

Consumer Engagement for Immunization Information Systems

Introduction

Jim Daniel, Public Health Coordinator, *Office of the National Coordinator for Health IT*

- Presentation Overview

Shannon Stokley, *Immunization Services Division, CDC*

- Evaluation of MyIR Implementation

Lonnie Peterson, *Child Profile Health Promotion Supervisor, Washington DOH*

- Washington State MyIR

Quan Le, *IIS Manager, Louisiana Department of Health and Hospitals*

- Batch Registration in Louisiana

Lara Popovich, *Scientific Technologies Corporation*

- Secure Enrollment Techniques

Evaluation of MyIR Implementation

Shannon Stokley, MPH

Immunization Services Division, CDC

Implementation of MyIR

- **State Immunization Programs (AK*, AZ, LA, WA, WV)**
 - Recruit and train healthcare providers
 - Promote MyIR to public
- **Healthcare Providers**
 - Promote MyIR to patients
 - Authenticate and register patients
- **Consumers**
 - Register and use MyIR

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

User Workflow

1

Login

Email	Password	Sign in
-------	----------	---------

2


Select Record

Personal Certificate With Schedule

Certificate of Immunization

3

View
Download
Print
Share

		State of Louisiana Universal Certificate of Immunizations						
Expiration Date: 01/28/2014 Vaccine: DTaP/DTTd		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		SIIS 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/DTTd	06/01/2013	06/29/2013						
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, 2-Polio, 1st DTP and Polio after 4th birthday, 2-MMR after 1st birthday and, 3-Hep B								
*** Daycare Centers Hb 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: 8D76XUJVQ08J8GJFS85000Y								
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								

Could MyIR be successful?

- Will providers be willing to promote MyIR and conduct the authentication?
- Will this reduce the workload for providers or increase it?
- Will consumers be interested in this?
- Could MyIR influence health behaviors?

Evaluation Methods and Timeline

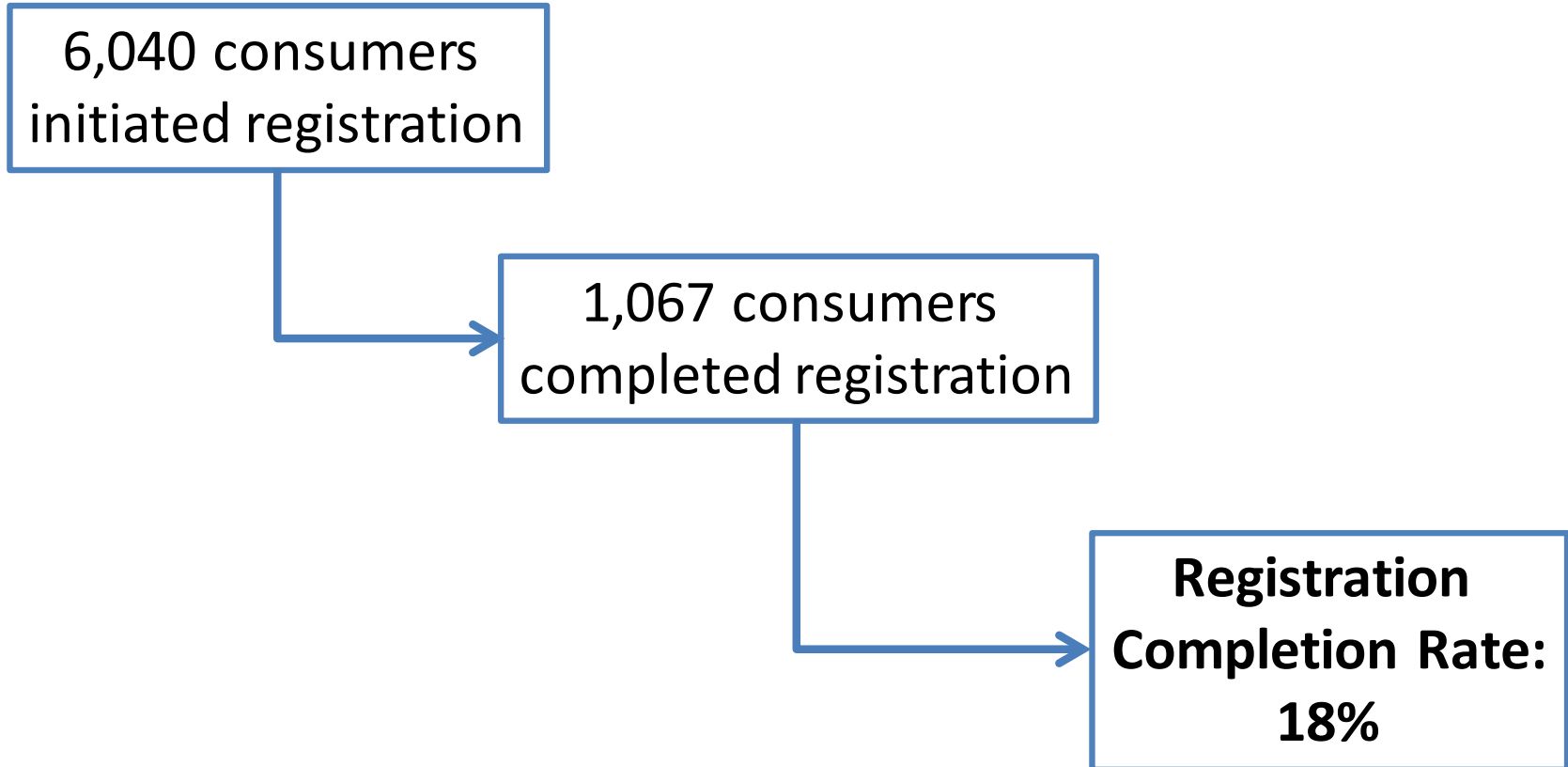
- **State Immunization Programs**
 - Key Informant Interviews conducted Jul-Aug 2015
- **Participating Providers**
 - Online survey conducted Jul-Aug 2015
 - Key Informant Interviews conducted Jun-Aug 2015
- **Consumers**
 - Online survey conducted Jan-Aug 2015

SELECTED RESULTS: REGISTRATION CHALLENGES

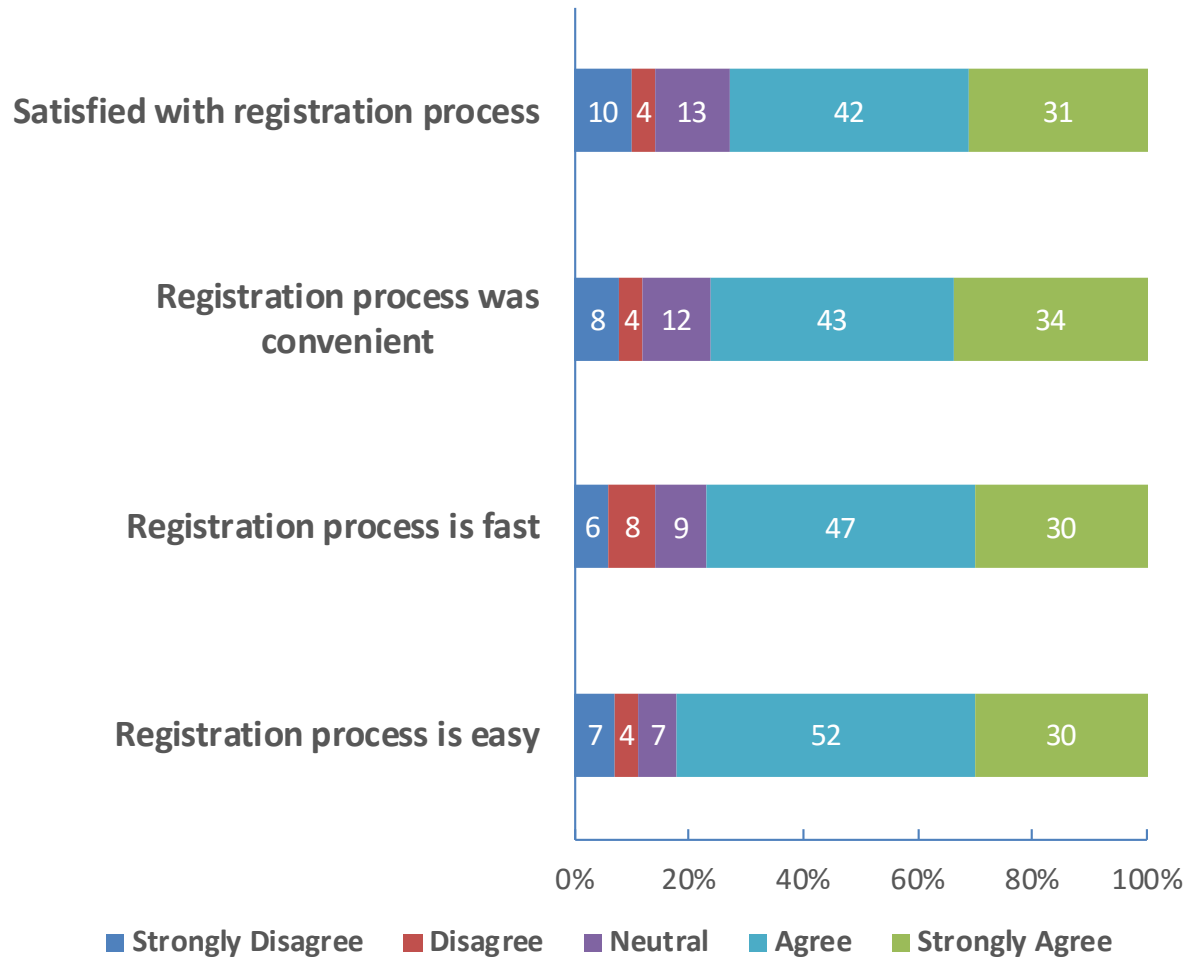
Overall Metrics

(As of August 30, 2015)

- **137 providers registered at least 1 consumer**

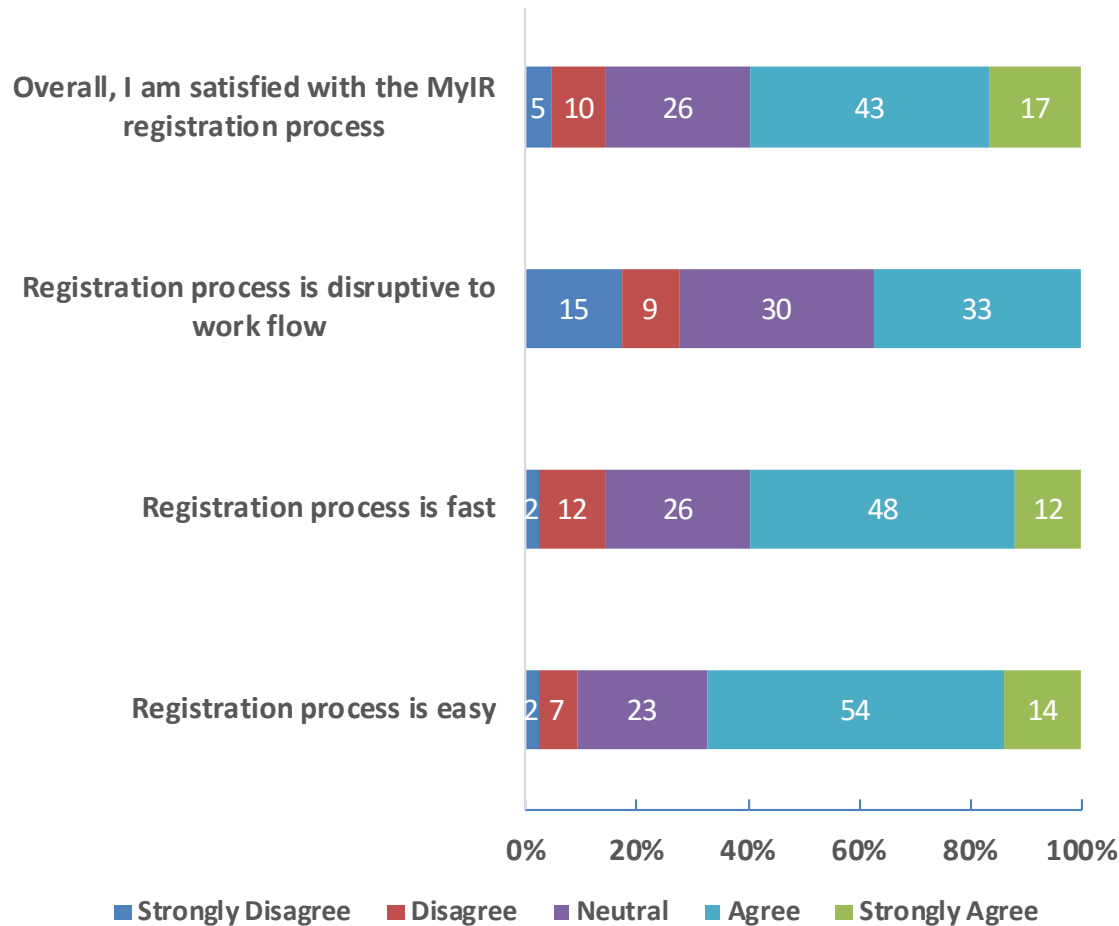


Registered Consumers: Attitudes Towards Registration Process



Majority of registered consumers agreed that the registration process is fast, easy and convenient

Provider Attitudes towards MyIR Registration Process (Online survey results)



Majority agreed that
registration process is
fast and easy

BUT

33% reported the
process was disruptive
to their work flow

Provider Challenges

“Then there's a little bit of a **challenge** for the girls at the front desk **to remember to give these out** and to incorporate one more form into the visit at the check-in process.”

“Honestly, time ... when this all came about **time was a factor** because of things that were going on here. We're really small. **There's only a few of us** here, so we just ... to try to find the time to do this, **we were always interrupted.**”

Consumers: Main reasons for not completing registration process

Provider-Initiated registration process

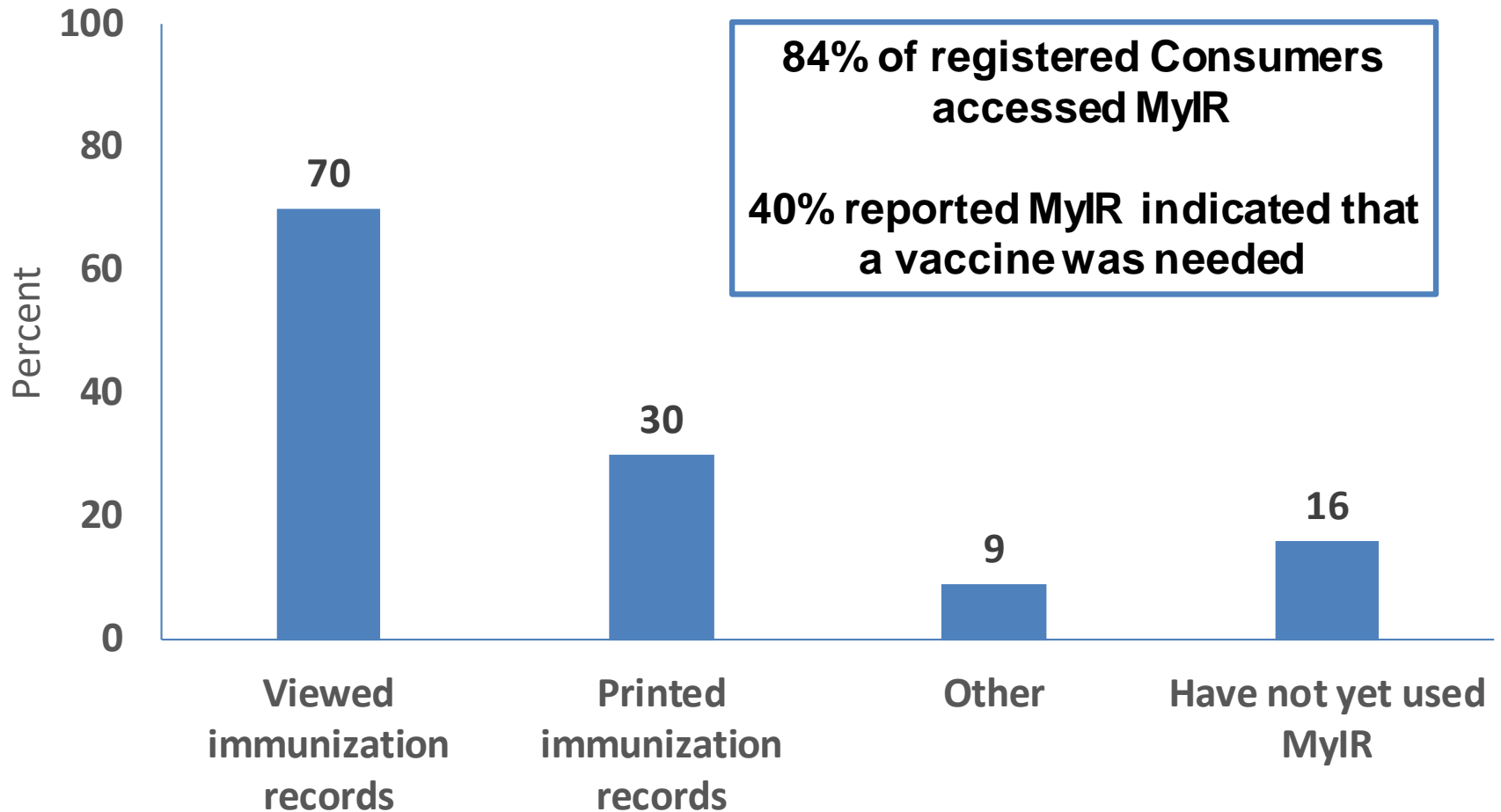
- Forgot to go online and complete steps (27%)
- Forgot/lost PIN (22%)
- Didn't have time to complete (17%)

Consumer-Initiated registration process

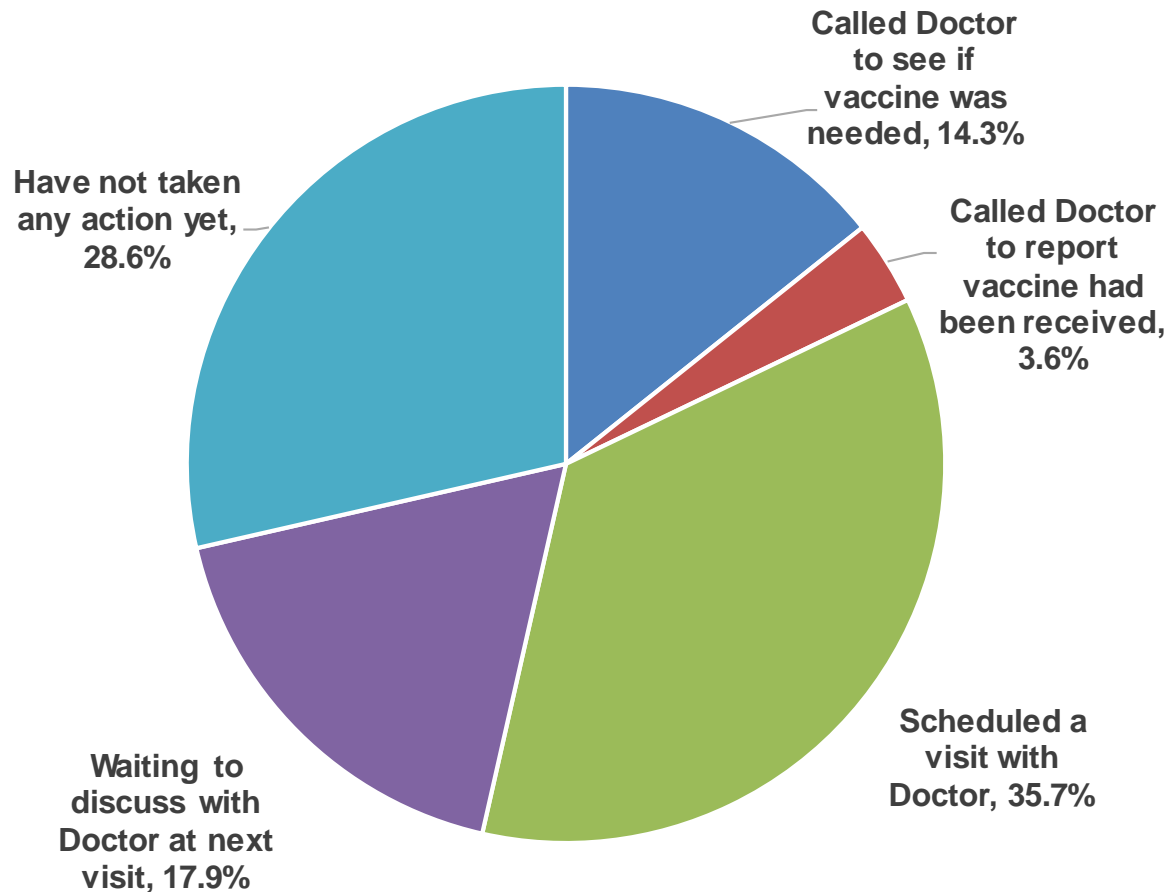
- Didn't know had to go to provider office to complete registration (37%)
- Waiting until next scheduled visit to complete registration (23%)
- Not willing to schedule a visit just to complete registration (19%)

SELECTED RESULTS: USE OF AND ATTITUDES TOWARDS MYIR

MyIR Functions Used

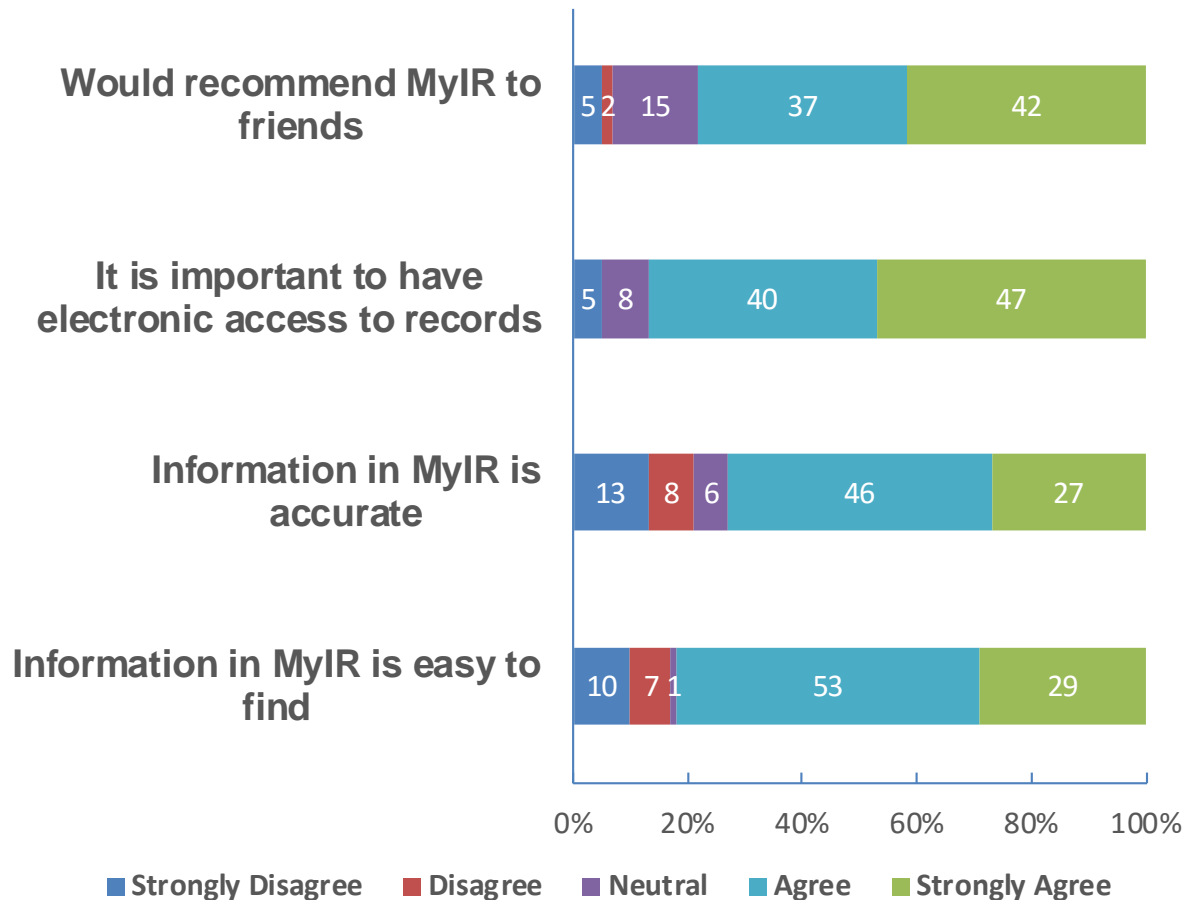


Actions Taken After Learning a Vaccine was Needed



Positive Health Seeking Behavior
54% of Consumers who learned they needed a vaccine contacted their Doctor.

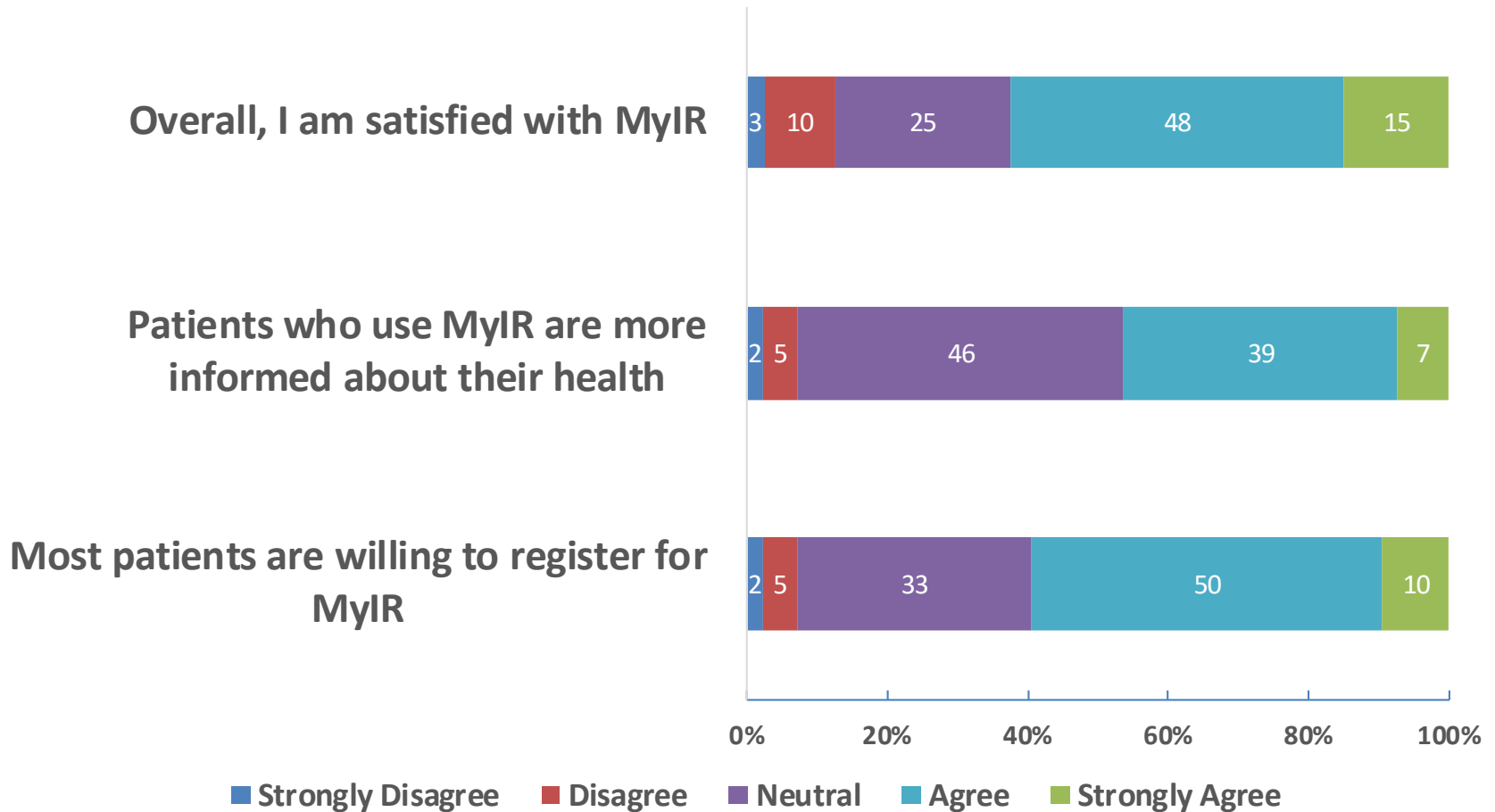
Consumer Attitudes Towards MyIR



Majority of registered consumers agreed information is easy to find and accurate

79% would recommend to their friends

Provider Attitudes Toward MyIR



Summary

- **Challenges with completing registration process**
 - Providers do not have time or forget to inform patients
 - Consumers not informed about or forget to complete all the steps
- **Despite challenges, participating providers report positive attitudes towards MyIR**
- **Registered Consumers report:**
 - Positive attitudes towards using MyIR
 - Taking action once they are informed a vaccine is needed

Thank You!

- Shannon Stokley: sstokley@cdc.gov

Washington State MyIR

Lonnie Peterson, Child Profile Health Promotion
Supervisor, Office of Immunization and Child Profile


The screenshot shows the Washington MyIR website. At the top is a navigation bar with links: Washington MyIR.net, Lonnie Peterson, Peterson Family, Send Records, Help, About, and Logout. The main content area features a large image of a pregnant woman using a laptop. Overlaid on this image is the text: "Access Your Washington MyIR Account", "Log in now to access your and your family's immunization records", and a green "Log In" button. To the right of the image, there are several informational sections: "IMMUNIZATION INFORMATION SYSTEM" with the Washington State Department of Health logo, "Adult Immunizations are Important" with a link to "Learn more about adult vaccines", "HPV Vaccine is Cancer Prevention" with a link to "HPV vaccine is important. It protects against cancers", and "Personal Testimonies about Vaccine-Preventable Diseases" with a link to "Real-life accounts of suffering and loss due to vaccine-preventable diseases. Read these powerful stories". At the bottom left, there is a section titled "Your Immunization Record May Not Look Complete" with a paragraph explaining that some vaccines may not appear on the record and a link to "Learn more". To the right of this text is the MyIR logo, which consists of a colorful circular graphic with dots and the text "MyIR".

Washington State MyIR

- Alternative approaches
 - Built upon existing infrastructure
 - Remove provider

Washington State MyIR

- Alternative approaches:
 - Records requests

 **IMMUNIZATION INFORMATION SYSTEM**

A COPY OF THIS COMPLETED ORIGINAL DOCUMENT IS CONSIDERED THE SAME AS THE ORIGINAL.

AUTHORIZATION TO RELEASE IMMUNIZATION RECORDS
Washington State Immunization Information System, PO Box 47843, Olympia, WA 98504-7843
Phone: 1-866-397-0337 | Fax: 360-236-3590 | E-mail: WAISRecords@doh.wa.gov

Patient/Child Information (if requesting records for more than one patient or child, see side 2 of this form):

Patient/Child First Name	Patient/Child Middle Name	Patient/Child Last Name
<hr/>		
Patient/Child Date of Birth (MM/DD/YYYY)	Patient/Child Previous Name(s)	
<hr/>		

Parent/Guardian Information:

Parent/Guardian Full Name (if patient is less than 18 years old)	Parent/Child or Parent Phone Number (include area code)		
<hr/>			
Address (including apt. #, if applicable)	City	State	Zip Code
<hr/>			
Parent/Guardian E-mail Address	Parent/Guardian Date of Birth (MM/DD/YYYY)		
<hr/>			

I request and authorize the Washington State Immunization Information System to release the system's immunization information for the patient/child named above and on side 2 of this form to the person or agency named here:

First and Last Name	Agency (if applicable)	Phone Number (include area code)
<hr/>		

Records requested by e-mail, fax, or postal mail will be sent no later than 15 business days (usually within 3 to 5 business days) after receipt of this signed authorization. If choosing to register for ©MyIR, records will be available immediately upon completion of registration. Choose all that apply:

☐ E-mail records to: _____

☐ Fax records to: (_____) _____

☐ Mail records to: _____
Mailing address, including apt. #, city, state, and zip code

☐ Access my and/or my child's records online via ©MyIR

Unless earlier terminated as provided for on the back of this form, this authorization expires 18 years after it is signed or when

Washington State MyIR

- Alternative approaches:
 - Promotional webpage (doh.wa.gov/immsrecords)

The screenshot shows the Washington State Department of Health website. The header includes the department's logo and navigation links: Home, Newsroom, Publications, and About Us. Below the header is a search bar and a navigation menu with categories like 'You and Your Family', 'Community and Environment', 'Licenses, Permits and Certificates', 'Data and Statistical Reports', 'Emergencies', and 'For Public Health and Healthcare Providers'. The main content area is titled 'Access your Family's Immunization Information' and provides instructions on how to access family immunization records. It lists three options: signing up for MyIR, requesting a complete immunization record from a healthcare provider, or requesting a complete immunization record from the Department of Health. A sidebar on the left contains a list of links for various health topics, including Breastfeeding, Family Planning, Food Safety, Healthy Aging, Healthy Home, Illness and Disease, Immunization, Adult, Children, Child Profile Health Promotion, Child Profile en Español, Evaluation, For Parents, Access your Family's Immunization Information, Frequently Asked Questions, For Partners, For Providers, Health Promotion Materials, Resources, College Students, Diseases and Vaccines, Forms and Publications, Immunization Information System, Immunization News, Preteens and Teens, School and Child Care, Travelers, Vaccine Safety, Inmunización, Infants, Children, and Teens, Injury and Violence Prevention, and Marijuana.

Washington State Department of Health

Home | Newsroom | Publications | About Us

Topics A-Z Search Go

You and Your Family | Community and Environment | Licenses, Permits and Certificates | Data and Statistical Reports | Emergencies | For Public Health and Healthcare Providers

Home » You and Your Family » Immunization » Child Profile Health Promotion » For Parents » Access your Family's Immunization Information

Access your Family's Immunization Information

There are a few ways you can access your family's immunization information:

- **Option 1:** Sign up for MyIR to view, download, and print your family's immunization information
 - Already have an account? [Log in to MyIR](#)
- **Option 2:** Request a complete immunization record from your healthcare provider
- **Option 3:** Request a complete immunization record from the Department of Health

Option 1: Sign up for MyIR to View, Download, and Print Your Family's Immunization Information

MyIR allows you to manage your family's immunization records securely online. Once you register, you can access the records any time you need them. You can also print your child's [Certificate of Immunization Status \(PDF\)](#) for school and child care entry. You can do all of this without an extra trip to your healthcare provider or school. Fill out an [Authorization to Release Immunization Records \(PDF\)](#) or an [Autorización para entregar documentos de vacunaciones \(PDF\)](#). Mail, fax, or e-mail the form to:

Washington State Immunization Information System
PO Box 47843
Olympia, WA 98504-7843
Fax: 360-236-3590
E-mail: WAIISRecords@doh.wa.gov

Once we receive your signed form, we'll register you in MyIR and send you a temporary PIN and instructions on what to do next. When you're done, you'll have immediate access to your family's immunization records to view, download, or print as often as you need. If you have any questions, please contact us at 360-236-3595 or 1-866-397-0337 or by e-mail at WAIISRecords@doh.wa.gov

Option 2: Request a Complete Immunization Record from Your Healthcare Provider

Washington State MyIR

- Alternative approaches:
 - Child Profile Health Promotion mailings



Washington State MyIR

- Ad campaign (March to May 2016)
 - Seattle Metro area
 - Print and online
 - Parent Map
 - Volunteer Spot
 - Local blogs
 - Seattle Mama Doc
- Alternate registration options

Contact:

Lonnie Peterson

Child Profile Health Promotion Supervisor

360-236-3534

lonnie.peterson@doh.wa.gov

Louisiana



Batch Creation of Accounts for Consumer Access to Immunization Records

Quan Le, IIS Manager,
Louisiana Department of
Health and Hospitals





The Challenge

- Existing workflows enroll one consumer family at a time
- How might we enroll thousands of families at once?





Our History

- Over 2,300 LA providers (>95%) use LINKS (IIS)
- Since 2013: ~64 providers & clinics register consumers for MyIR
- Since March 2016: Consumers may completely register from home





Batch Enrollment

- Pilot test with a willing partner
- Partners: 3rd party payers, Medicaid, large group practices
- Algorithm processes data export & creates family accounts, matches family members to IIS records



Workflow



1. Input File Creation

Cohorted families
have registration
data fields
exported from Partner's
data system



- Email (& repeat)
- First name
- Last name
- Phone number(s)
- Gender
- DOB
- Address
- State
- Zip code
- Dependent(s) First Name
- Dependent(s) Last Name
- Dependent(s) Gender
- Dependent(s) DOB



Workflow



2. Matching Algorithm

MyIR™ algorithm
attempts single exact
matches for each
family member to
the IIS
(HL7 query & response)

If registration data &
phone number exactly
matches data in IIS for
 ≥ 1 family member, a
MyIR™ account is
created

A single-use Access
Code is exported to the
input file

Workflow

3. Account Activation

Partner distributes promotional announcement and Access Code to consumer clients –
Consumer enters Access Code to MyIR™



Consumer has
anytime, anywhere,
any device
real-time access to
copies of their
official
Immunization
Records

View

Print

Download

Share





Next Steps

- Identify, approach candidate partners
- Evaluate source data (legal relationships among family members)
- Build algorithm
- Test & evaluate
- Deploy and measure consumer uptake

Louisiana



Quan Le

IIS Manager

Louisiana Department of Health & Hospitals

quan.le@la.gov



Scientific Technologies Corporation



**Consumer Access to
Immunization Records:
Secure Enrollment Techniques**

Lara Popovich

Scientific Technologies Corporation (STC)

Identity-Proofing Challenges



- Identity-proofing ensures that a person is who they say they are and that they are legally entitled to access the health records of specified individuals
- A one-time in-person visit to a healthcare provider has been the established “Gold Standard” and was the original procedure for this Pilot Project



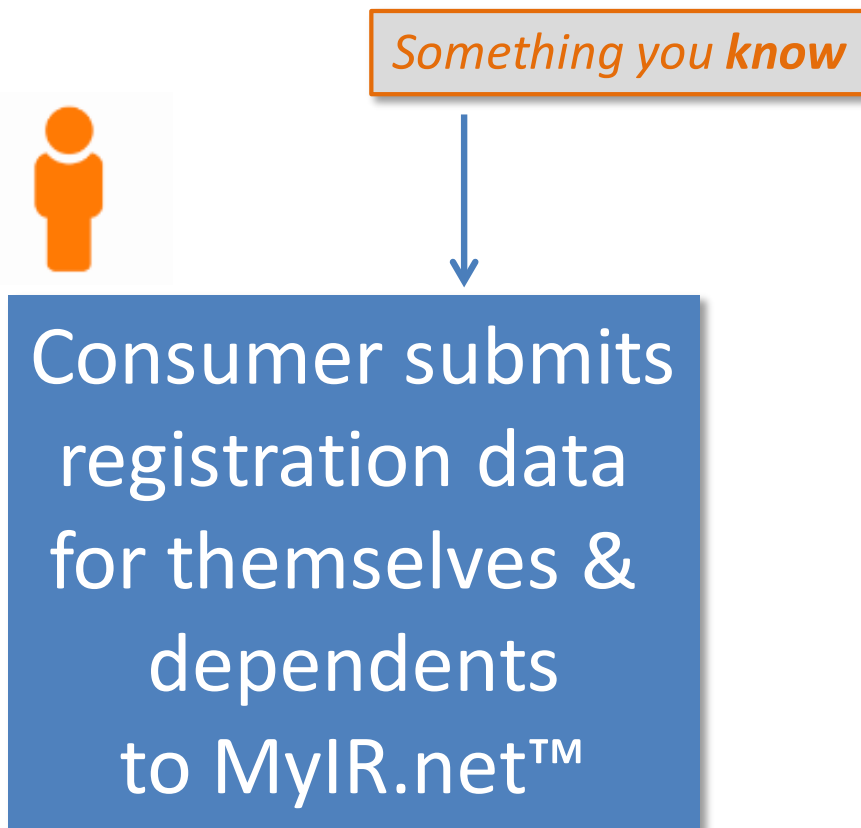
Automating Identity-Proofing



- A 2-factor method now eliminates the required in-person provider visit for the majority of consumers – removing a barrier
- Factor 1: Something you “know”:
Consumer’s family registration data
- Factor 2: Something you “own”:
Consumer’s phone or physical mailing address



1. Registration Data



- Email address
- Self-assigned password
- First name
- Last name
- Phone number(s)
- Gender
- DOB
- Address
- State
- Zip code
- Captcha
- Dependent(s) First Name
- Dependent(s) Last Name
- Dependent(s) Gender
- Dependent(s) DOB

2. ID-Proof & Records Matching



Option 1

Consumer
selects
“Auto Match”
ID-proofing
Option



Auto Match
Access Code
Sent by SMS
or Phone



Query to state IIS

3. Match Outcomes



A

Match Algorithm

If registration data & phone number exactly matches data in state IIS, Access Code sent to consumer via SMS text or phone autodial – consumer enters Access Code

B

Match Algorithm

If registration data (but NOT phone number) exactly matches data in IIS, Access Code sent to consumer via mail – Consumer enters Access Code

*Something
you
own*

C

Match Algorithm

If registration data does NOT exactly match data in state IIS) consumer can submit ID-proof to State -- State may approve account

4. Consumer Access



Consumer has
anytime, anywhere,
any device
real-time access to
copies of their
official
Immunization
Records

View

Print

Download



Share

Registration



STC MyIR.net

My State ▾

Register ▾

Login

Help

About

Alaska

Arizona

Louisiana

Washington

West Virginia

Registration is Easy

Louisiana residents, start using MyIR today and receive up to date federal and state health information that helps you make informed decisions about your family's health.

Register Today

Registration



Register

* An asterisk indicates that the field is REQUIRED

<input type="text" value="Courtney"/>	<input type="text" value="Reeve"/>
<input type="text" value="C_Reeve@gmail.com"/>	<input type="text" value="C_Reeve@gmail.com"/>
<input type="password" value="New Password *"/>	<input type="password" value="Repeat New Password *"/>
<input type="text" value="Female"/>	<input type="text" value="03/01/1952"/>
<input type="text" value="4043940880"/>	<input checked="" type="checkbox"/> TEXT Enabled Phone
<input type="text" value="Phone 2"/>	<input type="checkbox"/> TEXT Enabled Phone
<input type="text" value="Phone 3"/>	<input type="checkbox"/> TEXT Enabled Phone
<input type="text" value="416 River Drive Apt 4"/>	
<input type="text" value="Baton Rouge"/>	<input type="text" value="70803"/>
<input type="text" value="Louisiana"/>	

Add Family Member

<input type="text" value="Sally"/>	<input type="text" value="Reeve"/>	<input type="text" value="12/12/2006"/>	<input type="text" value="Female"/>
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Auto Match Option



MyIR Send Records Help About Logout



Verification Required

You have successfully registered for MyIR! The next step is to have your identity verified and connect your official immunization records to your account. Choose one of the options below to complete the authentication process.

If we find an exact match an sms text code or autodial will be sent to your matching phone.

4



Auto Match (instant and free)

5



Visit Your Physician

Print out this form and then present it to your physician for them to complete the verification process at your next appointment.

Verify

Auto Match



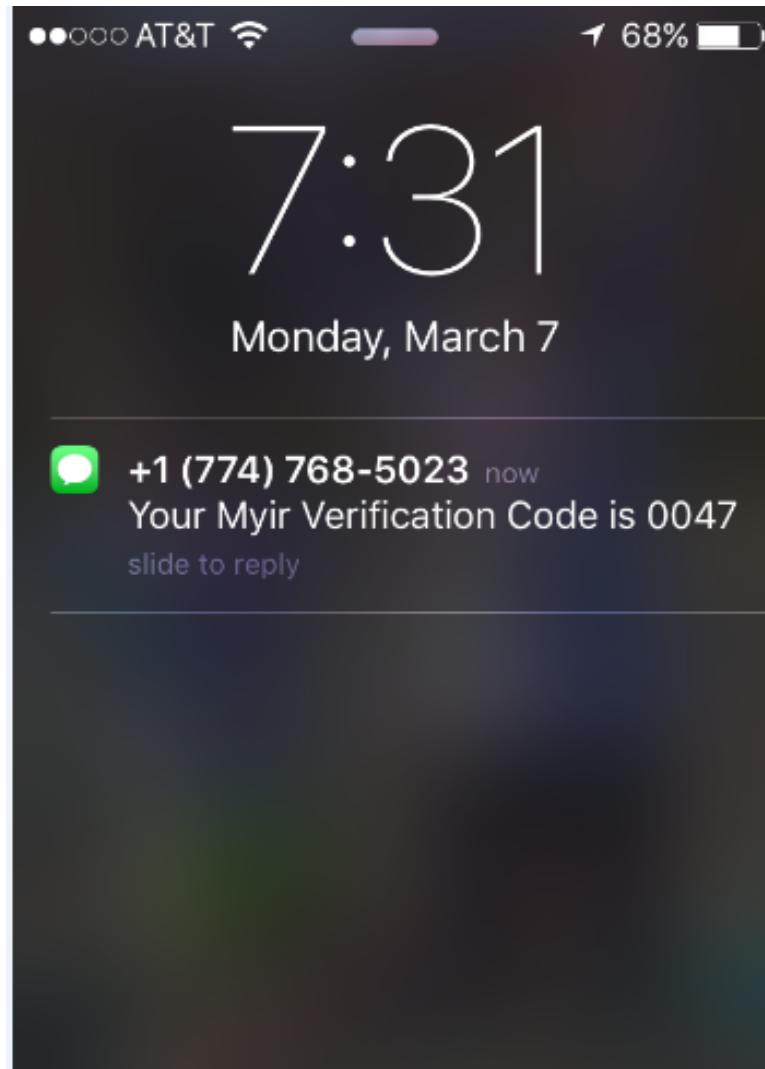
Complete!

Results

Courtney Reeve EXACT MATCH

Send Activation Code

Receive Access Code



Enter Access Code



Auto Match Code *

Verify



Your information is safe and secure.

Records Access



Louisiana MyIR.net

[Courtney Reeve](#)

[Reeve Family](#)

[Send Records ▾](#)

[Help](#)

[About](#)

[Logout](#)

Manage your address and contact information. Get updated state consumer information

You and your family

For email assistance click [here](#)

Add New Family Member

View/Print	First Name	Last Name	DOB (MM/DD/YYYY)	Gender	Age	Delete	Status
<input checked="" type="checkbox"/>	Courtney	Reeve	03/01/1952	Female ▾	64 years		✓

Connect My Family Records

Personal Certificate With Schedule

Louisiana Universal Certificate

Louisiana Higher Learning Certificate

NOTE: If you notice that any immunizations are missing, in error, or not up-to-date, please contact your healthcare provider.

Official State-Specific Record



MyIR



Certificate of Immunization Status (CIS)

DOH 348-013 January 2010

Please print. See back for instructions on how to fill out this form or get it printed from the Immunization Registry.

Child's Last Name: **Perry** First Name: **Robert** Middle Initial: Birthdate (mm/dd/yyyy): **01/20/1966** Sex:

Symbols below: ♦ Required for School and Child Care/Preschool
● Required for Child Care/Preschool Only

Parent/Guardian Name (please print):
Margaret Perry

Office Use Only:
Reviewed by: MyIR Date: 03/07/2016
Signed Cert. of Exemption on file? ☐ Yes ☒ No

I certify that the information provided on this form is correct and verifiable.

03/07/2016

Parent/Guardian Signature Required Date

Vaccine	Dose	Date		
		Month	Day	Year
♦ Hepatitis B (Hep B)				
Hep B	1	11	21	2013
	2			
	3			
or Hep B - 2 dose alternate schedule for teens				
Hep B	1	11	21	2013
	2			
Rotavirus (RV1, RV5)				
	1			
	2			
	3			
♦ Diphtheria, Tetanus, Pertussis (DTaP, DTP, DT)				
DTaP	1	08	08	2013
DTaP	2	12	02	2013
	3			
	4			
	5			
♦ Tetanus, Diphtheria, Pertussis (Tdap, Td)				
Tdap	1	10	01	1975
	2			
● Haemophilus influenzae type b (Hib)				
	1			
	2			
	3			
	4			
● Pneumococcal (PCV, PPSV)				
	1			

Vaccine	Dose	Date		
		Month	Day	Year
♦ Polio (IPV, OPV)				
	1			
	2			
	3			
	4			
Influenza (flu, most recent)				
♦ Measles, Mumps, Rubella (MMR)				
MMR	1	11	08	2013
	2			
♦ Varicella (chickenpox) or verify disease 1-4 ▶				
Varicella	1	12	09	2013
	2			
Hepatitis A (Hep A)				
	1			
	2			
Meningococcal (MCV, MPSV)				
	1			
Human Papillomavirus (HPV)				
	1			
	2			
	3			
Office Use Only: Immunization information updated and verified with parent/guardian permission:				

If the child named on this CIS had chickenpox disease (and not the vaccine), disease history must be verified.

Mark option 1, 2, 3, OR 4 below – see, back #5.

1) ☐ Chickenpox disease verified by printout from CHILD Profile Immunization Registry. Must be marked by printout (not by hand) to be valid.

2) ☐ Chickenpox disease verified by Health Care Provider (HCP)

If you choose this box, mark 2A OR 2B below.

2A) ☐ Signed note from HCP attached OR

2B) ☐ HCP signed here and print name below:

Licensed health care provider (HCP) Signature Date (MO, DO, ND, PA, ARNP)

HCP Printed Name:

3) ☐ Chickenpox disease verified by school staff from CHILD Profile Immunization Registry. If you choose this box, staff must initial that parent or guardian approves: (initial) (date)

4) ☐ Chickenpox disease verified by parent* If you choose this box, fill in the date or child's age when he or she had the disease:

Age/Date of disease:

*Can ONLY verify for some grades, see back #5 (4).

If the child can show immunity by blood test (titer) and hasn't had the vaccine, ask your HCP to fill in this box.

Documentation of Disease Immunity

I certify that the child named on this CIS has laboratory evidence of immunity (titer) to the diseases marked. Signed lab report(s) MUST also be attached.

☐ Diphtheria ☐ Mumps ☐ Other:
☐ Hepatitis A ☐ Polio
☐ Hepatitis B ☐ Rubella
☐ Hib ☐ Tetanus
☐ Measles ☐ Varicella

Measurement



- Weekly metrics count consumer choices and outcomes
- Consumers may still choose to visit a provider for in-person ID-proofing
- Targeted promotional campaigns will be tracked through a registration data field in MyIR™





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Consumer Product Lead
Scientific Technologies Corporation (STC)

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Questions?