

4 DATA INTEGRATION

Building a valid data set for syndromic surveillance is the most time-consuming aspect of the onboarding process. Careful and deliberate planning should be exercised.

4.1 Syndromic Implementation Guide

The BioSense Platform is based on the [PHIN Messaging Guide for Syndromic Surveillance: Emergency Department, Urgent Care, Inpatient and Ambulatory Care Settings](#). During HL7 message development, pay careful attention to including all required data elements.

4.2 Excluded Data Elements Containing PII

While not emphasized well in the *PHIN Messaging Guide for Syndromic Surveillance*, personally identifiable information (PII) should **NOT** be sent to the BioSense Platform. The following table lists the data elements to **exclude** from HL7 messages to the BioSense Platform.

PII to EXCLUDE from HL7 Messages	
HL7 Segment / Field	HL7 Description
PID.5.1-6	Patient Name
PID.5.8-12	Patient Name
PID.6	Mothers Maiden Name
PID.9	Patient Alias
PID.11.1-2	Patient Address Note: Patient Zip, County, and City are required.
PID.11.8	Patient Address Note: Patient Zip, County, and City are required.
PID.13-17	Patient Phone Number
PID.19-21	SSN, Driver's License #, Mother's ID
PID.23-28	Birth Information
PID.30.2	Patient Death Indicator
NK Segments	Next of Kin
MRG.7	Merge Patient Information
IN1.16	Name of Insured
IN1.19	Address of Insured
GT1.3-6	Guarantor Name, Address, Phone
GT1.12	Guarantor SSN
GT1.19	Guarantor Employee ID Number

4.3 Facility Management

The onboarding team gives each site an MFT (Excel spreadsheet template). This table lists facilities authorized to send data to the BioSense Platform. Facility information will be linked and, when appropriate, mapped from the MFT to each record on the BioSense Platform.

4.4 Facility Mapping Considerations

Facility mapping is critical for accurate analysis in the BioSense Platform. Follow the guidelines below to make sure data are ready to validate.

1. Specify the Sending Facility ID in MSH-4.2.
2. Specify the Treating/Event Facility in EVN-7.2.
3. Make sure the Master Facility Table (Excel spreadsheet template) contains every facility included in HL7 messages for the site. These facilities will be checked during Data Validation. Missing facilities will not be correctly processed.

4.5 Required Data Elements

The BioSense Platform must receive all “R” and “RE” data elements defined for syndromic surveillance in the *PHIN Messaging Guide for Syndromic Surveillance*. The following table summarizes the *PHIN Messaging Guide for Syndromic Surveillance*, Section 4.2, Syndromic Surveillance Data Elements of Interest.

Syndromic Surveillance Data Elements of Interest			
Stage_1 Column Name	Stage_1 Processing	BioSense Platform Usage	HL7 Segment
Row_Number	BioSense Platform system generated unique row ID.	N/A	N/A
Create_Date_Time	BioSense Platform system generated row create date.	N/A	N/A
Update_Date_Time	BioSense Platform system generated row update date.	N/A	N/A
Earliest_Date_Time	BioSense Platform uses the earliest date among: - OBX-14 - Date/Time of Observation - PV1-45 - Discharge Date/Time - PV1-44 - Admit Date/Time - PR1-5 - Procedure Date/Time - PID-29 - Patient Death Date and Time - EVN-2 - Recorded Date/Time - MSH-7 Message Date/Time	R	Multiple
Feed_Name	BioSense Platform system generated SFTP feed name.	N/A	N/A

Syndromic Surveillance Data Elements of Interest			
Stage_1 Column Name	Stage_1 Processing	BioSense Platform Usage	HL7 Segment
Channel_Name	BioSense Platform system generated MIRTH channel name.	N/A	N/A
PV1_44_1_Admit_Date_Time	Direct input from HL7 message.	R	PV1.44.1
DG1_5_1_Diagnosis_Date_Time	Direct input from HL7 message.	O	DG1.5.1
OBX_5_1_Onset_Date_Time	Direct input from HL7 message. BioSense Platform finds the OBX-3 segment with the ID '11368-8' and returns the OBX-5 value.	O	OBX.5.1
MSH_7_1_Message_Date_Time	Direct input from HL7 message.	R	MSH.7.1
PV1_45_1_Discharge_Date_Time	Direct input from HL7 message.	R	PV1.45.1
PID_29_1_Patient_Death_Date_Time	Direct input from HL7 message.	O	PID.29.1
PID_30_1_Patient_Death_Indicator	Direct input from HL7 message. (Deprecated)	X	PID.30.1
DG1_3_1_Diagnosis_Code	Direct input from HL7 message.	R	DG1.3.1
PV1_36_Discharge_Disposition	BioSense Platform uses both PV1-36.1 and PV1-36.2 and concatenates them with ':' as a separator.	R	PV1.36.1
DG1_6_1_Diagnosis_Type	Direct input from HL7 message.	RE	DG1.6.1
DG1_3_2_Diagnosis_Text	Direct input from HL7 message.	R	DG1.3.2
MSH_4_Sending_Facility	BioSense Platform will try to return MSH-4.2. If MSH-4.2 is null, it will return MSH-4.1,	R	Multiple
OBX_5_1_Hospital_Discharge_Instructions	Direct input from HL7 message. BioSense Platform finds the OBX-3 segment with the ID '8653-8' and returns the OBX-5 value. (Deprecated)	X	OBX.5.1
MSH_10_1_Message_Control_ID	Direct input from HL7 message.	R	MSH.10.1
MSH_9_2_Trigger_Event	Direct input from HL7 message.	R	MSH.9.2
MSH_9_1_Message_Code	Direct input from HL7 message.	R	MSH.9.1
OBX_5_1_Body_Temperature	BioSense Platform treats this as a repeating segment. It returns all OBX-5 values that have the OBX-3 value of '8310-5' or '11289-6' and concatenates them with ':' as a separator.	O	OBX.5.1
OBX_6_2_Body_Temperature_Units	BioSense Platform treats this as a repeating segment. It returns all OBX-6.2 values that have the OBX-3 value of '8310-5' or '11289-6' and concatenates them with ':' as a separator.	O	OBX.6.2
OBX_5_1_Initial_Pulse	Direct input from HL7 message. BioSense Platform finds the OBX-3 segment with the ID '59408-5' and returns the OBX-5 value.	O	OBX.5.1
OBX_6_2_Initial_Pulse_Units	Direct input from HL7 message. BioSense Platform finds the OBX-3 segment with the ID '59408-5' and then returns the OBX-6.2 value.	O	OBX.6.2

Syndromic Surveillance Data Elements of Interest			
Stage_1 Column Name	Stage_1 Processing	BioSense Platform Usage	HL7 Segment
OBX_5_1_Chief_Complaint	BioSense Platform treats this as a repeating segment. It returns OBX-5.1, OBX-5.8, and OBX-5.9 values that have the OBX-3 value of '11292-0' or '8661-1' and concatenates them with ':SEP:' as a separator.	R	Multiple
PV2_3_1_Admit_Reason_ID	Direct input from HL7 message.	RE	PV2.3.1
PV2_3_2_Admit_Reason_Text	BioSense Platform searches PV2 segments in listed order and returns the first non-null value.	RE	PV2.3.2
PV2_3_5_Admit_Reason_Alt_Text	Direct input from HL7 message.	RE	PV2.3.5
OBX_5_1_Diagnosis_Impression	BioSense Platform treats this as a repeating segment. BioSense Platform returns OBX-5.1 and OBX-5.2 values that have the OBX-3 value of '44833-2' or '11300-1' and concatenates them with ':SEP:' as a separator.	O	Multiple
OBX_5_1_Triage_Notes	BioSense Platform treats this as a repeating segment. It finds the OBX-3 segment with the ID '54094-8' and returns the OBX-5 value, then concatenates multiple values with ':SEP:' as a separator.	O	OBX.5.1
OBX_5_2_Blood_Pressure	BioSense Platform treats this as a repeating segment. It returns OBX-5.1, OBX-5.2, OBX-5.3, and OBX-5.4 values that have the OBX-3 value of '35094-2' and concatenates them with ':' as a separator.	O	Multiple
OBX_6_2_Blood_Pressure_Units	Direct input from HL7 message.	O	OBX.6.2
PID_22_Patient_Ethnic_Group	BioSense Platform treats this as a repeating segment. It returns PID-22.1 and PID-22.2 values and concatenates them with ':' as a separator.	RE	Multiple
PID_10_Patient_Race	BioSense Platform treats this as a repeating segment. It returns PID-10.1 and PID-10.2 values and concatenates them with ':' as a separator.	RE	Multiple
PID_8_1_Patient_Gender	Direct input from HL7 message.	RE	PID.8.1
OBX_5_1_Patient_Age_Reported	BioSense Platform treats this as a repeating segment. It returns OBX-5.1 and OBX-5.2 values that have the OBX-3 value of '21612-7' and concatenates them with ':' as a separator.	RE	OBX.5.1
OBX_6_2_Patient_Age_Reported_Units	Direct input from HL7 message. BioSense Platform finds the OBX-3 segment with the ID '21612-7' and returns the OBX-5 value.	RE	OBX.6.2
PID_7_1_Date_Time_of_Birth	Direct input from HL7 message.	O	PID.7.1
PID_11_5_Patient_Zip	Direct input from HL7 message.	RE	PID.11.5
PID_11_6_Patient_Country	Direct input from HL7 message.	RE	PID.11.6

Syndromic Surveillance Data Elements of Interest			
Stage_1 Column Name	Stage_1 Processing	BioSense Platform Usage	HL7 Segment
PID_11_4_Patient_State	Direct input from HL7 message.	RE	PID.11.4
PID_First_Patient_ID	BioSense Platform returns the first non-null value: - PID-2.1 - PID-3.1 - PID-4.1 - PID-18.1 - PV1-19.1	R	Multiple
PV1_2_1_Patient_Class	Direct input from HL7 message.	R	PV1.2.1
PR1_3_1_Procedure_Code_ID	Direct input from HL7 message.	O	PR1.3.1
PR1_3_2_Procedure_Code_Text	Direct input from HL7 message.	O	PR1.3.2
PV1_19_1_Patient_Visit_ID	Direct input from HL7 message.	R	PV1.19.1
PID_3_1_Patient_ID_Internal	Direct input from HL7 message.	R	PID.3.1
Source_Filename	BioSense Platform pulls this directly from the original source file.	N/A	N/A
Data_Overflow	BioSense Platform system generated value.	N/A	N/A
DG1_15_1_Diagnosis_Priority	Direct input from HL7 message. (Deprecated)	X	DG1.15
DG1_3_5_Diagnosis_Alt_Text	Direct input from HL7 message. (Deprecated)	X	DG1.3.5
EVN_1_1_Event_Type_Code	Direct input from HL7 message.	RE	EVN.1.1
EVN_2_1_Recorded_Date_Time	Direct input from HL7 message.	R	EVN.2.1
EVN_7_2_Event_Facility	Direct input from HL7 message.	R	EVN.7.2
MSH_11_1_Processing_ID	Direct input from HL7 message.	R	MSH.11.1
MSH_12_1_Version_ID	Direct input from HL7 message.	R	MSH.12.1
MSH_21_1_Message_Profile_ID	Direct input from HL7 message.	R	MSH.21.1
MSH_3_1_Sending_Application	Direct input from HL7 message.	O	MSH.3.1
MSH_5_1_Receiving_Application	Direct input from HL7 message.	O	MSH.5.1
MSH_6_1_Receiving_Facility	Direct input from HL7 message.	O	MSH.6.1
MSH_9_3_Message_Structure	Direct input from HL7 message.	R	MSH.9.3
OBX_14_1_Observation_Date_Time	Direct input from HL7 message.	O	OBX.14.1
OBX_5_1_Acuity_Assessment	Direct input from HL7 message. BioSense Platform finds the OBX-3 segment with the ID '11283-9' and then returns the OBX-5 value.	O	OBX.5.1
OBX_5_1_Initial_Evaluation_Note	Direct input from HL7 message. BioSense Platform finds the OBX-3 segment with the ID '34120-6' and then returns the OBX-5 value. (Deprecated)	X	OBX.5.1
OBX_5_1_Medication_History	Direct input from HL7 message. BioSense Platform finds the OBX-3 segment with the ID '10160-0' and then returns the OBX-5 value.	O	OBX.5.1

Syndromic Surveillance Data Elements of Interest			
Stage_1 Column Name	Stage_1 Processing	BioSense Platform Usage	HL7 Segment
OBX_5_1_Patient_Age_Calculated	Direct input from HL7 message. BioSense Platform finds the OBX-3 segment with the ID '29553-5' Then returns the OBX-5 value.	RE	OBX.5.1
OBX_5_1_Pregnancy_Status	Direct input from HL7 message. BioSense Platform finds the OBX-3 segment with the ID '11449-6' and then returns the OBX-5 value.	O	OBX.5.1
OBX_5_1_Problem_or_Finding	BioSense Platform treats this as a repeating segment. BioSense Platform returns OBX-5.1 values that have the OBX-3 value of '18624-7' and concatenates them using a ':' as a separator.	O	OBX.5.1
OBX_6_2_Patient_Age_Calculated_Units	Direct input from HL7 message. BioSense Platform finds the OBX-3 segment with the ID '29553-5' and then returns the OBX-6 value.	RE	OBX.6.2
PID_11_3_Patient_City	Direct input from HL7 message.	RE	PID.11.3
PID_18_1_Patient_Account_ID	Direct input from HL7 message.	O	PID.18.1
PID_2_1_Patient_ID_External	Direct input from HL7 message.	O	PID.2.1
PID_4_1_Alternate_Patient_ID	Direct input from HL7 message.	O	PID.4.1
PID_First_Patient_County	BioSense Platform will advance through the following segments until it returns the first non-null value: PID-12.1 PID-11.9	R	Multiple
PR1_3_3_Procedure_Code_NS	Direct input from HL7 message.	O	PR1.3.3
PR1_5_1_Procedure_Date_Time	Direct input from HL7 message.	O	PR1.5
PV1_10_1_Hospital_Service	Direct input from HL7 message.	O	PV1.10
PV1_14_1_Admit_Source	Direct input from HL7 message.	O	PV1.14
PV1_15_1_Ambulatory_Status	Direct input from HL7 message.	O	PV1.15
PV1_18_1_Patient_Type	Direct input from HL7 message.	O	PV1.18
PV1_19_4_Assigning_Authority	Direct input from HL7 message.	R	PV1.19.4
PV1_19_6_Assigning_Facility	Direct input from HL7 message.	O	PV1.19.6
PV1_39_1_Servicing_Facility	Direct input from HL7 message. (Deprecated)	X	PV1.39.1
PV1_4_1_Admission_Type	Direct input from HL7 message.	O	PV1.4
PV1_50_1_Alternate_Visit_ID	Direct input from HL7 message. (Deprecated)	X	PV1.50
Facility_Name (MFT table)	BioSense Platform mapped value using MFT.	RE	N/A
Facility_Street (MFT table)	BioSense Platform mapped value using MFT.	RE	N/A
Facility_Street (MFT table)	BioSense Platform mapped value using MFT.	RE	N/A
Facility_City (MFT table)	BioSense Platform mapped value using MFT.	RE	N/A
Facility_Zip (MFT table)	BioSense Platform mapped value using MFT.	RE	N/A
Facility_County (MFT table)	BioSense Platform mapped value using MFT.	RE	N/A

Syndromic Surveillance Data Elements of Interest			
Stage_1 Column Name	Stage_1 Processing	BioSense Platform Usage	HL7 Segment
Facility_State (MFT table)	BioSense Platform mapped value using MFT.	RE	N/A
Facility_Country (MFT table)	BioSense Platform mapped value using MFT.	RE	N/A
Facility_Visit_Type (MFT table)	BioSense Platform mapped value using MFT.	R	N/A
Travel History	Available in new BioSense Platform only.	O	OBX.5.1
Previous Hospital Unit	Available in new BioSense Platform only.	O	PV1.6.1
Hospital Unit	Available in new BioSense Platform only.	RE	OBX.5
Unique Physician Identifier	Available in new BioSense Platform only.	O	PV1.7.1
Height	Available in new BioSense Platform only.	O	OBX.5
Weight	Available in new BioSense Platform only.	O	OBX.5
BMI	Available in new BioSense Platform only.	O	OBX.5
Smoking Status	Available in new BioSense Platform only.	O	OBX.5
Insurance Coverage	Available in new BioSense Platform only.	O	IN1.15

4.6 Message Timeliness

One of the characteristics of syndromic surveillance data is its timeliness. Therefore, data must be submitted at least within 24 hours of the date and time of the patient's initial encounter. Subsequent updates to a patient's record must also be submitted within 24 hours of the information (transaction) being added to the patient record. NSSP's BioSense Platform team recommends that senders batch and submit syndromic data hourly. Batched files must be transmitted at least once every 6 hours.

The following table lists the recommended message characteristics.

Message Size and Frequency Recommendations		
Message Parameter	Recommendation	Notes
Message frequency	Hourly	<ul style="list-style-type: none"> ▪ Hourly is recommended ▪ Other frequencies are accepted ▪ Batched files must be sent at least every 6 hours
Message size	> 0 bytes	<ul style="list-style-type: none"> ▪ Cannot be empty
Message batching	Required	<ul style="list-style-type: none"> ▪ Message must be batched ▪ Individual messages are not acceptable ▪ Message batching scripts are available upon request

4.7 Facility Types

The BioSense Platform can receive syndromic surveillance data for all facility types. Still, site administrators may want to exercise caution when deciding whether to receive all message types in their jurisdiction. The BioSense Platform has limited availability to support non-ED onboarding. Also, when considering ambulatory care, caution should be taken to consider the impact that the new data trends might have on existing analysis processes. It is wise to start with a limited number of large practices and get experience with the different characteristics and volume of the data.

The BioSense Platform accepts the following message types (in priority order):

1. Emergency Data (ED)
2. Urgent Care (UC)
3. Inpatient (I)
4. Ambulatory Care (AC)
 - a. Requires onboarding team's approval
 - b. Requires site administrator's approval

4.8 Message Triggers

Valid message triggers follow:

1. ADT^A04 - Emergency Department Registration
2. ADT^A03 - Discharge/End Visit
3. ADT^A01 - Inpatient Admission
4. ADT^A08 - Updates to previously sent A01 and A04 messages

4.9 Data Validation

Data Validation is a series of activities that include checking data compliance, checking data quality, and completing other onboarding verification activities.

The onboarding team offers training and support for data validation. They can help site administrators perform data validation tests to onboard new facilities. Site administrators and epidemiologists should work together with facilities to implement processes for testing and evaluating data quality.

The onboarding team recommends joining the ISDS Data Quality Work Group for more information and advice on evaluating data quality:

<http://www.syndromic.org/cop/nssp/nssp-workgroups>.

4.10 Data Compliance Report


To successfully onboard to the BioSense Platform, every facility must pass minimum BioSense Platform data compliance tests and satisfy requirements for the site to which the facility or vendor is submitting data. Each facility and vendor feed must be approved by both the NSSP BioSense Platform onboarding team and the site administrator.

The BioSense Platform provides each site administrator access to daily compliance measurements through SQL views. Site administrators can download and import results into the data compliance report template available for download on the BioSense Platform Onboarding Website.

Example: Compliance Results

HL7 Segment	BioSense Platform Usage	Facility Name	Medical Center A	Medical Center B
		FacilityID_UUID	1000	1001
		Feed_Name	Training_Feed_1	Training_Feed_2
		Report_Date_Time	3/17/16 8:00 AM	3/17/16 8:00 AM
		Begin_Date	3/16/2016	3/16/2016
		End_Date	3/17/2016	3/17/2016
		NumVisits	513	57
Multiple	R	MSH_4_Sending_Facility	100%	100%
EVN.7.2	R	EVN_7_2_Event_Facility	100%	100%
MSH.7.1	R	MSH_7_1_Message_Date_Time	100%	100%
EVN.2.1	R	EVN_2_1_Recorded_Date_Time	100%	100%
OBX.14.1	O	OBX_14_1_Observation_Date_Time	0%	0%
PID.3.1	R	PID_3_1_Patient_ID_Internal	100%	100%
PID.2.1	O	PID_2_1_Patient_ID_External	0%	0%
PID.4.1	O	PID_4_1_Alternate_Patient_ID	0%	0%
PID.18.1	O	PID_18_1_Patient_Account_ID	0%	0%
Multiple	R	PID_First_Patient_ID	100%	100%
PV1.19.1	R	PV1_19_1_Patient_Visit_ID	100%	100%
PV1.50	X	PV1_50_1_Alternate_Visit_ID	0%	0%
PID.8.1	RE	PID_8_1_Patient_Gender	100%	100%
Multiple	RE	PID_10_Patient_Race	100%	100%
Multiple	RE	PID_22_Patient_Ethnic_Group	100%	98%
OBX.5.1	RE	OBX_5_1_Patient_Age_Reported	0%	100%

Example: Approval Status

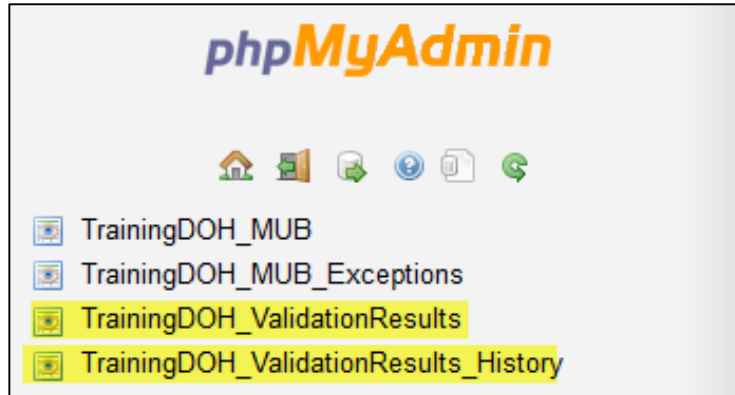
		Facility Management and Approval Status					
Facility_Name	FacilityID_UUID	Facility_Type	Approval Type	Latest Report Date	Site Approval Date	NSSP Approval Date	Approval Expiration Date
Medical Center A	1000			3/17/2016			
Medical Center B	1001			3/17/2016			

4.11 Download Validation Results

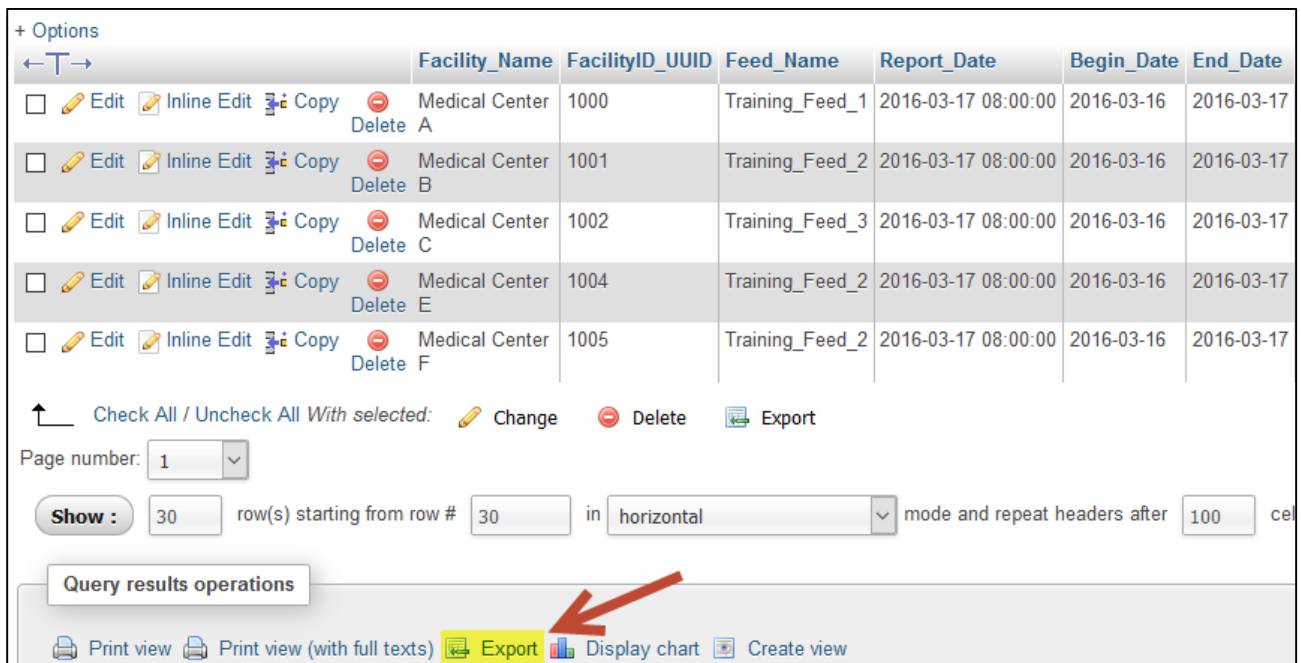
The following guidance can be used by site administrators to download data validation results. These results are accessible only by site administrators and their proxies.

1. Log into phpMyAdmin and select the server Datatrans2.biosen.se.
2. Click on the ValidationResults table view provided for your site.

Note: Historic statistics, found in the ValidationResults_History table view, allow you to compare current with past results.



3. Export the results to your local computer.



	Facility_Name	FacilityID_UUID	Feed_Name	Report_Date	Begin_Date	End_Date
<input type="checkbox"/> Edit Inline Edit Copy Delete A	Medical Center	1000	Training_Feed_1	2016-03-17 08:00:00	2016-03-16	2016-03-17
<input type="checkbox"/> Edit Inline Edit Copy Delete B	Medical Center	1001	Training_Feed_2	2016-03-17 08:00:00	2016-03-16	2016-03-17
<input type="checkbox"/> Edit Inline Edit Copy Delete C	Medical Center	1002	Training_Feed_3	2016-03-17 08:00:00	2016-03-16	2016-03-17
<input type="checkbox"/> Edit Inline Edit Copy Delete E	Medical Center	1004	Training_Feed_2	2016-03-17 08:00:00	2016-03-16	2016-03-17
<input type="checkbox"/> Edit Inline Edit Copy Delete F	Medical Center	1005	Training_Feed_2	2016-03-17 08:00:00	2016-03-16	2016-03-17

↑ Check All / Uncheck All With selected: Change Delete Export

Page number:

Show: row(s) starting from row # in mode and repeat headers after ce

Query results operations

Print view Print view (with full texts) Export Display chart Create view

4. Choose CSV data format.

Export Method:

Quick - display only the minimal options
 Custom - display all possible options

Format:

5. Choose to open the file with Microsoft Excel or save the file locally.

Open with

Save File

4.12 Import Validation Results

After downloading validation data, site administrators can copy the desired facility results into the data compliance report template for further evaluation.

1. Select and copy the results from the CSV file.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Medical Center A	1000	Training_Feed_1	3/17/2016 8:00	3/16/2016	3/17/2016	513	513	513	513	513	0	513
2	Medical Center B	1001	Training_Feed_2	3/17/2016 8:00	3/16/2016	3/17/2016	57	57	57	57	57	0	57
3	Medical Center C	1002	Training_Feed_3	3/17/2016 8:00	3/16/2016	3/17/2016	1246	1246	1246	1246	1246	0	1246
4	Medical Center E	1004	Training_Feed_2	3/17/2016 8:00	3/16/2016	3/17/2016	118	118	118	118	118	0	118
5	Medical Center F	1005	Training_Feed_2	3/17/2016 8:00	3/16/2016	3/17/2016	232	232	232	232	232	0	232

2. Open the compliance template and paste the results on the **table_data** tab.

	A	B	C	D	E	F	G	H
1	Facility_Name	FacilityID_UUID	Feed_Name	Report_Date_Time	Begin_Date	End_Date	NumVisits	MSH_4_Sending_Facility
2	Medical Center A	1000	Training_Feed_1	3/17/2016 8:00	3/16/2016	3/17/2016	513	513
3	Medical Center B	1001	Training_Feed_2	3/17/2016 8:00	3/16/2016	3/17/2016	57	57
4								

4.13 Evaluate Validation Results

After importing validation data, site administrators should use the compliance report results to evaluate each facility’s compliance levels. The data compliance report template has detailed instructions and information to assist site administrators with downloading and analyzing the results.

<i>Tab Name</i>	<i>Tab Description</i>
Cover	Usage Summary and Table of Contents.
Version History	Record of changes made to this template.
Data Download Instructions	Guidance for downloading results and populating this template.
Data Analysis Instructions	Guidance for reading and interpreting data validation results.
Approval Status	History of data validations and approvals for facilities.
Table Data	Download validation results from MySQL (phpMyAdmin) and paste into this tab.
Percentages	Auto-generated calculations in percentage format. Do not change this tab.
Visit Counts	Auto-generated data built from data on the <i>Table Data</i> tab. Do not change this tab.
Stage1	Stage 1 data mapping details.
MUB	Meaningful Use Base (MUB) data mapping details. Note: The MUB tab is not used in current data validation and is only provided to assist sites with converting existing data validation and quality scripts to use Stage_1. This tab will not be updated or maintained in future revisions of this template.
Message Guide Table 4.2	A copy of table 4-2 from the <i>PHIN Messaging Guide for Syndromic Surveillance</i> v.2.0 is provided for convenience when validating data. The official table is located in the <i>PHIN Messaging Guide for Syndromic Surveillance</i> : http://www.cdc.gov/nssp/documents/guides/syndrsurvmessagguide2_messagingguide_phn.pdf#page=97&zom=auto,33,550