

The Office of the National Coordinator for  
Health Information Technology



**Collaborations to Support Consumer Access to IIS:  
Goal: Increase consumer access to online immunization  
records and forecasts.**

**October 18, 2018**

Putting the **I** in Health **IT**  
[www.HealthIT.gov](http://www.HealthIT.gov)

<https://www.cdc.gov/ehrmeaningfuluse/joint-public-health-forum--cdc-nationwide.html>

Meaningful Use

- Meaningful Use
- Introduction
- Calendar
- Connect with Others -
- CDC Meaningful Use ListServ
- Meaningful Use Community -
- Public Health - EHR Vendors Collaboration Initiative
- Joint Public Health Forum & CDC Nationwide**
- Meaningful Use (MU) Public Health (PH) Reporting Requirements Task Force
- Community of Practice (CoP)
- ELR Task Force +
- Jurisdiction Meaningful Use Websites
- S & I Framework
- Reportable Conditions Knowledge Management System
- External Links

Meaningful Use

CDC > Meaningful Use > Connect with Others > Meaningful Use Community

## Joint Public Health Forum & CDC Nationwide

[f](#) [t](#) [+](#)

### Community Profile

The Office of the National Coordinator for Health IT (ONC) and the Centers for Disease Control & Prevention (CDC) jointly sponsor this initiative, which features monthly webinars to foster collaboration amongst the public health jurisdictions across the nation, in response to the widespread adoption of electronic health records (EHRs) for Meaningful Use.

The objectives for this initiative include:

- Identify common questions and concerns around meaningful use
- Provide updates on federal partner activities in preparing for meaningful use
- Allow public health jurisdictions to share useful practices and current progress
- Identify technical assistance needs and priorities

*Note: Webinar pre-registration is required and the instructions to register are provided in the Monthly Webinar Registration section below.*

Please send in your feedback, questions, and/or suggestions for these Joint Public Health Forum & CDC Nationwide Webinars to the Meaningful Use Mailbox ([meaningfuluse@cdc.gov](mailto:meaningfuluse@cdc.gov)).

#### Meeting Schedule and Webinar Information

**Meeting Schedule:**

# Question and Answer Session

## How to submit or ask questions using Ready Talk ?



# CTO

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The screenshot shows a web interface for "Participant Feedback". At the top, there is a header with a speech bubble icon and the text "Participant Feedback". Below this, there are three tabs: "Q&A", "Questions", and "Answered". The "Q&A" tab is currently selected. The main content area is a large white text input field with a vertical scrollbar on the right. Below the input field, there is a smaller text input field with the placeholder text "<Type message here>". At the bottom of the interface, there is a dropdown menu with the placeholder text "<Select Chat Recipient>" and a "Send" button.

### Submit or Ask Questions

Submit your text question and comments using the Participant Feedback



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# Collaborations to Support Consumer Access to IIS

October 18, 2018

# Consumer Engagement for IIS Project

Goal: Increase consumer access to online immunization records and forecasts.

Collaborative project between CTO, ONC, CDC, Audacious Inquiry (Ai), and Scientific Technologies Corporation (STC).



# Project Activities 2013 - 2017

- Piloted MyIR in 5 states
- Marketing
- Evaluation



**MyIR**

# 2013 - 2015 Registration Workflows

## Consumer- initiated

- Online self-registration
- ↓
- One-time in-person provider authentication and approval
- ↓
- Free anytime, anywhere records access

## Provider- initiated

- In-Office consumer recruitment & registration
- ↓
- In-Office authentication & approval
- ↓
- Promote in-office account activation – free anytime, anywhere records access

# Consumer Registration Options – Years 1-2

## Provider-Authenticate Registration: Consumer or Provider-Initiated

1. Register online at myir.net
  - Consumer
  - Provider
2. Consumer visits healthcare provider for in-person authentication and approval.
3. Healthcare provider identity-proofs consumer and provides access code to consumer.
4. Consumer enters access code to complete the authentication process and obtain access to immunization record.

## Evaluation Findings – Pilot Year 2

### Provider-Initiated registration process

- Forgot to go online and complete steps (27%)
- Forgot/lost PIN (22%)
- Didn't have time to complete (17%)

### Consumer-Initiated registration process

- Didn't know had to go to provider office to complete registration (37%)
- Waiting until next scheduled visit to complete registration (23%)
- Not willing to schedule a visit just to complete registration (19%)

# User Workflow

1

Login

Email  Password

2

Select Record

Personal Certificate With Schedule

Certificate of Immunization

3

View  
Download  
Print  
Share

 **State of Louisiana Universal Certificate of Immunizations**

Expiration Dates: 01/28/2014 Vaccines: DTaP/DT/d  
This record is invalid without a proper expiration date

Child's Name: Morgan Daub Date of Birth: 06/01/2002 Parent or Guardian: Erich Daub  
SIHS Patient ID: 560301

Vaccine	MONTH, DAY AND YEAR EACH DOSE WAS GIVEN							
	Dose 1	Dose 2	Dose 3	Dose 4	Dose 5	Dose 6	Dose 7	Dose 8
DTaP/DT/d	06/01/2003	06/29/2003						
VARICELLA	06/01/2003	06/29/2006						
MMR	06/01/2003	06/01/2006						
POLIO	08/01/2002	10/01/2002	12/01/2002	06/01/2006				
HEP-B 3 DOSE	06/01/2002	08/01/2002	12/01/2002					
PNEUMO (PCV)	10/01/2002							
HEP-A								
HIB								

\* School Entry Complete-Minimum: 4-DTP, 3-Polio, (last DTP and Polio after 4th birthday), 2-MMR after 1st birthday and, 3-Hep B  
\*\*\* Daycare Centers HIB also required  
\*\*\* Beginning Aug 2003, Varicella vaccine or history of the disease will be required for school and daycare entry  
**Varicella History:**  
I certify that this child has received the above noted immunizations and is in compliance with rules set forth by the State of Louisiana, Department of Health and Hospitals, Office of Public Health until the expiration date above.

MyIR 10/04/2013 MyIR.net

Authorized Signature \_\_\_\_\_ Date \_\_\_\_\_ Clinic of Issue \_\_\_\_\_

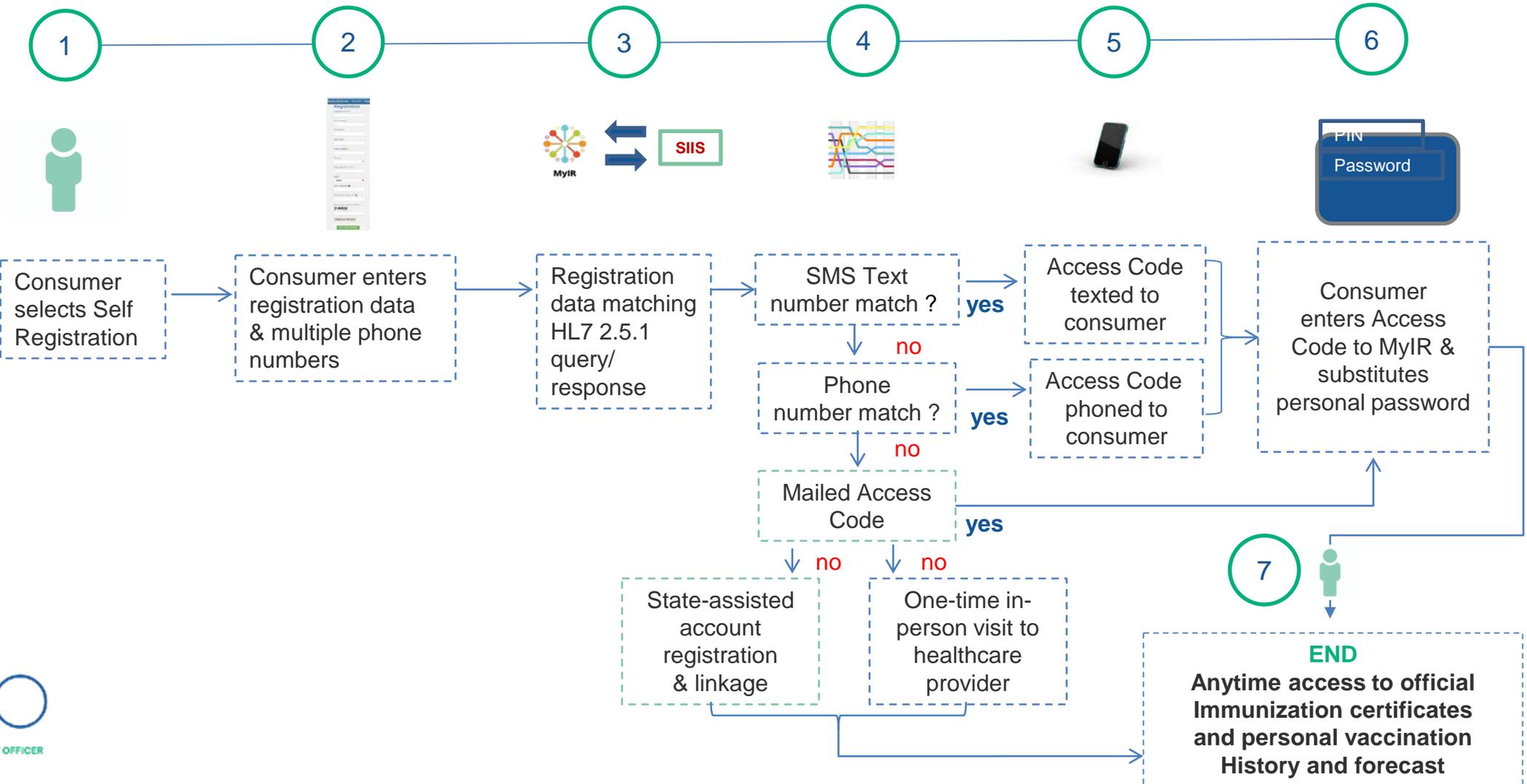
Tracking ID: 80ETGNLJ4V008J8G3F58500Y  
Falsification of this record could result in imprisonment for not more than five years or by a fine of not more than five thousand dollars, or both, pursuant to R.S. 14:132 or R.S. 14:133.  
The sole purpose of this form is to document a patient's immunization history to authorized child care/school officials in accordance with Louisiana laws and regulations. It is not intended for use as a government-issued form of identification and cannot be accepted as a primary source of identification. The Louisiana Department of Health and Hospitals and its affiliated departments do not monitor or have control over the usage of this form. Therefore, these

## Overcoming Challenges

Alternative approaches to increase consumer access:

- Implementation of Online Authentication May 2016
  1. The Online Authentication registration method allows consumers to self-register online and have an access code sent by SMS text or autodial to complete the authentication process.
  2. In the event that a record is not found (matched), consumers may request authentication by their healthcare provider/state health dept. to access their immunization record.
- Increase marketing efforts
- State-Assisted Registration
- Pharmacy pilot

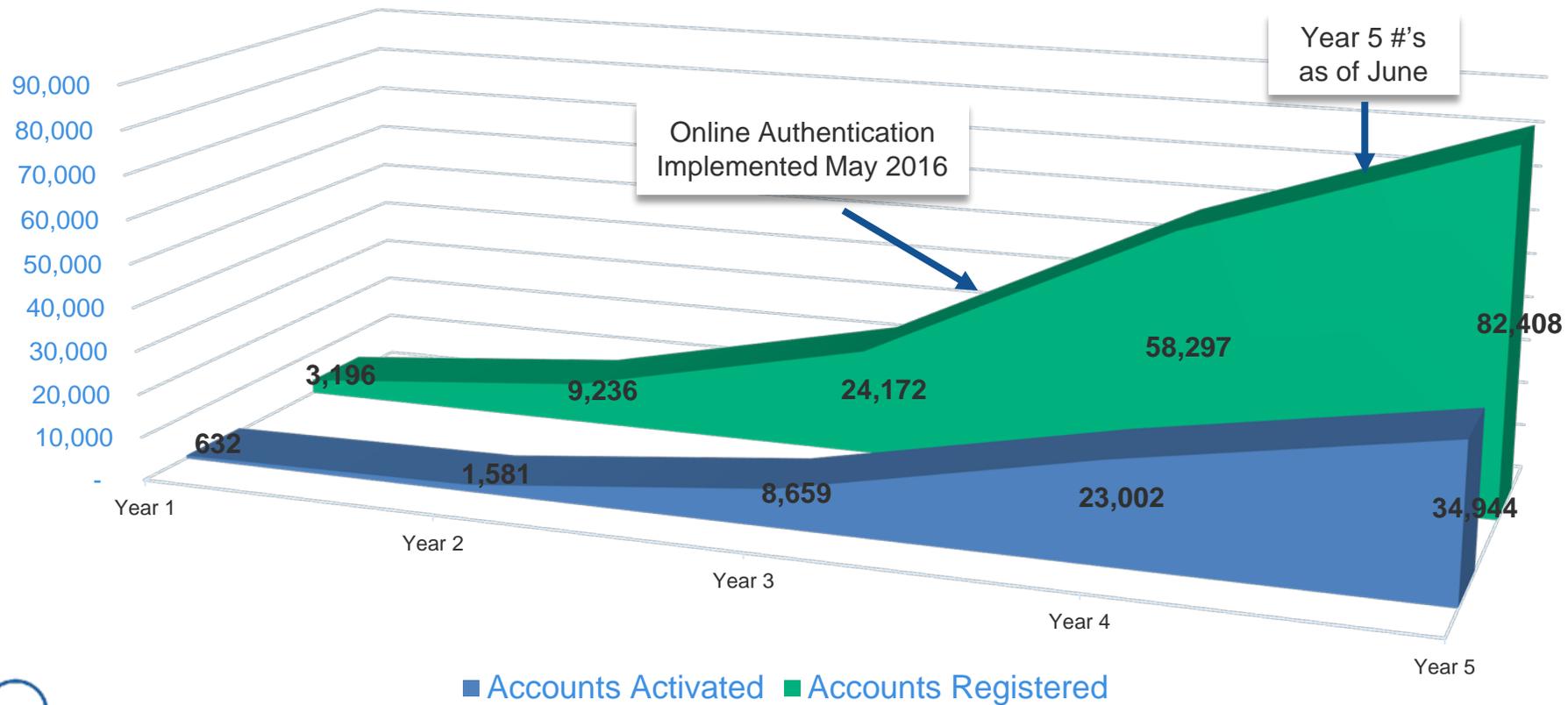
# Online Authentication Workflow



# 2018 Activities (Project Year 5)

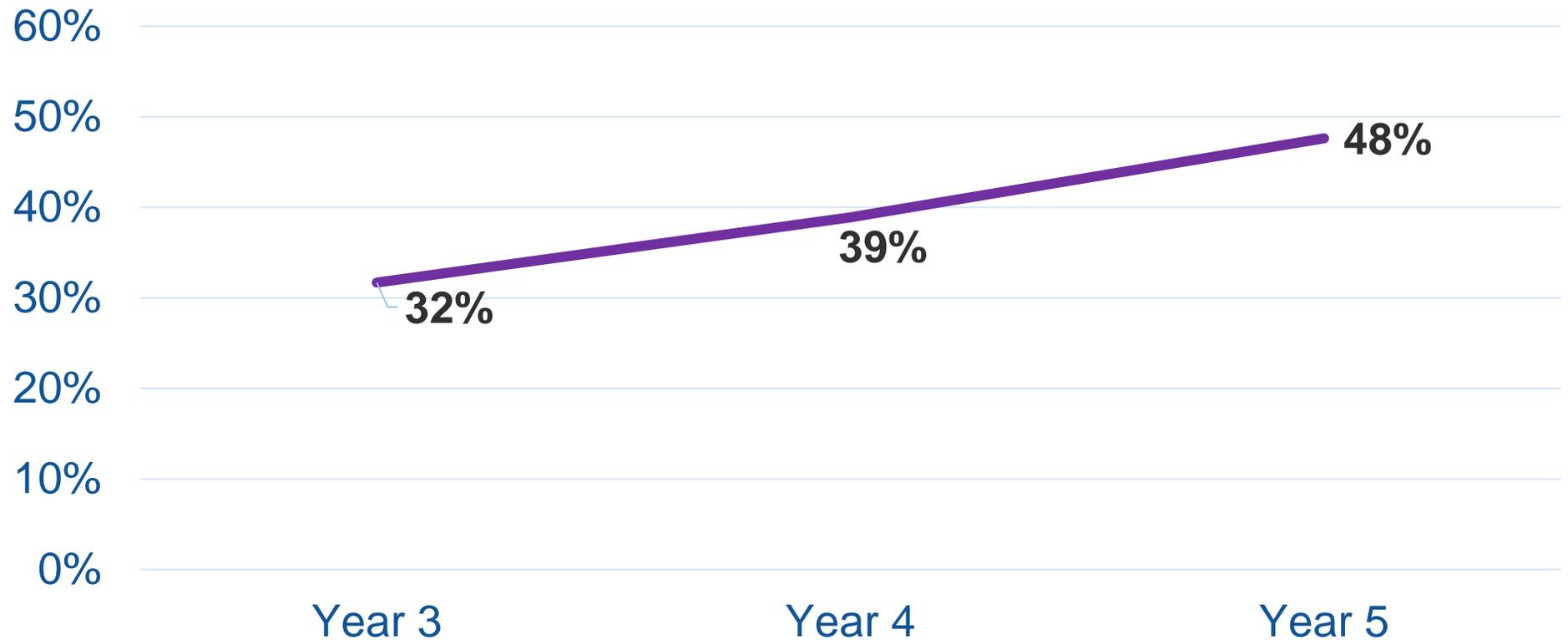
- Support MyIR in Washington and Louisiana
- Marketing MyIR
- Evaluation
- Explore alternative methods for consumer access to immunization records

# Evaluation: MyIR Accounts Registered and Fully-Activated in WA and LA (2013 – 2018)



# Challenge: Patient Matching

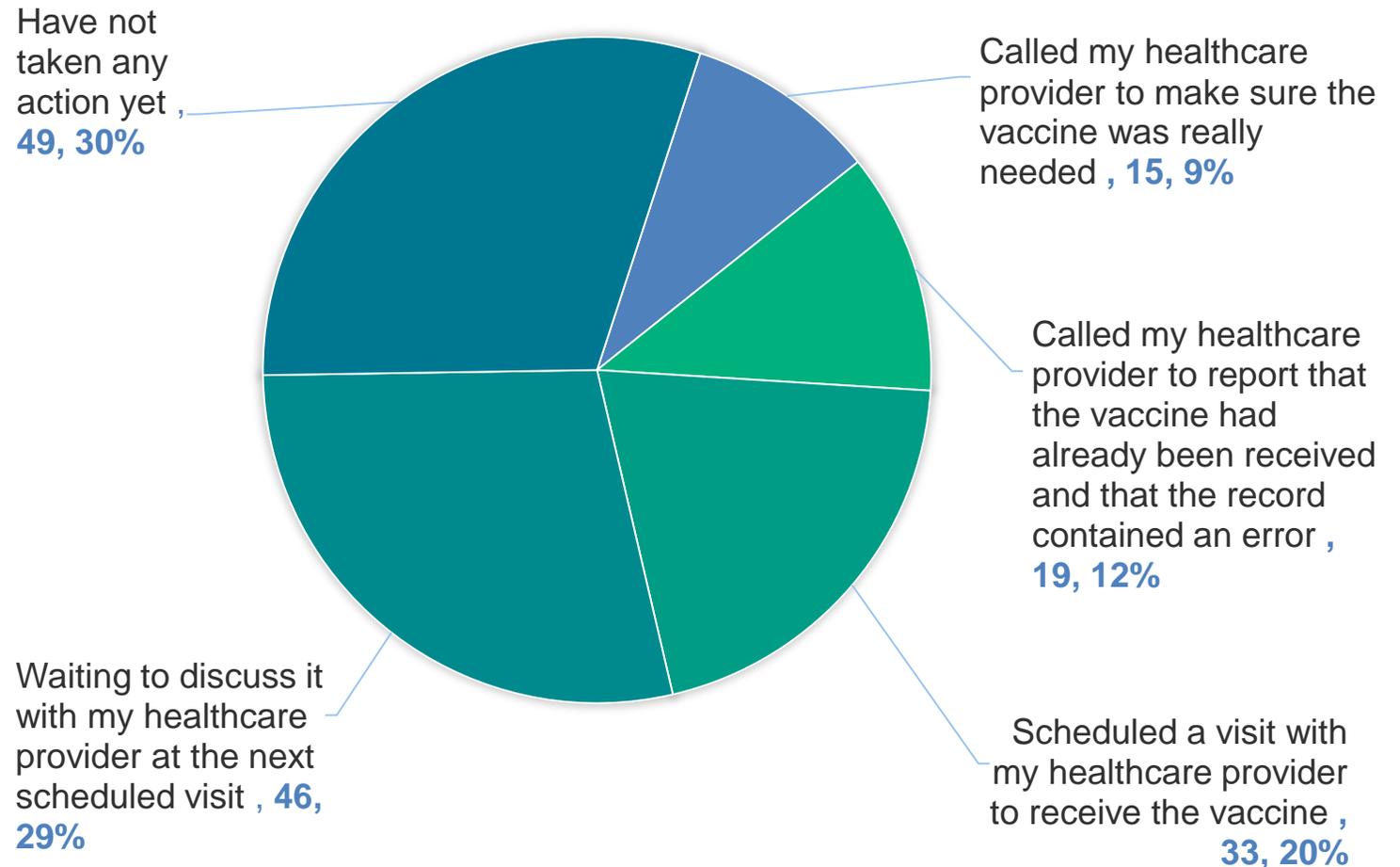
*Online Authentication Success Rate – Combined States*



# Informed Decision Making

- **28%** (n=163) of survey respondents that viewed their record learned they needed a vaccine
- **41%** took action
- **74%** of those that took action received the needed vaccine

WHAT ACTION DID YOU TAKE AFTER YOU LEARNED THAT A VACCINE WAS NEEDED?



# Marketing Activities

- Posters/Brochures
- Mailings
- Pilot Ad Campaigns
  - Seattle Metro
  - Baton Rouge Metro
  - Caregiver bloggers
- Marketing Evaluation



# Social Media Ad Campaign



- **Ability to target key audiences and reach them on Facebook and Instagram**
  - Parents with kids in specific age groups (e.g. parents with kids 6-8 years old)
  - Moms vs. Dads
  - Hispanic, African American and Asian American
  - People that “travel frequently”
  - Re-target site visitors who have not completed registration
- **Ability to be flexible and relevant**
  - Easily and quickly test different ad creative and optimize for most effective combination
  - Deliver ad creative relevant to target audience for increased conversion
  - Deliver ad

# Next Steps

- Improve consumer registration process (STC)
- Explore alternative methods for consumer access through PHRs
- Implement refined marketing approach

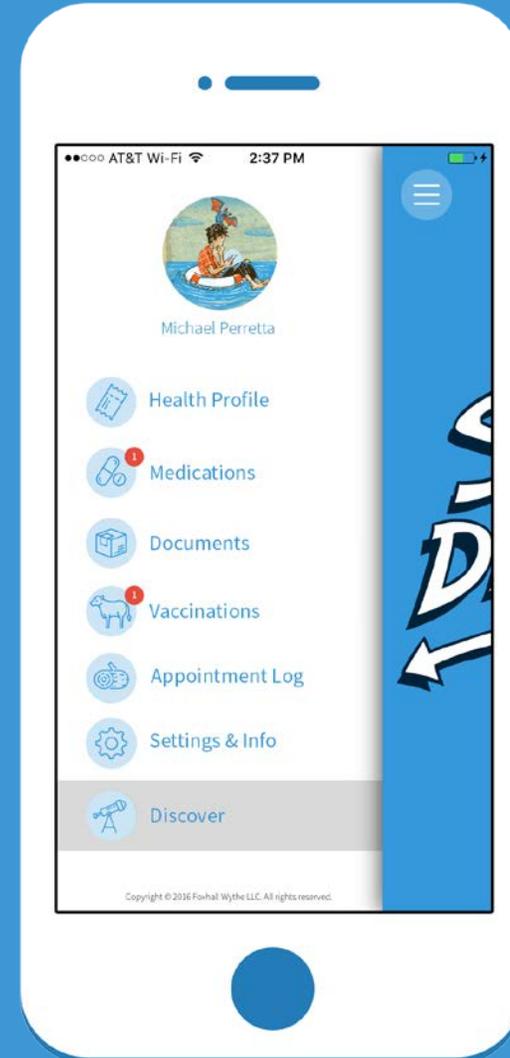
# Vision & Technology

Docket-IIS integration will give consumers ready access to their up-to-date immunization records. Upon presenting at any trusted care provider, patients may use the *free* Docket™ mobile app to efficiently and securely access personal and family immunization records simply by scanning their provider's Docket™ QR code.

## Solution Overview

Docket™ consists of two primary touch points: a mobile app for patients ([iOS](#) and [Android](#)) and a [web-based application](#) for providers. Our solution aggregates seven types of data: patient-reported health-risk information and medical histories, medication adherence, wearable device data (e.g. smart scales), documents (e.g. lab results) from both providers and patients, provider-patient messages, metadata, and – now – immunization records.

Our API is the first designed according to the Health Relationship Trust ([HEART](#)) specifications, leveraging cutting-edge and interoperable technologies such as [HL7 FHIR®](#) and OAuth 2.0. Docket™ supports HIPAA compliance through a User-managed Access approach and end-to-end encryption for all records. Authorization is accomplished via QR code scan and OAuth 2.0 handshake, where providers (i.e. hospital-based systems, physicians' practices, and standalone clinics) are assigned unique Docket™ QR codes and the scanning device is the patient's smart phone.\*



Screenshot with proposed Vaccinations section added

# Core Functionality



## Step 1: Complete Health Profile



## 2: Scan provider's unique QR code\*

Installation and maintenance costs are negligible for stand-alone implementations.



## 3: Authorize Access

Patients maintain OAuth keys to revoke and reauthorize access.

## What's special about our QR?

There are a number of methods to communicate health information. Within inpatient settings, patients are often assigned barcode wristbands. Other apps support QR code-enabled data transfer. However, with existing apps, patients are given unique QR codes *and* providers are responsible for installing costly and cumbersome scanning devices.

The Docket™ QR code is **better**. With Docket™, providers are assigned unique QR codes. The scanning device is the patient's smart phone. This approach:

1. is more cost-effective than competing apps (implementation costs the amount of one piece of printed paper)
2. provides a high level of visibility for Docket™ within care settings

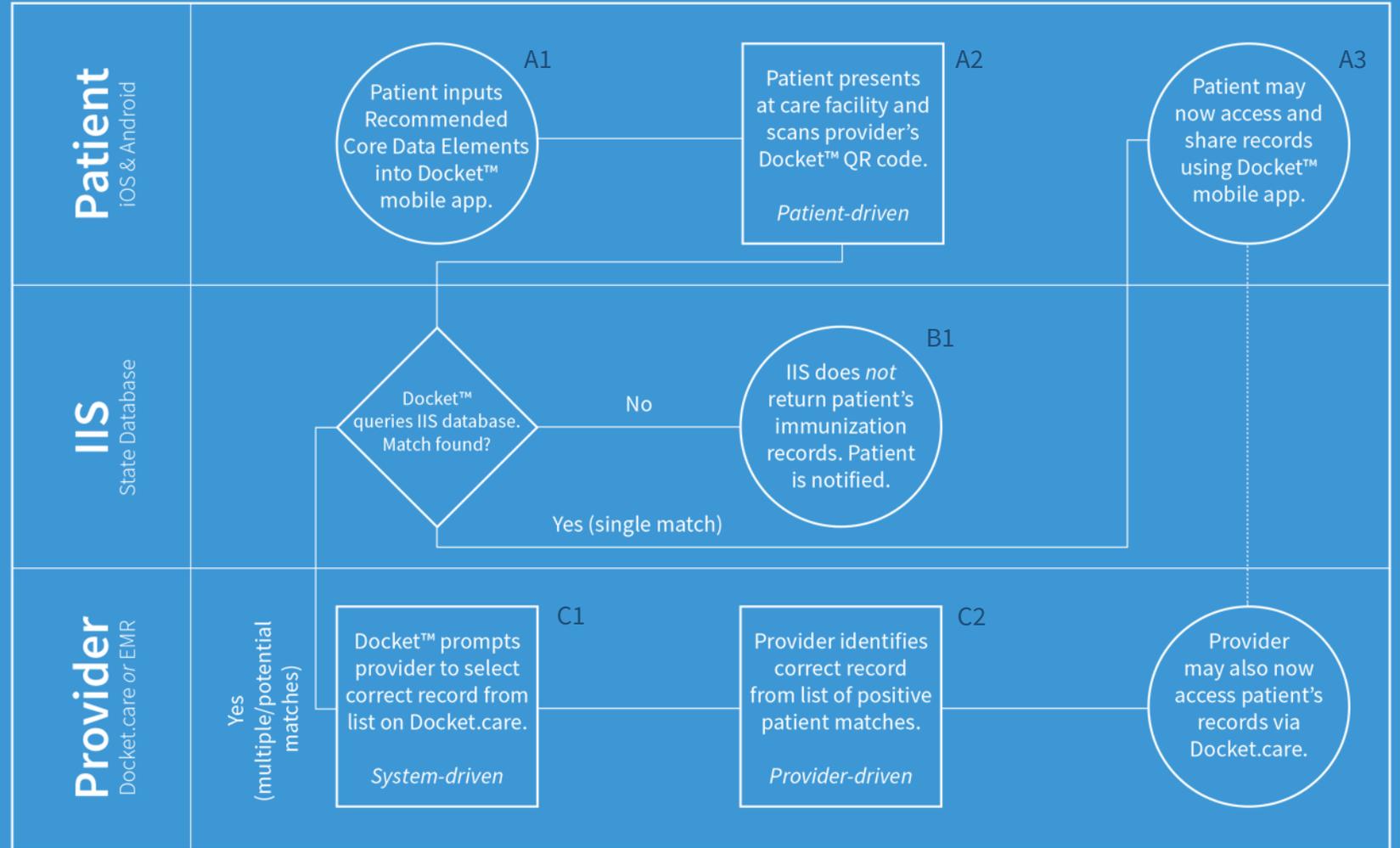
This feature and workflow design is protected\* under our non-provisional utility patent application.

# Consumer Access

Patients input [IIS Recommended Core Data Elements](#) into the Docket™ mobile app following existing workflows. Next, the patient scans their provider’s unique Docket™ QR code upon presenting at any patient access point (e.g. front or waiting room). Docket™ then queries the relevant IIS database(s) utilizing Docket’s IIS credentials and established [SOAP-based HL7 2.5.1](#) standards.

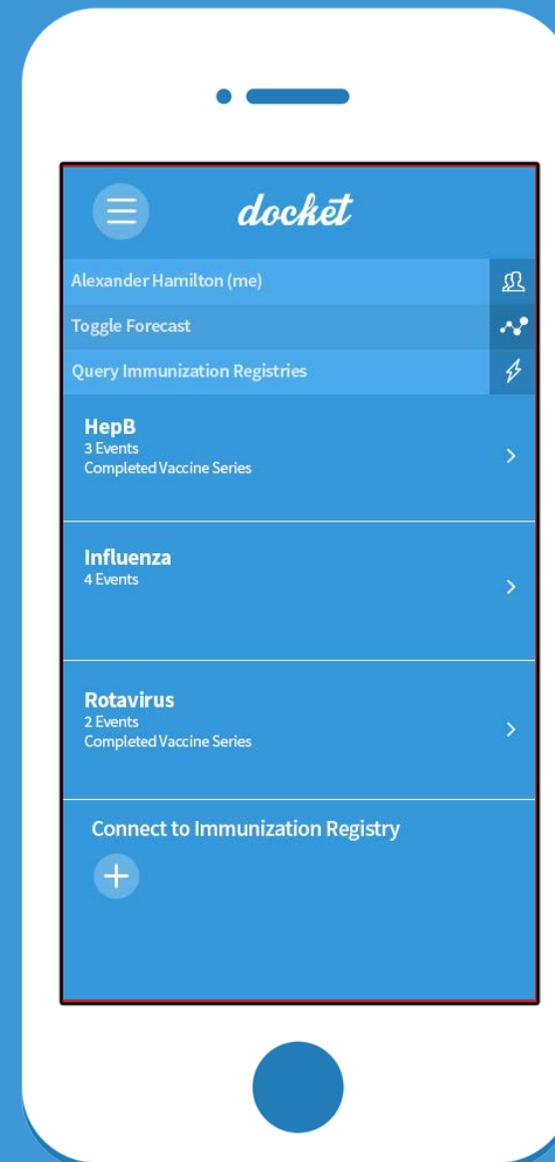
If the system returns a single match, the patient’s immunization records are automatically returned to both the patient and provider. If, however, multiple/potential matches are returned, the provider is prompted to select the correct patient record from a list within the Docket™ web app.

This workflow requires that providers are authenticated within the Docket™ web app via [VTrckS ID](#) or alternative unique identifier (i.e. provider’s IIS ID). **Note: Docket-IIS integration does not aim to replace how providers currently interact with immunization registries. Instead, our goal is to simplify consumer access to personal immunization records.**



# Patient: Records

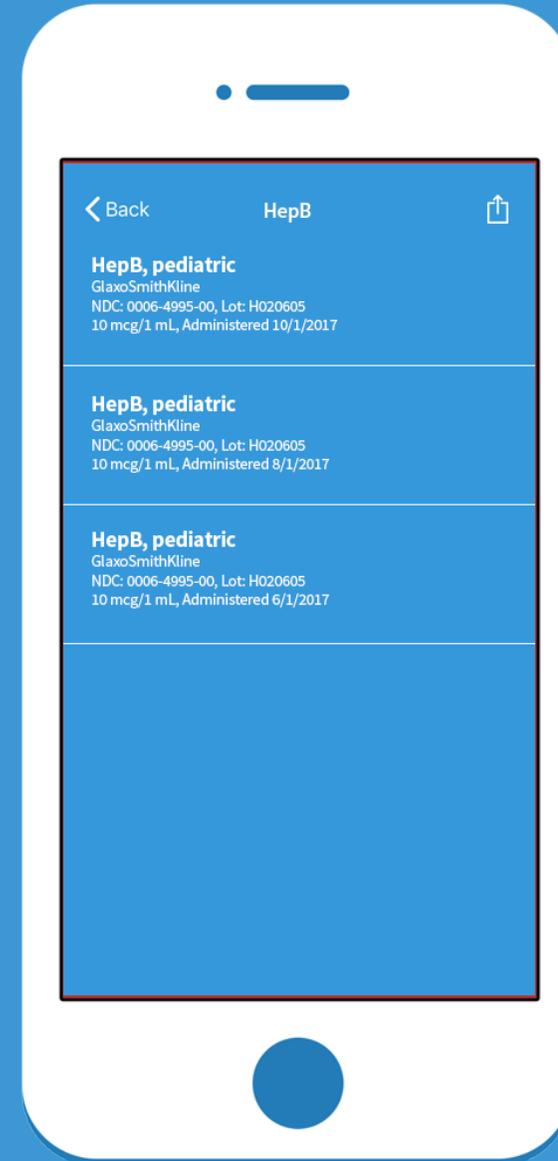
- Vaccination Home Screen (historical view; personal records)
  - In this example, the app successfully returned Alexander Hamilton’s immunization records.
    - Note: in a “live” environment, the app would display a complete history. More than three immunization types would likely display here in a scrollable format.
  - Alexander’s immunization history is displayed on this screen by immunization type.
    - Individual immunization events are grouped by immunization type.
      - Users may “drill-down” to more detail by selecting each immunization type.
    - Immunization types are organized alphabetically.
      - Immunization events are organized chronologically.



# Patient: Records

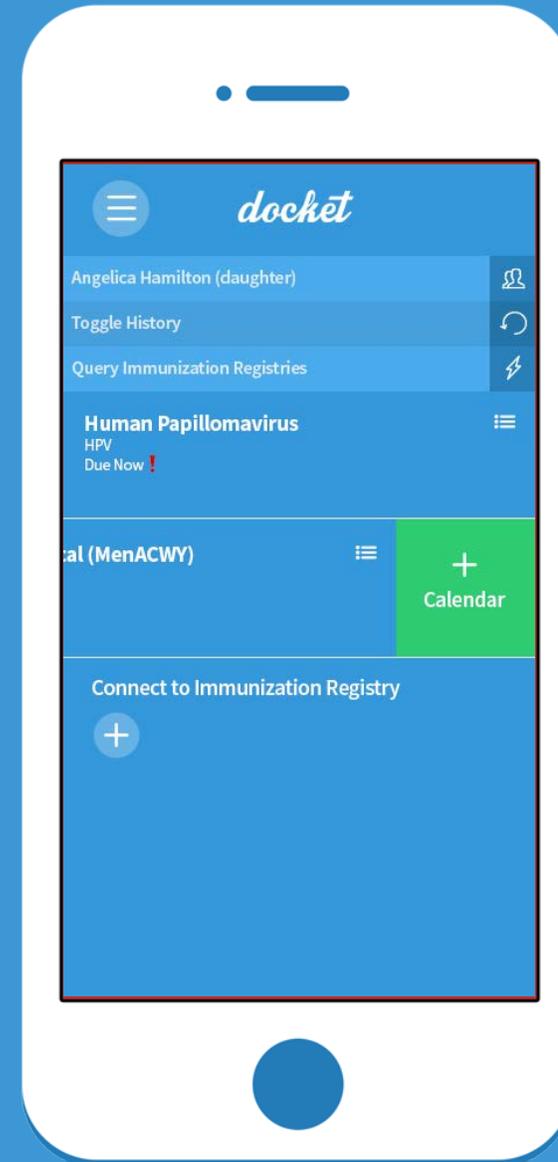
- Vaccination Detail
  - Users may view and export immunization histories from this screen.
    - Immunization events are organized chronologically.
  - Note: Information displayed on this screen may change depending on what is returned by IIS.
  - The Share functionality allows users to export their immunization data out of Docket.
    - Standard share capabilities include: E-mail, Save to Files, etc.
    - Bidirectional Apple Health integration is an option here as well.
      - Docket would *not* allow bidirectional Apple Health integration for proxy records.

A3



# Patient: Records

- Vaccination Home Screen (forecast view; proxy records)
  - Swiping left adds upcoming immunizations directly to the user's Apple or Google Calendar.



A3