



WA Verify+ International Patient Summary



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January 17, 2024

Agenda

- Introduction to International Patient Summary(IPS) and SMART Health Links
- WAverify: Digital Collaboration on Vaccine Verification
- WAverify+: Expanding the data available using IPS and SMART Health Links

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- **Introduction to International Patient Summary(IPS) and SMART Health Links**
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What is the IPS?

- A standardized set of basic clinical data, which includes most important health and care related facts
- A summarized version of a patient's clinical data provides health professionals the essential information needed for care during a care transition



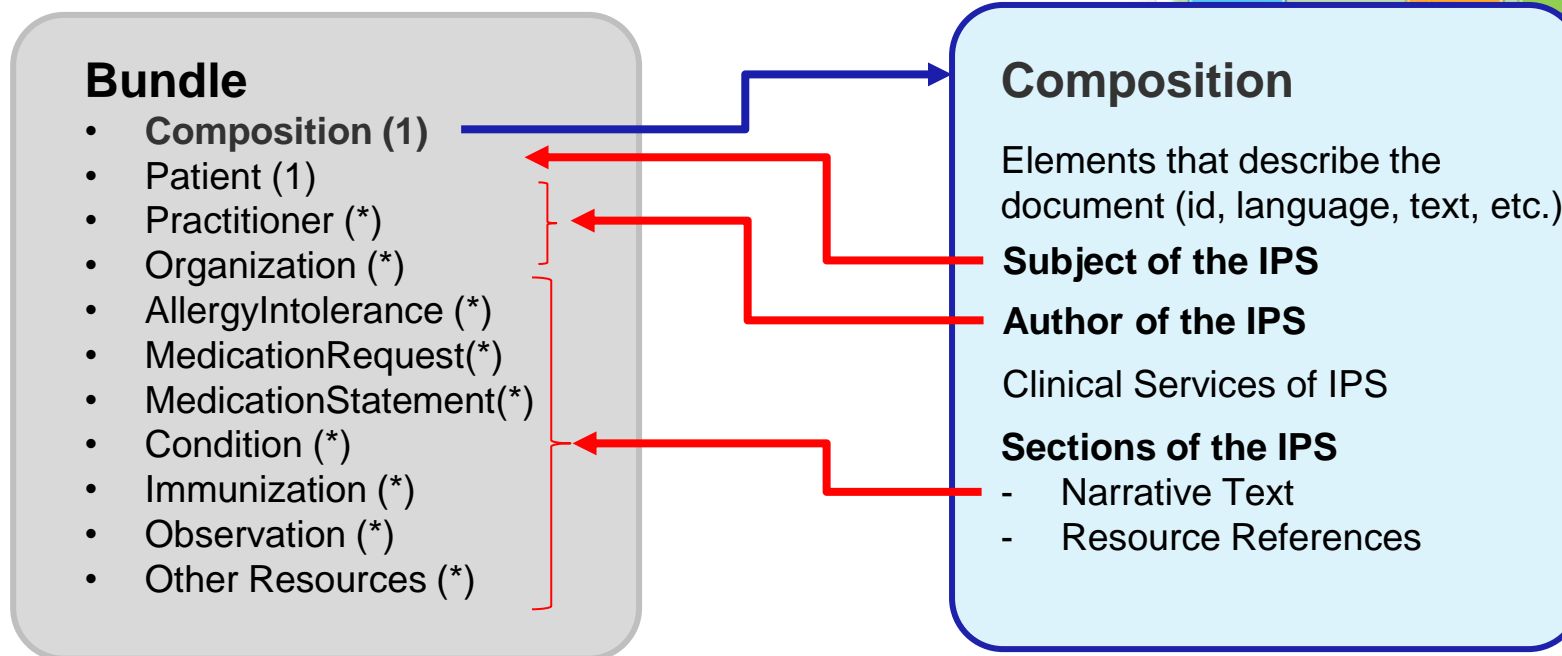
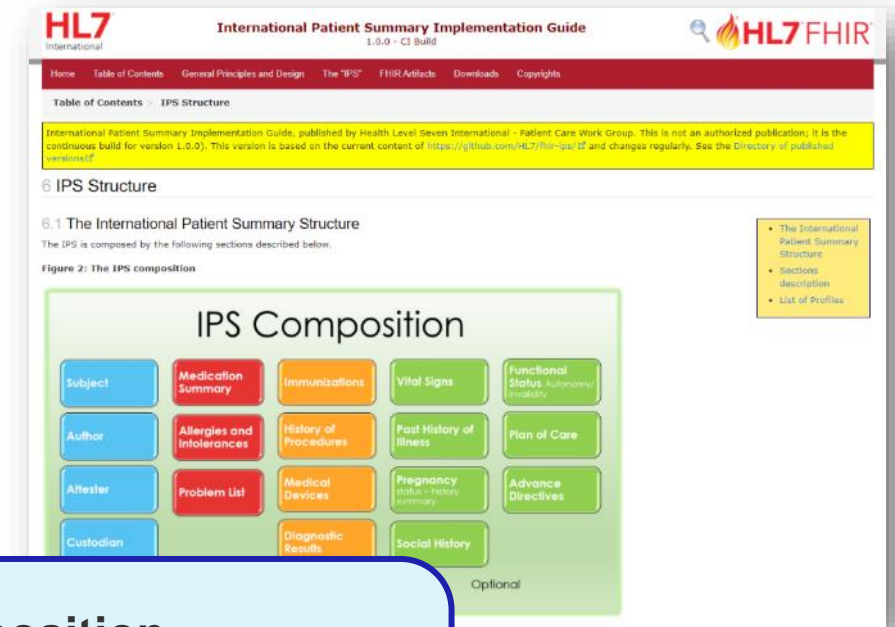
The International Patient Summary is a minimal and non-exhaustive set of basic clinical data of a patient, specialty-agnostic, condition-independent, but readily usable by all clinicians for the unscheduled (cross-border) patient care.

The IPS in

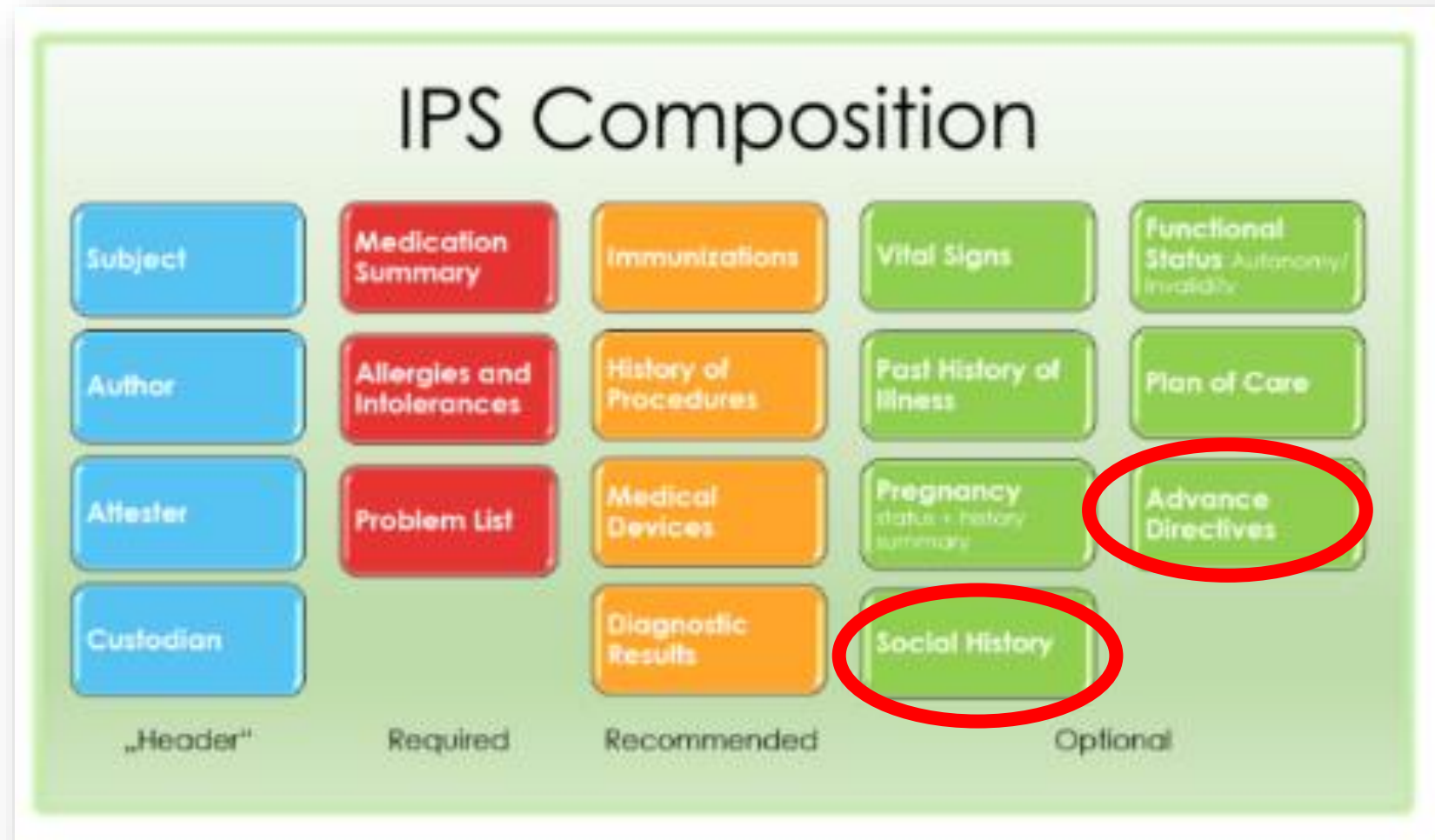
A care summary using the Composition Resource

Published: <https://hl7.org/fhir/uv/ips/> (STU 1.1)

Current: <http://build.fhir.org/ig/HL7/fhir-ips/>



Beyond Vaccines:



How to Learn More

<https://international-patient-summary.net/>

The screenshot shows the homepage of the International Patient Summary (IPS) website. At the top, there is a navigation menu with links for USERS, TOPICS, RESOURCES, COLLABORATION, and CONTACT. Below the menu is a header section featuring the IPS logo, which consists of a globe with a red caduceus symbol and the letters 'IPS' in red. To the right of the logo, the text reads 'The International Patient Summary' and 'key health data, worldwide'. A search icon and a menu icon are also present in the header. Below the header is a large banner image with a stethoscope and a person's arm. The banner contains the text 'Implementation Guidance' and 'Finding your way in the IPS standards is not always easy. Implementation guidance is available to help you structure your IPS data conformant to the standard and the technology used to implement it.'

<https://hl7.org/fhir/uv/ips/>

The screenshot shows the HL7 International Patient Summary Implementation Guide website. At the top, there is a navigation menu with links for Home, Table of Contents, General Principles and Design, The "IPS", FHIR Artifacts, Downloads, and Copyrights. Below the menu is a header section featuring the HL7 International logo and the text 'International Patient Summary Implementation Guide' and '1.1.0 - STU 1 Update 1'. Below the header is a table of contents section with the title '1 International Patient Summary Implementation Guide'. Below the table of contents is a table with the following information:

Official URL: http://hl7.org/fhir/uv/ips/ImplementationGuide/hl7.fhir.uv.ips	Version: 1.1.0	
IG Standards status: Trial-use	Maturity Level: 2	Computable Name: InternationalPatientSummaryIG
Page standards status: Informative		

Below the table is a section titled 'An International Patient Summary (IPS) document' which describes the document as an electronic health record extract containing essential healthcare information about a subject of care. Below this section is a list of products and their purposes:

- Purpose
- Project Background
- Project Scope
- Relationships with Other Projects and Guidelines
- Ballot Status
- Dependencies
- Cross Version Analysis
- Global Profiles
- Authors and Contributors

Below the list is a diagram titled 'Figure 1: The IPS product and by-products'. The diagram shows a blue arrow labeled 'The "IPS"' pointing to a stack of colored blocks representing the product and its by-products. The blocks are labeled: Terminology, Allergies / Medications, Problems, Medications, Results, and Procedures. Below the diagram is a row of icons representing the products: Allergies, Problems, Medications, Vaccinations, Results, Procedures, and a placeholder icon labeled '.....'.

Introduction to SMART Health Links



SMART Health Cards (Static)

Verified versions of your clinical information, e.g., vaccination history or test results, which contain a secure QR code and may be saved digitally or printed.

Used by

- 20+ US states
- Canada
- Japan
- Sydney, Australia
- 5+ other non-GDHP nations not listed



*Uses numeric encoding -
encoded as Compact Serialization
JSON Web Signatures (JWS)*

SMART Health Links (Dynamic)

An **embedded URL** in a QR code that links to data and/or FHIR endpoints. Generally, they would be used when the information is too big, changes regularly and/or has a need for additional security.



Prototyped in 2022

*Uses alphanumeric encoding -
logo can be used due to error correction*

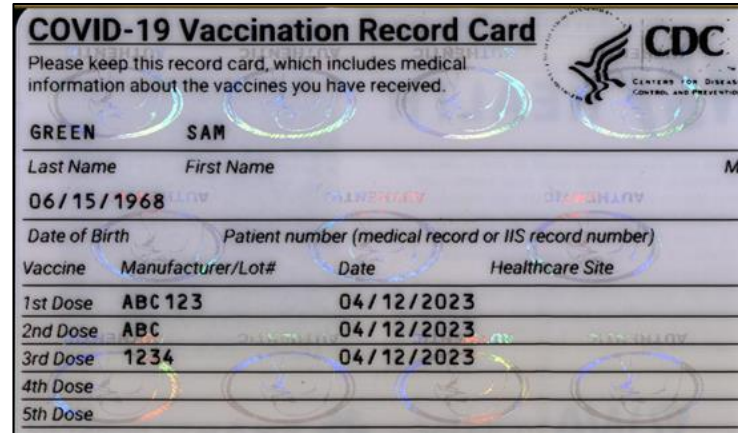
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- Digital vaccine verification in Washington State
 - SMART Health Cards (QR Codes)
- Rapid development, deployment, and testing
- Successful Public-Private-Academic partnership
- Currently available in 52 languages
- Nearly 2 million verifications since launch
- Now adding more: WAverify+

SMART Health Card QR Code and Printed Card



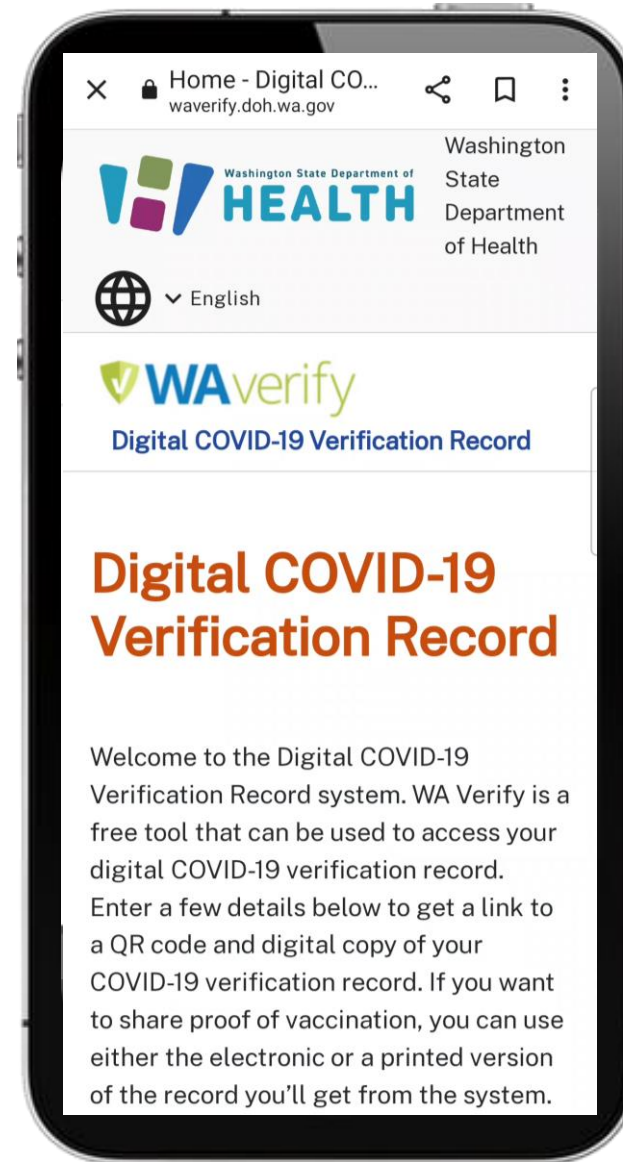
- Users can save their QR codes to Health or Wallet app, or as a PDF to file



Multi-Language Accessibility

Language is selected or auto-translates to the language pre-selected within system or browser settings.

WA Verify’s 52 supported languages represents the most of any Verifiable Clinical Information (VCI) issuer.



Multi-State and Cross-Sector Collaboration

- Multi-state collaboration with California, Oregon, and Washington
 - Leveraged the sharable components and reusable code with github repository
 - Shared configurations, lessons learned, enhancements, and approaches
 - Model for future projects
- Public-Private-Academic Partnerships



- Open VCI
- Interoperable apps from other vendors, including Docket

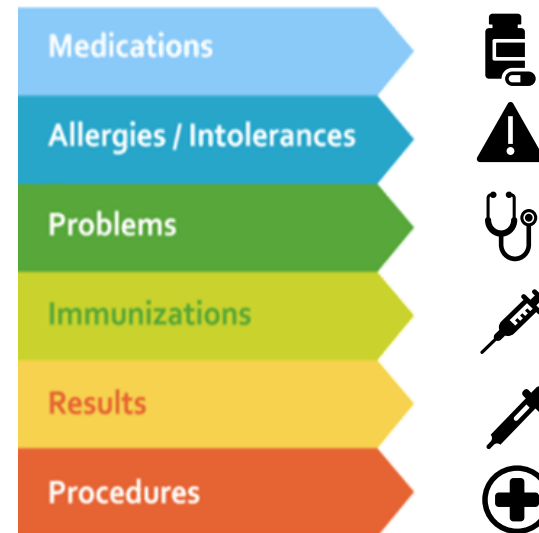


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WAverify+ Expansion with SMART Health Links

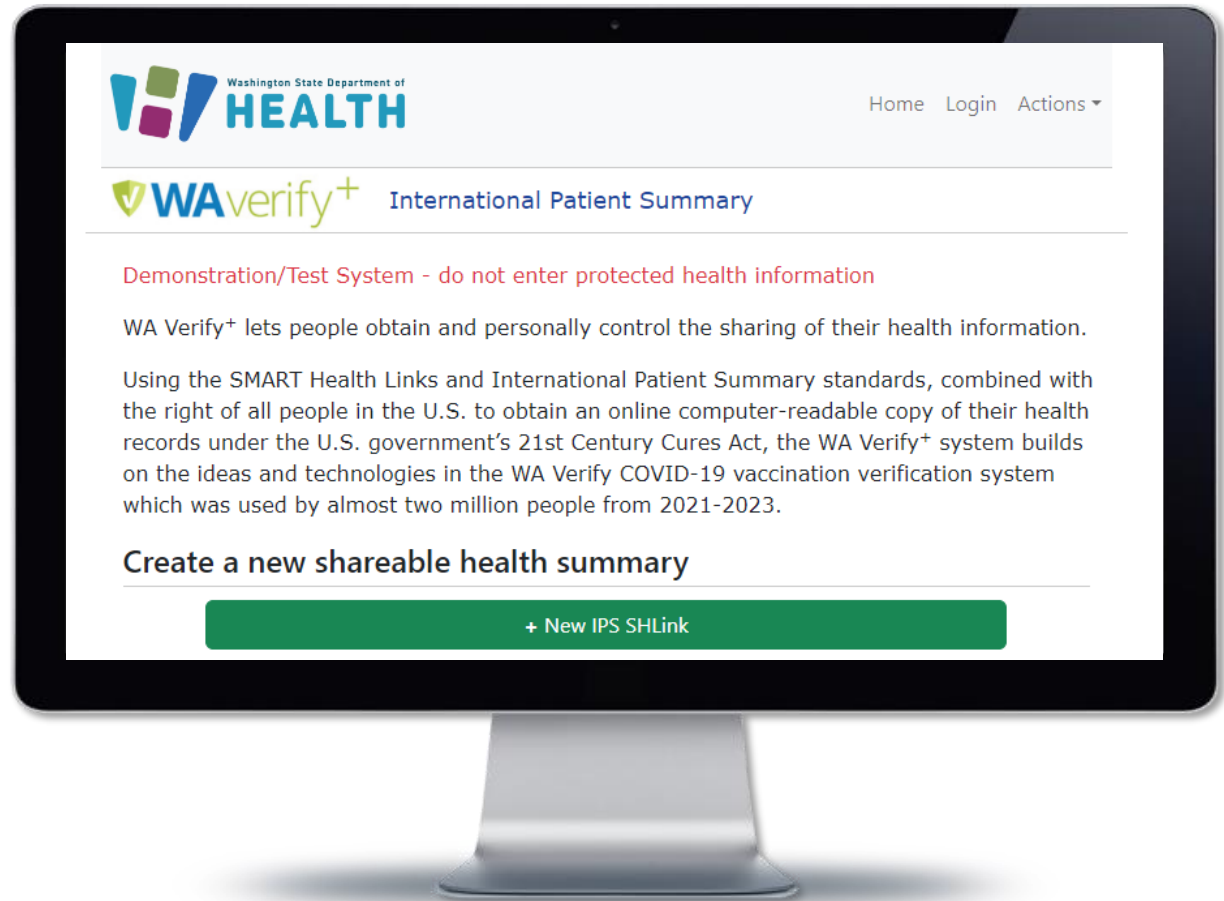
- International Patient Summary (IPS)
- Patient directed key verifiable clinical data for travel
- Embedded URL in a QR code that links to data and/or FHIR endpoints





<https://smart-health-links-ips.cirg.washington.edu/>

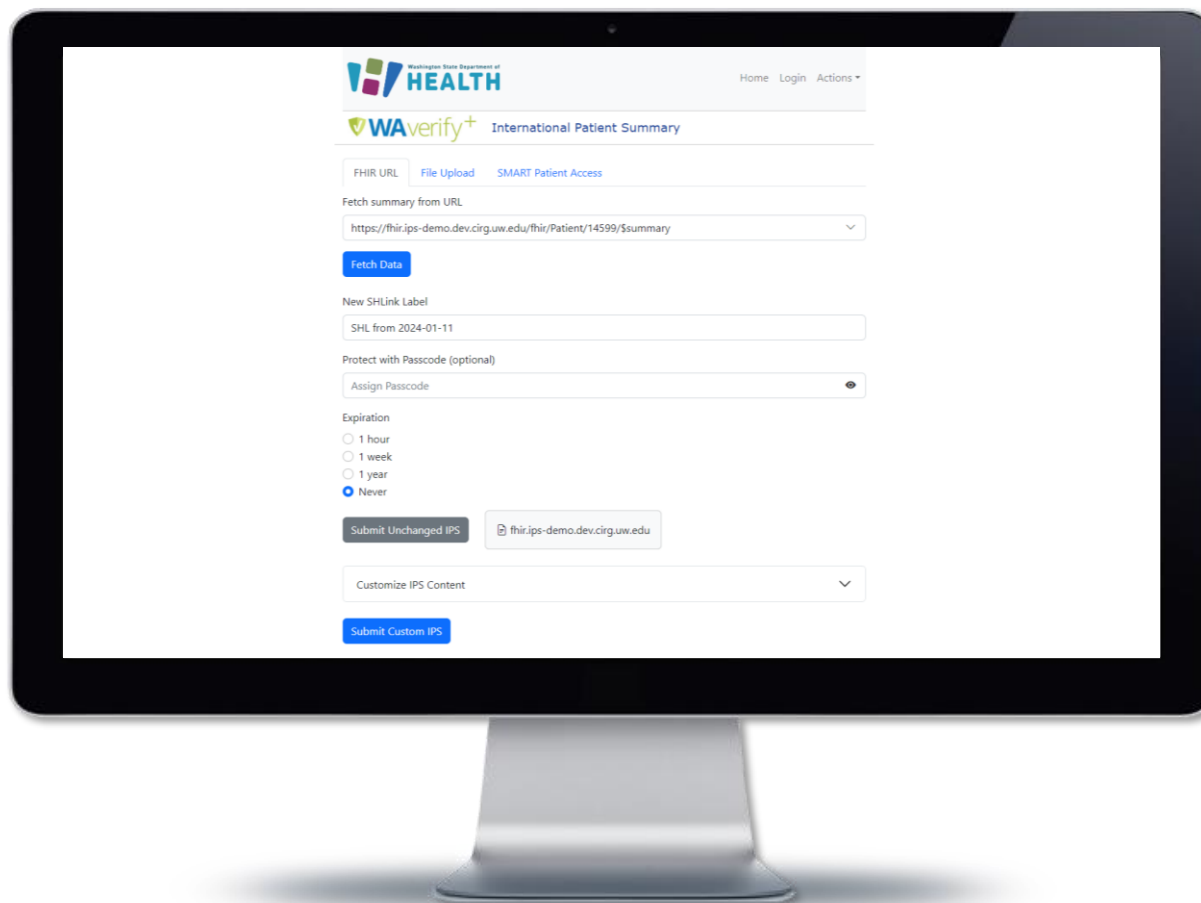
Populated using fictional HL7 patient information, <https://ips.health>



Multiple Methods for Access and Storing

1. FHIR URL
2. FHIR bundle
3. SMART authorization

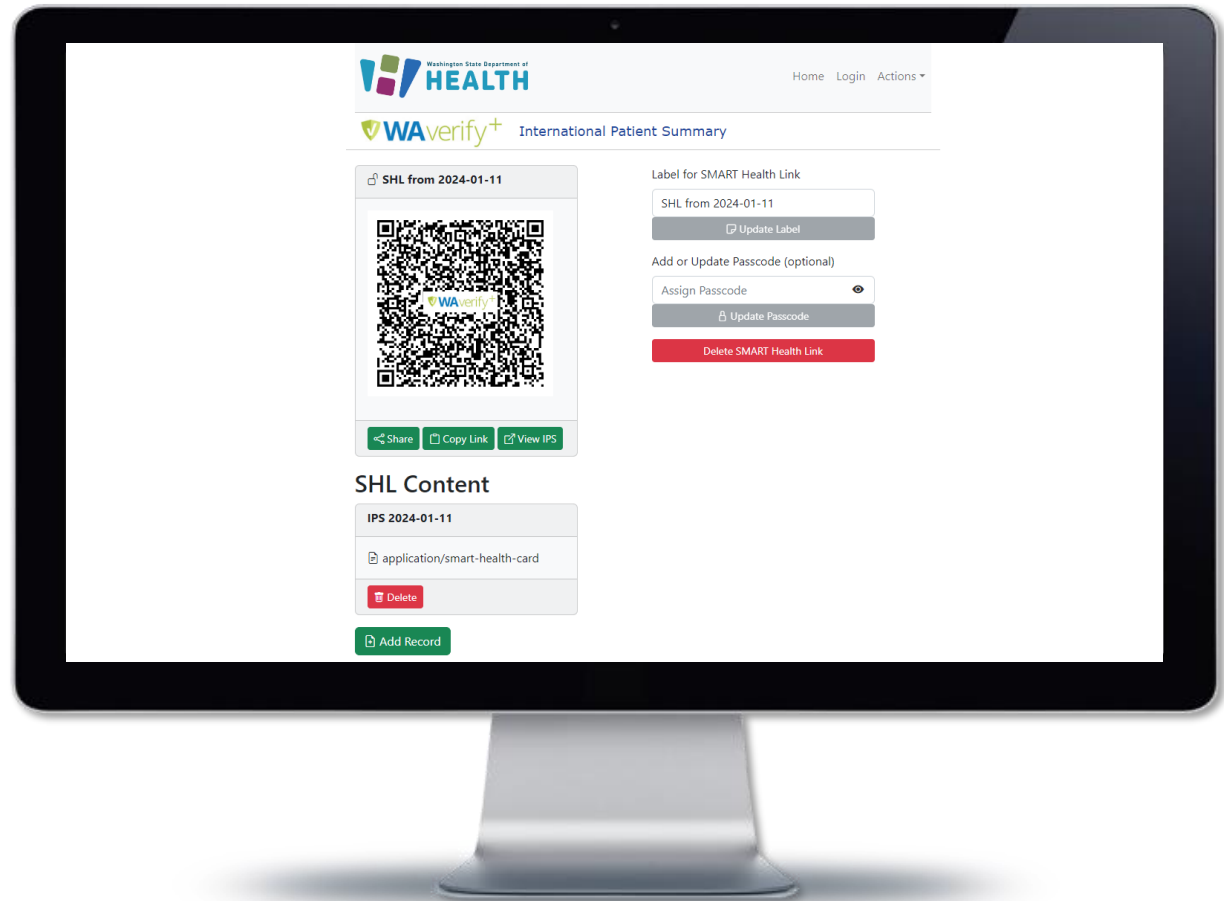
Each with selection for expiration duration – an hour, week, etc.



Password Protection


Waverify+ SHLink can be passcode protected for additional security.

The link itself is protected with encryption, minimizing risk of guessing or locating the link.




Empowering Patients with their Data

International Patient Summary
Please keep this record card for sharing your medical summary.



deBronkart	Dave	ePatient
<i>Last Name</i>	<i>First Name</i>	<i>MI</i>
01/20/1951		
<i>Date of Birth</i>		




Washington State Department of Health

Powered by VAXSYS®

e-Patient Dave
Democratizing healthcare





International Patient Summary



Present this Substitutable Medical Applications Reusable Technologies (SMART) Quick Response (QR) code to share your medical summary.

Medical summary includes allergies and intolerances, problems or diagnoses, current medications, and social history.





Visit waverify.doh.wa.gov to update your medical summary.



WAverify+ Viewer

- [Demo Link](#)

International Patient Summary		
<p>Present this Substitutable Medical Applications, Reusable Technologies (SMART) Health Card to share your verifiable clinical information (VCI).</p>		
Gravitate	Maria	S
<i>Last Name</i>	<i>First Name</i>	<i>MI</i>
05/05/1946		
<i>Date of Birth</i>		
Powered by VAXSYS®		

 SMART® Health Card	
<p>Check with your provider that you are not missing any routinely recommended vaccines.</p> <p>For more information and to update your health data, visit https://smart-health-links-ips.cirg.washington.edu/</p> <p>You can report possible adverse reactions following vaccination to the Vaccine Adverse Event Reporting System (VAERS) at vaers.hhs.gov</p>	 

Acknowledgements

- University of Washington Clinical Informatics Research Group
- University of Washington School of Public Health
- John D'Amore, More Informatics
- Health Level 7 (HL7) International Patient Care Working Group and Public Health Working Group
- LACPASS
- VAXSYS Technologies, Inc. | Barcodes, Inc.
- e-Patient Dave (Dave deBronkart)
- Microsoft Corp & Microsoft Research
- Google
- Apple
- MITRE Corporation
- Verifiable Clinical Information
- The Commons Project, JP Pollak, PhD
- Centers for Disease Control and Prevention (CDC)
- California Dept. of Technology (CDT) and Dept. of Public Health
- Boston Children's SMART Health

PUBLIC-PRIVATE-ACADEMIC PARTNERS



Public-Private-Academic coalitions have a unique power to do what a single entity cannot by itself. This superpower is invaluable when interoperability is needed and the common good is at stake.

References

Connectathons, Showcases, and FHIR Dev Days

HL7 FHIR Connectathons: New Orleans May 2023; Amsterdam June 2023; Phoenix Sept 2023

HIMSS23 Interoperability Showcase: Moving the Needle: Sharing Immunization Records

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Conference Presentations and Posters

Karras BT. Overview and Demo of Washington State's Work with IPS. 12th GDHP Summit IPS plenary. Dec 2023.

Karras BT, D'Amore J, Rahn, M. Making the IPS Portable and Expanding Access to Verifiable Health Information, The Experience of USA and Washington State with IPS, QR Codes and SMART Health Links. Lac Pass Connectathon. Nov 2023.

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Karras BT, Chorath J. Washington: WA Verify. AIRA National Meeting. April 2022.

Blog Posts

deBronkart, Dave. Casey Quinlan's QR code dream starts coming to life – using FHIR. e-Patient Dave. Accessed 11/8/2023. Available online: <https://www.epatientdave.com/2023/09/11/making-caseys-qr-dream-starts-coming-to-life-at-last-slowly-using-fhir/>



3rd Place  Leap of Faith Technologies

Sophia Cantor MPH

Washington State Department of Health

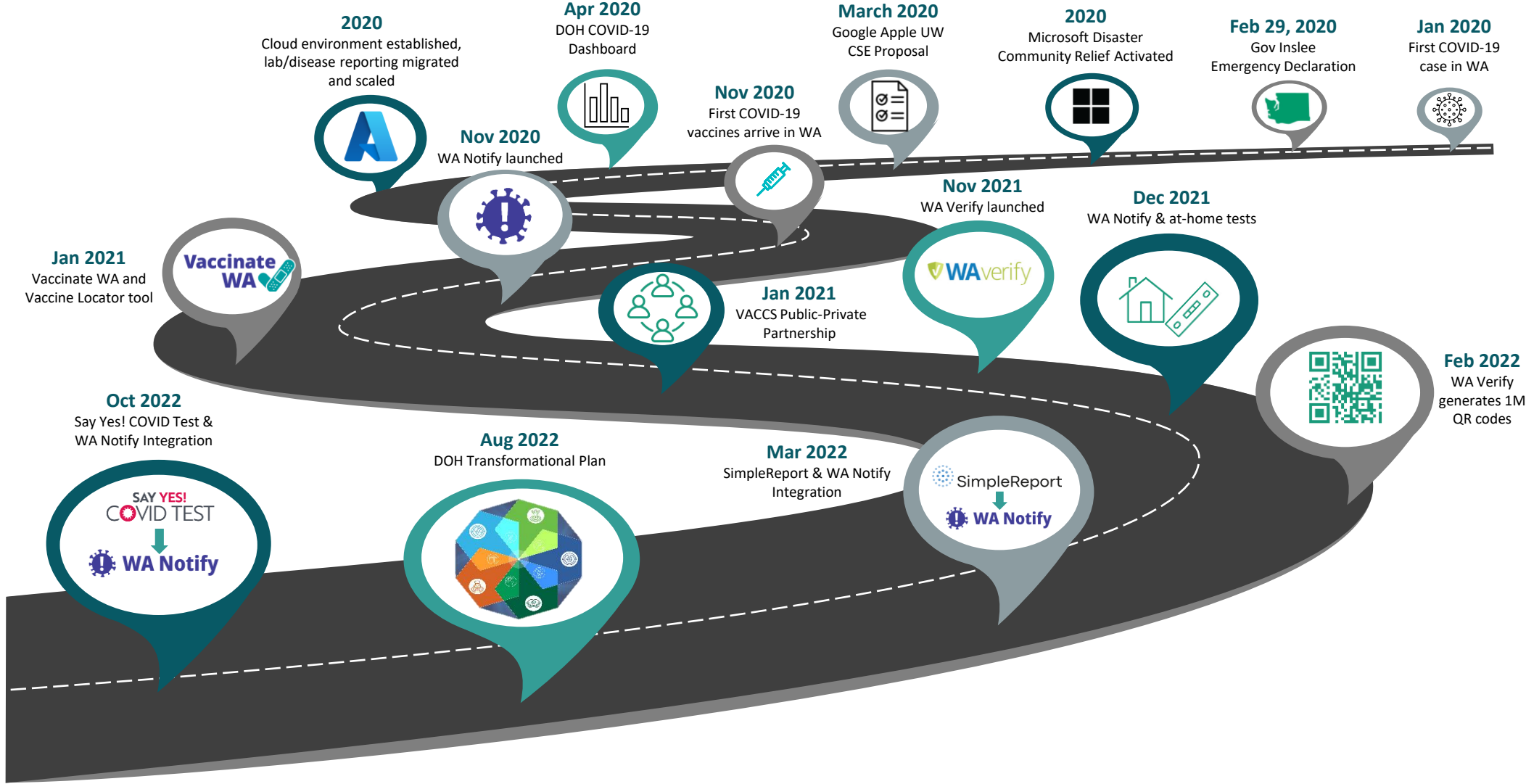
CDC/CSTE APH Informatics Fellow

SMART Health QR Codes Ready for Take-Off

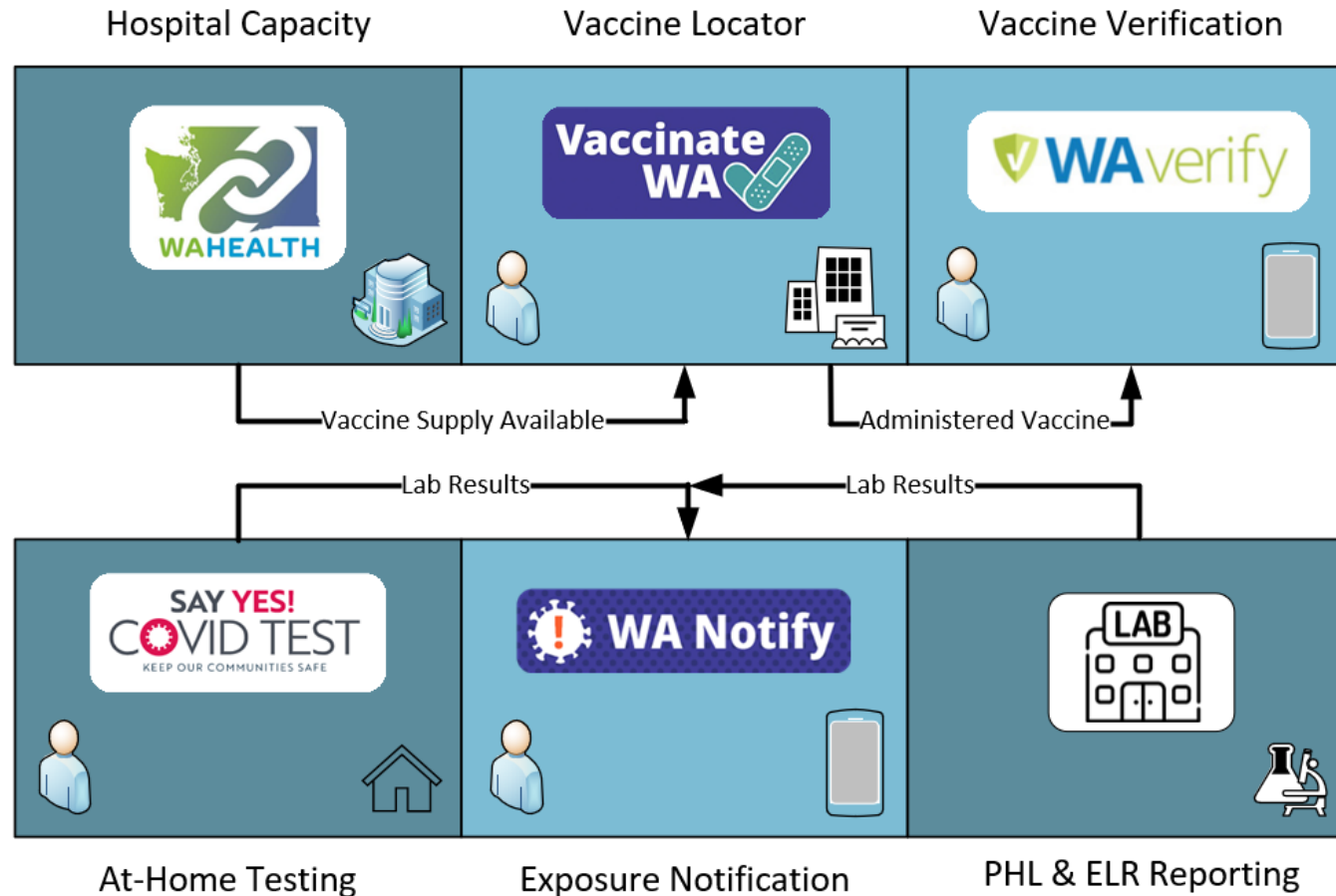



Questions?

COVID-19 Milestones



WA DOH COVID-19 Digital Ecosystem



 Directly assists the general public



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