SYNDROMIC SURVEILLANCE MESSAGING ON-BOARDING FOR ELIGIBLE HOSPITALS

Tonya McKennley
Tennessee Department of Health
Surveillance Systems and Informatics Program
National Syndromic Surveillance Program (NSSP)
On-Boarding Workgroup
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Outline

- Background
- Onboarding Process
  - Preparation
  - Registration & Pre-Testing
  - Testing
  - On-Boarding
  - Validation
  - Production
- Hospital Systems On-Boarding Status
- Challenges
- Questions

Background

- No Meaningful Use vs. Meaningful Use
- Currently, BioSense only SS System for HL7 SS messaging in TN.
- Capitalizing on existing ELR TP
- Created on-boarding documentation
- On-boarding focus for MU:
  - Eligible Hospitals (EH) only
  - Accepting Emergency Department (ED) from hospitals
- On-boarding status
  - 5 Hospitals in Production
  - 14 Hospitals in On-Boarding Phase

Tennessee Declaration of Readiness

At this time, Tennessee is participating in the following Public Health objectives for Meaningful Use

Stage	Eligible Hospitals	Eligible Professionals
Stage1	• Immunization Registry Updates • Electronic Laboratory Reporting	• Immunization Registry Updates
Stage 2	• Immunization Registry Updates • Electronic Laboratory Reporting Starting October 2015 • Syndromic Surveillance*	• Immunization Registry Updates • Cancer Case Reporting

* Though TDH will not declare its readiness for Syndromic Surveillance for Stage 2 until October 2015, TDH will begin to on-board Eligible Hospitals wishing to send Syndromic Surveillance data to TDH in preparation for inclusion in 2015.

On-Boarding Guidance Documents

- TDH Meaningful Use: http://health.state.tn.us/Meaningful_Use/index.shtml
- On-Boarding Packet: http://health.state.tn.us/Ceds/PDFs/MU_SS_ONBOARDING.pdf
- On-Boarding Checklist: http://health.state.tn.us/Ceds/PDFs/TDH_SS_Checklist.pdf
- Diagram
- PHIN MESSAGING GUIDE FOR SYNDROMIC SURVEILLANCE: EMERGENCY DEPARTMENT AND URGENT CARE DATA ADT Messages A01, A03, A04, and A08 HL7 v2.5.1: Release 1.1 (August 2012): http://www.cdc.gov/phin/library/guides/PHIN_MSG_Guide_for_SS_ED_and_UC_Data_v1_1.pdf
- PHIN Vocabulary Access and Distribution System (VADS): http://phinvads.cdc.gov/vads/ViewView.action?name=Syndromic%20Surveillance

Syndromic Surveillance Messaging On-Boarding Checklist

Syndromic Surveillance (SS) Messaging On-Boarding Checklist

Please note that the information in this document only applies to SS messaging in TN. The information below does not pertain to Electronic Laboratory Reporting (ELR), Immunization Registry updates, or Cancer Case Reporting.

Introduction

The Tennessee Communicable and Environmental Disease Services and Emergency Preparedness (CEDEP) Division within the Tennessee Department of Health (TDH) has programmatic oversight of Syndromic Surveillance activities across the state. Currently, all 13 Tennessee Public Health regions receive data from select emergency departments and perform Syndromic Surveillance activities.

Syndromic surveillance is defined as public health surveillance emphasizing the use of timely pre-diagnostic data and statistical tools to detect and characterize unusual activity for further public health investigation. Syndromic surveillance uses individual and population health indicators which are available before confirmed diagnoses or laboratory confirmation to identify outbreaks or health events and monitor the health status of a community.

The main objectives of syndromic surveillance are to: 1) detect an unknown, unexpected or emerging human health threat; 2) demonstrate the lack of public health impact of a known threat; 3) quantify and monitor the impact of an identified potential public health threat; and 4) detect the start of an expected event.

For more information on the SS messaging on-boarding process in Tennessee, helpful resources, and additional documentation, please visit: http://health.state.tn.us/Meaningful_Use/index.shtml

Purpose

The purpose of this document is to provide the reader with the information necessary for successful syndromic surveillance messaging activities to TDH. The on-boarding checklist is for health systems, hospitals and their vendors or business associates.

Useful Links

TDH Meaningful Use: http://health.state.tn.us/Meaningful_Use/index.shtml

PHIN MESSAGING GUIDE FOR SYNDROMIC SURVEILLANCE: EMERGENCY DEPARTMENT AND URGENT CARE DATA ADT Messages A01, A03, A04, and A08 HL7 v2.5.1: Release 1.1 (August 2012):
http://www.cdc.gov/phin/library/guides/PHIN_MSG_Guide_for_SS_ED_and_UC_Data_v1_1.pdf

PHIN Vocabulary Access and Distribution System (VADS):
http://phinvads.cdc.gov/vads/ViewView.action?name=Syndromic%20Surveillance

NIST HL7 V2 Validation Tool for Syndromic Surveillance: http://hl7v2-ss-testing.nist.gov/mu-syndromic/

Syndromic Surveillance Messaging for Eligible Hospitals
On-Boarding Checklist

Pre-Registration with Public Health Agency
Before registering with TDH, these items are suggested to accelerate the on-boarding process.

Trading Partner (TP) Activity	Complete	Date
Develop an HL7 message conformant to PHIN MESSAGING GUIDE FOR SYNDROMIC SURVEILLANCE: EMERGENCY DEPARTMENT AND URGENT CARE DATA ADT Messages A01, A03, A04, and A08 HL7 v2.5.1: Release 1.1 (August 2012)	☐ Yes	
Test SS messages using the NIST HL7 v2 SS Validation Tool	☐ Yes	
Resolve message issues found using the NIST HL7 v2 SS Validation Tool	☐ Yes	

**Note: In addition to the Official Letters listed below, TDH will supply an Official Letter each time the Trading Partner transitions to a new phase in the on-boarding process.*

Syndromic Surveillance Messaging for Eligible Hospitals
On-Boarding Checklist

Phase 1: Registration & Pre-Testing with Public Health Agency (PHA)

Trading Partner (TP) Activity	Complete	Date	TDH Response	Official Letter
PTP Complete online registration through the Trading Partner Registration system	☐ Yes		Send PTP registration acknowledgement	Registration Completed
Email 1 test de-identified ADT A01 SS message following HL7, Version 2.5.1 SS PHIN Messaging Guide with the NIST output	☐ Yes		Send PTP message corrections ,validation and draft Trading Partner Agreement (TPA)	Pre-Testing Completed

Syndromic Surveillance Messaging for Eligible Hospitals
On-Boarding Checklist

Phase 2: Testing

Trading Partner (TP) Activity	Complete	Date	TDH Response	Official Letter
TP sends test A01, A03, A04, A08 message via secure email to TDH with the NIST output	☐ Yes		TDH provide feedback to TP	
TP correct all errors and re-send messages	☐ Yes		TDH acknowledge messages are ready for onboarding and invite TP to on-board	
Discussion of transport option with TDH	☐ Yes		Send transport mechanism	N/A

Syndromic Surveillance Messaging for Eligible Hospitals
On-Boarding Checklist

Phase 3: On-Boarding

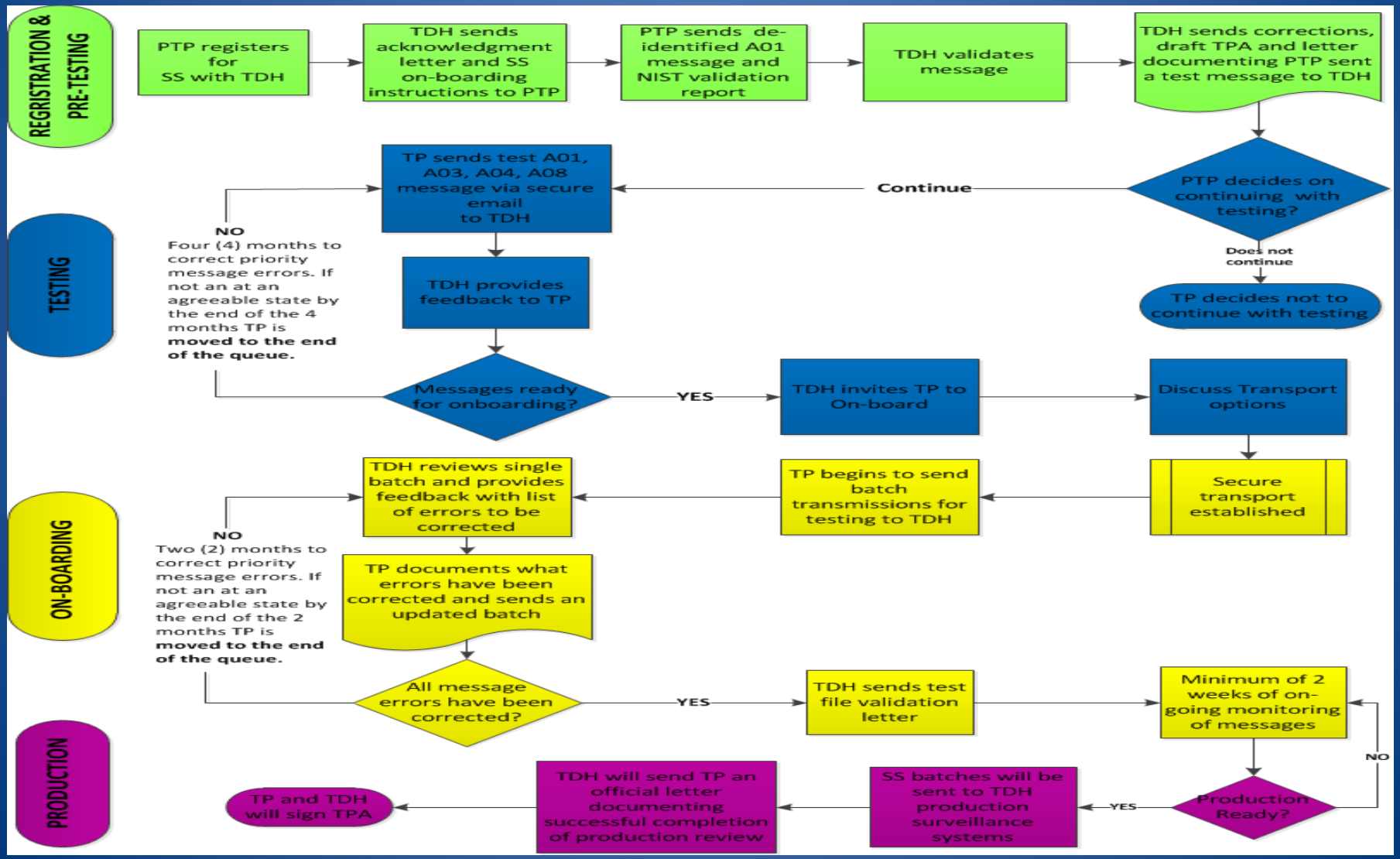
Trading Partner (TP) Activity	Complete	Date	TDH Response	Official Letter
Establish secure transport and test with TDH	☐ Yes		Acknowledge that transport connectivity test completed	Testing Completed
Start sending SS batch transmissions to TDH	☐ Yes		Send TP message corrections to be corrected	
Document what errors have been corrected and send updated batch to TDH (iterative process - continue correcting until at an agreeable state)	☐ Yes		Verify all errors corrected and send test file validation letter	Test File Validation Completed

Syndromic Surveillance Messaging for Eligible Hospitals
On-Boarding Checklist

Phase 4: Production

Trading Partner (TP) Activity	Complete	Date	TDH Response	Official Letter
Send batch messages to SS production systems	☐ Yes		Send TP any issues that need to be corrected	
TP correct any other pending issues	☐ Yes		TDH send an official letter to TP for successful completion of production review	Production Review Completed
TP and TDH signs TPA	☐ Yes			N/A

On-Boarding for HL7 2.5.1 SS Messaging from Hospitals for Meaningful Use

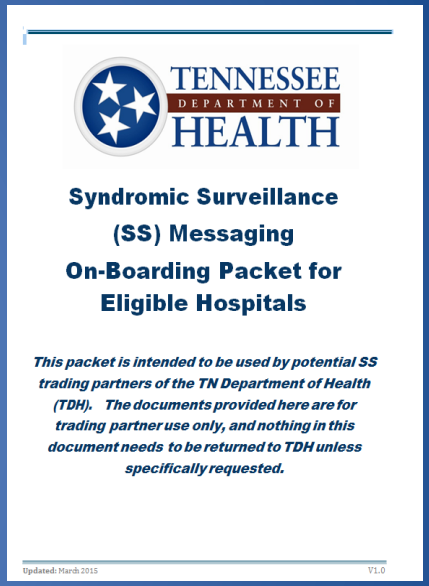


Registration: Trading Partner Registration (TPR) Portal

- TPR - https://apps.tn.gov/tpr/
  - Returning Users
  - New Users
- TPR Worksheet
  - https://apps.tn.gov/tpr/pdf/TradingPartnerRegistrationWorksheet.pdf
- TPR User Guide
  - Coming Soon!

SS Messaging On-Boarding Packet for Eligible Hospitals

- On-Boarding Process
  - Diagram
  - Process Summary
- On-Boarding Checklist
- Frequently Asked Questions (FAQ's)
- SS Messaging Business Rules


TENNESSEE DEPARTMENT OF HEALTH

Syndromic Surveillance (SS) Messaging On-Boarding Packet for Eligible Hospitals

This packet is intended to be used by potential SS trading partners of the TN Department of Health (TDH). The documents provided here are for trading partner use only, and nothing in this document needs to be returned to TDH unless specifically requested.

Updated: March 2015 V1.0

On-Boarding Process Summary Phases

- Registration & Pre-Testing
- Testing
- On-Boarding
- Production

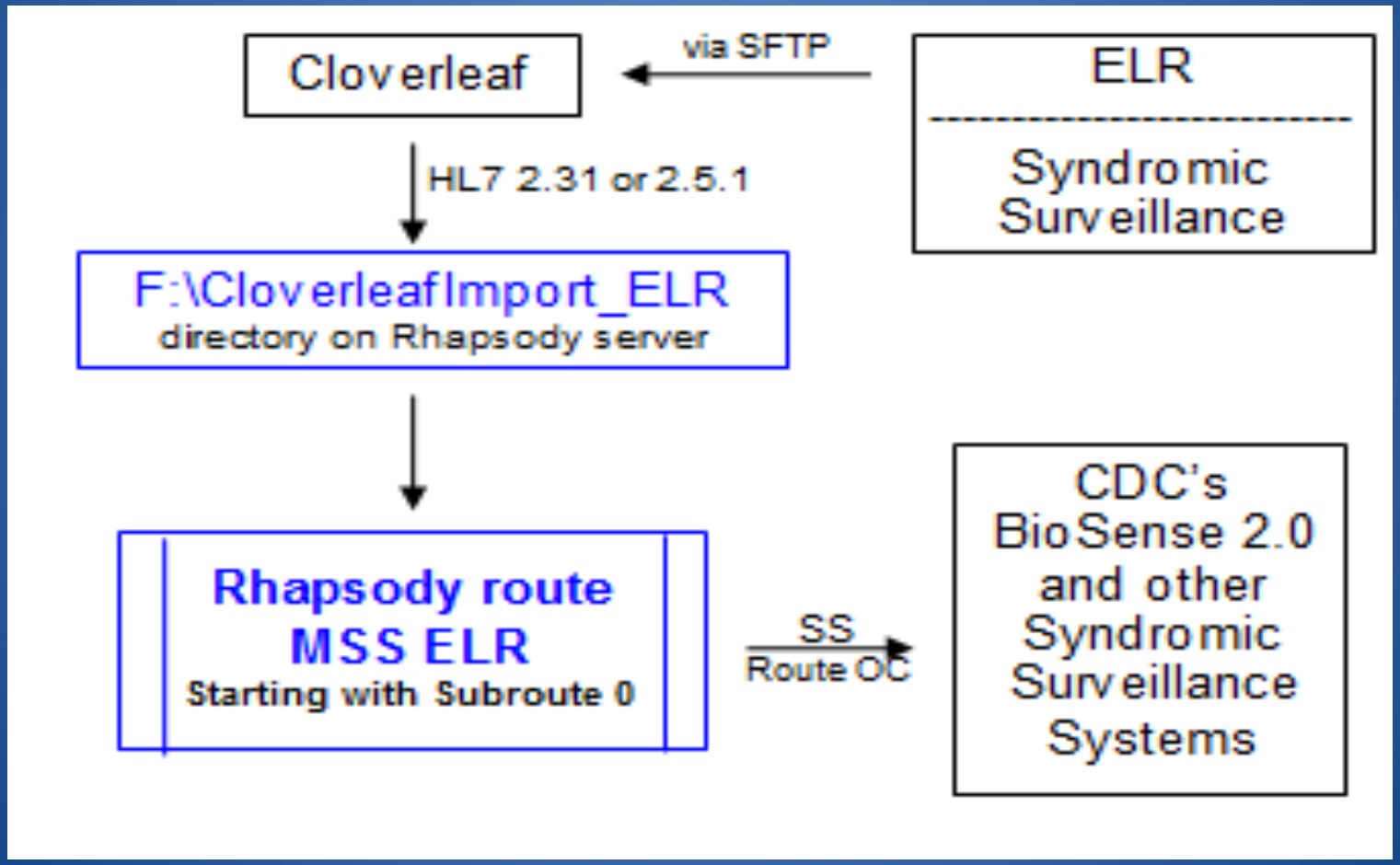
Registration & Pre-Testing Phase

- Potential Trading Partner (PTP) express intent
- PTP registers with TDH
- TDH receives notification
- PTP should obtain copy of PHIN messaging guide
- PTP sends SS staff an A01 message
- SS staff sends PTP corrections
- Decision to continue with on-boarding

Testing Phase

- TP will send a de-identified message.
- TP will validate message and provide feedback.
- TP will correct errors.
- When the messages are ready for on-boarding, TDH will send the TP an official letter.
- TDH will discuss transport options with the TP.

Rhapsody Processing



Messaging & Validation Tools

- PHIN MESSAGING GUIDE FOR SYNDROMIC SURVEILLANCE: EMERGENCY DEPARTMENT AND URGENT CARE DATA ADT Messages A01, A03, A04, and A08 HL7 v2.5.1: Release 1.1 (August 2012): http://www.cdc.gov/phin/library/guides/PHIN_MSG_Guide_for_SS_ED_and_UC_Data_v1_1.pdf
- NIST HL7 V2 Validation Tool for Syndromic Surveillance: http://hl7v2-ss-testing.nist.gov/mu-syndromic/
- Manual Validation
- Smart HL7 Message Viewer

On-Boarding Phase

- Secure transport will be setup.
- TP will send TDH a single batch transmission for testing transport mechanism.
- TDH will provide feedback
- TP documents what errors have been corrected and sends an updated batch.
- TDH more batches of test messages for validation, TDH SS staff will review and provide the TP with feedback and a list of errors that should be corrected.

Production Phase

- SS batch messages sent to TDH production surveillance systems
- TDH will send TP an official letter
- TP and TDH will sign TPA

Hospitals On-Boarding Status

- Hospital Systems
- Facilities
- Region
- Status
- Engagement

Tennessee Hospital Systems Syndromic Surveillance On-Boarding Status with TDH

System	Facility	Region	Status	Engagement
Healthcare Corporation of America-HCA/Tri-Star	Centennial Medical Center	NDR	Testing	Engaged
Healthcare Corporation of America-HCA/Tri-Star	Centennial Medical Center - Ashland City	MCR	Testing	Engaged
Healthcare Corporation of America-HCA/Tri-Star	Hendersonville Medical Center	MCR	Testing	Engaged
Healthcare Corporation of America-HCA/Tri-Star	Horizon Medical Center	MCR	Testing	Engaged
Healthcare Corporation of America-HCA/Tri-Star	Parkridge East Hospital	CHR	Testing	Engaged
Healthcare Corporation of America-HCA/Tri-Star	Parkridge Medical Center	NDR	Testing	Engaged
Healthcare Corporation of America-HCA/Tri-Star	Skyline Medical Center	NDR	Testing	Engaged
Healthcare Corporation of America-HCA/Tri-Star	Southern Hills Medical Center	MCR	Testing	Engaged
Healthcare Corporation of America-HCA/Tri-Star	StoneCrest Medical Center	MCR	Testing	Engaged
Healthcare Corporation of America-HCA/Tri-Star	Summit Medical Center	NDR	Testing	Engaged

Tennessee Hospital Systems Syndromic Surveillance On-Boarding Status with TDH

System	Facility	Region	Status	Engagement
Methodist Healthcare	Le Bonheur Children's Hospital	MSR	Production	Engaged
Methodist Healthcare	Methodist Germantown Hospital	MSR	Production	Engaged
Methodist Healthcare	Methodist North Hospital	MSR	Production	Engaged
Methodist Healthcare	Methodist South Hospital	MSR	Production	Engaged
Methodist Healthcare	Methodist University Hospital	MSR	Production	Engaged
Saint Thomas Health Systems	Saint Thomas Hickman Hospital	SCR	Testing	Engaged
Saint Thomas Health Systems	Saint Thomas Midtown Hospital	NDR	Testing	Engaged
Saint Thomas Health Systems	Saint Thomas Rutherford Hospital	MCR	Testing	Engaged
Saint Thomas Health Systems	Saint Thomas West Hospital	NDR	Testing	Engaged

Tennessee Hospital Systems
Syndromic Surveillance
On-Boarding Status with TDH

System	Facility	Region	Status	Engagement
Covenant Health	Fort Loudoun Medical Center	KKR	Transport Set-Up	Target
Covenant Health	Fort Sanders Regional	KKR	Transport Set-Up	Target
Covenant Health	LeConte Medical Center	ETR	Transport Set-Up	Target
Covenant Health	Methodist Medical Center of Oak Ridge	ETR	Transport Set-Up	Target
Covenant Health	Morristown-Hamblen Health System	ETR	Transport Set-Up	Target
Covenant Health	Parkwest Medical Center	KKR	Transport Set-Up	Target
Covenant Health	Roane Medical Center	ETR	Transport Set-Up	Target
Mountain States Health Alliance	Franklin Woods Community Hospital	NER	Transport Set-Up	Target
Mountain States Health Alliance	Indian Path Medical Center	SUL	Transport Set-Up	Target
Mountain States Health Alliance	Johnson City Medical Center	NER	Transport Set-Up	Target
Mountain States Health Alliance	Johnson County Community Hospital	NER	Transport Set-Up	Target
Mountain States Health Alliance	Sycamore Shoals Hospital	NER	Transport Set-Up	Target

Challenges

- No Formal Agreements with hospitals
  - No incentive for Hospitals (w/o MU)
- Multiple Messaging Guides
  - Release 1.1 and 1.9
- Electronic Health Record (EHR) Vendors
  - Inconsistency of data feed
  - Message Format

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- Surveillance Systems & Informatics Program
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Questions?

Contact Information

Tonya K. McKennley

Tonya.McKennley@tn.gov

615-253-1398

CEDS.INFORMATICS@TN.GOV

"SS" in subject line