general, as we evaluate and suggest policy positions for decision-makers, we ask three fundamental questions. As we address the challenges to providing more cost-effective and higher-quality care in rural America, these questions are especially salient:

- **Does it drive value for patients?** Constituents anywhere likely take issue with a lack of access to care—from waiting in line to being unable to use the supercomputer in their pocket to manage their health. But in rural areas of the country—where there are fewer caregivers per patient and higher rates of chronic disease, on top of an hour-long drive to the nearest care facility—the frustration is especially intense. Federal healthcare policies should enable innovators to make healthcare both more accessible and more effective for rural patients.

- **Does it drive value for caregivers?** Unfortunately, physicians report spending fully half of their time at work on electronic health records (EHRs) and other desk work.^[6] Accounting for the other necessary activities, they are left with only 27 percent of their time dedicated to direct clinical face time with patients. In rural areas, the shortage of physicians means each of them has less time to spare for paperwork and EHR data entry.
- **Does it drive value for taxpayers?** The current cost spiral—in which the healthcare system too often incents caregivers to care for the sickest patients in the most expensive settings—is unsustainable. The question we ask is not whether a policy makes care “cheaper.” Instead, the question is whether a policy creates incentives for caregivers to avail themselves of cost-effective measures. Digital health tools will benefit rural Americans because providers that are able to use them are better equipped to meet cost challenges and reach patients where they are without having to travel. To improve outcomes in rural areas, healthcare policies should make cost-effective options the most attractive both for clinical and for financial reasons.

As the growth in demand for healthcare services outstrips supply growth, tech-driven tools like artificial intelligence (AI) are maturing from shiny objects into meaningful enhancements – and, increasingly, necessities – to the practice of medicine. Experts are referring to AI in the healthcare context as “augmented intelligence,” a much more accurate description of its current and predicted future roles in the medical profession. Stakeholders across the healthcare field recognize that connected care can be a multiplier of—rather than an impediment to—caregivers’ ability to treat patients. And nowhere is this truer than in rural America, where the high rates of chronic disease and patients’ distance from caregivers make telehealth and remote patient monitoring even more important. However, today, the policies dictating the use of technology have, in many ways, detracted from the time caregivers spend monitoring and engaging with patients, particularly because of the arcane nature of Medicare and Medicaid regulations and payment policies.

All is not lost. Other highly regulated industries have successfully overcome these obstacles and empowered innovators to drive greater effectiveness, convenience, and cost-efficiencies. Financial services stands out as an example of an industry that features similar risks to those presented in the healthcare context. The misuse or misappropriation of financial accounts or information could have disastrous consequences, as could substandard healthcare or misuse of healthcare information. And yet, we can check our balances, transfer funds, pay credit cards, and make any kind of purchase with a few taps or swipes on our phones. The financial services example illustrates that complex webs of regulation are not insurmountable. Why have we been unable to harness technologies like this in the healthcare context? The good news is that there is a path forward. Policymakers can pull a number of levers to enhance value for patients, caregivers, and taxpayers alike. For example, policymakers should take the following steps:

- First, policymakers should ensure that healthcare policies do not penalize—and in fact support—the adoption of tech-driven tools that enable physicians to engage meaningfully with physically distant patients, including by passing the Creating Opportunities Now for Necessary and Effective Care Technologies (CONNECT) for Health Act of 2017 (S. 1016);
- Second, policymakers should support access to broadband, especially in rural areas—including using unlicensed spectrum in the television band, often referred to as “TV white spaces”—to enable connected health technologies to reach rural populations that suffer from high rates of chronic disease;
- Third, Congress should remove the overburdensome restrictions on telehealth under 1834(m) of the Social Security Act, particularly those unreasonably restricting Medicare telehealth services to a limited set of geographies and those prohibiting the home from being an originating site;
- Fourth, Congress should ensure that the cost savings associated with the use of connected health innovations are accounted for, and require the Congressional Budget Office (CBO) to consider cost savings

associated with the prevention of disease as well as looking beyond the 10-year budget window by passing the Preventive Health Savings Act (S. 2164);

- Fifth, the Centers for Medicare and Medicaid Services (CMS) – as well as state Medicaid policymakers – should adopt billing codes that provide reasonable support for caregivers using tools to bring patient-generated health data (PGHD) and timely AI-driven analysis of that PGHD into patient prevention and treatment activities;
- Sixth, as more caregivers move from fee-for-service to value-driven models under Medicare, policymakers should modernize regulatory vestiges—like features of the Anti-Kickback Statute and the Stark Law—intended to reduce fraud, waste, and abuse that specifically result from fee-for-service practices;
- Seventh, policymakers should also incentivize patients themselves to bring connected health innovations into their own care by making appropriate changes to the tax code to allow software apps and platforms, as well as wearable monitoring devices, to qualify as eligible medical expenses under the tax code;
- Eighth, policymakers should enhance interoperability and access to health data through promulgating highly-anticipated information blocking rules per the 21st Century Cures Act as well as through establishing further incentives for health data interoperability (e.g., the Trusted Exchange Framework and Common Agreement); and
- Ninth, the Department of Health and Human Services (HHS) Office of Civil Rights should provide, through regulatory reforms as well as guidance, clarity as to the obligations of covered entities and business associations under the HIPAA law with respect to the technology in use today as well as emerging technology.

These are just a few examples of specific measures policymakers could take to enable advances in value for patients, caregivers, and taxpayers via innovations in connected and digital health tools. And while our focus today is on government policies and programs, it is important to recognize that the Medicare and Medicaid system, for better or worse, is a bellwether for the state Medicare and Medicaid programs as well as private payers. Due to its sheer spending power, along with some other factors, the policies adopted in the Medicare and Medicaid system will have a heavy impact on all aspects of the American healthcare system.

CHI commits to working with each member of this vital Subcommittee to improve the care every American has access to and receives across its rural communities.

II. Bringing Connected Health Technology Innovations into the Medicare Reimbursement System

The reimbursement policies across Medicare programs, particularly the Physician Fee Schedule (PFS), must evolve rapidly to provide access to improved care for rural Americans. Traditionally, the Medicare system has provided significantly limited reimbursement for Medicare telehealth services—in effect a live voice or video call only—which are subject to the backwards-facing and onerous restrictions in Section 1834(m) of the Social Security Act, which I discuss in greater detail below. But even worse, the Medicare system entirely ignores the diversity of hardware and software technology tools past live voice and video, which offer even greater benefits. CHI has long argued, before Congress and through direct engagement with CMS, for the system to move forward and embrace the power of remote monitoring innovations across its programs.

As more Medicare services and funding shifts to a value-based paradigm, the PFS will remain an important means of reimbursing rural providers for healthcare services for rural Medicare patients. But one key component to an effective transition is for the PFS to acknowledge and support modern digital health modalities so that providers who rely on the PFS can be reasonably compensated for adopting efficiency- and quality-enhancing digital health tools. A failure to cover the time clinical staff spend in providing care using PGHD, or resources

spent integrating software platforms and devices that help facilitate preventive care, would have the perverse effect of pushing providers to spend valuable time and resources on less cost-effective care measures when conditions are worse and where settings are costlier.

At CHI, we have been putting our money where our mouth is on reimbursement. For example, I continue to serve as an appointed expert on the American Medical Association's Digital Medicine Payment Advisory Group (DMPAG), a collection of experts in digital medicine services as well as coding, valuation, and coverage that advance opportunities to bring the use of digital tools into the delivery of care through Current Procedural Terminology® (CPT) changes and additions, among other efforts. The DMPAG's work has resulted in new CPT codes that capture both the technical and professional aspects of remote monitoring (990X0 [Remote monitoring of physiologic parameter(s) (e.g., weight, blood pressure, pulse oximetry, respiratory flow rate), initial; set-up and patient education on use of equipment]; 990X1 [Device(s) supply with daily recording(s) or programmed alert(s) transmission, each 30 days]; and 994X9 [Remote physiologic monitoring treatment management services, 20 minutes or more of clinical staff/physician/other qualified healthcare professional time in a calendar month requiring interactive communication with the patient/caregiver during the month]).¹⁶¹

The DMPAG developed the three codes described above through concerted and thoughtful deliberations. The DMPAG, in turn, submitted applications for the creation of these new codes to the independent CPT Editorial Panel which vetted and approved the applications for new codes. The CPT Editorial Panel considered, among other relevant factors, significant supporting clinical documentation. We understand that the AMA's relative value scale (RVS) Update Committee (RUC) undertook a valuation of these codes to which CMS has access, with the RUC relying on a body of evidence demonstrating that these services will increase value and improve patient health outcomes, particularly for patients with multiple co-morbidities, chronic conditions, and those facing access barriers due to geography, limited mobility, or medical fragility. Rural populations tend to have higher rates of these kinds of patients,¹⁶² so the codes are especially important for rural patients and their caregivers. Below, I discuss how important it is that CMS utilize these new remote monitoring codes.

a. Medicare Telehealth Services

The ability for rural Americans to engage with their caregivers via telehealth is central to a healthcare strategy that serves all Americans with the highest-quality, most cost-effective care. But unfortunately, telehealth services—defined as two-way live voice and/or video in Medicare—are too often not a meaningful option for Medicare caregivers and beneficiaries in the continuum of care. The barriers to using live voice or video as a means for patients and doctors to communicate are due to Section 1834(m) of the Social Security Act, which limits Medicare coverage for such telehealth services to highly specific "originating sites" and to areas with a healthcare professional shortage. In other words, telehealth is really only available where patients aren't.

It's no wonder, then, that of the approximately \$1 trillion the federal government spends on Medicare every year, a minuscule \$29 million or so goes toward telehealth. We encourage policymakers to find ways to remove 1834(m)'s backward-facing restrictions that prohibit Medicare caregivers from utilizing telehealth services to improve beneficiary outcomes. Congress has already taken this on in specific ways. For example, we applaud both chambers for the passage and enactment of the Furthering Access to Stroke Telemedicine (FAST) Act of 2017 (S. 431) and for forwarding measures to expand access to telehealth for those impacted by opioid substance use disorder, including provisions of this Committee's Opioid Crisis Response Act (S. 2680 / H.R. 6). We encourage this Subcommittee to prioritize operationalizing the rollback of geographic and site restrictions in 1834(m). We support the Evidence-Based Telehealth Expansion Act (H.R. 3482, which is also a section of S. 1016) and urge the Subcommittee to consider proposals like this that would empower CMS to ease access to telehealth where it is fiscally and clinically responsible to do so.

We discourage proposals to expand the definition of Medicare telehealth services beyond what CMS has interpreted from the statutory concept of telehealth—a live two-way voice or video session. Statutory changes that would expose new connected health modalities to the restrictions of 1834(m) would be unforced errors. We further note our appreciation and support for CMS' proposal in its draft Calendar Year 2019 Physician Fee Schedule to recognize of "communication technology-based services" that do not meet the Medicare telehealth services definition in Section 1834(m). While 1834(m) must still apply to the narrow set of defined Medicare

services that fall under its definition moving forward, any inclusion of new modalities as Medicare telehealth services would harm the development of connected health technology innovations as well as their being made available to countless American Medicare beneficiaries.

CMS' mis-categorization of counties as non-rural also presents a serious hurdle to usage of Medicare telehealth services. For example, several rural counties in Virginia are considered rural for the purposes of the Federal Communications Commission (FCC) and the U.S. Department of Agriculture (USDA), but they are not considered rural under CMS' definition. As a result, local health facilities in these counties are eligible for rural programs under FCC and USDA support programs but are ineligible for telehealth services. To be clear, these counties are very rural and very remote. Instead of trying to force federal agencies across the government to agree on a definition "rural," however, CHI recommends that Congress systematically repeal the originating site and other restrictions to telehealth use. Instead, policymakers should ensure that telehealth is a viable alternative for patients and caregivers in situations where live voice or video is the more cost-effective and high-quality option.

Facility	City	County	USDA	USAC/FCC	Medicare Telehealth Payment Eligible?
Konnarock Family Health Center	Damascus	Washington	Yes	Yes	No
Clinch River Health Services	Dungannon	Scott	Yes	Yes	No
Carilion Giles Community Hospital (CAH)	Pearisburg	Giles	Yes	Yes	No
Tri-Area: Floyd	Floyd	Floyd	Yes	Yes	No

i. Value for Patients

The mere thought of seeking preventive or prospective care may be exhausting for those who associate the healthcare experience with burdensome travel requirements, long waits, and other impediments to physician access. These frustrations are worse in rural areas. It is no surprise, therefore, that many rural patients who are sick or suffer from chronic conditions tend to wait for their illnesses to progress to a stage where it is more expensive and more difficult to address than if prevention and/or treatment had been provided earlier. And the experience could worsen, given trends in U.S. age demographic realities, guaranteeing that more Medicare patients will soon be seeking care from a system struggling to grow with the demand. Short-circuiting these tendencies to procrastinate in seeking care is only possible where access to care is enhanced, and we commend this Subcommittee for examining this area of need. The opportunities to enhance the value of healthcare are drastically increased for patients with smartphones, tablets, and other connected devices, representing an increasing majority of Americans, including Baby Boomers. This is especially true for rural Americans and those who otherwise lack convenient access to physical care.



ii. Value for Caregivers

Surveys reflect that caregivers who serve rural Americans want to reach more patients where they are. In fact, the University of Virginia (UVA) seeks to scale telehealth encounters to 60,000 per year over the next two years, and Cleveland Clinic similarly aims to reach 35,000 telehealth encounters over the course of a year. These plans are not unique, with the American Hospital Association finding that 65 percent of hospitals have implemented telehealth in at least one care unit, with that number expected to grow by another 13 percent over the next year.¹⁰ Providers' proposed adoption of telehealth is good news for patients, but the benefits of Medicare telehealth services pale in comparison to the improved outcomes and cost savings associated with the use of further connected health products and services (discussed in further detail below).

iii. Value for Taxpayers

The benefits of telehealth for taxpayers are equally well-documented. For example, in a recent telehealth program done by CHI steering committee member University of Mississippi Medical Center (UMMC), the first 100 patients with diabetes collectively saved an incredible \$336,184 in healthcare costs.¹⁷¹ Using this data, cost analyses estimate that if 20 percent of Mississippi's diabetic population were enrolled in the telehealth program, it would save the state \$189 million in Medicaid dollars.¹⁸¹ The AMA further found through in-depth interviews with members of its Digital Medicine Payment Advisory Group (DMPAG)—of which I am a member—that instead of merely supplementing patient utilization, digital medicine offerings (including telehealth) substitute for otherwise more expensive healthcare services.¹⁸² This evidence from practitioners contradicts the often-overstated fears that telehealth could lead to a bonanza of overutilization.

To the extent that the cost savings telehealth could produce may not materialize for several years—insofar as they are used for preventive care—the CBO's 10-year threshold is a barrier to adoption. For this reason, we support Sen. Angus King's Preventive Health Savings Act (S. 2164). Enabling committees to require CBO to analyze potential savings beyond the 10-year window for federal coverage of certain preventive measures would be a major step forward to unlocking the benefits of telehealth and other connected health modalities aimed at prevention.

Telehealth is not just a means for caregivers to engage with patients more often to provide preventive care that saves taxpayer dollars by avoiding more costly care. Live voice and video are also important in other settings. For example, studies estimate that physicians perform over 700,000 knee replacements per year, a number that is projected to increase to almost 3.5 million by 2030. Perhaps the most important part of knee replacement surgery is physical therapy (PT), but patients who live a significant distance from a PT facility have difficulty attending PT sessions due to busy schedules, transportation costs, and other factors. People who have gone through PT to recover from surgery, or know someone who has, understand that engagement with a PT professional during the process is important and taking the time to go to a PT appointment is difficult. Research shows that PT by telehealth—referred to as "telerehabilitation"—correlates to "a total cost of care that was less than expected and to an increased probability of discharge home."¹⁸³ Telehealth benefits are therefore not limited to prevention but they also add value for taxpayers by increasing the cost-effectiveness of services like post-surgery PT, especially for patients in rural areas.

b. Remote Communications Technologies

Recently, our efforts have begun to pay off in advocating for coverage for remote monitoring. In the calendar year 2018 PFS, CMS distinguished between "remote monitoring" services and "telehealth," clarifying that the former does not face 1834(m)'s limitations, and permitted separate payment for remote physiologic data monitoring by activating and unbundling CPT Code 99091 ("physician/health care professional collection and interpretation of physiologic data stored/transmitted by patient/caregiver"). The code allows reimbursement to physicians and qualified healthcare professionals who rely upon remotely gathered physiologic data to monitor patients and is an important, but incremental, step forward.

Then, building on the hard work of the DMPAG and the results of the CPT Editorial Board process that resulted in new CPT codes for chronic care remote physiologic monitoring, in the proposed calendar year 2019 PFS, CMS proposed to activate and pay for each of the three new codes. CMS has also proposed to recognize "communication technology-based services" that do not meet the Medicare telehealth services definition in Section 1834(m). CHI supports this rationale and agrees that while 1834(m) must still apply to the narrow set of defined services that fall under its definition moving forward, any sweeping of new modalities in as Medicare telehealth services by CMS would harm the development of connected health technology innovations as well as their being made available to countless American Medicare beneficiaries. Across these three CPT codes developed to address chronic care remote physiologic monitoring, we urge this Committee to join CHI in

encouraging CMS to provide as inclusive of a framework as possible to maximize the value of remote monitoring to Medicare beneficiaries. We believe that CMS can maximize the value of these new remote monitoring codes by, among other steps, clarifying that:

- Patient-reported physiological data collected via automated remote monitoring technology fits within CMS' definition of physiological data.
- A device used can be caregiver- or patient-provided and need not be prescribed. Requiring that the provider order such a device via a prescription may exclude devices already in use/available, and would reduce needed flexibility in use of 990X0, 990X1, and 994X9 services for both caregivers and patients.
- An established relationship between a provider and a patient exists after such a relationship is created by a provider in that practice.
- CMS will waive copay requirements for these new remote monitoring codes.

CHI is deeply engaged with CMS in its regulatory process to support these new codes' activation and in attaining the clarifications above (along with others). We also note that there are other important proposals that hold great potential for the use of connected health technology on the proposed calendar year 2019 PFS, such as CMS' proposed adoption of and payment for virtual check-ins and remote evaluation of recorded patient information; and payment for interprofessional consultations performed via communications technology such as telephone or internet. We urge this Subcommittee to ensure that CMS continues to take steps forward, with needed changes and clarifications we have identified through our connected health community consultations, to realize the potential of connected health hardware and software innovations in its reimbursement policies. Moving forward, Congress should ensure that CMS releases and studies related claims data that will yield important and unique insights on how these services are being employed.

Separately, the Home Health Prospective Payment System (HH PPS) is a payment program for home health agencies (HHAs) which is relevant to this hearing. In its current draft HH PPS rule, CMS proposes to include evidence-based remote patient monitoring expenses used by an HHA to augment the care planning process as allowable administrative costs that are factored into the costs per visit.¹¹¹ Such a change will ensure that use of remote patient monitoring is fairly considered on a cost per visit basis when it is used by an HHA to augment the care planning process and will result in a more realistic HHA Medicare and Medicaid margin calculation. However, CMS proposes to define RPM very narrowly as the "collection of physiologic data (for example, ECG, blood pressure, glucose monitoring) digitally stored and/or transmitted by the patient and/or caregiver to the HHA." This description does not fully capture RPM elements such as the supply of devices; set up and instruction; data collection (attended, unattended with algorithmic alerts, and unattended); transmittal; and report preparation of quantitative results. Further, it makes more sense to use a consistent definition of RPM across its beneficiary programs (e.g., consistency with recently proposed technical codes 990X0 and 990X1). We have asked CMS to shift away from its definition proposed in the draft rule and to align this definition of remote patient monitoring with that proposed for 990X0 and 990X1 and urge Congress to ensure that CMS takes these necessary steps.

III. A New Direction for the Center for Medicare and Medicaid Innovation (CMMI)

The process by which the federal government recognizes new technologies and care modalities to fold them into the continuum of care has proven to be a difficult and lengthy process. Nobody wants technology at the speed of government, but too often, that's what patients in the Medicare system get. For example, when it is examining new models, the Center for Medicare and Medicaid Innovation (CMMI) must first resolve that model as something over which it has sufficient authority, as well as an evidence base, in order to begin testing it in a pilot project. Then, CMMI must obtain federal funding to carry out the study and create the study's parameters. After the study is conducted in a specific location drawing on a specific population with certain demographic characteristics, CMMI can finally issue the study, which is then thoroughly reviewed. After all of this, if the study stands up to review, the activities it covers might see Medicare-wide adoption after at least a year of rulemaking exercises. Taken all together, this process can take up to 10 years. To put that in perspective, smartphones have been on the market for a decade, so imagine if we had to wait for CMMI to approve those before we could put them in our pockets. We would all have the first generation of iPhones, LGs, Galaxies, or Pixels. The current treatment of new technologies in the Medicare system is one that validates old ideas; it does not find new ones. We urge Congress to work with CHI to identify opportunities for improving the process by which new technologies are approved and validated as cost-effective, clinically appropriate, and implemented with low risk of waste, fraud, and abuse.

The recent advancements made by CMS through both its PFS and Quality Payments Program (QPP) we have noted above are significant, but they do not reduce the crucial role that CMMI plays (and will play) in exploring new innovations in Medicare and Medicaid. Nor do these changes alter the fact that, to date, the efforts of the CMMI in exploring the benefits of connected health technologies (both telehealth and remote monitoring) have been insufficient given the immense value these technologies provide. We support a new direction for CMMI and urge CMMI to truly explore these technologies' potential as soon as possible through its efforts, building on recent advancements made in the PFS and QPP. CMMI should be ahead of this curve and not behind it. CHI commits to working with this Subcommittee to assist CMMI in any way possible to get to CMMI to the forefront of innovation in delivering care to Medicare and Medicaid beneficiaries.

IV. Ensuring that Value-Based Care Models Realize the Potential of Connected Health Technology Innovations

While the billing practices of Medicare providers are very important, the future shape of the new value-based system envisioned by Congress in the Medicare and CHIP Reauthorization Act of 2015 (MACRA) is arguably even more so. The value proposition for clarifying CMS' expectations and requirements in the context of the use of tech-driven hardware and software tools in the QPP is simple. Whether participating in the Merit-based Incentive Payment System (MIPS) or an Alternative Payment Model (APM), rural providers need to know that their adoption and use of technology tools are welcomed by CMS and that such adoption will not disadvantage them from a Medicare coverage perspective or expose them to liability. In turn, adopting these tools better enables providers to engage with rural patients in more dynamic and cost-effective ways.

b. Merit-Based Incentive Payment System (MIPS)

CHI supports CMS' efforts to incent the use of connected health innovations in MIPS through providing modality-neutral approaches to Improvement Activities (IAs) and flexibility for program participants. For example, CHI appreciates CMS' adoption of CHI's proposed MIPS IA – IA_BE_14 (Engage Patients and Families to Guide Improvement in the System of Care) for care coordination incenting providers to leverage digital tools that collect PGHD for patient care and assessment outside the four walls of the doctor's office using an active feedback loop.¹² CMS not only adopted the IA, but it also assigned high weight and linkage to an Advancing Care Information bonus to it, signaling to providers that CMS acknowledges the important role connected health tools can play in improving health outcomes and controlling costs in MIPS. MACRA reflects this Subcommittee's calls for an IA inventory that "shall include activities such as . . . remote monitoring or telehealth," and we encourage continued congressional oversight to ensure the continued adoption of IAs and other incentives that pave the way for the flexible adoption of digital tools.

For example, CMS' previous policy of providing bonus points in the Promoting Interoperability (PI) category represents CMS' understanding that connected health innovations play a key role in improving outcomes and incenting physicians to incorporate technology into their practice workflows and clinical activities. With regard to how connected health tools could better support the feedback related to participation in the QPP and quality improvement in general, we believe that the CMS' evaluation must reflect the fact that remote monitoring and telehealth—across patient conditions—offer key "health information technology [IT] functionalities," including the automatic collection and transmission of important biometrics for timely caregiver review and analysis.

Yet many CHI members develop truly unique applications that benefit both providers and patients. However, CMS' regulation that includes misplaced Certified EHR Technology (CEHRT) incentives drive EHR development to focus on measurement and reporting, rather than patient and clinician needs. Similarly, providers are not rewarded for health IT use consistently across all MIPS components. For instance, the PI component is solely focused on CEHRT use, while the IA category rewards for the use of both CEHRT and non-CEHRT.

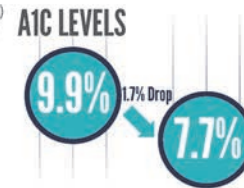
Congress should ensure that CMS shifts away from rigidly requiring the use of CEHRT to an outcomes-based approach that would permit the use of non-CEHRT across the entire MIPS program. CMS should also seek to minimize administrative burdens (e.g., lengthy documentation reporting requirements) on Medicare caregivers. Such steps must serve as a cornerstone of CMS' effort to provide flexibility for MIPS-eligible clinicians to effectively demonstrate improvement through health IT usage. Further, changes in MIPS are inherently linked to other important rules CMS is responsible for, including the PFS which has recently begun to incent the use of asynchronous tools that will bring PGHD into care. Efforts to revise MIPS measures and objectives generally should be made in alignment with non-CEHRT use (e.g., remote monitoring technology) which can greatly improve patients' care and wellness. CHI commits to working with this Subcommittee to maximize the value of MIPS.

c. Alternative Payment Models

CHI also supports Congress' goal in MACRA of realizing innovative Alternative Payment Models (APMs) and continues to work with stakeholders to find innovative alternatives to MIPS. APMs, with their financial and operational incentives, should demonstrate the best uses of remote monitoring or telehealth tools. To date, CMS has not discussed telehealth and remote monitoring's key role in the success of APMs in its heavily relied upon annual rulemaking. CHI maintains that this glaring oversight forces eligible clinicians, as well as other key

stakeholders and organizations, to conclude that telehealth and remote monitoring do not have a role in APMs. We have strongly urged CMS to provide this crucial direction and rationale in the next final (calendar year 2019) QPP rule. Such a step would also be consistent with CMS endorsement of telehealth and remote monitoring in both the PFS as well as MIPS, and it would be a crucial step for rural Americans.

Further, the current restrictions of 1834(m) are particularly inappropriate for APMs. We strongly support relieving APMs from the onerous Medicare telehealth restrictions in 1834(m). In a limited set of circumstances, CMS has taken steps to provide relief from section 1834(m) (4)(C) to pre-QPP APMs, demonstration projects, and Innovation Center models. For example, CMS provided this limited relief to Next Generation Accountable Care Organizations (ACOs). In addition, in the Comprehensive Care for Joint Replacement (CJR) Payment Model for Acute Care Hospitals Furnishing Lower Extremity Joint Replacement Services, CMS waived the rural geographic requirement and allowed telehealth services to be covered in patients' homes or place of residence.



The ongoing annual MACRA implementation rulemaking presents CMS with a golden opportunity to endorse the use of connected health technology innovations in APMs and to provide waivers from all of 1834(m)'s restrictions. To attract participants to the APM program, the flexibility to utilize the range of connected health innovations can be a reward and a competitive advantage. APM quality and performance measures paired with the ability to collect and quickly analyze data collected through these tools will protect against fraud and Medicare's traditional fee-for-service utilization controls. The availability of a wide range of options to reach patients at home is crucial for rural caregivers.

d. Value for Patients

If an APM is allowed the flexibility to use connected health technologies for patients with specific at-risk chronic conditions, those patients would benefit from much more user-friendly and effective care. Rural patients especially would benefit from the reduced need to travel long distances to see their doctors and from the ability to engage with physicians from their homes. If CMS provides certainty for providers that it considers whether they integrate remote monitoring to improve quality, while reducing per capita total costs of care, providers will be more likely to adopt those measures as part of an APM.



We discuss UMMC—which is a Health Resources and Services Administration (HRSA)-designated Telehealth Excellence Center—in detail above, but it makes sense to describe the benefits connected health tools have produced for UMMC patients. UMMC adopted a remote monitoring strategy out of necessity, and the evidence shows improvements to outcomes as well as ease of use for UMMC patients. The first 100 diabetes patients enrolled in the telehealth program saw a 1.7 percent reduction in their A1C levels, zero hospitalizations, and zero emergency room (ER) visits. [13] The monitoring program involved patients using a tablet and sensors to track symptoms and blood glucose levels. In a similar project, UVA partnered with a Federally Qualified Health Center (FQHC) to conduct a diabetes management program for rural patients. The program involved telemedicine, remote patient monitoring, and tech-driven care coordination. The results thus far have been remarkable: over six months, the mean hemoglobin A1C levels (a marker for diabetes control) dropped from 9.9 percent—which indicates uncontrolled—down to a far more manageable 7.7 percent. Moreover, since UVA began its broader telemedicine program, it has saved patients 18.3 million miles of driving, including 2.3 million last year alone.

Similarly, MIPS programs that incorporate remote patient monitoring enable patients with chronic conditions to access better care in the form of remote monitoring and interactive care. CHI member company Podimetrics, for example, manufactures the SmartMat™, which—pursuant to clinical trials—can detect diabetic foot ulcers about five weeks before they present clinically. Diabetes patients at risk for developing a diabetic foot ulcer (DFU) may be required to undergo skin grafts or even amputations if DFUs develop. Preventive treatment is therefore exceedingly important for diabetic patients at risk for DFUs—a population that comprises a disproportionately high percentage of rural residents. Fortunately, MIPS providers should be more likely to adopt technologies like

the SmartMat™ because the MIPS program recognizes the analysis of PGHD as an IA. Further improvements for patients could include shifting away from rigidly requiring the use of CEHRT to an outcomes-based approach that would permit the responsible use of non-CEHRT by MIPS caregivers. CMS should also seek to minimize administrative burdens (e.g., lengthy documentation reporting requirements) on Medicare caregivers. Such steps must serve as a cornerstone of CMS' effort to provide flexibility for MIPS eligible clinicians to effectively demonstrate improvement through health IT usage while also measuring such improvement.

e. Value for Caregivers

Increased flexibility in the APM and MIPS programs would produce obvious benefits for rural caregivers, most notably by allowing them to access the technologies of their choice, in a manner that augments—rather than impedes—their ability to practice medicine. Moreover, the effective use of RPM technologies allows providers to prioritize patients with more urgent needs, in many cases guided by the software. This is especially true if CMS were to allow MIPS providers to use technologies beyond CEHRT. In its proposed Query of Prescription Drug Monitoring Program (PDMP) measure, CMS has acknowledged the use of health IT beyond CEHRT. Providers' use of this technology is also important in the MIPS context, so we would support CMS allowing providers the flexibility to adopt technologies that build on CEHRT, for example. This enhanced flexibility and choice for caregivers would make integration of tech-driven tools using PGHD more user-friendly and enable them to see the full potential of these tools to enhance the caregiving experience and reduce EHR and desk time.

f. Value for Taxpayers

Enabling MIPS providers and APMs to adopt tech-driven tools like remote patient monitoring and care coordination platforms helps effectuate MACRA's goal of aligning participating providers' incentives with those of taxpayers. By using a software platform like the one by CHI Steering Committee member Rimidi—which enables diabetes patients and their care teams to manage diet and other inputs in real-time and with customizable settings—MIPS providers and APMs in rural areas can more effectively create an environment that responds to patients' needs in a cost-effective manner. A failure to either acknowledge digital medicine in APM rules or reward it in MIPS scoring dissuades rural providers from selecting tools that can enhance cost-effectiveness and clinical efficacy. At the same time, the incentives that exist in a fee-for-service system—where providers are tempted to order services like imaging and lab tests because each is reimbursed separately—are not present in the same way with MIPS scoring or APM rules. The incentives in MIPS are for the provider to implement IAs and report on quality measures (which are designed to improve cost-effectiveness and clinical efficacy) that increase its score. Similarly, the rules incent APMs to implement quality measures demonstrating cost-effectiveness and high-quality care. Digital tools that enable rural providers to treat and consult patients in less costly settings, more directly, and with greater customizability help providers achieve the APM and MIPS goals so rules governing the programs should avoid dissuading providers from using them.

Further, we completely disagree with the notion that a service provided by a caregiver using digital tools raises inherently more serious waste, fraud, or abuse risks than if the service were provided in person. In fact, in addition to the benefits described above, enabling the use of digital tools in value-based settings provides a more streamlined and accurate way of tracking transactions, patient engagement, and service provision. Thus, digital tools can actually help assure taxpayers that the products and services Medicare pay for are put to their proper use in ways that are unavailable without them.

V. Providing Broadband Infrastructure to Support a Connected Health Continuum

CHI supports the efforts to provide much-needed infrastructure for broadband connectivity generally, and in the healthcare context specifically, particularly in rural parts of the United States that face both chronic diseases (e.g., diabetes, heart disease, and COPD) and a lack of accessible health care facilities.¹⁴⁵ For example, in Mississippi, the American Diabetes Association approximated that 371,662 Mississippians (15.4 percent of the state's adult population) live with diabetes and about 810,000 Mississippians (37.5 percent of the state's adult population) have pre-diabetes blood glucose levels.¹⁴⁶ Despite alarming rates of diabetes, Mississippi has only 53

physicians per 100,000 people, painting a dire picture for the treatment of this otherwise manageable condition.^[16] Nationally, every year, physicians diagnose 1.5 million Americans with diabetes, adding them to the 30.3 million Americans already battling the disease. More than 320 million people in the United States could require health care services at any time.^[17]

As of last year, about 8 percent of Americans still lacked access to broadband.^[18] Meanwhile, new and innovative internet of things (IoT) technologies and deployments, requiring robust mobile broadband connections, are almost ubiquitous in today's economy.^[19] And of the approximately 24.5 million Americans who continue to lack access to broadband,^[20] most are in rural areas. Compounding the issue, rural Americans also suffer from higher rates of chronic disease than in metropolitan areas^[21]—conditions that can be improved substantially with connected health tools like remote patient monitoring and telehealth. The critical nature of the healthcare sector mandates that improvements be made to America's critical infrastructure, and this includes broadband infrastructure and measures to give healthcare providers the ability to use connected health technology products and services throughout the continuum of care, both inside and outside the doctor's office.

CHI supports increased connectivity for rural health care and recognizes the FCC's role in this respect. While the Commission's Rural Healthcare Fund (RHCF) has been a useful means for connecting eligible healthcare facilities, support for connectivity to enable remote monitoring is lacking to the detriment of countless rural American patients in need. The FCC has identified numerous barriers to broadband infrastructure deployment and has recently proposed several measures to address these barriers.^[22] The FCC has committed to close the digital divide by establishing a "Gigabit Opportunity Zone" program, which would "bring broadband and digital opportunity to our nation's most economically challenged areas."^[23] Even more recently, the FCC has proposed to establish a Connected Care Pilot Program to provide \$100 million for broadband services to connect rural patients with healthcare facilities utilizing cutting-edge remote monitoring tools. CHI has urged the Commission to continue this trajectory to ensure that the necessary infrastructure is in place to facilitate more innovative mobile broadband solutions. We remain committed to assisting this Committee and the FCC in bringing the power and utility of the connected-health revolution to every American.



As the FCC considers options for greater broadband connectivity, it is important that the FCC utilize every spectrum resource it has available, whether licensed or unlicensed. For example, television white spaces (TVWS), unused portions of the television band, have the proven capabilities to deliver broadband connectivity to wide-ranging areas, without sacrificing bandwidth strength or speed. More importantly, TVWS does not require an extraordinary amount of infrastructure to deploy as TVWS-enabled broadband simply requires a TVWS device that can connect to an existing transmission tower, even if it is many miles away. Several pilot programs have even shown that TVWS-enabled devices do not require grounded electricity to be functional. Lastly, TVWS bands can help ease the programmatic strains associated with "last mile" connections, helping paying consumers avoid unnecessary increases in USF service charges on their next phone bill. We urge FCC action to unlock the ability to use TVWS for rural healthcare connectivity.

VI. Anti-Kickback Statute and Stark Law

The Anti-Kickback Statute (AKS) and Stark Law are prime examples of well-intentioned laws that frustrate CMS' progress as it seeks to evolve Medicare from fee-for-service to value-based care. We agree with CMS' assessment that the Stark Law and AKS provide important anti-fraud protections for Medicare. However, they are both out of date and present barriers to innovation, and considerations for new exceptions to the laws are needed. CHI notes its appreciation of the HHS' recent public solicitation for comments on the AKS and Stark

Law's impact on innovation,^[24] on which CHI has commented and urges this Subcommittee to consider.^[25]

We urge the creation of Stark Law exceptions that will responsibly facilitate the greater uptake of connected health innovations—be they hardware, software, or a combination of the two—throughout the continuum of care, including for Accountable Care Organizations. Moreover, the HHS' Office of the Inspector General (OIG) should provide clarification on questions regarding anti-kickback laws to reflect realistic engagement program requirements. Such issues include ensuring that giving patients a device (e.g., a tablet) to communicate with a care team is not considered patient inducement; or that providing physician platforms for telemedicine is not violating the AKS. We have raised our views regarding the AKS previously in more detail and urge for their careful consideration by CMS.

CHI does not seek statutory changes to the AKS or the Stark Law; we believe HHS has clear authority to provide exceptions (in the case of the Stark Law) and much-overdue guidance (in the case of the AKS) to providers and other stakeholders, and we urge this Subcommittee to encourage HHS to take such steps as rapidly as possible.

g. Value for Patients

The value of re-orienting the AKS and the Stark Law lies in enabling a user-friendly patient experience. The HHS' OIG has made some strides in this regard and recognizes the opportunities to create safe harbors that enable patients to access products and services that make their healthcare experience more effective and easier. For example, in its efforts to address fraud and abuse in Medicare and state health programs, OIG recognized in its December 2016 safe harbor rulemaking that "[t]he transition from volume to value-based and patient-centered care requires new and changing business relationships among health care providers," and assured that "we will use our authorities, as appropriate, to promote arrangements that fulfill the goals of better care and smarter spending." Both the Inspector General and the Chief Counsel to the Inspector General have indicated that OIG is interested in exploring ways to permit greater flexibility for value-based arrangements, while still guarding against the problems the fraud and abuse laws were designed to prevent.

We believe that the OIG could provide clarification on questions regarding anti-kickback laws to reflect realistic engagement program requirements. Such issues include ensuring that giving patients a device (e.g., a tablet) to communicate with a care team is not considered patient inducement; or that providing physician platforms for telemedicine is not violating the anti-kickback statute.

h. Value for Caregivers

Small practices, in particular, could benefit from the extension of the Stark Law donation exemption (scheduled to expire in 2021) for interoperable technology, along with an expansion of this exemption to allow for donations aimed to improve the exchange of health data through innovative application programming interfaces (APIs) and other tools. Permitting such donations would assist smaller practices facing resource constraints to advance value-based care using connected health technologies. Under current conditions, EHRs demand ridiculous amounts of time and energy on the part of physicians. Layering on another set of digital tools is not likely to help physicians unless those tools are woven into the continuum of care in an intuitive and user-friendly way. These attributes, in turn, are only achieved where they are woven into clinicians' treatment regimens.

In the case of the AKS, providers seeking to use connected health tools face the risk of liability under AKS should they provide those tools to their patients. Such tools are demonstrated to improve patient engagement and outcomes, as well as to save caregiver team resources. Without guidance from HHS on AKS as applied to the use of connected health technology (e.g., tablets, software platforms, etc.), no physician could be expected to take the risk of violating AKS, and AKS will remain a significant barrier to innovation in healthcare.

The barriers AKS and Stark Law present make the seamless integration of digital tools and caregiving difficult and in some cases impossible. Removing or reducing those barriers could dramatically enhance value for caregivers.

i. The Value for Taxpayers

Congress' vision for value-based care relies heavily on the development of risk-sharing models that are defined by flexible contracting arrangements. For example, a software company may partner with a device company to provide services to a mental health clinic. The contract between the software-device company joint venture and the clinic may contemplate higher or lower compensation for the joint venture depending on the effectiveness of the services and devices it provides the clinic. Unfortunately, this arrangement may run afoul of AKS, which prohibits the exchange of value in return for referrals or to generate healthcare program business.^[26] Especially if the clinic is part of the joint venture, the Stark Law could also prohibit any value-driven discounts between the parties because it prohibits a physician from referring Medicare patients to an entity with which the physician has a financial relationship. These types of contractual arrangements—in which risk is shared, efficacy is rewarded, and ineffectiveness is penalized—are central to aligning value with Medicare's payment system. Identifying appropriate exceptions and mitigations for AKS and Stark Law prohibitions is, therefore, a key element of driving value for taxpayers as the system moves to value-based care. Without action by HHS, the AKS and the Stark Law will continue to present barriers to the use of connected health innovations and the demonstrated program savings their use brings.

Costs associated with non-emergency medical transportation (NEMT) and emergency transportation can add up in rural areas. Patients must use NEMT to reach regularly scheduled appointments such as dialysis for patients with renal disease. Longer distances between patients and care facilities in rural areas mean costs for NEMT and emergency alike can range much higher in less densely populated areas. According to one estimate, about 30 percent of the U.S. population can only reach appropriate urgent care via air transport, which is a major cost driver in the U.S. healthcare system.^[27] Certainly, some proportion of urgent care trips is attributable to chronic conditions that respond to preventative management. Enabling rural providers to use remote patient monitoring and other connected health modalities would reduce the overall costs associated with expensive, yet preventable, emergency trips in rural areas. Moreover, software-facilitated engagement could help defray NEMT costs by reducing the need to pay for transportation for patients to distant providers.

VII. Providing Incentives for Patients to Bring Patient-Generated Health Data into Their Care

With incremental progress already taking place, and even further progress likely, in providing caregivers incentives to use cutting-edge technology to bring PGHD into their care decisions, we must also ensure that we do not forget the other crucial part of the care continuum formula: the patient. CHI urges this Subcommittee to join us in seeking to provide consumers and patients across rural America with the ability to more easily acquire and use the software and hardware available today to get more engaged in managing their own health and, once diagnosed, treatments.

Earlier this month, Americans heard an announcement about the upgraded sensors and other technology in popular smartwatches. Technology is advancing to the point where the devices on our wrists can now take accurate electrocardiogram readings. As an initial matter, it would make little sense if rural Americans could not send these accurate readings to their physicians and work the data their devices gather into the continuum of their own care.

Importantly, policymakers have the opportunity to incent the purchase of software and hardware technology by requiring the Internal Revenue Service (IRS) to include such innovations as allowable medical expenses designated by the IRS in IRS Pub. 502, thereby making their purchase eligible using flex savings accounts (FSAs) and health savings accounts (HSAs), providing consumers with the flexibility to lower their healthcare costs. Such an incentive would help rural Americans—especially those at risk for chronic conditions—access preventive digital medicine proven to produce positive results.

VIII. Access to Data and Interoperability

The efficacy of precision medicine, population health, clinical decision support—and AI driven tools in particular—is dependent in large part on the availability of massive data sets. The free flow of information and interoperability are therefore important, potentially life-saving conditions. CHI is committed to advancing health data interoperability throughout the continuum of care.

Electronic health information and educational resources are critical tools that empower patients to engage in their own care. A truly interoperable connected healthcare system includes patient engagement facilitated by asynchronous (also called “store-and-forward”) technologies (ranging from medical device remote monitoring products to general wellness products) with two-way open APIs that allow the integration of PGHD into EHRs. Data stored in standardized, interoperable formats facilitated by APIs provides analytics as well as near real-time alerting capabilities. The use of platforms to manage data streams from multiple and diverse sources will improve the healthcare sector, and help eliminate information silos, data blocking, and barriers to patient engagement.

Interoperability must not only happen between providers, but also between RPM products, medical devices, and EHRs. A great example of interoperability between systems, devices, and networks can be seen in the communications technology industry, which has flourished globally. In addition to testing and finding consensus on industry standards, this Subcommittee should prioritize encouraging the voluntary implementation of industry standards to ensure interoperability between EHR systems, medical devices, and healthcare products. This practice could also be used to measure the interoperability of EHR products. A system demonstrating “widespread interoperability” will provide useable data from various sources, not just from CEHRT and CEHRT systems. A good example of industry-led efforts to establish standardized implementation of a standard is the Argonaut project, which helps standardize the implementation of the Fast Healthcare Interoperability Resources (FHIR) standard. But even private sector efforts like Argonaut can become too focused on compliance-driven efforts in order to meet perceived regulatory requirements. There must also be an incentive to communicate and pass information from one party to another. We also note that MACRA⁽²⁶⁾ provides that incentive in a value-based healthcare environment—one which engages patients, reduces costs, and documents quality metrics.

We believe this Subcommittee shares CHI's vision of a seamless and interoperable healthcare ecosystem that leverages the power of PGHD. We strongly encourage Congress to ensure the federal government's interoperability efforts prioritize data generated by patients outside of the traditional care setting. Providers serving the beneficiaries of federal health plans will come to expect access to seamless and secure patient data across the care continuum, where “[i]ndividuals are able to seamlessly integrate and compile longitudinal electronic health information across online tools, mobile platforms and devices to participate in shared decision-making with their care, support and service terms.”⁽²⁷⁾ Moreover, we would support efforts to incent software developers and patients to make use of Medicare claims data. This Administration's Blue Button 2.0 initiative, which would help make this claims data usable via APIs to developers, is a good start and Congress could supplement those efforts by ensuring that Medicare covers tools that enable patients to use, analyze, and share their claims data.

A diversity of APIs are emerging to assist in bringing PGHD into the continuum of care, but we stress that not all of these are necessarily well integrated with EHRs. While CEHRT will be required to support APIs, many vendors will enable “read only” access, allowing for data to only flow out of the EHR rather than both in and out. Additionally, we are aware that CEHRT vendors have not implemented a common approach to API development and lack a consistent implementation of API technical standards. Creating “special effort” to develop applications

and undue burden and costs for our members. CHI reiterates our concern with, and lack of confidence in, any presumption that the 2015 ONC CEHRT standards will facilitate seamless interoperability.

Further, privacy laws like the Health Insurance Portability and Accountability Act (HIPAA) also tend to—contrary to the name of the law itself—impede the portability of a patient's data from one provider to another. Although we do not suggest statutory changes to HIPAA, we have previously urged HHS' Office of Civil Rights (OCR) to provide updated and clear guidance to covered entities and business associates such that providers may observe the spirit of HIPAA's requirements without fear of "gotcha" enforcement actions. CHI would support appropriate reforms to allow OCR to use the fines it collects through enforcement for proactive educational efforts by OCR to improve the privacy posture of covered entities and business associates, rather than simply using those funds to bring further enforcement actions.

Within Medicare, moving away from the Meaningful Use program's "pass/fail" approach, CMS has adopted a Promoting Interoperability scoring regime that is less prescriptive and burdensome. CHI continues to work with CMS to ensure that compliance burdens for PI participants are as low as possible to maximize participation, and we support proposed changes to the PI scoring regime and measures proposed with increased flexibility and lower compliance burdens in mind (e.g., scoring measures at the objective level; and moving away from numerator/denominator scoring, and instead utilize a yes/no attestation; and aligning the hospital and physician PI programs by extending the 50-point score standard—recently finalized for hospitals in the IPPS—to physicians). Congress could encourage CMS to adopt the scoring approach across beneficiary programs to promote simplicity and certainty for digital health stakeholders.

CHI, like many others, was pleased to hear that the National Coordinator for Health Information Technology (ONC) sent its draft information blocking rulemaking required under the 21st Century Cures Act. As information blocking is defined in law, we see the rule providing key insights into what is not info blocking. For example, CHI believes that the rule should make it clear that an entity is not data blocking in the event that patients cannot access their entire medical record through a mobile app and cannot receive their entire medical record in a format of their choosing (e.g., an app). This data may be limited for a few reasons, including security concerns regarding their own system(s) or recipient's system(s), as our members rely on strong encryption to protect sensitive health data; data segmentation (for privacy); and lack of access to information (e.g., no connectivity). While the 2015 Edition CEHRT includes API functionality that requires patients have access to at least the common clinical data set (CCDS), which is 21 data elements, expectations about what can be accessed through an app may need to be managed. CHI commits to working with this Subcommittee, HHS, and other stakeholders in encouraging the use of APIs that pull more than CCDS. Further, CHI anticipates that the information blocking rulemaking will clarify:

- What constitutes "special effort" in eliminating blocking and promoting interoperability;
- How "should have known" is defined;
- How patient access is measured;
- How its rulemaking interacts with HIPAA requirements, ONC certifications, the Trusted Exchange Framework and Common Agreement (TEFCA), etc.;
- What constitutes a "violation," and the informal and formal pathways to complaint adjudication;
- Whether OCR will offer safe harbors utilizing constructs such as the TEFCA/ U.S. Core Data for Interoperability (USCDI), the ONC Interop Standards Advisory, etc.

Congress may also be able to help by ensuring that sister agencies working to address interoperability coordinate appropriately. For example, ONC is also currently developing the TEFCA and U.S. Core Data for Interoperability (USCDI) to advance interoperability, CMS is continuing to establish its role in interoperability, and

the Federal Trade Commission also plays an important role. We urge Congress to ensure that the agencies within HHS, and other federal actors, align their approaches and to ensure that they minimize compliance burdens on affected stakeholders. For example, CHI supports CMS' proposal to have participation in the TEFCA qualify as a health IT activity that could count for credit within the Health Information Exchange objective in lieu of reporting on measures for this objective. CHI strongly supports incentives to ensure the secure exchange of information. We urge that reporting requirements present as low a burden as possible and that the new CMS rules do not have the effect of incentivizing taxing data dumps that have little practical value.

IX. Conclusion

Digital medicine can save lives, especially in rural America—but only if we let it. Inextricable from the story of connected health is the fact that the American healthcare system for decades was driven not by value but by a constant stream of services. This model has exacerbated the healthcare challenges in rural areas. Now, digital medicine could help revolutionize rural healthcare, just as mobile technology has fundamentally improved banking. Alternatively, bureaucratic inertia and red tape could keep the cloud-plus-mobile improvements that have redefined our daily lives in countless other ways forever on healthcare's sidelines. We applaud the Subcommittee for shedding light on the state of healthcare in rural America and granting us the opportunity to advocate for the adoption of innovative means of enabling an American healthcare system that is more valuable to patients, providers, and taxpayers alike.

^[1] Id.

^[2] <https://www.hhnmag.com/articles/6881-rural-physician-shortage-demands-innovative-solutions>.

^[3] Sinsky, Christine, et al, "Allocation of Physician Time in Ambulatory Practice: A Time and Motion Study in 4 Specialties," *ANNALS OF INTERNAL MED.* (Dec. 6, 2016), available at <http://annals.org/aim/article-abstract/2546704/allocation-physician-time-ambulatory-practice-time-motion-study-4-specialties?doi=10.7326%2fM16-0961>.

^[4] Centers for Medicare and Medicaid Services, Medicare Program; Revisions to Payment Policies Under the Physician Fee Schedule and Other Revisions to Part B for CY 2019; Medicare Shared Savings Program Requirements; Quality Payment Program; and Medicaid Promoting Interoperability Program, 83 FR 35771 (July 27, 2018)

^[5] See DOWNEY, LAURA H., *RURAL POPULATIONS AND HEALTH: DETERMINANTS, DISPARITIES, AND SOLUTIONS* (book review) (Aug. 21, 2012), available at https://www.cdc.gov/pcd/issues/2013/13_0097.htm.

^[6] AMER. MED. ASSOC., *TELEHEALTH: DELIVERING THE RIGHT CARE, AT THE RIGHT PLACE, AT THE RIGHT TIME* (Jul. 2017).

^[7] http://www.connectwithcare.org/wp-content/uploads/2017/06/2016_Outcomes_Clinical-1.pdf.

^[8] Id.

^[9] AMER. MED. ASSOC., *DMPAG CLINICAL LITERATURE & UTILIZATION TRENDS: TELEHEALTH & REMOTE PATIENT MANAGEMENT*, Appdx. (Sept. 2017).

^[10] Janet K Freburger An Analysis of the Relationship Between the Utilization of Physical Therapy Services and Outcomes of Care for Patients After Total Hip Arthroplasty, *Physical Therapy*, Volume 80, Issue 5 (May 2000).

^[11] Centers for Medicare and Medicaid Services, Medicare and Medicaid Programs, "CY 2019 Home Health Prospective Payment System Rate Update and CY 2020 Case-Mix Adjustment Methodology Refinements; Home Health Value-Based Purchasing Model; Home Health Quality Reporting Requirements; Home Infusion Therapy Requirements; and Training Requirements for Surveyors of National Accrediting Organizations," 83 FR 32346 (July 12, 2018).

^[12] Centers for Medicare and Medicaid Services, Medicare Program; CY 2018 Updates to the Quality Payment Program; and Quality Payment Program: Extreme and Uncontrollable Circumstance Policy for the Transition Year, 82 FR 53665 (Nov. 16, 2017).

^[13] http://www.connectwithcare.org/wp-content/uploads/2017/06/2016_Outcomes_Clinical-1.pdf.

^[14] FED. COMM'NS COMM'N, 2018 BROADBAND DEPLOYMENT REPORT (Feb. 2, 2018) <https://www.fcc.gov/reports-research/reports/broadband-progress-reports/2018-broadband-deployment-report>.

^[15] American Diabetes Association, *The Burden of Diabetes in Mississippi* (last visited Jan. 22, 2018) available at <http://main.diabetes.org/dorg/PDFs/Advocacy/burden-of-diabetes/mississippi.pdf>

^[16] Roya Stephens, *Tuning into Telehealth: How TV White Spaces Can Help Mississippi Tackle the Diabetes Epidemic*, ACT | The App Association (Jul. 20, 2017) found here: <http://actonline.org/2017/07/20/tuning-into-telehealth-how-tv-white-spaces-can-help-mississippi-tackle-the-diabetes-epidemic/>.

^[17] In the Matter of FCC Seeks Comment on Accelerating Broadband Health Tech Availability, Public Notice. GN Docket No. 16-46 at p. 4 (rel. Apr. 24, 2017) (PN).

^[18] Caitlin Dewey, *The 60 Million Americans, Who Don't Use the Internet*, in *Six Charts*, *The Washington Post* (Published Aug. 19, 2013).

^[19] Amy Nordrum, *Popular Internet of Things Forecast of 50 Billion Devices by 2020 is Outdate*, *IEEE Spectrum* (Aug. 18, 2016, 1:00 PM) found here: <http://spectrum.ieee.org/tech-talk/telecom/internet/popular-internet-of-things-forecast-of-50-billion-devices-by-2020-is-outdated>.

^[20] 2018 BROADBAND DEPLOYMENT REPORT, available at <https://docs.fcc.gov/public/attachments/FCC-18-10A1.pdf>.

^[21] <https://www.ruralhealthinfo.org/topics/chronic-disease#urban-comparison>.

^[22] E.g., In the Matter of Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment, WT Docket No. 17-79, Second Report and Order (2018). Available at <file:///Users/joelthayer/Downloads/FCC-18-30A1.pdf>.

^[23] FCC Chairman Ajit Pai, Digital Empowerment Agenda, available at https://apps.fcc.gov/edocs_public/attachmatch/DOC-341210A2.pdf.

^[24] 83 Fed. Reg. 29524; 83 Fed. Reg. 43607.

^[25] Comments of Connected Health Initiative, CMS-1720-NC, Medicare Program; Request for Information Regarding the Physician Self-Referral Law (Aug. 24, 2018).

^[26] 42 U.S.C. Sec. 1320a-7b(b); see also <https://oig.hhs.gov/compliance/provider-compliance-training/files/starkandakscharthandout508.pdf>.

^[27] <http://aams.org/the-cost-of-air-medicine/>.

^[28] Pub. L. 114-10 (2015).

^[29] ONC, Connecting Health and Care for the Nation: A Shared Nationwide Interoperability Roadmap at 73.

Senator ENZI. Thank you.
Mr. Levine.

STATEMENT OF ALAN LEVINE, EXECUTIVE CHAIRMAN, PRESIDENT, AND CHIEF EXECUTIVE OFFICER, BALLAD HEALTH, JOHNSON CITY, TN

Mr. LEVINE. Thank you, Mr. Chairman. My name is Alan Levine. I'm the Executive Chairman of Ballad Health, a 21-hospital integrated health delivery system serving 29 counties in Southwest Virginia and Northeast Tennessee. I also formerly served as the Secretary of Health for the State of Louisiana, and in Florida.

I'm pleased to provide this oral testimony as a supplement to the written testimony I've submitted, and I look forward to answering your questions about it later.

Tennessee has made many contributions to America, and yesterday I had the opportunity to visit one such gift, the St. Jude Children's Research Hospital, a place in Memphis where research and precision medicine are creating cures for children's cancer. And as I toured the hospital, it occurred to me that just more than an hour away in a small rural community in Tennessee, a local hospital was closing that very day and people were losing their jobs. This was the ninth such closing in Tennessee since 2010.

What a vivid picture that was of the increasing distance between our urban and rural communities. In one, Memphis, we have research in progress, led by a world-renowned institution, and in a rural community just more than an hour away, the community lost its hospital.

Evidence is mounting that our policies are having unintended consequences on our rural health safety net and our non-urban hospitals. Almost 90 rural hospitals nationwide have closed in the last 8 years, and 673 rural hospitals are reported to be at risk of closure. Forty-four percent of them have negative operating margins in 2018, up from 40 percent just 12 months earlier.

The healthcare culture of any community revolves around its hospital. As non-urban hospitals struggle and rural hospitals close, the opportunity to improve the health of these communities is diminished. Policies intended to transform the government payment system from fee-for-volume to fee-for-value are complex and frankly seem more appropriately targeted to larger urban and suburban hospitals which have both the critical mass of patients and the resources to test these models; models, I would add, which are constantly changing and which have led in part to increases in bad debt, uncollectible revenue, increases in the number of physicians who give up private practice and either seek employment or retire, and to unpredictability of cash-flow for those hospitals. Smaller non-urban and rural hospitals have neither the patient volume nor the sophistication to deploy these new reimbursement models.

As the government payers move toward shifting more risk to hospitals, smaller hospitals and those with debt simply do not have the balance sheet strength to succeed and certainly will struggle to invest in the infrastructure needed to improve the management of chronic care and population health, which are really the intended outcomes of all these policies to begin with.

Consider that in non-urban and rural communities, which make up almost 95 percent of our Nation's land area, they are seeing population stagnation or decline, and due to the policies intended to reduce inpatient utilization, policies I think we all agree with, the combination of no population growth with reducing inpatient utilization means the non-urban and rural hospitals are stuck in a business model which is destined to fail.

For example, as the inpatient utilization rates in Nashville, Tennessee declined from 110 per thousand to less than 100 per thousand, the population in Nashville grew. So the hospitals have thrived there because the economy was expanding and the population was growing. But in my region, where many of the counties are seeing population declines as inpatient use rates decline, there is no population growth to sustain the hospital.

We are therefore seeing year-over-year declines in inpatient services in these rural markets. In most cases, this begins a death spiral. Reduced revenue means lack of capital to invest in technology equipment and recruitment of doctors. Add to this the complexity of payment changes imposed by state and Federal Governments and the inability of rural hospitals to deploy even the simplest of these payment changes and you end up with a rural hospital failure.

I don't think the responsible answer is to either just pay more or let rural hospitals close. I think the choice is broader than that, but we need to focus on the real problem we are trying to solve. We are not trying to save hospitals for the sake of bricks and mortar. We actually have real problems in these communities we need those hospitals to help solve.

Rural Americans have a higher rate of death from disease, a higher rate of death from overdose, and the incidence of complications and deaths for moms and babies is higher in rural areas due to the same factors that lead to higher rates of disease in rural communities. So rather than just throw money at the problem, I think we can build a bridge to a rural safety net that serves today's rural health needs better.

My written testimony highlights steps that I hope we can talk about during the Q&A, and I look forward to discussing the steps that can build this bridge to a sustainable rural model and a sustainable business model. I do believe the area wage index is a major problem for our country. Senator Alexander, Senator Kaine, you guys have been champions in trying to help deal with that issue. That would be one of the single most important things you can do for rural hospitals and non-urban hospitals.

I think our rural hospitals can be repurposed. I think there are services like mental health, addiction, emergency services, and maternal services for women and babies where rural hospitals, we have a need for those services rather than some of the high-end acute services that we might have needed 30 years ago. So repurposing of these hospitals is a real opportunity.

I look forward to answering your questions and to the dialog we're about to have. Thank you.

[The prepared statement of Mr. Levine follows:]

PREPARED STATEMENT OF ALAN M. LEVINE

Chairman Enzi, Chairman Alexander, Ranking Member Sanders, Ranking Member Murray, and Members of the Committee, thank you for the invitation and opportunity to appear before you this afternoon.

My name is Alan Levine, and I currently serve as the executive chairman, president and chief executive officer of Ballad Health, a 21-hospital, not-for-profit integrated healthcare delivery system uniquely created through state action immunity upon the merger of two regional health systems. We serve 29 counties in the Appalachian region of Upper East Tennessee, Southwest Virginia, East Kentucky, and Western North Carolina.

Thank you for inviting me to discuss the variety of healthcare challenges facing Americans in rural areas, and the concerns those of us responsible for delivering health care services have with respect to ensuring access and improving health. As the evidence shows, rural hospitals and clinics are facing unprecedented pressure. Researchers at the University of North Carolina have identified almost 90 rural hospital closures across the country in just the last 8 years, and iVantage Health Analytics has reported that 673 other rural hospitals are at risk of closure due to mounting financial pressures.

These hospitals are the epicenter of most of these communities, not just for health care but for community-wide economic stability. In addition, the dated reimbursement models and bricks-and-mortar approach to health care of yesterday are undermining these assets. Payment policies and well-intended policy reforms are overly sophisticated and bureaucratic. While the jury is out on whether these policies, which continue to quickly evolve, will work, it is highly likely most of the thought behind the policies is aimed at urban and higher density markets where much of the spending occurs. In my view, not enough thought has gone into how these policies weigh on smaller, non-urban and rural community assets. The fragmentation of payment and the weight of these policies undermine efforts to transition these rural assets into what is actually needed in these communities. One need look no further than the closings of hospitals, and the financial performance of the largest rural and non-urban hospital providers—both publicly traded and not-for-profit—to validate this point. We have before us a situation where it seems the only two options are: provide more funding for rural hospitals through convoluted formulas and one-size-fits-all rules, or let rural hospitals close.

I firmly believe there are options in between these two extremes which can help sustain our rural and non-urban communities.

Let's face it. Rural economies are continuing to struggle, and are not yet enjoying the full benefit of the recovery. According to the National Rural Health Association, only 3 percent of the job growth that has occurred since the Great Recession has happened in rural areas, and between 2010 and 2014, more businesses closed than opened in rural areas. Today across the Nation, rural and non-urban hospitals find themselves in negative feedback loops, increasingly leading to bankruptcy and closure. It starts with declining revenues caused by declining inpatient utilization rates. Combining declining inpatient use rates with stagnant or declining populations is a dangerous mix for a rural hospital or health system. Add to this mix the multitude of Federal and private insurer payment policies designed to contain or even reduce per-unit reimbursement, which remains tied to the fee-for-service system, and the hospitals lose the necessary revenue to service fixed costs. These hospitals have also amassed debt they must service, and the ongoing fixed costs of operating a hospital continue to grow. If the variable margins decline, the financial model simply does not work. Then, add to this scenario the highly complex changes being imposed by Medicare and Medicaid, and the cost of compliance, and you are left with hospitals that simply don't have a chance, particularly if they are not part of a larger health system. But even if they are part of a larger system, those same policies that undermine the financial health of the larger regional non-urban hospitals is beginning to lead to decisions to close or alter the relationships with rural hospitals. This very instance is playing out today in West Tennessee, where a regional not-for-profit system acquired a rural hospital, and closed it. The process of failure is familiar to us all. Inability to service fixed costs translates into reduced cash-flow, which negatively impacts employee and physician recruitment and retention, reduced investment into capital assets like newer equipment and technology, and eventually the decline of the physical structure itself.

As these investments deteriorate, patients with means (and commercial insurance) travel to urban and suburban hospitals for orthopedic, cardiovascular and other procedures, which our current reimbursement system disproportionately rewards with higher margins. These margins are used by hospitals to offset losses in

most other service lines of a hospital. Rural hospitals are thus left with a less-favorable case mix and payor mix, leading to further declines in revenue and margin.

This is the death spiral.

But, as I have stated, these hospitals don't have to close. There is another option. Transitioning these hospitals to what is needed today can be financially beneficial and can serve a major public health policy purpose. Today's rural hospital does not need to be providing high acuity intensive services or high acuity surgeries. Indeed, it may be better for patients to go to larger regional facilities that sustain the volume necessary to provide high quality intensive services. But, since 80 percent of our Nation's land mass is rural, access to many needed services is hampered by geography—this is geography that rural hospitals can help serve where serious service gaps exist. By building a bridge from yesterday's fee-for-service, bricks-and-mortar model focused on payment for each inpatient encounter or surgery to one where rural hospitals become the epicenter for the evolved needs of mental health, addiction services, primary care, chronic care for certain chronic conditions, obstetrics and neonatal care, emergency services, rehabilitation, specialty access through technology solutions, and other services, we can create new opportunities for revenue and job growth, and ultimately, we can serve the critical needs of these rural communities.

The area of Southern Appalachia served by Ballad Health serves as a case study of sorts. As an example, just last month, I met with school superintendents from throughout our region. Many of these superintendents oversee rural school systems. These superintendents shared their serious concerns for students who are increasingly showing up for school in the fall with serious mental health issues, addiction, depression and suicidal tendencies. Their teachers don't possess the skills needed to manage the serious issues these students come to school with, and the school systems in rural areas certainly lack the resources to manage this problem on their own. Given the distant nature of the hospitals throughout the region, and the location of the schools, there is no easy solution, but there is a solution. The combination of the use of technology for assessment of these kids by qualified counselors who may not even live in those communities with the resources of the rural hospital to offer competent crisis services with a bridge to treatment makes perfect sense. But the payment system doesn't lend itself to supporting these costs or this model for rural communities.

This is where Ballad Health, and its unique model, can be a bridge as the larger rural health policies evolve. The vast majority of the 29 counties Ballad Health serves have flat or negative population growth. Our hospitals are also experiencing above-average declines in inpatient utilization rates. Sixty-seven percent of our payor mix is Medicare or Medicaid and another 6 percent is self pay. The fastest growing segment of our patients who are not paying are those who have insurance but cannot pay the higher deductibles. In addition, just as rural Americans are older and sicker than their urban counterparts, they also suffer higher rates of chronic disease such as heart disease, diabetes, obesity, substance use disorder, and untreated mental illness. Given the higher incidence of chronic conditions that make pregnancy more challenging in rural areas, it follows that rates of complications and maternal/infant deaths are higher, too. In 1985, 24 percent of rural counties lacked obstetric services. Today, 54 percent of rural counties lack hospital-based obstetric services. More than 200 rural maternity programs closed between 2004 and 2014. All of these issues are faced by Ballad Health and the rural communities we serve.

While rural populations account for only about 20 percent of our Nation's population, they populate approximately 80 percent of our Nation's land mass. In some regions, this land mass is complicated by the significant geographic barriers and distance that make the provision of services even more difficult.

These are some of the reasons our community leadership came together to create a new model of healthcare delivery. Formed only eight months ago by the merger of two competing health systems serving the same region for many decades, Ballad Health represents a transformation in the way we are approaching these challenges in our part of the country.

Both legacy systems came to recognize that our status quo was no longer sustainable. While we separately invested millions of dollars in services and technologies designed to compete with the system down the road, our community was becoming less healthy, and our margins still continued to decline. We each recognized obtaining synergies of increased scale was imperative, yet selling our systems to larger outside hospital companies or systems would have likely resulted in the closure of some rural hospitals, the devastating loss of at least 1,000 back-office jobs in our region, and as studies have shown happens, the larger systems would have likely

increased pricing as they sought to leverage their size in negotiations with insurers and government payors.

Unfortunately, Federal anti-trust policy in health care is solely focused on preserving competition, with little or no room to consider the effects of market failure on health and economic conditions in communities such as ours. Without this merger under state action immunity laws in Tennessee and Virginia, the hit to our region's economic stability would have been severe.

Instead, we have begun the process of reducing resources tied up in destructive and costly duplication. We are redirecting at least \$300 million of these savings to preserve essential services and to invest in initiatives that reach further upstream of the emergency department or the doctor's office to help address the social determinants that are contributing to our region's poor health status.

Our efforts are an attempt to build a bridge to the future of rural health care, but we will only succeed long-term if Federal and state policies support what we are trying to do. While other rural hospitals are closing, we have pledged to preserve our rural hospital facilities and to repurpose many of them so that additional essential services can be provided to our community.

Referencing the conversation I had with our school superintendents, because Ballard Health retained its local governance and is a community-based organization, we decided to become a solution to the problem. Ballard Health intends to invest in counselors at our region's only children's hospital to do assessments of children in our schools in crisis. We plan to hire a counselor in each school district to serve those children identified with serious crisis needs. Unfortunately, the current payment system does not sufficiently support this model, but our commitment to the community is more important than profits. Eventually, the business model must support what we are investing in, and that's why I'm here today. This is an example where a system approach to genuinely improving healthcare services can benefit the communities in the region we serve, and we hope to show this is a model worth investing in. We would welcome a Federal investment into this model of partnership between rural schools and hospitals as we demonstrate how it can help solve many of our region's problems.

Of course, this model relies upon our ability to attract and retain a high-quality and dedicated healthcare workforce. Seventy-seven percent of counties in our country are considered Health Professional Shortage Areas by the National Rural Health Association, and we are impacted by this as well. Our children's hospital struggles to attract and retain physician talent, and we are the only children's hospital within a 2-hour drive of many residents in our region. Again, a payment system that only rewards hospital admissions does not contribute to a successful healthcare delivery system in a region where admissions are declining. Instead, Federal and state policies should align to invest in needed services for underserved areas with an eye toward evolving existing facilities into centers of excellence for rural health care. I imagine a day when our children's hospital can serve children who are developmentally disabled or suffer from mental health or other behavioral challenges, and can participate in the type of research that will help solve future healthcare problems in rural areas. Our children's hospital has seen a rate of neonatal abstinence syndrome approximately four times greater than the national average, and we do not fully know what the impact of this will be on these children as they grow. Rural America is at the center of this problem. While urban communities typically have the depth and breadth of specialties necessary to address the issues in those communities and the research strength to obtain the funding required to study these issues, rural areas simply cannot sufficiently compete and participate.

Because of the new model we have created and are funding, our region may receive a short reprieve, but many communities are unlikely to be as fortunate. According to the Chartis Center for Rural Health, 40 percent of rural hospitals had negative operating margins in 2017, and this same study found that 44 percent of rural hospitals will have negative operating margins in 2018. Consistent with this trend, six of Ballard Health's 14 rural hospitals had negative operating margins in the fiscal year that just ended, in addition to two of our non-urban hospitals. We continue to subsidize these losses as we build toward the future. On top of this, Ballard Health provided more than \$300 million in uncompensated care last year, leading to a system-wide operating margin of only 0.6 percent, or \$12 million.

Given these realities, I applaud the Members of this Committee for their continued leadership and efforts to facilitate passage of a comprehensive rural health care package before the end of the 115th Congress.

Simply put, rural hospitals and physicians need a Federal regulatory and reimbursement environment that takes into consideration the unique circumstances

faced by the hospitals and physicians serving the 20 percent of our population that lives in 80 percent of our country's geography. As this Committee considers a number of weighty issues related to health in rural areas, I would urge our policymakers to fundamentally reframe the way we think about rural hospitals and their role in their communities in two key ways.

First, we should stop thinking about rural health services in terms of bricks-and-mortar facilities and start thinking in terms of the real health problems that need to be solved in these communities. The National Rural Health Association confirms that rural Americans suffer disproportionately from serious health issues like diabetes and heart disease, and they are disproportionately more likely to die from curable cancers or drug overdose. These are not problems that can easily be solved within a traditional bricks-and-mortar inpatient hospital, nor can they easily be solved within our country's current payment system.

If we want to make a real impact on improving the health of Americans in rural areas, we need to identify the health services that are needed in those areas and then incentivize hospitals and health systems to come up with innovative solutions that fit their community's individual needs. We need to utilize the data we have available to identify the problems and then ask the rural hospitals to come to the table with solutions. We need to identify the cost of implementing these solutions and demonstrate the potential return on investment for the payor community and the public. This can be done. While there is significant up-front investment, the potential return on investment will be undeniable.

These hospitals could benefit from renewable block funding tied to estimable costs, as opposed to the fee-for-service model that relies upon traditional service provision, to help create a bridge to what the rural hospital of tomorrow should be. This cannot only help address the real problems that exist in these communities, it can create new jobs and help identify new purposes for old assets. At Ballad Health, we are in the process of doing this with two of our rural hospitals in Greene County, Tennessee. By consolidating inpatient acute care services at one hospital, we will be able to use synergies gained through our merger to repurpose the other hospital to provide the critical outpatient services, behavioral health, rehabilitation, and drug addiction treatment that are so badly needed in the community. Rather than making the easy decision to close this rural hospital, thus costing 600 jobs, we have found an alternative beneficial use for it. Given the fact that these hospitals lost a combined \$11 million in 2017, and \$31 million in 2016, this alternative solution, which is significantly better for the community, would only be possible within a comprehensive health system that is truly focused on the needs of the community it serves.

This brings to me the other point I would like to make about reframing our thinking about rural hospitals. Providing the proper financial incentives for rural hospitals in order to help solve population health problems can help meet the health needs of our rural communities, but this will only work if these rural hospitals are able to remain open. As you consider factors that help sustain rural hospitals, I would urge you to consider the role that many tertiary and urban hospitals within a larger, diverse health system play in sustaining the rural system of care. Many rural hospitals do not operate on their own. They are often part of larger systems that rely on the success of the regional hubs for financial viability. This is true for Ballad Health. Fourteen of our 21 hospitals are in rural areas, and six of those 14 hospitals had negative operating margins in fiscal year 2018. Were it not for the margins of our tertiary facilities, our entire rural system of care would collapse. As you consider and construct the components of a rural health package, please keep in mind that some of the non-urban hospitals with a predominantly rural health system are often a lifeline for rural hospitals, and their importance should not be overlooked.

One issue that can have a detrimental impact on both rural hospitals and the tertiary hubs that support them is the Area Wage Index. Our region of the country, like most others, suffers from a shockingly low Area Wage Index within Medicare. While our AWI is approximately 0.72, there are areas in the country with AWI in excess of 1.9. This is a zero-sum system where, despite having done employee wage increases every single year, our Medicare area wage index has continued to deteriorate, as political and other considerations have driven the wage index higher for some parts of the country. As other areas have experienced significant annual increases, ours has decreased. While the national average is supposed to be an AWI of 1.0, only 10 percent of the counties in the United States have an AWI that is greater than 1.0, while 2,600 counties have an AWI less than 1.0. This distribution is not right, and it punishes non-urban hospitals that in many cases are subsidizing the ongoing operation of rural hospitals, just as it penalizes the rural hospitals

themselves. I mentioned that Ballad Health's operating margin last year was \$12 million, or a 0.6 percent margin. If there were a national floor established on the AWI of 0.874, as proposed by S. 397, it would generate a \$30 million annual impact for Ballad Health. In Tennessee, healthcare providers in all 95 counties and all 12 core-based statistical areas (CBSAs) are reimbursed based on AWI that are less than 0.864, which is significantly less than the national average of 1.0. I applaud the work of Chairman Alexander (R-TN), Senator Isakson (R-GA), Senator Warner (D-VA), Senator Brown (D-OH), Senator Shelby (R-AL), Senator Kaine (D-VA), Senator Roberts (R-KS), Senator Cassidy (R-LA), and Senator Jones (D-AL), many of whom are original co-sponsors of a bipartisan bill that Ballad Health encouraged be filed to help solve this problem. This bill, S. 397, the *Fair Medicare Hospital Payments Act of 2017*, while not under the jurisdiction of this Committee, would help save rural hospitals and would support the regional provision of care in non-urban America. The bill is cost-neutral and would not impact other legislative or regulatory adjustments, including the "Frontier State Fix" that established an AWI floor of 1.0 for North Dakota, South Dakota, Montana, Wyoming and Nevada. This legislation has been endorsed by the Tennessee Hospital Association, the National Rural Health Association, the Kentucky Hospital Association, the Louisiana Hospital Association, the Georgia Hospital Association, the Virginia Hospital and Healthcare Association, and the Alabama Hospital Association.

I also believe our rural hospitals could benefit from Federal assistance in helping to build a bridge from the outdated fee-for-service, bricks-and-mortar model to one that is responsive to our Nation's current needs. Many rural hospitals either have debt precluding them from additional capitalization, or simply do not have sufficient resources to borrow the funds needed to build this bridge.

Modernization to right-size and reconfigure assets based on the needs of the community often needs a capital investment in order to make the transition. Community needs may include additional high-quality diagnostics, emergency medical services, outpatient rehabilitation services, mental health services, substance abuse treatment services, dentistry services, and optical health services. I would like to note that I am not advocating for simply giving away money, as I do believe rural health systems have an obligation to demonstrate the return on such investments, both financially and in terms of public health benefits. These investments would be best made in concert with effective and efficient payment reform that moves away from pay-for-volume. A Medicaid program operating in South Carolina that provides incentive payments to health systems that acquire, improve, and operate rural facilities may be a good model for Congress to consider.

I am concerned about possible policy proposals to repeal Certificate of Need requirements, which have been advocated for by some in Washington. Respectfully, I would argue that while many of us support a market-based approach, we should also acknowledge that picking and choosing the elements of the marketplace without addressing all of the necessary elements does not create a properly functioning market system. In a marketplace where more than 60 percent of care is provided in a price-prescriptive government model, private insurers reflexively copy government policies, and there is significant intrusion by both Federal and state governments invoking certain mandates onto providers, it is hard to imagine anyone suggesting that the delivery of health care services exists within a free-market.

The suggestion that repealing Certificate of Need requirements in order to bring "market forces" to bear, in my view, will do more harm to our rural health system infrastructure than good. If we agree that integration of health care and better coordination would lead to better outcomes, then we must also agree that contributing to increased fragmentation in rural and non-urban communities will do harm. For instance, if Certificate of Need requirements were repealed, and a physician-owned surgery center or diagnostic center were opened in a rural community, based on current government rules and price setting, not only is there no free market, but an unlevel field has been established for competition.

Under Federal law, a comprehensive hospital is not permitted to have physician ownership, and because of Stark Law regulations and anti-kickback provisions, a comprehensive hospital has very limited options for meaningfully integrating with physicians. While one competitor in the market enjoys full financial integration with physicians, including distribution of profits, which incentivizes physicians to reduce costs and increase utilization of the physician-owned facility, a comprehensive hospital is left without any such relationship. In addition, the physician-owned facility is exempt from Federal EMTALA and community-benefit requirements. When one competitor has physician investment, and that competitor is not required to serve the poor, nor does it have any other obligation to help address the population health needs of the community, the local market is simply not a level-competitive market.

Pulling those limited resources away from the hospital in order to provide profits to the competing physician-owned, limited-service facility only undermines that hospital's ability to influence the other aspects of health in that community. If a rural or non-urban hospital loses its profitable services to a facility that has no obligation to help solve the mental health challenges in the region, then where will the resources come from for the rural hospital to invest in addiction care, mental health, or the other needed services? In this scenario, the hospital has been further diminished, and its survival or ability to thrive is undermined at the expense of profits for what is often an out-of-market company or financier.

I believe there are strategies that can be deployed in rural markets where the relationship between the hospitals and physicians can be strengthened. In the old fee-for-service model, Stark Law regulations and anti-kickback provisions were designed to keep financial entanglements between doctors and hospitals from affecting care. In a pay-for-value environment, those same laws inhibit the very alignment needed between doctors and hospitals to reduce unnecessary care and focus resources on prevention and chronic-care management. If the payment system were to invest in rural hospitals that convert to these models, and rural hospitals were permitted to create financial alignment with physicians, then two things will happen. First, rural communities will become more attractive to physicians who would be able to diversify their income to include the upside benefits of the hospital's financial performance. Second, the financial and public-health success of the hospital, in alignment with the payment policies that support such a transition, would virtually ensure alignment between the physicians, hospital, and community as they seek to better manage chronic conditions, rather than simply wait until a reimbursable procedure is performed.

Please consider the following real-world example. In one community, a rural hospital has general surgeons who perform a large number of amputations, most of which are necessary due to complications from diabetes. However, that community does not have an endocrinologist. The reason many rural hospitals do not have endocrinologists is that endocrinologists do not perform procedures at hospitals, and thus, they do not generate revenue. In fact, the practice would likely lose money, in addition to the very presence of the endocrinologist reducing the need for hospitalizations, which is an outcome diametrically opposed to the financial interest of the hospital. The general surgeons will see the diabetic patients who go without management of the chronic condition, and they will perform the amputations, which are services for which the hospital and doctor get paid. In addition, the hospital does an excellent job with rehabilitation services, which again, is a service for which the hospital is paid.

However, there is an alternative: What if, noticing the high incidence of diabetes and amputations, the hospital, in a jointly established partnership with the physicians, chose to align and ask for an entirely different payment model, one that paid the hospital and physicians to invest in endocrinology services, reduce amputations, and better manage the diabetes in the population? In that scenario, better coordination occurs for the patient, the hospital and physicians may invest in technology and other innovative solutions for the management of the patients, and instead of only being paid when a procedure is performed, the hospital and physicians are compensated based on what is saved by the program.

The margins for this model would be better because the resources would be more efficiently used. This is the essence of the bundled-payments model, but I believe integration in these communities should be able to go further than the basic concept of bundled payments. Infusing flexibility into the financial relationships between physicians and hospitals can have a very positive impact on both outcomes and cost in a pay-for-value environment. It is understandable that, in a fee-for-service environment, these relationships would be problematic. However, they have been freely permitted in many areas, such as diagnostics, outpatient surgery, and others. I believe integrated models that align hospitals and physicians would open the door to many exciting opportunities to reduce cost, eliminate variation that leads to waste and poor outcomes, and create more flexible models of tackling the management of chronic illness.

These opportunities may exist, but physician alignment with hospitals must happen, and yesterday's Stark Law regulations and anti-kickback regulations must be modernized to create these opportunities for alignment. Holding onto fee-for-service reimbursement models and preventing hospitals from more closely aligning with doctors will only preserve the outdated models that are harming rural hospitals and the health of the communities they serve.

Finally, I would like to address the need for preservation of the 340B Drug Discount Program, which is a program of vital importance to the financial stability of our health system and our ability to serve vulnerable and low-income patients. While no program is free from the need for thoughtful reform, I would ask for your support in preserving 340B program eligibility for rural and non-urban hospitals as well as children's hospitals.

We rely on these drug-acquisition savings to enable us to support the provision of care in struggling rural areas. The estimated value of the 340B program to Ballad Health in fiscal year 2019 is approximately \$53 million. Again, considering the fact that our total operating margin of 0.6 percent led to only \$12 million in operating surplus last year, losing access to the savings produced by participation in the 340B Drug Discount Program would be devastating for our health system and the patients and communities we serve.

Even with our participation in the 340B Drug Discount Program, Ballad Health's annual drug spend continues to increase by over 8 percent annually. Without 340B participation, our drug costs would be completely unsustainable. Reforming the 340B Drug Discount Program should not come at the cost of bankrupting vitally important hospitals and health systems. We stand with you in attempting to properly and thoughtfully reform the 340B Drug Discount Program, but we must ensure that programmatic reform does not inadvertently devastate rural hospitals and children's hospitals across our Nation.

Much of what I have presented represents a major departure from 60 years of evolution in our health system. However, I believe such major shifts in policy are important, and effective reform cannot be achieved on the margins. This is why the very creation of Ballad Health happened, and it is why our region's major employers and every municipal government and chamber of commerce in our region encouraged and supported the merger that created Ballad Health under the doctrine of State Action Immunity from Federal anti-trust law, even against the strenuous opposition by staff of the Federal Trade Commission. It is why the legislatures of the states in which we operate unanimously approved the structure of the merger under exemption from Federal anti-trust law, and it is why two Governors—a Democrat and a Republican—signed the legislation and authorized the merger under the advice and guidance of each state's attorney general.

In short, there is a pent-up demand for trying something different. Ballad Health took the risk and the important step of suggesting that we want to be part of the solution rather than simply complaining about the problem. We stand ready to be a laboratory for our Federal partners to help solve problems, and we stand ready to test new ways of changing the landscape of health care. Hopefully, this is just the beginning of the dialog.

Again, I greatly appreciate the invitation and opportunity to participate in today's hearing, and I look forward to your questions.

Senator ENZI. Thank you.
Dr. Richter.

**STATEMENT OF DEBORAH RICHTER, M.D., FAMILY PHYSICIAN
AND ADDICTION MEDICINE SPECIALIST, AND CHAIR,
VERMONT HEALTHCARE FOR ALL, CAMBRIDGE, VT**

Dr. RICHTER. Good afternoon, Chairman Enzi and Members of the Committee. My name is Deborah Richter—

Senator ENZI. Hold the mic closer.

Dr. RICHTER. I can probably turn it on.

My name is Deborah Richter. I'm a practicing family physician in rural Vermont, and I also have an addiction medicine practice in Burlington. I want to thank you for asking me to participate in this roundtable.

I'm particularly interested in examining experiences because I see the inadequacies of our healthcare system every day in my practice. Regarding the subject of cost, however, I wonder whose costs we're referring to, because when I think of cost, it is mostly in reference to system costs; that is, how much the U.S. spends on

healthcare in total. This year it is projected we will spend \$3.5 trillion on healthcare. And as you've heard many times from Senator Sanders, we spend on average twice per capita what other countries spend, all of whom cover everyone while enjoying a longer life expectancy and better health outcomes.

In every other industrialized country, healthcare is considered a public good. There are many reasons we spend more per capita on healthcare, not the least of which is our enormously complex financing system which consumes 31 percent of total healthcare costs. Much of these costs are necessary under a multiple-payer system where each payer has different rules, regulations, and levels of reimbursement. But under a one-payer, publicly funded, universal system such as the one embodied in Senator Sanders' Medicare for All Bill simplified billing and administration could be reduced by \$500 billion by some estimates.

There have been multiple studies showing that the current spending is more than enough to cover all Americans with comprehensive coverage without spending in total one penny more. So if we then focus on payer cost, this would include the taxpayer for two-thirds of financing of healthcare, because if you include Medicare, Medicaid, the VA, public employee health insurance, and the tax subsidy for private employers to pay for health insurance for their employees, that equals two-thirds of how we're paying for healthcare. The remainder comes from out-of-pocket payments from the public employers paying for private health insurance.

But we must acknowledge that ultimately every penny comes from Americans' pockets, Americans' households. Taxes, out-of-pocket payments, higher prices for goods and lower wages—if our employer pays for health insurance, it all comes from us.

But there are other costs to the lack of a healthcare system. Those are the ones I witness every day. I will give you a few examples from my practice alone in the past year. I am one physician among thousands, and I can give you dozens of examples. If you do the math, it's not hard to see how 37,000 patients die from lack of insurance every year. I'll give you three examples.

An uninsured 60-year-old delayed seeking care despite being unable to swallow solid food and losing 100 pounds. And then 18 months later, after he couldn't stand it any longer, he finally sought care and was diagnosed with Stage IV esophageal cancer. It was not treatable, and he has since died.

An uninsured 40-year-old woman several weeks ago, actually several months ago, with a large mass in her breast, delayed seeking care for a year until the mass started to bleed. She has an aggressive form of breast cancer. She is now undergoing treatment. Mind you, she was uninsured. She was working. She now has Medicaid. A very aggressive form of cancer, though, which she delayed for a year.

Then there was a 52-year-old I saw about a year ago who was suffering from severe shortness of breath. This went on for 4 days. She thought it was her asthma and she delayed seeking care, and it turns out it was an acute myocardial infarct, a heart attack. She spent 3 days in the ICU. She had insurance but had a deductible.

The uninsured and underinsured are more likely to die from preventable illnesses than their insured counterparts, and many of

them who delay care, like the ones I mentioned, incur much higher costs than they would had they sought care earlier. I need not mention the human cost of these tragic cases.

We can't ignore the economic cost of the way we finance healthcare in our country, however. The patient with the breast mass was saving to build a house with her fiancé. She couldn't afford to do that and pay for health insurance. Millions of people make these economic decisions every day. When they do, the economy suffers. We are a consumer-driven economy, so the economic multiplier effect to this regressive way we finance healthcare is affecting us all.

I have only 48 seconds. I'd like to also mention that the problems with our current healthcare system are magnified in rural America, as we've heard already, because we are older, sicker, and poorer. That is particularly true of the impact of the opioid epidemic, as we've heard. The majority of these programs are funded through taxes, mainly Medicaid programs, but the problem is straining rural health systems' ability to respond.

When we're looking at ways to reduce healthcare costs, I would urge us to look at the primary care shortage. That's something we all seem to have agreed on, and we can discuss that. I'd be happy to talk about that. But I do think unless we look at the system as a whole and look at it as a public good where we include everyone, and look at the solution to include everyone, we will not solve these problems.

Thank you.

[The prepared statement of Dr. Richter follows:]

PREPARED STATEMENT OF DEBORAH RICHTER

Good Afternoon Chairman Enzi and Members of the Subcommittee on Primary Health and Retirement Security. My name is Deborah Richter. I am a practicing family physician in rural Vermont and I also have an addiction medicine practice in Burlington VT. I want to thank you for asking me to participate in the round-table discussion of "Health Care in Rural America: Examining Experiences and Costs."

I am particularly interested in the topic examining experiences because I see the inadequacies of our health care system every day.

Regarding the subject of costs however, I wonder whose costs we are referring to? When I think of costs mostly it is in reference to system costs, that is, how much the U.S. spends on health care in total. This year it is projected we will spend \$3.5 trillion on health care.¹ As you've heard many times, we spend on average twice per capita what other countries spend.² All of whom cover everyone while enjoying a longer life expectancy and³ better health outcomes.⁴ In every other industrialized country health care is a public good.

There are many reasons we spend more per capita on health care not the least of which is our enormously complex financing system which consumes 31 percent of total health care costs.⁵ Much of these costs are necessary under a multiple payer system where each payer has different rules, regulations and levels of reimbursement. But under a one payer publicly funded universal system such as the one embodied in Senator Sanders' Medicare for All bill, simplified billing and administra-

¹ Centers for Medicare and Medicaid Services, 2018.

² Organization of Economic Cooperation and Development (OECD), 2018.

³ OECD, 2018.

⁴ OECD 2018.

⁵ Woolhandler, S., Campbell, T., Himmelstein, D., "Costs of Health Care Administration in the United States and Canada" NEJM, Aug, 2003.

tion could be reduced by \$500 billion.⁶ There have been multiple studies showing that we are spending more than enough money to cover all Americans with comprehensive coverage.⁷

If we then focus on payer costs this would include the tax payer for 2/3 of the financing of health care,⁸ Medicare, Medicaid, the VA, public employees' health insurance and the tax subsidy for private employers to pay for health insurance for their employees. The remainder comes from out of pocket payments from the public and employers paying for private health insurance. But we must acknowledge that every penny ultimately comes from Americans' pockets. Taxes, out of pocket payments, higher prices for goods and lower wages if our employer pays for health insurance all come from us.

But there are other costs to the lack of a health care system. Those are the ones I witness every day. I will give you a few examples from my practice alone in the past year. I am one physician among thousands and I can give you dozens of examples. If we do the math it is not hard to see how 37,000 patients died from lack of insurance.⁹

Three examples:

- (1) An uninsured 60-year-old delayed seeking care despite being unable to swallow solid food and losing 100 pounds. Eighteen months later he was diagnosed with Stage 4 esophageal cancer. He has since died.
- (2) An uninsured 40-year-old woman with a large mass in her breast delayed seeking care for a year until the mass started to bleed. She has an aggressive form of breast cancer.
- (3) A 52-year-old woman suffering from severe shortness of breath delayed seeking care due to mounting health care bills from another family member. She was working full-time. They have a \$5000 deductible.

The un- and underinsured are more likely to die from preventable illnesses than their well insured counterparts. And many of them who delay care like the patients mentioned above, incur much higher costs than they would have had they sought care earlier. I need not mention the human cost of these tragic cases.

We also can't ignore the economic cost of the way we finance health care in our country. The patient with the breast mass was saving to build a house with her finance. She couldn't afford to do that and pay for health insurance. Millions of people make these sorts of economic decisions every day. When they do, the economy suffers. We are a consumer driven economy so there is an economic multiplier effect to the regressive way we finance health care.

I would like to also mention that all of the above problems with our current health care system are magnified in rural America as they are older sicker and poorer.¹⁰ This is particularly true of the impact of the opioid epidemic which started in rural America.¹¹ The Centers for Disease Control and Prevention (CDC), find that the rate of death from opioid-related overdoses is 45 percent higher in rural vs urban areas.

The majority of treatment programs are funded through taxes—mainly Medicaid programs. But this problem is straining rural health systems ability to respond. Many patients wait months to get treatment for substance abuse, some give up trying. There are also indirect costs to opioid use disorder. The foster care system is bursting at the seams.¹²

⁶ Woolhandler, S., Himmelstein, D., "Single-Payer Reform: The Only Way to Fulfill the President's Pledge of More Coverage, Better Benefits, and Lower Costs", *Annals of Int. Med.*, April, 2017.

⁷ How Much Would Single Payer Cost; A Summary of Studies Compiled by Ida Hellander, <http://www.pnhp.org/facts/single-payer-system-cost>.

⁸ Woolhandler, S., Himmelstein, D., "Paying for National Health Insurance and Not Getting It", *Health Affairs*, Vol 21, No. 4, 2002.

⁹ Woolhandler, S., Himmelstein, D., "The Relationship of Health Insurance and Mortality: Is Lack of Insurance Deadly?", *Annals of Int Med*, Sept, 2017.

¹⁰ Wagnerman, K. "Health Care in Rural and Urban America". Georgetown University Health Policy Institute, Oct., 2017.

¹¹ Toliver, Z. "The Opioid Epidemic: Testing the Limits of Rural Healthcare", *Rural Health Information Hub*, May 2016.

¹² Stein, P., Bever, L., "The Opioid Crisis is Straining the Nation's Foster Care System", *Washington Post*, July 2017.

Other costs include corrections costs which again are greater on a per capita basis in rural vs urban America.¹³

When we are looking to reduce health care costs now and in the future we must first address the primary care shortage. Primary care represents most of the medical office visits in any one year.¹⁴ In a nutshell primary care is most of the care to most of the people most of the time. Yet we represent less than 8 percent of total costs.¹⁵ We know that when a population has free access to primary care, people live longer and they cost the system less.¹⁶ As you must know there is a severe shortage in primary care particularly in rural and poor communities.¹⁷ Much of this is due to an aging workforce with 1/4 over the age of 60 in 2017.¹⁸ With fewer medical students choosing primary care we will see this shortage worsen by 2025.¹⁹ In addition demand has increased due to an aging population and with the expansion of the ACA. Added to that, the burnout rate in primary care is causing physicians to retire earlier than they might have.²⁰

As a practicing family physician I can see why physicians are burning out. The administrative burden placed on us when dealing with multiple payers with different rules, regulations and reimbursements would drive anyone mad. Doctors report that for every hour of patient care they spend an hour with administrative tasks. If we have any hope of rescuing this dying profession we had better address the administrative burden facing our primary care practitioners.

In sum, as a physician who has practiced in the US health care system for the past 30 years I would say that in my experience, unless we address the system as a whole we will not solve any of the pressing problems in health care. We need to regard health care as a public good and make it accessible to all. We have wonderful health professionals and hospitals in this country. We are spending enough money.

We need a program of expanded Medicare for All Americans.

Senator ENZI. Thank you.

I want to thank the whole panel not only for what you said, but also for what testimony has been submitted. A lot of good ideas in there. We'll have to probe some of those a little bit more. Some we may have to grow a little bit more. But as a roundtable we'll ask some specific questions, and then I'm going to—since I'll be here for the whole thing, I'm going to defer until the end and give Senator Alexander an opportunity to ask questions in my place to start the discussion. Again, if there's a question asked and you want to add to it, stand your name tag on end there. This is a roundtable. It's to gather information, not to hound on a point.

The CHAIRMAN. Thank you. Thanks, Mr. Chairman. Thank you for your leadership in calling this hearing on healthcare in rural areas.

Mr. Levine, welcome, glad to have you here, appreciate what you do in the Upper East Tennessee area. As you indicated, it affects both Tennessee and Virginia.

You mentioned a couple of things I'd like to go back to. Tennessee is second in the country in terms of rural hospital closings. The first thing I'd like to ask you about is the area wage index.

¹³ Sullivan, R., "The Fiscal Impact of the Opioid Epidemic in the New England States", New England Public Policy Center, May 2018.

¹⁴ Center for Disease Control, National Center for Health Statistics, 2015.

¹⁵ Koller, C., "Getting More Primary Care-Oriented: Measuring Primary Care Spending", Milbank Memorial Fund, July 2017.

¹⁶ Friedberg, M., et al., "Primary Care: A Critical Review of the Evidence On Quality And Costs of Health Care", Health Affairs, Vol 29, No. 5, May 2010.

¹⁷ Petterson, S., et al., "Unequal Distribution of the U.S. Primary Care Workforce", American Family Physician, June, 2013.

¹⁸ Petterson S, McNellis R, Klink K, Meyers D, Bazemore A. The State of Primary Care in the United States: A Chartbook of Facts and Statistics. January 2018.

¹⁹ Petterson, S., et al., "Projecting US Primary Care Physician Workforce Needs 2010–2025", Annals of Family Medicine, 2012.

²⁰ Pechham, C., Medscape National Physician Burnout & Depression Report 2018, Jan., 2018.

Fifty-five hundred hospitals in the country received payments from Medicare based upon a formula called the area wage index. I met with a group of hospitals yesterday morning in the Knoxville area who were talking about how low it was, how unfair it is to certain parts of the region.

How big a problem is it for you in Tennessee and Virginia, the area wage index, and do you have any suggestions for fixing it?

Mr. LEVINE. Senator, it is one of the biggest problems we have. All 95 counties in Tennessee and all the counties in Southwest Virginia fall among the lowest on the spectrum for the area wage index, which ranges anywhere from a low of .68 all the way up to 1.9. And if you think about the distribution, only 10 percent of the counties in the country have an area wage index. The average is supposed to be 1. Only 10 percent of countries have an area wage index above 1. Eighty percent are below 1.

The distribution—the intent of the area wage index was to recognize initially that costs were higher in rural areas, and therefore you'd have to pay more to get people there, and somewhere along the way it got turned on its head. And once you fall behind—

The CHAIRMAN. I've got limited time. It's hard to change formulas in the U.S. Congress. Do you have any shrewd suggestion for how we might do that?

Mr. LEVINE. Pass Senate Bill 397, the Fair Medicare Hospital Payments Act, which is initially sponsored by Senator Isakson, Senator—

The CHAIRMAN. I'm a co-sponsor of that.

Mr. LEVINE. Yes, you are, and Senator Kaine is, and others here are as well, Senator Roberts. It's a bipartisan bill that would be the single biggest thing near-term you could do to help rural hospitals.

The CHAIRMAN. If I could switch to another thing you mentioned, I visited Lewis County in Tennessee, and they had a big argument about closing their hospital and eventually did it and created instead a community health center. It's a big success. It's owned by a nearby hospital, and the theory is you don't need to do heart transplants in every small rural county.

What are your suggestions for alternative models for delivering healthcare services in rural counties? If I were trying to put a plan to Lewis County in Tennessee where that community health center is, I would be very impressed because you can walk in between 7:00 in the morning and 8:00 at night, there's always a couple of doctors there, it's clean, and if you have a real problem, they can get you pretty quickly somewhere else. But 90 percent of the problems that people walk in with they can deal with. What about alternative models?

Mr. LEVINE. That's exactly the same thing we're doing in Upper East Tennessee and Southwest Virginia. There's opportunities to repurpose rural hospitals. Again, instead of being full-service acute care hospitals which provide every service like they used to, look at what the service needs are in those communities now: mental health, addiction, emergency medicine, high-quality diagnostics, maternal care. The payment system doesn't right now really support those things, and I think if we were to build a bridge, it would be to transform the payment system so rural hospitals can afford

to repurpose, and then you can sustain those services through an alternative payment system to support them.

The CHAIRMAN. Mr. Chairman, I'll give my time back to you or to other Senators so we can have more of a conversation.

Senator ENZI. Mr. Glause, you wanted to speak on that as well? Turn your mic on, please.

Mr. GLAUSE. Thank you. I would encourage us to be mindful of unintended consequences as we look at repurposing rural hospitals. The cost of air ambulance transport has skyrocketed. Most of our air ambulance transports in Wyoming are between facilities, and the states have no ability to regulate those rates or routes of their air ambulance company. So I would encourage you to also look at that issue when the reauthorization of the Federal Aviation administration comes up.

Senator SANDERS. Mr. Chairman.

Senator ENZI. You're next.

Senator SANDERS. I think there is general agreement that we have a shortage of physicians in the country and in rural America in particular. Under the much-maligned Affordable Care Act, we doubled funding for federally qualified community health centers, as well as a significant increase in funding for the National Health Service Corps, which is, as you know, a program that provides debt forgiveness for those doctors and dentists who practice in underserved areas.

Would each of you be supportive of a significant expansion of the community health center program and the National Health Service Corps? Mr. Glause.

Mr. GLAUSE. Thank you, Senator Sanders. Generally, the answer is yes. We see a significant lack of providers in Wyoming, and we need to address that issue, especially in rural America. The doctors and——

Senator SANDERS. I apologize and ask you to be brief.

Mr. Reed.

Mr. REED. I'd echo what Mr. Glause said, which is in principle, yes. I want to make sure that we don't have any provisions in there that limit or restrict the use of digital medicine and the ability for remote patient monitoring.

Senator SANDERS. Mr. Levine.

Mr. LEVINE. Yes. Plus, I would look at funding additional residency slots that are based in rural communities.

Senator SANDERS. Good.

Dr. RICHTER. I would absolutely favor that.

Senator SANDERS. Okay. I don't go to a lot of these hearings because there's something disingenuous that takes place. Everybody here and every Senator and panelist is concerned about, in this case, rural health care, but many of my colleagues voted to cut \$1 trillion in funding over a 10-year period to Medicaid, and \$500 billion to Medicare.

Mr. Glause, just out of curiosity, if the President's budget or the Republican budget were approved, which cut \$1 trillion in funding for Medicaid over a 10-year period, what do you think that would do to—what impact would that have on rural Wyoming? A hundred billion a year for 10 years.

Mr. GLAUSE. We have to consider the difference between Medicare and Medicaid.

Senator SANDERS. I'm talking about Medicaid funding, a trillion dollars over 10 years in the Republican budget cut.

Mr. GLAUSE. We have not expanded Medicaid in Wyoming, as you all know. I don't think that we would see the substantial impact with a cut to Medicaid as we would other programs.

Senator SANDERS. Okay. I apologize again.

Mr. Reed. A trillion-dollar cut over 10 years; would it help rural America?

Mr. REED. Frankly, I'm really focused on whether or not any cut or any improvement in the budget actually allows doctors to use the tools that will improve their ability to provide care to folks.

Senator SANDERS. You have no comment? You don't think a trillion-dollar cut would have any impact on rural America? Okay.

Mr. Levine, a trillion-dollar cut?

Mr. LEVINE. I do think a cut to Medicaid would have an impact on rural healthcare. But Tennessee has a very unique problem because its disproportionate share funding is capped in Federal statute. So Tennessee's got a very unique problem where the state, the hospitals are willing to come up with the money to bring the Federal money down.

Senator SANDERS. Doctor, a trillion-dollar cut in Medicaid to rural America?

Dr. RICHTER. We're already suffering under underpayment as it is, and particularly in primary care, and even worse so in mental health. A trillion-dollar cut would be devastating to us, and I think we would see even more physicians and nurse practitioners exiting rural areas. I think it would be tragic.

Senator SANDERS. Somebody, I think it was Mr. Glause, mentioned that Medicare reimbursement rates are about 65 percent, of course, which I understand to be true. My understanding also is that private insurance reimbursement rates are actually lower. Comment on that. I was just speaking to some doctors actually in the Burlington Community Health Center there. They were telling me that Medicare was the highest that they got, not good but better than Medicaid, better than Blue Cross Blue Shield, which are much lower. Thoughts on that? Mr. Levine, is that accurate?

Mr. LEVINE. No, and in our market in Upper East Tennessee and Southwest Virginia, generally for the hospitals, commercial insurance reimburses higher than Medicare. If they didn't, we would be in a lot of trouble.

Senator SANDERS. Okay, that's interesting. I don't think that's the case in Vermont.

Dr. Richter.

Dr. RICHTER. Well, in terms of Medicare and in terms of my addiction practice, Medicare is on par with Medicaid. It is actually private insurance that is actually the lower payers in the addiction world.

Senator SANDERS. That's true. That's in Vermont. I don't know if that's true nationally.

Mr. Reed, what's the story there?

Mr. REED. That's a little bit outside my scope. But I would notice that with Senator Kaine here, we have the Center for Telemedicine

out of UVA, and one of the things you're looking at is how do you actually take the reimbursement that goes on for the communities they serve in rural Virginia? The problem they're finding is they are actually able to deliver the same quality of care. For example, getting medication in the case of a stroke just as timely as you would if you were next door to a healthcare facility. But the reimbursement doesn't put money back in their pocket.

Senator SANDERS. Right, that's a valid point.

Mr. GLAUSE, what about you mentioned Medicare providing reimbursement rates only 65 percent of the cost. In Vermont, actually, private insurance reimbursement rates are lower. What's the case in Wyoming? Is that the case there or not?

Mr. GLAUSE. No, that's not the case, Senator Sanders. We see a lot of cost shifting to the private market.

Senator SANDERS. Private insurance reimbursement rates are higher than Medicare in your state?

Mr. GLAUSE. Absolutely.

Senator SANDERS. That's interesting. Okay, Okay.

Thank you, Mr. Chairman.

Senator ENZI. Thank you.

I guess Senator Roberts left.

Senator Bennet.

Senator BENNET. Thank you.

Just a follow-up to one of Senator Sanders' questions on the Medicaid cuts. In many of my rural districts, 50 percent or more of the kids are on Medicaid. What would happen to them if there was the kind of cut that he described to Medicaid, Mr. Gause? These are counties that don't have other insurers, many of them.

Mr. GLAUSE. Thank you, Senator Bennet. First of all, I will have to make a disclaimer. I am not an expert on Medicare and Medicaid. We don't deal with those issues routinely in the insurance department, but there is some overlapping of the issues.

As far as the children suffering effects if the money was reduced for Medicaid, I think that we do have other programs in Wyoming for the children as far as the ability to obtain care through insurance for them.

Senator BENNET. Thank you, Mr. Gause.

Mr. Levine.

Mr. LEVINE. Yes, sir. I think one of the things that's a problem here is the differentiation. There used to be a great differentiation between Medicaid and insurance. But in the last five or 6 years, we've seen a major shift with even private insurance where even if a child or an adult has private health insurance, because of all of the high deductibles, many of them are not able to pay. And what's happening to us is our biggest increase in bad debt and uncollectible revenue isn't the uninsured. It's people who have insurance—

Senator BENNET. That's very common, right.

Mr. LEVINE. It's one of the biggest single problems we have.

Senator BENNET. I hear about that a lot. I was in a county right next door to my neighbor's state the other day in Northern Colorado that's the size of Delaware geographically, but 1,300 people live there, as opposed to a million people in Delaware. And as we had this conversation it became clear in the room that of everybody

in the room, there were only three people that had insurance. One was the school principal, who got it through the district. One was the county commissioner, who said that he didn't have it until he got elected county commissioner, and now he has health insurance. And then there was one person who had managed to get it for herself, although her husband and her child—and these were all working people. I mean, they were people running the restaurant in town, 50 hours a week he was working, and his wife was working 50 hours a week, and literally they can't buy health insurance in America.

This is one of the reasons Senator Kaine and I have offered the bill—I don't know if any of you have seen it, this Medicare X bill that suggested maybe what we need is a real public option that would be administered by Medicare. It starts in rural counties in our country that have one or fewer insurers.

By the way, in Medicare Part D, a public option was included as part of that. It never was actually triggered. But it would allow people all across the country to pool and buy this insurance through a premium that they would pay. CBO says it would actually save the government money. And then over two or 3 years, I guess over 3 years, we'd make it available to everybody in America.

Does that sound like a terrible idea to you guys, or do we need some option like that? Because no private insurer is going to sell insurance that's worth anything to the people in this county. There's just not enough lives here to do it. Even if you aggregated the number of people in my state, they wouldn't do it, except, Mr. Levine, in the way that you described, with impossibly high deductibles and other kinds of things that make the insurance, as people in these counties say to me, worthless to them.

Do you have any reaction to the idea of a public option like that as a way of solving this? Anybody?

Dr. RICHTER. I have a reaction to the idea of us giving first-dollar coverage to all Americans for primary care. We do know that it's less than 8 percent of total. It's the best bargain in medicine. And we also know that it's the only sector of healthcare to improve population health when it's freely accessible to a population. It's been shown to reduce mortality, to lower infant mortality, maternal mortality, increase life expectancy, all of those things.

It seems to me we should start where the basics are, and we should make sure that no one does not go to the doctor because they have a co-pay or a deductible. People like this woman, 4 days short of breath, ended up with a massive heart attack. This I see all the time, or these co-pays and deductibles. And particularly when we're dealing with young children and their parents avoiding bringing them to the doctor. They end up with long-term disabilities as a result.

That, to me, seems to be where we should start. It's a very small price tag for a big payout.

Senator BENNET. I have 2 seconds left, I think.

Mr. REED. Sorry. It was fascinating to listen to you talk about how do you get this to work in a community of 1,300 people, right? So there's not a professional there. How do you actually get the physician to engage with them? And as the doctor just noted, if you don't have that person engaged early in the process, then they get

really sick and they cost a fortune. Then you're talking about amputations in the case of diabetes.

University of Mississippi Medical Center is such an interesting story because they had to serve communities in the Delta and other areas where there is, like you, no health care professionals at all, a culture where there hasn't been the attention paid to diabetes that's necessary. And what they're finding to reduce cost to get to where you need to go is, hey, you need to get people educated about don't have that next slice of pecan pie, with all apologies to Tennessee.

How do you engage with them? How do you monitor what their glucose level was in advance of them getting terribly, terribly sick? So if you want to treat the 1,300 people, you need to figure out how do you treat the 1,200 people that need to stay healthy so that you can use the primary dollars for the 100 that are already sick and that you need to take care of. I think the doctor hinted about it, in preventive medicine. So let's look at a way to open up that CBO scoring window so we're not stuck with serving only the sickest people when they're the most expensive.

Mr. LEVINE. May I, Mr. Chairman?

Senator ENZI. Please.

Mr. LEVINE. You know, I think the challenge here is when there's a discussion about a larger single-payer model, the thing that concerns me is payment policy matters to the marketplace. When you have, in our case, 70 percent of our reimbursement dictated to us by a central planner somewhere in Washington that doesn't know our economy, doesn't know our local markets, what ends up happening is that the payment system isn't reactive to what the market demands are for the physician. So physicians leave, and they go where they can get paid more. It's simple economics.

There have been a lot of ideas historically thrown around about catastrophic coverage, which then would create more certainty and a more robust insurance market underneath catastrophic coverage. I think there are market-driven ways that you can create options for insurance with wraparounds for primary care and prevention, and then catastrophic on top of it. But I just worry about anything where you have centralized price setting that doesn't respect the differences in the markets and allow a negotiation in the marketplace to occur. Otherwise, you just keep losing doctors, because payment policy does affect the marketplace.

Senator BENNET. I'm out of time, but I guess what I would say about that, I think all of these are great ideas. I'm very happy the Chairman had this Committee hearing. That doesn't solve Dr. Richter's issue about how do you get people the primary care they need so that we're not driving the prices, to say nothing of their own health care.

The good news in all this, Mr. Chairman, is we're spending more than a third more money on a health care system that doesn't work for most Americans than all of our competitors are spending. So if we could agree on how to take that money and use it in ways that could elevate health outcomes, I think we'd be heading in the right direction and there would be a lot to cheer about in rural America, and urban America.

Senator ENZI. Thank you. That's what we're searching for.

Senator Hassan.

Senator HASSAN. Thank you, Senator Enzi.

I never knew that Manchester, New Hampshire being 150,000 people would sound so large.

[Laughter.]

Senator HASSAN. I listened to you and Senator Sanders, and all of a sudden we're a metropolis.

But I am also very grateful to all four of you for being here.

To echo a little bit of what some of my colleagues have said, I believe health care is a right. It's also just an essential. We can't function without it. Our workforce can't be healthy without it. Our employers can't have a workforce without it. Our economy won't work without it. So I think it's really important that we continue to drill down on how we make sure everybody has health care in the United States of America.

I had two questions particular to health care in our most rural areas, and the first is really about maternal health care. In New Hampshire, it's one of the things we struggle with, especially up in our North Country, which is about the top two-thirds of our geography, with about 50,000 people in that very large space.

According to the American College of Obstetricians and Gynecologists, rural women have poorer health outcomes and less access to care than urban women do, especially when it comes to women's health providers. This can be, obviously, a tremendous problem, and it's really just not feasible for many women to drive hours and hours on end for all of the frequent yet critical prenatal visits they really need. We all know how important that is, but if you have to drive hours and hours once a week and you're trying to work and raise a family, you just can't do that. And then you also have to think about how to access this care when it's actually time to give birth.

I'm interested to hear from each one of you how we can help address this issue to ensure that pregnant women can access the care they need. And I'll start with you, Dr. Richter.

Dr. RICHTER. Well, first of all, we should provide transportation. That is key. What I find is a challenge is I have a large population, I take care of people with addiction, particularly opioid addiction.

Senator HASSAN. I wanted to follow-up with you on that, too.

Dr. RICHTER. Right, very dysfunctional lives. We also have a program called Blueprint for Health where we actually have people that help manage in terms of getting people to appointments and those sorts of things. But they also need the transportation. Now, many of them, especially in rural areas, can't afford cars. If they do, they can't afford the gas and the insurance. So I would say providing transportation, and also some advocacy so that it makes it easier for them.

Senator HASSAN. Okay, that's great.

Anybody else? Mr. Levine.

Mr. LEVINE. Yes, absolutely. This is a problem we struggle with throughout our whole region, and there are two issues in particular. One, I think the idea of repurposing rural hospitals and providing them the resources to invest in recruiting and retaining physicians and mid-level providers is helpful. We suffer from a unique problem where we have a lot of drug-addicted women who

are pregnant, and all the different flows of money that come from Washington and the states are all fragmented. So as a health system with 21 hospitals serving a geographic region, we'd like a situation where we can provide prenatal housing, prenatal treatment, food, prenatal care delivery through Medicaid, post-acute housing, post-acute food, and post-acute transition back into society. But those funding streams are all fragmented.

We can solve this problem, or at least provide an effort to mitigate it, if you can figure out how to braid all these different flows of dollars from all these different Federal agencies.

Senator HASSAN. Okay. Mr. Reed.

Mr. REED. Senator Hassan, I remember sitting in your office and getting a lesson on the three, possibly four different regions in New Hampshire, and I remember realizing that I didn't really understand your state quite as well when it comes to those differing areas and how complex New Hampshire ends up being.

But here's the interesting thing. Many of the women you're talking about, in fact nearly the majority of those women have a smart phone. They have a super-computer in their pocket that allows them to reach their doctor. It allows them to, if they have a wearable band—

Senator HASSAN. Except in our rural areas, the connectivity is terrible for broadband.

Mr. REED. That's correct, so you're going to hear me pitch a little bit about TV white spaces there as a possibility to expand beyond that. But here's the specific. When you are looking at reaching out to prenatal care, a lot of it is physicians answering questions. How do we make it possible for the physician to get appropriately reimbursed for their connection with a patient? How do you do population health? How do you do that engagement?

On the other side, don't forget that once that birth happens, there's another huge cost. So Mississippi now uses a NICU sock that's connected to a smart phone, because it costs them \$40,000 a day, in some cases, for NICU treatment. How do we actually allow this baby to go home with their mom healthy in a way that actually gets connected care?

I like what you're talking about. How do we get it on the front end? Let's figure out how we use the technology that already exists to make this possible and get physicians appropriately reimbursed for using it so those questions get answered, people stay healthier longer throughout their prenatal care.

When it comes to opioid addiction and the issues around that, again, the number-one issue around that often is societal and mental health. So let's figure out how we can use what they're doing today to better engage with them for their prenatal health.

Senator HASSAN. Mr. Glause.

Mr. GLAUSE. Thank you, Senator. I agree with the good doctor, the transportation is an issue, but Wyoming is unique in that we have very small communities that are 40 or 50 miles from a small town of 2,000, 2,500 people. And to try to solve that issue with public transportation just is not going to work if we send public transportation into a remote mountainous area to bring somebody to a hospital or a doctor appointment.

I think one of the keys I keep coming back to is incentivize providers to come into small communities, the use of digital medicine through telemedicine. But even if one doctor is servicing several smaller communities on a weekly basis, it still gets the women and children the care they need. We have a low birth rate in Wyoming, which is the first sign that women are not getting the maternal care that they need.

Senator HASSAN. I appreciate that. I am almost out of time. I'm going to have to go to another meeting, but I will follow-up with all of you on the issue of medication-assisted treatment as we combat this opioid epidemic. I know all of our states are dealing with this, and I would ask my colleagues also to consider that Senator Gardner and I have the airwaves full just really trying to get at this connectivity issue in rural America, and one of the issues we're trying to crack here is using telemedicine and the devices we need in rural America so much. So I'd ask folks to look at that bill. We'd love to move it forward, and I'll follow-up with all of you on your ideas about medication-assisted treatment and the opioid epidemic as well. Thank you.

Senator ENZI. Senator Kaine.

Senator KAINE. Thank you, Mr. Chairman.

To the witnesses, excellent testimony.

Just really three observations, and I think there's some really good follow-up from your testimony and the dialog.

First, a question that Senator Sanders was asking about what Medicaid cuts would mean. It's not a hard answer, and I get that some of you, that's not your particular focus. But just to give you an example, Medicaid and children, much less adults, in Virginia, more than 50 percent of the births of children in Virginia are paid for by Medicaid, and that was before we just did Medicaid expansion. So now it's going to be more. If your child gets a wheelchair in Virginia, it is likely that Medicaid is paying for that wheelchair. If your child is in elementary school or secondary school and is on an IEP, it's pretty likely that Medicaid is reimbursing your school district for some component of that IEP.

I'm not talking about adults, those with disabilities. Just with kids, Medicaid cut effects are dramatic.

I hope to bring you back an example early next year. The statistics that Mr. Levine laid out—and we're so glad to have him in Virginia—hospitals, 90 rural hospital closures in just the last 8 years, another 670 hospitals at risk. We are within a few months, I believe, of being the first example of reopening a hospital that has been closed for a long time in rural America that I'm aware of. A hospital in Lee County, Virginia, in the coal fields of Appalachia that was closed a number of years back is opening by year end. AmeriCorps is reopening the hospital.

Mr. Levine talks about repurposing hospitals. It won't open exactly the way it was configured when it was closed, but we've been working with these folks in Lee County for a long time, and they've had to go through a million hoops and hurdles and figure out how to get it done, and it might be—if there are 670 that are in jeopardy of closing, it might be interesting to bring one back after they're up and running so they can offer their ideas about here's

how we did it and, boy, we wish we had done these other things. I hope we might do that. The reopening is scheduled in December.

I just want to comment, Mr. Reed, you used UVA as an example on the telemedicine side. The opioid bill that we just passed and sent to the—I guess it's in conference, and hopefully the President will sign it soon—included a directive I guess that came out of the Finance Committee to clarify—for CMS to clarify that Medicaid reimbursement could be received for telemedicine provision of addiction recovery services. There is a bill pending now in the Senate called the Connect Act which would do the same thing with respect to Medicare reimbursements. I think, as we're talking about rural communities or underserved communities generally, the idea of telemedicine as the solution—there's no one solution, but as a solution to some people's challenges, it's really going to be a good solution.

But if we don't have a reimbursement model that accommodates it, then we're going to grapple with the public transportation issue, or the challenges of folks' work schedules and things like that. Telemedicine isn't the answer for everybody, but when there are telemedicine applications, we shouldn't be standing in the way because we have outdated reimbursement models for the way health care providers provide services, and I think that offers some promise to rural America.

I appreciate all of you for coming, and we'll look forward to taking these ideas as part of it. We've had a lot of hearings about diagnoses, and I'm really interested in getting to some prescriptions here soon.

But thank you, Mr. Chairman, for doing this, and thank all of you.

Mr. REED. I would be remiss if I didn't mention the fact, with Senator Hassan asking about prenatal care, UVA has a fetal heart rate monitor system through Locus Health called Imprint, and I know, Senator Kaine, you've worked with Dr. Karen Revan on some of these exact issues. So earlier we talked about the importance of the Connect for Health Act as something that my organization and over 190 organizations, companies, patient groups and others support. So, thank you, and we'd like all the Senators to join together to get that bill passed.

Senator ENZI. Thank you.

Dr. Richter.

Dr. RICHTER. Yes, I just want to respond to the couple of comments that were made about the fragmented financing. I was actually happy to hear that Mr. Levine actually sounds like he's endorsing a single payer. Is that true, Mr. Levine?

Mr. LEVINE. No.

[Laughter.]

Dr. RICHTER. Because he's talking about the fact that when you have all these different payments, there's also an administrative cost at the provider end. The hospitals, they have to erect these bureaucracies to collect the money to keep their doors open. The same thing in the doctor's office. And again, that's another advantage to having a one-payer system, that at least it's one set of rules, regulations, and reimbursements that you have to deal with. You definitely still have to have administration, but not this amount. And

for all that money that we're spending on administration and creating at the provider and payer end, we could be spending on these great ideas that we have. But I think we first have to figure out how to streamline that administration. And again, this is a plug for single payer, and I thank Mr. Levine for advocating for it.

[Laughter.]

Senator ENZI. I didn't hear that the same way, either. But one of the things that's hindering any kind of single payer is the difficulties with the VA. That's a government-run program that we thought was operating perfectly, and most of the people who were in it thought it was running perfectly, and then a bunch of people died in Arizona. And then we found out that the workers were fiddling with the figures and postponing appointments, and we found that was pretty extensive. I even did some checking on our two hospitals in Wyoming and found out there was a problem with that, and we've had a bunch of changes since then.

Dr. RICHTER. Could I respond to that?

Senator SANDERS. No, let me respond to that, as somebody who is a member of the Committee, the Veterans Committee. The VA is the largest integrated health care system in the country. It has problems. The last that I heard, so does the private health care system. We have a system in which, as Dr. Richter was talking about, tens of thousands of people die each year because they either don't have any health insurance or they have high deductibles and co-payments, or they can't afford their prescription drugs.

Nobody denies that a system with 137 medical centers, which is what the VA has, has its problems. But on the other hand, Mr. Chairman, I would suggest you speak to the American Legion and the DAV and the VFW and you ask them whether they want to privatize the VA, and unanimously they will tell you no, they want to strengthen the VA.

Second of all, in terms of how the American people feel about government health insurance, the most popular health program in America is Medicare. The second most popular program is the VA. So in all instances, we need to improve those programs. But veterans feel pretty good about the VA, elderly people feel very good about Medicare, and the American people in poll after poll want us to move to a Medicare-for-all, single-payer program.

Senator ENZI. I didn't intend to turn my part of the questions over to—

Senator SANDERS. Okay. I just wanted to comment.

Senator ENZI. I appreciate your comments, and all of that is helpful.

I want to go back to Mr. Levine because I know that you had 21 hospitals, and more than half of them are rural, and I want to know how you recruit physicians for that. How do you get providers for these rural hospitals? How do you do searches? How do you compensate them? Is there this incentivizing that we're talking about in Wyoming?

Mr. LEVINE. Well, good question, Mr. Chairman, and I would say two things. First, somebody earlier mentioned looking at Stark and the anti-kickback statutes. That's a big problem. In the fee-for-service system, the Stark and anti-kickback statute served an important role in preventing fraud. In a system where we're going to—

ward value-based purchasing, they have actually become an impediment to integration with physicians.

The reality is in rural communities we have to pay a lot more, and we always bump up against these issues of fair market value, and my biggest fights are sometimes with my legal department where we want to recruit and employ a doctor and we find that we have to pay them in excess of what the 90th percentile of some XYZ company says we're allowed to pay him. So I think the anti-kickback and Stark laws need to be looked at, particularly as it relates to non-urban and rural communities.

But the bottom line is cost-based reimbursement helps us where we have hospitals that are critical access, where we have rural health clinics, being able to compensate them more, and getting the cost reimbursement through Medicare and Medicaid is very helpful. I think more of that would be helpful. I know there's a movement to actually go in the other direction and get rid of the provider-based, the hospital-based clinics, but they serve a valuable purpose.

In each of our practices, we lose—for a specialist, we lose anywhere from \$150,000 to \$200,000 a year for a doctor that we employ. So it's a huge burden. Our system generally has negative operating margins of more than \$100 million a year sustaining physicians in our rural communities that we shoulder, that we don't get paid for.

Senator ENZI. Thank you.

I need to shift direction a little bit here again. I need to go back to Mr. Reed because you were talking about not being able to be billed on digital health. Can you give a little more detail on that?

Mr. REED. Two basic problems exist in the digital health space. One is reimbursement that's appropriate for the care that's provided. Let's look at something like population health. You're a physician in care, and you have 25 patients that are in various conditions. Let's use the obvious example, because men are bad about taking their medicine and women are good at taking their medicine.

If you're monitoring those patients through a remote patient monitoring tool, right now if Mr. Jones doesn't take his medicine and you call him in for an appointment, you get reimbursed for that appointment to see Mr. Jones because he didn't take his medicine. But Mrs. Jones, who is doing her time, she's undergoing her PT, she's taking her medicine on time, even though the physician is spending the same amount of time to monitor and set that up, the physician doesn't get reimbursed for it.

The incentives are only aligned for you to wait until Mr. Jones gets sick and then you bring him in, and that's not what the doctor wants to do. The doctor wants healthy people that stay healthy.

Part of it comes from the fact that the codes—I'm going to do something unusual. I'm going to say good things about a government agency. CMS this year unbundled Code 90991. That was a really important first step that allowed for the reimbursement of remote patient monitoring in a way that has never been allowed before, and we're hopeful. They predict about 250,000 uses of that code. We're hopeful that will actually unlock some of this digital medicine.

The second aspect that we get into on some of these coding questions is if the code only reimburses at a level that doesn't match what the physician actually has to spend because they say, well, it's remote, but that physician still has to have the bricks and mortar, he still has to have the assistant, he still has to have the same facility with the lights on even though he's providing that care remotely. So the reimbursement for telemedicine and remote patient monitoring needs to be appropriate to the fact that what you're getting is a highly qualified doctor to answer your questions when you need it.

Some things have gone well with CMS, some things not so good.

Then finally, I would be remiss if I didn't hit on the other aspect, which is we are hopeful that ONC will get their anti-blocking report out. My understanding is it's moved over to OMB, but we need to see what the numbers look like. We need to see the data of what's working and what's not. Right now, physicians, organizations like Mr. Levine's, don't have access to the data that they need to make the good decisions that they want.

If you're looking at how do we get reimbursed for this, first give us the codes; second, make sure that it's appropriate to the use; and third, give us the data to know what works.

Senator ENZI. Anybody have any other comments on problems with going to telemedicine in rural areas?

[No response.]

Senator ENZI. Okay.

Mr. Glause, you mentioned that 70 percent of the people in Wyoming live within 70 miles of the border, and so they're taking a lot of their health care to other places like Salt Lake City or Billings or Rapid City or Fort Collins. Can you talk about how that type of pattern affects the cost of health care and the ability to recruit physicians, and any solutions you might have?

Mr. GLAUSE. Thank you, Senator. You are correct with that statistic that 70 percent of our population lives within 70 miles of a border. In Southwest Wyoming we have out-migration to Salt Lake City. In Northwest Wyoming we have out-migration to the Billings area. In Northeast Wyoming the migration is to Rapid City, South Dakota. And in Southeast Wyoming, in the Cheyenne and Laramie areas, the migration is to Fort Collins and Denver.

We're already a small population, and when you look at over 70 percent of the people are seeking their health care out of the state, it only reduces that population that the doctors are able to draw from. There are no economies of scale left. The ability to amortize the cost of equipment over a larger population dissipates. The ability to attract doctors to areas is further strained because the limited population we have to start with is going out of state. So that migration out of state really drives the cost up within the state to deliver those services.

Senator ENZI. Thank you. And do you know of any ways to get more competition in that individual market?

Mr. GLAUSE. I wish I had a good answer for you. It gets very complicated. To get competition both at the provider level and at the insurer level has been one of my main focuses for the insurance department. Insurance companies are not interested in coming into the small markets. They have to build a market share. They have

to come in and try to create a provider network where there are limited providers. And to compete with the carrier that is there, they have to do this on a price point. And with the lack of population, it is very, very hard to make this sound like a very attractive business opportunity.

Senator ENZI. Anybody else want to comment?

Dr. RICHTER. Well, I would say that competition, it depends on what you mean by competition. Competition amongst insurance companies really means marketing to the healthier population, which is about 80 percent of the population that's relatively healthy. Twenty percent are sick and use 80 percent of the care. So that's not going to reduce costs by increasing that sort of risk selection.

I would say in terms of the provider end, it's really that you can't have two rural hospitals competing against each other because of what Mr. Levine said, most of the costs are fixed. A majority of hospital costs, at least 75 percent, are fixed. So the idea that you would have to have all the bells and whistles in those competing hospitals, it's not feasible.

Senator ENZI. Right.

Mr. LEVINE. Thank you. Dr. Richter, you just made the case for the reason our health system exists. Ballad Health was formed through the merger of two health systems that were competitors. What was going on in our market, we were spending tens of millions of dollars creating redundant, duplicative services, and the problem is that we had a declining population, and this race of spending capital, we couldn't afford it anymore.

The markets where we had the highest costs, the markets where our hospitals are actually losing the most money were the ones that were actually the most competitive because there was so much duplication of effort and duplication of cost, but you'd have two hospitals using only 20 percent of their capacity each. So the fixed costs were just unsustainable.

That's why we ended up merging under what's called the State Action Immunity Doctrine of anti-trust law. The FTC staff were not happy with our merger and did not like it, but both a Republican Governor of Tennessee and a Democratic Governor of Virginia signed laws that were passed unanimously by both legislatures to permit our merger to occur for the purpose of reducing about \$300 million in cost, and then reinvesting those dollars in repurposing these rural hospitals. That's why we're going to have things like maternal care, emergency care, mental health and addiction services that were not previously able to be provided. We're actually going to fund those.

As to insurance, I'm not an expert on insurance, but I think the bottom line is—I've always been struck, Mr. Chairman, by the fact that we've taken, for instance, children, we created the SCHIP program. Children are by far the healthiest risk. We've carved the healthiest risk out of the insurance market and put them in a government program where those healthy lives can no longer be part of the risk pool. So when you pull healthy lives out of a risk pool, all you're left with are older people who are unhealthier, and then the cost of insurance goes up.

The idea fundamentally needs to be to create healthier risk pools. The more we carve up healthy populations and put them into various government programs, the more we pull them out of the risk pools. And I'm not suggesting that—like I said, I'm not an expert on this, but I do think that's part of what has led to higher spikes in cost of coverage prior to the Affordable Care Act. I think there are other factors that led to cost increases once the Affordable Care Act went into place.

Senator ENZI. Rather than get into a debate on that, I need to change topics slightly here. Part of this is going back to telemedicine, which is something we have to have in Wyoming in order to reach the rural population. One of the problems that we're having is that some of the providers could be across state lines, on a telephone, to serve our people, but the licensing for doctors is state by state. So before they can call a guy on the telephone, he has to become researched and licensed in our state. I think that's one impediment we have, even for visiting doctors to come. Is that a problem anywhere else?

Mr. LEVINE. Yes. Yes, sir.

Senator ENZI. Okay.

Dr. RICHTER. Yes.

Senator ENZI. Okay. I want to go back to—since Senator Bennet mentioned Medicare Part D and the fact that we haven't pulled the trigger yet on part of that, I put that trigger in there. I was really worried. Wyoming only had two people that were providing any medical, any prescription insurance, and I was afraid that when we went to this Part D, that we might lose both of those. So I thought there ought to be some alternative to go in there.

Now, my mom was one of the people that was eligible for it, so I asked her if she was going to need any help on figuring out her prescription D or not, and she said that she could use a little bit of help. I don't know if you remember the books that came out that were about that thick, with really thin pages, for these seniors to look through to see if they could qualify. So I tried out every mechanism that there was for making the selection so that maybe I could also try these systems to find out how they work. The reason that book is so thick is because we've got competition. It was kind of virtual pricing that was done on that. Anyone who put their prescriptions in could see what each of the different companies would provide on that.

My question is, are there some other things that transparency could help solve some of the rural problems?

Mr. GLAUSE. One of the issues that I think has been successfully addressed is the SHIP program, the Senior Health Initiative Plan. Sometimes we're charged with doing the Medicare supplement guide that is also part of that Federal grant, but the navigators that we have in Wyoming, many of them are volunteers, and the money that we get from that grant is used to train those people to help seniors navigate those waters.

I often refer people to those navigators to help them, and they report back to me that they are very, very informative and educational and helpful to them. So the SHIP money I think is well spent.

Mr. REED. I want to be specific. Cost transparency is always a really interesting issue. Mostly, my members tend to look at it from an access to data standpoint. They want to see the data so that they can help build tools and others that give insights into what things actually cost. The difficulty that we face on it is, and having met with health systems, sometimes health transparency is something that begins on day one that you think you'll solve in a 5-minute meeting, and it ends up being a 5-month seminar in exactly where that cost is that you thought was in the emergency room but ends up over there.

I want to be respectful of the people who work in hospital systems and health systems who understand that cost transparency is difficult. But I will say that with effective cost transparency, it gives us the ability to give people more insight into where their money is going, and hopefully, back to your point about competition, provide some competition that comes from the digital space.

We have several members who already build products that allow you to choose your doctor, look at what services they provide, look at their average cost, make a decision. This is terrible if you're in an emergency room, but if you've got a plethora of doctors, not in Wyoming, that kind of transparency can actually lead you to the ability to say I want to see Dr. Bob. He fits my cost structure, I like the things that he's done, let's give him a call.

More transparency can lead to good use of data and more competition, but I want to be respectful of the people who run health systems that understand that it's not that easy.

Mr. LEVINE. Senator, I was proud that I was Secretary of Health in Florida when we were the first state in the country to publish hospital pricing and prescription drug pricing on the Internet. This was back in 2005. And it was interesting to see how quickly prices, particularly for prescription drugs, got affected by that. When pharmacies right across the street from each other found out what the other was charging, the pricing came down pretty quick. That was the easy stuff.

The hard thing, we actually tried to give patients an estimate of what it's going to cost. The problem is that oftentimes you don't know all the different comorbidities that a patient has when they go into the hospital. I hate to sit here and say, gee, it's really hard. It is really hard. It's something we have to continue to work toward.

I think as more and more health systems modernize their data systems—and I know we may have a disagreement on some of that, but the good news about all these data systems that are now being deployed is now the data is becoming more unified, and I think with that data we can use predictive modeling and predictive analytics to determine with more precision what those costs are going to be. And let me just tell you, there's nothing more frustrating to a CEO of a health system than to not be able to tell somebody this is what it's going to cost you.

Now, the problem we have, as I mentioned, even with the insured population, the biggest part of their cost they can't even pay for anyway, whether it was \$100 or \$10,000. They just can't come up with the money, and unfortunately we're having to eat that.

Senator ENZI. Did you want to make a closing comment?

Dr. RICHTER. Well, I guess what I would say too, though, is you had asked about the drug costs, and the real problem I have as a clinician is not knowing what the drugs cost because they change. I prescribed mebendazole, which is a drug for intestinal parasites, to a patient thinking, Okay, no big deal, ten bucks, and it turns out Medicaid refused to pay it, and I couldn't figure out why. So I sent in a prior authorization and then looked it up. It's because it went to \$455 per pill from \$7.

That's part of our problem too, that these drug costs are inflating just ridiculous amounts, and we don't really always know what they are. So I think the transparency is not so easy for those reasons.

Senator ENZI. That's an area in the whole Committee that we've had some hearings on too, on how we get some drug transparency pricing, pricing transparency, and finding out some of the complexities of that. There isn't anything in the health care field that's easy, I don't think.

Dr. RICHTER. Who knew?

[Laughter.]

Senator ENZI. I want to thank all of you for participating.

The hearing record will remain open for 10 days so you can submit additional information if you want to. I also allow Members to submit questions. You need to turn those in by tomorrow night, I guess. It's a little too late for tonight by 5 o'clock. And if you would provide answers to those, we'd really appreciate it. Your testimony and your answers will be a part of the record.

Thank you for being here today.

The Committee stands adjourned.

Dr. RICHTER. Thank you, Chairman Enzi.

[Whereupon, at 5:11 p.m., the hearing was adjourned.]