

VA Addressing Promise and Challenges of Patient Data Continuity

Agency leaders are looking to apply artificial intelligence to create profiles that enable personalized and responsive care.

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Wed, 01/22/2020 - 15:00



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The Department of Veterans Affairs manages one of the largest health care networks in the U.S. and is in the midst of a broad-reaching modernization push designed to reform the agency's full breadth of service lines. While many of these reforms have improved the efficacy of the VA benefits system, agency leaders appear to see promise behind the creation of patient data profiles designed to improve both physical and behavioral health treatment.

These high-level technical aims tie back to the simple goal of providing the best care possible for veterans.

"VA has massive troves of data," said Deputy Chief Information Officer Dominic Cussatt, "but what I ask my team is how can we get that data working for veterans?"

VA is exploring applying proprietary data toward challenging public health quandaries like opioid addiction and veteran suicide, Cussatt added. These solutions are driven in large part by the newfound leveraging of artificial intelligence and complex analytics — methods that enable the otherwise unfeasible sorting and categorization of the VA's expansive patient data repository.

Cussatt emphasized that complex data analytics are well suited for assisting in the inherently complex field of opioid addiction treatment, especially through creating profiles responsive to each veteran.

"We want our patients to get the treatment and pain management they need, but we don't want them to fall into the opioid addiction trap," Cussatt said. "We use predictive analytics as a measure to see if they might need our help."

Cussatt disclosed a similar project oriented toward veteran suicide prevention, an initiative that uses the consolidation of medical and service records to highlight potential origins of psychological distress.

"Suicide prevention is another big one," he said. "Using medical records and service records, we can see what [veterans] have been through to determine who's at risk of suicide and get ahead of that and be there for them when they need us."

While touting the promise for applied data to improve patient care, VA leaders were also direct in addressing the current limitations of this approach and need for refined methodology.

There is still considerable work for AI and machine learning to extract patient data and create singular profiles that clinicians and caregivers can refer to, said VA Director of Standards and Interoperability Ken Rubin.

“You’re seeing windows of their care, and hopefully you’re seeing something relevant to that encounter,” he said regarding current practices. “There’s a completeness issue.”

“Some of these folks have 30 or 40 years of electronic data,” Rubin continued, “The physician doesn’t care about the terabytes of data on this patient for any given encounter. They really only care about the subset of data relevant to today’s intervention or something they need to be doing proactively to keep that person well.”

Rubin emphasized that data sorting will be especially useful in forecasting which patients will need the most pressing treatment — whether in physical or behavioral health.

“I think there is a role for AI to do that sifting based upon current best practices where the patient is part of a risk cohort that we should be getting proactive about,” Rubin said.

In discussing proposed solutions, Cussatt echoed Rubin’s assertions about the need for sophisticated patient data sorting.

“With our vast troves of data, if we can really get a handle on authoritative data sources and data labeling, there’s so much power there that will translate directly to veterans and clinicians,” he said.

VA leaders appear to be focused on expanding the agency’s human capital base to enable these applied data initiatives. Addressing this imperative for newfound technical acuity in VA health care, VA Center for Innovation Diffusion of Excellence Lead Ryan Vega said, “We have to build the front line to have a skill set that has not traditionally been in medicine or health care.”

Despite the complex mechanisms behind these applied data initiatives, VA leaders recognize that these processes serve a deeply human focus on caring for America’s veterans. This has entailed a philosophical shift across the agency as well, one designed to see veterans as part of a broader care journey and social fabric rather than a patient who interacts with the VA on the basis of isolated visits.

In discussing suicide prevention, Chief of Staff at the Veterans Experience Office Lee Becker was particularly explicit in outlining this changing approach.

"We've spent billions of dollars focusing on the clinical side," he said. "Now we're taking a different approach — a public health approach, a whole health approach."

"Health care is not just patient care, it's how we take care of the whole human," he concluded.

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