

## Companion Guide to the BioSense Platform Master Facility Table

Data Storage and Collection Tool

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



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#### **Companion Guide to the BioSense Platform Master Facility Table** *Data Storage and Collection Tool*

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# Companion Guide **to the** BioSense Platform Master Facility Table

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This Companion Guide to the BioSense Platform Master Facility Table provides additional information about how to enter data for unique scenarios in which multiple facility types, facility names, and facility locations exist.

Once you understand how the BioSense Platform stores and processes data, you can make better decisions when first populating the Master Facility Table (MFT).

The accompanying Excel file includes detailed information about the content of the MFT. The MFT is a temporary tool that will be replaced with an online Facility Administration Tool.

## Overview

The **Master Facility Table (MFT)** is a SQL table housed on the BioSense Platform. It contains site-specific information that will be part of your syndromic surveillance messages. These messages are critical to getting an accurate health picture and for identifying outbreaks, monitoring trends, and detecting environmental hazards.

The MFT includes information such as unique facility identifier, facility name, facility location, and facility type. Whenever incoming messages are processed on the BioSense Platform, the facility identifier in the message will link the record with an MFT entry. Characteristics of the MFT entry (e.g., name, location, and facility type) are pulled from the MFT and used to process incoming data. In addition, the MFT provides rich information that can be used to assess data representativeness<sup>1</sup> and designates the type of facilities currently reflected in data feeds.

The site-specific **Master Facility Table (MFT) Template** is an Excel version of the MFT and contains information about every facility associated with a specific site. A **Crosswalk** is a table used to associate related (and historic) facility identifiers with current identifiers in the MFT Excel Template.

**Facilities** are entities that collect prediagnostic data. Examples include inpatient practice settings; emergency, urgent, and primary care; and medical specialty clinics. A **site** is the *administrative authority* that has a relationship with the facilities. Each site's MFT includes a unique site identifier for each facility listed. The site identifier indicates which facilities are associated with the site, regardless of a facility's physical location. One or more **site administrators** will manage the relationship between the site and its associated facilities.

The National Syndromic Surveillance Program (NSSP) Team will work closely with your site personnel to establish a baseline MFT free of duplication or conflictual information. An NSSP team member will be dedicated to assist your site. This **MFT support liaison** will work closely with your site administrators (admins) to answer questions, complete entries for missing data, and assist with logistics throughout the MFT's development.

The goal of this collaborative process is to ensure facilities that have a relationship with a particular site are **registered**, with **one identifier per facility**, and that the correct characteristics are recorded in a site-specific MFT. The process begins by completing a blank MFT **template**. Each facility will occupy its own row on the MFT template. Once the template is completed and a baseline MFT established, each site will maintain its own MFT and use it to ensure consistent message processing across affiliated facilities.

Although the requisite information needed to complete the MFT is contained within the template, this *Companion Guide to the BioSense Platform Master Facility Table* will help you understand the rationale for the information being collecting. This guide provides examples and nice-to-know information to help you understand the utility of gathering these data.

<sup>&</sup>lt;sup>1</sup> Data representativeness refers to the National Syndromic Surveillance Program (NSSP) BioSense Platform's ability to capture data over time that accurately reflects health events for defined geographic areas and populations. For information about NSSP data representativeness, see: Coates R, Pérez A, Baer A, Zhou H, English R, Coletta M, Dey A. National and regional representativeness of hospital emergency department visit data in the National Syndromic Surveillance Program, United States, 2014. Disaster Med Public Health Preparedness. 2016;10(4):562-569. <u>https://doi.org/10.1017/dmp.2015.181</u>

# Getting Started: The MFT Worksheet at a Glance

The Master Facility Table (MFT) Template is an Excel workbook that includes worksheets describing the layout of the Excel tool, column definitions for the MFT, and whatever is known about the Site Contacts.

The template contains the following worksheets:

- Contents
- Maintenance
- Master Facility Table (MFT)
- MFT Columns
- Site Contacts (and additional Site Contacts Columns)
- Feed Contact (and additional Feed Contact Columns)
- Feed Profile (and additional Feed Profile Columns)

This document will focus on the MFT worksheet.

The **MFT worksheet** captures critical information about the site, facilities, and feeds. To understand what information should be input into each field, the MFT Columns worksheet details each field requirement. Some MFT worksheet column headers are in red to indicate *required* fields, which are listed below:

- Site\_ID
- FacilityID\_UUID
- Site Input
- Status

- Facility\_Country
- Facility\_Name
   Facility\_Type
  - \_Address Primary\_Facility
- Facility\_Street\_Address F Facility\_City F
  - FacType\_Primary

Facility Zip

Among the required fields, several are particularly helpful to understand before you begin entering data:

Facility\_State or State\_FIPS

Facility County or County FIPS

- FacilityID\_UUID (Column D)—The facilityID\_UUID represents the unique identifier used by the facility. This value must be included in the HL7 messages submitted to NSSP—typically located in the Treating Facility ID field (EVN-7.2) but may also be included in the Sending Facility ID fields (MSH-4.2 or MSH-4.1). There can be only a single ID for each facility name.
- Status (Column F in MFT worksheet)—Site admins should indicate whether or not their sites send data to the NSSP BioSense Platform *for each facility*. In addition, site administrators may consider adding entries for facilities in various planning stages but not officially Active. The Status column includes options that may be selected to define the current state of the facility represented in an MFT entry.



#### Site Concept and Site Contacts

Each site has a *single entry* registered in the Site Contacts worksheet. This entry includes site characteristics such as Site Identifier, Name, Activation Status, Timeframe, and Mode of Transmission for sending data. (Note. NSSP uses a random identifier to assign the Site Identifier.) The Site Identifier will become an integral part of managing data access and **ESSENCE** system functionality. Refer to Role of the Site Identifier for additional information.

- Facility Type (Column V)—Every facility should be attributed by at least one of five standardized facility types:
  - o Emergency Care
  - o Urgent Care
  - o Primary Care
  - o Inpatient Practice Setting
  - o Medical Specialty

Facilities with more than one type can be duplicated and assigned an Nth facility type. In instances where multiple types are associated with a single facility, sites should indicate which facility type is *primary* (column W) to create, in a sense, a default value for each facility.

- Primary Flag (Column W)—The Primary\_Facility flag should be updated accordingly for facility entries. This is particularly important for entries with duplicate facility identifiers in FacilityID\_UUID (Column D). Only one of the duplicates can be set to a Primary\_Facility value of Y. All others are required to be N.
- AHA\_ID (Column AA)—CDC uses American Hospital Association (AHA) data to estimate percentage of ED facilities and ED visits. CDC will provide an AHA-based report with a list of emergency departments in your geographic area that can be used as a reference to find your AHA ID and transcribe it to the AHA ID field of the MFT.
- **Comments** (Column AF)—This column is for relevant notes. The column may also be useful for highlighting changes made by using the fill color feature to highlight relevant cells.

**Note.** After the site administrator has entered information for all facilities that submit (or plan to submit) data through the site, the site administrator should email an updated MFT template to the MFT support liaison. The MFT support liaison will review the MFT and work with the site administrator to correct the MFT, if needed. **This collaboration between the site administrator and MFT support liaison establishes the baseline MFT for the site.** Moving forward, the site administrator will work with the NSSP Onboarding Team to coordinate MFT additions or updates to the site's MFT by submitting a ticket to the NSSP Service Desk.

#### Role of the Site Identifier

The Site Identifier (ID) is critical. The MFT uses the Site ID to function, and ESSENCE uses it to access data. Put simply, a Site ID reflects whatever site serves as the *administrative authority* for a particular facility. A Site ID will be assigned to each MFT entry and to the facility represented in that **row of the MFT**. The Site ID in the MFT tags all facilities associated with the site, regardless of the facility location. For example, some sites support facilities in border states; consequently, the state location of the facility will differ from the state location of the site.

The Site ID (in the MFT) will be used to identify facilities associated with the site and is essential for controlling data access—regardless of the state location of the facility. For example, ESSENCE uses the Site ID to associate BioSense Platform users with their affiliate facility; with their affiliate site (also called the *administrative authority*); and, in some instances, with other sites with which they have a relationship.<sup>2</sup> Such control measures prevent the Platform user from looking at data by patient *location* and seeing data from a different site's facilities.

<sup>&</sup>lt;sup>2</sup> Site administrators can set up user groups when data must be shared across sites to improve situational awareness, facilitate special projects, and monitor emerging events.

# The Crosswalk and Data Processing into ESSENCE

A **Crosswalk** is a table used to associate related or historic facility identifiers with current identifiers found in the MFT Excel Template. A facility identifier (ID) Crosswalk occurs as data are processed into ESSENCE. By using this Crosswalk, historic facility IDs are mapped to the current or unique Facility ID. The Crosswalk reconciles historic data, also called "legacy data," against the current MFT. However, the Crosswalk will also be applied when processing new data, particularly if incoming data include identifiers that are not in the MFT.

Facilities submit messages to NSSP that contain the unique ID either in the Treating Facility ID (EVN-7.2) field of the HL7 message or in the Sending Facility fields (MSH-4.2 or MSH-4.1). If your site has historic data or legacy data, C\_Facility\_ID will be generated by prepending a winning Facility ID with the SiteID of the current record. To assign the "winning<sup>3</sup>" Facility ID, the system will return the first non-null and value from the two fields:

- Treating\_Facility\_ID (EVN-7.2)
- Sending\_Facility (MSH-4.2 or 4.1)

A **valid value** is one that is found on the MFT and Crosswalk by comparing the facility value in the message to the Facility IDs associated with the site. If the value exists, then C\_Facility\_ID is set to that facility value (source of that calculation is stored in the C\_Facility\_ID\_Source field).

If no valid values are found, C\_Facility\_ID will be written as the first non-null value, and the record will be written to exceptions. If the winning Facility ID is invalid (for example, it is set to Planned), this will be treated as an exception, even if the MSH-4 is valid with a valid status.



#### **The Import Process**

The NSSP liaison will work closely with the site to ensure data stored in the site's Excel-based MFT is imported into the MFT infrastructure stored on the BioSense Platform. The correct importation of MFT data will ensure that the ESSENCE data flow is implemented correctly. Data will be imported into an MS SQL table for easy access via the Adminer tool.

<sup>&</sup>lt;sup>3</sup> What is a "winning" ID? The system takes the first value from EVN7.2. If the value is *not valid*, then the system looks at MSH-4.2. If it is *not valid*, then the system looks at MSH-4.1. When the system comes across a valid value, it assigns this as a "winning" value and will not look at the subsequent fields.

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## How to Use MFT Field Descriptions for Unique Scenarios

The MFT support liaison will provide a blank MFT template to the site administrator and explain how it should be completed. Several of the required fields need information that can be furnished in different ways and, therefore, should be well understood at the onset. The field descriptions that follow apply to several worksheets.

### Worksheet Basics

#### **Controlled Entry Columns Indicator**

The MFT Columns worksheet indicates whether the column is controlled via a standard drop-down list. Refer to the screenshot shown below (Controlled Entry via Drop Downs). Values include the following:

- Yes: Entry controlled by drop-down list of preset values
- No: Free-form entry



#### Standard Drop-down Lists and Other Standard References

Both the MFT Columns worksheet and Site Contacts Columns worksheet have drop-down menus. By clicking on the column titled Column Values, anyone using the MFT worksheet can see the values associated with that particular column. In addition, references to pertinent standards are included (e.g., Federal Information Processing Standard [FIPS] codes). Refer to Column\_Values (screenshot shown below).

|             | Ma            | ster Facility Table Columns       |              |               |
|-------------|---------------|-----------------------------------|--------------|---------------|
| Column_Name | Description 👻 | Controlled Entry via Drop Downs 👻 | Populated_By | Column_Values |

**Note.** Some columns are associated with standards but *do not* have a controlled drop-down list (e.g., FIPS codes). The NSSP plans to include controlled entry for all standard-based columns in a future update.

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#### What Value does the Master Facility Table Add?

- Standardizes facility entries across sites
- Collects additional facility information
- Enhances downstream processing
- Makes data transparent and available to BioSense Platform users

## Highlights of Key Columns

#### FacilityID\_UUID

A unique facility identifier (FacilityID\_UUID) is associated with each facility on the MFT and will be used in later processing. The unique facility identifier must be present in the Treating Facility ID (EVN-7.2) or in the Sending Facility fields (MSH-4.2 or MSH-4.1) of every HL7 message submitted by the facility. The unique facility identifier must also be registered on the MFT. Enter all your facilities regardless of the message segment being used to carry the facility identifier. Each primary facility may only have one current facilityID\_UUID in the MFT. Historic facility identifiers may be mapped to this current or unique facility identifier through the Crosswalk.

#### **Facility Type**

Facility types include emergency care, inpatient practice, and ambulatory care. Facility types associated with specific facilities are captured in the MFT's standardized facility type column. Consider this an opportunity to register all facility types associated with a single facility identifier and to provide information about patient visit settings reflective of that facility's data. Essentially, *facility type* becomes part of your facility metadata.

In addition, the facility type assigned to a facility entry in the MFT might be useful in future processing flows. For example, facility type can be used with the facility identifier to form *alternate* facility identifiers called *processed facility identifiers*. The alternate identifier may be helpful when you want to uniquely identify an MFT facility entry based on the identifier and facility type because the same facility identifier represents different facility locations for different facility type settings.

Make sure ALL entries in the MFT contain a facility type that meets one of the standard facility type values. The goal is to update each entry in the Facility\_Type column with a *standard facility type value*.

Update the Facility\_Type and select the standard value from the list below:

Emergency Care Inpatient practice setting Ambulatory codes: Medical Specialty Primary Care Urgent Care

#### Multiple Facility Types, Same Identifier

A facility may be associated with more than one facility type, where the facility identifier is the same regardless of the facility type. For example, a facility may send messages for both emergency and inpatient. Separate MFT entries for each facility type are necessary due to potential of name or location differences. In such cases, when the facility identifier for the facility is unique to each facility type, each of the unique facility identifiers should be added to the MFT as separate entries (rows). The MFT entry should include the facility type and other facility characteristics associated with the identifier.

Consider the following example in which City Center facility covers both emergency and inpatient facility types. Here, the identifier (77777) associated with the emergency facility type **differs** from the identifier (44444) associated with the inpatient facility type:

|   | D             | E                               | J                 |       | Т | U           | V                          | W            |   |
|---|---------------|---------------------------------|-------------------|-------|---|-------------|----------------------------|--------------|---|
|   |               | Site_Input<br>(1=Keep<br>2=Drop |                   |       |   |             |                            |              |   |
| ٢ | FacilityID_UU | 3=Add) 💌                        | Facility_Name     | v     | v | Local_Facil | Facility_Type              | Primary_Faci | 5 |
|   | 77777         | 1 = Keep                        | City Center ER    |       |   | ED          | Emergency Care             | Y            |   |
|   | 44444         | 1 = Keep                        | City Center Inpat | tient | t | Hospital IP | Inpatient Practice Setting | Y            |   |
|   | K             |                                 |                   | 1     |   |             | K                          | l,           |   |

This process is straightforward when the identifier is unique for each facility type. Sometimes, however, a facility with multiple facility types does *not* have a unique facility identifier for each facility type and, instead, uses the same identifier across facility types. Here are the steps you would take to add multiple facility types associated with the same facility identifier:

- 1. Add a new MFT entry (row) for each of the facility types associated with the same identifier. Update the Site\_Input column to "Add" for each new entry.
- 2. Update the facility\_type and other characteristics.
- 3. Set the Primary\_Facility flag to "Y" (yes) for only one of the duplicate entries.
- 4. Set the Primary\_Facility flag to "N" (no) for the other duplicate entries.

**Note.** The Primary\_Facility column should identify the duplicate entry considered the primary entry. The primary entry will be used in forming alternate facility and visit identifiers when visit-level data are insufficient to determine the patient class setting by identifying a primary facility type for each MFT entry. The alternate facility and visit identifiers—called *processed identifiers*—are supplemental fields that offer flexible approaches to querying and summarizing data.

#### Example

Consider again the following example. This time, the facility identifiers for City Center's facility types are the same. An entry exists for emergency but not for inpatient. An entry is added to support the inpatient facility type. The emergency care facility type entry is selected as the primary default entry.

| υ             | E  |            | J            |                       | U       | V                  |         | VV               |  |
|---------------|--|------------|--------------|-----------------------|---------|--------------------|---------|------------------|--|
| FacilityID UU | Site_Inpu<br>(1=Keep<br>2=Drop<br>3=Add) | t<br>Facil | ity Name     | -                     | f Local | Facility Type      | ¥       | Primary Facility |  |
| 77777         | 1=Keep                                   | City       | Center ER    |                       | ED      | Emergency Care     |         | Y                |  |
| 77777         | 3 = Add                                  | City       | Center Inpat | ient                  | IP.     | Inpatient Practice | Setting | N                |  |
|               |  |            |              | and the second second | K       | K                  |         |                  |  |

#### Multiple Facility Names or Locations, Same Identifier

In some instances, the same facility identifier will be associated with facilities that are physically *different*. That is, the same identifier will represent more than one facility, whereas each facility might have different names or locations but have the same facility type. This is not ideal. Where possible, facility feeds should be set up so that each unique facility has a unique identifier.

In situations where the same identifier reflects different locations, registration of all entries in the MFT is essential. The records must show that a particular identifier represents more than one facility. That said, if duplicates have the same facility type, perhaps little can be done in downstream processing to discern which MFT entry is applicable. Still, always register the facilities in the MFT so that you have on record that the same identifier may represent geographically different facilities.

To avoid having duplicate facility types rejected, the MFT primary flag feature can be used to discern between MFT entries. Here are the steps for determining which MFT entries will be used in downstream processing:

- 1. Add a new MFT entry (row) for each of the facilities associated with the same identifier. Update the Site\_Input column to "Add" for each new entry.
- 2. Update the facility\_type and other required characteristics.
- 3. Set the Primary\_Facility flag to "Y" (yes) for only one of the duplicate entries.
- 4. Set the Primary\_Facility flag to "N" (no) for the other duplicate entries.

#### Example

Refer to the following example in which identifier 77777 represents three different facilities, located in different parts of a metro area, with each containing the same facility type. Each entry is logged in the MFT. The "City Center ER" is selected as the primary facility so that *only this entry will be reflected in downstream processing*. All incoming messages with facility identifier 77777 will be associated with the MFT entry for "City Center ER."

| D             | E   | J               | T U   | V              | W                |
|---------------|---|-----------------|-------|----------------|------------------|
| FacilityID UU | Site_Input<br>(1=Keep<br>2=Drop<br>3=Add) | Facility Name   | Local | Facility Type  | Primary Facility |
| 77777         | 1 = Keep                                  | City Center ER  | ED    | Emergency Care | Y                |
| 77777         | 3 = Add                                   | East Metro ER   | ED    | Emergency Care | N                |
| 77777         | 3 = Add                                   | West Metro ER 🍗 | ED    | Emergency Care | N                |
|               |   |                 |       |                |                  |

#### Multiple Facility Types, Same Identifier, Facility Types Duplicated

There may be other rare instances in which a facility with multiple facility types does *not* support unique facility identifiers per each facility type and where multiple facility types are duplicated. In such instances, the FacType\_Primary column can be used to identify which of the same facility type entries is considered primary. (**Note**. if you do not have any situation where the same identifier supports different facilities with the same facility type, this field is optional.)

#### Example

Refer to the following example in which identifier 77777 represents four different facilities of different facility types, with specific facility types duplicated. The Primary\_Facility identifies the overall default facility. The FacType\_Primary reflects the primary facility for the duplicate facility types.

| )(FacilityID_UUID | Site_Input<br>(1=Keep<br>2=Drop<br>3=Add) | Facility_Name                 | Local_Facility_Type | Facility_Type              | Primary_Facility | FacType_Primary |
|-------------------|---|-------------------------------|---------------------|----------------------------|------------------|-----------------|
| 77777             | 1=Keep                                    | City Center ER                | ED                  | Emergency Care             | Y                | Y               |
| 77777             | 1=Add                                     | City Center Inpatient         | IP                  | Inpatient Practice Setting | N                | Y               |
| 77777             | 1=Add                                     | Another City Center ER        | EP                  | Emergency Care             | N                | N               |
| 77777             | 1=Add                                     | Another City Center Inpatient | IP                  | Inpatient Practice Setting | N                | N               |

#### **MFT "Inferred Patient Class"**

The facility type registered in the master will serve as a "seed" to infer Patient Class associated with the Facility Type recorded with the MFT entry. For example, the inference would be to associate facility\_type "Emergency Care" with a patient class of "E" (emergency). The "inferred patient class" is defined based on the following mapping:

| Facility Type Mapping to "Inferred Patient Class" |                            |                        |  |  |  |  |
|---|----------------------------|------------------------|--|--|--|--|
| Standard Code                                     | Standard Description       | Inferred Patient Class |  |  |  |  |
| 261QE0002X  | 261QE0002X                 | E                      |  |  |  |  |
| 1021-5  | Inpatient practice setting | 1                      |  |  |  |  |
| 261QM2500X  | Medical Specialty          | 0                      |  |  |  |  |
| 261QP2300X  | Primary Care               | 0                      |  |  |  |  |
| 261QU0200X  | Urgent Care                | 0                      |  |  |  |  |

Patient class will only be inferred if a facility type *is not found* within the PV1-2.1 field in the HL7 message.

### Highlights of Other MFT Template Columns

This section highlights other columns in the latest version of the MFT Excel template.

NSSP's goal for all sites is to have prospective entries of new facilities be complete and comprehensive. The NSSP Team can assist sites by ensuring data are as complete as possible and populated to the site's satisfaction.

#### Status

The Status column provides information on whether the facility is active, inactive, or scheduled for future onboarding. The NSSP Team will populate the Status column with "active" if the facility is sending production-quality data to the production environment. Otherwise, the Status will be set to "onboarding" or "planned." **Site administrators must ensure that this column is up-to-date so that MFT data can be used to identify all facilities that actively send data to the BioSense Platform.** (Refer to the <u>American Hospital Association</u> section of this document for a related status indicator.)

Status values include the following:



| Status      | Description  |
|-------------|--|
| Active      | Facility actively sends data to NSSP                             |
| Inactive    | Facility was active at one time but no longer sends data to NSSP |
| Onboarding  | Facility is currently being tested by the NSSP Onboarding Team   |
| Planned     | Facility is scheduled for future onboarding                      |
| Not Planned | Facility is not planned for onboarding at this time              |

#### Sending Facility Identifier

The main "key" of the new MFT is **FacilityID\_UUID**. Data stored in other **columns reflect information about the facility represented** including name, location, and type.

The Sending\_FacilityID is another column that contains information about the facility. The Sending\_FacilityID column identifies the entity that is sending messages associated with the treating facility represented in FacilityID\_UUID of the MFT.

| Column_Name        | Description  | -  |
|--------------------|--|----|
| Sending_FacilityID | Sending Facility Identifier. This is the ID of the facility that sends the message. This ID is sent through MSH-4  | 4. |
|                    | Note, the Sending Facility (racility that sends the message) is a different concept from the Treating Facility<br>(facility where visit took place). Treating Facility IDs are represented in data sent through EVN7.2. In some<br>situations, the treating facility may also serve as the sending facility but that is not always the case. |    |

The *treating* facility associated with the visit may or may not be the *sending* facility. That is, a different facility may send messages on behalf of the treating facility, or the treating facility may also be the facility that sends messages associated with its own visits.

The MFT record should contain the Sending Facility (MSH-4.2 or MSH-4.1) in the Sending\_FacilityID column, and the Treating Facility (EVN-7.2) in the FacilityID\_UUID column. Per the current messaging guide,<sup>4</sup> the Treating Facility ID is sent through the EVN-7 segment of the HL7 message, whereas the Sending Facility ID is sent through the MSH-4. Therefore, it is critical to distinguish between the Sending Facility (MSH-4) and the Treating Facility (EVN-7) in the MFT data. If the Sending Facility also serves as a Treating Facility with visit-level data associated with the facility being "sent" to the BioSense Platform, then the Sending\_FacilityID should also be populated to reflect the entity that sends the messages associated with the facility's patient visit data. Otherwise, if the Sending Facility is strictly a sender, with no patient visit data, then the Sending\_FacilityID for its entry in the MFT is not applicable and therefore remains blank.

Consider the following examples:

#### **Example:** Treating Facility is the Same as Sending Facility

General Hospital Emergency (facility ID 1111), serves as a treating facility and as the sending facility.

|   | Sending_FacilityID | FacilityID_UUID | Facility_Name              | Facility_Street_Address | Facility_Type  |
|---|--------------------|-----------------|----------------------------|-------------------------|----------------|
|   | 1111               | 1111            | General Hospital Emergency | 123 Anywhere Street     | Emergency Care |
| - |                    |                 |                            |                         |                |

<sup>&</sup>lt;sup>4</sup> Refer to the *PHIN Messaging Guide for Syndromic Surveillance: Emergency Department, Urgent Care, Inpatient and Ambulatory Care Settings*. <u>https://www.cdc.gov/phin/php/guides/</u>

## *Example:* Treating Facility is Not the Same as Sending Facility; Sending Facility is Strictly a Sender and Not a Treating Facility

General Hospital Emergency (facility ID 1111) serves as a treating facility. Messages associated with General Hospital Emergency are sent by sending entity General Hospital (facility ID 9999).

| Sending_FacilityID | FacilityID_UUID | Facility_Name              | Facility_Street_Address | Facility_Type  |
|--------------------|-----------------|----------------------------|-------------------------|----------------|
| 9999               | 1111            | General Hospital Emergency | 123 Anywhere Street     | Emergency Care |
|                    | 9999            | General Hospital           | 123 Anywhere Street     |                |
|                    |                 |                            |                         |                |

# *Example:* Treating Facility is Not the Same as Sending Facility, and Sending Facility is Also a Treating Facility

General Hospital Emergency (facility ID 1111), serves as a treating facility. Messages associated with General Hospital Emergency are sent by sending entity General Hospital (facility ID 9999). General Hospital (facility ID 9999) also serves as a treating facility and sends messages for "itself."

| 9999 1111 General Hospital Emergency 123 Anywhere Street Emergency Care | Sending_FacilityID | FacilityID_UUID | Facility_Name              | Facility_Street_Address | Facility_Type              |
|---|--------------------|-----------------|----------------------------|-------------------------|----------------------------|
|   | 9999               | 1111            | General Hospital Emergency | 123 Anywhere Street     | Emergency Care             |
| 9999 General Hospital 123 Anywhere Street Inpatient practice s          | 9999               | 9999            | General Hospital           | 123 Anywhere Street     | Inpatient practice setting |

#### **Parent\_Organization**

The Parent\_Organization column stores the name of the umbrella facility or hospital organization associated with the facility noted in FacilityID\_UUID. This free-form, site-defined entry is optional. The information could be useful in selection or grouping of records associated with a particular chain of facilities. Consider the following example of three facilities associated with the General Hospital Metrowide chain. Each facility is a treating facility, and one serves as the sending facility for all three. The Parent\_Organization is General Hospital Metrowide. Instead of selecting each individual facility, one can select Parent\_Organization as an option to identify all names associated with the same umbrella facility or hospital organization.

| Sending_FacilityID | FacilityID_UUID | Parent_Organization        | Facility_Name                | Facility_Street_Address | Facility_Type              |
|--------------------|-----------------|----------------------------|------------------------------|-------------------------|----------------------------|
| 9999               | 1111            | General Hospital Metrowide | General Hospital Emergency   | 123 Anywhere Street     | Emergency Care             |
| 9999               | 2222            | General Hospital Metrowide | General Hospital Urgent Care | 567 Another Street      | Urgent Care                |
| 9999               | 9999            | General Hospital Metrowide | General Hospital             | 123 Anywhere Street     | Inpatient practice setting |
|                    |                 |                            |                              |                         |                            |

#### **Standard Facility Type**

The Facility\_Type column is defined as the standard Facility Type Description. (Refer to <u>Facility Type</u> for information on standard values.) The Local\_Facility\_Type is also included in the MFT Excel template and should be populated based on the facility *type* of the treating facility.

| Column_Name         | Description  |
|---------------------|--|
| Local_Facility_Type | Locally assigned facility type; Includes original entries from<br>legacy facility masters  |
| Facility_Type       | Facility Type of the facility (standard description)   |
|                     | Note: Facilities that have multiple facility types with the<br>same FacilityID_UID are to be entered as separate records<br>with the Facility_Type_Code and other facility<br>characteristics entered accordingly. The Primary_Facility<br>column is to be set accordingly to identify the entry<br>considered as primary. |

The Local\_Facility\_Type is included for sites that want to maintain a site-specific facility type. If the site has mapping rules, the site administrator should give these rules to the NSSP support liaison to assure continuity. The standard value is stored in the Facility\_Type column.

#### Vendor and Vendor Software

Some column entries are optional. Examples include columns storing information about a facility's Electronic Medical Record (EMR) system, vendor name, and vendor software. Consider leveraging the optional entries in these columns to store information (if available) that could be helpful when troubleshooting data quality issues or identifying issues connected with particular systems.

| Column_Name     | Ŧ | Description  |
|-----------------|---|--|
| EMR             |   | Electronic Medical Record (EMR) system used at the   |
|                 |   | Theating Facility (optional).<br>This information may be helpful for QA purposes.  |
| Vendor_Name     |   | Name of the vendor sending data to BioSense (optional).<br>This information may be helpful for QA purposes.                                |
| Vendor_Software |   | Name of the vendor software used to build and send HL7<br>data to BioSense (optional).<br>This information may be helpful for QA purposes. |

Following are examples of Vendor, Vendor\_System, and EMR entries:

#### Example:

| Vendor:                                     | Cerner  |  |  |
|---|---|--|--|
| Vendor_System:                              | Cerner Millennium                               |  |  |
| EMR: Various Cerner Millennium EMRs noted b |   |  |  |
|   | <ul> <li>Cerner Acute Care EMR</li> </ul>       |  |  |
|   | o Cerner Cardiovascular                         |  |  |
|   | <ul> <li>Cerner Behavioral Health</li> </ul>    |  |  |
|   | <ul> <li>Cerner Emergency Department</li> </ul> |  |  |

#### **County FIPS and State FIPS**

The NSSP Team will prepopulate two fields containing Federal Information Processing Standard (FIPS) codes: County\_FIPS and State\_FIPS. The FIPS codes will be populated based on county and state data that are input into the MFT. These data may be useful for reporting on and mapping or linking to census information.

| Column_Name | <b>"</b> T | Description                              | r |
|-------------|------------|--|---|
| County_FIPS |            | 5 digit County FIPS code of the facility |   |
| State_FIPS  |            | 2 digit State FIPS code of the facility  |   |
|             |            |  |   |

#### American Hospital Association (AHA) Identifier and National Provider Identifier (NPI)

The American Hospital Association<sup>5</sup> Identifier (AHA ID) is a mechanism for linking to AHA survey data from which additional facility information can be gleaned, including estimates on yearly visit counts. As explained in "Getting Started," these data are used to estimate percentage of ED facilities and ED visits. The NSSP Team attempts to connect AHA ID to each facility so that data representativeness can be assessed nationally.

| Column_Name | - | Description   | - |
|-------------|---|---|---|
| NPI         |   | National Provider Identifier (NPI) for the facility (if available). |   |
| AHA_ID      |   | American Health Association ID                                      |   |

The BioSense Platform also uses the National Provider Identifier (NPI). The Centers for Medicare and Medicaid Services (CMS) assigns this unique 10-digit identification number to healthcare providers. The intent of CMS's NPI is to improve the efficiency and effectiveness of electronic transmission of health information.

The NSSP Team appreciates site input and assistance in accounting for the AHA ID and CMS NPI.

<sup>&</sup>lt;sup>5</sup> AHA administers topic-specific surveys to more than 6,400 hospitals throughout the United States each year. The largest survey, the AHA Annual Survey of Hospitals, collects information on hospital demographics, organizational structure, service types and utilization, and business arrangements with physicians. The AHA Health IT Survey is another annually conducted survey that delves into the information technology (IT) capacity of hospitals, adherence to federal Meaningful Use (MU) requirements, and vendor types for electronic health record and health information exchange services. AHA conducts additional surveys to collect information on managed care relationships, care systems and payments, capitation and shared risk, and population health, among others. These data can provide context for CDC public health surveillance and epidemiological studies.