Unidentified Female: Welcome to the VA HSR&D Investigator Insights podcast series. In this episode, QUERI dissemination coordinator Diane Hanks talks with Dr. Joe Francis, Chief Improvement and Analytics Officer in VA’s office of Reporting Analytics Performance Improvement and Deployment. In part one of a wide-ranging conversation, they’re discussing how health services researchers can help contribute important questions and evaluations that may impact quality improvement throughout the VA healthcare system.

Diane Hanks: As Chief Improvement and Analytics Officer and senior advisor to VA’s executive in charge, what do you believe are VA’s biggest challenges when it comes to integrating VA data in such a way that identifies variations in quality of care?

Dr. Joe Francis: Well the list of challenges is so long, and I think probably starting with what is the question or what is the problem that we’re trying to solve and are the data systems that we currently have sufficient for that. It’s one of the reasons why I enjoy working with the research community, because problem formulation is something that you do in a study. So you can’t answer a question unless you have the question defined in such a way that it’s testable. A lot of what we do at VA data and VA analysis is if a problem comes along not well defined, people want a number quickly by the end of the day or the end of the week, and we have an existing data set.   
  
And we can manipulate that data to come up with and answer—which often approximates the truth. I’m amazed how often we come close to the right answer than not. but other times you would say, gosh. I really wish we had a better source of information. Some of that is really about the development of better ways of capturing information in terms of clinical workflow or reaching out to veterans so that they’re generating the data that goes into our own analysis. That could be anything from well tested survey tools, assessment tools, to things like wearables, and remote sensing. I think the future of healthcare and healthcare quality probably is going to reside with technologies like that. Which again, I believe that the research community, the health services community to start thinking about those big questions.   
  
The other challenge—and this is actually getting into a little bit of the Cerner issue as well as the other big change in the mission act. And we’ve had veterans that 85 percent of whom have other sources of insurance, either Medicare or commercial or Tricare. And investigators have found very clever ways of bringing some of those additional datasets into understanding what happens with the total picture of care. But that’s difficult work. That the work has inherent delay because we get Medicare data late. There are still gaps because Medicare is only part of the picture of the rest of the ecosystems.   
  
Our recent engagement in \_\_\_\_\_ [00:03:18] and mid-east have really given us now the recognition that the population we’re serving is often younger than the Medicare eligibility age. So we need to understand what happens in the community, whether they’re using their mission benefit or other sources of coverage like commercial health plan that they receive from their employer. And I’m absolutely amazed the last HSR&D meeting really was key in terms of bringing some of those analysis to the forefront. It is difficult work because the data streams are yet not complete, not real time. Sometimes it requires tailored data collection. Sometimes it requires a mixed method approach so a qualitative assessment, observational assessment. Surveys of the veterans using both systems are yielding important and fresh insights.   
  
Frankly, I think insights that can inform policy and possibly also inform legislation and large decisions, big picture decisions that have to be made by the administration. You’ve seen in the media recently just very simplistic views about VA and the community is us versus them. But it’s more that we’re using the data to help direct and guide our efforts, integrate, and coordinate care. And I would love to be able to find ways of bringing in our private sector providers in a partnership so that we can actually improve the quality of care that they render, not just the veterans but all. So this is again a larger picture, a larger ecosystem, a larger sandbox for us to work with.

Diane Hanks: I have two questions from what you just said. The Cerner based electronic health record that will be integrated, so VA, if I’m understanding it correctly, will be integrated with DoD’s new system. How do you think that will impact the data that you’re receiving? Can you just describe what Cerner is? Then the DoD pairing with VA in Cerner. And then my other question…

Dr. Joe Francis: Well, let me start out with the easier question, which is Cerner. VA has had a homegrown electronic health record system known as VistA. The graph—user interface known as CPRS and actually a few years ago, I had a chance to write a piece in Health Affairs with a partnership of some of my HSR&D colleagues talking about how that created an ecosystem for health services research as well as for quality improvement. And the ecosystem was really one in which the development of the system itself, the writing literally of the code was commingled with efforts to improve the quality of care in our clinical properties and to have data that was actionable and researchable.   
  
And so just like we say in clinical research that clinician who’s also a researcher to ask better questions and come up with more patient centered veteran centered innovations. Similar that partnership of the coder, health services researcher, and the clinical expertise often embodied in an individual. That partnership created unique strength and really I think propelled VA forward in terms of health services research and innovation in quality. The reality is that we cannot continue that prior infrastructure. The data architecture is reaching its limits in terms of analytics and research. The technology is obsolete to the point that even finding folks to keep it up to date, just maintaining the systems is a challenge.   
  
And so we had no choice to reach out to a third party, in this case, Cerner. It’s a commercial electronic health records system that’s being adapted for use by the VA and the DoD. With again, the idea being that we need to become seamless with DoD because the folks that start out as service members will become veterans and become our population that we serve. So having said that, the challenge is that Cerner developed in a different eco system. Not an integrated health delivery system, but a system of separate hospitals and clinics. It was built around the needs of those customers and those needs were often primarily focused on billing and the generation of claims. So that’s something that we historically have not worried about because we don’t do outside building.   
  
And what I like to use as an analogy is that, for Cerner enterprise-wide data performance tracking wasn’t really that high a priority. In the private sector, your enterprise reporting system is called Hospital Compare. You send your claims to Medicare and Medicare process these, normalizes the data, and puts it up for review whether it’s for purposes of transparency, public reporting, or payment adjustment. Or you can get the files downloaded en masse through MEDPAR and those tend to be the data set that health services researchers outside of the VA rely on heavily. But Cerner itself wasn’t the platform for enterprise reporting.   
  
Our discussions with Cerner and with our partners in DoD have really raised the need ourselves and DoD to recreate an enterprise reporting platform for our needs. Because Cerner doesn’t have the capacity to do that. Nor can we rely solely on claims-based analysis to carry us into the future. So that’s the first part of the puzzle or the solution to the puzzle. And the second part of the solution to the puzzle is actually looking at Cerner capabilities, and they do have—do some of their own systems. Millennium is their system. Electronic health records system, and that is itself a database.   
  
Then they have a population database. I’m sending a number of my people in rapid to learn and to understand the tools that we can work in a more interoperable HL7 FHIR base to process, not just the Cerner data, but data that may be ingested from other sites. My hope by the way is, in a few years we’ll be ingesting data from our community partners, not through our current mechanisms, which is largely a manual handwritten process. But actually an automated process with computable data element. This is a change by this necessity, which presents some risk.   
  
We’ve had very significant gains in terms of our dialogue and partnership with Cerner and the DoD. And we have to work together to reinvent the future in many ways and some of those will create some headaches and some of those changes, I think are going to open up real opportunities to have bigger impact than we’ve ever had before. So I’m overall enthusiastic and if someone asked me a reason for me to stay another five years in VA, it would really be to bring this project to successful completion.

Diane Hanks: Are people from the DoD working with Cerner as well and working with the VA?

Dr. Joe Francis: Oh yeah, absolutely. And I just want to say something, the chance that we have had to work with them hand in glove, they’ve got a little jealous of us and they’re looking to us to say, gosh. We need to do this too. Show us how. So that’s really opening up the door for us to have stronger dialogue. And I’ll say, it’s just another challenge for the HSR&D community—some of the differences. One major difference between us and the DoD is, DoD staff deploy and rotate much faster than we did. So we have to learn to create relationships and leverage partnerships very quickly because the person you’re working with now, may be rotated. May have another assignment on the other side of the of the globe. And so you have maybe two to three years to leverage your partnership.   
  
The other piece is the DoD is very, very concerned about the security of the data. The electronic health record data on service members has information of critical national security importance. Information that it has fell into the wrong hands could weaken our national defense posture. So they are elevating some of those concerns and they’re going to need to develop—and we’re going to be able to show them that they can trust us to handle the information securely. And I think we’re going to be going through very similar types of changes to kind of understand how we continue to have access to the research we need while making sure—even more sure that the path that the big data kind of work that we do does not create vulnerabilities. I believe we have so many talented people, both in research and in the analytics and information technology realm, that we should be able to solve those problems.

Diane Hanks: Is DoD more concerned about sharing data with the private sector healthcare systems than VA’s cousin, so to speak? Are they more concerned about that part of it?

Dr. Joe Francis: So let me be clear, when it comes down to the care of an individual veteran, service member, or dependent, there is no concern at all about sharing individual data on individual patients for the purpose of patient care related activities like billing or quality improvement. The real concern is the safety and privacy of aggregate data. Aggregate data that can be—even if identifiers can be stripped or there’s still the potential to reidentify or aggregate data that might be able to look at overall trends. Trends that might reveal something about the national security posture.   
  
So the prevalence of certain types of health conditions whether they’re physical health or behavioral health has something to say about our national security posture. Even things like immunization can provide a lead about where our troops may be potentially deploying to. And so these are not \_\_\_\_\_ [00:14:53] fears. These are fears that are grounded in what the intelligence community is telling us that our enemies are interested in. There has been also concerns—related concerns on things along the lines of industrial espionage.   
  
I think it’s instructed for our health services research community to read about what happened recently with NIH funding to university with foreign nationals who were working on a major research project. And there was a nice series of articles in nature in the past summer that addressed some of those controversies. So these things are real. We will have to pay attention to them. We have to make sure that we do not overreact when there’s fear or mistrust or lack of certainty. There’s a tendency to overreact. We have to reduce the uncertainty and we have to build trust with our partners and that comes through dialogue.

Unidentified Female: This concludes part one of our interview with VA’s Chief Improvement and Analytics Officer, Dr. Joe Francis. Tune in to part two, where he further discusses the importance of being engaged with frontline providers and veterans, and how that engagement contributes to ongoing quality improvement. The views and opinions expressed in the preceding podcast are concerned with the scope of recently concluded or ongoing VA HSR&D funded research and do not necessarily reflect current or to be implemented VA policy. To learn more about this research, visit the VA HSRD website at www.hsrd.research.va.gov.