



From Your Arm to the CDC Database: How Digital Intelligence Is Being Used to Track and Report the COVID-19 Vaccines ***Now that vaccines are available, the race is on to reach the vaccination threshold needed to suppress the spread of this deadly disease***

The COVID-19 vaccination effort is complex in the U.S. While the federal government allocates available vaccine doses, each state handles its own distribution. Tracking the vaccines requires working across a variety of systems – everything from the pharmaceutical companies that manufacture them to the shipping companies that deliver them to the hospitals, clinics, long-term care facilities and other vaccination sites that administer them.

The final piece of the data puzzle entails reporting consumers' vaccination records to the Centers for Disease Control and Prevention (CDC). This is the first time they've been tracked at the federal level.

To track and report vaccine distribution effectively, healthcare organizations (HCOs) need a way to ingest, merge and analyze a tremendous amount of data from both digital and physical sources. Digital intelligence and machine learning technologies are already helping to alleviate some of the distribution challenges facing many HCOs right now.

Improving distribution tracking efficiency

Never before have so many government agencies, private companies and HCOs had to join forces to achieve one common goal.

"We have to look at this challenge at its most basic level: the demand and the supply," explained Kenya Smith, Solutions Manager, ABBYY. "The demand is who's being injected with the vaccine, the supply is where is each vial of the vaccine? We need to understand how the overall operation works. From a technology perspective, it boils down to having systems in place that can track who gets the vaccines with a seamless process."

HCOs can use process intelligence and process automation software to create a virtual model of the vaccine distribution process to identify potential bottlenecks, delays and other issues that might affect the ideal workflow.

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Kenya Smith | Solutions Manager | ABBYY

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“Process intelligence and process automation can also help us look back and find ways to improve the workflow for next time around,” said Smith. “We need to have a Plan B in place for when there’s an ice storm, for example, and we have all of these vials of the vaccine in inventory and we can’t get them out.”

At the same time, analytic software solutions that provide vaccination distribution modeling analysis can help HCOs run what-if scenarios, such as what to do if a patient doesn’t show up for a scheduled vaccination. The analysis can help HCOs make contingency plans and data-driven decisions to minimize disruptions.

“It’s not just implementing or having an analytic solution, but also ensuring that the analytic solution really fits the need that we’re trying to solve right now,” explained Smith. In this case, the pressing need is to distribute the vaccine to as many people as quickly as possible, she added.

Using content intelligence to simplify vaccine distribution reporting

Whether they’re reporting completed vaccinations, adverse reactions or active COVID-19 variants to the CDC, HCOs need to find the right information quickly and easily. The same holds true for patient follow-up to schedule second doses.

“With collaboration at this scale, there are hundreds and hundreds of applications in play,” explained Smith. “And they’re not all going to speak the same language or have documents that have the same standardized layout. A content intelligence solution allows users to acquire, process, validate and deliver the data from any document in any format from any database.”

Tasks such as reading a document, routing a document, extracting data or any other task related to understanding and processing content can now be carried out by artificial intelligence technologies, freeing up workers to focus on getting shots in arms.

Complexities will continue to shape healthcare solutions

Tracking vaccines from multiple pharmaceutical companies and the emergence of COVID-19 variants are expected to further complicate distribution tracking and reporting challenges. Like the pharmaceutical rivals working together to stop the spread of the coronavirus, technology companies are collaborating to rise to the occasion. For instance, ABBYY is partnering with Alteryx, an automated analytics provider, to offer specific solutions and use cases that help HCOs quickly load, transform and analyze critical vaccine data that enables them to get the vaccine out to patients faster.

“Moving forward, there will be more technology platforms introduced with this kind of public and private sector collaboration in mind,” Smith predicted. “There will be some basic must-haves like transparency and engagement. Platforms that deliver these kinds of features will become the norm.”

In healthcare, complex systems require sophisticated process management solutions. For more information about how ABBYY can help eliminate loopholes, visit abby.com/healthcare.

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