Ohio Department of Health Partners with the InnovateOhio Platform to Create Vaccine Provider Registration Portal

Category: Digital Services: Government to Business

State: Ohio

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Project Initiation and End Dates: August 2020-February 2021

Executive Summary

In the late summer of 2020, with the COVID-19 vaccine development well underway, the Ohio Department of Health (ODH) needed to transform the paper and signature forms required to register as a vaccine provider in Ohio into a fully digital process – while assuring equal or greater levels of accuracy than is provided in person or on paper. The InnovateOhio Platform (IOP) team had three days to design a solution and just three weeks to develop and deploy it.

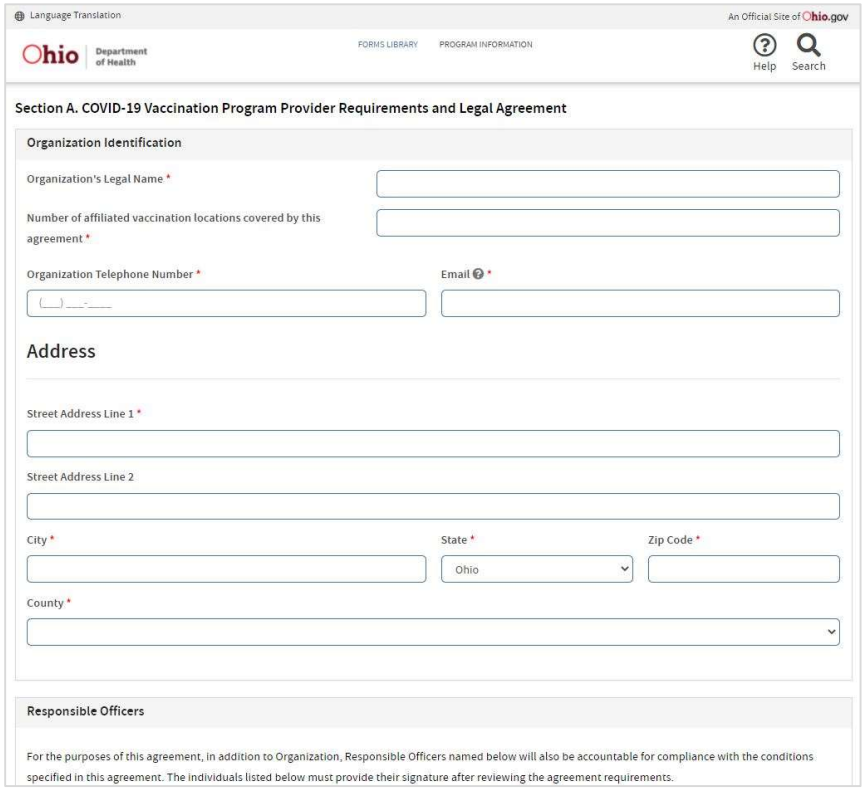
Prior to the pandemic, ODH did not have a fully electronic process established for vaccine provider registration in Ohio. Businesses and medical facilities were required to fill out paper forms and collect necessary internal signatures before submitting their application to ODH for review and approval. ODH then manually converted approved, paper-based submissions into a .CSV file to submit to the Center for Disease Control (CDC). However, due to the volume of expected applicants and time required for review, approval, conversion, and submission, the established process was not a viable option for COVID-19 vaccine provider registration.

Idea

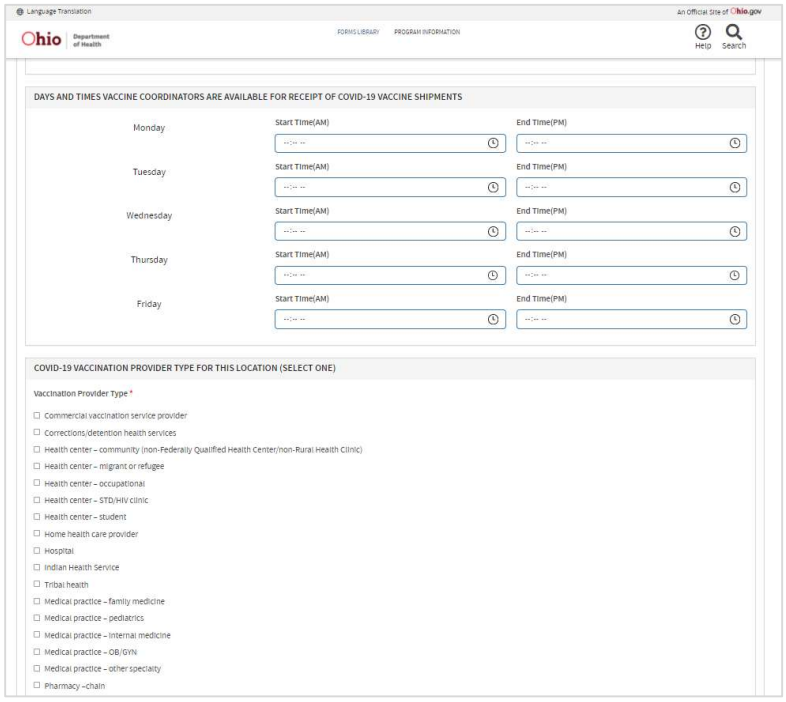
ODH needed an approach that would allow them to rapidly deploy a solution that transformed a previously manual process into a straightforward, easy to use automated process. ODH and IOP decided to leverage IOP's existing User Experience, Data & Analytics, and Digital Identity capabilities and technology to swiftly build a state-of-the-art solution for COVID-19 vaccine providers across the state. With the technology in place, Ohioans are able to have constant up-to-date information regarding how and where to receive their COVID-19 vaccinations.

Implementation

To begin, IOP digitized four required forms with Form.io, a digital webforms solution. The forms themselves had a significant amount of business logic, complex data validation, and interdependencies, and of course, required multiple signatures. Many forms were dependent upon – and linked to – one another because they needed to be filled out and validated in sequence. In addition, the validation code had to be precise enough to correctly translate user information into the format necessary for data curation and submission to the CDC, without error. As complicated as the back end was, the front end experience of the forms needed to be clean and simple. The forms were designed to be as straightforward as possible to prevent ODH staff from fielding a flood of calls from vaccine providers for assistance.

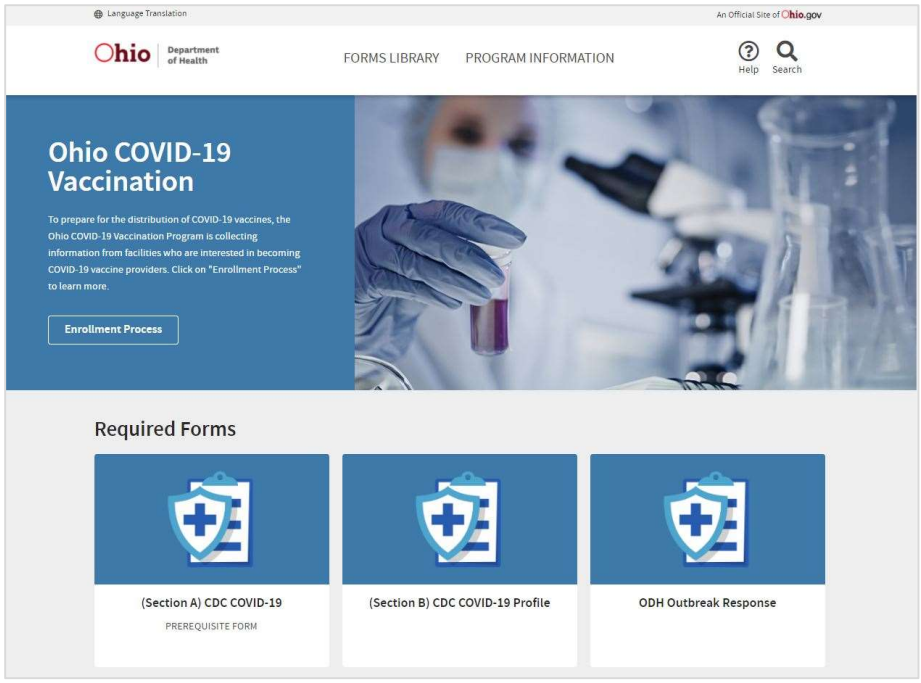


Example of the digital forms (Form A)

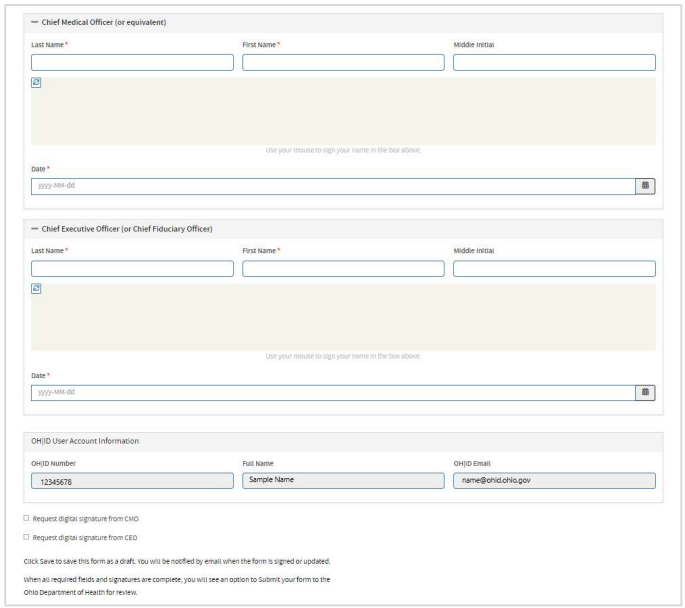


Example of the digital forms (Form B).

The IOP team also developed an authenticated web portal to host the digital forms and create a clear user-interface that guided users through the submission process. Through the Vaccine Provider Portal, applicants could complete the form, which would email a link to their company's chief medical officer and chief executive or fiduciary officer, for his or her review and digital signature. Once signed by all parties, the person completing the application was notified by email that their form was ready to submit to ODH for review.



Vaccine Provider Portal Home.



With the application process now automated, ODH staff no longer needed to manually re-enter provider data. Furthermore, the incoming provider data from the forms was ingested into the IOP Data & Analytics Platform and then curated to match the specific, field-level validations required to upload and submit the data to the CDC. Additionally, location information about vaccine providers statewide was displayed on a Tableau dashboard hosted on the State's coronavirus website – coronavirus.ohio.gov – for the public to search nearby locations to get the vaccine.

To date, 3,827 vaccine providers have successfully registered to provide COVID-19 vaccines through the Vaccine Provider Portal. In addition, the public dashboard showing authorized vaccine providers in Ohio receives roughly 3.8 million views per month – and a little over 15 million views since January 2021.

Impact

The IOP team built paperless versions of the required forms with Form.io, a digital web forms solution, and leveraged the signature capability in Form.io along with authenticated login to ensure documents could be signed digitally by the appropriate individuals, as required by law.

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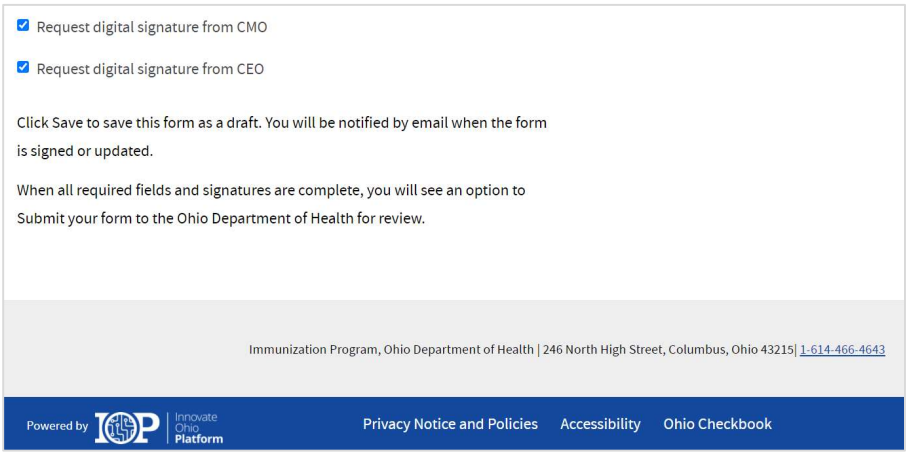
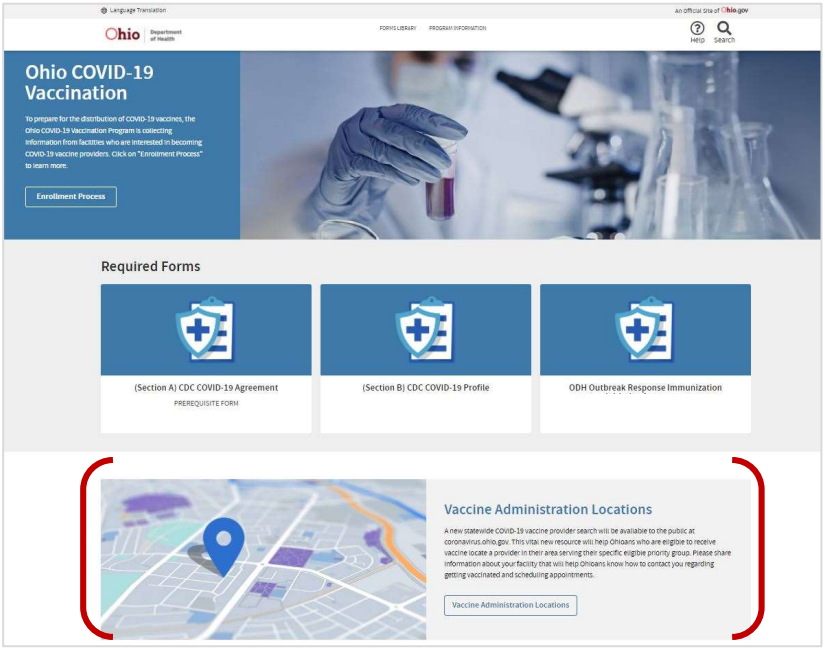
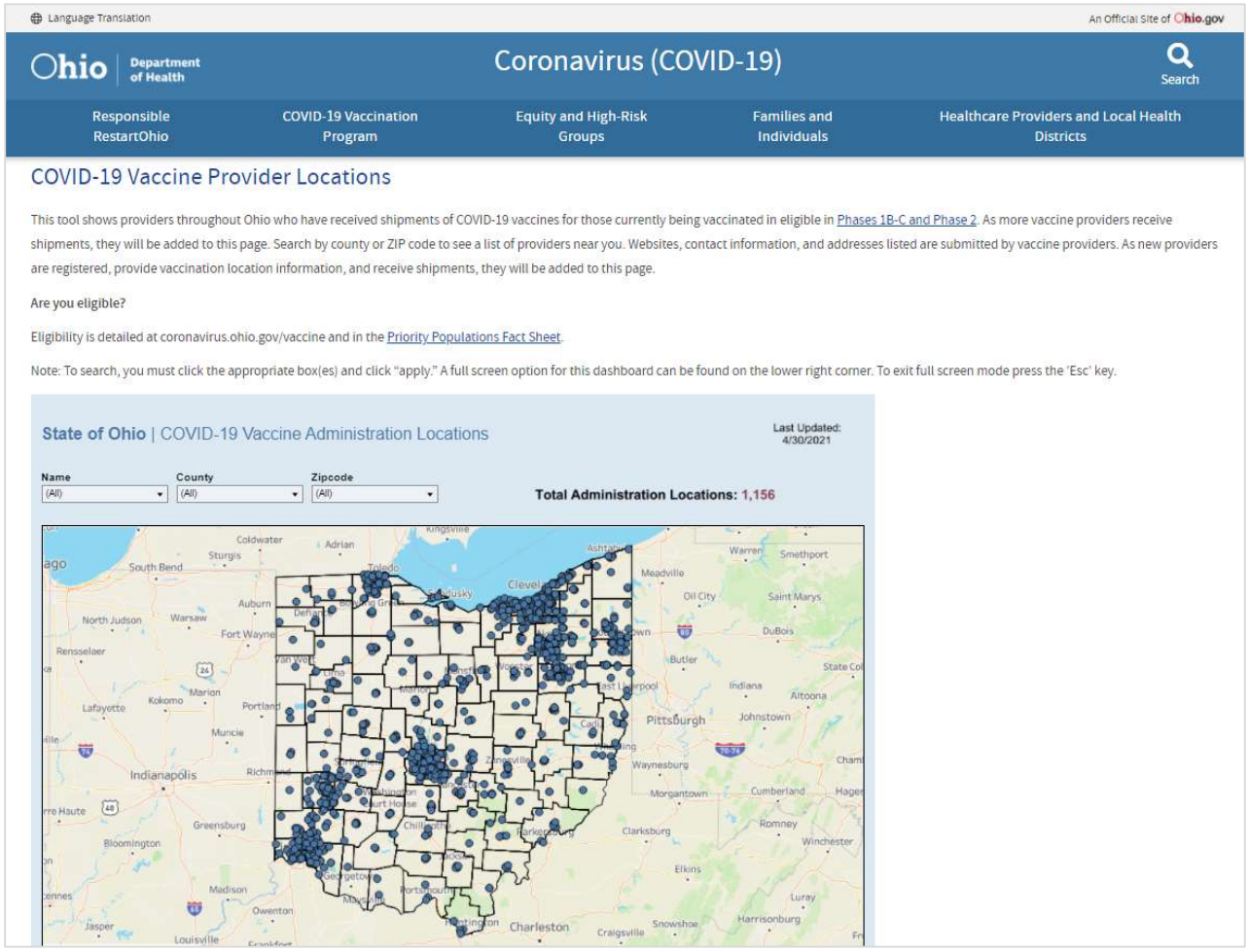


IOP automated the twice-weekly process of sending provider data to the CDC, while simultaneously ingesting and curating it in a way that allowed ODH to use the information in its public response to COVID-19. Incoming provider data from the forms was ingested into the IOP

Data & Analytics Platform and then curated to match the specific, field-level validations required to upload and submit the data to the CDC.

In addition to statewide vaccine providers being displayed in an automated fashion on the coronavirus.ohio.gov website via public Tableau dashboards, numerous authenticated, automated internal dashboards were developed for internal decision support and analysis of vaccine provider locations to improve access to vaccines and improve health equity.





Vaccine Provider Dashboard on the Ohio Department of Health COVID-19 website. The dashboard was created using curated data from the Vaccine Provider Portal.

Authentication for the Vaccine Provider Portal was handled through the State's digital identity solution, the OH|ID, continuing with the current precedent. The user interface for the Vaccine Provider Portal was developed using state branding, and the design patterns and components used across state websites. IOP and ODH also completed rigorous quality assurance and user acceptance testing to ensure a complete service delivery. To date, the vaccine provider dashboard has been viewed over 15 million times.

Delivery of this solution was critical to rapidly and efficiently deploying the vaccine throughout the State of Ohio. Relying on a manual process was not an option for delivering this essential vaccine to Ohio's citizens.