STC

Options for Consumer Access to Immunization Records:
Approaching Meaningful Use and Personalized Population Health

A Demonstration Project of
Scientific Technologies Corporation's

MyIR .net™
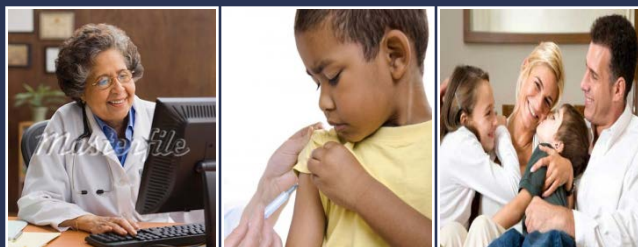
How Health Works

Health:

The *health* of individuals is measurably improved and costs are reduced when individuals are *empowered* with *information* and *control* related to their own health and that of their family members.

Empowerment → Health

Empowerment:

"… a social *process* of *recognizing*, *promoting*, and *enhancing* peoples' abilities to *meet their own needs*, *solve their own problems*, and mobilize the *necessary resources to feel in control* of their lives."[1]

[1] *Gibson, CH. A concept analysis of empowerment. J. Adv. Nurs. 1991;1b:354-61.*

Individual access to Immunization Records is a "*Gateway*" empowerment tool:

• **Ubiquitous** – possibly more common than driver licenses, social security cards, and bank accounts

• **Prevention-oriented**

• **Meaningful and actionable** on many levels (healthcare, school/camp entry, travel, etc.)

Records Access → ↑ Prevention

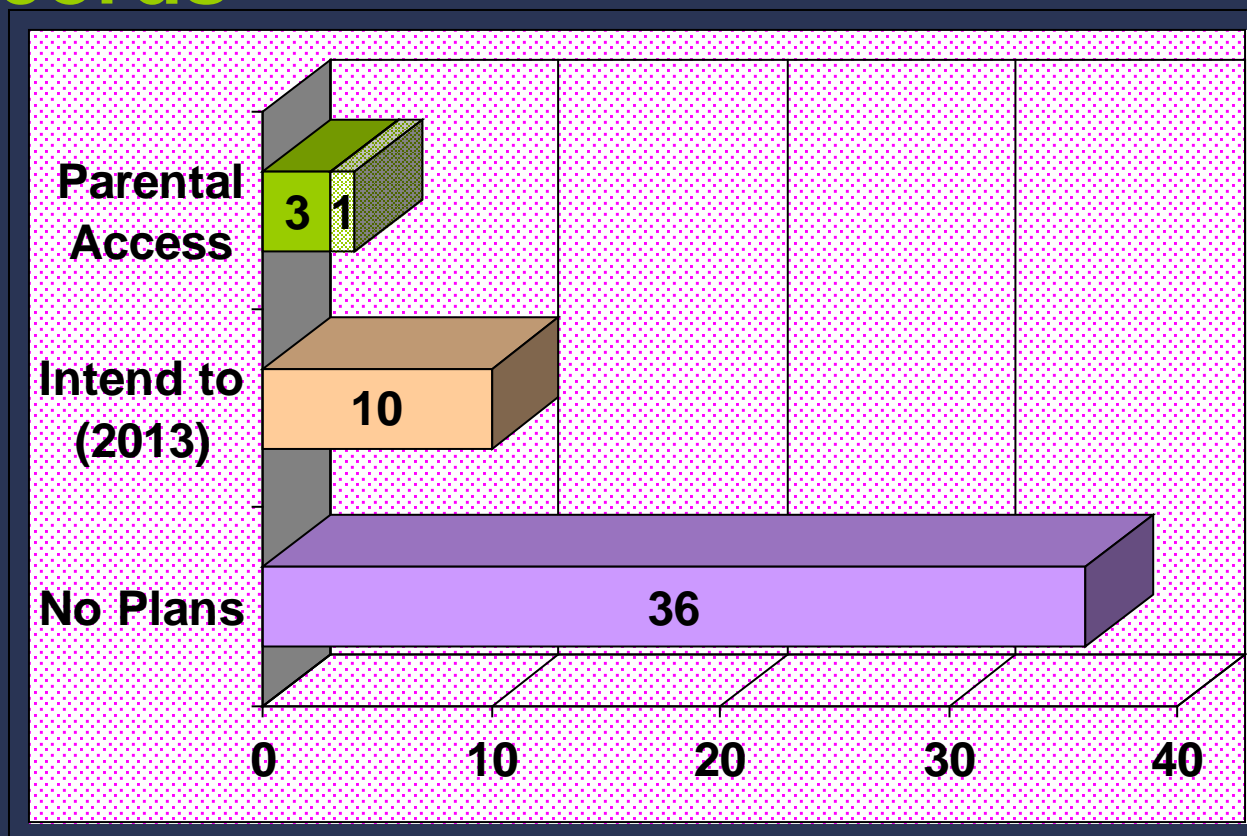**Barriers to Immunization = Barriers to Prevention::**

- **Complex and changing schedules** (> 70 doses)
- **Mobile populations** (42% do not live in birth-county; 11% changed residence from last year)
- **Limited record sources** (Typically available only from healthcare provider)
- **Limited trusted information for consumer decision-making** (Value of immunizations to consumers becomes unclear)

Prevalence of parental access to children's SIIS records[2]:
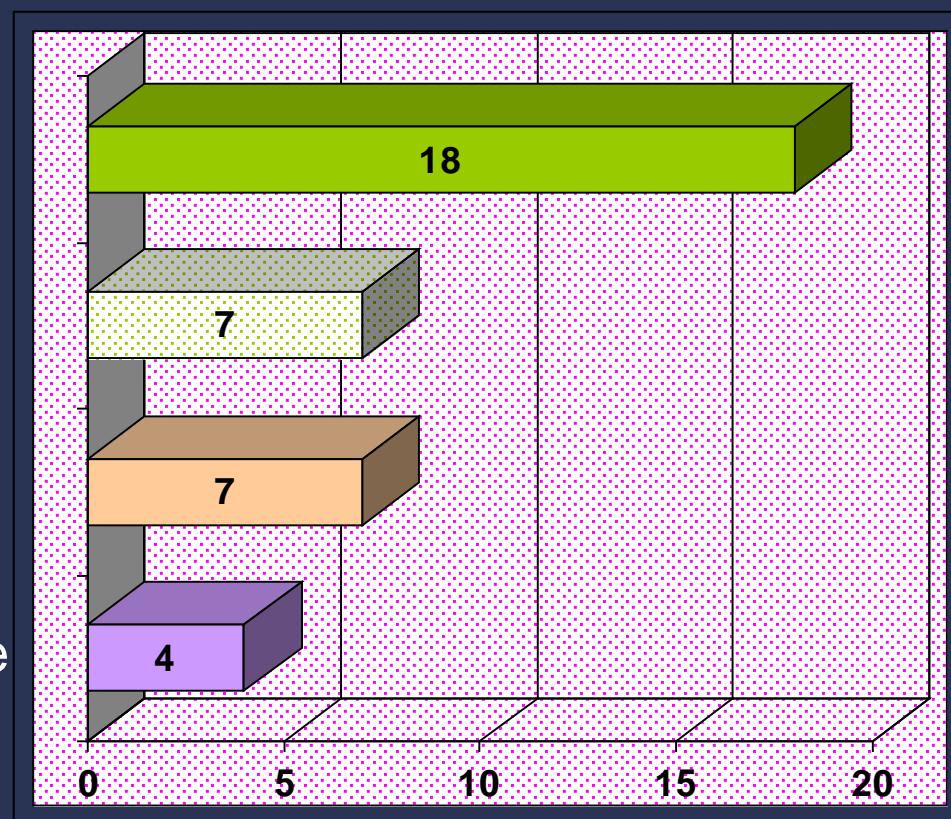
Why SIIS' Don't Provide Access

Barriers to providing parental access identified by CDC SIIS survey:

Confidentiality & Security --

Lack of acceptable unique
identifier to validate –

Insufficient funding –

Concern over proper/legitimate
access --

	18
	7
	7
	4

0   5   10   15   20

Source: CDC unpublished summary, November, 2011

Basic Access Models

Model	Advantages	Limitations
SIIS-based accounts	• Easy implementation •↑ SIIS control • Query conformance	• ↓ Authentication fields • Each state unique • >1 child = >1 account • Parents as new Users
Web portals	• No account co-mingling • Easy authentication fields	• Less integrated • >1 child = >1 account • Separately stored data • Authentication model?
EHR-oriented	• Separate from SIIS • ↓ SIIS burdens	• Bi-dir. SIIS interface? • EHR capable? • Authentication?
HIE-oriented	• Separate from SIIS • ↓ SIIS burdens	• HIE portals in infancy • No SIIS control of UI

A Modern Hybrid Model…

Between September and November 2011, STC and Louisiana developed an application prototype for consumer records access: "MyIR.net™."

• Consumer registration functionality released to 9 states within their SIIS deployments in early 2012

Based on Multi-Stakeholder Input…

From December 2011 to the present, nationwide demonstrations, requirements & design feedback sessions were conducted.

Invitees have included to date:

- ONC
- CDC
- CMS
- AIRA
- ASTHO

- LA
- AZ
- IN
- MS
- MT

- WA
- AK
- ID
- WY
- UT

- WV
- OK

Requirements From Diverse Informants

- A system acting as an agent between consumer & SIIS

- A known & trusted consumer authentication model and registration process

- Implements common SIIS messaging standards

- Secure, validated access; no remote SIIS database

- State-configurable administration to respect state-specific policies

- Multiple record display options for consumers

- Minimal burden – for SIIS, providers, consumers

Two **MyIR.net** models:

1. State-SIIS integrated registration function (selected states) + **MyIR.net**

2. Free-standing nationwide "any-SIIS" configurable model of **MyIR.net**

3-Elements of Patient Records Access :

1. SIIS- *or* **MyIR.net** -based, provider-authenticated consumer registration process

2. The **MyIR.net** application-agnostic consumer health information management system

3. 3rd-party Personal Health Records applications

How it works - Workflow

Links

Site validates Adult access rights Creates an "Account" in SIIS

Public Health or Private Provider

SIIS emails USER with instructions to access **MyIR**

1 Adult visits a Healthcare Provider

2 Adult registers with Provider; signs Agreement

USER securely logs in to **MyIR**
Authenticated, requests records

4

MyIR USER selects or creates Health vault account to and transmits records

MyIR USER requests records as e-mail attachment

3 **MyIR** authenticates and requests records

Optional: User transmits immunization records to Health Vault or other PHR

Microsoft HealthVault

Step 1 – Register with Provider

Parent visits a healthcare provider who searches the state Immunization Registry for associated patients – routinely occurs >1000 times daily in many states

Provider registers Parent – SIIS *or* **MyIR.net** sends e-mail with log-in information

Step 2 – Access Records via MyIR.net

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Parent logs-in to MyIR.net™ and is authenticated via PIN and "Secret" Questions

Selects option to receive records via secure e-mail attachment *or* via secure pdf web browser image (State SIIS-configurable)

Get Started with MyIR

You and your family's immunization records may be located at your state health department. Enrolling in MyIR™ will give you access to those records online.

Help

Louisiana Immunization Record Exchange

Haven't signed up for MyIR?
How do you want to recive your records?

◉ Microsoft® HealthVault®
○ Email Delivery

Enroll Now

Many physicians are now reporting immunization records to state health departments. Visit your provider or local health clinic to request access to your records. By enrolling in MyIR™ your records will be automatically sent via email or stored for your access in Microsoft® HealthVault®.

Click here for your personal immunization recommendations

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Patient Vaccination and Forecast Record   MyIR™

Facility: STATE PRIVATE PROVIDER
Date: August 8, 2012

Patient ID: 81   **Phone:**
Name: CHRISTINA CARLIN   **Street:** 2671 AUSTIN SECRET LANE
Birth Date: 12/21/2003   **City:** CHALMETTE
Sex: **State:** LA
Guardian: AMY CARLIN   **Zip:** 70043

Medicaid No: **WIC ID:**

Vaccination Summary

Vaccine Name	Dose 1	Dose 2	Dose 3	Dose 4
DTaP/DTP/Td	02/21/2004	04/24/2004	06/30/2004	12/21/2004
OPV/IPV	02/21/2004	04/24/2004	06/30/2004	
MMR	12/21/2004	12/21/2007		
Hep B - 3 Dose	12/21/2003	05/21/2004	07/21/2004	
Varicella	12/21/2004			
Influenza	10/15/2009	12/15/2009	12/10/2010	12/10/2011

Forecast

Vaccine Family	Dose	Scheduled Date	Minimum Valid Date
POLIO	4	12/21/2007	12/21/2007
VARICELLA	2	01/18/2008	01/18/2008
Tdap	1	12/21/2010	12/21/2010
FLU	5	10/01/2012	10/01/2012
MENINGOCOCCAL	1	12/21/2014	12/21/2014

NOTES:

1. The immunizations reported under 'Immunization History' include ONLY those reported to the State Immunization Information System by participating healthcare providers. If immunizations were given by a healthcare provider who does not participate in the State Immunization Information System, those immunizations will not be shown on this record.

2. Immunizations shown under "Immunization Forecast" include vaccinations that are coming due, now due, or past due. These recommendations conform with national U.S. immunization recommendations from the Advisory Committee on Immunization Practices, and are based on age, gender, and any specific personal history of contraindications (medical reasons why some vaccinations are not recommended under certain circumstances). Please consult your healthcare provider for personal advice regarding the immunizations that are recommended I'm the 'Immunization Forecast' section.

Step 3 – Records to PHR (Health Vault™)

User optionally directs records transfer to existing Microsoft™ Health Vault™ or creates one from within MyIRnet™

MyIR.net - SIIS / Provider Configurable

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Managing and Configuring MyIR™

Authorized State SIIS administrative personnel may use the functions on this screen to manage the consumer registration and records access process, inactivate/re-activate records access, manage provider participation, run reports and audits, configure system settings and preferences, and control aspects of consumer Reminder/Recall and communications to registered consumer-users.

Help

State SIIS Records Access Management

- Manage Accounts
- Reports
- Manage Reminders
- Manage Communications
- Configure

STC

Collaborative Design Results

- Simple, safe, secure consumer access to their immunization records

- Authenticated account set-up and access

- No direct consumer access to SIIS; no record editing

- HIPAA compliant; no SIIS data stored in MyIR.net

- Secure record request (HL7/HTTPS)

- Consumer-directed records transfer to Personal Health Record application (optional)

- Automation minimizes intervention by healthcare providers and SIIS staff

- Increases likelihood of healthcare access & updates to existing SIIS records

- Providers benefit from Meaningful Use demonstration

MyIR.net - Enhancements & Next Steps

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- Deploy in "consumer-ready" states
- Automated vaccine forecasting (Reminder/Recall) to User
- Automated alerts to User when SIIS record content changes
- Smartphone interface
- Personal Public Health relationships
  - User profile consenting to receive information on selected Public Health topics
  - Participation in Public Health surveys
  - Public Health Emergency Preparedness information exchange
  - Public Health Surveillance
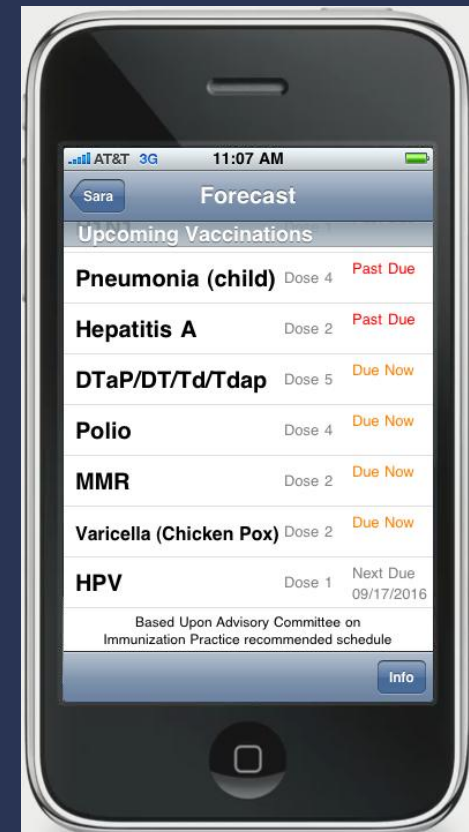- Extend to employer benefit and employee preventive health programs

- Create interface between **MyIR.net** and existing STC smartphone-based **MyIR** application.

Ideas, Suggestions, Questions

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To share your perspective on requirements, suggestions, design or implementation ideas, or for answers to questions please contact:

Erich M. Daub

Senior Public Health Advisor,

Consumer Health Lead

Scientific Technologies Corporation (STC)

erich_daub@stchome.com

404-394-0880