The Computerworld Honors Program

Honoring those who use Information Technology to benefit society

Final Copy of Case Study

LOCATION:
San Jose, CA, US

YEAR:
2011

STATUS:
Laureate

CATEGORY:
Collaboration

ORGANIZATION:
DoD/VA Healthcare Data Synchronization Program

ORGANIZATION URL:
http://dmmonline

PROJECT NAME:
Medical Product Data Bank

PROJECT OVERVIEW

With military and veterans' hospitals increasing their use of information technology, and the electronic health record on the horizon, it has never been more important that government care providers and supplier partners "speak the same electronic language" when it comes to describing medical products. Yet, healthcare's most basic data – product descriptions –is unreliable, inconsistent and outdated. Bad data causes a significant negative ripple effect that burdens the nation with billions of dollars in avoidable costs, inefficient processes and, most importantly, a negative impact on patient safety. To address these problems, the government has been building the Medical Product Data Bank (MEDPDB) since 2003 to create an authoritative, accurate and synchronized source of product information to serve as a data backbone for the federal healthcare supply chain. Initiated to support contingency operation in Iraq, and funded by Department of Defense (DoD) and Veterans Affairs (VA) joint incentive funds, the MEDPDB provides a single point of truth, giving hospitals accurate, consistent and synchronized product and pricing data at their fingertips and resulting in improved safety, better processes and reduced costs. By standardizing and aligning data from the materials information systems of 290 military and veterans' healthcare sites with product data from 30 supplier partners and two major distributors, the DoD/VA Data Synchronization Program has identified more than $90 million to date in documented savings, including $22 million in fiscal year 2010. DoD/VA hospitals have also moved $55 million of manual purchases to more efficient electronic methods. Overall goals of the ongoing program are to: • Increase safety for veteran and service personnel who are patients in the federal healthcare system; • Improve efficiencies and reduce costs in the healthcare supply chain; • Save $150 million annually for DoD and VA, and; • Prove that data synchronization in healthcare is a better way of doing business and benefits society. Hospitals are pulling product, purchasing and contracting data from the MEDPDB to quickly identify and research opportunities to reduce costs, particularly where hospitals can leverage existing supply contracts that offer better pricing. Savings opportunities range from a few hundred dollars to hundreds of thousands of dollars a year on a

single item. Using MEDPDB, federal hospitals in the United States and abroad, including those in combat theaters such as Afghanistan and Iraq, and other locations including Africa and Kuwait, are also quickly identifying alternate sources for supplies and zeroing in on opportunities to better access existing supply contracts. MEDPDB technology helps VA and DoD hospitals locate the right product and price on a consistent basis, and to provide long-term value through more effective negotiations of national and regional contracts. Meeting the President's goal of open government, the MEDPDB serves a model for the rest of industry that data synchronization using a single source of true product data is possible to do with a rapid return and positive impacts to patient safety.

SOCIETAL BENEFITS
Standardizing product data across the supply chain ensures the right product is delivered at the right time to the right location, improving patient safety. It ensures defective products are more easily tracked and recalled, and plays a role in reducing costs.

PREVIOUS PROJECT UPDATED/EXPANDED?
The project is ongoing, with new releases each month. Collaboration between agencies (DoD and VA) is key to success of the program. MEDPDB standardizes and synchronizes important enterprise-level source files from all hospital sites across the DoD and VA supply chains, including Distribution and Pricing Agreements, Federal Supply Schedules, the DoD Master Data and the VA National Item File. The MEDPDB contains millions of rows of critical product and packaging data, pricing, enterprise-wide purchasing data, product classification and contract data. The MEDPDB build process utilizes sophisticated technology to aggregate myriad data files from unrelated sources into a cohesive and standardized view of DoD and VA purchase, contract and package configuration data, and is the basis for the eventual joint federal healthcare product catalog. The standardized view allows for efficient analytics to be performed against a wider set of inputs than was previously possible. MEDPDB, which operates in a net-centric environment, is currently moving from an independent hosting site to behind the DoD firewall. While the technology is being migrated, new releases are offered every month, concurrently with hands-on training sessions for all DoD and VA healthcare facilities. MEDPDB program coordinators have trained more than 2,600 users from 290 DoD/VA healthcare facilities, and hold quarterly large site reviews for those hospitals with the biggest product spend, in efforts to help users find better contract opportunities, conduct smarter analyses and increase efficiencies. Upgrades in 2010 include adding and enhancing market share reports that allow improved spend analyses by product category, enabling users to easily identify manufacturers and products that are market leaders to strengthen contract negotiations. In addition, MEDPDB in 2010 launched the ability to search pharmaceutical data to find savings and contracting opportunities.

PROJECT IMPLEMENTATION COMPLETE?
No

PROJECT BENEFIT EXAMPLE
At the Air Force's Wilford Hall Medical Center, San Antonio, Texas, Lead Procurement Supervisor TSgt. K.C. Woods recalls a time when MEDPDB saved the day. At the height of the 2009 H1N1 flu outbreak, the facility ran out of protective nose and mouth masks, as did the distributor for that product. "Using MEDPDB, I found an acceptable substitute for the mask that could be delivered within hours so that our healthcare providers could continue to deliver care safely. That kind of visibility was impossible prior to

the availability of the MEDPDB," Woods says. To date, Wilford Hall has recognized more than $4.02 million in savings. While on a previous deployment in Balad, Iraq, Woods said MEDPDB was invaluable to shedding a light on the military supply chain, allowing one military branch to glimpse available and needed items stored in closer proximity by another branch. "If we needed an item that the Army had on inventory, we would requisition the item, and then replace it when we got a supply in. The MEDPDB makes it easy to share information, and share resources as well," he said. "The MEDPDB in many ways is the best research product I've ever used," says Ed Grantham, Customer Support Representative with the U.S. Army Medical Materiel Center, Europe (USAMMCE), which has saved more than $13.7 million using MEDPDB. "Time and time again, it has helped keep the stock flowing for my end customers, military medical installations across Europe, Africa and South West Asia. Particularly, when inventory on a certain item becomes depleted and we need it right away, I use the tool to find an acceptable substitute, flag it as a 'like' item, and get it ordered immediately. In the old days, we'd either have to live without the item, or it would take days of research to find a like item." Army Major Joseph Mrozinski, currently stationed at 6th Medical Logistics Management Center at Ft. Detrick, Frederick, MD, recognized the value of MEDPDB in enabling his staff to outfit the forward surgical teams that were deployed to support the U.S. troop surge in Afghanistan starting in 2008. Serving as Chief, Material Management Division, he was based in Qatar then, at the USAMMC-Southwest Asia distribution center. "Many times, we would need to take the ordered materials and have to split them in two, because our surgical teams would move to two or more locations. In order to fully equip our medical teams who were setting up field hospitals, we would work with the Army or AF unit to match whole assemblage lists," Mrozinski said. "Using MEDPBD, our research time in trying to match the items on the assemblage list to what we had in inventory in-theater was significantly reduced. MEDPDB is like 'Google' for healthcare – you plug in any identifier, whether it be the National Stock Number, manufacturer part number or DoD catalog number, or even lay terms or descriptions, and the MEDPDB will either find the product or a functional equivalent," Mrozinski added.

IS THIS PROJECT AN INNOVATION, BEST PRACTICE? Yes

ADDITIONAL PROJECT INFORMATION

The DoD/VA Data Synchronization Program has served as an example for industry that data synchronization in healthcare is possible and can bring immediate benefits. This kind of enhanced capability is needed in every day supply chain transactions, but also is most poignant in times of crises. For example, with 24-hours notice, DoD logisticians filled thousands of requests to stock the U.S. Navy Ship Comfort for its deployment and humanitarian operations in Haiti (January 2010). They processed hundreds of orders, representing thousands of medical supplies including pharmaceuticals, vaccines, medical/surgical products and laboratory reagents, along with 6,000 cases of meals and 100 pallets of water. Given that the 1,000-bed Comfort contains one of the largest trauma facilities in the U.S., with 19 operating rooms and an intensive care facility, supplying the floating hospital was no small feat. In addition to working closely with the government prime medical vendors to expedite orders, DoD staff relied on correctly identifying and sourcing the hundreds of National Stock Numbers to commercial medical/surgical products by using the MEDBDB. For years, many in the healthcare industry have been interested in having a single, unique and synchronized product identification system due to its obvious connection to improved patient safety. Synchronized data enables healthcare workers to verify that the right product is used for patient care every step of the way,

from manufacture, to delivery, to use, to the recording of that product in the patient's electronic medical record, to billing and beyond. Through DoD/VA's GDSN pilot for industry, manufacturers, distributors, providers, software vendors, group purchasing organizations and data partners and other participants from across the industry have been able to test out concepts and move standards implementation from pilot to production. Through activity in the DoD-sponsored pilot, and in parallel with other efforts in industry, the healthcare industry has been able to declare a single data standards system from GS1. The industry is rallying around the GS1 Global Location Number for location identification, and the GS1 Global Trade Item Number for product identification. Efforts to implement these standards are ongoing across the industry with successful results. In addition, the U.S. Food and Drug Administration is expected to issue regulations in 2011 to improve the ability to track and trace healthcare products from manufacture to use. These regulations are expected to call for the use of a unique device identification system, so that all healthcare trading partners are using the same electronic language when describing products. The new law is expected to help improve efforts to recall defective products and abate counterfeiting, among other benefits. The DoD/VA initiative has been a driver in healthcare's ability to understand the importance of having clean, standardized and synchronized data, and in the industry's ultimate declaration of which single standard to use (e.g. GS1 Systems of Standards).