Marianne O'Hare: Welcome to Conversations on Health Care. This week we welcome Dr. Ryan Vega, Chief Officer of the Office of Healthcare Innovation and Learning at the Veterans Health Administration.

Dr. Ryan Vega: When you have that infrastructure, you're going to see innovation that not only changes the experience or the care for the Veteran, but it's going to spread across healthcare global.

Marianne O'Hare: Lori Robertson joins us from FactCheck.org and we end with a bright idea improving health and wellbeing in everyday lives. Now, here are your hosts Mark Maselli and Margaret Flinter.

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Mark Masselli: President Abraham Lincoln said it best the obligation of the government is to "care for him who shall have borne the battle and for his widow and his orphan." Today, the U.S. Department of Veterans Affairs operates the largest integrated health system in the country and running the VA requires a commitment to innovation in order to meet the needs of over 9 million men and women Veterans.

Margaret Flinter: Joining us to discuss innovation at the VA is Dr. Ryan Vega:. He leads the Innovation Ecosystem within the Veterans Health Administration, and this initiative is focused on being the catalyst of mission driven healthcare innovation that advances care delivery and service.

Mark Masselli: Dr. Vega, Welcome to Conversations on Health Care.

Dr. Ryan Vega: Hey, Mark, thanks for having me.

Mark Masselli: Well, you know, we have been following the Veterans Administration for decades now and following their innovation, I remember back in the 90s, they had just that incredible focus in on innovation. It sounds like it's continuing and I'm wondering if you can explain more about the Innovation Ecosystem and how it operates, and how does it fulfill its mission of changing lives and saving lives?

Dr. Ryan Vega: Yeah, Mark, I think you really gave me the sort of the softball setup by providing Lincoln's quote because one of the things you see in that is that it's our obligation to care for, and that's really important because that must extend beyond just the provision of healthcare, and so our innovation mission must be the catalyst and the fuel to making sure that we're thinking about upstream prevention and how we enable downstream experiences that contribute to the Veterans' entire whole health and their journey. We're now combined three offices, and those offices focus on the ability to really test and validate emerging technologies and solutions, using clinical simulation, really thinking about testing a new solution out in an operating room, really understanding the implications on the workflow and then deploying it. We have our another office, our Innovation Ecosystem, which

thinks both about the internal investments that we must make, as well as how we create opportunities to bring industry. This could be Fortune 500 companies and startups, these could be non-traditional players. How do we bring them into the fold? And then we sort of complete that with our Center for Care and Payment Innovation, and this is really important in healthcare because often solutions are introduced into a market that it's not really fully prepared for, whether that's how you pay for it, whether that's the IT solution or even practice variation amongst providers so that solutions can really create meaningful value for both patients, clinicians and the systems that care for them.

Margaret Flinter: I was thinking, as you spoke, I'm not sure anybody survives in healthcare without having some healthy degree of innovation. But every healthcare leader knows that to make meaningful innovation to sustain it, to have it hit the mark of what you're trying to do. It's hard to encourage, and it's even harder to implement, and maybe even harder still, to sustain. So you referenced the Shark Tank, tell us about that idea. How does it work, and how does it engage your people and contribute to your success in this area?

Dr. Ryan Vega: Really, the idea is how do you create a culture where individuals on the front lines now have access to this national opportunity, this national network where the work that they're doing at one VA has the opportunity to spread across and we get hundreds of applications a year. We really focus and get those down to the 10 that have some level of evidence so there's pretty in depth reviews on the practice or the solution, and to those that really seem to have the most potential for impact for Veterans. This doesn't have to just be technologies, it can be processing changes, it can be even potential policy changes. But the other piece of this is that our medical center directors and even our network directors, they're bidding on these practices, which means they're going to invest to get these projects replicated at their site because they see a need, and it's that replication and that willingness in their body and that enables us to really test solutions in multiple different markets. We really get to test and get the solutions out, and what you know about any innovation, it's a very narrow funnel when you get to the end, not everything is going to make it, but this allows us to really energize the frontline to tap into that entrepreneurial spirit, they're in the best position to understand what's potentially going to work because they're the ones actually doing the work.

And so Shark Tank has really sort of fostered that both entrepreneurial spirit, and some of the practices we have seen come out of that are not just changing and saving lives in the VA, but they're actually spreading across American hospitals and saving lives there as well.

Mark Masselli: And you've written in the New England Journal of Medicine about the four critical elements that support the development and deployment of innovation in a health system, workforce capacity to actualize innovation, an organizational infrastructure that supports integrated, repeatable pathways for change, and a strategic external partnership and collaboration. I'm wondering how you came to those points and do you think the VA is meeting them right now?

Dr. Ryan Vega: I think we came to that by a lot of trial and error, which fortunately, part of innovation is about failing, failing forward, failing in learning. But I have failed way more in this role than I have succeeded. But those characteristics seem to be very, very important for healthcare, partially, because when you talk about the human capital, and certainly two and a half plus years through the pandemic, we're seeing the toll that not investing in human capital can have on the system as a whole. You need that capacity, you need that human capital to be the not only evangelists, but the individuals who are going to carry the torch for, right. It's really, really hard, and so if you're not investing in your people, if you're not giving them the tools that they need to drive the change and continuously investing in their ideas and their solutions that piggies back into well, how is your culture. It has to be a culture that creates safe spaces to fail forward. Meaning a lot of what we do in our innovators network is make large, small investments, meaning less than a million dollars or investing in hundreds of different projects or ideas, recognizing that the majority of them will never mature. But that's not necessarily the point. It's those hundreds of employees that are going through that experience that are learning new skill sets, and how to apply them to problem solving that grows. But really what we've seen since this sort of ecosystem has evolved is a growing and I use the word sort of lightly group of evangelists. These are individuals out in the field who are better equipped to solve problems, they're coming up with great solutions, whether it impacts one Veteran or millions, they're going to continuously be committed to that mission of the innovation role, and how it solves problems today, tomorrow and in the future for the American Veteran.

Margaret Flinter: Well, I think you're such a force for training; an enormous number of healthcare professionals in the U.S. did some of their training at the VA, so it's good to know they're getting kind of the vaccine for innovation there. You wrote that the VA is perhaps an unlikely source for this type of innovative talk and certainly I look back and think about who had the Electronic Health Record before anybody else? Veteran Affairs had Electronic Health Record, your patient aligned care teams. So are you saying that maybe because it's VA and people aren't expecting that innovation that some of your successes don't get the same uptake or spread around the country, what's your thought on that?

Dr. Ryan Vega: Yeah, I look, I think that's the challenge of being in government. There's a sentiment or a sense, generally that government is slow and inefficient, and probably not sort of the beacon of innovation that maybe we associate Silicon Valley or other markets with. But I do think it's sometimes hard, where you have constant drumbeat of information that paints the VA or other agencies in sort of a more negative light, and I get it, that's what's going to drive press or certain clicks, so to speak. But the reality is that if you look at the history of healthcare innovation, and some of the leading research and development, VA has moved healthcare in America, and globally, forward. We were doing so during the pandemic, in the utilization of point of care manufacturing so 3D printing, and how we were able to create both diagnostic testing swabs, personal protective equipment. We were doing so years and years and years ago when we invented the first cardiac pacemaker. So I think that's our history. I think what enables us to truly drive transformation is a commitment to the mission because I'm not beholden. I don't have some of the same market constraints that our commercial partners may, and I have clinicians and providers who, whether they're in California, Alaska, or Florida, or walking into a VA hospital or showing up to work every day, united by the same mission. So they're collaborating. So I've got some of the best and brightest minds across the country, coming together to solve these problems. When you do that, when you have that infrastructure, you're going to see innovation that not only changes the experience or the care for the veteran, but it's going to spread across healthcare globally.

Mark Masselli: Thinking about the importance that mission has, and we certainly were all put to the test during those early days of COVID. I know our own organization, we were able to set up the second mass vaccination site in the United States, and so we need it to be able to turn on a dime and really re-imagine the delivery system. But the Innovation Ecosystem, you talked about this just a moment ago, really also responded in remarkable ways. Can you share that with our audience?

Dr. Ryan Vega: So we've been investing in point of care manufacturing, which is really this idea that you can utilize 3D printing to create anything you can imagine seeing on a desktop computer and specific software, dating back to 2014-15. But really began to pick up steam with the development of our 3D printing network and that was in place before the pandemic hit. So it really enabled us to leverage the breadth of talent across our VA medical centers that were doing this type of work to really push American healthcare forward, in how we can utilize manufacturing in the walls of the hospital. During times of the pandemic, this was really supply chain resiliency and producing materials, but it's really grown beyond that now that we're understanding how customized orthotics and prosthetics and

personalized surgical instruments and in the future, actually bio-fabricating tissue and bone and in our lifetime, likely organs. So I think that's one example of what you saw coming out of the pandemic. But certainly out of necessity, we were able to really pull together that talent and driving forward.

You also saw small projects that have grown into really remarkable solutions. We had a pilot going on in the Massachusetts area where we were utilizing Rideshare, particularly just to get Veterans to and from appointments. These are Veterans that may have difficulty getting transportation, and certainly giving them safe transportation was really important, instead of just letting that pause during the pandemic, because clinics were closed, and they pivoted and utilize that, to actually deliver food and materials and goods that were needed veterans who relied upon those services, or who were concerned about going out into public. And then from there, really grouped, people saw the power of using these types of solutions, and so you saw collaborations and public private partnerships with Uber Health, and the impact has just been phenomenal in the American Veteran and how we're really creating that ecosystem that's enabled us to leverage multiple different capabilities from internal and external, to deliver a world class experience.

Margaret Flinter: I was thinking as you were talking about some of the 3D printing work, especially the new tool, you know, the new object, there's sometimes easier for teams on the frontline of delivering care to embrace and adopt than innovating the way people work together, innovating the way they communicate. How have you in VA evolved to engage people to win the hearts and minds of people about disrupting processes and changing things that have they've done for a long time?

Dr. Ryan Vega: I don't think that's ever going to not be a challenge. So innovation is always going to be at odds with existing operations if you're trying to change the way that something is delivered or experienced. I think one of the ways you do that is, at least in mitigating some of the initial resistance, is you have to bring people in early on to the design phase, and you can leverage design thinking or human centered design. And as you're going through how to enhance a particular experience or approach a problem, everybody wants to make things better. But sometimes we're looking at things through very, very unique vantage points. So it's not about sort of saying we're going to make your process better. It's really about how do we collectively come together and create a new experience or a new outcome. So I think it starts by bringing people in very early on to the design phase. If they're part of the solution, generally, the resistance is a lot less. It still is never going to be perfect and innovation in particularly if you look in other markets, you know, those new entries, those new disruptors, they're

not looked at kindly. But that's just sort of a fact of how innovation is and the key characteristics is bringing those individuals, those large diverse stakeholders into the process very early on, makes a huge difference.

Mark Masselli: And you know, the VA is trying to be a force multiplier, right, really using the partnerships that you've developed. Talk to us about some of the results of those partnerships, and they impacted the sort of the ripple effect, if you will, across the country's health care system.

Dr. Ryan Vega: Yeah, one that I think really just speaks to VAs role and unique position within the larger American health system is one called HAPPEN. So this was a nurse researcher who was doing great work about understanding how to reduce non-ventilator associated pneumonia. But her work had really exposed the idea that something as simple as brushing teeth, reducing the potential bacteria in the mouth for Veterans could really reduce non-ventilator associated pneumonia, and that is a project that actually showed really great results at one VA Medical Center, it gotten to the Shark Tank, it won, it started to be replicated at multiple different hospitals, and after result after result kept showing that Whoa, things are actually getting a lot better. I remember hearing from multiple skeptics early on, who now are saying, Okay, I've been proven wrong, and I'm glad I have. But it was that ability to sort of replicate in multiple markets in multiple settings and continuously get the data that the interest of some of our other Federal agencies, folks like the CDC, the American Hospital Association, and other private health systems begin to take notice, to say, this is an issue across all hospitals in America. This is potentially a solution. It's pretty inexpensive, and what you started to see was that role as VA is not only sort of the driver, but really the convener. We have large populations and access to mass amounts of data where we can really understand things such as, hey, we've got this bundle, do we implement it for everyone, not only we're informing our own drive and how we're going to do this, but the rest of healthcare can adopt that. So we've seen a reduction in non-verbal associated pneumonia that means that's a reduction in the number of deaths. And so this is something that I think we're really proud of because when we are unable to get this solution, this information, scaled more broadly across the American health system, and as a result, we're going to see people's lives be saved.

Margaret Flinter: And speaking of partnerships, many of the people who listened to or watch this program or connected to Community Health Centers, or Federally Qualified Health Centers, two of the largest systems of care in the U.S. and both very mission driven. What kind of partnerships are exist today between the two groups, and particularly as you've tried to ensure that Veterans can get care in their communities close to where they live and work? I know, there's been more of a focus on

maybe trying to build some bridges there.

Dr. Ryan Vega: Yeah, Margaret, in the 2018 Mission Act, there's a little provision, but it enabled VA to establish the Center for Care and Payment Innovation, and the first pilot that came out of the Center for Care and Payment Innovation was called VETSmile. There's a large over a million veterans who receive care in the VA, but because of the way that certain statutes are written, don't qualify for dental care. And this was an opportunity to utilize that particular piece of legislation and what's called waiver authority to go to Congress and say, hey, look, if we were to change that piece of the legislation, and expand access to dental care, by utilizing our Federally Qualified Health Centers and our academic partners, we could get a larger number of veterans into dental homes, and we know that a huge part of starts in the mouth. But it also has big impacts on your social life, on your ability to get a job and things like that. So VETSmile started in New York and New Jersey, using the Federally Qualified Health Centers to create dental homes for veterans referred through the program. And it's just been remarkable to see that the program is growing. The team hopes to have this scaled across the United States large number. I think it's now over 1,000 different procedures that have been performed. So those Federally Qualified Health Centers have been vital to the ability for us to improve that accessibility to dental services, and that partnership through that innovative model has really demonstrated the power of that collaboration. So I think by the time that it's over, you're going to see a new era of sort of what that means for VA and Federally Qualified Health Centers department plus our academic affiliations, these go back 75 years. So they're vital pieces of the puzzle, not only from the training aspect, but how we deliver care to veterans.

Mark Masselli: Our health centers had a longstanding relationship with our veterans here, participate in the standout every year and 100 people delivering care from our team is certainly the dental program, and healthcare is expensive, but I'm wondering if you might give some parting thoughts to those who are just beginning innovation and I really want you to maybe to focus in on those Plan-Do-Study-Act teams, you know, those capturing engagement of staff and really trying to have them as we've talked about earlier be force multipliers with small ideas, maybe some advice for that smaller organization who's really saying, I want to do it, I just don't know how to start.

Dr. Ryan Vega: So a couple of things, you can never spend enough time in the discovery in the design phase. So I think that is absolutely crucial. It does not cost much to sit down and really understand the problem through somebody else's lens. So I think utilizing human centered design, and spending as much time as you can really understanding the problem and that problem from multiple different stakeholders

and perspectives generally gets you to a better solution. Not always, but I'm willing to bet that more often than not will. The second is, I really think it's important to remind people this idea of value. It's really a dynamic concept. You can't say, Okay, here's how we define value. And the reason I say that is because one, it's really hard healthcare, two, we generally looked at it from a cost standpoint, but that's not the case, mean what's valuable to me may not be valuable to you, what's valuable to one population may not be valuable to the other. Value is a very dynamic concept, and if we can measure it as such across multiple different domains, things like how accessible was the care, how efficient was and how equitable was it. These are things that now actually enable us to move beyond just the idea of cost, and really start to look at solutions that we can actually deploy at scale that will really begin to bend the cost curve. We've sort of been talking about this for a long period of time, costs are still going up. But I think it's this idea that if we move away from that very narrow, limited lens of value, that you really will find solutions that are going to move the needle. So those two things, I think, are really, really important for teams that are starting.

Margaret Flinter: Well, thank you Dr. Vega, for all that you and your team and your colleagues are doing to serve our nation's veterans, but also to contribute to healthcare in general in this country. For our listeners, you can always learn more about Conversations on Health Care and sign up for our email updates at www.chcradio.com. Dr. Vega, again, thank you so much.

Dr. Ryan Vega: Yeah, thanks very much for having me.

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Mark Masselli: At Conversations on Health Care, we want our audience to be truly in the know when it comes to the facts about health care reform and policy. Lori Robertson is an award winning journalist and Managing Editor of FactCheck.org, a nonpartisan, 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: With the U.S. experiencing a major dip in the number of daily deaths as the Omicron variant wave runs its course President Joe Biden has repeatedly boasted that his "approach has brought down COVID deaths by 90%." The figure is accurate, but experts say the dip is largely attributable to a number of factors outside the President's control. There has been a 92% drop in COVID-19 deaths when comparing the seven-day average since the day Biden took office with the average as of June 20th. Virtually every country in the world has recently experienced a steep decline in COVID-19 deaths. In fact, since the day of Biden's inauguration, the seven-day rolling average of daily deaths per 100,000 residents worldwide has dropped 89.4%, which

suggests Biden's policy is not somehow unique. There have been steep declines of at least 90% in COVID-19 deaths in the United Kingdom, Germany, Italy and India over the same time period. Experts say it is the disease, the emergence of variants, the rollout of vaccines, and immunity gained from prior infection that are primarily responsible for the peaks and valleys in the number of deaths worldwide. Upon taking office in January 2021, Biden initiated an effort to encourage Americans to get one of the newly authorized COVID-19 vaccines. He has promoted effective new treatments, and he has been a consistent advocate for masking inappropriate situations. Experts say those are all positive things. They say there's no question the vaccines have reduced the number of deaths in the U.S., and Biden's promotion of vaccination has helped.

According to a Commonwealth Fund Analysis, if not for vaccines, there would have been more than 1 million more deaths in the U.S. by November 2021. But Biden's vaccine efforts can't get all the credit. Rachel Pitlch-Lobe, a Researcher and Project Director at the Harvard School of Public Health told us it's “near impossible” to say a particular policy has led to a sharp drop in the death rate. That's my fat check for this week. I'm 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’d like check, email us at www.chc.radio.com. We’ll have FactCheck.org’s Lori Robertson check it out for you here on Conversations on Health Care.

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Margaret Flinter: Each week Conversations highlights a bright idea about how to make wellness a part of our communities and everyday lives. A significant number of post 911 Veterans are suffering the long term effects of post traumatic stress disorder, often associated with a traumatic brain injury suffered in the field of battle. While these conditions manifest in many ways, they often are accompanied by a common symptom, persistent and frequent headaches. A study published in JAMA neuroscience shows that a newly developed non-drug intervention holds significant promise in treating these headaches, which are a leading cause of debilitation among betters. Cognitive behavioral therapy for headache deploys a targeted behavioral health intervention designed to empower patients to control and manage their symptoms without incurring any of the side effects that often accompany drug based interventions.

Dr. Don McGeary: Self management through cognitive behavioral therapies has been around for a long time. It's tried and true, and we just haven't really

developed any convincing evidence to support its use until now at least for posttraumatic headache. This is the first study to do it.

Margaret Flinter: Dr. Don McGeary**,** Neuroscientist at the University of Texas Health Science Center at San Antonio led the team of investigators. Clinicians were trained in the delivery of the CBT intervention, a relatively simple technique to teach and deploy, and the initial results a significant percentage of the participants reported not just improved headache control, but also reported more broadly realized benefits often manifested and those suffering from PTSD.

Dr. Don McGeary: Insomnia or depression or anxiety, these things usually come in clusters. It's very rare that you'll see an individual who just is experiencing one single trauma condition and when you start to put these trauma conditions together when they co-occur, they change and influence one another, and usually the direction of that influence is one towards recalcitrance towards any frontline treatment. So, there are great frontline treatments for primary headaches like migraine. But when you add TBI and you add PTSD into that, those frontline treatments start to fail.

Margaret Flinter: Dr. McGeary says that what is most exciting to the team is that this intervention seems to improve these poly conditions which reduce disability across the board and enhance quality of life.

Dr. Don McGeary: Posttraumatic headache is a really great example of this because it often shows up in the context of PTSD, it is a sequela of mild traumatic brain injury. So it is the quintessential pain condition associated with polytrauma and finding a treatment that actually works for this is a major breakthrough because it represents not only being able to address the headache, but somehow navigating all the other stuff that's coming along with it that includes PTSD.

Margaret Flinter: The study is being expanded to multiple VAs around the country. Cognitive Behavioral Therapy for headache, adapting and already accepted behavioral intervention, targeting it to a specific unaddressed health concern among millions of veterans achieving successful outcomes while avoiding side effects that often accompany drug interventions. Now that's a bright idea.

[Music]

Mark Masselli: You've been listening to Conversations on Health Care. I'm Mark Masselli.

Margaret Flinter: And I'm Margaret Flinter.

Mark Masselli: Peace and health.

[Music]

Dr. Ryan Vega

Marianne O'Hare: Conversations on Health Care is recorded at WESU at Wesleyan University, streaming live at www.chcradio.com, iTunes, or wherever you listen to podcasts. If you have comments, please email us at www.chcradio@chc1.com or find us on Facebook or Twitter. We love hearing from you. This show is brought to you by the Community Health Center.

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