



AIRA
AMERICAN IMMUNIZATION
REGISTRY ASSOCIATION

International Vaccine Codes

July 2024

Agenda

- Welcome & Introductions
- Roundtable updates
- Vision and Goals
 - Report back on Expert Interviews
- Next steps



Introductions

- **Name**
 - **Organization**
- Nathan Bunker (AIRA)



Roundtable Updates

Roundtable Updates

- United States
 - HTI-2
- Other countries or projects?



International Patient Summary

Nathan Bunker

International Patient Summary

- Bundle of FHIR resources
- Essential care information
 - Unscheduled medical situation
 - Cross-organization care paths
 - Crystallization point for health record
- Balloted at HL7 – August 2024
- Major topic for HL7 Work Group Meeting, Sept 2024

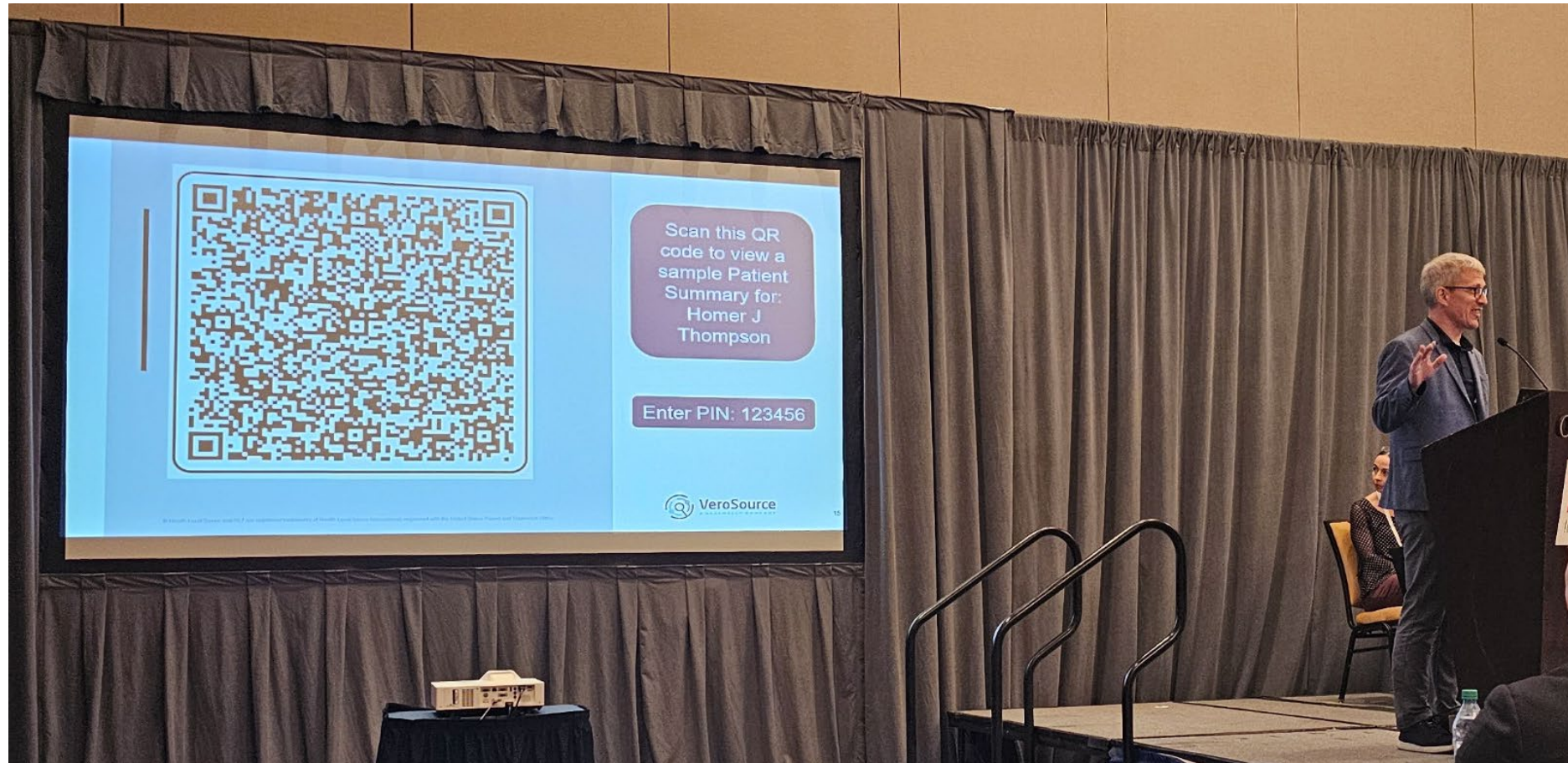


International Patient Summary (IPS)

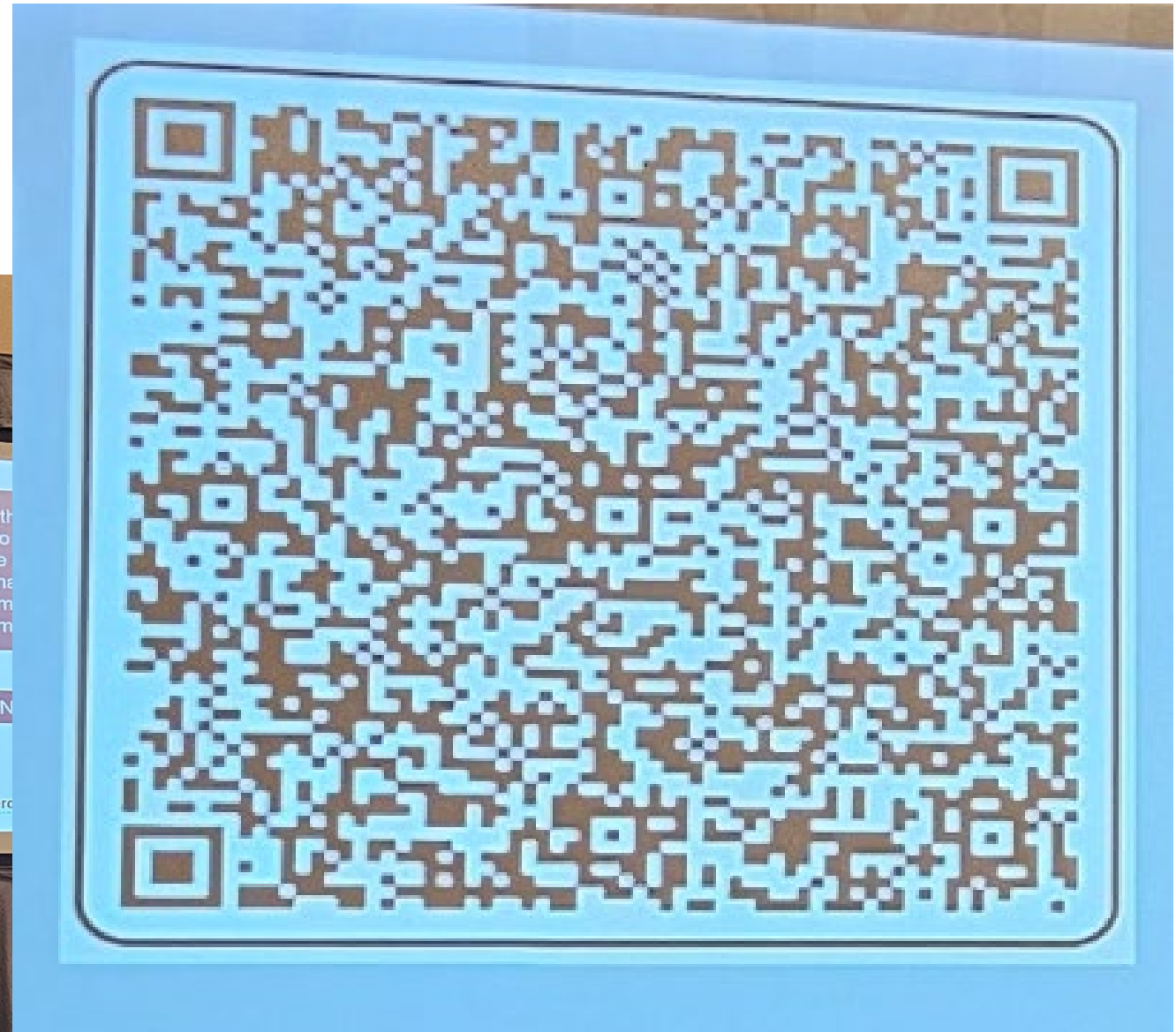
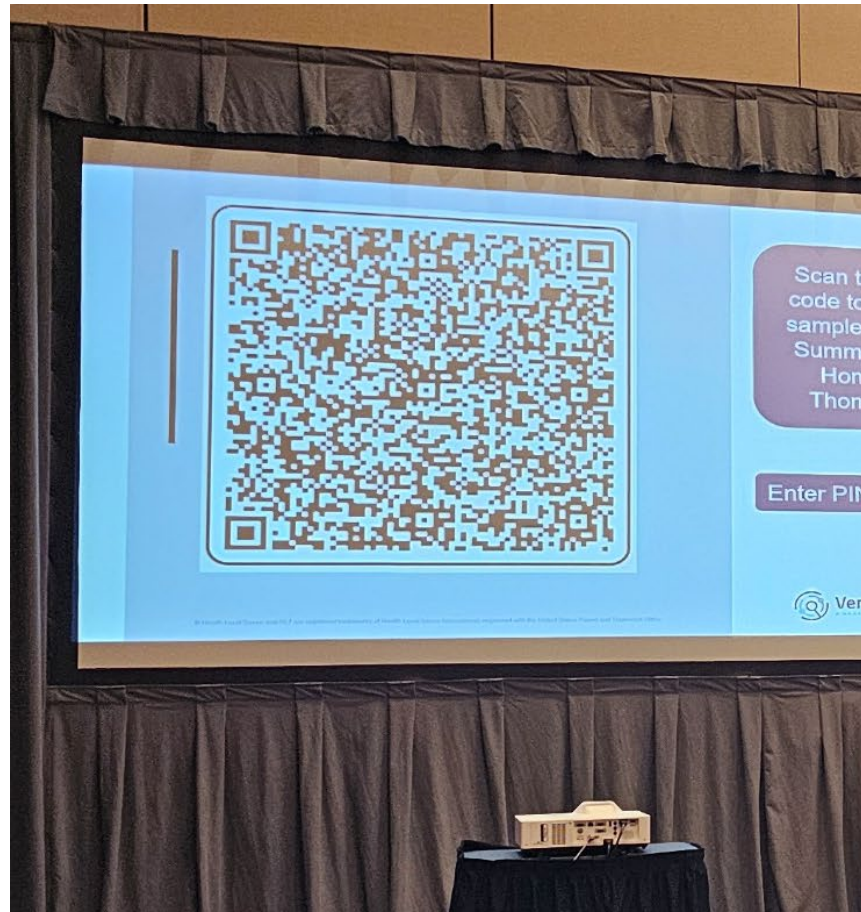
- Misconceptions
 - For all borders, not just international
 - Borders begin where you leave your house
- Adoption
 - Epic support in May 2025.
 - Canada implementing in many provinces
 - SMART Health Links + IPS
- Challenges
 - Provenance and verification
 - European law: identity of receiver



New Brunswick IPS



New Brunswick IPS



Examples

- New Brunswick
- Vaccine codes
 - CVC Antigen
 - CVC Generic
 - CVC Tradename

```
"resourceType": "Immunization",
"meta": {
  "versionId": "1313.2022-12-16T18:10:14Z",
  "lastUpdated": "2022-12-16T18:10:14.517+00:00"
},
"language": "en-CA",
"extension": [
  {
    "url": "https://fhir.infoway-inforoute.ca/StructureDefinition/ca-nb-immunization",
    "valueBoolean": true
  },
  {
    "url": "http://hl7.org/fhir/StructureDefinition/narrativeLink",
    "valueUrl": "urn:uuid:fee3cc80-caf0-4f03-830a-bd8ac56456e9#Immunization-urn:uuid:"
  }
],
"identifier": [
  {
    "system": "https://fhir.infoway-inforoute.ca/NamingSystem/ca-nb-immunization-id",
    "value": "1313"
  }
],
"status": "completed",
"vaccineCode": {
  "coding": [
    {
      "system": "https://cvc.canimmunize.ca/v3/ValueSet/AntigenIgAntitoxin",
      "code": "121000004",
      "display": "Rotavirus (Rota-u)"
    },
    {
      "system": "https://cvc.canimmunize.ca/v3/ValueSet/Generic",
      "code": "116077000",
      "display": "Rota-unspecified"
    },
    {
      "system": "https://cvc.canimmunize.ca/v3/ValueSet/TradeName",
      "display": "unspecified"
    }
  ]
},
"patient": {
  "reference": "urn:uuid:9e6b5590-ac4f-4159-ada7-4c1e6a75551e"
},
"occurrenceDateTime": "2022-04-01T13:30:00-03:00",
```



Examples

- Europe IPS
- Vaccine codes
 - CVX

```
"resourceType": "Immunization",
"id": "11439254",
"meta": {
  "versionId": "1",
  "lastUpdated": "2023-09-09T18:06:46.931+00:00",
  "source": "#hUVkzH0MfJMp7fV",
  "tag": [ {
    "system": "https://smarthealthit.org/tags",
    "code": "synthea-5-2019"
  } ]
},
"extension": [ {
  "url": "http://hl7.org/fhir/StructureDefinition/narrativeLink",
  "valueUrl": "urn:uuid:d4b31a67-58b1-4203-bce5-b1f5b74c46d4#Immunizati
} ],
"status": "completed",
"vaccineCode": {
  "coding": [ {
    "system": "http://hl7.org/fhir/sid/cvx",
    "code": "140",
    "display": "Influenza, seasonal, injectable, preservative free"
  } ],
  "text": "Influenza, seasonal, injectable, preservative free"
},
"patient": {
  "reference": "Patient/11439250"
},
"occurrenceDateTime": "2019-11-29T23:37:54+00:00",
"primarySource": true
```



Examples

- New Zealand
- Vaccine codes
 - CVX

```
"resourceType": "Immunization",
"id": "17b5a6d7-307b-4726-8c8c-0031e61582ce",
"text": {
  "status": "generated",
  "div": "<div xmlns='http://www.w3.org/1999/xhtml' xml:lang='en-NZ'>99006 (Influenza
},
"status": "completed",
"vaccineCode": {
  "coding": [
    {
      "system": "http://hl7.org/fhir/sid/cvx",
      "code": "141",
      "display": "Influenza, seasonal, injectable"
    }
  ]
},
"patient": {
  "reference": "Patient/NNJ9186"
},
"occurrenceDateTime": "2024-04-10",
```



Examples

- Epic
- Vaccine codes
 - Unknown

```
"resourceType": "Immunization",
"id": "eolPL3P4UnBtzmOTdwKL6feB5jsIUGc9LcbJn909hqQI3",
"identifier": [
  {
    "use": "usual",
    "system": "urn:oid:1.2.840.114350.1.13.1.1.7.2.768076",
    "value": "1000001073"
  }
],
"status": "completed",
"vaccineCode": {
  "text": "DPT/HIB"
},
"patient": {
  "reference": "Patient/eHXQnz7TxegLxLL92d2JKTw3",
  "display": "Connectathon, Sept JWJ"
},
"occurrenceDateTime": "2024-09-21",
```



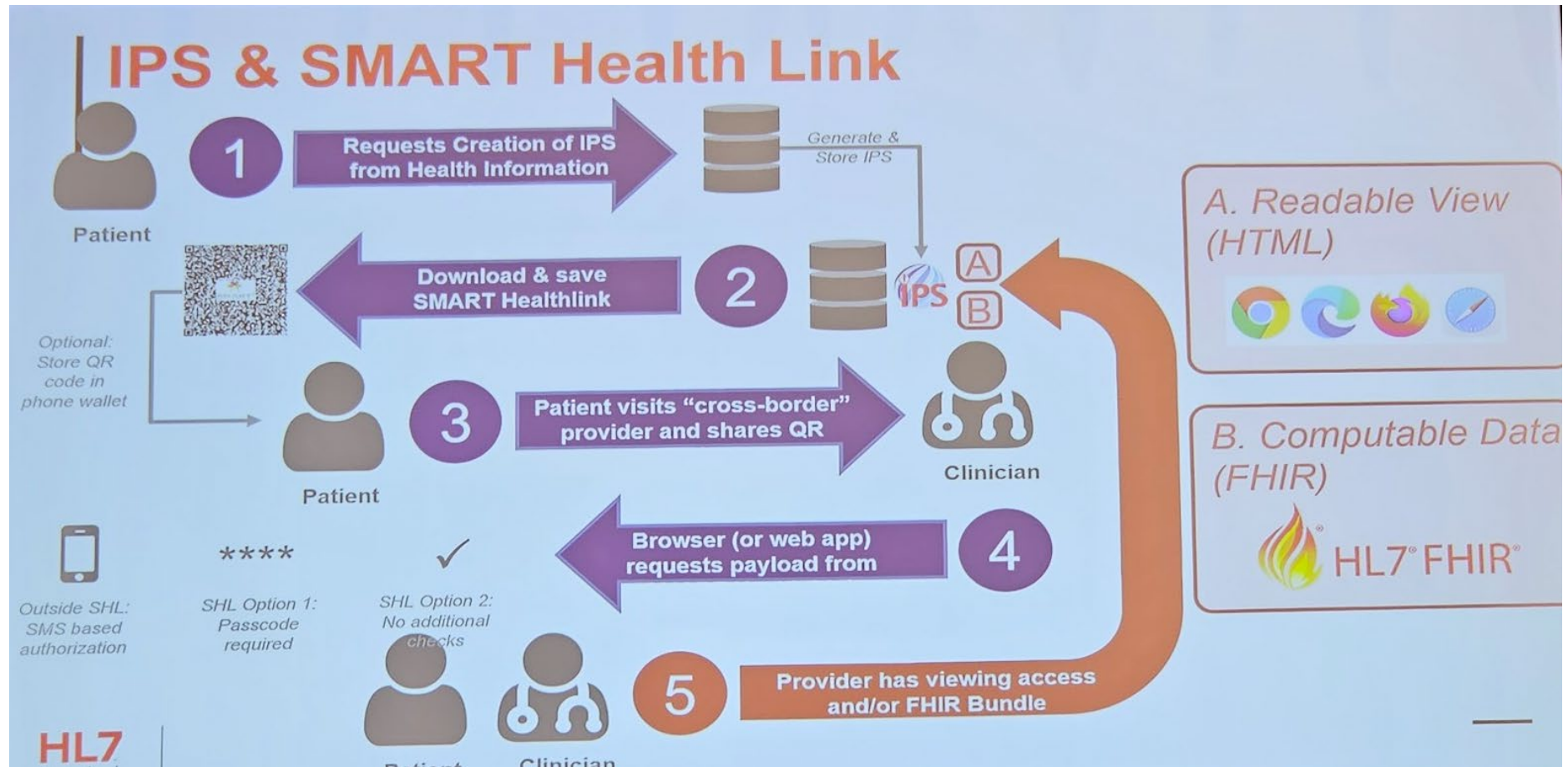
Examples

- Meditech
- Vaccine codes
 - None

```
"id": "c3b81db3-67cf-5571-8773-8db715871424",
"status": "completed",
"vaccineCode": {
  "text": "COVID-19 (J&J)"
},
"patient": {
  "reference": "Patient/c06d8496-da94-514a-8f79-595b43895004",
  "display": "Williams,Veronica",
  "type": "Patient"
},
"meta": {
  "profile": [
    "http://ontariohealth.ca/fhir/StructureDefinition/ca-on-ps-pr",
    "http://fhir.infoway-inforoute.ca/io/psca/StructureDefinition",
    "http://hl7.org/fhir/uv/ips/StructureDefinition/immunization-"
  ]
},
"occurrenceDateTime": "2021-10-19",
"recorded": "2024-08-08",
"primarySource": false,
"reportOrigin": {
  "text": "Patient"
},
"resourceType": "Immunization"
```



SMART Health Links



SMART Health Links

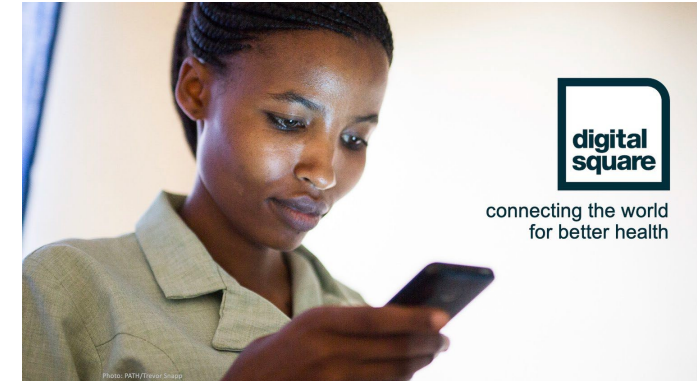
- Same link supports two interaction styles:
 - User friendly web interface – Default
 - FHIR data – For SMART apps
- Canada exploring
 - Piloting SMART Health Links delivering IPS
 - Conducting interviews of users
- Interesting observations and discussions
 - Canada gives links a 24-hour life
 - IPS doesn't support tamper-proof measures directly
 - European law wants to track who sees link



Country Interviews

Nathan Bunker (AIRA)

IVC Update



- PATH Digital Square Initiative
 - Digital Innovation Pandemic Control (DIPC) project
 - Funded by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
 - Ghana, Tanzania, Malawi
 - Providing training on FHIR
 - Working with local software developers
 - Systems are based on OpenSRP, OpenMRS, and DHIS2
 - Following SMART Guidelines – at level L2
 - Local need for training about vaccines and vaccine codes



IVC Update

- Ireland
 - National medication catalog
 - Currently using HL7 v2 and CVX for Influenza and Covid reporting
 - Ukrainian kids were revaccinated for lack of vaccination history
- New Zealand
 - Talked with contact at HL7 WGM
 - Looking to map CVX to SNOMED



Next Steps

Nathan Bunker, AIRA



Next Meeting

- Next Meeting
 - November 13
 - Moving to 8am ET / 4pm CET
- Coming soon
 - Extending invitation to WHO and SNOMED to present
 - IVC en Español (targeting January)
- In-Person
 - May 2025 – Bordeaux
 - Looking for in-country vaccine terminologists to invite

