



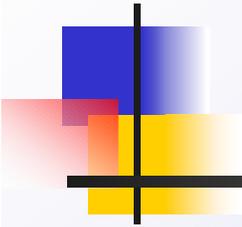
Implementing the West Virginia Electronic Disease Surveillance System

Integrating with the West Virginia State
Immunization Information System (WVSIIS)
and Leveraging Shareable Tools



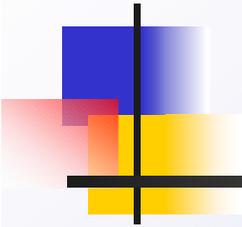
Robert Fernatt, WVEDSS IT Manager
Tim Neely, WVSIIS Project Manager





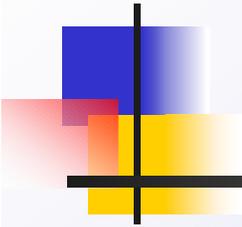
Background, Quick Facts





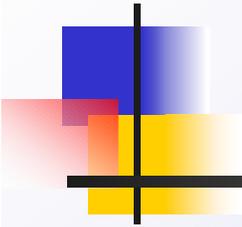
West Virginia State Immunization Information System (WVSIIS)

- Became operational in 1999
- Nearly 550,000 patients
- Almost 2,400,000 shots tracked
- Approximately \$2 million total investment when implemented



First Responder Information Tracking System (FRITS)

- Became operational in 2003
- Tracking over 700 first responders for smallpox
- Nearly \$100,000 investment
- Built with WVSIIS infrastructure – a WVSIIS “PAM” in a way

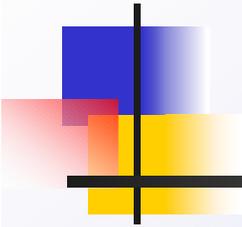


West Virginia Electronic Disease Surveillance System (WVEDSS)

- Contract awarded in April 2004
- First phase will automate all infectious disease reporting, excluding TB, STD (except HepB), and HIV/AIDS
- Includes LHDs, ICPs, and laboratories
- Planned \$1.3 million initial investment

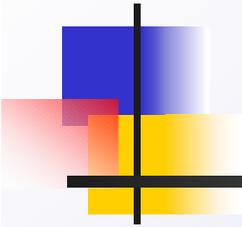
Integration Opportunities





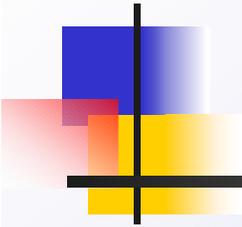
Vaccine Preventable Disease (VPD) Interface

State VPD investigators will be able to transparently access immunization history from within the WVEDSS application if the patient's immunization data exists in WVSIIS



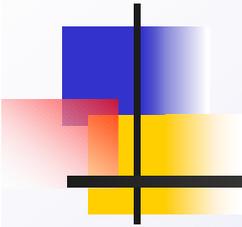
Cross-Selling of Systems to End Users

- Single sign-on (SSO) – beginning of the WV public health directory
- End users see same style of interface
- Reduce time and effort since trainers can train both systems simultaneously



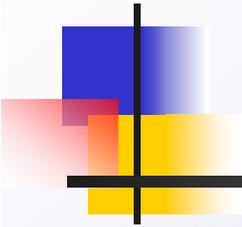
Cross-Selling

- Schedule concurrent regional user group meetings to reduce costs
- Reduce training and support burden versus independent systems
- Same client system requirements – Internet Explorer 5.5



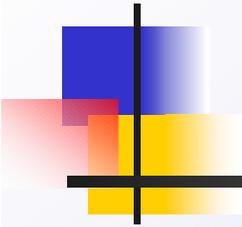
Shared Personnel

- Help desk
 - Same phone number
 - Same call logging software
- Training
- Information technology support
- Data entry



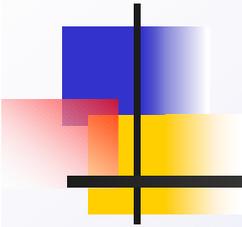
Sharing of Custom Software Code

- Master patient index (MPI)
- Single sign-on (SSO)
- Public health directory support
- Provider recruitment and support module
- De-duplication algorithm



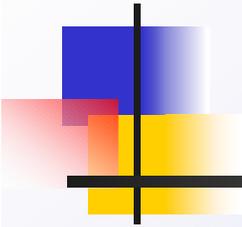
Sharing of Custom Software Code

- HL7 messaging support
- Geocoding and other G.I.S. components
- User feedback module
- Data import/export



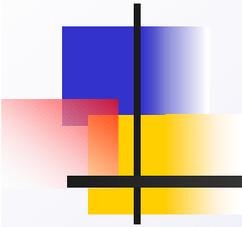
Hardware Platform Sharing

- Less expensive than duplicating all functionality – including test, training, and development
- Easier to maintain updates, patches
- Easier to secure and maintain security in a single computing environment



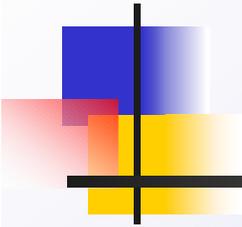
3rd Party Software Sharing

- Oracle database, application server and related products
- ESRI products
- Business Objects/Crystal products
- HP-UX operating system
- Apache Web server
- Backup software



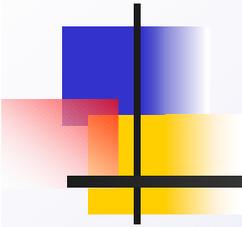
Business Continuity Cost Sharing

- Fault tolerance hardware/software
- Backup system, offsite storage costs
- Dual environment costs
(production and test/training)
- Redundancy, clustering
- Economies of scale



Maintenance and Support Cost Sharing

- Hardware
- Custom and 3rd party software
- Synchronous upgrades - as shared modules are upgraded or replaced, all systems benefit



Other Savings, Benefits

- Some policies and procedures are shared for parts of the system
- The cost of audits, intrusion detection testing, etc. can be shared
- Last, but certainly not least, process re-engineering to take advantage of integrated systems!

West Virginia Electronic Disease Surveillance System

5 May 04

- Integrated Mapping
- Spatial Proximity of Diseases



GIS
X.CDR.GIS

- Trends of time
- Rates vs Disease
- Time vs Demo
- Epi Curve
- Mgmt Performance



Management Reports Module
X.CDR.MGMT

- Notifications
- Alerts
- Email Based
- User Defined Thresholds



Notification Module
X.CDR.ALERT

- Line Listings
- Case by geographics
- Disease by Time
- Suspected vs confirmed



Basic Reports
X.CDR.REPORTS

- Legacy Exports (STD, TIMS, HARS, etc)
- Statistical Software Exports
- Mail Merge



Data Export Module
X.CDR.Export



NETSS EXPORT
X.CDR.NETSS



Adobe Capture
X.CDR.ADB



Web Based CDR
X.CDR

- Direct Data Entry
- Lab Tests
- On Line Help



FormBuilder
X.CDR.FB

- Emerging Disease Forms
- AdHoc
- Centralized Deployment

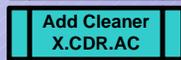


Public Hlth Dir
X.CDR.PHDIR

- LDAP
- Single Sign Authentication



MPI
X.CDR.MPI



Deduplication
X.CDR.DD



Add Cleaner
X.CDR.AC

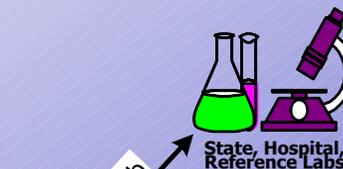


Geocoder
X.CDR.GEO

- HL7, Non-HL7 Data Translation
- Lab Test Mapping
- Positive Lab



Data Translation Tool
X.CDR.DTT



State, Hospital, Reference Labs

Electronic Lab Reporting



CDR Database
X.CDR.DB

- Oracle, SQL
- LDM



User Feedback Module
X.CDR.UFM

- Proactive Email, Fax Based Analysis', Reports, Reminders, Spreadsheets, Charts



User Management
X.CDR.Security

- Creation/Edit Users
- Access Levels
- Roles
- Rights



Disease Management
X.CDR.DM

- Audits
- PHIN Code Management
- Disease Group Management



SIIS Link
X.CDR.VPDLINK

- Shot History
- Sibling, Family History
- Spatial Proximity of immunized

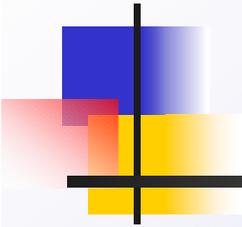


SIIS Database



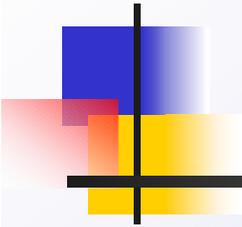
Challenges





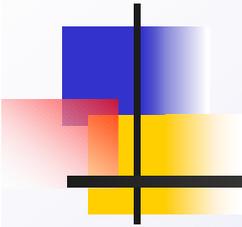
Metrics for Cost Sharing

- Hardware
- Software licenses
- On-going maintenance and support
- Personnel – time and effort tracking?
- Grant restrictions



Integration Issues

- Breaking down political/territorial boundaries
- Legislative changes may be required
- Could slow development of latter systems while details are worked out
- Could slow or create problems during the purchasing process



Integration Issues

There are management solutions to technical problems.

But, there are no technical solutions for management (organizational culture) problems.

Purchasing Error

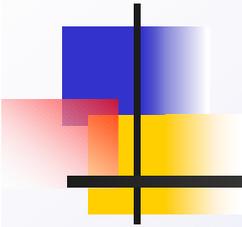
X

The requisition process has timed out.

Reboot State Purchasing Division?

Yes

No



Contact Information

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Question and Answer

