



COLORADO

**Governor's Office of
Information Technology**



myVaccine Record

Offering Secure and Easy Proof of
COVID-19 Vaccination

CATEGORY

**Digital Services: Government to
Citizen**

START DATE

April 2021

END DATE

August 2021

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Executive Summary



[myColorado™](#), the State of Colorado's official mobile app™, ([mycolorado.gov](#)) was launched in January 2019 to provide residents a convenient and secure way to access state services and resources from their smartphone, anytime and anywhere. This innovative platform set the stage for future services and revolutionized the way Coloradans interact with businesses, health providers, state agencies, law enforcement and other organizations.

In October 2019, Governor Jared Polis announced the launch of the Colorado Digital ID™ within the myColorado mobile app, allowing residents to create an electronic version of their driver license or state identification (ID) card on smartphones for proof of identification, age, and address within Colorado. The Governor's [Executive Order](#) authorized Colorado Digital ID as a legal form of identification within Colorado (and as of May 2022, 772 businesses have reported that they are now accepting Colorado Digital ID). On December 1, 2020, the Colorado State Patrol announced their support and acceptance of the Colorado Digital ID, making Colorado the first in the nation to offer residents the option to electronically transmit digital identification, vehicle registration and proof of insurance to law enforcement. More than 2,300 peace officers were trained and over 4,100 individuals shared their Colorado Digital ID with law enforcement .

After the COVID-19 vaccine became available, many Colorado venues and businesses began to reopen to those who could show they had been vaccinated. The groundbreaking myVaccine Record was launched in August 2021, enabling Coloradans to access their COVID-19 vaccination(s) record from within the myColorado app to show proof of vaccination wherever required. The digital vaccine cards mirror the official paper card issued by the Centers for Disease Control and Prevention (CDC) and enables users to quickly and easily show proof of



vaccination without having to carry their paper card. To date, there have been more than 1.4 million downloads of the Colorado myVaccine Record.

Project Narrative

Idea

[myColorado™](https://mycolorado.gov), the State of Colorado's official mobile app™, (mycolorado.gov) was launched in January 2019 to provide residents a convenient and secure way to access state services and resources from their smartphone, anytime and anywhere. This innovative platform set the stage for future services and revolutionized the way Coloradans interact with businesses, health providers, state agencies, law enforcement and other organizations.

In an unexpected twist, in 2020, the myColorado app became a critical platform for connecting residents to COVID-19 resources, state benefits and virtual services such as driver license renewals from home. The demand for contactless verification of identity and licenses - such as the digital fishing license - also increased significantly as it became evident that the pandemic was not ending anytime soon. Thus, as the COVID-19 vaccinations became available, the myColorado team began to focus on the ability to incorporate vaccination cards into the app.

The myColorado team worked in close partnership with the Colorado Department of Health and Environment (CDPHE) and the Colorado Immunization Information System (CIIS) to create the myVaccine Record. The business objective was to provide an opportunity for Coloradans to access and easily share their [COVID-19 digital immunization record](https://mycolorado.gov/myvaccine-record) (mycolorado.gov/myvaccine-record).

Implementation

The team approached myVaccine Record in two phases - the first to give myColorado users access to their COVID-19 vaccine records via the mobile app and the second to allow businesses to accept proof of vaccination from the app. Phase I was soft-launched in July 2021, offering a way for verified myColorado users to easily store, access and share their COVID-19 immunization information. Phase II was launched on Nov. 5, 2021, and allows myVaccine Record users to share proof of vaccination with other businesses and organizations using a SMART® Health Card, an internationally recognized standard. This feature is a voluntary opt-in feature and the information is encrypted to provide an extra layer of security. With proof of vaccination a requirement at many venues, this makes it quick and easy for businesses to verify vaccination. To date, more than 1.4 million Coloradans have downloaded their COVID-19 vaccination(s) record and more than 770,000 residents have downloaded the app.



Innovations used to make the project a reality.

The myColorado app uses leading edge technology to provide Coloradans with the most convenient and secure experience possible. Core to the vision and functionality of the myColorado application and the Digital ID roadmap to national mobile driver license (mDL) acceptance is its use of leading edge Identity Verification, Customer Identity and Access Management (CIAM), and Know Your Customer (KYC) security and authentication techniques.

The identity provisioning and account management processes employ best practices such as step-up and multifactor authentication (MFA), biometric analysis (facial recognition), device posture checking (geographic telemetry) and encryption technology (OAuth2, TLS). These approaches and technologies allow the State of Colorado to assert myColorado's compliance with the most stringent industry standards and guidelines from NIST on the topic (NIST SP 800-63 et. al.) and puts the application in direct alignment with the international standards guidelines for mDL (ISO 18013-5 WG10).

Not only has this positioned the myColorado application to be on the leading edge of authentication and identity verification for purposes of Digital ID/mDL, but also to lead the way for the highly secure and confidence assurances to be incorporated across any/all state services ready to adapt to the use of modern, best practices authentication and identity federation techniques (i.e., OAuth2).

While developing myVaccine Record, the team's number one priority was security requirements. The system transports and provides individual Protected Health Information (PHI), and as such, the integrity and confidentiality for this data has to be managed utilizing best practices. The high level requirements consisted of:

Functional requirements:

- Ability to share vaccination information contained in myVaccine Record with external users via QR code.
- Ability to generate QR code from data attributes included in API response.
- Ability to quickly display vaccination status (fully vaccinated, partially vaccinated, not vaccinated) based on the user's immunization data.
- Ability to update myVaccine PDF and QR code with updated information.
- Ability to delete myVaccine Record (PDF and QR code) from the user's digital Wallet.

Security requirements:

- Data access must be secured using RBAC and OIT managed accounts.
- Data must be encrypted while in transit (HTTPS/TLS).
- PHI vaccination data must be managed according to all regulatory compliance as prescribed by the Colorado Immunization Registry Act of 2007.



User Experience/User Interface Requirements

- myVaccine Record must continue to be generated and displayed as a PDF version of the CDC COVID-19 card.
- The Update button on both the PDF and QR code screen should navigate the user back to the data entry screen.
- Delete button should delete the entire myVaccine Record (including the PDF and QR code) in one action.
- Share button on the PDF screen should download the full PDF, along with the image of the state seal and CDPHE banner.
- Download button on the QR code screen should have standard share behavior (via OS).
- Access to CDPHE customer support team for Q&A

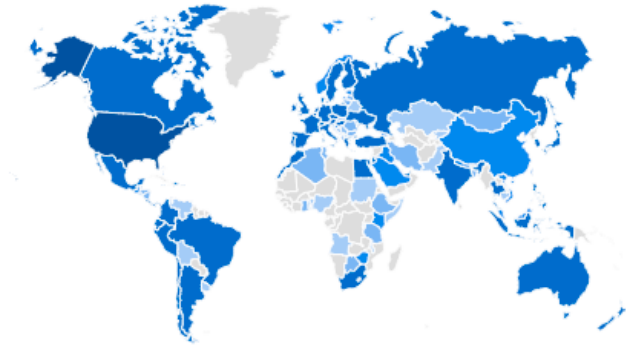
Impact

myColorado has been a truly revolutionary concept for the State of Colorado, providing critical contactless services during the pandemic. The innovative myVaccine Record provides a new layer of accessibility to myColorado app users. The Phase II launch of the SMART® Health Cards in November 2021 was developed by a coalition of public stakeholders with the goal of empowering myColorado users with access to a trustworthy and verifiable copy of their vaccination records in digital form. The cards only contain the information required to verify vaccination or test status, and the choice of how and when to share that information is totally up to the individual. The Colorado SMART® Health Card is intended to allow businesses, schools, sporting arenas and other organizations to quickly determine the validity of those Health Cards. The app will also check whether the issuer is a verified health data source from the CommonTrust network. myColorado's vision, leadership and actions are commendable. Its initiatives support the lives of Coloradans, including efficiency and technology improvements. Multiple businesses in Colorado and in other states across the country have accepted the SMART® Health Card as a proof of vaccination during the height of the pandemic.

770,000 accounts have been created in the myColorado mobile app, and the myVaccine Record has been displayed more than 1.4 million times since its launch in the United States and has been critical for travelers.



Event count by Country



COUNTRY	EVENT COUNT
United States	1.4M
Mexico	1.8K
United Kingdom	1.5K
Spain	575
Canada	567
Germany	408
India	389

