[MUSIC PLAYING]

GREG HORN: Hello, and welcome to *The Health Pulse,* a podcast exploring how analytics in the health and life sciences industry is growing and its repercussions in all our lives. My name is Greg Horn, and I am your host for this series and, as always, will be joined by my expert guests to discuss a topical subject. And on this week's episode, we turn our attention to health care and the military with our guest, Dr. Elder Granger.

But before we get to that, we've heard a lot in our previous episodes around the role of data in the pharmaceutical industry. And what we're looking to do, as always, is get your comments and questions through our email. And that's at thehealthpulsepodcast@sas.com. And we're looking to see if we can get as many questions and comments on subjects we've covered, but also some indications of things that we should look to cover in the future as well.

And so without further ado, let's turn our attention to today's guest. So Major General Granger is currently the president and CEO of The 5ps, LLC, health care, education, and leadership consulting organization. Prior to his retirement from the US Army, Dr. Granger served as the Deputy Director and Program Executive Officer of the TRICARE Management Activity for the US Secretary of Defense. He oversaw the managed care program within the military health system for 9.2 million uniformed service members, their families, retirees, and others located worldwide.

And prior to joining TRICARE Management Activity, Major General Granger led the largest US multinational battlefield health system in our recent history while serving as Commander, Task Force, 44th Medical Command and Command Surgeon for the multi-national corps in Iraq. For his medical training, Dr. Granger earned a doctor of medicine degree from the University of Arkansas School of Medicine, completed a residency in internal medicine in 1983, then completed a fellowship in hematology and oncology.

And so really, Dr. Granger, I'm going to come over to you right now. That's a phenomenal introduction. And for my very first question, what did I miss? Tell me a little bit about yourself and what you do today and the highlights as well.

ELDER GRANGER: So right now, I serve as a consultant to several companies in business development, thought leadership, and as well as get them to understand what is happening not only in the military, but also commercial health care. I'm currently on the board of Cigna Health, a large health care organization, not only in the US, but also internationally-- about 74,000 employees around the globe.

In addition to that, I serve on the board of Cerner. The electronic health care record is also, too, a global organization, both in the US as well as around the globe. And thirdly, I'm on the board of an organization that provides all the chronic medications for veterans called Defense Logistic Health. It provides chronic medication through the mail order, not only in the 50 States, but also for the four territories. And I advise several other smaller companies in new drug development, cancer research, using data analytics as well as clinical trials.

GREG HORN: Fantastic. Wow, that's quite a lot to keep you very busy. And one of the things we like to try and do on this podcast as well is really find out more about you as a person, too. So when you're not doing that-- and I guess that doesn't leave you a lot of time. But what do you do in your free time? Away from the health care space, what's a hobby of yours?

ELDER GRANGER: Until the pandemic hit, I loved to bowl. I'm an avid bowler. My wife and I both bowl. We enjoy doing it with family and friends, so that's what I also do for entertainment. I love to bowl.

And what I mean by "bowling" for my international colleagues-- you actually take a ball, you put your fingers into the ball, and you roll it down. You knock down about 10 pins. Some parts of the world-- in the northeast, they call it kegel, which is a different type of sport. It's very similar, but that's what I enjoy doing. And I'm an avid reader.

GREG HORN: Fantastic. Yeah, we from the UK are familiar with lawn bowls as well. Have you ever given that one a try?

ELDER GRANGER: I have not, but I've had some of my colleagues talk to me about it. And when I do go to the UK, I've been challenged to try it. It's a little bit more challenging. You don't have a nice, smooth, shellacked lane. You have to do it on the lawn, which I think I can catch onto. I played cricket before as a kid, so I don't think it'd be that difficult.

GREG HORN: No, anyone who can play cricket can turn their attention to any English sport, so thank you for that. So I really want to get into your history. Which came first, was it your interest in medicine, or was it the career in the military? And what inspired you to go to both?

ELDER GRANGER: Well, I would say my interest in medicine came first. When I was in high school, I was encouraged by a number of my teachers as well as family and others to, based on the type of thing that interested me as a young kid, would I consider something in medicine, science, or teaching? So when I was in the 10th grade, I had to do a research project on a condition that affects African-American people from the Mediterranean called sickle cell disease, when your blood cells-- there's a genetic defect. And that genetic defect causes your cell to form like a sickle that's hanging from a icicle. So I was asked to-- I met with Dr. Lemuel-- capital L-E-M-E-U-E-L-E-- Lemuel Diggs-- who was an expert in sickle cell disease at University of Tennessee at Memphis.

And I just called him and asked him, can I come over? I was doing a science project. I went over and visited him on a Saturday, looked at some of the sickle cells under the microscope-- at that time, old Kodachromes we used to project on the screens. And that further helped me develop my interest, not only in medicine, but also in the hematology part of what I do in terms of medicine.

And then when I was a senior in high school, between my junior and senior year, I had a chance to work with the Arkansas National Guard in Eastern Arkansas on a summer youth program. I worked there. My cousin and I, we mowed the lawn. We cleaned Jeeps. We learned how to do oil changes on Jeeps and all types of equipment. That's something you learn.

We took a liking for it, my cousin and I. They asked us, would you like to join the National Guard? And I thought it was a little crazy. That was at the downscale of Vietnam. But I got a chance to join the Guard. So that creates my interest in the military. But also I have several cousins and uncles who served in the military, so those are the two combinations that got me involved in the military-- science in high school and medicine, working with the Arkansas National Guard, getting my interest in the military, et cetera.

GREG HORN: And Elder, were you already in the military when you began your medical training? Or did you train as a doctor first, and then improve your military--

ELDER GRANGER: I was in the military first. So when I finished high school, I came on active duty. I did my basic combat training at Fort Polk, Louisiana. And after that, with my aptitude tests, I was smart enough to go become an army medic.

So I became an army medic in San Antonio, Texas, where they train army medics, and went back and became part of the National Guard. So I started my military career prior to medical school because I started college. And when I started college, I went from being in the National Guard, and I joined the Reserve Officer Training Corps, better known as ROTC. And once I accepted the scholarship in ROTC, I had to leave the National Guard, because the military was paying for my college education.

During the time I was in college, they put you in the reserves. So then National Guard became first, college ROTC, then medical school, and the Army paid for my medical school at the University of Arkansas School of Medicine. So it's sort of like a combination.

GREG HORN: Fantastic. That's really interesting. And one of the things I want to pick up on now is about how military medicine works. So how does it differ from what we as civilians see? And how has medicine in the military improved medicine for the rest of us?

ELDER GRANGER: Well, first of all, let me explain the difference. I tend to try to put it in a sentence or two. Military medicine is no different than commercial medicine or the private sector medicine, except you learn how to do good medicine in austere or bad environments sometimes. But you still-- you get the same type of training.

You can get your medical training in the military or in the commercial sector. The military can pay for it, or you do it on your own and join the military. So it's the same thing. We have hospitals, clinics. We do research. We learn how to operate health care systems in the field environment, the outdoor environment, as well as humanitarian missions, disaster planning. So it's no different, except you're in uniform, but you're learning how to practice good medicine in austere or bad environments or unusual places.

GREG HORN: Fantastic. And I hear that you had spent time in the military looking at epidemics and the like. And one of the things that I'd like to touch on is PTSD is an issue in military medicine. And you've dealt with that for a long time. And we're seeing evidence that coronavirus has caused widespread issues like PTSD in the general population. How do you draw on things like your experience of epidemiology and your experience of military medicine and use that now in the more widespread health care environment?

ELDER GRANGER: Two places-- number one, post-traumatic stress disorder or PTSD has been around for many, many years. And basically, any time you have a traumatic event-- it could be an accident. It could be a death. It could be something traumatic that happened to you as an individual, and it lingers on with you, we call it post-traumatic stress disorder.

The military brought it out at the height of the war. Right after 9/11, we went into Afghanistan based on the 9/11 terrorist attacks. And by the way, this coming September is the 20th anniversary of 9/11. And what we saw-- young troops from all branches of service being exposed to unbelievable trauma like they had never seen-- like we have never seen since the Vietnam War, because the Gulf War was a very short war-- little to no casualties or very few casualties.

But to put an individual in that environment-- a young individual, fresh out of high school, who trained to go do their skills, and also trained to do it in a war environment, but not at this high intensity and magnitude, and to see one of your colleagues have a limb blown off or whether it be an upper extremity or a lower extremity, or get a traumatic-- sees an actual shot to the brain and unfortunately die. And that noisy environment, explosive devices going off, and individuals being shot, maimed, in some cases killed-- that leaves a traumatic impact on any individual. And this is how we've dealt with it.

We realized it was occurring, so we start screening. I went to a screening myself prior to going into Iraq myself. And during that period of time, we have combat stress control teams there-- psychiatrists, psychologists, nurses, and technicians who specialize in dealing with mental health and traumatic stress disorder.

So what I've seen, we have pre-deployment assessment, if need to be assessed during deployment while you're there in that environment, and after you come back, continue to do assessments and follow up. And we assess it and treat it and get you in the right environment. The commercial sector has not really caught on to this except for those involved with the 9/11 incident, whether it be in Washington, DC or New York or the fields of Pennsylvania.

The commercial sector has to learn from the military that you really have to screen. And once you screen, if you detect it, get them into therapy and follow them up. What I'm saying is that we have learned a lot of things in the military that can help us in this current pandemic that is affecting our entire nation of all ages and backgrounds and walks of life.

So I would say that I would ask the commercial sector to look at all the lessons learned from the military-- how do you handle post-traumatic stress disorder, number one. Number two, start teaching resilience in our corporations, our schools, and our communities-- how to be resilient when something happens. And number three, I would say continue to refine not only what the military has done in post-traumatic stress disorder, but also what the commercial sector should do, because the last thing is that out of this pandemic is going to occur, whether we like it or not, short and long-term effects of the pandemic.

And we're seeing some of that now with the opening of commercial sectors and systems and what have you in cities and states. So I know that I gave you a mouthful, but I was trying to summarize some of the lessons learned. There are a lot of lessons learned, too, out there in the literature from a military perspective.

GREG HORN: So Dr. Granger, hearing your conversation about mental health is very interesting. I have some personal experience where I am aware of a person who died by suicide as a result of opiates at the beginning of the pandemic and was just overwhelmed by it. And we've seen more and more of this happening around the world. Can you comment on that and what's driving some of that, please?

ELDER GRANGER: Well, first of all, number one, Cigna did a study looking at how well is the United States-- how well are we resilient as a population? And what was found in the study-- and by the way, it's out there in the public. David Cordani, our CEO of Cigna has spoken about it. Between the ages of 18 to 25 is that least resilient population who can withstand things like a pandemic, a shutdown, like which we've been-- a lockdown, which we've been in, number one.

And number two, if you look at-- we have a pandemic. There's this gigantic iceberg in term of COVID-19. But behind that iceberg is another iceberg about to slowly surface as the pandemic gets under control both here in the United States and around the world.

Here is this other iceberg that's rising to the surface that's been hidden called the opioid-- the increased use of opioid overdose or abuse in terms of deaths. And we need to deal with that from that standpoint because that's been going on in spite of what's been happening in the midst of this huge pandemic. And we're seeing increased deaths.

And Fareed Zakaria talked about it about almost a month ago about the ever-increasing use of opioid or benzodiazepine being used in combination with opioid. And that also, too, there's a lack of use and not enough use or prescribing of a nasal medication called nasal NARCAN or naloxone that can be used to prevent a lot of these accidental and sometimes not-so-accidental overdoses.

GREG HORN: No, that's a fantastic perspective. And I think that one of the things that is often not covered in this whole crisis at the moment is that mental health aspect. And for a long time, it has been something that has not been necessarily discussed.

But we've been looking at ways to reduce stigma and the like in mental health for a long time as well. Can you just add a little bit, then, about the whole idea of things like resource optimization? From your experience of dealing with pandemic response in the past, is there any other lessons we can learn about in actually dealing with the illness itself as well?

ELDER GRANGER: I would say just looking at what we've been able to look at in the military from epidemics, to going back to looking at lessons learned from the pandemics of 1918 and '17 that lasted about a couple of years is that if you don't deal with the mental health that's occurring in any epidemic or pandemic, then you have the long-lasting effect on the entire nation, community, or municipalities. So one thing I would say-- that we need to eliminate as much as we can the stigma of mental health using all the technology. Either embed mental health into primary care, so when you go into a primary care environment, you're not going to the building across the street. They know it's a mental health building. Or the fifth floor-- we know that all the mental health patients or potential patients goes there. So you should embed mental health into primary care, number one.

And number two, this pandemic has taught us the use of telehealth. There's an increase in using telemental health or telebehavioral health. So I would encourage us to incorporate that not only in our health care system, but also in our schools and our corporations and our protective force, whether it be fire, police, you name it-- all the above. As well as we should really try to destigmatize mental health as just like any other acute chronic condition.

So if we embrace that and, like I said earlier, talk about trying to teach resilience, in either an assimilated fashion. And all this should be-- have the underpinning of data. We have lots of data, and we have to take that data from our mental health communities, what we're seeing from the pandemic, what we're seeing in our school system, and turn it into information, knowledge, and start using different modalities in terms of therapeutics. As I mentioned, telehealth, embedding the primary care, as well as embedding behavior health experts in the corporations or having access to it through telehealth or some other means.

GREG HORN: That's really interesting. Now, my perception would be, then, that within the military that you have access to that data. So you just talked about some social determinate data and other data. It's not necessarily health care.

In the military, I guess you have that data. We don't always have that data available. But can you just talk a bit about how diverse data can be used to create some AI/ML type applications that would help in the health care space and any kind of experience you had in that as well?

ELDER GRANGER: I would tell you, in order to operate any health care system-- and I oftentimes say this. We're drowning in data, hungry for information, which leads to a lack of knowledge. So from a military standpoint, we've been accumulating data using data, whether it be our suicide data, our suicide attempt data, or the actual behavior acting out, unusual behavior among our population, whether they be active duty, their family members-- in some cases, even retirees.

We've been using that data to try to customize programs that is not only generational affected, but also that can be shared with the commercial sector. So most health care systems have some form of electronic health care records. So if you see an increase in the need for-- say you see chronic conditions.

Most underlying chronic conditions have some form of mental health. And I've an individual saying, look, this is affecting my sleep, my way of life, my family. What's going on? They're giving you some mental health hints, number one. And number two, you have a lot of that data. At least, they said that an increased need for having, say, medication to help them sleep, or medication, say, for pain, you have to look at not so much at their condition, which is important, but what are the underlying conditions that are leading to the increasing use of those?

Those can be warning signs. Or you're seeing an increase in absenteeism, say, from the work environment or from the employer perspective. Or you see an increase in the need to get AR involved with personnel that's not getting along in the workforce. That can be a warning sign you can sometimes see in any organization.

And last but not least, you see an increase in violence in the workplace. Those can be warning signs from that standpoint-- people actually resorting to physical violence. So those are some of the things we've learned in the military in terms of lessons learned from that standpoint.

And then having individuals be willing to talk about uncomfortable things in a comfortable environment, where there is non-attributional, no holds barred. Let's put it all on the table. What is going on? And the military has taken that approach in a number of situations, even currently today.

GREG HORN: Let's take a slightly different take here as well because I think this is our obvious next step in this conversation. But given your role today, where you're involved with a lot of different companies, you're involved in clinical trials, you're on boards and the like, what do you see as the next big innovation in health care? And where do you think it's going to come from? And what's going to drive that change?

ELDER GRANGER: I would say the big innovation in health care is the use of data. As an enabling technology, whether it be machine learning, natural language processing, I see that as the next big step for innovation. But also, we have all these enabling devices, whether it be telehealth; wearing all types of monitors, whether it be pulse, blood pressure; checking your pulse; checking how well you're breathing in terms of your oxidation, pulse oximetry-- taking all those enablers and using those with data.

And then there's come the virtual reality world. So I see use of data, use of the current information, using machine learning, natural language processing, virtual reality-- all those as game-changers in health care, and especially the virtual world of telehealth, using tele-- whatever it might be-- tele radiology, tele pathology, tele mental health. I see those as innovative changes.

And last but not least, I'm seeing the use of health information has changed and getting the consumer more involved in their health care from a consumer-driven health care perspective and giving the consumers-- letting them being part of the data information exchange. And giving the consumers access to their own data and allowing us in the health care system to explain to them the importance of the data, and decreasing the need to repeat a lot of things if information data is exchanged. Oftentimes, we say that in this country, we have more than enough dollars to manage the population. The question is, how can we get rid of some of the redundancies, the waste, and the variability that exists in health care and try to get consistencies in at least to 85% of what we do in health care?

And then, last but not least, getting rid of some of the social determinants of health care, which drives up health care. There are no free opportunities in health care. We either pay now, or we pay later.

We try to take those who does not have access, and they only come in for an emergency-- only come in when it's time to have a surgery or only come in when something that could have been prevented or detected early? Now it's time to take care of it. There's still a cost factor at the end of the day.

So those social determinants-- access to good care, safe environment, healthy foods, nice living environment, education. All those things need to be taken care of if we're going to have a healthy-- when I call the "love community" of health care. And there's a quote, and I'm quoting Dr. Martin Luther King. "Of all forms and gestures, inequity in health care is the most inhumane and unjust."

GREG HORN: Absolutely, I would agree with that 100%. And actually, that just inspires me for one last question. I think this is an important one because the US health care system gets a lot of criticism because it doesn't cover everybody. I live in Canada, where health care apparently does cover everybody, but with many exceptions. If you had the ear of the White House tomorrow, and you were drawing all your medical history and think about your career in the military in hospitals and in health care, and you were asked to just think, what's the first thing that you should do to try and modernize and improve access and equity in health care, is there one thing that springs to mind that would be a very quick and easy win?

ELDER GRANGER: Well, let me say this. I come with a biased opinion because I spent 10 years plus in Europe. And I've seen those countries where they have-- just like Canada and Germany and other countries I've been in, where they have a system that takes care of the basic health care needs. So if I had to say one thing, let's come up with a system to take care of the basic health care needs.

Let's also allow for-- have the private market still operate in the health care system, and having everybody have the basic access to health care. So I have a combination of public and private because I know in these other countries, they have the public, which is the basics. Here are the basic rules. But also there's a private system in these countries as well, because I know from experience.

So I have to say number one, make sure that basic health care needs are covered by those who cannot afford it. Number two, continue to have private health care as part of the system. And then have also, too, the corporations who can afford to provide health care for their employees to be part of it.

So that's a combination of not generating the opportunity to have the basic health care needs-- some form of government sponsor. Number two, allowing those who want to still buy from a private market and have a private market. And then allow the employer, whether it be small to large, then able to play in a mixture of those.

So there are some small companies cannot afford to pay for health care for all their employees. So give them some type of exchange like we have now and like they have in other countries. Here are the basics. This what you're going to pay for. This is what the government's going to pay for.

And this what the employee is going to have to pay in some form of tax based on their scale of income, et cetera, in order to get a reasonable health care system. So it's a combination of all of the above, Greg. And I know I've given you a mouthful, but that would be my conversation if I had the audience of the White House, the Congress, anybody else who wanted to listen.

GREG HORN: And that's a fantastic answer, there, Dr. Granger, and very much reflects my own opinion as well. Having traveled to many countries myself and looked at health care systems, I think I would agree with you wholeheartedly. And I want to throw this open now to our listeners to see what your opinion is as well.

Can you drop us a quick line at thehealthpulsepodcast@sas.com? And please let us know your opinions on what are these top-ticket items that we should be putting forward to our health leaders and getting government to act on and private health care to act on as well? So please drop those questions and comments to thehealthpulsepodcast@sas.com.

And thank you very much for joining us this week, Dr. Granger. That's been a really informative and educational discussion. And I'm sure lots of people will want to comment on it. So thank you again for joining us.

ELDER GRANGER: Thank you, Greg.

GREG HORN: We love bringing our comments and questions to guests as well. And we are looking for more comments that we can look to bring to future episodes. But for now, thank you for joining me on *The Health Pulse.* I've been your host, Greg Horn. Please like and subscribe to receive future episodes, and we'll be dropping another one in about two weeks. Thank you very much.