It's Time to Think Differently about Prescription Drug Monitoring

How RxGov's approach to interoperability and integration is revolutionizing the PDMP landscape

By Nate Hogan

Based on a recent Government Accountability Office (GAO) report, healthcare technology deployed to help fight the opioid crisis is missing a critical component - interoperability with Electronic Health Records (EHR). This connection is so critical for states looking to improve patient care via prescription drug monitoring programs (PDMPs) that more than 30 physicians who were interviewed for the article voiced concerns about the lack of interoperability between PDMPs and EHRs.

According to the article, most of the physicians interviewed reported their state's PDMP was not integrated into its EHRs. "All of these physicians identified the lack of integration as a key challenge to most effectively using PDMPs when making patient care decisions."

The GAO findings highlight the urgent need for PDMPs, like RxGov, with open access to data and high interoperability. These solutions are critical in helping to fight opioid abuse and addiction.

If the nationwide network of state-specific prescription drug monitoring programs (PDMPs) is to become a truly effective mechanism for stemming the tide of opioid overuse, the industry surrounding PDMPs must embrace a common framework for interoperability that enables seamless access by clinicians within their electronic health records (EHRs).

This framework should be aligned with the federal guidelines promulgated from the Office of the National Coordinator for Health Information Technology (ONC) and enable industry to deliver the best solutions possible to support patient care.

The recent ruling from the ONC, as an extension of the 2016 21st Century Cures Act, sets clear guidelines as to the obligation that industry must embrace core interoperability standards and the restriction of so-called information blocking.

NIC's approach is aligned with the guidance from the ONC and inherently embeds defined interoperability technology standards as part of the core infrastructure within the RxGov platform.

This approach is focused on ensuring improved adoption by clinicians at the point of care while maximizing healthcare's investment in electronic health records. The adoption of these technology standards ensures seamless integration of prescription drug data into a clinician's EHR workflow while enabling that information to be consumed discretely into the EHR as part of the longitudinal patient record where applicable by state regulation.

NIC's central objective is more important than simple fulfillment of a regulatory reporting requirement; PDMPs and their underlying technology have the potential to drastically improve the efficacy of the nation's prescribing practices in order to save lives in untold quantities and drastically reduce substance use disorder. This central objective drives the urgency and broadening capabilities of RxGov's interoperability model.

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Increased Access = Increased Use

NIC has seen firsthand the impact that state and federal healthcare programs have on improving health outcomes for their constituents. An effective PDMP solution is an essential tool in improving safe access to prescriptions by providing relevant access to historical medication data – but only if the PDMP is highly utilized. According to data from the American Hospital Association, fewer than one third of hospitals currently access their state's PDMP through the hospital's EHR[1]. RxGov is intentionally architected to improve access through seamless integration at the point of care, which aims to drive increased adoption. According to the US Government Accountability Office analysis of PDMP using integrated and non-integrated approaches, an integrated PDMP platform can reduce the time required to perform a patient record search by 20 times.

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Key federal initiatives, such as 21st Century Cures and the SUPPORT for Patients and Communities Act, have defined expectations around how tools such as PDMPs should enable data sharing amongst states, between EHRs and across state agencies. The SUPPORT for Patients and Communities Act provided direct support for states to implement and improve upon their state's PDMP to better enable the sharing of appropriate, relevant clinical information. This intentional data sharing is the centerpiece of RxGov, which is architected based on the understanding that PDMP data should not reside in a black box, but rather be made available to the clinical and administrative stakeholders responsible for improving safe prescribing practices and care outcomes.

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PDMP technology should allow permitted users to easily and freely access prescription data so clinical and administrative information is available at the point with the highest degree of patient impact. This is best served through the adoption of national standards such as the Fast Healthcare Interoperability Resources (FHIR) standards. In contrast, a PDMP that is not integrated into the EHR – or does so only by providing a static, read-only view – provides an additional barrier to clinician use, in which case it serves as an expensive but low-functioning investment that may check a regulatory box but does not legitimately seek to improve patient outcomes.

RxGov is architected to enable unparalleled open access to data, which allows clinicians and other users to seamlessly receive and send medication data across the care continuum in near real time.

Using a standards-based application programming interface (API), RxGov makes prescription history accessible at the point of care through the provider's normal prescribing or dispensing workflow. So, when a physician is with a patient and evaluating medication treatment, they may query the patient's medication history without leaving the native EHR workflow, allowing the physician to provide more efficient and better-informed care for their patients without disrupting the physician-to-patient interaction.

Removing Barriers for All Constituents

With RxGov's very intentional focus on interoperability and EHR integration, the solution eases data access at all points throughout the continuum of care:

- **Clinicians** are empowered to make informed medical decisions at the points of greatest impact: prescribing and dispensing medication.
- **State officials** have unparalleled access to their data in aggregate and trending data. This provides a powerful tool for bolstering prescription drug and medication safety initiatives, including reducing opioid misuse.
- **Hospitals** attesting to CMS and reporting on the "electronic prescribing" objective and PDMP query measure have more content-rich, informative data.
- **Patients** have access to tailored, easy-to-read medication data, thus improving communication with their provider and easing access to their own historical prescription data.

As the first company in the United States to develop and deliver effective digital solutions for government agencies, NIC has been working to simplify complex ecosystems of disparate technology for more than 25 years. As a publicly traded company, NIC is intentional about transparency and leveraging data for the greater public good. Since entering the prescription drug monitoring arena in 2011, NIC has continually refined the architecture of its PDMP solution and has been leading the charge to dissolve data silos and move towards a more interconnected healthcare environment. Because RxGov advances key interoperability standards, the solution is able to seamlessly integrate controlled substance medication data into an EHR workflow.

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A True Impact on Public Health

In the last two decades, the climbing rate of opioid overdose deaths has become an urgent public health crisis. Between 1999 and 2017, the death rate more than *tripled*[2].

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> *- Centers for Disease Control and Prevention*

A PDMP solution's potential to have a measurable impact on public health is dependent not only on clinicians' use of the solution, but also on administrators' and policy makers' access to the underlying data. As the FHIRstandard gains momentum, NIC is well positioned to support the transfer of large data sets to impact the health of communities, value-based care, and clinical research.

RxGov allows the PDMP administrator unprecedented access to insightful data sets, such as query history and compliance reports at all levels: state, region, organization, and individual prescriber. Due to the open architecture and unencumbered access to data, PDMP and public health administrators have superior access to clinical intelligence as a result of the ability to distribute public health, epidemiological, or value-based guidance on medical treatment. A PDMP solution without these open query mechanisms renders the data less powerful to government leaders. In a state's efforts to curb over-prescription and overuse of opioids, access to prescription data in aggregate is essential for evaluating and improving medication prescription and dispensing practices.

NIC firmly believes public health cannot be positively impacted if PDMP data is unavailable or complicated to access, thus leaving stakeholders data-rich but information-poor.

Freely accessible data, enhanced by useful visualization tools, is central to RxGov.

As a highly integrated solution, RxGov consolidates disparate information representing treatment options, education, enforcement, and regulatory requirements, as well as prescriber patterns and volumes. All these data points can be used to enhance public health and improve prescription and treatment practices.

Advanced Architecture

RxGov was designed using modern principles for state health information exchanges and aligns with best practices established by the PDMP Technical Training and Assistance Center at Brandeis University. The solution represents state-of-the-art PDMP technology: the modular architecture is compatible with existing components, such as master patient indices, identity management providers, and system integration to EHRs and other clinical systems. Importantly, the data model supports not only prescribers at the point of care but also business intelligence and population health management analytic dashboards and reporting.

HIMSS Interoperability Showcase

RxGov's comprehensive scope of functionality and interoperability was on display at the 2019 HIMSS Global Conference, where, upon invitation, NIC served as the sole PDMP technology partner. As part of the conference's Interoperability Showcase, RxGov showed its state-of-the-art integration with EHRs and state reporting initiatives, demonstrating a unique ability to meaningfully contribute prescription data to the interconnected continuum of care. Also, the RxGov team delivered a presentation alongside Microsoft to demonstrate and discuss RxGov's industry-leading technology and the direct impact on improved clinical outcomes, from the advanced patient-matching algorithm to enhanced visualizations.

Key Features of RxGov

- Facilitates last-mile connectivity to deliver PDMP data directly into the prescriber's workflow
- Uses reliable data delivery with end-to-end traceability
- Uses a unique patient-matching system to create links between given name and aliases
- Supports business intelligence and population health management dashboards
- Offers flexible reporting at ZIP, pharmacy, and provider levels

Nate Hogan is the Vice President of Product Management for NIC Healthcare. NIC (Nasdaq: EGOV) is a leading digital government solutions and payments company, serving more than 7,000 federal, state and local government agencies across the nation. NIC's mission is to better enable how constituents engage government using innovative technologies. It is this mission which motivates NIC to approach the PDMP market with a focus on an open, interoperable, and modular offering in the form of RxGov. Learn more at **www.egov.com**.

[1] Findings from data analysis conducted by the Office of the National Coordinator for Health Information Technology, based on data collected through the 2017 American Hospital Association (AHA) Annual Survey Information Technology Supplement
[2] Data from the National Center for Health Statistics, a division of the Centers for Disease Control and Prevention