



Tech Executive  
Leadership Initiative

## POLICY

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# Equitable Access Roadmap for Digital Vaccine Records

## EXECUTIVE SUMMARY

The State of Outdoorsville should allow residents to digitally access their vaccine records through an OpenAPI framework connected to the state's current Immunization Information System (IIS). Such a solution would enable citizens with secure verification of their vaccination status that they can show to potential employers or schools that may ask for it. Outdoorsville should integrate access to vaccine records: (a) via a myOutdoorsville app, the state's current digital identification system that currently allows residents to create a secure, electronic version of their drivers license or state ID; (b) via state-issued identification programs or the REAL ID system, which would allow residents to scan the barcode on their ID at venues to access their vaccine status; and (c) via a web interface that would allow citizens who do not have smartphones or a REAL ID to access their vaccine credentials through a QR code that can be accessed online.

## BACKGROUND ON CURRENT IMMUNIZATION RECORDS SYSTEM

Currently, it is onerous for Outdoorsville residents to retrieve copies of their vaccine credentials. Though residents receive a paper-based Centers for Disease Control and Prevention card upon vaccination, there is no system that allows them to easily receive a replacement of this credential. This may become problematic if schools, businesses, or other institutions begin requiring proof of vaccination to enter their facilities.

As with every US state, Outdoorsville currently has an opt-out Immunization Information System that records resident immunization records — including COVID-19 records — that are received by health-care providers. Typically, healthcare providers — local health depart-

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ments, hospitals, FEMA — and private companies such as Walgreens or CVS will send immunization information to the state-run IIS registry. However, it is difficult for residents to gain access to their vaccine records from this system. In order for a resident to retrieve vaccine information, they need to send a formal application to the IIS department.

## **PROPOSED FOCUS OF VACCINE RECORDS ACCESS INITIATIVE**

In order for Outdoorsville residents to more easily obtain their vaccine credentials digitally, we propose four major efforts to achieve a more ideal vaccine record framework. These changes are low cost, as they leverage existing systems from the state of Outdoorsville.

1. *Build an OpenAPI Framework:* While Outdoorsville already allows Application Programming Interfaces (APIs) to connect to their IIS system, they do not have an OpenAPI framework which would allow more applications to showcase vaccine credential data. Outdoorsville should incorporate an OpenAPI system to pull data from the existing IIS system and allow it to be integrated into other applications, such as smartphone or web applications. Appendix Figure 1 demonstrates this OpenAPI integration.

An OpenAPI framework would provide better access to vaccine credentials for underserved populations, as Outdoorsville could work with NGOs to train vulnerable residents on accessing their vaccine credentials through this system. More information on this outreach process can be found in our stakeholder engagement plan.

2. *Integrate the OpenAPI Framework with the myOutdoorsville App:* Once the OpenAPI framework has been incorporated, Outdoorsville should integrate vaccine data with the already-existing myOutdoorsville app. Outdoorsville has a myOutdoorsville app that allows residents to create secure digital versions of state documents — such as drivers licenses or vehicle registrations — that can be shared with other state entities electronically. Outdoorsville could integrate vaccine records into this application system, allowing residents to securely show those records using their smartphones and a digital QR code. A demonstration of the integration of vaccine record information into the myOutdoorsville app can be found [here](#), and in Figure 1 below.



Figure 1: Integration of IIS vaccine records into the myOutdoorsville App. Users will be able to login into their myOutdoorsville app, and can show a QR code that other entities — such as businesses or schools — can scan to verify vaccine status.

3. *Integrate the OpenAPI Framework with state-issued identification cards that have a scannable barcode and the REAL ID system:* For residents who do not have access to smartphones, Outdoorsville should integrate the vaccine data directly to the state-issued identification cards and REAL ID system. The REAL ID program is a federally funded program that allows state identification cards to be used for federal identification purposes. The Department of Homeland Security is currently actively working with state government agencies to drive adoption of the REAL ID format. Outdoorsville would create an interface between databases at the DMV and IIS. This would allow residents to show vaccination status when their state-issued identity card or REAL ID is scanned.
4. *Integrate the OpenAPI Framework with a web interface:* For underserved residents (such as homeless residents) who do not have a state-issued identity card or a smartphone, Outdoorsville should also build a web interface that allows them to access their vaccine credentials online. This web interface system would allow residents to login to a website and print a QR code that could be scanned to show proof of vaccination. We estimate that this scenario [may apply to less than 2 percent of the population](#). While a web interface solution is not as secure as the second and third efforts described above, this risk is worth allowing underserved residents to more easily access their vaccine information.

This OpenAPI framework is a low-cost, easily implemented solution that will allow Outdoorsville residents to report their proof of vaccination electronically.



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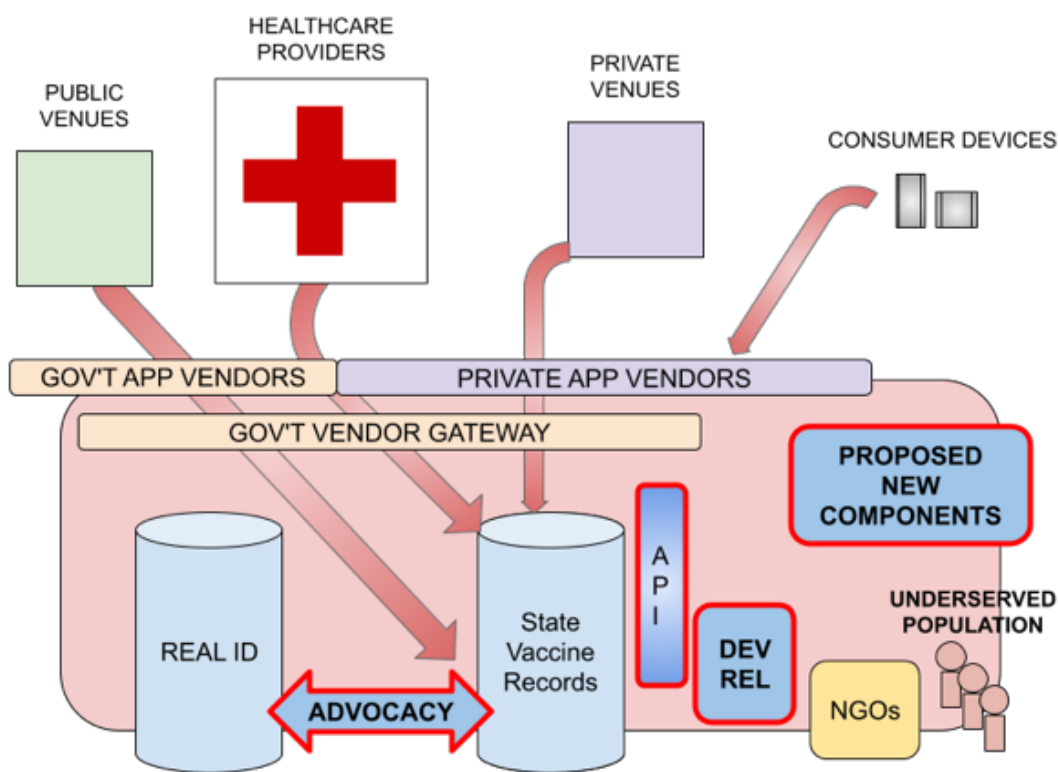
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# Proposed Access Setup for State Vaccine Credentials

Appendix Figure 1 illustrates the “ideal” setup to enable access to state vaccine records by a broad spectrum of public and private agencies, companies, and individual residents. The figure describes the stakeholders involved in our proposal, and their data access relationship to one another.



Appendix Figure 1: Visualization of relationships for proposed vaccine credentials setup

State Vaccine Records refer to the state’s official record of citizen vaccination status. In general, Health-care Providers (which include public and private entities) both edit vaccination records when providing

vaccinations, and read records when checking for whether a vaccine has been administered. *Public Venues* and *Private Venues* do not have direct access to state vaccine records but may ask for proof of vaccination to enter their facilities.

*Government Application Vendors* are private vendors that are paid by the government to develop applications that access the vaccine record at *Public* and *Private Venues*. These venues will likely only ask for a readout of vaccination credentials. Some government vendors, however, might choose for the application to be editable so venues can add a record of temperature checks or of other activities.

*Private Application Vendors* are vendors that are paid by *Private Venues* to develop a vaccine credentials app. Though *Private Venues* may have a legitimate interest in reading vaccine information, they should have limited to no ability to actually edit the vaccine records.

*Consumer Devices* refer to individuals' electronic devices. These devices can download *Private Applications* and have access to their own vaccine credentials for private purposes.

A single government vendor provides the *Government Vendor Gateway* that allows both *Private* and *Public Application Vendors* to service *Public Venues*, *Private Venues*, *Healthcare Providers*, and *Consumer Devices*. Notably, there exists an “*Underserved Population*” that, despite best efforts, does not engage reliably with any of these providers and venues.