VDH vaccination record barcode

A mini-presentation
by John Krout
For PATACS+OPCUG
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Virginia Department of Health (VDH)

- VDH maintains the central database of vaccination records for Virginia residents
- VDH now offers a new secure way to document your vaccination status, in two parts
- **Part 1:** you can download from VDH your COVID vaccination record, a PDF file containing an encrypted barcode
- **Part 2:** A SMART Health Card Verifier app reads and decrypts the barcode contents

The PDF looks like this

VDH VIRGINIA DEPARTMENT OF HEALTH

SMART®

COVID-19 Vaccination Record

As of 10/08/2021

John Krout

Date of Birth: [redacted]

Dose 1: 03/11/2021, Moderna, 002B21A, Arlington County Public Health - DHS/CHS
COVID-19, mRNA, LNP-S, PF, 100 mcg/0.5 mL dose

Dose 2: 04/08/2021, Moderna, 021B21A, Arlington County Public Health - DHS/CHS
COVID-19, mRNA, LNP-S, PF, 100 mcg/0.5 mL dose

QR barcode

This COVID-19 Vaccination Record is based on information recorded in the Virginia Immunization Information System by providers, and may not include vaccinations administered outside Virginia or by federal government agencies. The vaccinations listed above are valid even if the lot number and/or provider information is not visible.

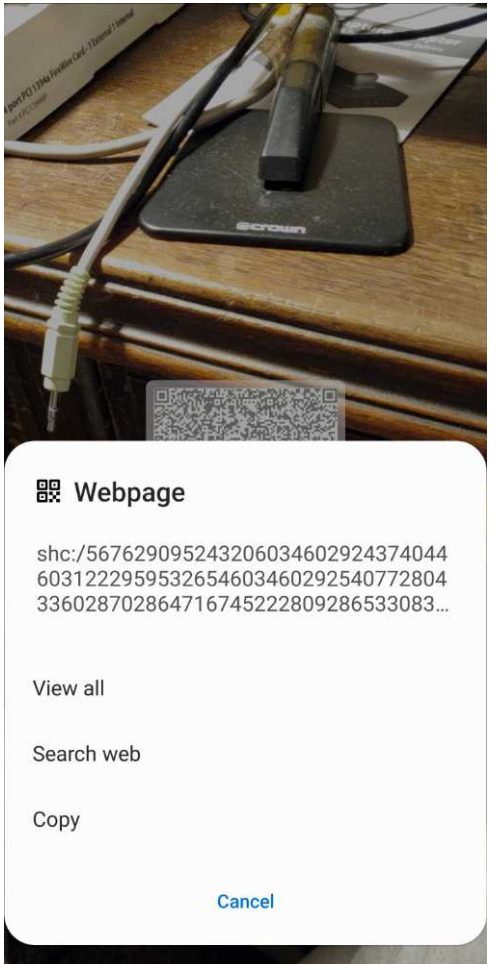
Once you save or print your record, your copy will not automatically update. If you receive an additional dose of the COVID-19 vaccine, be sure to obtain an updated version of your record at vaccinate.virginia.gov.

The QR code on your record is compatible with the SMART Health Card format and can be scanned with the Verifier app to confirm your vaccination record and that the record was issued by the Virginia Department of Health. The QR code contains name, date of birth, dates of vaccination, manufacturer, lot information, and provider for each dose of vaccine received.

For more information about your vaccination record, including QR codes, visit Frequently Asked Questions. For more information about COVID-19 vaccination, visit vaccinate.virginia.gov or call 877-VAX-IN-VA (877-829-4682).

The QR barcode is encrypted

- I tried scanning it.
- I saw a very long string of digits. I tapped that string of digits.
- My phone told me it lacked the appropriate app to read the barcode.
- The barcode includes the user-specific COVID vaccination details: name, date of birth, vaccination locales and dates, types, dosages



Encryption provides security

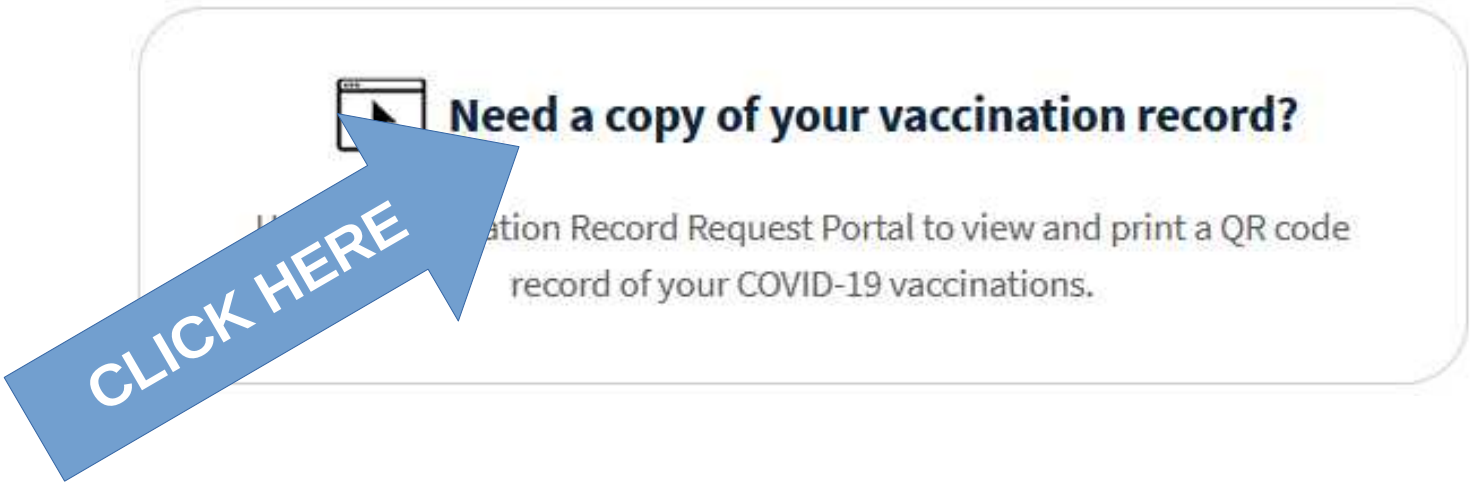
- Hacking the contents can be done if and only if the hacker has the **private digital key** used by VDH to encrypt the contents
- The barcode reader app provided by VDH uses a corresponding **public digital key** to decrypt the barcode contents

How to obtain the PDF

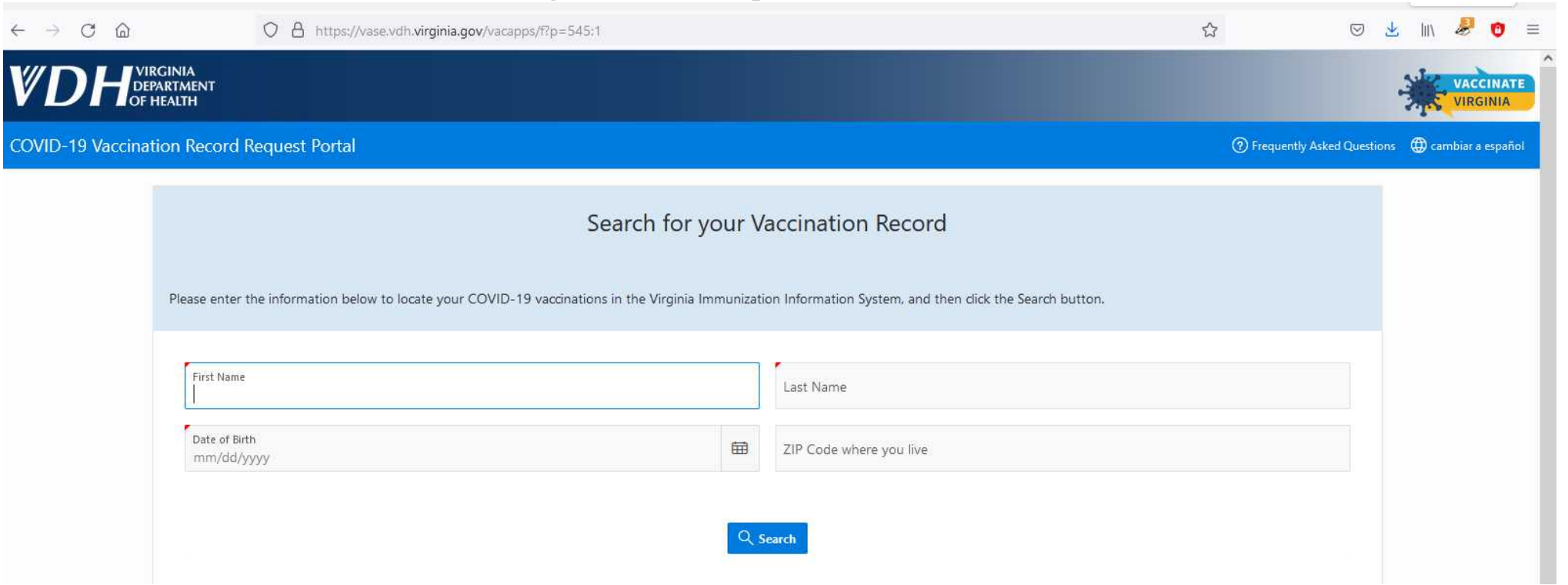
- Use your web browser to go to this web page: **https://vaccinate.virginia.gov**

Scan the QR code

- Find **this section** near the bottom of the web page:

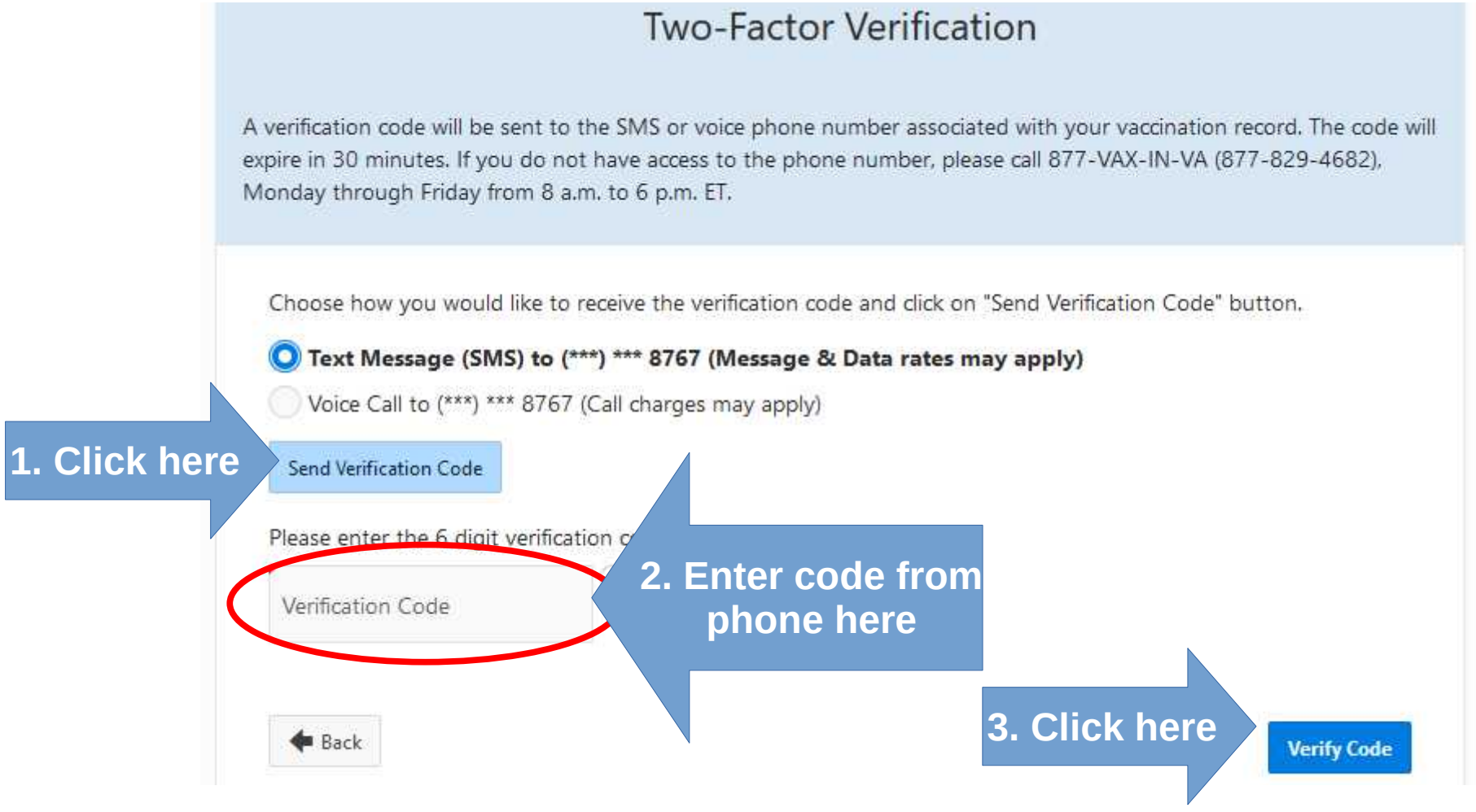


Enter your personal info



Enter first name, last name, date of birth, ZIP code
Tap the blue **Search button**

2-factor identity verification



The PDF appears in your browser

- Download the PDF file
- Make copies of the PDF file on your computer and phone
- On your phone, create a shortcut on your phone’s home screen for easy access
- Repeat the entire process after you receive a booster shot

How to create a shortcut (Android 11)

- On your Android device, use the **My Files app** to show a list of files in the folder containing the PDF file
- That folder could be Downloads if you downloaded the PDF file using your Android device
- In the files list, long-tap the PDF file to select it
- Tap the **More button** in the lower right corner. A menu pops up.
- In the menu, select **Add to Home Screen**

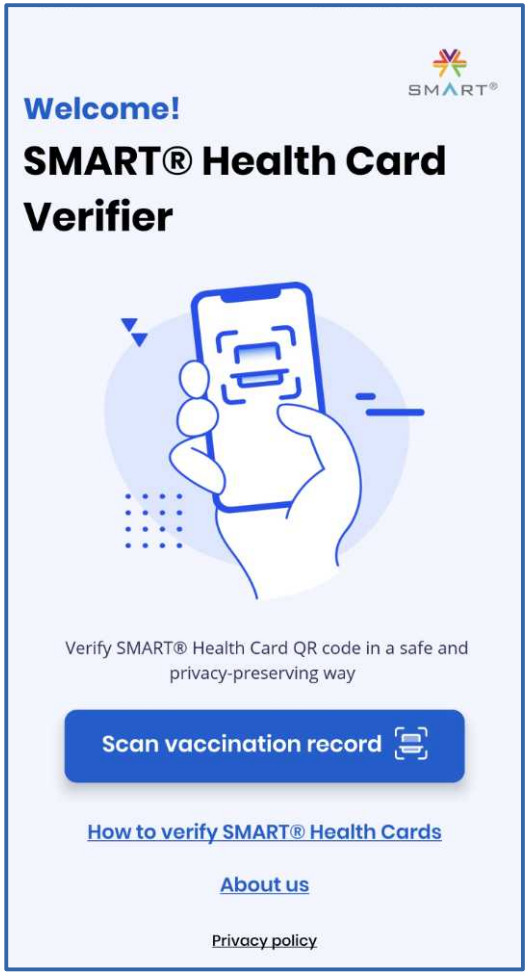
The Smart Health Card Verifier app

- Available to the general public on the Google Play Store and the Apple App Store for free
- Uses network services; may send barcode contents to servers for decryption; implying decryption key is not inside the app
- If no network is available (e.g., airplane mode), then the verifier app will NOT scan anything

The Smart Health Card Verifier App

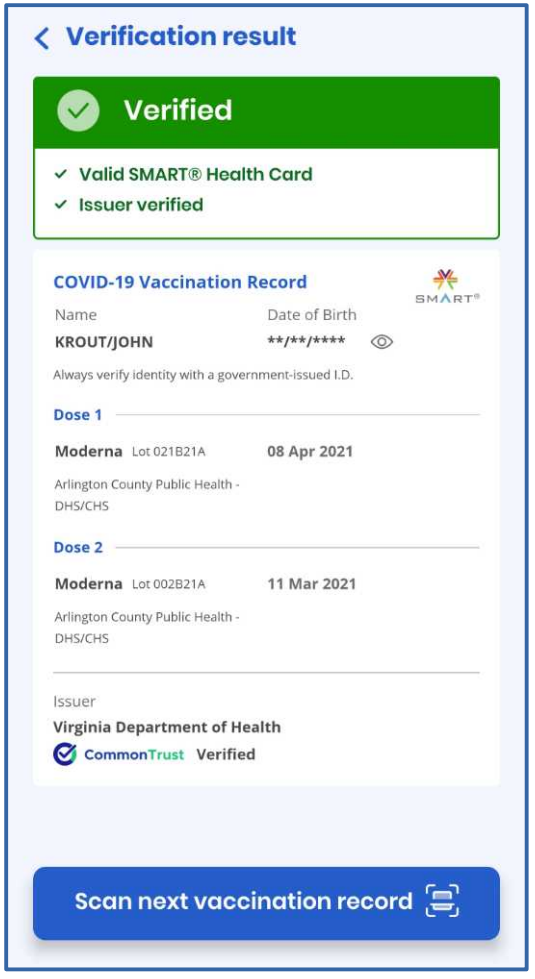
- On an Android 11 smart phone, the app appears with the name Verifier and this icon:

- Main screen includes a Scan Vaccination Record button:



- Scan result: Green/Yellow/Red
  Green means scanned barcode is valid and issuer is trusted
  Orange means barcode is valid and **issuer is not trusted**
  Red means barcode is **not valid**

The Smart Health Card Verifier App



Barcode verified using Verifier app

THE END