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TRANSCRIPT - GR 02 03 23 "Telehealth: Redesigning Care During the Pandemic" Karen Rheuban, MD, from the University of Virginia

#### **UVA Medicine Grand Rounds**

- Well welcome.
- welcome, everybody. There's a lot of you on zoom, too. Thanks for being here, I think. Very apropos to the topic of today.
- so welcome to Medicine grand rounds, Sam, and happy to introduce Dr. Karen Reuben.
- Dr. Reuben received her medical degree from the Ohio State University.
- She then did a her pediatric residency here in Charlottesville, by a fellowship in pediatric cardiology, and in between that she was the chief of the pediatric Residency.
- And then she's been here really ever since, has laid quite a an impressive.
- you know, career and foundation for us to move forward with a lot of what her advances have been in the area of telehealth. She's a senior associate dean for continuing medical education and external affairs, and the co-founder and director of Uva's Telehealth Center.
- which was actually renamed after her the Karen S. Reuben Center for telehealth in 2,016 as a recognition of all her wonderful contributions to this vital area of health care delivery.

# **Unknown Speaker**

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She is a gifted educator, a spirited advocate for her patients, and a pillar of our Uva health system. I had other nice things to say about her, but she told me I couldn't.

- and so I just. I invited her to speak today about telehealth in particular, and then how the Covid pandemic has kind of changed and accelerated some of those advances on that front. So please welcome Dr. Karen Reuben.
- there is.
- Yeah, alright, thank you for the very kind invitation, thanks to those who are here, and, thanks to
  those who are watching via Zoom, so grateful for the opportunity, and the timing couldn't have
  been better with President Biden announcing just this week the sunset of the Public Health
  Emergency.
- So public policy has been an integral component of the work that we've done in telemedicine, and I'm. Honored to be here to share that with you. Just one note of disclosure. I serve on the Advisory board of a Medical Device company called Title Care. They make a remote examination tool to an enable us to comport with the standard of in person care.

- I'm. Not selling title care devices. So my objectives for today are to help you understand the modalities of telehealth, the basic terminology and use cases. Review the pandemic waivers that were implemented during the public health emergency
- identified transformations that were implemented at Uva, and it does take a village. All of us are part of that village, and understand State and Federal policies governing the use of telehealth, and what we can expect again with the sunset of the public health emergency.
- So just a few references to taxonomy, so telehealth is a very broad term. Telemedicine is embedded within that, and relates to actually the delivery of care which can be interactive video conferencing base or
- so, I think the slides for some reason. Stop sharing. I'm: just gonna
- and we're back. Okay, Super: Thank you. Alright. So interactive Video: conferencing store and forward technologies which are asynchronous technologies and remote, patient monitoring through which we can provide care when we monitor patients vitals.
- So telehealth is an umbrella term. Telemedicine is direct clinical care, and just for your knowledge, it's it's the terminology is a little odd, but the originating site refers to the location of the patient.
- and the distance site refers to the location of the provider, which, of course, does seem kind of
  confusing, since the patients are distant from us. But we're viewed as the distance, site, and
  policies relate to those terms, so it's important to remember them.
- So various modalities it are, are part of telemedicine. It can be per patient to provider services such as synchronous live interactive communications via audio and video, or in the public health emergency audio only. And we'll speak a little bit more about that. So that's synchronous. Video based
- asynchronous, is storing forward where images or data are captured and sent and transmitted to the provider for later interpretation and action. Asynchronous services also include E visits, and a huge shout out to the telemedicine team and to Dr. Engel and Dr. Dowdale, who are working on E visits as well.
- So other types of modalities for telemedicine include provider to provider services, and those may be synchronous video base. In other words, a provider is talking to a distant provider or asynchronous, such as e consults again with Dr. Dowdale's great work that she's done here. Eva.
- so remote, patient, monitoring, otherwise known at Uva as interactive home monitoring utilizes technology to collect physiologic data from patients and securely transmit that data to care providers at another location, and that can include a host of different types of physiologic data, blood pressure, daily weights, oxygen, saturation, Other tools as well, have been incorporated.
- and then remote therapeutic monitoring, which is a new terminology, allows for patients to
  collect non physiologic data and transmit that to their providers. And there are new cpt codes
  that actually also reimburse for remote therapeutic monitoring for certain conditions. And all of
  these may be supported by
- in artificial intelligence, or, as the Ama calls it, augmented intelligence and predictive analytics
- so why telehealth. Our journey with telehealth began 27 years ago, and i'll speak about that. But the goal is to improve access to health care, to reduce unnecessary patient or and or provider travel. I mean historically. Uva has provided

- field clinic, and David Katel Gordon used to say to me, it's not in the field, but remote clinics, that
  we would drive to all over the Commonwealth of Virginia, and that really was the genesis of our
  telemedicine program. We, in pediatric cardiology, were driving to Bristol. We
- once every other month for 2 days. But then the other 58 days. Our patients didn't have access to us unless they traveled. And so that was actually the genesis of the initiation of our telemedicine program 27 years ago.

## **Unknown Speaker**

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It does mitigate health care provider shortages by bringing specialty care services to communities that Don't otherwise have them

### **Medicine Grand Rounds**

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enables patients to receive care locally, whether in rural or urban areas. Although rural has traditionally been the sites for which Medicare has reimbursed us.

- it reduces unnecessary provider and patient exposure to infectious pathogens. Huge work. I want to call out of cosy seafree and Kyle and Field in the Icoms program, and which I'll speak about it as well.
- and then remote, patient, monitoring can shorten length of stay, reduce hospital, readmissions and emergency department visits, so it's good for patience, and it's good for healthcare systems.
- Clinical applications really are as diverse as all of health care.
- acute care services, primary care services, urgent care, emergency, care, specialty, care behavioral health, huge expansion and behavioral health, post, public health, emergency, chronic disease, management again, remote, patient, monitoring, and virtual. Ppe, which was a huge boon for us when the pandemic hit.
- So you might wonder why did it take the public health emergency to have telemedicine
- become mainstream health care? It's because there were so many Federal and State public policies that were barriers to the broad implementation and integration of telehealth.
- the most important being the 1,834 m Restrictions and the Social Security Act. I've learned a lot about government, so I I I can't necessarily see your hands raised in the other in in the virtual participation. But who here is taking a government course or a civics force anybody? Raise your hand if you have
- okay high school, that's better than nothing. So you understand how governors I never took any such course. And so I mean, it was a real lesson for me to learn. How do you change policies to actually impact what is what you're passionate about, and what makes a difference for our patients?

- So the medicare 1,834 m restrictions in the Social Security Act were operative up until the Public Health emergency following which they were wave, but required that patients to receive telemedicine services and the provider to be paid, patients had to be at a facility.
- and what's called an eligible originating site, and that had to be in a rural location.
- and their definition of rural Cms's definition of rural was
- surprisingly conservative. So if you know the commonwealth of Virginia counties like Scott County, Virginia way southwest region, it was considered
- an urban area because of its proximity to Kingsport, Tennessee, Metropolitan statistical areas excluded eligibility of some of these very rural otherwise rural locations towns that didn't have a stoplight a movie theater. They were considered urban because of their proximity across a mountain range, so the alignment was quite poor. Actually.
- in. So the patient had to be at an eligible, eligible facility. They limited the types of providers who were eligible to be reimbursed, for telemedicine services as well
- on the State level on Medicaid did not cover broadly telemedicine. It was very much state dependent in our State. We did get some significant improvements, thanks to then Governor Mark Warner, who is now our Senator, and who remains a real advocate for telemedicine
- commercial plan coverage was non-existent up until 2,010 when State Senator William Woppler introduced legislation to mandate that the commercial plans pay for telemedicine services, and then, of course, there's limited penetration of alternative payment. Mechanisms where you wouldn't necessarily have to bill in a fee for service mechanism.
- It's quality dependent, but there's limited penetration of that, particularly even in our own region.
- So other factors we had to consider, to scale telemedicine included. The technology had to be hipaa compliant. How does it integrate into the electronic medical record? Do we want providers to have to log into multiple different systems in order to provide care to a patient. No, we want it all integrated, but that wasn't always there, you know. Is there a patient portal or not? How did the patient access our telemedicine services? Do we have remote examination tools so that we can comport with the standards of in person care.
- and then the development of workflows. Those were challenges as well scheduling and registration of patients, provider training and support patience support. You know. How does how does the patient get help if they're not able to connect
- limited bandwidth? So in order to do video conferencing. You need to have a broadband connection, and patients didn't have broadband connections. And, in fact, even today, more than 500,000, for Jennings do not even have access to broadband services, even if they could afford it, because there's nothing in their community
- credentialing and privileging another big barrier that we had to overcome, Cms. Required, and
  the joint commission required that we had to be credentialed and privileged at every remote site
  at which we were going to be providing services
- in 2,010. We work with then Medicare administrator, Marilyn Tadner, who was a past Virginia Secretary of Health, to enable the proxy, credentialing, and privileging process. Can you imagine a 1,000 Uva providers lining up to get credentials and be privileged to provide care at a critical critical access hospital which is 25 bits, 200 and
- mit ctl, and where the person is doing credentialing and privileging is also procuring equipment, and maybe doing staffing and other things as well. So it was a major barrier, but we were

- successful in getting Medicare to, and the Joint Commission, the Joint Commission to approve the proxy, credentialing and privileging process such that 150
- you're credentialed. If, in a legal agreement with the a reach, a patient originating site.
- they can agree to accept our credentials and privileges of our staff, so I could be seeing a patient anywhere as long as we have that legal agreement between the entities. So another really important barrier that we had to overcome
- licensure
- to provide care by telemedicine. You have to be licensed in the State where the patients originating site is located. So if we have a one of our Uva patients is in West Virginia, in order to be able to provide care of that patient when they are physically in West Virginia. We need a license to practice medicine in West Virginia.
- Liability. Same thing. Piedmont Liability Trust covers us, but only in certain. Mostly it started out, mostly in Virginia, following the Public Health emergency. The Piedmont Liability Trust has expanded, and I'll be showing you a map of that shortly.
- And then there's stark and anti-pickback regulations under Medicaid. Federal law says, we cannot provide equipment
- to an entity or a provider who will be referring patients to us, so we had to overcome that as well. We were able, through our grants process, to to circumvent stark and anti kickback regulations, so that when we bought telemedicine equipment. If it was in the form of a grant, we could deploy it at community sentence.
- But that's an important consideration, because it would be viewed as an inducement for referrals otherwise
- complicated right to build a telemedicine. We all felt like the fife and drum core trying to get all these policies aligned.
- So History of Uva's telemedicine program 27 year program in Virginia. Again it began with our efforts in South West Virginia in 2,011. We were recognized by Hsa, a branch of Hhs to become the mid Atlantic Telehealth Resource center. Are we still
- we're okay?
- Oh, thank you. I'll move back. I don't know where to become the mid Atlantic Health Resource Center, where we provide technical assistance to providers and health care systems across 9 States, including the District of Columbia, all the way up to New Jersey, south to North Carolina, and as far west as Kentucky.
- We primarily had a synchronous video based program offering specialty visits for patients at healthcare facilities because of the Medicare regulations and at schools we had a rural school telemedicine program as Well.
- we also offered asynchronous services, such as screening for diabetic retinopathy. You all
  probably realize that every diabetic patient is supposed to have an annual eye exam diabetic.
  Retinopathy is a silent illness, and yet diabetic retinopathy is the number one cause of blindness
  and working adults.
- And so with the department of ophthalmology, we deployed broadly a diabetic, retinopathy
  screening program, primarily with community health centers across the Commonwealth of
  Virginia. But we also had to deal with the challenges of reimbursement. And what's the business
  model? How do we make it work which we have? And ophthalmology has been wonderful?

- And then also a huge shout out again to Kim Dowdale for her work, with E. Consults another asynchronous service.
- remote, patient, monitoring program, both adult and pediatric, remote, patient, monitoring or
  ongoing for many years now. It's now housed in the Department of Population Health, and it's a
  wonderful program to allow us to better manage patients with chronic illness. Post hospital
  discharge as well as patients with chronic illness, who are seen in our clinics as well.
- Novella Tom Thompson manages that program, and it was sort of interesting little historical note
  in the late 2 thousands. We tried to get this program started at Uda, and one of our
  administrators said, Well, why would I want to do that we're paid when our beds are full, was
  like
- sort of perverse incentives, right? But when the affordable Care Act pass, and we were penalized for hospital readmissions. Suddenly there was a good rationale for doing it. Besides, it was the right thing for patients, and we were able to implement the remote, patient monitoring program, and subsequent to that. You know we've had great support from leadership, from senior leadership, and those penalties still exist. But we do it for other reasons as well, and we now have reimbursement for remote, patient monitoring, too.
- provider and patient education programs. We support Project Echo. We have a website called
  Telehealth village which is a continuing education accredited program, and our endocrine
  colleagues, the diabetes education program has long been doing video based patient education
  and provider training on Diabetes education.
- A huge shout out to the Department of Internal Medicine for Icom's Coasty seafring kind Kyle Enfield, who built the virtual Ppe program in the special pathogen unit of the mic. You and you'll see that we have. We scaled that massively following the Public health emergency.
- and in 2,019, thanks to senior leadership at Uva, Pamela Sutton Wallace, who was our CEO at the time. She asked us to convene a strategic plan for telehealth, remember, 2,019, but for COVID-19. And so we did a multi stakeholder initiative, and built a strategic plan for virtual care.
- and when Dr. Kent arrived I met with him. He came in February, the twentieth 20, and when Dr. Kent arrived I presented it to him, and he said.
- Great idea! Great idea how we gonna fund it. Great idea! What's the business plan? And then 2 weeks later, it was COVID-19, and we had the green light to proceed with just about everything we wanted to do.
- Okay. So prior to COVID-19, these were our telemedicine partners across the Commonwealth of Virginia. Primarily, Grant funded Federal grants from Hirsa from us. Department of Agriculture. You might wonder Why would Usda fund telemedicine programs?
- Usda provided support for rural development as well as wiring America's farms for telephone service. So usda has long-standing telemedicine grant funds that pays for primarily up until just one
- a few weeks ago. Actually, primarily, technology not support for our providers, or we don't get any indirect costs with it. But it would pay for the actual telemedicine technology which we deployed broadly across the commonwealth of Virginia in eligible rural sites.
- So we connected with community hospitals, federally qualified health centers, free clinics. Many of you know, the remote area medical clinic has been staffed by the free clinic in South West Virginia, the health wagon. We've worked with them very extensively over time Community

- service boards which are the outpatient facilities for the Department of Behavioral Health in the Commonwealth of Virginia. So we do a lot of telemedicine with the Csps.
- There are medical practice sites, including our own, that we connected with Virginia Department of Health sites, correctional facilities, dialysis, facilities, skilled nursing facilities, long term care and rehab facilities, and then rural schools as well.
- So you see where we were. But again these were all facility based.
- So I love this. I shamelessly took this from the twitter feed of the cyber security Hub, who led the digital transformation of your company. It wasn't the CEO. It wasn't the CTO. It was COVID-19, and necessity was the mother of invention, and we, like others.
- You know we're a proxy for many health care systems across the nation and the world who deployed more telemedicine following the public health emergency.
- So, in order for us to scale again, it was obviously the right thing to do. We needed waivers that would eliminate some of those restrictions that I mentioned earlier. And so Medicare and Medicaid implemented very significant waivers that enabled us to be able to scale.
- So it Medicare eliminated geographic and other originating site restrictions, including now then covering services provided to the home.
- They expanded eligible Cpt coast for telemedicine services. They expanded eligible providers.
   Previously not all Medicare providers were allowed to provide telemedicine or be reimbursed for telemedicine services, and it added Medicare added audio only coverage
- which was really important and remains really important, and our Medicaid program also implemented significant waivers, and the home became an eligible originating site at parity, also for Medicaid beneficiaries. They added audio only at parody.
- and Virginia Medicaid added coverage for remote-patient monitoring for COVID-19 They were not covering as opposed to Medicare, which was covering since 2,018 robot patient monitoring Medicaid was not
- in order for Medicaid to make major changes. It takes an act of the Virginia General Assembly to
  do so, and dollars that flow with it. So we were not able to get coverage until the public health
  emergency of remote, patient, monitoring
- other things. Other Federal and State waivers actions. So the office of civil rights waved Enforcement action regarding Hipaa. What that meant was, we could connect via any portal except Facebook live where there would be, you know, real privacy concerns, but you could use
- facetime proximity. Other technologies that previously would not have been considered eligible under Hipaa
- and many States wave licensure requirements by executive order, and Governor Northam limited that the those waivers for Virginia. But what he did do is he enabled out of State unlicensed in Virginia, providers, for purposes of continuity of care, to continue to see their patients for 12 months without getting a license.
- And so, for example, if a Virginia resident went to college at Wisconsin, and they were being cared for by student health in Wisconsin when they came back to Virginia, their provider in Wisconsin could continue to see them for a period of 12 months.
- and that was an executive order. The other thing that Governor Northam did was that for health care systems who were having provider shortages, if they needed to contract with out of State providers who did not have a Virginia license, they enabled that a health care system could

- contract with an out of State provider. As long as we notified the Board of Medicine, who was providing services in the Commonwealth of Virginia.
- and subsequent to that State legislatures, acted to make permanent many of the changes that
  were implemented during the public health emergency, Virginia being one of them, and you'll
  see all the bills that were passed, and the things that are currently under consideration at at the
  General Assembly
- and by law. The public health emergency could be extended in 90 day increments by health and human services.
- and that 90 day increment was actually to be April of 2,023. But President Biden just announced
  the sunset of the Public Health Emergency so he enabled an additional month, so May eleventh
  is when the Public Health emergency is scheduled to sunset and we're all scrambling to
  understand what goes away and what endures.
- Okay. So how did we respond to the COVID-19 public health emergency. We backfilled
  ambulatory visits with homebase, synchronous video in both primary and specialty care. Dr.
  Hellenius has been exceptional in helping to move that forward. Thank you, Era, if you're on.
  Thank you. Thank you. We expanded. Icons the program to more than 180 rooms at Uva Health
  again, Coasty and Kyle. Thank you for that as well, because we were positioned to do it. So when
  we had ppe shortages
- it was less of an issue for us, because we were able to do the virtual evaluation of patients, and we also enabled patients to see other providers without necessarily donning and doffing, and also to see family members as well.
- We rapidly scale to provide testing and consultative support and congregate care facilities. A great example was when we got a call. We Va. Health got a call on a Sunday that there were a tremendous number of patients in a long term, care, facility in Flavor County, and the providers were sick as well. Didn't have anybody. So you know
- your department really rallied. We didn't have to deal with Stark and anti kickback, because the
  Federal Government waved it. We sent providers out. We brought telemedicine equipment out,
  we tested point prevalence testing, and then we provided monitoring of the patients in that long
  term care facility. So you know, you guys have gigantic hearts, and did a really great job in that
  regard.
- We launched a virtual urgent care program with the Department of Emergency Medicine. And
  now we're looking about where we're appropriately lives. But it was providing any new patients
  or all patients could receive care.
- Low acuity care through the virtual urgent care program. You can self-schedule yourself, and it
  was an it's an excellent program. And we're hoping that we scale that even more significantly.
  Now
- we expanded remote, patient monitoring to include COVID-19 patients. We were already doing remote moderate for many chronic conditions, and also novella integrated video check-ins by nurse practitioners, so that we could escalate care as appropriate and then after discharge from the hospital, manage patients after discharge as well
- and then we increased our Provider Educational programs with Project Echo More Project Echo Programs, Telehealth Village, Our web based portal training for faculty residents and staff. And again era. Thank you for working with our team to make that happen.

- So virtual transformations require significant investments, and we are still, you know, Nikki Rier Facto is our director of telemedicine and our telemedicine team are still working with era and
- a host of you to make it better. We integrated. We transitioned to zoom for health care integrated into epic about a year and a half ago. The reason that we did that was we didn't want. Webex wasn't working very well. We don't want to be using face time if we if we don't have to, because it's not hipaa compliant, so we transition to zoom for health care. We are still looking at other solutions as well. Nicki wanted me to make sure. Everybody knows if you have concerns, please email us telemedicine at Virginia, Edu.
- But we are looking at other alternatives as well to make it better. But it does, allows one of the things zoom does. Is it functions at low bandwidth, which many of our patients have low bandwidth. So that's one of the reasons it was better than webex because webex requires more bandwidth to be functional
- it also has multi-party, a video support. So we can support resident supervision and translation services and other family members who might be able to to use zoom as well.
- You know what we're all zoom is sort of a ubiquitous platform right in the Post COVID-19 world, and it was even before then. So it was kind of natural and easier for patients. We also use Grant funding to deploy devices such as webcams across our. You know our computers in their clinics as well, and offices headsets for providers, peripheral devices as appropriate.
- We actually got a grant to provide bandwidth and devices for patients who don't otherwise have.
   It. So Novella is able to provide an ipad which has cellular connectivity for patients who are low income, who live in rural areas who might otherwise have no connectivity and the technology that she uses also functions in a bring your own device mode. So somebody can just download the software and be able to connect to locust health and her population health, remote monitoring programs.
- We had to develop the workflows, the provider training module, scheduling staff resources, rooming resources, patients support services that we've outsourced that and program evaluation.
- So now you know, you can click and connect to a patient. We're going to try it. We continually are trying to refine it, make it easier, and make it better for each of you. But this costs money, and so we have to convince the payers one
- that it should not be less. Our reimbursement should not be less just because the services
  provided over telemedicine. It still takes investment. You may not have the nurse physically
  present, but somebody's got a room. The patient. Somebody's got a schedule to visit epic
  process. Money zoom cost us money.
- It's still a work that needs to be done, and it needs to be paid for. And so we have in the Commonwealth of Virginia are very lucky that Medicaid pays a parity. The commercial plans must pay a parity, and Medicare does pay a parity for the professional service as well, and in certain circumstances they provide the technical fee as well.
- Okay, just to show you the impact of all of your work. So in February, 2,020, when I was begging Dr. Kent to invest more in telemedicine at Uva. This was the basically the map of the Common Commonwealth of Virginia. That shows where
- we were located, mostly in the western half of Virginia, because that's where we had the most extensive relationships and telemedicine already deployed. But look what happened 3 months

later, with all of the waivers in place. Look how we covered the Commonwealth of Virginia. We like to laugh.

- This is the Great Dismal Swamp, so there's not a lot going on in there. But anyway, we really
  scale telemedicine services, and even in May, of 2,022 you can see we're still continuing to
  provide those services.
- Okay, so synchronous telehealth. We are now able to track our utilization of telemedicine, and Nikki and Matt Craig of our office have done a really great job in terms of analyzing from video visits that are integrated into epic documented. It's scheduled and documented in epic, and you can see.
- let's see if I can do this so prior to the public health emergency in 2,020 low volume and amount of activity, because it was only specialty, services only at eligible originating sites. But once we were fortunate enough to have those waivers look how much we scaled, just as other systems did across the country.
- And then, as we got better at managing infection, control our numbers, our percent efforts in telemedicine decrease, but still were significant, and certainly more than we had prior to the Public Health emergency. And now, if you look.
- I guess over here about 7.2 of our eligible
- ambulatory visits are telemedicine supported, and you know, when we say, oh, you, you can't do in dos could be by telemedicine. So even though that's an ambulatory service, we're not. You know we don't count that but for our primary care and specialty, care, outpatient visits, 7.2% of the of those are conducted virtually, and that data does not include remote, patient, monitoring E consults, store and forward technologies, remote IC. Or other video based services
- that are documented in other facilities Emrs. Because in some case we are by contract required to document in their em are not an epic so, but you can see what we've done. It was, we're about 7.2 of our ambulatory visits.
- So Medicare claims data have shown that we're kind of like the rest of the country in terms of telomeres. And if you look at Medicare, and I just direct your attention to
- these numbers here in 2,020. Okay for primary care. 8.3 of Collect Medicare claims and primary care. We're telemedicine specialty care 2.6. So still kind of low and behavioral health 38, so huge need for access to behavioral health services which endure even today.
- and then fair health, which is a company that evaluates, claims, data reported that in commercial claims for telehealth services in April, 2,02013. We're telemedicine, and in September 22, 5, point 4. So if you go back to Uva, we're 7. Point 2% overall. That's pretty good and pretty comparable to what we're seeing across the country.
- but we hope to be better
- so. Asynchronous telehealth encounters such as e consults a screening for diabetic retinopathy. The dark line is our E consult program, and hopefully we will be able to grow that as well, especially now that we've acquired 3 hospitals, 2 of which are on our instance of epic. So that's e consoles, and it is a reimbursable service.
- and I'll talk about that again in a minute, and then screening for diabetic retinopathy. We evaluate about 674 diabetic patients every year, mostly at community health centers
- and congratulations to the part of medicine and pulmonary critical care. They have a contract with Uva call pepper, where they're supporting the providers in the Culpeper Icu, and we support about 155 patient encounters per month that way

- and remote, patient monitoring Again, a terrific program done for the right reasons, and more than almost 20,000 patients have been enrolled in our remote monitoring programs. More than 1,800 adult and pediatric patients are monitored for COVID-19 enrollment includes
- enrollment in my chart.
- Physiologic monitoring Medicare requires to be reimbursed by the way, that you have to have uploaded physiologic monitoring data and you have to do it 16 out of 30 days a month, which we're trying to change as well, because there's per, you know, perfectly important reasons to monitor somebody for shorter terms. In 16 days or 30 days
- it offers behavioral health supports, social determinants of health assessments and medication, compliance and medication management support as well. So Novella's done a beautiful job, and many of you may have seen these flow sheets in in epic, because that data is all there in in epic for you to be able to track your trended data.
- Okay, so what are we doing at Eva right now? How we redesigned care delivery models got to
  get close to read it myself, because my glasses aren't strong enough. But so in the home patients
  at home, audio and video visits remote, patient, monitoring, chronic care, management
- justin mutters of Virginia at home program and e visits which we're just launching. These are patient-initiated
- a new complaints, and we're we've started e visits for COVID-19. Gina Engel has been wonderful in helping us to build that with Kim
- Dowdell, and then for ambulatory settings in general audio and video visits my chart messaging E consoles.
- and we started our small remote cardiac rehab program as well, because we know we heard from cardiology that many patients are not able to come back for their cardiac rehab. So we've started a pilot project with Thomas Miller and the Rehab program, and it's working the patients that have participated are very much supportive.
- So for transport we've incorporated telemedicine and transport as well. Andy Sutherland built the I treat program so Telstroke has been a really important early program that we have a deployed, and I'll speak to that in a minute. But Andy's even brought it to the ambulance, and so we now have in the in the Charlottesville Ambulance. The shares of our rescue squad has telemedicine incorporated into the back of the ambulance so that we could accelerate time for the stroke neurologist to see the patients, because we all know time is brain, and Tpa has to be administered within a short timeframe.
- Recently Novella tops. It has begun a community parent medicine program. And so connectivity for our paramedics will be provided in in addition to going to the home of the patient, er and urgent care, virtual urgent care I mentioned, and the Telstra program, which is, has been operating for more than a dozen years. That has been. They now have, I believe, 10 sites across the Commonwealth of Virginia as far north as Uva. Community health sites far south as South West Virginia and Norton Community Hospital.
- Bath County Community Hospital, a critical Access Hospital, Augusta health, a number of
  hospitals, 10 sites across Virginia, and they have demonstrated and proven that you can receive
  Tpa, and within the same timeframe as you can. If you show up to novo at the Uva Emergency
  Department that's transformational. And I'm really proud of the stroke neurology team for the
  work that they have done in that space.

- Okay, inpatient. So I sitcoms. I mentioned. I see you telemedicine. We can potentially do more. The transfer center has been engaged with the Tell a stroke program Pre procedure, preparation. So we're doing evaluations of patients prior to procedures
- post discharge remote monitoring we're developing the Id people. If you're hearing me, we're developing the Uva community health in-patient. Id consult service, we hope. And then of course, e-consol is another tool that we can provide to our community health partners
- and then in post-acute settings. Again, Specialty video visits remote patient monitoring and
  project echo to educate Project Echo is called extension for community healthcare outcomes,
  and that program is a one to many model where cases are presented by the community provider
  to the specialists in a secure fashion and with didactic material, and it's. It was started at the
  University of New Mexico, but has scaled broadly across the country.
- and we have been doing it as well, and we'll be scaling that as part of a recent grant.
- Okay, patient satisfaction. Not long after the pandemic press, Gainy introduced telemedicine, patient satisfaction data, and our data is getting better and better, and we are for likelihood to recommend Uva telemedicine. It's last month was 94.8, so we finally surpassed our goal, which was
- maybe 94. So but we. But the problem is for many patients. If you don't have good bandwidth.
   You don't have a good connection, and so some of that we can control some of that we can't control, but it is our goal to see broadband for all, and we're delighted that the feedback has been so good.
- Okay, how about the impact on completed appointments? So missed appointments or completed appointments? So Susan Gray, from our department of pediatrics, adolescent medicine showed a 47.3% reduction in no-show rates with telemedicine in our adolescent medicine clinic
- makes great sense. If people were afraid to come, couldn't come, they could conduct those visits virtually, and they would show up
- other sites. That's not just been Uva that has demonstrated that in a network of 55 fqhcs in Texas
  they showed a 13% reduction in missed appointments in the Cleveland Metro health
  rheumatology. Clinics reported a 32% reduction in missed appointments.
- and then Pen Med, recently published just in December they demonstrated racial differences in primary care appointment completion rates narrowed during peak utilization of telemedicine. So it is a force for equity and for access for sure.
- Okay, how about liability coverage? Again I mentioned. We are. We are covered by the Piedmont
  Liability Trust, our own insurance product, and traditionally, prior to the public health
  emergency. We could not see patients outside the Commonwealth of Virginia. We're licensed to
  practice medicine and Plt. Supported us in the commonwealth of Virginia.
- They have scaled and expanded a liability protections for us If we're practicing out of state, we
  have to notify them, and we have to be sure that we're licensed except for the Red States, where
  the malpractice caps are not favorable, and so, you know, West Virginia works North Carolina
  works.
- but Washington, DC. And Maryland, Piedmont Liability Trust has determined that it's New York state that it's pretty risky for us. They there is a process by which they could assist us providers who absolutely want to provide services with out of state providers, but that would have to be

paid for by the departments themselves. But you could see we're grateful Piedmont Liability Trust is actually scaling where we can provide services so long as we are licensed, because

- again, we have to be licensed at the originating site of the patient
- grants lots of opportunities with grants, and we welcome. We do have a telemedicine advisory committee which has representation from every clinical department. We let people know about grant opportunities. We were very fortunate to receive a great deal of funding as part of the Cares Act and the Consolidated Appropriations Act, which gave money to many of the agencies
- since COVID-19. We've gotten more than 12.6 million dollars in grants, which is pretty hefty, and we've used that for Uva for equipment, for community partner for community partners to provide patient devices and connectivity.
- So the Fcc. COVID-19 Telemedicine Grant program allowed us to buy equipment.
- The Us. Department of Agriculture, distance, learning and telemedicine program allowed us to buy equipment. And we've scaled up the number of remote sites doing, screening for diabetic retinopathy. Our matrix grant was renewed, and we got a Covid supplement. That's our mid Atlantic Telehealth Resource center. Grant.
- The Fcc. Connected Care Pilot program has given us 4.4 million dollars to help support our remote monitoring infrastructure and provide bandwidth for patients who otherwise don't have it, who can't be monitored at home because they don't have the connectivity.
- And then, just
- a few weeks ago, we were awarded a 5.1 million dollar grant from again Us. Department of Agriculture. We'll take it for the rural health care emergency Grant program, and we are going to be working with providers in Southwest Virginia to do a new strategic plan for health care in Southwest Virginia provide more telemedicine equipment, and our partners for that grant include 150
- ballad health, which is a health system in Southwest, Virginia and Tennessee, the South West Virginia Health Authority, Uva Wise, which has its own clinic, which we do staff a federally qualified health center network and the health wagon, the free clinic that we work with.
- Additionally, other groups have applied for Grants and Uva with our blessing and support and excitement. So Mina Zelensky received a Hrsa grant recently to expand, tell a stroke and training for Ems Providers
- and Lori, Archbold, Penone and her and the geriatric division received a a large grant as well to scale skilled nursing facility, telemedicine, and training. So we urge you. If you're interested in doing outreach, reach out to us, and we have a wonderful grant writer who would
- be likely willing to help
- So health equity considerations really important. Right? So Pew research data has shown that 25% of low income adults, which is an annual income of under 30,000, do not even own a smartphone.
- 40% of low-income adults do not have broadband, or even a home computer
- in 2,01913.4 of us household reported no home Internet subscription.
- and for that reason audio only services. Maintain continuity of care during the pandemic
- and thankfully covered by Medicare, covered by 26 state Medicaid programs, including Virginia.
   So it's really important that we maintain that, and that has been a major advocacy effort that many of us have taken with Medicare, with Medicaid, to continue those services for purposes of health equity.

- So speaking of Virginia, Medicaid, Chath, and Bachelorette, who since moved on to the chief medical officer of Medicaid, looked at Medicaid expenditures. You'd have to wonder why won't people from telemedicine. Why would those agencies be so limiting, and what they cover? So Medicaid has been pretty good.
- Medicare a little bit more of a challenge other than the waivers, because they're afraid of fraud and abuse, and over utilization
- and the and the fear, but as if there isn't already some over utilization and some fraud and abuse
  in health care. But telemedicine has proven not to be anything worse than what's happening in
  ordinary health care and not increasing the Medicaid cost. So this data was really important, and
  and it's being used by the Congressional Budget office as they look at telemedicine legislation
  that is still in process. If you look at it.
- the gray line is total Medicaid expenditures in 2,020,
- based on claims data. The blue line is in person.
- and the orange line is telemedicine, and together you'll see they still equal basically the same.
   There is not an over utilization of health care services or excessive costs because of telomeres. So we hope that this type of data will inform the decisions that the Congressional Budget office makes
- to scale telemedicine nationwide permanently.
- And how about providers? So the Virginia telehealth network Did a provider survey another one just came out. So if any of you have gotten it, please fill it out. It's due February tenth. It showed that that was last year 82% of providers
- felt confident in the quality of care. They provided by a telemedicine. 86% agreed or strongly agreed that it was an effective care delivery mechanism. And 82% felt that the patients would be disappointed if we stopped using telehealth.
- Okay, so what are the current Federal policy considerations? The omnibus spending bill that passed at the end of
- in in December of 2022 for 2023 has huge expansion of telemedicine, so all the waivers that went into play for reimbursement will endure through the end of 2,024, and hopefully, that will enable all of us to keep feeling confident that we can provide telemedicine services to Medicare beneficiaries.
- and it'll enable Medicare to get a lot of data on utilization, so that when they we want to make this permanent it can be made permanent. So again, the public health emergency sunsets on May eleventh 2,023. What does that mean for us?
- Medicare will continue to pay for telemedicine services but the ocr waivers of enforcement action, Rehippa audio and video revert back to pre public health emergency. So no more face time.
- and we have to use hipaa compliant audio devices. Our phones are hipaa compliance. So you
  don't have to worry about our hospital phones. We can't be storing. Can't store data on our
  iphones. If we're calling a patient, you can't store data on it. There's and we'll be setting out
  advisories to everybody. But again, we need to use
- our current systems, and that we have in place, which currently is zoom for health care.
- and maybe Webex, if we have to revert back to that too. And the other thing that's really important is that the Dea.

- prescribing regulations for controlled substances. Go back to the pre public health emergency regulations. So you have to have in order to prescribe schedule 2 through 5 drugs you have to have a prior in-person provider patient relationship
- prior in person, or the patient needs to be at a dea registered facility in order for us to prescribe, or in the presence of a dea registered practitioner who themselves don't feel comfortable prescribing those meds. So things like you know.
- narcotics, or add, or all. You know, a a of medications that we might be prescribing. We need to be absolutely clear. We're not establishing a provider patient relationship with
- by video only. That's not enough for those 2 through 5, and interestingly, which won't be a problem. But in Virginia or one of the only States schedule 6, which includes antibiotics, medical sailing, some psychotropic Med: Those
- those medication we're one of the only States that actually has that as a schedule, 6 in Virginia. But we can continue to prescribe those via telemedicine.
- and we are awaiting. Congress has mandated a special registration for telemedicine providers. It hasn't happened yet. The reason the dea does. This is because of a case in 2,009
- that ultimately resulted in the Ryan Hate acts. H. Al Ght. This was a teenager who established a
  provider patient relationship by the Internet with a provider in another State who prescribed
  controlled substances, and he overdose and died. And so the Congressional delegation from
  California, introduced this legislation, which said, You cannot. You have to have certain
  parameters by which you're prescribing controlled substances.
- and you know the special registration will sort of wave that. But we have to be very careful that we don't, you know, run a foul of that.
- and then additional clarity is being sought regarding supervision of trainees, because some of that may revert back to pre pandemic as well. I've heard rumors that the patient still has to be in a little site in order for us to supervise a resident, providing here to that patient. That's crazy right. And if Medicare is paying for services, rural and urban.
- we should be able to supervise our residents as well wherever the patient is located.
- So that's a work in progress.
- So the things that have happened in the General Assembly, and again I never took a government course, but I sure have learned, you know, learned I. We need to deal with it. We have to advocate for what we believe is right. So in 2,020, in the special session of the Virginia General Assembly, they codified home as an eligible patient, originating site.
- so they can't take that away from us that is, in code in Virginia, even if Medicare Hasn't done it.
   Virginia has. So that's true for Medicare I mean Medicaid patients at commercial patients in the Commonwealth of Virginia
- in 2021, the General Assembly codified Medicaid coverage of remote patient monitoring for certain conditions. Originally it was 5 clinical conditions, but subsequently, in the following general assembly session, they scale that as well
- in 2,021. The General Assembly directed the Board of Medicine to explore licensure reciprocity agreements. Why is this important? You know the board of medicine looks at egregious cases right?
- It turns out that our Board of Medicine nobody has anybody here served on the Board of Medicine. Our Board of Medicine is only funded by licensure fees.

- and it costs just to in to initiate an investigation of a provider. It costs the Board of Medicine almost \$3,000, and then to take it all the way forward to a full investigation and a hearing. It costs a lot of money. They don't have the support from anybody else to do it. So they really want to have a way to manage and track licenses in the Commonwealth of Virginia.
- The reciprocity agreement will help, but it means you still get licensed in Virginia, but they will expedite licensure so like within 2 weeks you can get a license, and in good standing in Washington, DC.
- You can become license in Virginia and pay a \$400 fee, which we are considerably cheaper. We
  could raise rates if we want to pay for these services, or we can just make sure that everybody's
  license
- they codified. This is really exciting. Also codified Ems agencies as an eligible patient originating site.
- The payers will pay an originating site fee of like 20 or \$25 for telemedicine, but ems was only
  paid when patients were brought to the emergency room. So we're building these community
  parent medicine programs where the Ems agencies are sending a paramedic to the home of the
  patient.
- We'd like to see them incentivize and be paid for that as well. They're paying for band, but they're paying for technology. They're paying for people. And so we codified that on the commonwealth of Virginia. In 2,022.
- We codified continuity of care exemption for 12 months, because it was an executive order.
- Now it's codified as well expanded Medicaid coverage of remote monitoring for more clinical conditions, and in 2,022 they authorize Medicaid to cover e consoles. But unfortunately
- I mean. This is the problem with some of these challenging regulations, National Medicaid. So Medicaid is a State Federal partnership, and in Virginia about 50% of the Medicaid dollars comes from the Federal Government. National Medicaid said, No, we won't use our matching funds to pay for e consoles because the patient is being is not part of that equation.
- It's like, of course, the patient's part of the equation. They're just not actually being seen.
- but after a lot of work, advocacy. Federal Medicaid, just 2 weeks ago allowed for Medicaid to to Virginia, Medicaid, and other Medicaid programs to get their Federal match, so e consults now will be covered by Virginia Medicaid as well. So I urge you and i'm sure kim's on Hooray for e consults. But that was a policy decision just made.
- So we're still continuing to track bills. Sometimes some of the bills are made by some of these big
  corporate entities direct to consumer companies that we think are not good for patients. So,
  even though we have really great regulations and codes in Virginia that are good for
  telemedicine, we have to be careful that there are some bills that we don't want to support, and
  these are some examples of some of the bills
- currently before the Virginia General Assembly. So the the first bill we call the Johns Hopkins. Bill.
- John Johns Hopkins sought to extend continuity of care for 3 years and extend it across their entire network. So if you saw Johns Hopkins provider in person, whether it's at their Northern Virginia Clinic, or in Baltimore for 3 years.
- those providers wouldn't need a license to practice medicine in Virginia, and their extended network could continue to provide those services. We shrunk that we codified it. It's 12 months no more than that, and it's moving through the General Assembly. But we will allow whoever is on call for that provider

- to have that reciprocity, or that that lack of a need for a license for 12 months, and if you're going to continue to see the patient, you need to go ahead and get a license to practice medicine in Virginia.
- The next bill was, we call it the Hem in Hers Bill. That's a director Consumer Company, originally started with prescribing a rectile, dysfunction drugs, and then other number of control pills and then. Now, psychotropic meds.
- What they wanted to do was to allow enable a process by which one could establish a providerpatient relationship that results in prescribing a schedule. 6 drugs, which, remember I told you could include psychotropic medications.
- abortion medicines other things without ever seeing a provider so just filling out an online form
- that would establish a provider patient relationship, and they only wanted to do it when the was willing to pay themselves. So we were like No, that doesn't comport with the standard of care. We don't want to see that happen, and that was passed over thankfully.
- meaning, it's not being considered in the General Assembly this year. Permanent coverage of audio only we want, we, you know, for all good reasons. We think that's important. That was moved to the Insurance Reform Commission. So it's going to be studied what the cost would be to the Commonwealth.
- There's a bill that's moving forward, prohibiting refusal to fill prescriptions by telemedicine. Apparently some of the pharmacies in some of the rural areas were unwilling to fill prescriptions that were written by, or electronic prescriptions that were provided by direct to consumer providers or by telemedicine. That's moving forward as well. And then another bill that's moving forward will eliminate the Medicaid requirement of an in Virginia address for reimbursement of telemedicine services by Virginia, and you know I have mixed feelings about that. I You know we don't really want to see fraction of care, fragmentation of care for
- Virginia Medicaid patients, but that one's moving forward as well. And so, in other words, a
  direct to consumer company. Could the provider could build Medicaid if they're providing
  services. But I I have some challenges with that, because again I think, Virginia, we need to. We
  need to make sure patients have in person places to go right. And so this bill we didn't support.
  But it moved forward.
- It's about lobbying, right. They have a lot of lobbyists that help these companies.
- Okay. So at the Federal level there's one bill that's really important moving forward right now, and that's the connect act introduced by Senator Shots Brian shots from Hawaii but Mark Warner, our senator, is a co-patron that will permanently make the home and eligible originating site for Medicare permanently eliminates geographic restrictions so we, eliminating 1,834 M. Gives the secretary of Hhs, the authority to make decisions, to expand coverage without having necessarily a public health emergency or and or to go back to Congress because new innovations happen, and we don't want to have to make it an act of Congress in order for Medicare to cover it.
- In this bill. Fqhcs can be both originating and distance sites. If you think about a federally qualified health center. Currently they can only be an originating site for the patient. It that was included in the waivers, but permanently.
- They often hire providers. You might have a network of Fqhcs that has 10 sites. They might have a psychiatrist at one site. Why couldn't that psychiatrist bill for services provided to a patient at another site, so that's going to be? I'm sure that will be included in the K connectac as well.

- and it eliminates the requirement for an in-person visit for tele mental health services. That was a crazy addition to a bill a year ago. That was frankly.
- nobody understood why it happened so. In other words, if you are getting a mental health console you're going to have to have either seen a provider once in person, or sometime within the next year. See a provider annually that's being eliminated as well.
- So a lot of great things have happened with telehealth. The Waivers Post Public Health emergency enabled a significant scaling of telehealth. A shift includes primary care, specialty, care, behavioral health.
- Virginia Medicaid data showed that telehealth services are largely substitutive. Telehealth has
  resulted in a reduction in missed appointments and completion of appointments. Telehealth can
  be a force for equity health system and provider investments are significant and patient, and
  provider satisfaction is high, and when the public health emergency
- is sunset on May eleventh, we don't want us, and our patients falling off a big cliff so, and honestly now in 2,023 telehealth is health care I don't have a crystal ball. I don't know where it's going to land in terms of volumes and right sizing, but it's still a work in progress, and I believe it is here to stay.
- It's a critical element of care. Redesign. But really importantly, public policies must stay abreast with innovations in health care. We can't be operating clinical care with twentieth century public policy. So it behooves us to advocate and to advance the policies that are needed. And this is just a map of the telehealth resource centers across the country. So with that I know there's not a lot of time for questions, but I'd be happy to take any. Thank you.
- Oh, it takes a village, and here's our telehealth team, and the other village includes clinicians right all across, and you know leadership as well.
- So thank you for microphone for the through here.
- Well, thank you. That's fantastic. You got a couple of questions here, Chat and I'm just gonna read out loud to everyone and yourself.
- The first one is regarding the use of phones, and both voice over IP.
- So are there any hipaa restrictions on what phones are those VoIP we can use for patient calls. Yeah, we will be sending out a memorandum to everybody. It should be coming out actually, the next week about what is eligible and what is not eligible. The biggest thing is we you can't store patient data on your phone. So how would you even go about stringcation data on your phone
- probably safe is not to right. We'll look at them all right, right. Dr. Dowdell wonders what's the risk of Amazon providing care to our patients with these new regulations. Well, there's no question. There are big players out there who are probably providing those services. It's, you know it's started out Pre COVID-19. There were a few providers doctors on demand, you know. Tell a Doc American. Well, Amazon got into it, although they backed off they had started a Director Consumer Company, and then pulled away from it.
- But there is absolutely a risk, and especially when now they can be billing Medicaid and staying
  and not have a not having a physical address in Virginia. So it is risky, but it's also one of the
  reasons why we tried to push back on some of the other bills which we thought were really poor
  quality bills as well.
- And then one of the question here. So this is a trans masculine patients at Flu. Van and Correctional Center are seen via telemedicine. By this provider. They recommend testosterone dosing based on lab results, but do not send any prescriptions.

- I assume this would still be appropriate after the phase sunset. Okay, and then I I have 1 one question here, too, since we were talking earlier about the kind of civic involvement for residents or medical students. You're listening just. I I wonder about some of your thoughts about easy entry points into getting involved in in either local government or kind of that national, maybe not so much, but at least in the State of Virginia, just for people who might be interested. Sure, so many of your specialty societies have to do a tremendous amount. American College, a physician does a tremendous amount of work in terms of public policy. Mar on colleges, Surgeons, American Academy, a pediatric. So that's an easy way to get
- to become involved, and certainly through Uva we have a terrific Government relations team. But you can't rep. You can't represent yourself. You'd have to use your personal, you know, email and identification. You can't represent yourself as Uva, if you're going to be advocating on behalf of a that hasn't been vetted by the Government Relations team. But there are many mechanisms to do this, and we would welcome anybody, and I think honestly, government relations would be probably delighted to do a talk to each of the Into the Residency programs about this, I think it'd be great has a wonderful presentation. Antonio B. From Cardiology. Any experience with the clinical trials. Yes, that is a really great point. So. Yes, absolutely. There are types of certain types of trials that can be implemented. Obviously, if you need technology or you need to have a pharmacy, You know there's a little bit more complication in it. But clinical trials is an appropriate utilization of telemedicine services, especially because many patients in rural communities can't otherwise participate. And so, you know, if you identify a patient that would be relevant.
- Our Ctsa is very engaged in expanding the use of telemedicine and clinical trials, and so I would urge you to both speak with Karen Johnson and the team, Sandra Berks, and think consider that for your own research as well.
- I mean, how much, how better can you not? Can you manage patients in their home to see what their outcomes are right? But it has to be a process by which it's done. And again, the Ctsa is working on that as well.
- Okay, Well, thank you all. Thanks for the opportunity and thanks. This department has been amazing. So thanks for all you've done.

### Unknown Speaker

01:15:57

If you have an idea, let us know like that.

### **Medicine Grand Rounds**

01:16:03

I actually are just joined with this. Yes, Yes, yes, the problem is, if it's drug related. It's a little difficult to get through to patient. So in mind, patients, and you don't have that.