BioSense Platform Quick Start Guide to Using the Daily Site Processing Summary January 2020



Center for Surveillance, Epidemiology, and Laboratory Services Division of Health Informatics and Surveillance



Technical Assistance: support.syndromicsurveillance.org

The National Syndromic Surveillance Program (NSSP) promotes and advances development of the cloud based BioSense Platform, a secure integrated electronic health information system that hosts standardized analytic tools and facilitates collaborative processes. The BioSense Platform is a product of the Centers for Disease Control and Prevention (CDC).

BioSense Platform Quick Start Guide to Using the Daily Site Processing Summary

CONTENTS

Introduction, 1

1 Site Overview, 3

- 1.1 Daily Processing Summary, 5
- 1.2 Daily Filtered Records, 5
- 1.3 Daily Exceptions Records, 6
- 1.4 Daily Production Data Flow Backlog Metrics, 7
- 1.5 Weekly Summary of New Active Facilities, 7
- 1.6 Weekly Summary of Facilities Pending Activation, 8

2 Feed/Facility Alerts, 9

- 2.1 Daily Facility Alerts—Source: Processed Table, 9
- 2.2 Weekly Feed and Facility Visit Volume Anomalies, 10
- 2.3 Weekly Site Record Volume Anomalies, 12

Appendix: Summary Calculations Detail, 13

Quick Start Guide to Using the Daily Site Processing Summary

Introduction

The BioSense Platform's Daily Site Processing Summary is an email generated by the National Syndromic Surveillance Program (NSSP) to help site administrators identify potential data processing issues. Site administrators receive these emails by default, but they may opt out and designate others to receive this summary.

Each day, NSSP will collate data and email the Summary to site administrators (or designees). On Mondays, additional data is added (noted below) to summarize weekly facility status changes as well as visit and message volume anomalies.

Email content is generated from the results of underlying data evaluation procedures as described in the <u>appendix</u>. Each component of the Summary email will include the date and time each section was generated and the date range, if applicable.

For additional help in assessing data quality, site administrators are encouraged to refer to the monthly Data Quality reports and Quarterly Executive Summary. To ask questions about potential data processing issues or recommend ways to improve this report, please submit a Service Desk ticket to <u>support.syndromicsurveillance.org</u>.

Changing who receives the Daily Site Processing Summary

As site administrator, log in to the Access & Management Center (AMC).

Click the **Manage Users** tab, then click **View/Edit** button by the user you want to receive or stop receiving the Summary. Edit the user profile by checking or unchecking the **Data Quality and Processing Communications** checkbox. If the box is checked, the user will receive the Summary email.

Save the change.

For more guidance, refer to the *BioSense Platform Quick Start Guide to Using the Access & Management Center*, located in the <u>NSSP Onboarding Access and Management Center</u>.

The Daily Site Processing Summary (Figure 1) has two parts: (1) Site Overview, which contains sections that delve into how a site's data are processed, and (2) Feed/Facility Alerts. At the top of the Summary are convenient links to each section, formatted as shown here:

- 1. Site Overview
 - 1.1. Daily Processing Summary
 - 1.2. Daily Filtered Records
 - 1.3. Daily Exceptions Records
 - 1.4. Daily Production Data Flow Backlog Metrics
 - 1.5. Weekly Summary of New Active Facilities*
 - 1.6. Weekly Summary of Facilities Pending Activation*
- 2. Feed/Facility Alerts
 - 2.1. Daily Facility Alerts
 - 2.2. Weekly Feed and Facility Visit Volume Anomalies*
 - 2.3. Weekly Feed and Facility Record Volume Anomalies*
- * Included in Monday report only.

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1.1 Daily Processing Si	ummary			
Number and Perce	nt (%)	Nessages Sent to Exceptions Number and Percent (%)	Number and Percent (%)	
# (%)		# (%)	# (%)	
The table summarizes info UTC> and <yyyy-mm-dd></yyyy-mm-dd>	rmation for d <hh:mm:ss< td=""><td>ata that arrived on the platform betv UTC>.</td><th>reen <yyyy-mm-dd> <hh:mm:ss< th=""><td></td></hh:mm:ss<></yyyy-mm-dd></th></hh:mm:ss<>	ata that arrived on the platform betv UTC>.	reen <yyyy-mm-dd> <hh:mm:ss< th=""><td></td></hh:mm:ss<></yyyy-mm-dd>	
Back to top				
1.2 Daily Filtered Reco	rds			
Filter Reason	Percent ar	nd Number of Records		
Filter reason number		% (#)		
site iotal		100% (#)		

Figure 1. Sample Daily Site Processing Summary including Weekly Summaries and Alerts

1. Site Overview

The Site Overview sections of the email describe how data are processed. As incoming messages are processed into the Raw table, the BioSense Platform checks the messages to make sure each contains the minimum information required to process data to the next level, which is the Processed table. If one or more checks fail, the message is flagged with a status of "filtered" and is not processed further. Below, you will find the Filter Reasons Flow Chart (Figure 2) and the Filter Reasons codes to help you identify why a message was filtered.

Filtered Messages are those that *do not* meet basic HL7 requirements. Here are the Codes and Reason Descriptions generated when a message is filtered:

- Code 1: No message date/time for HL7. In formats other than HL7, the field converting to message date/time would trigger the filter. (MSH.7 is present)
- Code 2: Message must be an 'ADT' message (Admit/Discharge/Transfer). (MSH.9.1 == 'ADT)'
- Code 3: No facility info for HL7. In formats other than HL7, the field converting to facility info would trigger the filter. (MSH.4.1 OR MSH.4.2 is present)



Figure 2. Filter Reasons Flow Chart

As non-filtered data progress from Raw to Processed tables, the BioSense Platform performs additional checks to assess validity of the Facility Identifier, Patient Identifier, and Visit Date. Combined, these critical data elements form a unique BioSense Identifier. If one or more checks fail, the message is triaged to the Exceptions table and is not processed further. Below, you will find the Exceptions Reasons Flow Chart (Figure 3) and the Exceptions Reasons codes to help you identify why your message was exceptioned.

Exceptioned messages are directed to the site Exceptions table when one or more of the following conditions are met:

- Code 1: Message did not include valid C_Unique_Patient_ID
- Code 2: Message did not include valid C_Visit_Date_Time
- Code 3: Message did not include C_Facility_ID
- Code 4: C_Facility_ID was not found on the Operational Crosswalk
- Code 5: C_Facility_ID was not an active facility at time of message processing
- Code 6: Site_ID is null
- Code 7: <Site> Raw tablename Parameter is null
- Code 8: Message ArrivedDatetime is null or invalid
- Code 9: Create_Raw_Date_Time is null or invalid
- Code 10: Invalid Message ID
- Code 11: C_Visit_Date_Time is set in the future
- Code 12: Invalid Site Raw tablename Parameter to Stored Procedure
- Code 13: Missing MSH4_Sending_Facility
- Code 98: Site-confirmed facility exclusion
- Code 99: PHIN MS Site confirmed facility exclusion (Legacy only)



Figure 3. Exceptions Reason Flow Chart

In Figure 3, you can see that two events occur if the raw message can be processed:

- The Raw Message Table is updated to show "Processing Status" equal 'Pass'; and
- The record is submitted for further testing to see if it meets the criteria for ingestion into ESSENCE.

1.1 Daily Processing Summary

This section provides an overview of your site's data processing, including the number and percent of processed, exceptioned, and filtered messages (Figure 4). The BioSense Platform calculates the percent of messages using the total number of messages successfully inserted into the Raw table for your site as the denominator. This section assesses messages with an arrived date time as specified in the table footnote.

Processed Messages	Messages Sent to Exceptions	Filtered Messages
# (%)	# (%)	# (%)

The table summarizes information for data that arrived on the platform between <YYYY-MM-DD> <HH:MM:SS UTC> and <YYYY-MM-DD> <HH:MM:SS UTC>.

Figure 4. Daily Processing Summary

Use the Daily Processing Summary to identify whether data arrive on the BioSense Platform as expected and if there are high volumes of filtered or exceptioned messages.

1.2 Daily Filtered Records

This section shows percent and number of filtered messages for each specified filter reason (Figure 5). The percent is calculated as the number of messages filtered for a specified reason over the total number of filtered messages for your site during the date range specified in the table footnote.

Filter Reason	Percent and Number of Records			
Filter reason description	% (#)			
Site Total	100% (#)			
The table summarizes information for data that arrived on the platform between <yyyy-mm-dd> <hh:mm:ss< td=""></hh:mm:ss<></yyyy-mm-dd>				
UTC> and <yyyy-mm-dd> <hh:mm:ss td="" utc<=""><td></td></hh:mm:ss></yyyy-mm-dd>				

Figure 5. Daily Filtered Records

Only the filter reasons triggered for your site will be provided in this table (e.g., if no messages are filtered for Filter Reason 1, a row for Filter Reason 1 will not appear). If no records were filtered, this table is not displayed. Instead, there will be a

1.2 Daily Filtered Records There are no filtered records for XX on YYYY-MM-DD.

Figure 6. Message if no records were filtered

notice stating no records were filtered on this date (Figure 6).

You can use the following query to get additional information about your site's filtered messages:

SELECT Feed_Name, Arrived_Date, Filter_Reason, Count(*) AS Filtered_Messages FROM [BioSense_Platform].[dbo].[<Site>_PR_Raw] WHERE Arrived_Date between '<YYYY-MM-DD>' and '<YYYY-MM-DD>' and Message_Status='Filtered' GROUP BY Filter_Reason, Feed_Name, Arrived_Date ORDER BY Feed_Name, Arrived_Date

Use the filtered messages query to identify which feeds sent data that is being filtered. Complete the query with your <Site> name and desired date range for analysis.

1.3 Daily Exceptions Records

This section provides information on the type, percent, and number of exceptioned messages for your site and the number of contributing unique C_Facility_IDs. The percent is calculated by using the number of messages exceptioned for a specified reason over the total number of exceptioned messages for your site during the date range specified in the table footnote.

Only the exceptions reasons that your site triggers will be provided in this table (e.g., if no message has Exceptions Reason 1, no row will be shown for Exceptions Reason 1). If there are no exceptions records to report, the table is not displayed, and instead there will be a notice stating that there were no exceptioned records for your site on this date (see Figure 7).

The number of unique C_Facility_IDs associated with each exceptions reason indicates the scope of facilities affected. If the number of unique C_Facility_IDs is "N/A," this indicates that no C_Facility_ID information is available for a specified exceptions reason.

Exceptions Reason	Percent and Number of Records	Number of Unique C_Facility_IDs	
Exceptions reason	% (#)	#	
description	70 (π)		
Site Total # and %	100	0% (#)	
This table summarizes information for data that arrived on the BioSense Platform between <yyyy-mm-dd></yyyy-mm-dd>			

<HH:MM:SS UTC> and <YYYY-MM-DD> <HH:MM:SS UTC>.

Note: Since a record may have more than one exceptions reason, this section's total count may be more than the Messages Sent to Exceptions count in Section 1.1.

Figure 7. Daily Exceptions Records

You can use the following query to get additional information on your site's exceptioned messages:

SELECT a.Feed_Name, CAST(Arrived_Date_Time AS DATE) AS Arrived_Date, a.C_Biosense_Facility_ID, Facility_Display_Name, a.Sending_Facility_ID, Exceptions_Reason_Code, COUNT(a.Message_ID) AS Message_Count FROM [BioSense_Platform].[dbo].[<Site>_PR_Except] a JOIN [BioSense_Platform].[dbo].[<Site>_PR_Except_Reason] b ON a.Message_ID = b.Message_ID JOIN [Master_Profile].[dbo].[Facility_Master] c ON c.C_Biosense_Facility_ID= a.C_Biosense_Facility_ID WHERE CAST(Arrived_Date_Time AS DATE) between '<YYYY-MM-DD>' and '<YYYY-MM-DD>' GROUP BY a.Feed_Name, CAST(Arrived_Date_Time AS DATE), Exceptions_Reason_Code, a.C_Biosense_Facility_ID, Facility_Display_Name, a.Sending_Facility_ID ORDER BY Feed_Name, Arrived_Date, C_Biosense_Facility_ID, Sending_Facility_ID

Use the exceptioned messages query to identify which feeds and facilities are sending data that are being exceptioned. Complete the query with your **<Site>** name and desired date range for analysis.

1.4 Daily Production Data Flow Backlog Metrics

This section shows, step-by-step, the messages in queue for your site that are processing within the BioSense Platform. The total backlog counts for the BioSense Platform provide a frame of reference to indicate overall system processing bandwidth. It contains metrics at the point in time specified in the table footnote, while the BioSense Platform continually processes data throughout the day.

Key data processing steps include:

- 1. Moving data from the Raw table to the Processed table
- 2. Moving data from the Processed table to the ESSENCE Ingestion table (ER_Import_Staging)
- 3. Moving data through the ESSENCE application
 - a. Collapsing messages into visits (ESSENCE Ingestion table to ESSENCE Collapsed Visit table)
 - b. Posting data from the Collapsed Visit table to the ESSENCE Web application (Web Front End)

Site	In Raw; Not Yet in Processed	In Processed; Not Yet in ESSENCE Ingestion Table	In ESSENCE Ingestion Table; Not Yet in Collapsed Visit Table	In Collapsed Visit Table; Not Yet in Web Front End (visit count)	
Site short name	#	#	#	N/A*	
BioSense Platform Total	#	#	#	#	
The table summarizes the BioSense Platform status as of <yyyy-mm-dd> <hh:mm:ss utc="">.</hh:mm:ss></yyyy-mm-dd>					
*The number of visits waiting to be processed from the Collapsed Visit table to the ESSENCE Web application is not available on a "per-site" basis. "N/A" does not mean that your site does not have data waiting to be processed.					

Figure 8. Daily Production Data Flow Backlog Metrics

Note: The "In Collapsed Visit Table; Not Yet in Web Front End" metric (Figure 8) is only available at the BioSense Platform level.

1.5 Weekly Summary of New Active Facilities

This section describes facilities for the site that have completed the approval and activation process in the AMC MFT during the previous week. The BioSense Platform Totals are included to reflect the larger work of NSSP in onboarding new facilities across all sites (Figure 9).

Site	Facility Name	BioSense Facility ID	Date Activated	Most Recent Message Arrived_Date (in Production)
Site short name	Facility name	C_BioSenseFacility_ID	YYYY-MM- DD	YYYY-MM-DD HH:MM:SS UTC
Site Total	#	N/A	N/A	N/A
BioSense Platform Total	#	N/A	N/A	N/A

The table summarizes information for facilities that were activated between <YYYY-MM-DD> <HH:MM:SS UTC> and <YYYY-MM-DD> <HH:MM:SS UTC>.

Figure 9. Weekly Summary of New Active Facilities

When the site administrator changes the facility status from "Onboarding" to "Active" in the AMC MFT, further review is required by the NSSP team before data can be accepted for processing in the Production environment. After the NSSP team performs the appropriate data quality checks, they will approve the facility and ensure the facility's data will process successfully when the facility begins sending data to the Production environment.

Please refer to the *BioSense Platform Quick Start Guide to Using the Master Facility Table*, located in the Master Facility Table, page for more information on the facility review process.

1.6 Weekly Summary of Facilities Pending Activation

The table in this section (Figure 10) describes facilities that have not yet completed the approval and activation process in the AMC MFT. This table also reflects the status of data submission in the Staging environment (where data quality checks for new facilities are performed) and whether data are being sent to the Production environment (where data will be triaged to exceptions until the facility completes the review and approval process). Site and BioSense Platform totals are included to reflect the larger work of NSSP to onboard new facilities across all sites.

If no facilities are pending activation, the table will not be displayed. Instead, a statement saying that there are no facilities pending activation is shown.

Site	Facility Name	BioSense Facility ID	Most Recent Message Arrived_Date (in Staging)	Sending to Production?
Site short name	Facility name	C_BioSenseFacility_ID	YYYY-MM-DD HH:MM:SS UTC	Y or N
Site Total	#			
BioSense Platform Total	#			

The table summarizes information for facilities pending activation as of <YYYY-MM-DD> <HH:MM:SS UTC>. "Sending to Production?" indicates whether facilities pending activation have prematurely sent data to Production between <YYYY-MM-DD> <HH:MM:SS UTC> and <YYYY-MM-DD> <HH:MM:SS UTC>.

Figure 10. Weekly Summary of Facilities Pending Activation

While the NSSP team performs data quality checks, no data from these facilities will be eligible for processing. The NSSP team strives to perform checks and provide feedback as quickly as possible to minimize the number of facilities pending review and activation. Refer to the *BioSense Platform Quick Start Guide to Using the Master Facility Table*, located in the Master Facility Table, page for information about the facility review process.

2. Feed/Facility Alerts

The Feed/Facility Alert section provides facility-level information about successfully processed messages. The Daily Facility Alerts report is helpful for spotting potential outages. The weekly Anomalies reports appearing in the Monday email are helpful for identifying unusual Feed and Facility visit and record volume anomalies.

2.1 Daily Facility Alerts—Source: Processed Table

The Daily Facility Alerts report includes information about facilities for which data have not been successfully written to your site's Processed table for longer than a specified alert threshold.

This report references the facility-specific threshold parameter for the primary facility in the MFT. When the hours since the last data were received in your Processed table exceed that threshold, the feed and facility will be shown in the Daily Facility Alerts table. **Note:** Site administrators are responsible for setting the facility alert thresholds in the AMC MFT. Site administrators can update alert thresholds at any time.

Entries in this report's table could reflect a complete or partial feed outage. If the entire feed has been down longer than the threshold limit, all facilities in the feed will be listed in this table. Otherwise, only the facilities in the feed that have exceeded the threshold will be listed (Figure 11).

Note: Keep in mind that this table may reflect an issue with Filtered or Exceptioned data that have been triaged due to processing errors.

Feed Name	Facility Name	BioSense Facility ID	Last Message Arrived_Date	Number of Days without Data*	Alert Threshold
Feed name	Facility name	C_BioSenseFacility_ID	YYYY-MM-DD HH:MM:SS UTC	# day(s) - # hour(s)	# hours

The table summarizes information for data written to the Processed table as of <YYYY-MM-DD> <HH:MM:SS UTC>.

*The number of days without data is calculated as the difference between <YYYY-MM-DD> <HH:MM:SS UTC> and the most recent arrived_date_time (UTC) for successfully processed data for the indicated facility (as reflected in your Processed table). For newly active facilities that do not have successfully processed data, the number of days without data is calculated as the difference between <YYYY-MM-DD> <23:59:59 UTC> (on the previous day) and the site's activation date (date activated) in the MFT.

Figure 11. Daily Facility Alerts

Calculating a value for the Number of Days without Data to use for the Daily Facility Alerts

For facilities with successfully processed data—Days without data are calculated as the difference between *<YYYY-MM-DD> <23:59:59 UTC>* on the day before the report and the most recent processed data (based on arrived_date_time), as reflected in your Processed table. If the number of days without data exceeds the alert threshold for a primary facility, that facility and its feed will appear in this table.

For newly active facilities that do not have successfully processed data—The number of days without data is calculated as the difference between *<YYYY-MM-DD> <23:59:59 UTC>* (on the previous day) and the site's activation date (date_activated) shown in the MFT. If the number of days without data exceeds the alert threshold, that facility will appear in this table.

2.2 Weekly Feed and Facility Visit Volume Anomalies

This section lists feeds and facilities with unusual daily visit volume activity for the previous week. Any daily visit count more than two standard deviations above or below the average expected visit count is considered unusual.

NSSP calculates the expected visit count by averaging visits for each day of the week within the past sixweek period (e.g., the expected visits for a Monday would be the average visits from the previous six Mondays). But first, an overall calculation is made for all visit data in a feed. This calculation is listed with a facility name of "Overall" whether it meets the criterion for an anomaly or not. If the total visit count is not considered unusual, the Activity is shown as N/A (Figure 12).

In addition, only feeds and facilities that have been sending data to the BioSense Platform for at least 90 days are analyzed. Newly activated feeds and facilities are not considered.

Feed	Facility Name	BioSense Facility ID	Expected Value (Average by Day of Week)	Actual Value	Visit Date	Activity
Feed name	Overall	N/A	#	#	Day of week YYYY-MM-DD	N/A, High or Low
Feed name	Facility ID — Facility name	C_BioSense_ Facility_ID	#	#	Day of week YYYY-MM-DD	High or Low

The table summarizes information for visits between <YYYY-MM-DD> <HH:MM:SS UTC> and <YYYY-MM-DD> <HH:MM:SS UTC>. The Activity flag is defined as an instance where the actual value for a given visit date is 2+ standard deviations above or below the expected value for that day of the week (using the average from the previous six weeks).

Figure 12. Weekly Feed and Facility Visit Volume Anomalies

Here are details of how the values for this table are calculated:

Column Name	Description
Expected Value	Average of daily visit counts (by day of week) for the preceding six weeks, not including the week before the report was generated (e.g., for Monday visits, the expected value is the average number of visits across the preceding six Mondays only).
StDev_6wk (Column not displayed)	A sample standard deviation is calculated at the feed and facility level for each day of week using the preceding six weeks daily message count (e.g., for Monday, this value is calculated using the message count for each Monday in the past six weeks).
Actual Value	Visit count (by day of week) from the week immediately preceding report generation
Visit Date	Day of week is displayed over the C_visit_date
Activity	Populated "High" when value in the Actual Value column is greater than the sum of Expected Value and 2 * StDev_6wk.
	Populated "Low" when the value in the Actual Value column is less than the difference between the Expected Value and 2 * StDev_6wk.
	"N/A" indicates that a feed overall, does not have visit count anomalies; but, facilities within the feed may.

2.3 Weekly Site Record Volume Anomalies

This section reports unusual message activity experienced at the site level during the past week. Message volume more than two standard deviations above or below the average volume for the past six weeks is considered unusual.

NSSP determines expected message volume by calculating the average weekly number of messages received by the site over the last six weeks and the standard deviation for this range. the system then compares the average number of messages received for the current week to the six-week average plus or minus 2 standard deviations to determine if message count pattern has significantly changed (Figure 13).

Site	Expected Value (Weekly Average)	Actual Value	Activity
Site short name	#	#	High or Low
The table summarizes information for data that arrived on the platform between <yyyy-mm-dd> <hh:mm:ss< td=""></hh:mm:ss<></yyyy-mm-dd>			

UTC> and <YYYY-MM-DD> <HH:MM:SS UTC>. The Activity flag is defined as an instance where the actual value is 2+ standard deviations above or below the expected value (averaged across previous 6 weeks).

Figure 13. Weekly Site Record Volume Anomalies

Here's how this table is populated:

Column Name	Description
Expected Value	Average of weekly message counts for the preceding six weeks prior to the past week.
StDev_6wk (Column not displayed)	The sample standard deviation is calculated at site level using the site weekly message counts for the six weeks prior to the past week.
Actual Value	Total across the most recent seven days as specified by the dates and times in the note below the table.
Activity	Populated "High" when value in the Actual Value column is greater than the sum of Expected Value and 2 * StDev_6wk
	Populated "Low" when the value in the Actual Value column is less than the difference between the Expected Value and 2 * StDev_6wk

Appendix: Summary Calculations Detail

Contents of the Daily Site Summary email are determined by underlying data evaluation procedures. Table 1 provides a high-level description of the procedures used to populate each section. Data are drawn from the underlying data table(s) during a specified "Data Inclusion Timeframe." Messages sent or processed outside of the section's Data Inclusion Timeframe will not be included in the Summary email. (**Note:** To change from Coordinated Universal Time [UTC] to your time zone, use any one of the online converters, such as the <u>Google UTC time converter</u>.)

Table 1. Procedures for Populating Daily Site Summary			
Section	Procedure Description	Data Inclusion Timeframe	
1.1	Produces aggregate message counts against the XX_Raw and XX_Processed tables at the site, feed, and facility (XX_Processed only) levels by message and visit date.	Data that arrived between 00:00 – 23:59 UTC of the previous day.	
1.2	Produces aggregate message counts against the XX_Raw and XX_Processed tables at the site, feed, and facility (XX_Processed only) levels by message and visit date.	Data that arrived between 00:00 – 23:59 UTC of the previous day.	
1.3	Produces aggregate message counts against the XX_Exceptions and XX_Exceptions_Reason tables.	Data that arrived between 00:00 – 23:59 UTC of the previous day.	
1.4	Produces aggregate message counts awaiting processing across the BioSense Platform (XX_Raw, XX_Processed, ESSENCE Ingestion, Collapsed Visit, and Web tables).	BioSense Platform status as of 11:00 UTC of the current day.	
1.5	Produces a summary table containing the maximum arrived date and visit date in XX_Processed table for all active, primary facilities in the Master Facility Table (MFT).	Data written to the Processed table as of 23:59 UTC of the previous day.	
1.6	Data are collected when the Daily Site Summary email is generated. Facilities are identified from the MFT, and data submission status is obtained from the XX_Processed table in Staging and the XX_Exceptions table in Production.	Data written to the Staging Processed table as of 23:59 UTC, and data written to the Production Exceptions table between Monday 00:00 UTC and Sunday 23:59 UTC of the previous week.	
2.1	Produces a summary table containing the maximum arrived date and visit date in XX_Processed table for all active, primary facilities in the MFT. Alerts are derived from additional calculations against these data, as described later in this document.	Data written to the Processed table as of 23:59 UTC of the previous day.	

Table 1. Procedures for Populating Daily Site Summary continued			
Section	Procedure Description	Data Inclusion Timeframe	
2.2	Produces aggregate message counts against the XX_Raw and XX_Processed tables at the feed and facility (XX_Processed only) levels by message and visit date. Visit counts and anomaly detection are performed against the XX_Processed data.	Data written to the Processed table between Monday 00:00 UTC and Sunday 23:59 UTC of the previous week.	
2.3	Produces aggregate message counts against the XX_Raw and XX_Processed tables at the site level by message and visit date. Record counts and anomaly detection are performed against the XX_Raw data.	Data that arrived between Monday 00:00 UTC and Sunday 23:59 UTC of the previous week.	