

Bryan Sivak

Chief Technology Officer

U.S. Department of Health and Human Services

By Michael J. Keegan

Fostering Collaboration and Experimentation to Transform Culture



The U.S. Department of Health and Human Services, HHS, sits atop a vast array of data information and expertise that, if leveraged properly and applied innovatively, could transform health and health care delivery within this country. With advances in technology and the development of various collaborative platforms, we are witnessing a prime opportunity to make a vision of the future a reality of today.

“I’ve learned over time, however,” says Bryan Sivak, chief technology officer at the U.S. Department of Health and Human Services, “that technology is rarely a solution to a problem. Technology can be an enabler. It can be a catalyst. It can be an accelerant, but it often needs to be layered on top of some more fundamental change, usually cultural and/or process change.” Since becoming CTO, Sivak has sought to change both culture and processes within an institution of almost 80,000 staff and a budget well into the hundreds of billions. No small feat, but given that Sivak is only the second CTO in HHS history, it further underscores the ambitiousness of his vision. “What we’re focusing on right now,” asserts Sivak, “is how to actually effect cultural change within the department so that we can put technology on top of it and actually make things better.”

His predecessor, Todd Park, now the government-wide CTO, started the ball rolling, placing critical focus on liberating HHS data. The department has massive amounts of data that it collects, creates, or curates; there is significant potential to be realized if that data is made open and available. “The idea,” explains Sivak, “is that data could actually be used to effect massive transformations in the delivery of health care in

this country.” Initially, liberating data was about encouraging innovators to use health data to develop applications that raise the awareness of health and health system performance and spark community action to improve health. Though building on this foundation is fundamental, Sivak recognizes the need to go beyond it. “We remain focused on data,” he admits, “but there are other, complementary areas that matter now ... these areas relate to my additional role as entrepreneur-in-residence—which more accurately describes what I do.”

In donning both hats, Sivak wants to extract value from undervalued or underutilized HHS assets, activating these assets to great effect for the department. For instance, how can HHS recognize the inherent value in its data and beyond? Sivak details three main efforts to do just that, while also fostering collaboration, changing culture, and ultimately finding new ways of doing business. The data liberation efforts will continue, but Sivak promises a more focused approach that liberates specific data sets and works to make them more useful.

Making the data more useful relates directly to his second effort, data dissemination. “How we continue to make the data more accessible in better ways,” says Sivak, “is by using Application Programming Interface (API). This provides real-time access to data in machine-readable form or programmatic fashion.” With some 34 API-enabled data sets available on Healthdata.gov, Sivak acknowledges that the department continues to work at prioritizing data sets and making them available and accessible in a timelier manner using API.

The third area is what he calls data education. He references a data set called the National Plan and Provider Enumeration System. This is a list of all doctors in the U.S., their associated specialties, and locations, but one would hardly know that from its title or description. “This is a great example

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of the work we have ahead of us to make these data sets understandable and translate the way we frame things so that people can understand.”

A second part of the data education effort involves teaching people how to use the data in better ways. “We’re talking to an organization called Codecademy, an online, relatively new site, which teaches people how to code,” notes Sivak. “What we want to do is create a series of classes that teach people how to use HHS data, give examples of viable use, and provide understanding of data fields.”

The key for Sivak is experimenting—finding things that work even if they are slightly outside the box. But this motivation goes beyond the data. “The next question is: How do we recognize the value in our people?” he declares. “This is tricky because what this really means is culture change, and culture change is probably the hardest thing that you’ll ever attempt to do.” Sivak has crafted a series of programs to facilitate this culture change across HHS, and fostering collaboration is critical to it all. In the history of disruptive innovation there are few eureka moments, he admits. What tends to happen is really a culmination of years of people collectively collaborating on a problem. “Tony Hsieh, Zappos CEO,” notes Sivak, “likes to call this serendipitous collision.” Enabling serendipitous collision involves changing the physical workspaces at HHS as well as architecting virtual collaboration platforms. “HHS labs represent this physical expression of a changing workplace. One can think of a Silicon Valley-style co-working space. All of the furniture is modular—no walls, every surface writeable. It’s all about having a low barrier to connection.” Secretary Sebelius also announced the launch of an internal collaboration network, Yammer, across the department. “Having an internal social network open to all employees allows HHS staff to communicate and collaborate across geographic and bureaucratic divisions to solve problems. We’ve been working to increase adoption and engagement on both fronts. We’ve seen pretty remarkable things start to happen.”

Sivak also wants to identify early adopters within the department. To do this, he has launched two programs—HHSignite, an internal competitive funding program to test new and unconventional ideas, and HHS Fair Trade, a crowdsourcing for resources within the department. “We’re trying to help

connect people who have ideas with the resources that can help them implement those ideas.” This impulse goes beyond the borders of the department. “We want to bring external people into the mix as well,” explains Sivak, “so we established two programs that seek to gain from the collision of ideas.” There’s the HHSentrepreneurs program that attracts external entrepreneurial talent to create a culture that supports risk-taking and accelerates innovation. “We hand-select high-risk, high-reward projects across the department,” Sivak explains, “and bring external people in for a year to work on solving these problems.” The benefits are twofold: “we get new ideas into the mix and are able to prove that there are better ways of doing things.” HHS has sponsored challenge competitions as part of the America Competes Act as another way to inject external ideas and dynamism into the department. “We’ve done over 100 challenges in the department as part of this program, giving away millions of dollars for good solutions to problems.”

Bringing in new ideas and new people can go a long way toward changing an institution’s culture, but the support of risk-taking and experimentation can directly affect the behavior of staff. HHSinnovates attempts to do just that. “I consider this program,” says Sivak, “the viral engine of change. What this program does is actually recognize people in the department who have done something interesting.” The program celebrates risk-taking and encourages experimentation. “In the end, whether the focus is on liberating data, tapping undervalued resources, or encouraging collaboration, innovation, and risk-taking, we believe that if we implement these various programs, then track their progress, we will be able to effect culture change across the department,” declares Sivak. ■

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