Electronic Health Record–IIS Interoperability:

Balancing Provider Recruitment with Data Quality Needs

WEST VIRGINIA
Department of
**Health &
Human
Resources**

October 7 – 9, 2013

AIRA 2013 NATIONAL MEETING
IIS & Public Health:
Opportunities, Integration
and Sustainability

Agenda

- Project Overview

- Project Management Strategies

- Data Quality Issues

- Data Quality Management

- Outcomes

- Lessons Learned

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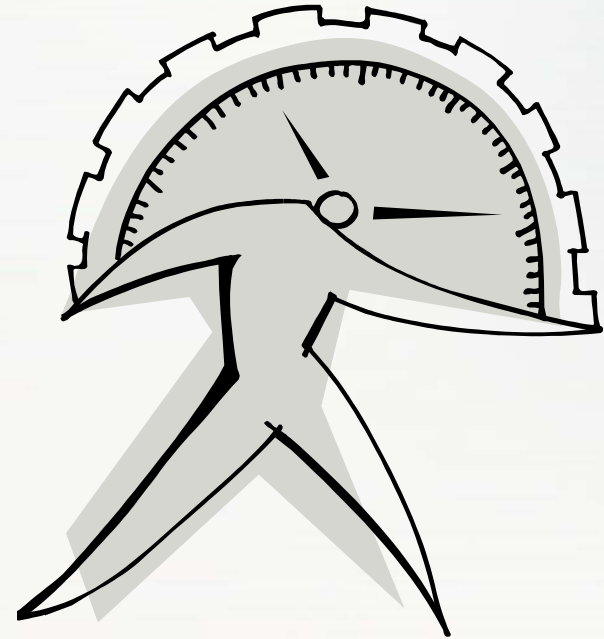Department of
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Project Overview

- WVSIIS Training
- Onboard 35 providers
- Complete Onsite visits
- Work with HIE on boarding implementation
- Introduce interoperability tool

Train

Facilitate

Implement

Support

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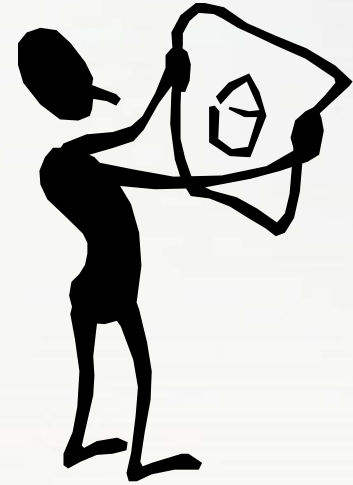# Project Overview

Constraints

- Timeline
  - Grant / State
- Staff
  - Search
  - Training
- Provider
  - HIE involvement
  - Availability
  - Interface Costs
- Vendor
  - EHR upgrades

Project Management Strategies

- Pre-Project Provider Survey
- Included HIE in Project Planning Group
- Contract Staffing Plan
- Onsite visit planning
- Provider Selection
  - Worked with Vendor in the past
  - Vendor's Market saturation
  - Provider vaccination activity
  - Provider commitment to project
  - HL7 versioning

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Data Quality Issues

- Required Fields not required by EHR
- Required fields buried in application
- Provider lacked knowledge of own EHR
- CVX / MVX code updates
- Next of Kin information
- Misunderstanding of v2.3.1 and v2.5.1 requirements
- HL7 segment mistakes

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Data Quality Management

- PHC-Hub™
    - HL7 Data Management Tool
    - Set field level parameters to error or warn
    - Provider specific settings
    - Monitor provider's compliance with standards

Edit Import Profile	
Name	Provider's Name
Based On	HL7 Version 2
Type	HL7
Enabled	☑
Template	☐
Log Level	Verbose ▼
Save Import Text	Always ▲
Save Import Response	Always
Return Responses	Only when errors occur
HL7 Version	Never

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Data Quality Management

PHC-Hub™ (cont.)

Update Settings	
Insert Unrecognized Vaccinations	☐
Procedure Code Classification	
Import Data	☐ Patient ☐ Vaccine
Assume Consented	☐
Newborn Name Matcher	
Initial Merge Status	N
Force Vaccinations Historical	☐
Pick-out Middle Initial from First Name	☑
Deduplicate after import	☑
Accept if not older than	
Update current patients	☑
Update registry inventory	☑
Map Vaccination VFC Eligible from Patient Reserve	☐
Use Facility Id from HL7 v2.5 location:	☐
Varicella history-of-disease code	
Reciprocal Update	Not Enabled ▼
Assume Guardian for blank relationship code:	☐

Data Quality Management

Data Quality Management

- HL7 Analysis Report
  - Findings
    - Omissions
    - Errors
      - Clinical
      - Technical
    - MRNs sites where issues exist
  - Repeated as necessary
- Presentation
  - In Writing
  - Phone / Webex Review

Outcomes

- 35 HL7 inbound interfaces
  - 32 plus 19 West Virginia University (HIE)
- 107 total facilities
  - 15 converted from DTT to HL7
  - 92 from manual to electronic data transmission
- Lost 11 providers from original target list
  - Vendor couldn't do bidirectional (1)
  - Couldn't afford interface cost (4)
  - Provider not ready (1)
  - EHR functionality not ready (4)
  - Switching EHRs (1)

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Outcomes

- Successful Vendors
  - Allscripts Professional
  - Athena
  - eClinical Works
  - Greenway
  - McKesson Practice Partners
  - Med3000
  - Connexin, Office Practicum
  - Success EHS
  - Vitera, Sage

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Lessons Learned

- Onsite visits are time consuming but useful
  – Relationships / EHR demos

- Make project expectations clear at the outset

- Make target list 3x longer than # needed

- Don't rule out non-VFC providers

- Providers want bi-directional function now → MU / Pay for Performance

- VFC issues / clinical issues are discovered in DQA process

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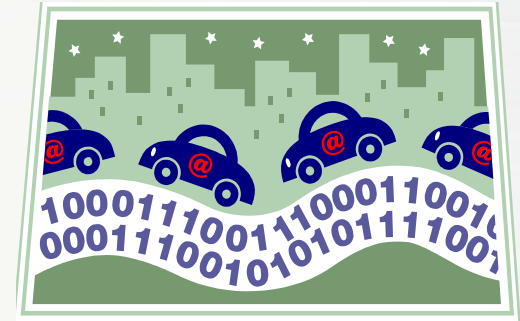Department of
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Lessons Learned

- Some providers won't pay for interface / not all interested in Meaningful Use.

- Large networks have competing demands – delay IIS interface work

- Imports from large organizations have benefits and risks

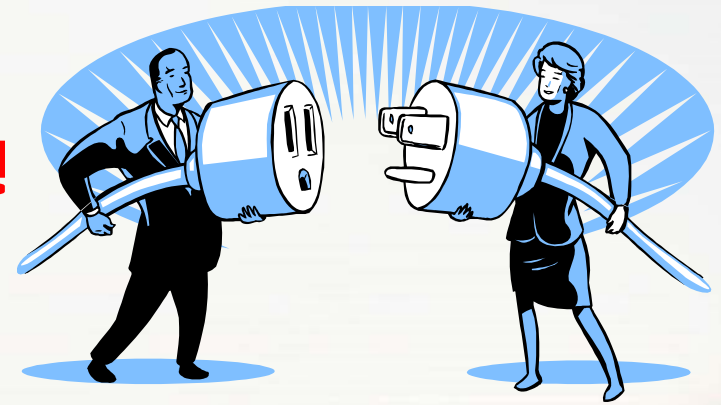- Vendors want to delay for "Meaningful Use" releases

Lessons Learned

- Vendors continue to question state specific requirements

- Motivated vendors help with success

- Next of Kin data still difficult to collect

- Using LIVE patient data in the SIIS test environment is still incomprehensible to some EHR vendors

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Lessons Learned

- Parsing data for border state residents receiving care / vaccinations in border state is still an issue
- More staff can = more success

- **What data exchange is NOT!**

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