



VFC-IIS Integration Assessment

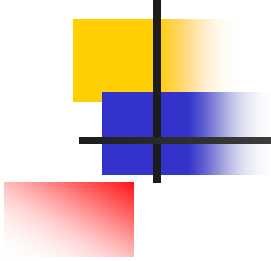
Michael Powell, Immunization Technical Unit Chief, CA DPH
Marcey Propp, Project Manager, HLN Consulting, LLC

AIRA National Meeting
August 15, 2018



VFC–IIS Integration Assessment

- Context
- Objectives and Guidelines
- Key Assumptions
- Approach
 - Gap Assessment
 - Evaluation Criteria
 - Other Considerations
- Conclusions
- Next Steps



PROJECT CONTEXT

CA IIS Migration (2016-2017)

- Largest IIS data migration ever
 - 7 regional registries consolidated (WIR software)
 - >4,000 DX submitters
 - 25M total patients
 - 225M total vaccine doses
 - >3,500 VFC providers
- 3 phases over 9 months (4, 2, 1)
 - Training of >10K clinical users
- Cleanup
 - Bugs
 - Migration errors (duplicates)





Background

- CA Vaccines for Children (VFC) Program uses software developed in-house to support statewide VFC Program operations (referred to as 'MyVFC Vaccines')
 - Two stand-alone modules
 - Provider Ordering Module
 - Administration Module
 - Developed independently of CAIR2
 - Modules offer robust functionality with some limitations as the functionality is not integrated with the IIS

Background

The screenshot displays the EZIZ website interface. At the top, there is a navigation menu with links for Home, Vaccine Programs, Vaccine Management, Storage Units, Temperature Monitoring, EZIZ Training, and Job Aids & Resources. The main content area features the 'myVFCVACCINES' logo and a 'MAIN PAGE' section for 'Izzy the Bear- Pediatrics MD'. This section includes contact information, order confirmation details, and links for provider information and practice profiles. Below this, there are three columns of buttons for 'Orders', 'Inventory', and 'Recertification'. A 'SHOTS' section provides information about reporting temperature excursions. The footer contains the text 'About EZIZ | www.getimmunizedca.org'.

EZIZ Google Custom Search

A one-stop shop for immunization training and resources.

Home
Vaccine Programs
Vaccine Management
Storage Units
Temperature Monitoring
EZIZ Training
Job Aids & Resources

myVFCVACCINES

MAIN PAGE

Izzy the Bear- Pediatrics MD
PIN: 888888

Order confirmation email: megan.brunner@cdph.ca.gov
Add'l order confirmation email: megan.brunner@cdph.ca.gov
Phone: (877) 243-8832
Address: 850 Marina Bay Pkwy Richmond, CA 94804

Provider of Record: Ima Person
Provider of Record email: megan.brunner@cdph.ca.gov
Vaccine Coordinator: Ima Person
Vaccine Coordinator email: megan.brunner@cdph.ca.gov
[Key Practice Staff Change Request](#)

Provider Category: Low Volume
Order Frequency: Every 3 months

[Current Provider's Information](#)
[Update Practice Information](#)
VFC Practice Profile [2017](#) [2016](#)

Date of last order: June 20, 2017
Last order processed on: November 06, 2017
Order should be submitted on or after: Feb 04, 2018

Orders
[Order VFC Vaccine](#)
[Order 317 Vaccine](#)
[View Order History](#)

Inventory
[Enter Returns & Transfers](#)
[View Returns & Transfers](#)
[View Shipping History](#)

Recertification
[View Recertification](#)

SHOTS
All temperature excursions must be reported through SHOTS (Storage and Handling Online Triage System)
[Report/View Excursions](#)
[Log Out](#)

Contact VFC
Phone: 1-877-243-8832
Business hours: 9-5
Fax: 1-877-329-9832

- Find a VFC field representative in your area
- Find other VFC provider offices in your area
- Send us your comments at ImmunizationBranch@cdph.ca.gov

Sign up to receive EZIZ news and VFC letters via email!

Frequently Asked Questions

About EZIZ | www.getimmunizedca.org

Background

EZIZ
A one-stop shop for immunization training and resources.

Google Custom Search

Home
Vaccine Programs
Vaccine Management
Storage Units
Temperature Monitoring
EZIZ Training
Job Aids & Resources

Contact VFC
Phone: 1-877-243-8832
Business hours: 9-5
Fax: 1-877-329-9832

- Find a VFC field representative in your area
- Find other VFC provider offices in your area
- Send us your comments at ImmunizationBranch@cdph.ca.gov

Sign up to receive EZIZ news and VFC letters via email!

Frequently Asked Questions

Order Details - Internet Explorer
http://myfvcvaccines.org/vfc_order/print.php?order_id=96408

Order Date: January, 27, 2016. Submitted by PIN 888888.

VFC vaccine order submitted on January, 27, 2016

VFC Vaccines	VFC Doses Administered	VFC Vaccine Inventory (Doses On Hand)				VFC Vaccine Order	
		Number of Doses on Hand	Vaccine Type	Lot Number	Expiration Date	Vaccine	Doses Requested
DTaP	0	15	Daptacel Single Dose Vials	daptacel	10-10-2018	(Daptacel Single Dose Vials - 10 Per Box)	10 (Original Request - 10)
		7	Infanrix Single Dose Vials	infanrix	07-17-2016		
DTaP/IPV	0	20	Kinrix Single Dose Vials	kinrix	12-12-2017	(Kinrix Single Dose Vials - 10 Per Box)	20 (Original Request - 20)
DTaP/Hepatitis B/IPV	0	11	Pediarix Single Dose Syringes	pediarix	11-25-2017	(Pediarix Single Dose Syringes - 10 Per Box)	10 (Original Request - 10)
DTaP/IPV/Hib	0	5	Pentacel Single Dose Vials	pentacel	12-18-2018	(Pentacel Single Dose Vials - 5 Per Box)	10 (Original Request - 10)
Hepatitis A	0	13	Havrix Single Dose Vials	havrix	12-01-2016	(Vaqta Single Dose Vials - 10 Per Box)	10 (Original Request - 10)
Hepatitis B	0	8	Engerix B Single Dose Vials	engerix	11-09-2016	(Recombivax Single Dose Vials - 10 Per Box)	20 (Original Request - 20)

About EZIZ | www.getimmunizedca.org

Background

Order History	New VFC Order	New 317 Order	New Return/Transfer	Return/Transfer History	Shipping History	Main Page
VFC Vaccine Order Form for PIN 888888, Izzy the Bear- Pediatrics MD.						
VFC Vaccines	VFC Doses Administered Enter -0- for no doses	VFC Vaccine Inventory (Doses On Hand) Enter -0- for no doses	New VFC Vaccine Order			
<i>Refrigerated vaccines</i>						
DTaP	<input type="text" value="150"/> VFC	1. <input type="text" value="Infanrix Single Dose Vials"/> <input type="button" value="v"/> <input type="text" value="0"/> <input type="text" value="123456"/> <input type="text" value="08"/> <input type="text" value="08"/> <input type="text" value="2018"/> # of Doses Lot Number Expiration (mm/dd/yyyy) Add More ↓	<input type="text" value="Infanrix Single Dose Vials - 10 Per Box"/> <input type="button" value="v"/> <input type="text" value="15"/> Add More ↓			
DTaP/IPV	<input type="text"/> VFC	1. <input type="text" value="--Choose vaccine--"/> <input type="button" value="v"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> # of Doses Lot Number Expiration (mm/dd/yyyy) Add More ↓	<input type="text" value="--Choose vaccine--"/> <input type="button" value="v"/> <input type="text" value="0"/> Add More ↓			
DTaP/Hepatitis B/IPV	<input type="text"/> VFC	1. <input type="text" value="--Choose vaccine--"/> <input type="button" value="v"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> # of Doses Lot Number Expiration (mm/dd/yyyy) Add More ↓	<input type="text" value="Pediarix Single Dose Syringes - 10 Per Box"/> <input type="text" value="0"/> Add More ↓			

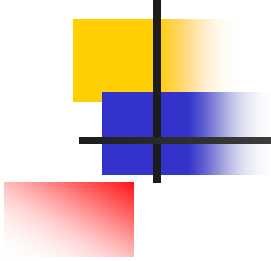
Background

Order History		New VFC Order		New 317 Order		New Return/Transfer		Return/Transfer History		Shipping History		Main Page	
Delivery Information													
Name: Izzy the Bear- Pediatrics MD													
Address: 850 Marina Bay Pkwy, Richmond, CA 94804													
Vaccine Coordinator: Ima Person Phone: (877) 243-8832													
Vaccine coordinator E-mail: megan.brunner@cdph.ca.gov													
Number of rows per page: 20													
	Date Submitted	Total Loss (in dollars)		Funding Code		View Details							
1	10/26/2017	0	VFC	View Details									
2	06/28/2017	177.3	VFC	View Details									
3	06/20/2017	0	VFC	View Details									
4	06/20/2017	130.4	VFC	View Details									
5	10/13/2016	0	VFC	View Details									
6	09/19/2016	0	VFC	View Details									
7	09/19/2016	0	317	View Details									
8	09/19/2016	0	VFC	View Details									
9	11/18/2015	83.56	VFC	View Details									
10	09/28/2015	2,913.77	VFC	View Details									
11	09/28/2015	225.21	VFC	View Details									
12	09/25/2015	323	VFC	View Details									
13	04/13/2015	0	VFC	View Details									
14	04/01/2015	117.5	VFC	View Details									
15	04/01/2015	153.8	VFC	View Details									
16	03/03/2015	0	VFC	View Details									
17	02/14/2015	0	VFC	View Details									
18	02/09/2015	78.8	VFC	View Details									
19	02/09/2015	0	VFC	View Details									
20	12/03/2014	0	VFC	View Details									
Total cost of spoiled,expired and wasted vaccine for all returns: \$ 16,710.72													



Benefits of VFC-IIS Integration

- Meeting targeted metrics as documented within the CAIR2 Business Plan
 - Increased participation of VFC providers in CAIR
 - Improved accountability for vaccines distributed via the CA VFC Program
 - Ability to capture dose-level eligibility for VFC doses administered
- Support 2018-2022 functional standards for VFC-IIS integration

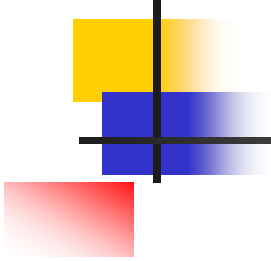


PROJECT OBJECTIVES



Project Objectives

- Rollout of CAIR2 an opportune time to:
 - Review existing VFC functionality in the CAIR2 application
 - Compare with functionality in the MyVFC Vaccines modules
 - Make recommendations to support the 2018-2022 functional standard for VFC-IIS integration

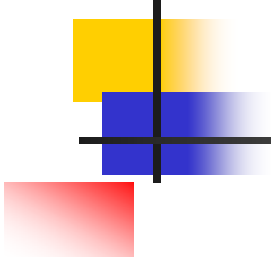


PROJECT ASSUMPTIONS



Assumptions

- The following assumptions were made in conducting the assessment:
 - Assessment conducted in ancillary environment that may not fully replicate CA functionality
 - Report functionality tested to the extent possible
 - Feasibility of project recommendations to be discussed with project sponsors
 - Shared set of database tables for MyVFC Vaccines application would introduce additional complexity if moving one without the other
 - Even with SSO, users' authentication may be logged in CAIR2, but may not be logged within MyVFC Vaccines



PROJECT APPROACH



Project Guidelines

- Possible options identified by project sponsors:
 - Access MyVFC Vaccines application with single sign-on
 - Use CAIR2 VFC functionality exclusively
 - Keep the applications separate



Approach

- Assessment conducted:
 - To identify gaps in functionality
 - Using various user roles
 - In an ancillary environment
 - Included demonstration of the application



Evaluation Criteria

- State defined criteria to evaluate the three options:
 - Improved accountability for VFC vaccines
 - Single sign-on
 - Security and audit capability
 - CDC IIS functional standards
 - CDC VFC Program requirements
 - Maintain current level of functionality



Other Considerations

- Other considerations included:
 - Cost and resources
 - Ability to implement changes and enhancements
 - Cost of data migration
 - Level of disruption
 - Staff and user training needs
 - Feasibility of implementation

Assessment – Core VFC Functionality

- Assessment of core VFC functionality proved similar with notable exceptions of the functions bolded below:

Functionality	
User-level Authentication	Manage Inventory Transactions (View/Submit Transfers, Returns due to Spoiled, Expired, Wasted, Borrowed)
Single Sign On (Access VFC & IIS Functions)	Shipping Documents (generate packing lists, request return shipment labels, view shipping logs)
View Order History	“Accept VFC Shipment” (functionality that allows the VFC site user to review and accept their VFC vaccine shipment) - Once accepted, those VFC lots are automatically added to the inventory module
Enter New Order	Submit Reconciled Inventory Count
Manage Orders (Individual PIN Level/VFC Site User Level) <ul style="list-style-type: none"> View/Review/Approve Orders from a single VFC site. List Orders by Date Range, Edit Orders, Submit Orders 	Decrement Inventory via Online Data Entry (UI) of Administered Doses
Submit Temperature Logs	Decrementing Inventory via Electronic Data Exchange
Report Site Temperature Excursions	Submit VFC Annual Re-certification Online
Display/Add/Edit Inventory	Submit Documentation for VFC Training Completed Online

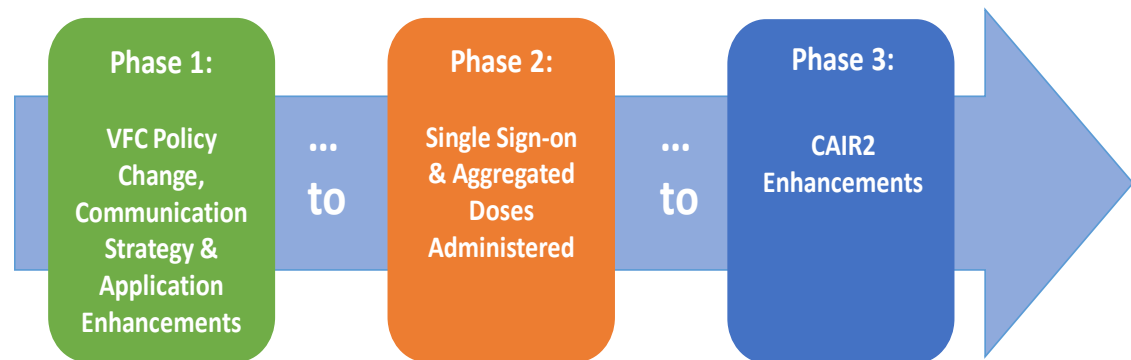


Assessment – VFC Program Admin Functionality

- Home-grown application - MyVFC Vaccines offers enhanced functionality to streamline VFC Program operations
- More information and greater transparency
 - Managing site storage units
 - Assigning VFC staff to review/approve orders

Recommendations

- Phased-approach to VFC-IIS integration
 - Minimizes disruption
 - Maintains existing service level and functionality
 - Complies with CDC standards



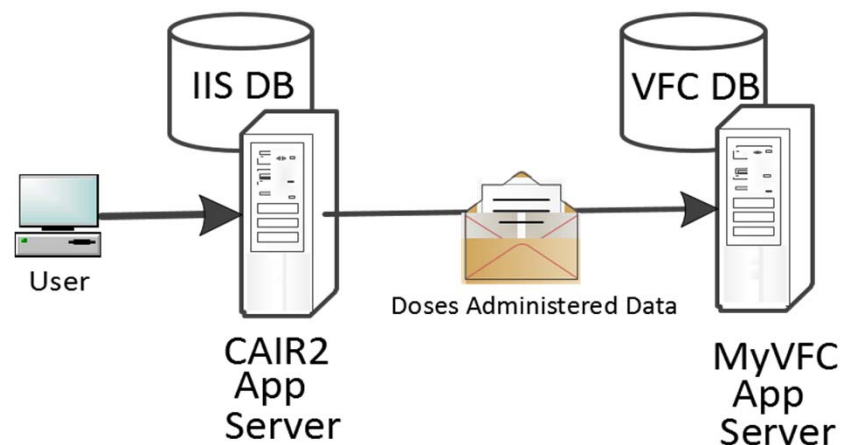


Phase 1: VFC Policy Change, Communication Strategy & Application Enhancements

- Implement policies that require VFC sites to:
 - Manage VFC inventory in CAIR2 by a certain date
 - Report all VFC doses to CAIR2 (via the UI or HL7 web service) by a certain date
- Review feasibility of filling some gaps
- Document requirements for selected (technical) solution
- Develop a communication strategy

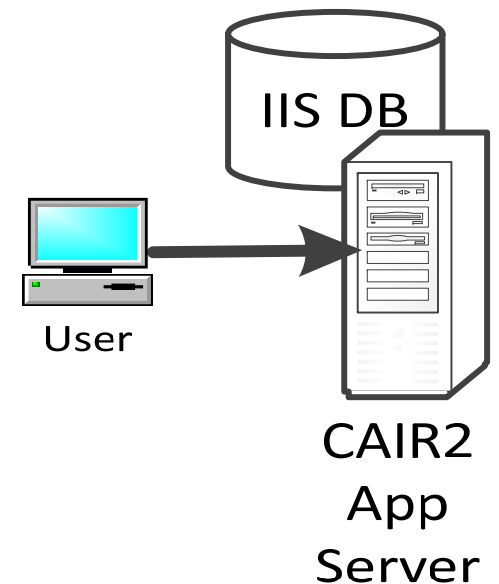
Phase 2: Single Sign On & Aggregated Doses Administered

- Single sign-on may be feasible without completely merging or recreating MyVFC Vaccines functionality in CAIR2
- Make aggregated doses administered data from CAIR2 available in MyVFC Vaccines



Phase 3: Gap Enhancements

- Prioritize CAIR2 enhancements and consider:
 - Additional resources and costs required
 - Maintenance of applications during development and testing
 - Training
 - Timeline and feasibility
 - Inclusion of additional CA-specific functionality within the WIR product





NEXT STEPS



Next Steps

- SSO – Being adopted by CDPH
 - Advantage: Centralizes user management
 - Central account management
- Reconcile VFC – IIS accounts
- Build Web Service
 - Allow MyVFC Vaccines and CAIR2 to communicate



Contributions

- We would like to thank the following individuals for their support and assistance in this project:
 - Janet Fath, CDC
 - Beth Cox, CDC
 - Sarah Royce, CA
 - Maria Volk, CA
 - Steve Nickell, CA
 - Claudia Aguiluz, CA
 - Andrey Rashidov, CA
 - Noam Arzt, HLN
 - Bhavani Sathya
 - Lydia Luther, OR
 - Amanda Timmons, OR
 - Jenne McKibben, OR
 - Erin Corrigan, OR
 - Shelby Williams, OR



Contact Information

Michael Powell

CDPH, Immunization Technical Unit Chief
510-231-7648 (Voice)
michael.powell@cdph.ca.gov

Marcey Propp

HLN Project Manager
856-266-3175 (Voice)
mepropp@hln.com