

Peter Yellowlees – President-Elect of the American Telemedicine Association

Mark Masselli: This is Conversation on Healthcare, I am Mark Masselli.

Margaret Flinter: And I am Margaret Flinter.

Mark Masselli: Well, Margaret, after several months of hand wringing and political posturing, the efforts to repeal and replace the Affordable Care Act came up short in Congress. The Republican American Healthcare Act never made it to the House floor. Some analysts are calling this a stunning defeat for the GOP and the President, all of whom promised to repeal and replace ObamaCare with something better.

Margaret Flinter: Well, there was groundswell of opposition to the replacement legislation, particularly when the Congressional Budget Office predicted the GOP law would not only cost many consumers more money, but would lead to 24 million Americans losing their health coverage. The bill's author House speaker Paul Ryan admitted defeat saying apparently ObamaCare would be the law of the land for the foreseeable future.

Mark Masselli: There will still be healthcare legislation requiring budgetary approval and that's an area, where a simple majority is needed at the Senate, so I think this isn't the last we've heard on health reform.

Margaret Flinter: But, you know there are areas of healthcare that are transforming outside the scope of policy makers and legislation. Areas that we think are poised to have improved access to care and outcomes of care across many sectors of healthcare and one of those very promising areas is certainly telehealth or telemedicine.

Mark Masselli: Our guest today, Peter Yellowlees, President elect of the American Telemedicine Association, really looking forward to that conversation Margaret.

Margaret Flinter: And Lori Robertson will be checking in, the Managing Editor of FactCheck.org. She is always on the look out for misstatements made about health policy in the public domain and no matter what the topic, you can hear all of our shows by going to www.chcradio.com.

Mark Masselli: And as always if you have comments, please email us at www.chcradio@chc1.com or find us on Facebook or Twitter, we love hearing from you.

Margaret Flinter: We'll get you our interview with Dr. Peter Yellowlees in just a moment.

Mark Masselli: But first, here is our producer Marianne O'Hare with this week's Headline News.

Peter Yellowlees – President-Elect of the American Telemedicine Association

Marianne O'Hare: I am Marianne O'Hare with these Healthcare Headlines. The swift death of the American Healthcare Act still leaves many questions in its wake; chief among them, what comes next? House speaker Paul Ryan said it is the law of the land for the foreseeable future, but some calls for bipartisanship are starting to rise to the surface. Republican Senator Susan Collins of Maine says the collapse of the GOP Health Bill actually paves the way now for some true bipartisan solution making. She was among the vocal minority of Senate Republicans, who were opposed to the intent of the American Healthcare Act, which would have removed many consumer protections and would have led to the loss of insurance coverage for an estimated 24 million Americans. She said more Democrats may feel free to come to the table. The Human papillomavirus is responsible for 6 million cancer in adults and the HPV vaccine is the only known hedge against catching the virus, but still a relatively low percentage of teenage girls and boys are getting the recommended dose of three vaccinations spread out from age 9 to age 14. Now, a study shows the most current format of vaccine, Gardasil 9, only required two doses in the same age group. The vaccine protects against 9 types of HPV, ones that are responsible for over 90% of cervical cancer or variety of cancers and other parts of the body connected to sexual contact. In 2015 only, about 30% of teen girls have been properly vaccinated and 25% of the boys. There are almost 40 thousand HPV related cancers diagnosed per year and that number will be significantly reduced with proper vaccination. I am Marianne O'Hare with these Healthcare Headlines.

Mark Masselli: We are speaking today with Dr. Peter Yellowlees, Professor of Clinical Psychiatry at the Department of Psychiatry and Behavioral Health Sciences and Vice Chair of Faculty Development at the University of California Davis. Dr. Yellowlees serves the National Academy of Sciences Review Committee, evaluating mental health services at the Veterans Administration. He is President elect of the American Telemedicine Association, the leading international organization promoting the use of remote medicine technologies in healthcare. He has written over 200 peer review articles. He earned his medical degree in Behavioral Science at the Royal Free Hospital School of Medicine. Dr. Yellowlees, welcome to Conversations on Healthcare.

Peter Yellowlees: Thank you very much. It is real pleasure to be here.

Mark Masselli: You know, over the past few years there has been significant in the interest and uptake of telehealth and telemedicine in the United States and before coming to the United States, you spent your early year career practicing psychiatric medicine in Australia. Wonder if you could tell our listeners your early experience utilizing telemedicine and help us understand the scope and potential of telehealth in the United States.

Peter Yellowlees: Sure, I mean I was living in Australia for a number of years and at once stage lived in the Outback. I am a psychiatrist by training and the

Peter Yellowlees – President-Elect of the American Telemedicine Association

area that I was responsible for was the actually the same land mass as California. So imagine this one psychiatrist for the whole of California; that meant that I spent a lot of time on airplanes to do clinics. I got very used to using the telephone to speak to sort of suicidal people and so I got interested in telemedicine and remote technology is really from a clinical point of view, I just had a problem. I couldn't manage the whole area all by myself. You might be interested to know, how much you had to pay for the first video conferencing machines that I brought back in about 1990. You know they were actually 170 dollars.

Mark Masselli: Oh my gosh.

Margaret Flinter: We remember those 300 dollar calls.

Peter Yellowlees: Right, exactly. It was just incredible, so it was never going to be economically viable in those days, but it was very interesting from a research point of view and I guess that what's driven over the years to try and demonstrate how effectively you can use these technologies. I mean the difference is now, it is just you know dramatic and really technology is no longer a problem. You know, you could more on your phone, when you could on those early systems that I spent enormous amount of money on. There's been also a huge change in attitudes, particularly with the younger generation. People under 30, you know, we typically think of as being digital natives. You have never lived without the Internet and to have different expectations of being able to get information immediately whereas, you know, people in my generation in reality, what we call digital immigrants, so now that just leaves us with a different set of attitudes unfortunately and then people would use to think of telemedicine or using these technologies as being an eye of a choice situation and the reality of life is that increasing numbers of patients are being seen in a hybrid manner. You know they sometimes see their doctor in person, they sometimes see them online, and essentially with doctor-patient relationship nowadays, you know with the help of technology has become a much more fluid and quintessentially better relationship.

Margaret Flinter: Well, Dr. Yellowlees, UC Davis has been a leader in the use of telemedicine, I think having utilized some form of telehealth since 1992 and your department at UC Davis has just released a longitudinal analysis of outcome data, that's called from almost 20 years and looks at everything from improved patient access to care, what did the study reveal in terms of improved access and also cost savings?

Peter Yellowlees: The two biggest disciplines that we have using it are actually psychiatry and dermatology. We also do quite a lot of emergency medicine, particularly in the child area, pediatrics and professor Jim Matson, who is the leader author on this study and he is a pediatrician, so what essentially Dr. Matson did was to just review 20 years worth of consultations and he looked at

the disciplines involved and you know what we found is that clearly access has improved. The clinical outcomes for the individual patients that we have seen generally are at least as good as if they were seen in person, but they tend to have less hospitalizations and that's actually where the savings are in telemedicine and if you look at our results and also the results from a number of studies from the VA, what you find is that because you can access patients often earlier in their illness, you get savings through less emergency visits and less hospitalizations and then the other formal thing that Dr. Matson did was to look at carbon emissions that has been reduced through the use telemedicine and this is a very important issue and it is something that at national level, the American Telemedicine Association is going to taking up. It was clearly, if we could in fact have less travel in medicine by using more telemedicine, more remote monitoring, then we will absolutely reduce the amount of carbon that goes into the environment and thereby slow climate change.

Mark Masselli: So your experience is a little different, may be you can tell us are there other randomized clinical trials going on to sort of look at the cost benefit analysis that clearly everybody would want to see in what look like a better way to deliver redesigned part of the delivery system.

Peter Yellowlees: Yes, I think if in fact you look more broadly at savings and you look at the savings made by both patients and providers, then in fact you find telemedicine incredibly efficient, because I mean, you know yourself, it's common to have to take a half day off work to go and see your doctor. If you could in fact just log in from your work and see your doctor in a sort of half-hour slot, you would save an enormous amount of time and potential money and time at work, so I think we have to look broadly at the savings you make through these technologies and if you include patients in the actual equation, then the savings become really, really impressive.

Margaret Flinter: Well, Dr. Yellowlees, you've also spent some considerable time, I think focusing on the efficacy of asynchronous telepsychiatry, utilizing, I understand, taped interviews with patients and then sharing them with the psychiatrist and I understand that's a tool that you've used for sometime in your own practice. What's different about this approach from other approaches in telemedicine?

Peter Yellowlees: For many years in psychiatry, we have done what we call curbside consultation, so that a primary care doctor will ring a psychiatrist, you know have may be a 2-to-4 minute conversation with that person, the psychiatrist will give him an opinion, all we are doing with the asynchronous telepsychiatry is saying that's a great model to use, but the one that we actually record the patient, and instead of me just ringing you about the patient, I can actually send you a recording of the patient. You can get to see what they look like, you can get to see how they answer questions, and then you can give me an opinion. It's really very simple. We've seen many hundreds of patients like this now. We've

Peter Yellowlees – President-Elect of the American Telemedicine Association

done a number of studies showing that you could be just as accurate diagnostically. We are not obviously providing therapy like this. We are able to however to monitor people and we've been doing a study recently looking at several hundred patients, who have chronic medical and psychiatric illnesses and we are doing these asynchronous consultations every six months to basically help the primary care doc with overall management of that patient.

Mark Masselli: We are speaking today with Dr. Peter Yellowlees, President elect of the American Telemedicine Association, Professor of Clinical Psychiatry at the Department of Psychiatry and Behavioral Health Sciences at the University of California Davis. Dr. Yellowlees serves on the National Academy of Science Review Committee evaluating mental health services at the Veterans Administration. I would really like to talk a little bit about the VA, obviously it's been struggling to improve timely access and health outcome for American Vets and given that you are serving in an advisory capacity, what are you sharing from your own personal and clinical experience that you believe will help improve access, as well as outcomes?

Peter Yellowlees: Sure, the VA is actually the world leader in telemedicine as an organization. They have been amazing. They've done a lot of work in this area in multiple different specialties and my own discipline, for instance of mental health, they did something like half a million consultations in the last year and they've done some very nice research showing that these consultations are highly cost effective as I mentioned earlier on, mainly because patients tend to get admitted to hospital less frequently and what I think the VA needs to do in reality is to expand that use of telemedicine even more. If you look at posttraumatic stress disorder, for instance, as an illness, the nature of the illness is that people tend to be avoidant. They tend to prefer not to have to go out and deal with perhaps the local hospital or the local bureaucracy and there is a lot of evidence, in fact, that if you can video conference or connect with Veterans in their homes, that you can actually provide better care using technologies than you can in person and you get better results. There has been several very good studies of PTSD showing actually more engagement of Veterans in treatment, and particularly in psychotherapy, so this has been some really interesting studies that the VA has done that really, I guess, paves the way for what I hope will be a substantial increase in that use of these types of treatment modalities.

Margaret Flinter: Well, Dr. Yellowlees, I understand you have a very keen interest in online learning and it is game changing potential in medical training. How do you see it potentially shifting paradigm of health profession training in the coming years?

Peter Yellowlees: Sure, I think, one of the things that we have really learnt is that in particular the younger generations really do see the world and interact with the world very differently from people of my generation, who are typically the teachers and so you know, we need to connect with them. We need to work in a

Peter Yellowlees – President-Elect of the American Telemedicine Association

way that they prefer to work and they are used to working. We need to, you know, essentially move away from the tradition of sort of hour-long lectures and you know the sort of non-interactive approach, so almost a passive dependent approach of traditional education and become much more experiential, much more interactive and provide information in shorter amounts, but in a very concentrated and focused way, so we are developing all sorts of, you know, literally bytes of information. For instance, I've been working with Medscape for the last eight years now to produce the Medscape Psychiatry Minute, which is, you know, available for training. There are something like 160 of those Medscape Psychiatry Minutes available on the web now, none of which are more than 2 minutes long, but all of which focus on a very specific paper and then some comments and editorial fills that I have about that particular paper and they are clearly able to reach an enormous audience very much more than you can possibly reach in the traditional approach, teaching in a lecture theater. So I think, we've got to really think very carefully about essentially our consumers of information in healthcare and the consumers basically want online information, they want it just in time when they need it now and they want it, you know, in a visual way.

Mark Masselli: Dr. Yellowlees, obviously there are lots of changes going on in the American healthcare system. The American Telemedicine Association probably found some wind in its sails under the Affordable Care Act in terms of advancing your cause, I am wondering what your agenda is for your organization as it seeks to advance in this new political environment, more access and better reimbursement for telemedicine, what's the agenda look like?

Peter Yellowlees: Sure, I think this is a really important issue and telemedicine, I think in reality is actually supported by both sides of the political spectrum. The beauty of it quite honestly is that it increases the efficiency of the healthcare system and it is particularly likely to be successful in an environment where there are sort of capitative payments, so where you pay for services over time and that's very much a duration that the essences of Medicare have been going in. You know, we don't know if that's going to change, but you know the general approach from certainly both Federal and the State regulators is to start trying to pay full care over periods of time and it is in that environment that telemedicine is really valuable and so the ATA is very positive about the political climate overall and akin to progress these discussions.

Margaret Flinter: Well, Dr. Yellowlees, you have said that things like Google Glass and Mobile Health are you know potentially poised to really transform the patient-provider experience by adding real time data and health monitoring to a patient's profile and then may be just talk with us a minute about some of the more promising technological advances that are supporting the growth of telehealth and are there are any clear technological hurdles that you think we have yet to overcome.

Peter Yellowlees – President-Elect of the American Telemedicine Association

Peter Yellowlees: Well, I think the best way to answering this is to think about two examples of slightly more futuristic projects that I've been involved in, in the last few years and the first is one that is being run out of my own lab and that's when we are looking at automating the process of translation, language translation and I think that's really important. We know that people who don't have English as a natural first language do worse in the healthcare system despite you know all of the attempts of the many interpreters that we use, they spend longer in the hospital, they get less good care and so we are working on essentially developing automated translation systems that will allow you to interview and record patients and have that immediately spun back, you know, in real time, essentially in any other language you choose, so that you can you know take a patient who speaks Hmong, have that interview immediately reviewed by may be an English speaking physician, so I think that's one area that is potentially enormous and that can be done both in person with patients, perhaps, our, you know, iPads or phones or you know Google Glass type devices or it can be done, you know, on video at a distance, so and I think you'll find that within a few years, we'll be using those systems pretty routinely. The second one is, you know, is more way out than that and that is the potential to use to say virtual reality. There's been a lot of studies looking at that and medicine generally and essentially creating avatars for both patients and providers and then getting them to meet in the Cloud, but there is some fascinating studies that are being done at USC at the moment in Los Angeles, where they had actually developed a whole series of avatar providers, so if for instance, you know, you have depression PTSD, you can literally log on and you can speak to a you know a therapist, who is, and the therapist is an avatar that is basically trained to respond to your questions and your movements in certain ways that are hopefully helpful. Now, we are certainly not there yet with automated providers, but I think that's down the track.

Mark Masselli: We've been speaking today with Dr. Peter Yellowlees, President elect of the American Telemedicine Association, Professor of Clinical Psychiatry and Vice Chair of Faculty Development at the University of California Davis. You can learn more about his work by going to ucdavis.edu/medical-center/peteryellowlees-psychiatry or you can follow him on [twitter@peteryellowlees](https://twitter.com/peteryellowlees) and you can also follow the American Telemedicine Association at [Americantelemed](http://Americantelemed.org). Dr. Yellowlees, thank you so much for joining us on Conversations on Healthcare Today.

Peter Yellowlees: Thank you very much indeed, both Mark and Margaret, it has been most interesting and I appreciate your time.

Mark Masselli: At Conversations on Healthcare we want our audience to be truly in the know when it comes to the facts about healthcare reform and policy, Lori Robertson is an award-winning journalist and Managing Editor of FactCheck.org, a non-partisan, nonprofit consumer advocate for voters that aim to reduce the level of deception in U.S. politics. Lori, what have you got for us this week?

Lori Robertson: Both democrats and Republicans have been spinning the Congressional Budget Office's analysis of the Republican Healthcare Bill. The White House Budget Director oversold what the CBO said about the bill's impact on premiums. Mick Mulvaney, the Director of the White House Office of Management Budget said the CBO report confirmed the GOP philosophy that a free market would reduce premiums. Mulvaney said "CBO says that premiums will go down by at least 10% with this plan. Premiums on the nongroup market where individuals buy their own insurance will not go down from what they are right now. They will just be lower than what they would be under the Affordable Care Act on average by 2026." Also, Mulvaney ignores two important points. Average premiums would increase in the first two years and older Americans would see substantial increases in the short and long run. The CBO report says that in 2018 and 2019, average premiums on the nongroup market would be 15% to 20% higher than under current law for a single person's policy. For older Americans, the GOP Plan would allow insurers to charge them up to five times as much as younger people. Under the ACA, the ratio was 3:1. CBO said that would lead to premium for a 64-year-old that would be 20% to 25% higher by 2026. The GOP plan changes the current income based tax credit for those buying their own insurance to age-based tax credit, but CBO said those wouldn't be large enough to offset the premium increases for older Americans and that's my FactCheck for this week. I am Lori Robertson, Managing Editor of FactCheck.org.

Margaret Flinter: FactCheck.org is committed to factual accuracy from the country's major political players and is a project of the Annenberg Public Policy Center at the University of Pennsylvania. If you have a fact that you would like checked, email us at www.chcradio.com, we will have FactCheck.org, Lori Robertson, check it out for you, here on Conversations on Healthcare.

Mark Masselli: Each week conversations highlights a bright idea about how to make wellness a part of our communities into everyday lives. Pregnancy is normally an exciting time for most women, but according to the research, an estimated 10% of prenatal women experience some kind of depression during their pregnancy and many are reluctant to treat their depression with medication for fear of harming the fetus.

Dr. Cynthia Battle: In fact a higher percentage are experiencing lower grade depressive symptoms, so they might not meet full criteria for major depressive episode and left untreated those mild-to-moderate symptoms can progress, in some cases lead to a more serious postpartum depression.

Mark Masselli: Dr. Cynthia Battle is a psychologist at Brown University with a practice at Women's and Infant's Hospital in Providence. She and her colleagues decided to test a cohort of pregnant women to see if a targeted

Peter Yellowlees – President-Elect of the American Telemedicine Association

prenatal yoga class, which combines exercise with mindfulness techniques might have a positive impact on women dealing with prenatal depression.

Dr. Cynthia Battle: It was a typical kind of Hatha yoga that would include physical postures, meditation, exercises, and we enrolled 34 women, who were pregnant, who had clinical levels of depression and we measured their change in depressive symptoms over that period of time.

Mark Masselli: Not only were women able to manage their depressive incidence, they also bonded with other pregnant women during the program and found additional support from their group.

Dr. Cynthia Battle: Women who are depressed during pregnancy unfortunately do often have less ideal birth outcomes, so one thing we are interested in seeing is when we provide prenatal yoga program, can it improve mood and then can we even see some positive effects in terms of the birth outcome.

Mark Masselli: A guided, non-medical yoga exercise program designed to assist pregnant women through depression symptoms without medication ensuring a safer pregnancy and a healthier outcome for mother and baby. Now, that's a bright idea.

Margaret Flinter: This is Conversations on Healthcare, I am Margaret Flinter.

Mark Masselli: And I am Mark Masselli, peace and health.

Conversations on Healthcare broadcast from the campus of WESU at Wesleyan University, streaming live at wesufm.org and brought to you by the community health center.