SMART Health Cards Vaccination Terminology Approach

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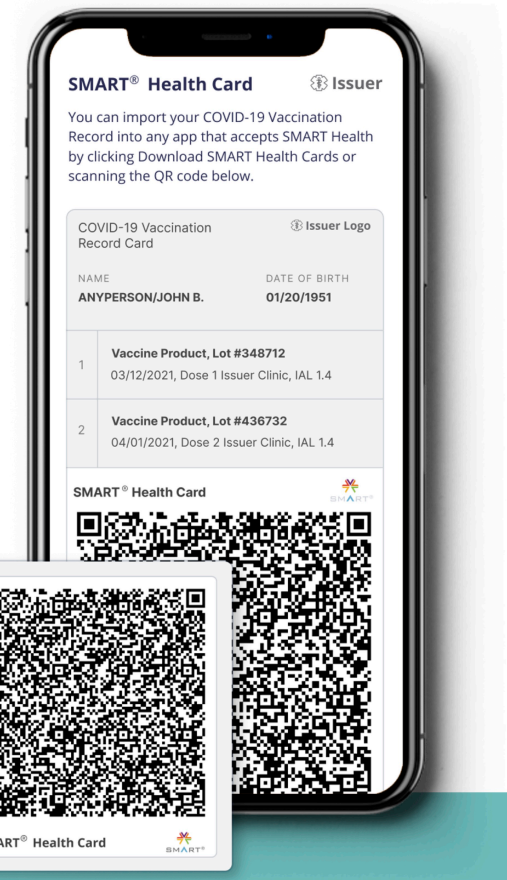
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About SMART Health Cards

What is a SMART Health Card?

A SMART Health Card is a paper or digital version of an individual's clinical information, such as vaccination history or test results. They allow individuals to keep a copy of their records on hand and easily share this information with others if they choose.

When scanned, a verifier can easily authenticate the information on the card, making SMART Health Cards **a safe and reliable way to demonstrate health status.**



Sample SMART Health Card (paper and digital)

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SHC workflow

1. **Issuer** generates SHC
2. **Wallet** holds SHC
3. **Verifier** reads and processes SHC

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Terminology needs

1. Issuer
   - Map internal vaccine codes to SHC-approved codes
   - Get all SHCs for a given disease
2. Wallet
   - Display text (localized?) identifying a vaccine
3. Verifier
   - Identify vaccines for business logic
     - Challenge: different vaccines require different levels of granularity

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Implementation

- 3 code systems for identifying vaccines: CVX, ICD-11 MMS, SNOMED CT
- Granularity: sufficient for evaluating against vaccine schedule in issuing jurisdiction
- Remove value sets from FHIR IG (updates limited by HL7 balloting/publication) and into external website/FHIR IG

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Lessons learned

1. Focus on real-world use cases
2. Use well-known open source-style licenses (like MIT or Creative Commons)
3. No code system is perfect (especially in pandemic response), so SHC spec needs some flexibility
4. Provide both computable and human-readable value sets
5. Support implementers without prior health/vaccine experience

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Open questions

1. Does this approach work for general vaccine records?
2. What happens with new EUA vaccines?

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Relevant documentation

1. http://vci.org/ig/vaccination-and-testing
2. https://terminology.smarthealth.cards

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