VTrckS ExIS: Successes & Future Direction

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AIRA 2013 IIS National Meeting

Agenda

- Current Status
- Successes and Impacts
- Future Direction

Current Status

VTrckS ExIS (External Info System)

Providers

- Record inventory on hand
- Order vaccines

Awardees

- Approve orders
- Generate data* files

- Upload shipment data

Awardees

- Upload data* files
- Manage rejected orders
- Reconcile orders
- Download shipment data

Deployment Status & Fun Facts

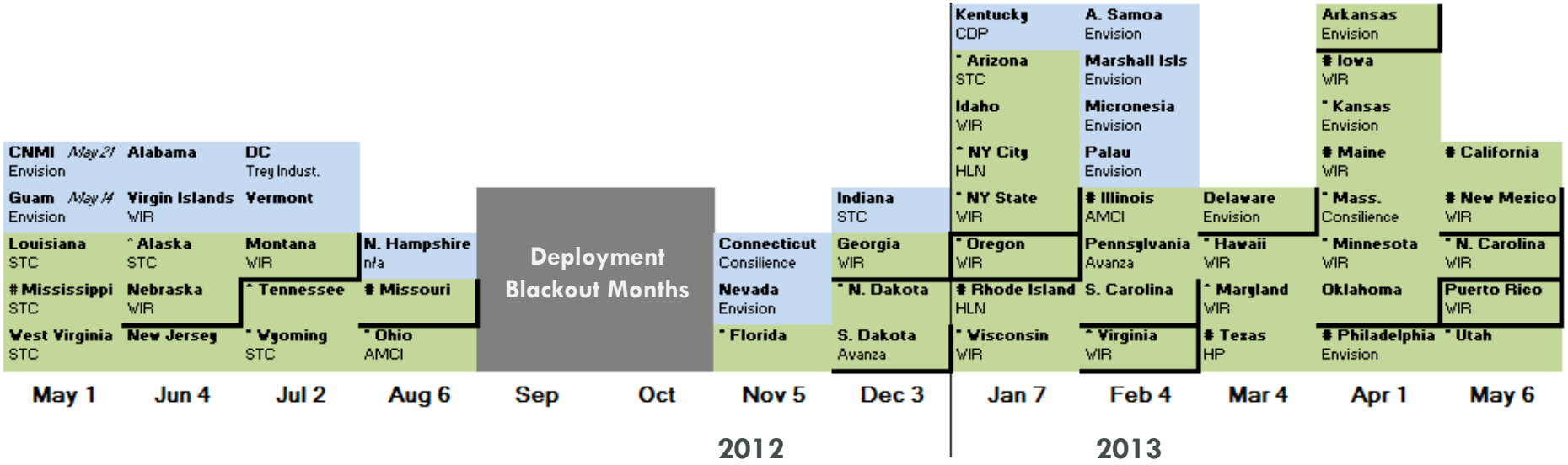
- All awardees deployed to VTrckS by May 2013
- ≥14 awardees are still working to deploy or enhance their ExIS
- 47 VTrckS ExIS awardees represent 92% of providers

Successes and Impacts

Successes and Impacts

- Overall Success
- Success Factors
- Innovations
- Impacts

VTrckS * FINAL * Deployment Schedule!



Key

VTrckS Direct grantee, ExIS grantee; *, ^ and # awardees receive PPHF funding for the ExIS interface.

grantee that *will* enter orders in VTrckS on behalf of providers until their ExIS solution is ready

Pilot Grantees

- Washington and Michigan interfaced their IIS with VTrckS in December 2010.
- Chicago providers will order vaccine through Illinois' I-CARE system starting in late 2013 or 2014.
- The current plan is for Colorado to deploy their ExIS solution in September 2013.

Updated: 4/23/2013

ExIS Interface Usage

- 44 ExIS awardees use at least one interface
  - Provider Master Data 29
  - **Inventory** 39
  - **Orders** 44
  - Shipment Data 29
- 23 awardees use all four ExIS interfaces
- In September 2013, ExIS awardees uploaded
  - 78,103 orders with a total of
  - 188,794 order line items

Success Factors

- Efficiency
- Usability
- Accountability

Success Factors: Efficiency

- Simplify/automate processes
- Empower program staff

Efficiency: Simplify / Automate

- **Online ordering**
  - Replace cumbersome, error-prone paper process with online ordering
  - Support flu pre-booking / flu order fulfillment monitoring
- **Order approvals and tracking**
  - Online order review allows staff to approve, deny or partially approve vaccine requests
- **Managing available NDCs**
- **Recommended order quantity**
  - The system does the math to ensure that the quantity ordered is acceptable.
- **Updating provider data**
- **Submit supporting data**

Efficiency: Empower Staff

- Remote access via a web-based application
- Configuration setting pages
- Work lists
- Reports

Success Factors: Usability

- Display needed information
  - Onscreen cues
  - Notifications
- Prevent errors
  - Present only valid choices
  - Map to likely correct answers

Usability: Display Onscreen Cues

- **Answers** to typical questions at any point in the process
- **Provider** information: primary provider contacts, hours, and addresses
- **Inventory** information
  - Vaccine soon to expire
  - Printable inventory page
- **Order** information
  - Steps completed and yet to complete for ordering
  - Vaccine, Trade Name, Manufacturer, Packaging, and NDC
  - Min/max order quantity, doses administered since the last order, and doses on hand
  - Order status, including provider and vaccine staff comments
- **Shipment** tracking number for pending shipments
- **Error messages**

Usability: Notifications

- Soon to expire vaccines
- Order status
- Impending shipments
- Wasted vaccine reported
- Temperature logs out of range

Usability: Prevent Errors

- Present only valid choices
  - Ordering wizard
  - Formularies
  - Shipment data from VTrckS and third party vendors / wholesalers
- Map to likely correct answers
  - NDCs on vials / NDCs on secondary packages

Success Factors: Accountability

- Build in checks and balances
- Improve data quality

Accountability: Checks & Balances

- Before submitting an order, providers must
  - Specify hours of operation
  - Submit inventory on hand
    - Including doses administered, lost, borrowed, and wasted
    - Providers are held more accountable because they report NDC and lot number
  - Submit temperature logs
- When they check in vaccine shipments, providers must
  - Verify online that temperatures were within acceptable ranges
  - Adjust quantities to reflect amounts actually sent, if needed
- Awardee staff must review inventory on hand before approving an order.
- Staff have access to reports for better accountability

Accountability: Data Quality

- Automated processing helps reconcile
  - duplicate records
  - ambiguous IDs
  - user flagged records
- Online provider enrollment and updating helps keep provider information current
- Real time information helps staff catch and address errors faster

Impacts: Quicker Order Processing

Before	After	Notes
1.5 to 2 days / order to process	Orders processed within the day	Staff spend less time clearing the fax machine, sorting through stacks of paper orders, and answering provider questions
30 to 40 minutes to place an order	15 to 20 minutes to place an order	Providers place orders
	Savings of 3 to 5 minutes staff time to enter and process each order	Staff place orders on behalf of providers. They process 20 orders each day and save between 60 and 100 minutes daily.
	Savings of 21 hours staff time per week: ▪ 20 hours due to online ordering and inventory entry ▪ 1 hour since the IIS calculates suggested order min and max	Providers enter inventory and orders through the IIS instead of by fax, e-mail, or a paper log.
	Savings of 10 hours per week for vaccine program and technical staff	Program staff are empowered to make changes that previously required technical staff assistance

Impacts: Higher User Satisfaction

- **Vaccine ordering has been a "carrot"** in getting additional clinics to participate in the IIS and keeping them in the program

  I am pleasantly surprised that the HIR ordering system is an improvement over the previous monthly "fill out the paper form & fax to DOH" system which recently had become quite burdensome, so much so that I was questioning my continued participation in the VFC program.

- Private providers have been **very receptive, with approximately 60 to 70%** ordering vaccine online
- Improvements to online ordering resulted in an **increase from 50% to between 75 and 80%** of providers ordering online

Impacts: User Satisfaction, Plus

Providers “are ecstatic”	that the system was designed with a *focus on accountability and usability*
Providers love that	they don*’t have to hand enter state supplied inventory* into the IIS
Providers appreciate	that they can *see the status of their orders and the amounts* of vaccines ordered
Now providers look forward to	the new changes and are *glad they have moved away from the paper process*, which they say was not user friendly
Providers indicate	that the *new ordering tool interface is easy to use*; **regional coordinators are not receiving many questions from providers**
Providers realized	that online ordering *streamlined the process of collecting vaccine lot numbers*. By the time providers complete two or three monthly ordering cycles, **the accuracy of lot number information improves.**
Most providers rely on the system	**even without much training**

Building Community

- Within the Health Department
  - Five workgroups assisted with planning and implementation: 1) application developers, 2) training, 3) communications, 4) transition to VTrckS, and 5) provider outreach
  - Staff have a better mutual understanding of their respective areas
  - Help desk staff were cross-trained and better able to assist providers
- Relationships with Providers
  - Beta testing with internal staff and externally with public and private providers informed the design and development process.
  - Providers are true VFC partners in that they are more proactive about complying with VFC requirements
    - Non direct entry providers, for whom doses administered information is populated through use of EMR systems, are improving their accuracy and ability to enter orders
    - Direct entry providers, who log on to the IIS to enter vaccines administered, are using the system with ease
- Between Health Departments
  - Awardees shared business requirements documents and/or code

Innovations

- Ohio's IIS improvements are the first in that state's public health agency to be implemented as a tablet-based application
- Maryland team won an agency innovation award

Future Directions

Future Directions

- Near term
  - All awardees should use planned interfaces
  - Promote import of the shipment data interface
- Farther term
  - New interfaces
    - Returns and wastage
  - Building for flexibility
    - Online provider enrollments
  - Automatic interchange of data

Engaging the ExIS Community

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- VTrckS ExIS bimonthly call
- VTrckS ExIS discussion on *Epi-X Forum*
- VTrckS User Group

Thank You