



# Welcome to the CIC Education Hour



# CIC Education Hour

## **California Immunization Registry Update - 2022**

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# Today's Host and Moderator



**Meg Dorsey, RN, BSN, PHNII**

CIC Education Committee Chair



# Webinar Information

- All lines will be muted during the program
- Webinar is being recorded and link will be posted to the California Immunization Coalition website: <https://www.immunizeca.org/> and the CIC YouTube page:

<https://www.youtube.com/channel/UCklkZ1SZQNQLcpmNpeQpDAg>



# Questions for Presenter

- To ask a question or leave a comment use the Q&A feature located at bottom of screen
- Questions will be answered after the presentation, as time permits
- Additional questions may be sent to [info@immunizeca.org](mailto:info@immunizeca.org) for email response after the webinar.





# Frequently Asked Questions

**1. Where can I watch this presentation again?**



**A copy will be posted on CIC's YouTube channel**

**2. Will this presentation be posted somewhere?**



**Yes - a copy will be posted on CIC's website**

You can access CIC's YouTube channel at: [www.ImmunizeCA.org/Education-Hour/](http://www.ImmunizeCA.org/Education-Hour/)

Or directly at CIC's YouTube page <https://www.youtube.com/channel/UCklkZ1SZQNQLcpmNpeQpDAg>

# Guest Speaker



## **Michael S. Powell, MSc**

Chief, Registry and Assessment Section  
Immunization Branch  
Division of Communicable Disease  
Center for Infectious Diseases  
California Department of Public Health



# California Immunization Registry (CAIR) Update

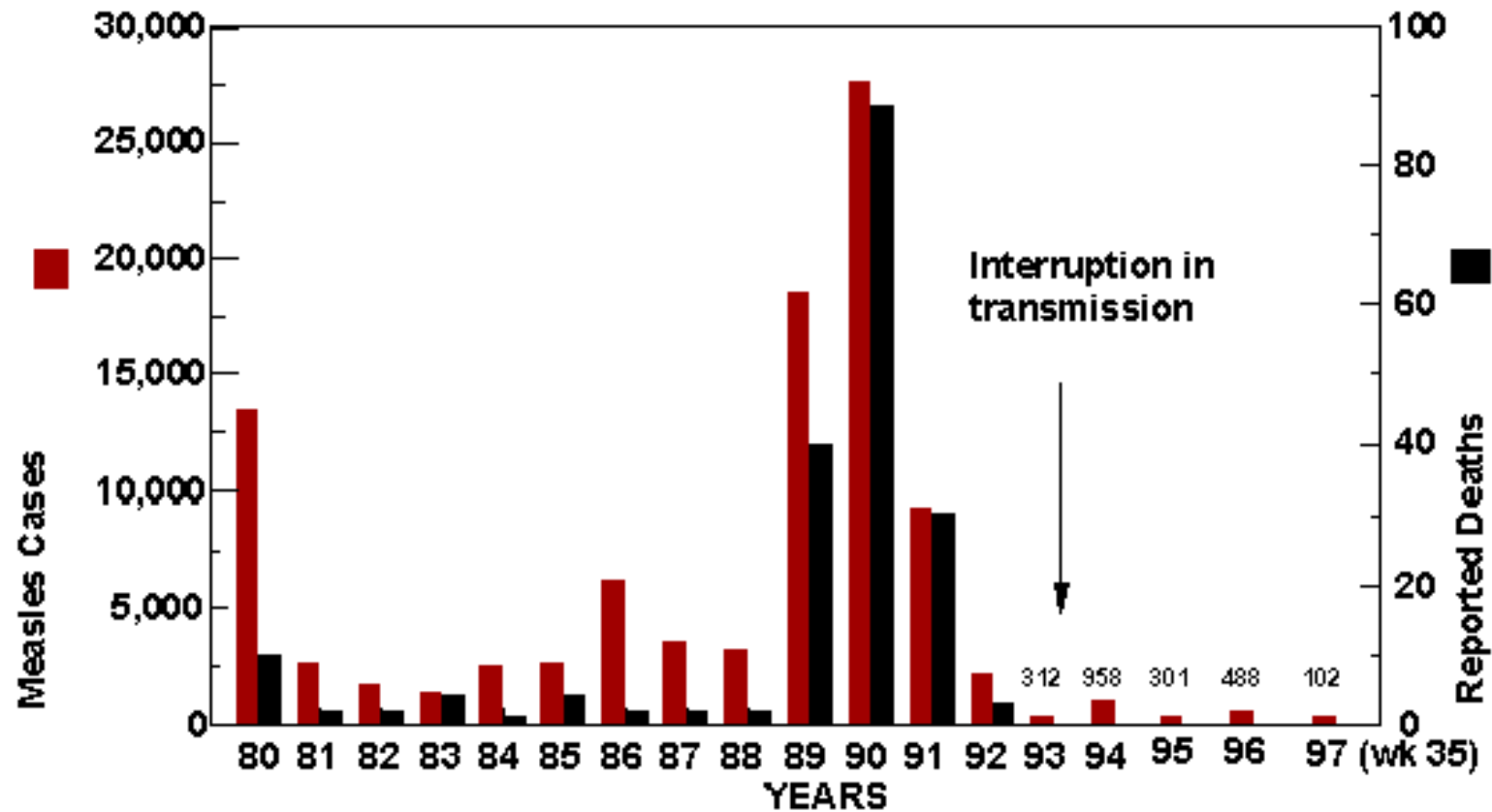
**Michael S. Powell, MSc**  
**Chief, Registry and Assessment Section**  
**March 2022**



# CAIR Overview

- Historical Background
- Current CAIR Status
  - IIS Features
  - Statute, including Disclosure/Sharing
  - Enrollment/User roles
  - Current Numbers
  - Data and Software Issues
  - Bidirectional Status
  - Coming Attractions
- Digital COVID Vaccine Record

# U.S. Measles Outbreak-1989-91



# Measles Outbreak Response?

- Two significant developments:
  - Vaccine for Children (VFC) Program – free vaccine for poor kids (1994-1995)
  - Computerize immunization record keeping

# U.S. Immunization Information Systems (IIS) History

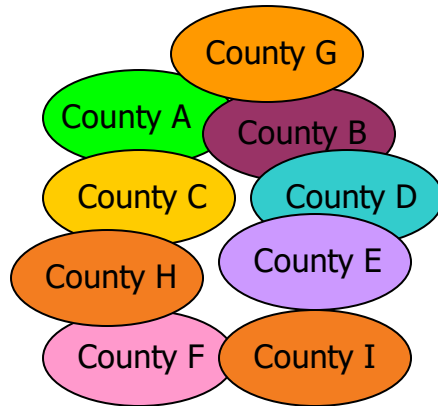
- All Kids Count (Robert Wood Johnson)
  - Develop immunization monitoring and follow-up systems as a strategy to improve and sustain immunization coverage rates
  - 38 grantees
    - 17 state health departments
    - 21 local/city health departments

# All Kids Count/ RWJ Foundation 1991-2004

- Funded 38 projects to build IZ registries
- 7 participants were CA counties:
  - San Bernardino County, 1992-2000
  - San Diego County, 1992 -1998
  - San Luis Obispo County, 1992-1998
  - Santa Barbara County, 1992-1998
  - Santa Clara County, 1998-2004
  - Santa Cruz County, 1992-1998
  - Los Angeles County, 1992-1998

# CA IIS History

## Counties 1990s



## 10 'Regions' 2000s



# 1 'CAIR' 2018



# The CAIR System - Today

- 7 registries consolidated into **CAIR2**, new software, hosted at CDPH (4/17)
- Imperial added 4/18
- Data sharing has been delayed by COVID



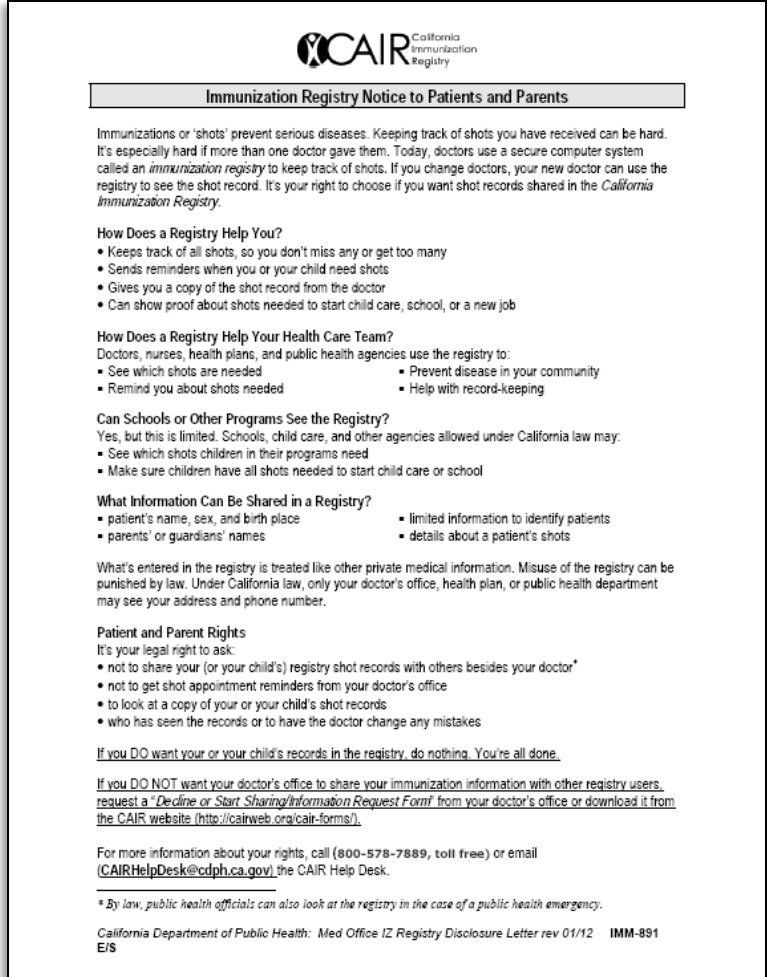
# CAIR – *Statute*

- Health & Safety 120440
- Voluntary, all ages
- Authorized users:
  - Health care providers
  - Schools
  - Childcare facilities
  - Local health departments
  - WIC
  - Health care plans (read-only, HEDIS)
  - Foster care agencies
  - County welfare departments



# CAIR Standard Disclosure

- Patient must receive before data can be shared with CAIR
- Discusses benefits and patient rights
- Right to “Lock” record to prevent other users from viewing
- <http://cairweb.org/cair-forms/>



The image shows a sample of the CAIR Standard Disclosure form. At the top right is the CAIR logo with the text "California Immunization Registry". Below the logo is a title box that reads "Immunization Registry Notice to Patients and Parents". The form contains several sections of text and bulleted lists. The first section explains the purpose of the registry and the patient's right to choose whether to share their records. Subsequent sections are titled "How Does a Registry Help You?", "How Does a Registry Help Your Health Care Team?", "Can Schools or Other Programs See the Registry?", "What Information Can Be Shared in a Registry?", "Patient and Parent Rights", and "What's entered in the registry is treated like other private medical information." Each section contains specific details about the registry's functions and the patient's rights. At the bottom, there is contact information for the CAIR Help Desk and a note about public health officials' access to the registry in emergencies.

**CAIR** California Immunization Registry

**Immunization Registry Notice to Patients and Parents**

Immunizations or 'shots' prevent serious diseases. Keeping track of shots you have received can be hard. It's especially hard if more than one doctor gave them. Today, doctors use a secure computer system called an *immunization registry* to keep track of shots. If you change doctors, your new doctor can use the registry to see the shot record. It's your right to choose if you want shot records shared in the *California Immunization Registry*.

**How Does a Registry Help You?**

- Keeps track of all shots, so you don't miss any or get too many
- Sends reminders when you or your child need shots
- Gives you a copy of the shot record from the doctor
- Can show proof about shots needed to start child care, school, or a new job

**How Does a Registry Help Your Health Care Team?**

Doctors, nurses, health plans, and public health agencies use the registry to:

- See which shots are needed
- Remind you about shots needed
- Prevent disease in your community
- Help with record-keeping

**Can Schools or Other Programs See the Registry?**

Yes, but this is limited. Schools, child care, and other agencies allowed under California law may:

- See which shots children in their programs need
- Make sure children have all shots needed to start child care or school

**What Information Can Be Shared in a Registry?**

- patient's name, sex, and birth place
- parents' or guardians' names
- limited information to identify patients
- details about a patient's shots

What's entered in the registry is treated like other private medical information. Misuse of the registry can be punished by law. Under California law, only your doctor's office, health plan, or public health department may see your address and phone number.

**Patient and Parent Rights**

It's your legal right to ask:

- not to share your (or your child's) registry shot records with others besides your doctor\*
- not to get shot appointment reminders from your doctor's office
- to look at a copy of your or your child's shot records
- who has seen the records or to have the doctor change any mistakes

If you DO want your or your child's records in the registry, do nothing. You're all done.

If you DO NOT want your doctor's office to share your immunization information with other registry users, request a "Decline or Start Sharing Information Request Form" from your doctor's office or download it from the CAIR website (<http://cairweb.org/cair-forms/>).

For more information about your rights, call (800-578-7889, toll free) or email [CAIRHelpDesk@cdph.ca.gov](mailto:CAIRHelpDesk@cdph.ca.gov), the CAIR Help Desk.

\* By law, public health officials can also look at the registry in the case of a public health emergency.

California Department of Public Health: Med Office IZ Registry Disclosure Letter rev 01/12 IMM-891 E/S

# CAIR Right to “Lock” Record

- Patient has right to decline to share with other CAIR users, but not the right to prevent record from being submitted (public health justification)

The screenshot shows the CAIR2 web interface for requesting to lock a record. The form is titled 'Request to Lock My CAIR Record' and includes a header with the CAIR2 logo. Below the title, it says 'Complete the fields below. Required fields have an \*.' The form is divided into several sections: 'Patient Information' (First Name \*, Middle Name, Last Name \*, DOB \*, Gender \*, CAIR Patient ID (if known)), 'Patient Address' (Street Address \*, City \*, Zip Code \*, Email, Phone \*), 'Relationship To Patient \*' (Radio buttons for Parent or Self), 'My/My Child's Health Care Provider \*' (CAIR ORG ID, OR Medical Clinic Name, Street Address, City), 'Parent/Guardian (if patient is a minor \*)' (First Name, Last Name), and 'Electronic Signature' (checkbox for confirmation, Full Name \*). A 'Submit Request to Lock My CAIR Record' button is at the bottom. A footer note says 'If you have questions, contact the CAIR Help Desk CAIRHelpDesk@cdph.ca.gov'.

CAIR2	
Request to Lock My CAIR Record	
Complete the fields below. Required fields have an *.	
<b>Patient Information</b>	<b>Patient Address</b>
First Name *	Street Address *
Middle Name	City *
Last Name *	Zip Code *
DOB * (MM/DD/YYYY)	Email
Gender * SELECT	Phone * ( ) -
CAIR Patient ID (if known)	
<b>Relationship To Patient *</b>	<b>Parent/Guardian (if patient is a minor *)</b>
<input type="radio"/> Parent <input type="radio"/> Self	First Name
	Last Name
<b>My/My Child's Health Care Provider *</b>	<b>Electronic Signature</b>
CAIR ORG ID	<input type="checkbox"/> By checking this box and entering your name below, you as the Patient/Parent/Guardian confirm your wish to lock this patient's record so that only the patient's medical care provider and public health authorities will be able to view it. You also understand that if in the future, you wish to allow other CAIR users to view the patient record, you will need to complete and submit a Request to Unlock My CAIR Record.
OR	Full Name *
Medical Clinic Name	
Street Address	
City	
Submit Request to Lock My CAIR Record	
If you have questions, contact the CAIR Help Desk CAIRHelpDesk@cdph.ca.gov	

- <http://cairweb.org/cair-forms>

# CAIR – Standard IIS Features

- Consolidates immunizations from different sources into a single patient record
- Assists providers in determining immunizations due
- Manages vaccine inventory
- Assists providers to do reminder/recall
- Produces a variety of patient-specific and aggregate reports

# CAIR2 – *Participation*

- Online Enrollment
  - Organizations/Sites – DX vs UI
  - Individual Users
- Training
  - Webinar
  - Mandatory for clinical user roles
  - Videos, User Guides
    - <http://cairweb.org/cair2-training-resources/>

# CAIR2 – Patients and Doses\*

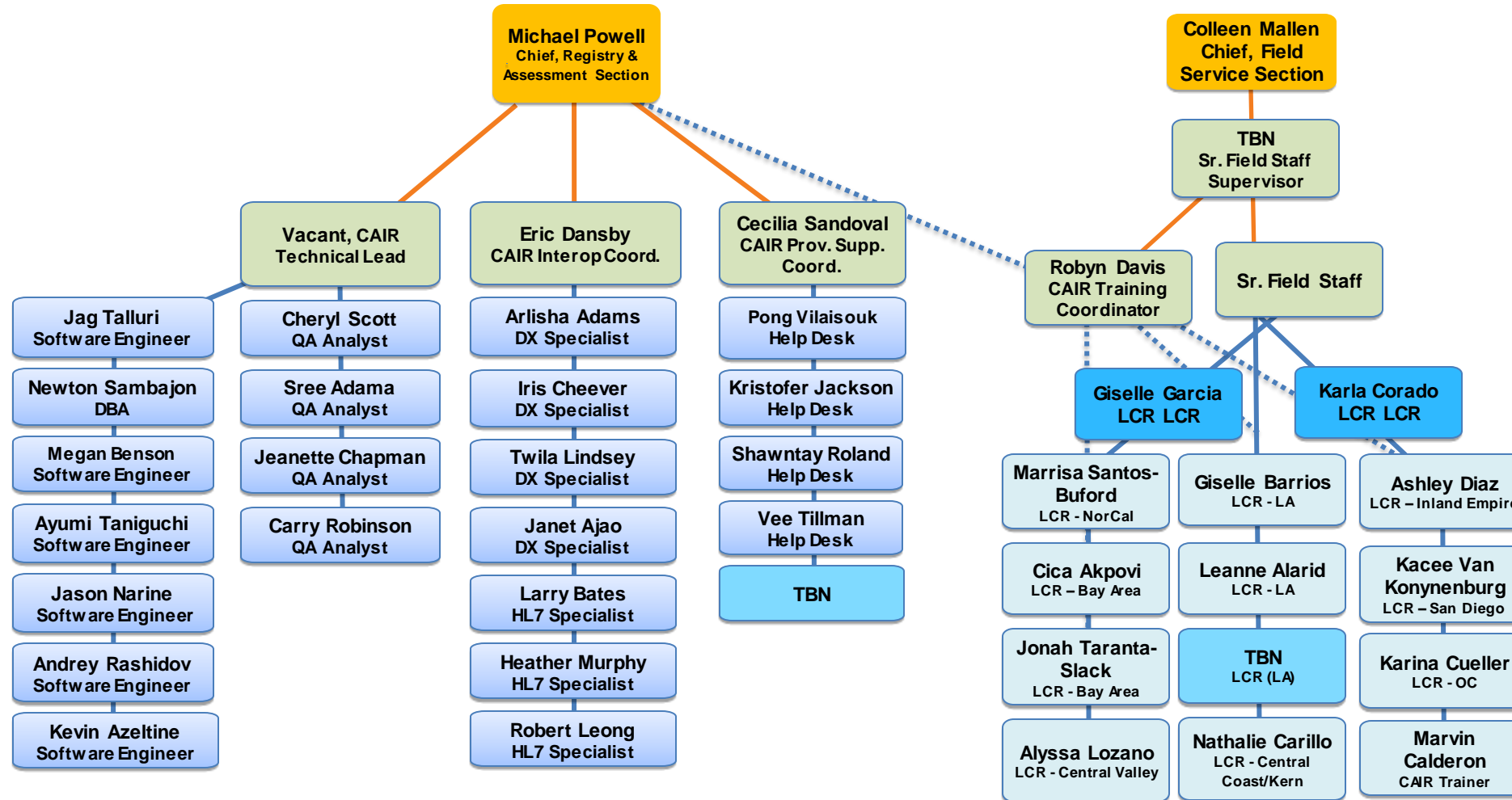
<i>Measure</i>	<i>0-5 yrs</i>	<i>6-18 yrs</i>	<i>19+ yrs</i>	<i>All Ages</i>
<b>Patients In</b>	<b>3,750,843</b>	<b>7,253,369</b>	<b>33,792,568</b>	<b>44,796,780</b>
<b>Patients w/ <math>\geq 2</math> doses</b>	<b>2,114,231</b>	<b>6,619,438</b>	<b>28,160,562</b>	<b>36,894,231</b>
<b>Vaccine Doses</b>	<b>37,092,261</b>	<b>138,416,150</b>	<b>225,804,972</b>	<b>401,313,383</b>

\* As of January 25, 2022. CAIR2 only.

# CAIR2 BiDX Sites – June 2019

Type	Total DX Sites	# of BiDX Sites	% BiDX Sites
VFC Sites	1,622	688	42%
All DX Sites	7,257	2,185	30%

# CAIR2 Team – Org Chart



# CAIR2 VFC Participation

CAIR2 Submission Status	#	%
Yes*	2,027	73%
No	471	17%
No CAIR2 ID	271	10%
Total VFC Sites	2,769	100%

\*1 or more doses submitted in December 2021

^1 or more VFC orders in past 12 months



# CAIR2 - User Roles

CAIR2 User Roles	Search Records	Run Reports	Add/Edit Doses	Add/Edit New Patients	Add/Edit Inventory	Monitor DX activity
Read-Only	✓	✓				
Regular	✓	✓	✓	✓		✓
Power	✓	✓	✓	✓	✓	✓
DX QA*	✓	✓				✓
School Read-Only	✓	✓ (roster)				
School Regular	✓	✓ (roster)	✓	✓		✓
School Power	✓	✓ (roster)	✓	✓	✓	✓
IZ Coord.	✓	✓ (county)				✓

■ Mandatory training required

\* Allows clinic staff to review data exchange (DX) messaging - no formal training required - see *CAIR2 Quick Guides and Videos* page at <http://cairweb.org> for training materials.

# CAIR2 Data Sharing – SJ and SD

- Anticipated by 1/1/2020

IIS	Historical load	Ongoing Data Sharing	
		IIS → CAIR2	CAIR2 → IIS
San Diego	Yes	Electronic (HL7)	Nightly updates
San Joaquin (8 counties)	Yes	Electronic (HL7)	BiDX queries

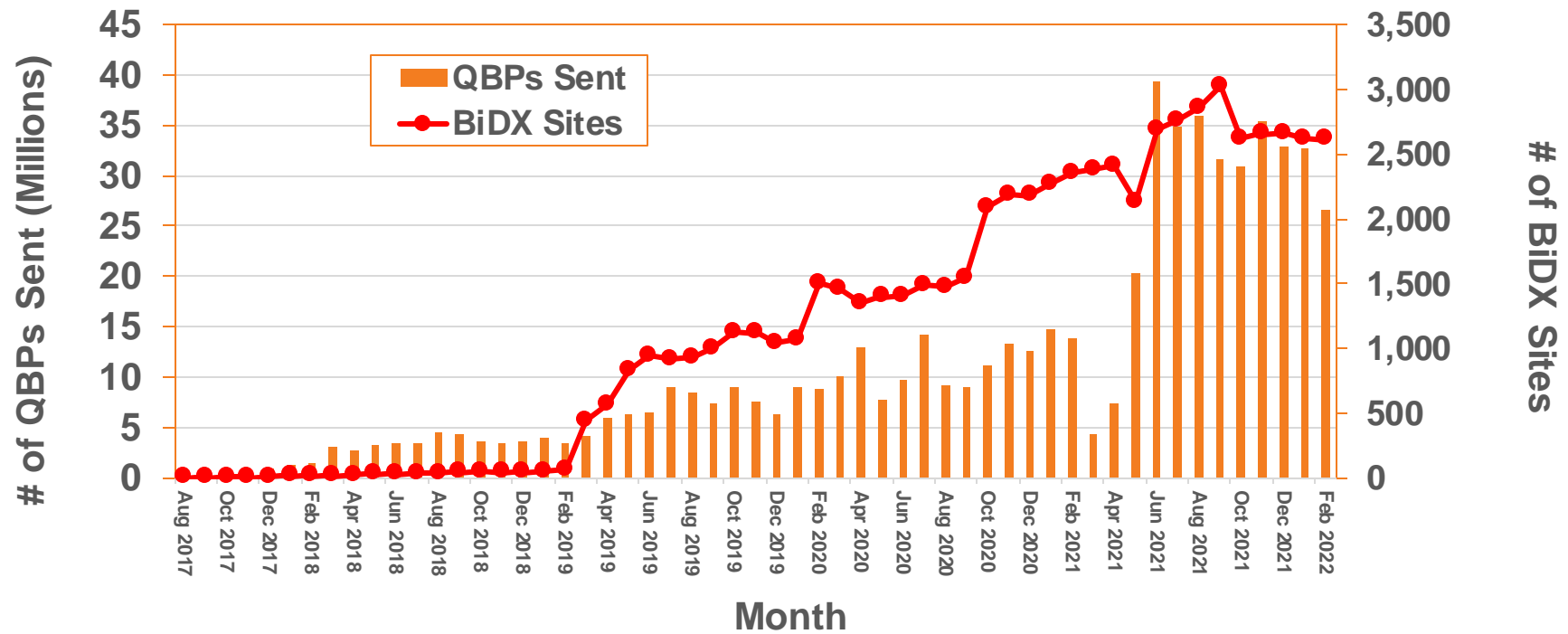
# CAIR2 - Data Sources

- 86% of data submission to CAIR2 is from provider EHR systems

Source	Sites	
	#	%
Provider EHRs	7,257	86%
Manual entry	1140	14%
<b>TOTAL</b>	<b>8,397</b>	<b>100%</b>

\* Dec 2021

# CAIR2 BiDX Activity Submitting



# CAIR2 Data Issues

- Duplicate patients (>400K, 1%)
  - Process merge requests manually (RPA solutions recently implemented)
  - Improved matching algorithm
- Many patient reports not accurate because all patients ever vaccinated are considered 'Active'
  - 'Manage patient status' mass inactivation upgrade will fix
- Data Quality efforts
  - Sites sending 'locked' records
  - VFC sites not sending Vaccine Eligibility info
  - Incorrect vaccine codes, e.g. PPSV23 instead of PCV13 for 0-4 yrs

# CAIR2 – *BiDX Onboarding Process*

- Complete the *BiDX Interest/ Readiness Survey*
- Self-directed testing process
  - CAIR2 QBP/RSP Implementation Guide (posted)
  - CAIR2 BiDX Test Plan (by invitation)
  - CAIR2 Post-Testing Survey (when testing is completed)
- Pre-launch Interview
- Begin BiDX messaging

# CAIR2 – *DX Message Flow*



*“Bidirectional”*

# Improving Addresses

- SmartyStreets Implementation
  - Address validation
    - Not verification
  - Geocoding
- Improved County/ZIP Crosswalks
- Improved Race/Ethnicity field population



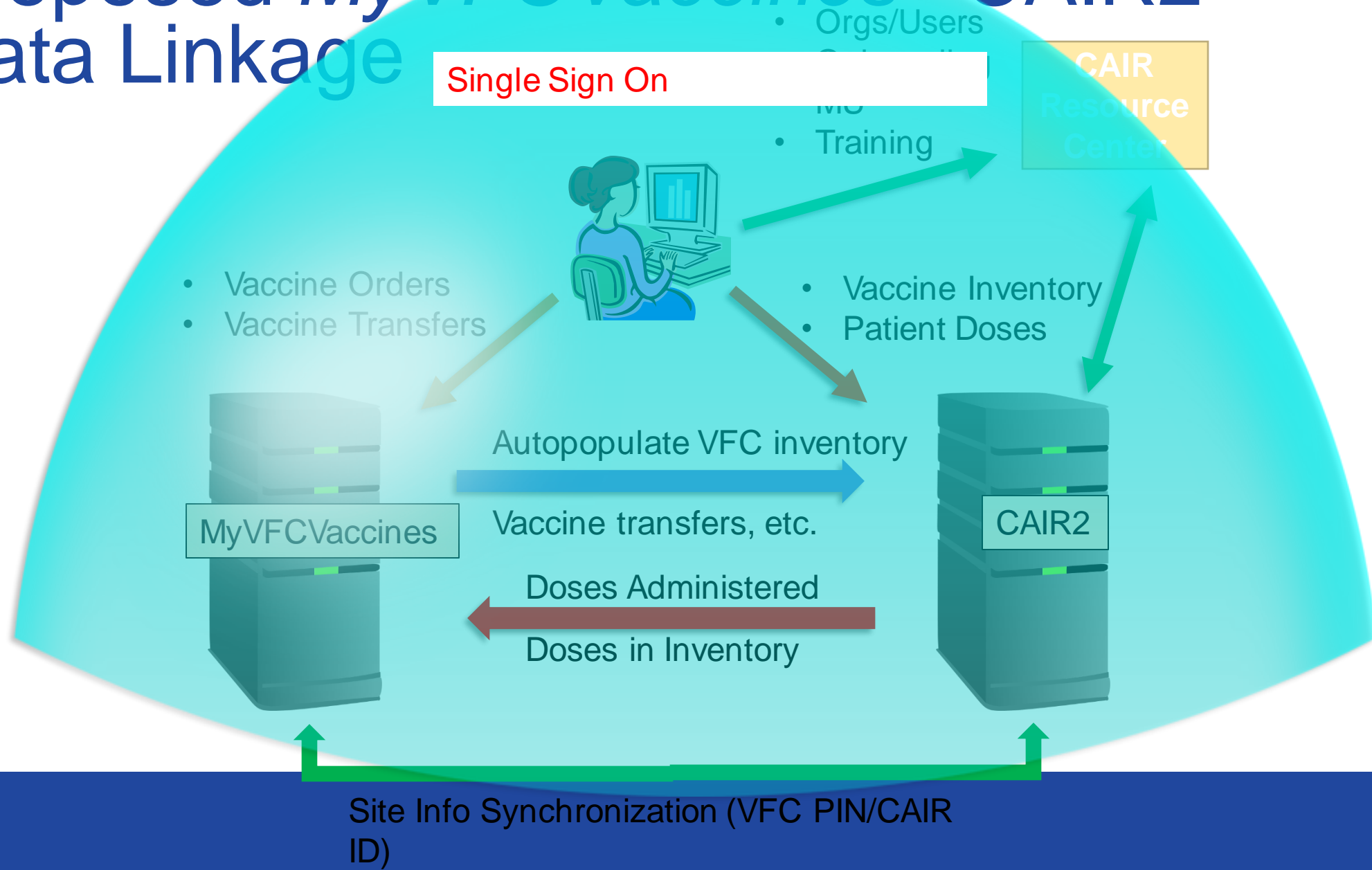
# CAIR2 Coming Upgrades

- CAIR Resource Center
  - Centralized management of customer support activities including customer service, site user enrollment, account update, user training, data exchange 'onboarding', etc.
- DQ Monitoring Tools, including *Provider Report Card*
- CDC AFIX/IQIP Module
  - QI tool that uses CAIR2 data to run clinic coverage assessments (VFC requirement)

# CAIR2 Coming Upgrades

- Improved VFC – CAIR2 Data Integration
  - Single Sign On to both CAIR2 and VFC Ordering
  - Automated export of 'Doses Administered' and 'Doses in Inventory' data from CAIR2 to VFC ordering form
  - Automated VFC inventory entry into CAIR2

# Proposed *MyVFCVaccines* - CAIR2 Data Linkage



# Digital COVID Vaccine Record

- <https://myvaccinerecord.cdph.ca.gov>
- Go live June 2021
- Over 14 million DCVR's delivered to date
- Built on SMART Health Card framework
- Can download to Apple Health, Google Pay, Clear App

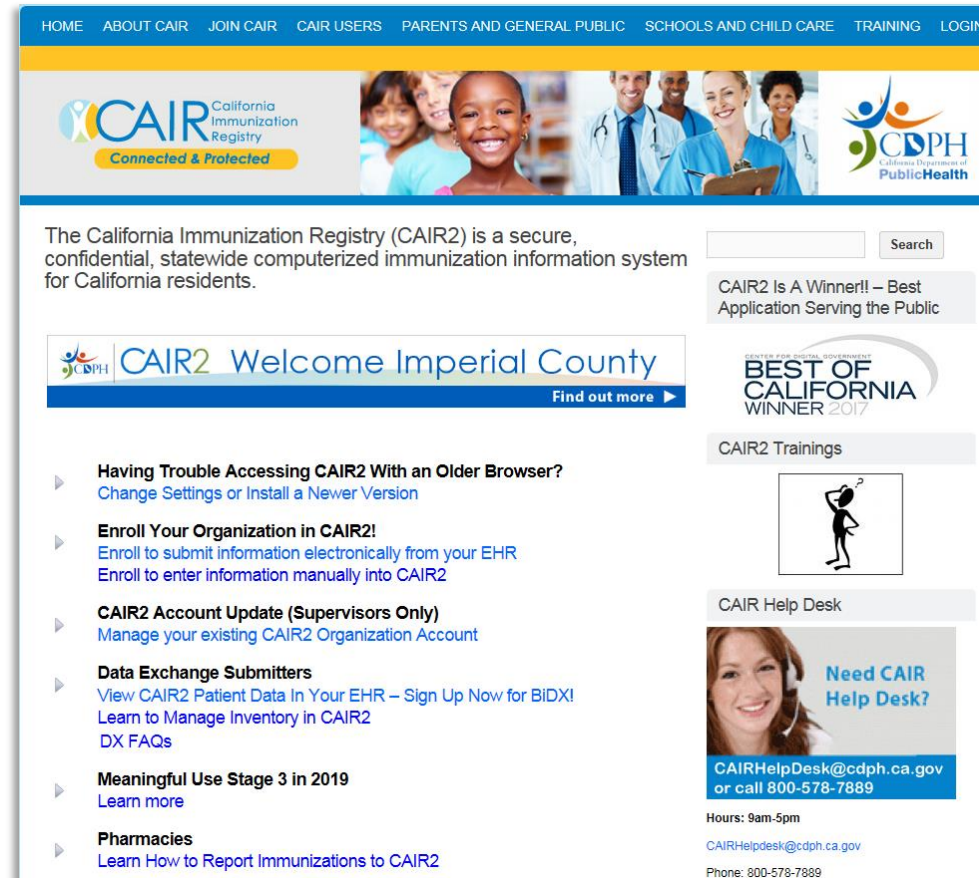
# CAIR2 Usage Report

Info Type	Time Period	Data Fields (In order)	Description
Demographic		County	Site's County
		VFC PIN	Provider Site's VFC PIN (tentative)
		Last VFC Order Date	Last date that VFC vaccine was ordered
		CAIR2 ID	Provider Site's CAIR ID/Org Code
		CAIR Org Type	
		Site Name	Site Name
		Address	Site Address
		City	Site's City
		Zip	Site's Zip
Site Data Exchange (DX) Submission Activity	Apr 2019 May 2019 Jun 2019 Jul 2019	BiDX Status?	Yes or No (production)
		Last DX Submitted Date (New Dose)	Last date that a new data exchange (DX) dose was submitted by the provider EHR
		New DX Doses	Number of new DX doses submitted
		New DX Doses	Number of new DX doses submitted
		New DX Doses	Number of new DX doses submitted
		New DX Doses	Number of new DX doses submitted
Site User Interface (UI) Submission Activity	Apr 2019 May 2019 Jun 2019 Jul 2019	Last UI Submitted Date (new Dose)	Last date that a doses was manually entered by the provider
		New UI Doses	Number of new UI doses submitted in month
		New UI Doses	Number of new UI doses submitted in month
		New UI Doses	Number of new UI doses submitted in month
		New UI Doses	Number of new UI doses submitted in month
Users and User Logins	Jul 2019	Power users	Number of Site Power users
		Power user logins	Number of Site Power user logins
		Last Power user login	Last Power user login date
		Regular users	Number of Site Regular users
		Regular user logins	Number of Site Regular user logins
		Last Regular user login	Last Regular user login date
		Read-Only users	Number of Site Read-Only users
		Read-Only user logins	number of Site Read-Only user logins
		Last RO user login	Last RO user login date
		DX QA users	Number of Data Exchange Quality Assurance users
		DX QA user logins	Number of Site Data Exchange Quality Assurance user logins
		Last DX QA user login	Last DX QA user login date

# Questions?

# Helpful CAIR2 Resources

- *cairweb.org*:
  - CAIR2 Training Videos
  - CAIR2 Quick Guides
  - Registration Links
  - FAQs





# Questions?

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# Final Thoughts

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# Digital COVID 19 Vaccination Record



State of California

English Español 简体字 MORE ▾



Digital COVID-19  
Vaccine Record

## Digital COVID-19 Vaccine Record

Welcome to the Digital COVID-19 Vaccine Record portal. Just enter a few details below to get a link to a QR code and digital copy of your COVID-19 vaccination record. If you want to share your proof of vaccination, you can use either the electronic version you'll get from the portal or the card you were given at time of vaccination.

If you are a parent or guardian and have multiple vaccine records associated with a single cell phone number or email address, enter each digital vaccine record request separately.

The portal provides only a digital copy of your vaccine record. If you received your vaccinations from a federal agency (e.g., Department of Defense, Indian Health Services, or Veterans Affairs), you will need to reach out to those agencies for assistance with your vaccination record.

If you have questions about your Digital COVID-19 Vaccine Record, [visit our FAQ](#).

**Please fill out the required fields to receive a link to a QR code and digital copy of your COVID-19 vaccination record:**

Required fields marked with \*

First name \*



Last name \*

Date of birth \*





# Digital COVID 19 Vaccination Record

[myvaccinerecord.cdph.ca.gov](https://myvaccinerecord.cdph.ca.gov)

- Enter your first name, your last name, and your date of birth
- Provide a cell phone number or email.
- Create a 4-digit PIN to access your vaccine record.
- Verify your identity by checking the box and click the "submit" button.
- Receive a text or email with a link to your vaccine record.
- Click on the link and enter that PIN you just created.
- This will give you your vaccine record with a QR code.



# Digital COVID 19 Vaccination Record

<https://thecommonsproject.org/smart-health-card-verifier>



# Evaluation

At the end of this webinar an Evaluation will pop up on your screen.

The evaluation should take approximately 5 minutes to complete.  
We are grateful for your time.

CIC utilizes the evaluation from our Education Hours to guide us in future endeavors as well as sharing the performance of the education hour with our stake holders.



# Frequently Asked Questions

2. Will I receive a copy of the webinar recording?



**Yes** – a copy will be posted on the ImmunizeCA.org site

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