

Improving Data Quality While (Re)Onboarding for Meaningful Use Stage 2

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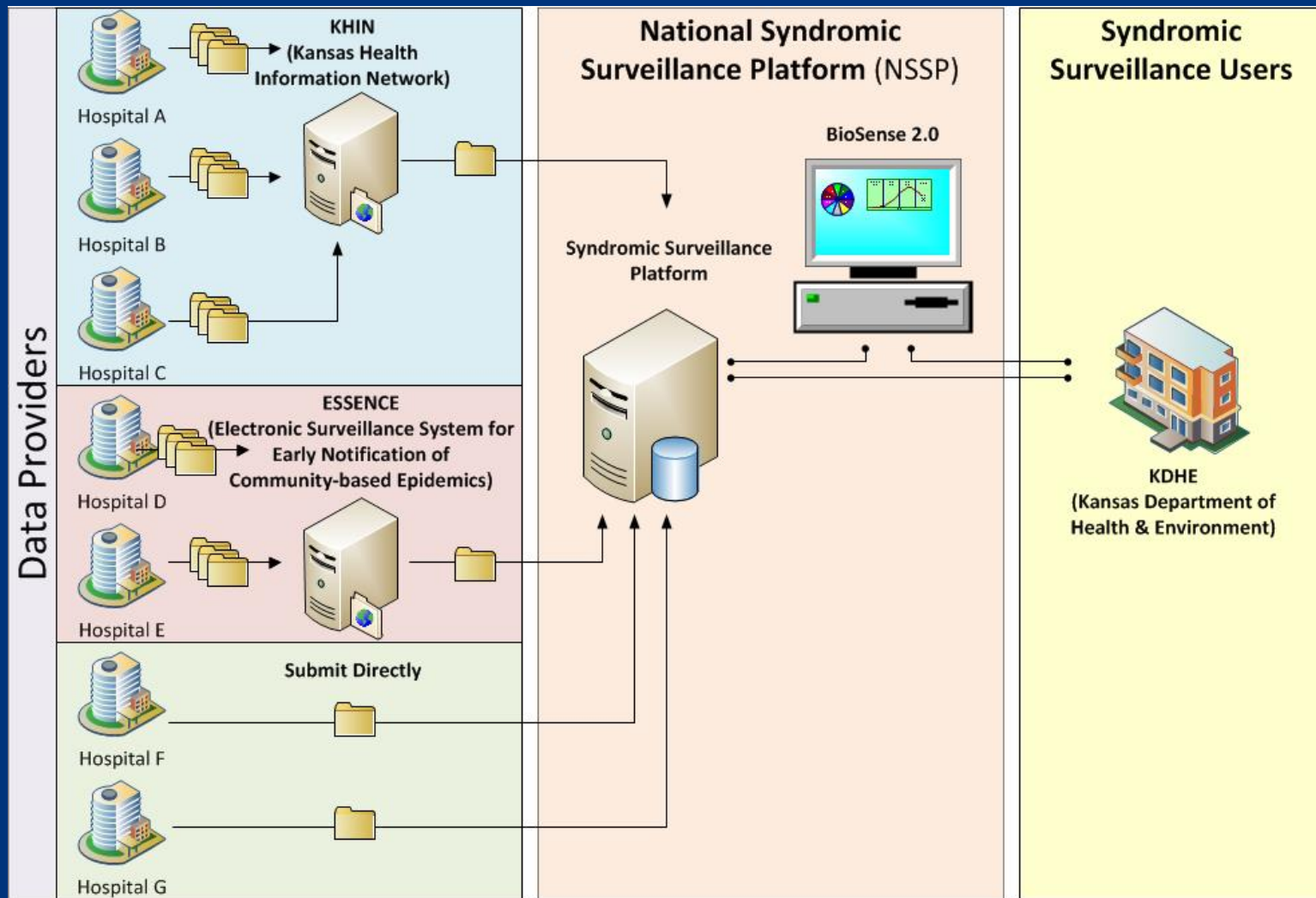
Bureau of Epidemiology and Public Health Informatics
Division of Public Health
Kansas Department of Health and Environment



Background

- NSSP/BioSense ONLY Jurisdiction
- Emergency Departments Only
 - 129 in State
 - Five-Year Average ~6 Million Annual Visits
- Started collecting Syndromic Surveillance (SyS) data in 2011/2012
- Meaningful Use Standards Used

Background: NSSP Connections



Meaningful Use Stage 1

- Optional participation; could claim exclusion
- 105 EDs connected for MU1
- Onboarding responsibility almost entirely outside of KDHE
- Focus on technical aspects
- Quality was low

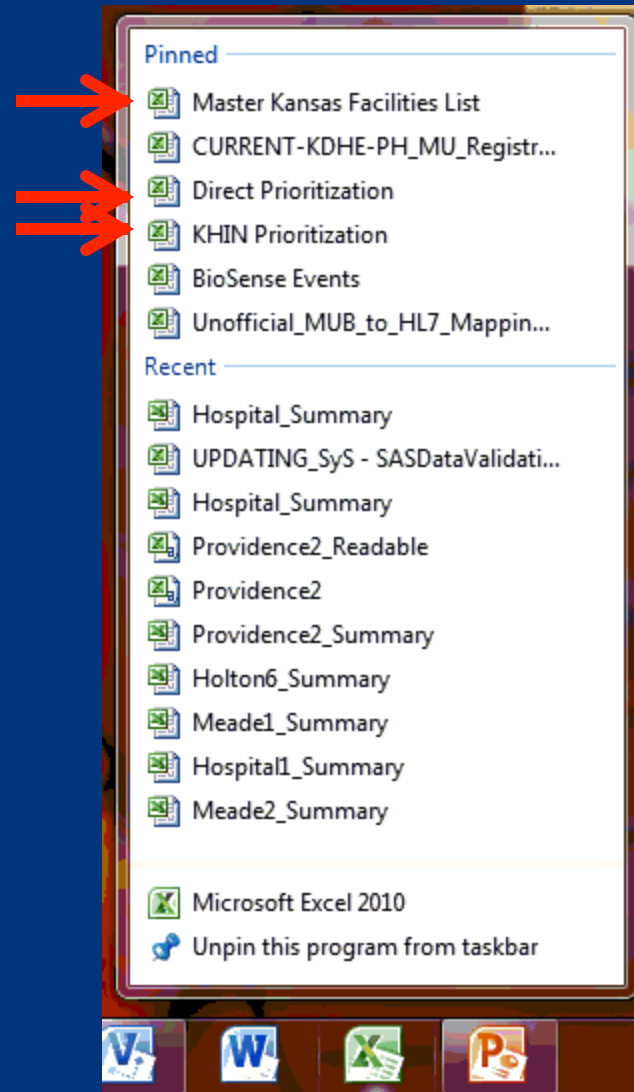
Meaningful Use Stage 2

- January 2014 – New Hire (Me!)
- April 2014 – First MU2 Attesters
- Need to ~~redo~~ establish onboarding procedures
 - Constantly updating...

Onboarding Overview

- Very basic – no specialized software
- All phone conversations must follow-up via email
- All emails follow naming convention:
 - “[Facility Name] – [Onboarding Phase]”
- Standard email drafts to start each onboarding phase
- All tracking done with Excel documents

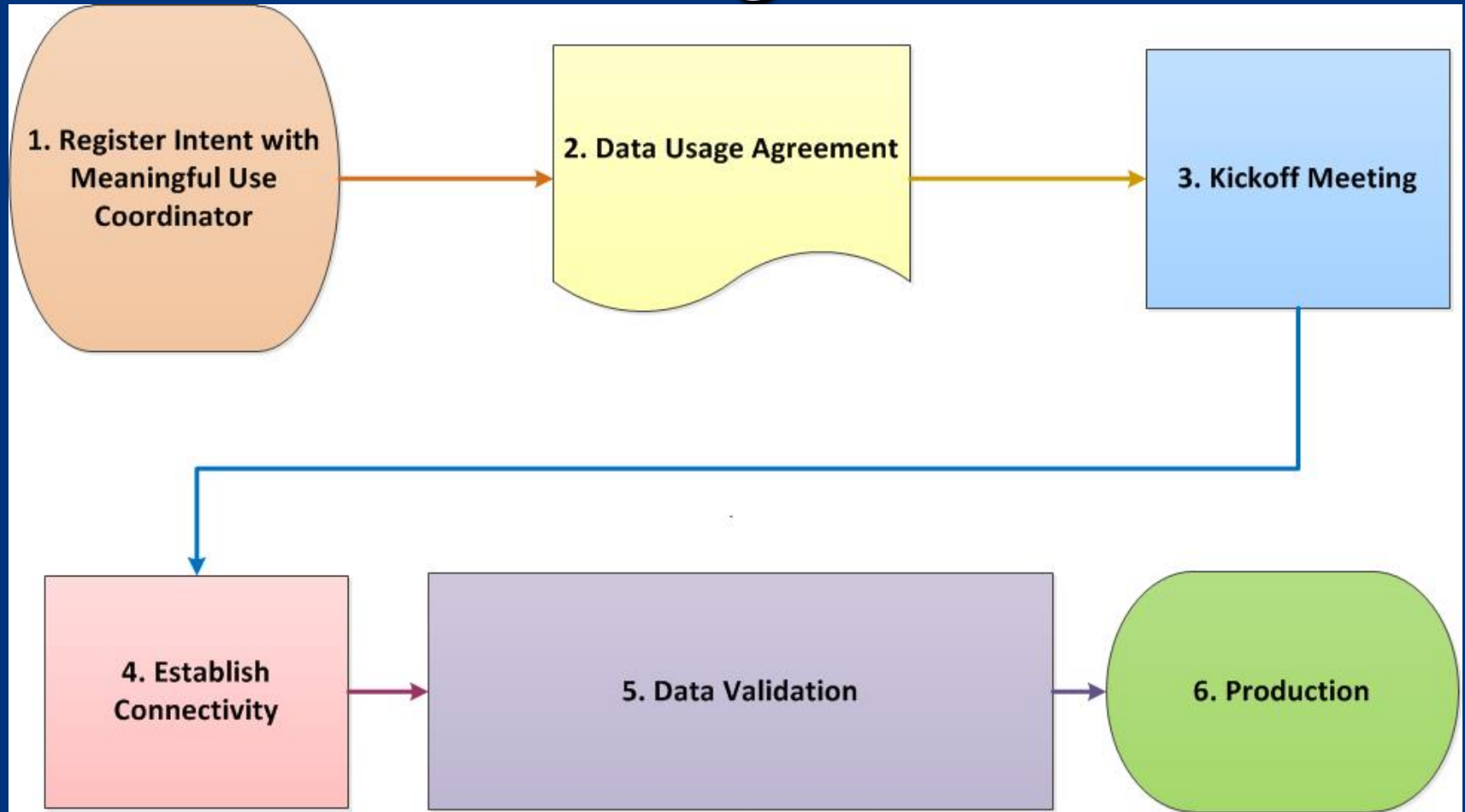
KDHE Onboarding: Tracking Tools



KDHE Onboarding: Tracking Tools

DBA	Data Quality Status	Regional Hosp Preparedness Groups
Licensure Name	Data Quality Date Complete	Population of County
Connection BioSense Facility Name	Days Spent Data Quality	Licensed Acute Beds
FacilityID_UUID	Production Date Complete	Staffed Beds
ILI Net ID	Transmission Frequency	Visits 2009
Primary EHR Vendor	Daily Volume	Visits 2010
Reporting Period (CY)	Data Flow	Visits 2011
Feed_Name	Data Notes	Visits 2012
Prioritization	HospID	Visits 2013
DUA Date	New Medicare No	Visits 5-year Total
Status Notes	HospCo Address	Visits 5-year average
Pre-Testing Date Complete (Optional)	City	%Visits based on Total
Connectivity Complete	Zip Code	Calculated Daily Visits
Data Quality Start Date	County	

KDHE: Basic Onboarding Process



KDHE: Onboarding Process

**1. Register Intent with
Meaningful Use
Coordinator**

- Facility Contacts MU
Coordinator to register
intent

Onboarding Process: Register Intent

Fill out very basic form:

- Applying for Medicaid/Medicare/Both?
- EP/EH
- Measures they intend to submit to
- HIO Affiliation (if any)
- Reporting Period
- Basic demographic/contact information
- EHR Vendor



KDHE Registration for Stage 2 Meaningful Use

REGISTRATION INFORMATION

Eligible Professionals and Eligible Hospitals planning to meet the Stage 2 public health measures in Kansas must register their intent to submit data the Kansas Department of Health and Environment (KDHE). This registration form must be submitted to KDHE within 60 days of the start of their Reporting Period.

This registration is for Stage 2 only. Stage 1 attestation information can be found at http://kdheks.gov/epi/meaningful_use.htm.

Stage 2 requires Electronic Health Record (EHR) systems be 2014 Certified EHR Technology (CEHRT). Information on certified health IT products is available on the Office of the National Coordinator (ONC) website at <http://onchpl.force.com/ehrcert/ehrproductsearch>.

All required data (marked with *) must be entered and the form submitted. Incomplete forms will not be processed.

GENERAL QUESTIONS

- *Are you applying for Medicaid, Medicare, or Both?
 - Medicaid Medicare Both
- *Are you registering as an Eligible Professional or Eligible Hospital?
 - Eligible Professional Eligible Hospital
- *For what KDHE public health measures are you registering your intent to submit to:
 - KSWebIZ – Kansas statewide Immunization Information System
 - EpiTrax – Electronic Lab Reporting (Eligible Hospitals only)
 - Syndromic Surveillance Reporting
 - Cancer Reporting (Eligible Providers only)
 - Specialized Registry (Eligible Providers only – Infectious Disease Reporting)
- *Are you a member of either the approved Kansas Health Information Organizations?
 - Kansas Health Information Network (KHIN)
 - Lewis and Clark Information Exchange (LACIE)
 - Neither

ATTESTATION TIME PERIOD

- *Attestation Start Date (format: mm/dd/yyyy):
- *Attestation End Date (format: mm/dd/yyyy):



KDHE Registration for Stage 2 Meaningful Use

ORGANIZATION INFORMATION

- *Organization Name:
- *Organization NPI:
- *Meaningful Use Contact Person:
 - Name:
 - Phone:
 - Email:

LOCATION

- *Name of Organization Location:
- *Location Address:
 - Street:
 - City:
 - Zip Code:
 - Phone Number:
- *Are you registering for more than one location?
 - Yes No

Eligible Hospital CCN:

VENDOR INFORMATION

- *Name of Vendor:
- *Vendor's Primary Contact:
- *Vendor Contact Email:
- *Vendor Phone Number:

Email completed forms to MeaningfulUse@kdheks.gov

KDHE: Onboarding Process

1. Register Intent with Meaningful Use Coordinator

- Facility Contacts MU Coordinator to register intent

2. Data Usage Agreement

- SyS Coordinator sends DUA to Hospital Representatives
- Facility Reps will return signed DUA to SyS Coordinator

Onboarding Process: Data Usage Agreement (DUA)

- PDF of DUA (with instructions)
 - Standard ASTHO DUA for SyS
- Link to KDHE Meaningful Use Website :
http://www.kdheks.gov/health/meaningful_use/

Onboarding Process: Data Usage Agreement (DUA)

● KDHE Meaningful Use Website :

Submission Requirements for Specific Public Health Objectives

- Electronic Laboratory Reports
 - On Boarding Process Reporting
 - On Boarding Flowchart
 - Implementation Guide
- Immunization Reporting
 - KSWebIZ HL7 Interface Information
 - KSWebIZ Direct HL7 Interface Onboarding
- Syndromic Surveillance
 - Overview
 - On Boarding Process
 - Technical Specifications
 - PHIN Messaging Guide (v.2.0)
- Cancer Registry Case Reporting
- Specialized Registry – Infectious Disease Registry

KDHE: Onboarding Process

1. Register Intent with Meaningful Use Coordinator

- Facility Contacts MU Coordinator to register intent

2. Data Usage Agreement

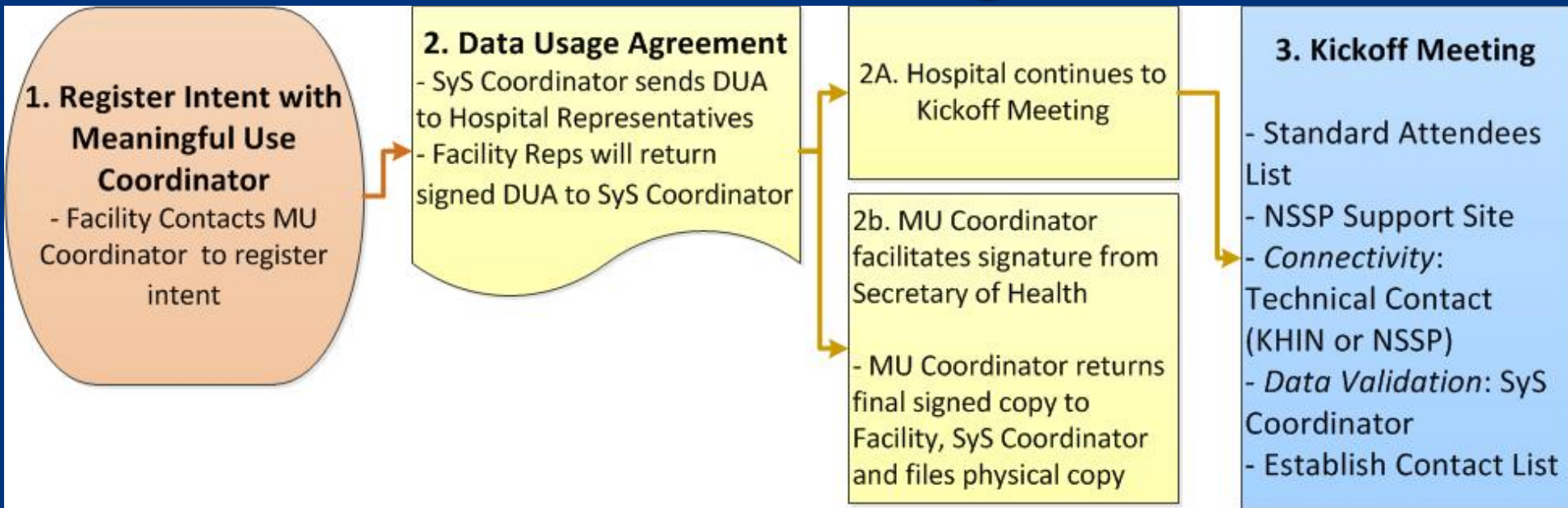
- SyS Coordinator sends DUA to Hospital Representatives
- Facility Reps will return signed DUA to SyS Coordinator

2A. Hospital continues to Kickoff Meeting

2b. MU Coordinator facilitates signature from Secretary of Health

- MU Coordinator returns final signed copy to Facility, SyS Coordinator and files physical copy

KDHE: Onboarding Process



Onboarding Process: Kickoff Meeting

- SyS Coordinator schedules meeting
- 30-60 minutes
- Establish Primary Contacts for Each Phase

Onboarding Process: Kickoff Meeting

● Attendees:

- KS Syndromic Surveillance Coordinator
- Technical Team Representative (NSSP or HIO)
- Hospital representatives
 - People responsible for DEVELOPING, CHANGING, and MAINTAINING syndromic surveillance interface (ex: interface developer)
 - Representative familiar with ER Workflow
 - Any potential syndromic surveillance and/or meaningful use contact at facility (ex: Hospital administrator, hospital syndromic surveillance coordinator, etc)

Onboarding Process: Kickoff Meeting

● Connectivity:

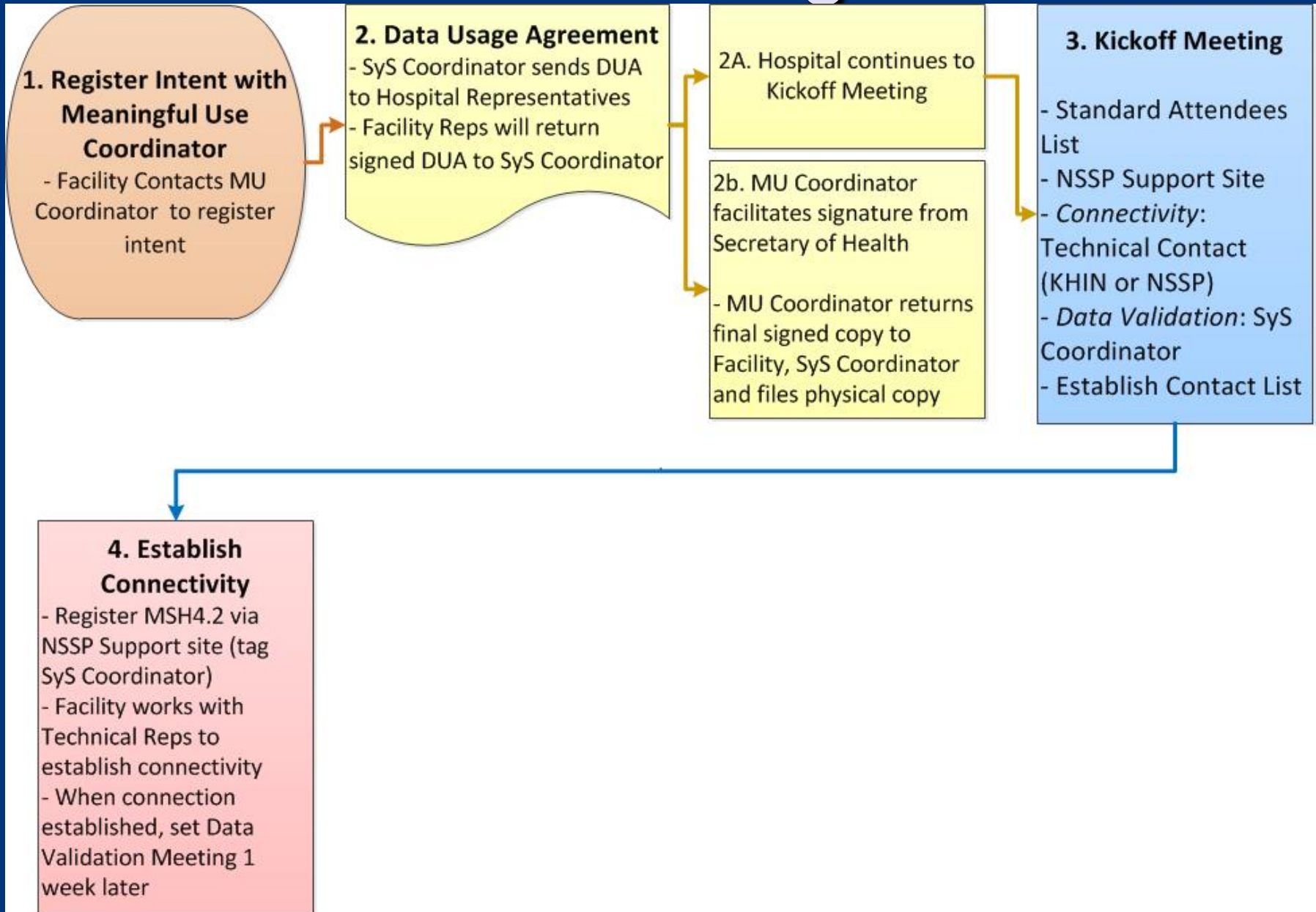
- Lead by Technical Team (NSSP or HIO)
- Accepted transport types
- MSH4.2 importance
- Submission frequency
- Key variables necessary for every message

Onboarding Process: Kickoff Meeting

● Data Validation

- Links on Meaningful Use website (technical specs, onboarding overview, etc)
- Overview of Data Validation Process
 - Key Variables
 - Message vs Visit-level validation
 - Validation Phase Timeline
 - Minimum 1 weeks' worth of clean data before moving to production

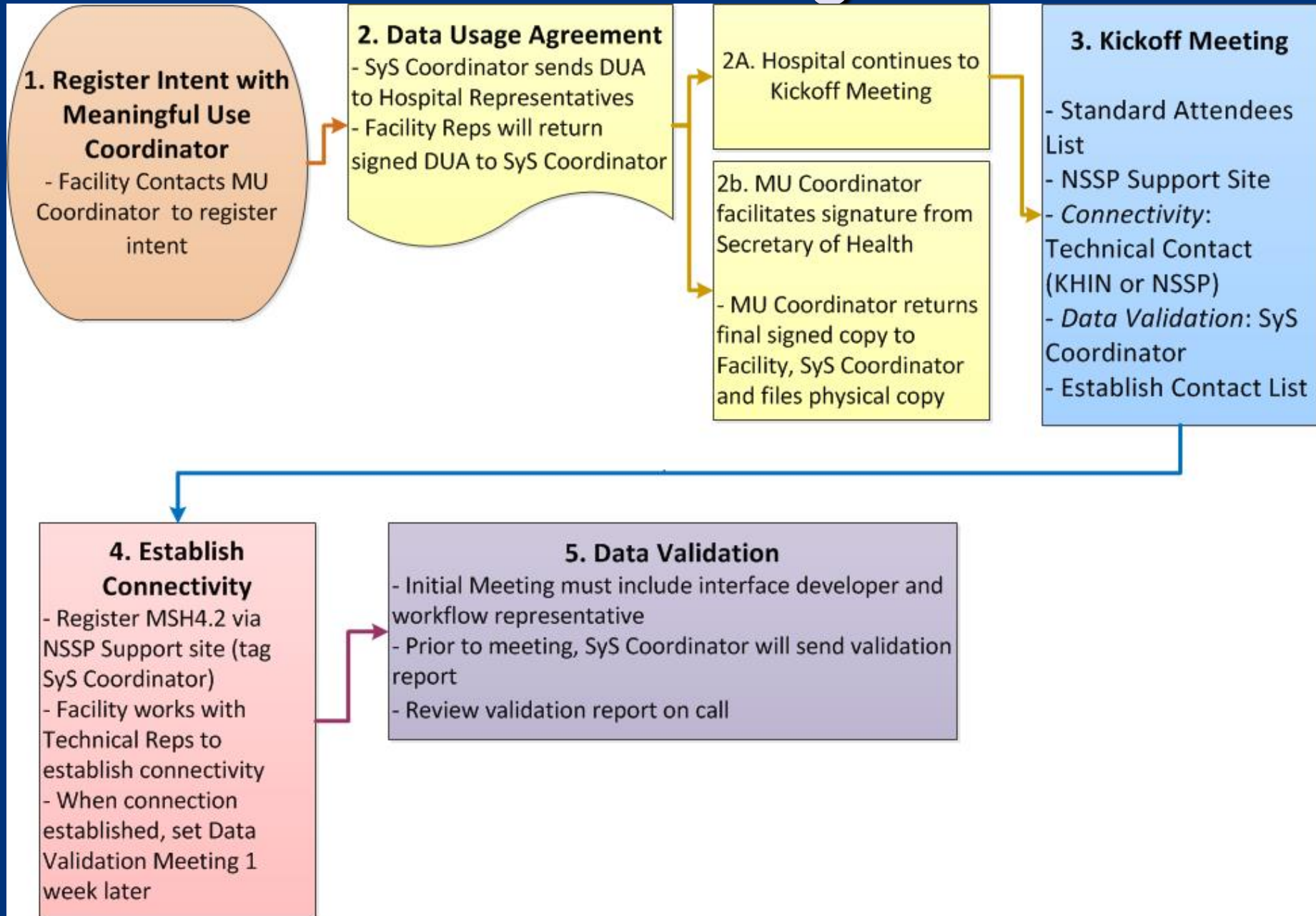
KDHE: Onboarding Process



Onboarding Process: Establishing Connectivity

- Facility Reps work with Technical Representative; SyS Coordinator in attendance
- Register MSH4.2 value by updating facility sheet with NSSP
- Facility reps will work with technical team to establish connectivity
- Once connection has been established, facility will submit data regularly (at least once, daily) for one week

KDHE: Onboarding Process



Onboarding Process: Data Validation

- Download all data from a facility after a certain date (via phpMyAdmin access)
- Run through SAS Program
 - Outdated version available at:
<https://sites.google.com/site/biosenseusercommunity/home/workgroups/data-quality>
 - Email me for new version: fnaz@kdheks.gov
- Translate results into an email

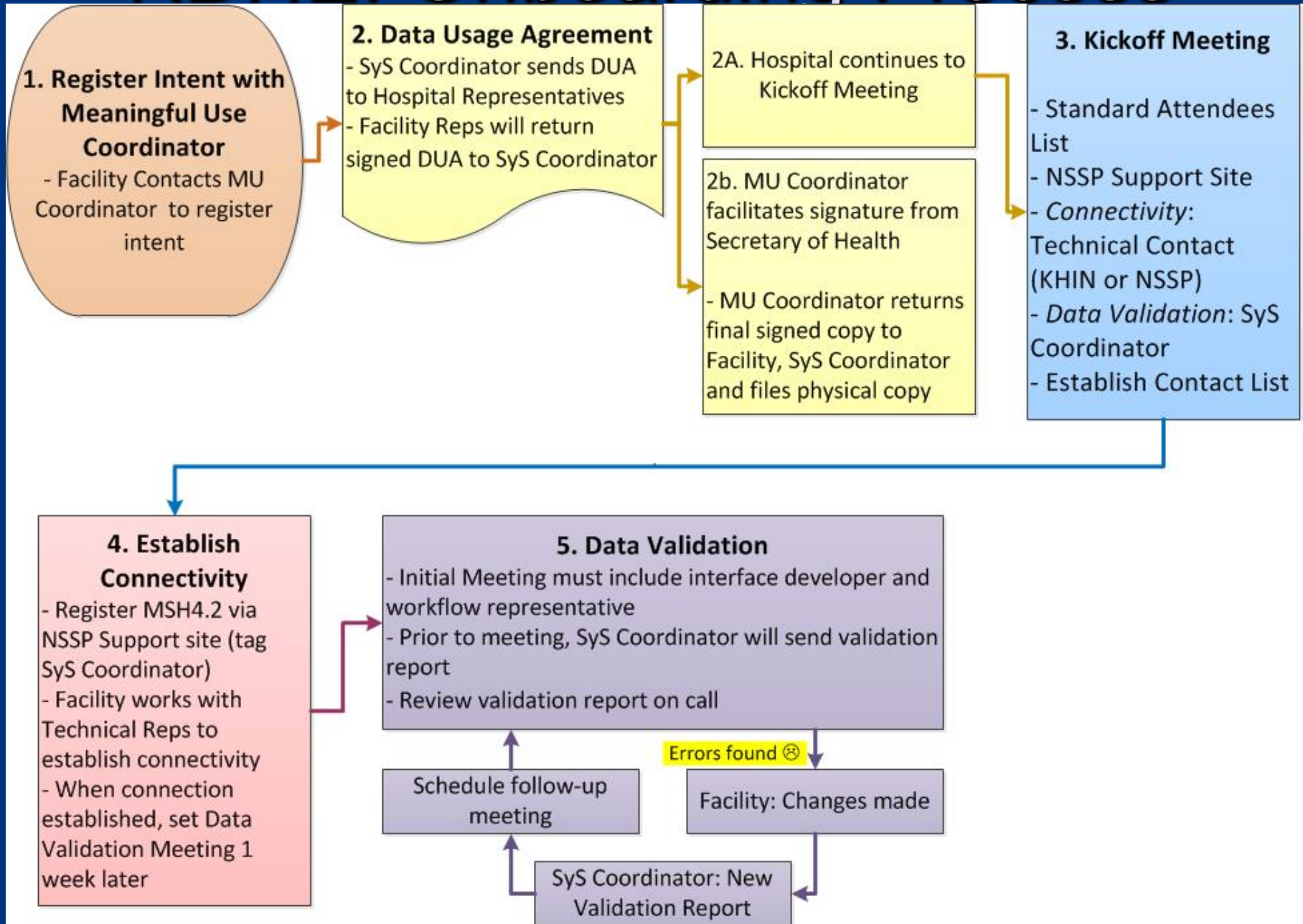
Onboarding Process: Data Validation

- SAS Program Example Outputs
 - Hospital_Summary
 - Hospital_RequiredFlaggedRecords
 - Hospital_OptionalFlaggedRecords
- SAS Program Documentation
 - Outdated

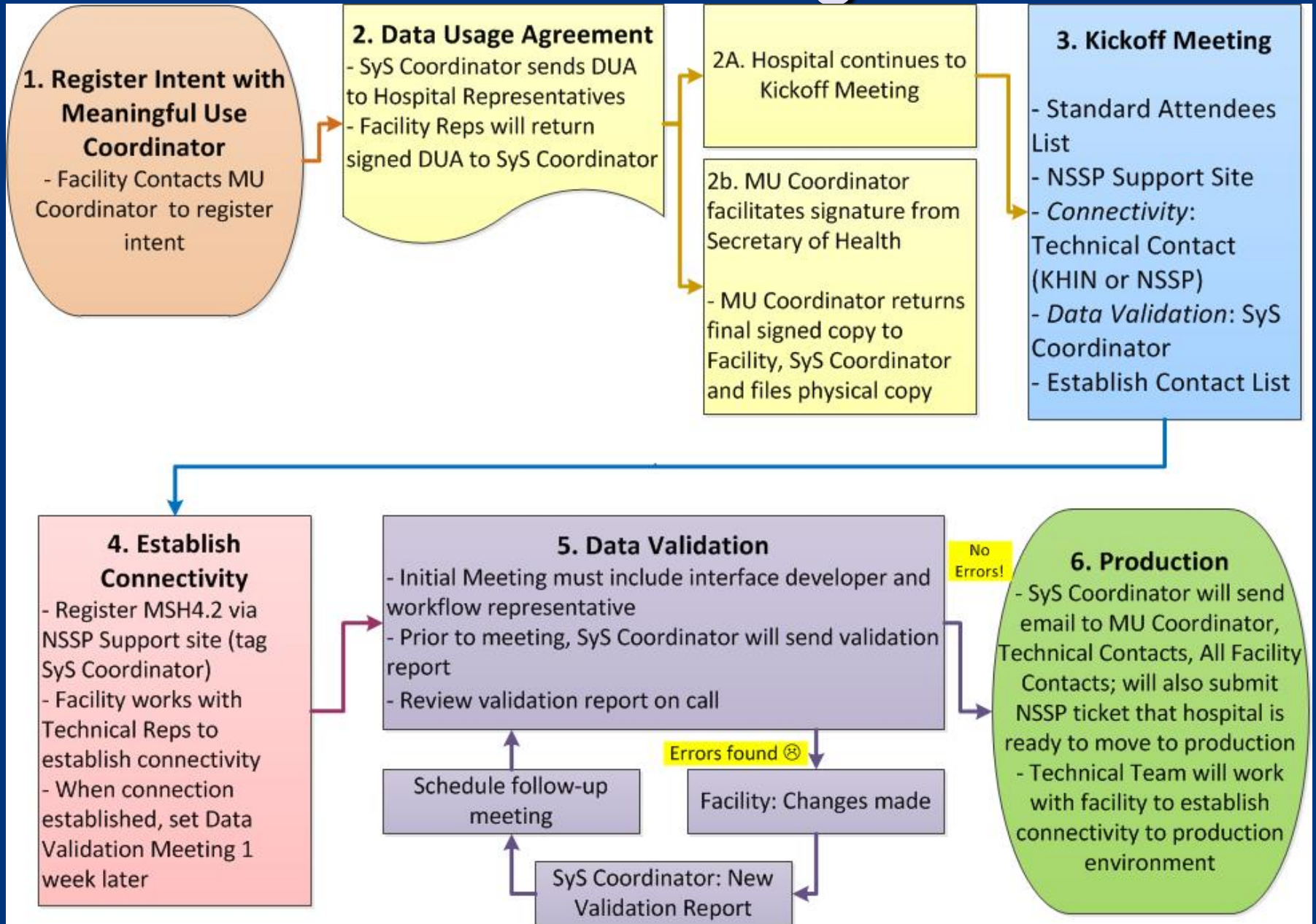
Onboarding Process: Data Validation

- “Translate” validation report
- Standard email template; updated with results

KDHE: Onboarding Process



KDHE: Onboarding Process



Onboarding Process: Disadvantages

- Time consuming!
- (Unnecessarily?) complicated process with basic procedures
- Data Validation
 - Need for MUB to HL7 translation
 - Facilities have difficulty finding trouble visits/ messages

Meaningful Use Stage 2: Current Onboarding Status

	Production	
	Hospitals	% Visits
Direct	15	13%
KHIN	6	2%
ESSENCE	-	0%
Total	21	15%

Note: “%Visits” based on annual visits reported to American Hospital Association (AHA) over past 5 years.

Meaningful Use Stage 2: Current Onboarding Status

	Production		Test	
	Hospitals	% Visits	Hospitals	% Visits
Direct	15	13%	19	45%
KHIN	6	2%	40	22%
ESSENCE	-	0%	3	6%
Total	21	15%	62	72%

Note: “%Visits” based on annual visits reported to American Hospital Association (AHA) over past 5 years.

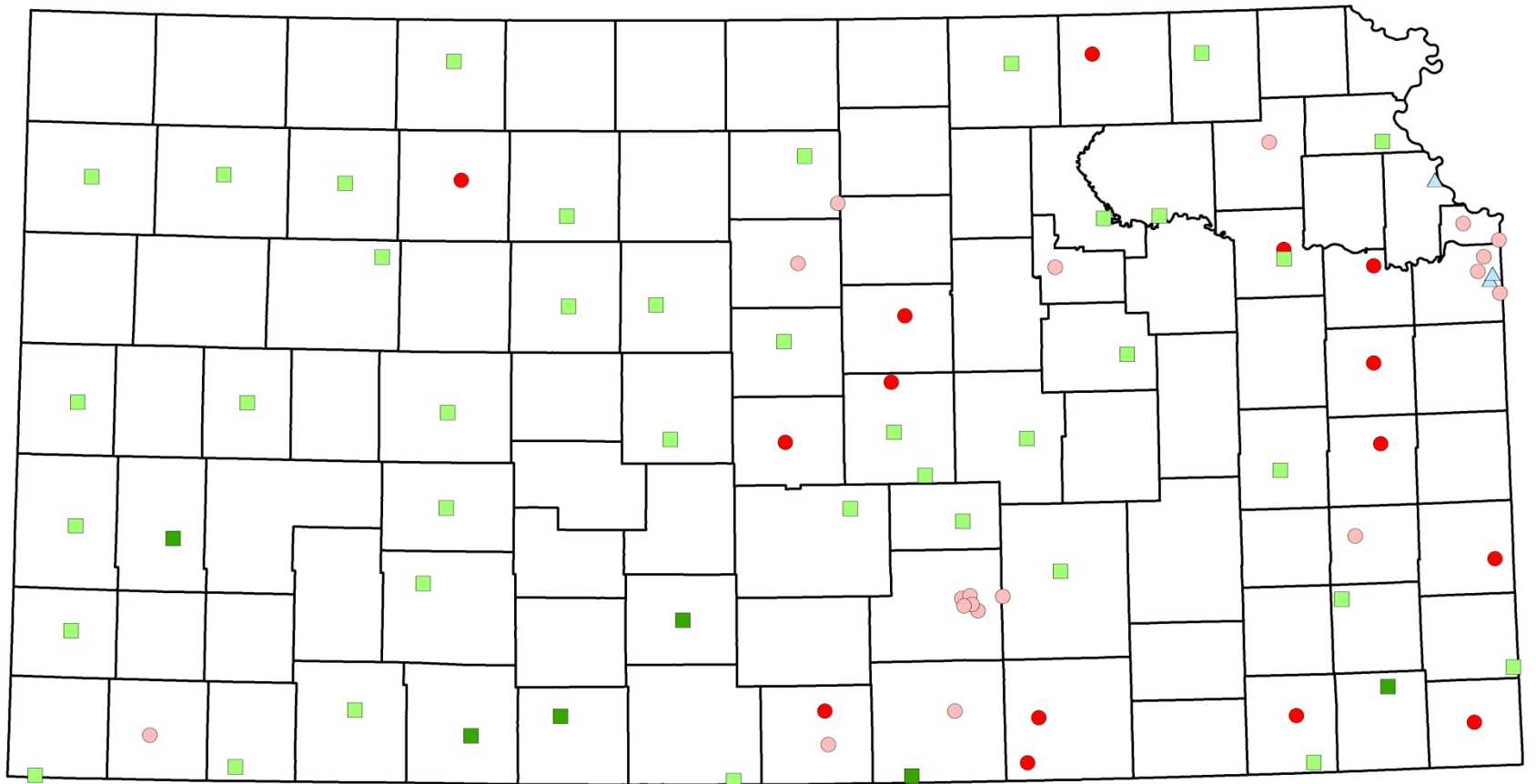
Meaningful Use Stage 2: Current Onboarding Status

	Production		Test		Total	
	Hospitals	% Visits	Hospitals	% Visits	Hospitals	% Visits
Direct	15	13%	19	45%	34	58%
KHIN	6	2%	40	22%	46	24%
ESSENCE	-	0%	3	6%	3	6%
Total	21	15%	62	73%	83	87%

Note: “%Visits” based on annual visits reported to American Hospital Association (AHA) over past 5 years.



Onboarding: Current Status



- Direct - Production
- KHIN - Production
- ▲ ESSENCE - Production
- Direct - Testing
- KHIN - Testing
- ▲ ESSENCE - Testing

Onboarding – Current Status

	MU1 Only		No Status	
	Hospitals	%Visits	Hospitals	%Visits
Total	27	3%	21	9%

Note: “%Visits” based on annual visits reported to American Hospital Association (AHA) over past 5 years.



Best Practices

- Schedule regular meetings (every 1-2 weeks) and set deadlines!
- One person **dedicated** to onboarding/DQ
- Lesson learned: For data quality, take your time to understand data early in the process
- Lesson learned: If you want usable data, you have to put in the time!

Changes in the Future?

- Create/use database for tracking
- HIO (KHIN) assuming larger role
- Purchase specialized software
 - Help with tracking status
 - Maintain documentation
 - Focus on data validation
- Decrease Onboarding Load = More time to add additional data sources

Contact Information

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