

## 2 PLANNING

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Many activities need to be managed during the planning process for [BioSense Platform onboarding](#). In this section, we separate planning activities into three distinct areas (Site Planning, Facility Planning, and BioSense Platform Readiness Planning) to illustrate ownership and process. These activities should be complete or near completion before a site is considered ready for onboarding.

### 2.1 Site<sup>1</sup> Planning

A site administrator (non-CDC employee or contractor) is the lead contact and coordinator for site-based activities, decisions, and policies. Site administrators perform activities related to recruiting facilities (e.g., hospitals, urgent care centers), developing processes, and communicating readiness to CDC’s NSSP Onboarding Team (hereafter referred to as “onboarding team”) so that this team can approve and schedule facilities for onboarding to the BioSense Platform. The following list identifies many of the activities that should be managed by the site administrator.

Activities Managed by Site Administrator	
Site Activity	Expected Completion or Onboarding Phase
Complete site-level data use agreement (DUA) with the Association for State and Territorial Health Officials (ASTHO) and consider the CDC DUA	Planning
Complete BioSense Platform Onboarding Process Site Acknowledgment (Site BOPA)	Planning
Define site roles and responsibilities	Planning
Review training and resources	Planning
Determine site onboarding support model	Planning
Plan for data sharing and intra-site access	Planning / Operate
Develop facility recruitment plan	Planning
Prioritize facilities	Planning / Engage
Submit Master Facility Table (Excel spreadsheet template) to BioSense Platform Service Desk	Planning / Continuous
Complete downstream DUA with facilities	Planning / Engage
Submit Quarterly Facility Readiness Updates to BioSense Platform Service Desk	Planning / Continuous

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<sup>1</sup> Sites are the agencies (usually local or state health departments) that have the relationship with facilities that provide data. A site has *administrative authority* over these facilities’ data feeds.

### 2.1.1 Data Use Agreement

New sites must submit a data use agreement (DUA) with the Association of State and Territorial Health Officials (ASTHO) to register on the BioSense Platform. The DUA allows the site to share data and conduct public health surveillance activities to identify, respond to, and monitor significant events of public health interest. New sites should consider a CDC DUA that spells out how CDC will use and access site data. To obtain copies of these DUAs, please contact the BioSense Platform Service Desk.

### 2.1.2 BioSense Platform Onboarding Process Site Acknowledgment

Each new site must submit a BioSense Platform Onboarding Process Site Acknowledge, or “Site BOPA,” to the onboarding team. This document simply states that site personnel are familiar with the requirements of the latest *PHIN Messaging Guide for Syndromic Surveillance*, have read the *Onboarding Guide to the BioSense Platform*, and understand the onboarding process. Reference **Appendix B** for a copy of the site BOPA.

### 2.1.3 Define Site Roles and Responsibilities

To avoid confusion and duplication of effort during onboarding, participants should know their roles and responsibilities. A list of minimum recommended roles and responsibilities for each site follows, and one person may fill multiple roles. A site may identify additional roles for onboarding if it has reason to do so.

**Site onboarding coordinator:** The site onboarding coordinator is the primary site contact for the onboarding team. The site onboarding coordinator will work with relevant parties to onboard new feeds and facilities, as decided by the site onboarding support model (discussed later).

**Site administrator:** This person (or multiple people) is the primary site contact for syndromic surveillance. The site administrator can approve and remove users and set data-sharing preferences for the appointed site. The site administrator must have the authority to represent the site and to ensure that data comply with relevant state and local regulations.

**Site technical engineer:** For sites that collect data from facilities before submitting these data to the BioSense Platform, the site technical engineer should have a good understanding of the technical specifications for the data and local technical infrastructure (e.g., data manipulation, MIRTH or Rhapsody processing, and HL7 message specifications).

**Epidemiologist:** Epi-level users may access the system and some level of their site’s detailed or aggregate data as determined by the site administrator. Epidemiologists may also access shared data from other sites when made available to them by the sharing site’s site administrator.

## 2.1.4 Trainings and Resources

The onboarding team recommends that site administrators review the following websites and materials as they plan to onboard.

1. Public Health Information Network (PHIN) Tools and Resources, PHIN Guides <http://www.cdc.gov/phin/resources/PHINguides.html>
2. CDC PHIN Message Quality Framework <https://phinmqf.cdc.gov>
3. National Institute of Science and Technology (NIST) Data Validation Tools <http://hl7v2-ss-r2-testing.nist.gov/ss-r2/>
4. BioSense Platform Onboarding Website <http://www.syndromicsurveillance.org/onboarding>

**Note:** New sites and facilities should always use the latest version of [PHIN Messaging Guide for Syndromic Surveillance](#).

## 2.1.5 Support Models

Three levels of assistance (support models) are available. Each model enables CDC to prioritize onboarding requests and assign the appropriate resources:

- **Self-support:** sites complete the Engage, Connect, Validate, and Operate phases with minimal assistance from the onboarding team;
- **Blended support:** the onboarding team provides variable levels of support across Engage, Connect, and Validate phases; or
- **Full support:** organizations require significant assistance from the onboarding team across all phases of onboarding.

Sites should carefully consider the level of support needed. Sites will have less flexibility in scheduling if they choose full or blended support versus self-support. The full-support model does not absolve sites from responsibilities and requires CDC management approval.

### 2.1.5.1 Self-Support

This is the preferred support model. These sites receive priority during registration and onboarding. They also have more control over target onboarding dates.

Self-Support		
Phase	Responsibility	Characteristics
Engage	Site	Guides facilities through onboarding processes.
Connect	Site	Only health information exchange (HIE) or Department of Health (DOH) have connections to BioSense Platform servers. HIE or DOH act as a proxy for data exchange.
Validate	Site	Performs all data validation for raw and processed data.
Operate	Site	Monitors feed activity and timeliness; performs production support and continuous improvement initiatives.

### 2.1.5.2 Blended Support

Blended-support sites receive varying priority during the registration and onboarding process based on the expected level of support.

Blended Support		
Phase	Responsibility	Characteristics
Engage	Defined during Planning Phase	Guides facilities through onboarding processes.
Connect	Onboarding Team	Facilities connect directly to BioSense Platform servers.
Validate	Site	Validates raw and processed data.
Operate	Defined during Planning Phase	Monitors feed activity and timeliness; performs production support and continuous improvement initiatives.

### 2.1.5.3 Full Support

Although the onboarding team schedules activities, the site administrator's involvement is critical at each step, in every activity. The site administrator is also expected to gain proficiency and move from the full-support to blended- or even self-support model.

Sites in this category receive lowest priority during registration and onboarding and have the least control over their target onboarding dates.

Full Support		
Phase	Responsibility	Characteristics
Engage	Onboarding team	BioSense Platform onboarding coordinator guides sites through onboarding activities with facilities.
Connect	Onboarding team	Facilities connect directly to BioSense Platform servers.
Validate	Onboarding team	BioSense Platform delivers data validation reports to sites for raw and processed data to assist site administrator with data quality reviews.
Operate	Onboarding team	Monitors feed activity and timeliness; performs production support and continuous improvement initiatives.

### **2.1.6 Data Sharing and Intra-site Access**

During the Planning Phase, site administrators should prepare to engage with other sites (to include programs at CDC) around sharing data. This process does not need to be completed until after the site is in the Operate Phase, but planning for this activity should start early in the onboarding process.

### **2.1.7 Develop Facility Recruitment Plan**

New sites should develop a recruitment plan for the facilities they want to approach. This plan must include facilities to be brought onboard the BioSense Platform and include a rough timeline for the desired onboarding date.

In developing a recruitment plan, sites should consider how the addition of different hospital emergency departments can improve how well the visit data being submitted to the BioSense Platform represents all hospital emergency department *visits in the jurisdiction* in terms of geographic location, characteristics of facilities, and populations served by those facilities. It is not necessary to share the recruitment plan with the onboarding team; however, this information will be vital when filling out the Master Facility Table Excel spreadsheet template and using other associated tools and templates. The onboarding team can provide site administrators with information about the representativeness of the hospital ED visit data in the jurisdiction.

Sites should internally prioritize facilities for their recruitment plan. The onboarding team will consider several factors to determine the priority and scheduling. For example, emergency department (ED) and urgent care (UC) facilities are prioritized higher than ambulatory and inpatient facilities. Here are some of the factors that will be considered:

- Degree of ED representativeness<sup>2</sup>
- Facility type
- Facility volume
- Onboarding support model
- Jurisdiction experience
- Jurisdiction capacity
- Facility vendor and electronic health record (EHR) capability
- Interface developer capacity

Although not required, the Nssp Onboarding Team recommends that a site's prioritization process align with that of Nssp to achieve optimal results.

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<sup>2</sup> "Representativeness" is Nssp's ability to accurately describe the occurrence of health-related events over time and the distribution of these events in the population by person and place. Nssp strives to obtain near real-time electronic data from U.S. nonfederal hospital ED visits that reflect all 50 states and the District of Columbia.

## 2.1.8 Site Facility Planning

Site administrators are responsible for planning facility onboarding and submitting updates to the BioSense Platform for their sites. Until a web-based tool can be developed, the onboarding team will use MFT Excel spreadsheet templates for maintaining facility planning information.

- New sites will be given a blank MFT for inputting and maintaining facility information.
- NSSP sites that have not completed the MFT transition process with the NSSP team may continue to use their Facility Template spreadsheets and add a column called “Date Planned” for the new facilities.

The table below illustrates the quarterly MFT submission timelines for 2016 and 2017.

MFT Submission and Planning Dates			
Quarterly Call for MFTs	Submission Deadline	Schedule Published	Quarter Begins
May 15, 2016	June 1, 2016	June 15, 2016	July 1, 2016
August 15, 2016	September 1, 2016	September 15, 2016	October 1, 2016
November 15, 2016	December 1, 2016	December 15, 2016	January 1, 2017
February 15, 2017	March 1, 2017	March 15, 2017	April 1, 2017
May 15, 2017	June 1, 2017	June 15, 2017	July 1, 2017
August 15, 2017	September 1, 2017	September 15, 2017	October 1, 2017
November 15, 2017	December 1, 2017	December 15, 2017	January 1, 2018

Facility planning can be difficult. It requires a mixture of good planning, strategic guesswork, and practice. The onboarding support team understands the challenge and is prepared to work with sites to reschedule onboardings whenever possible if the schedules of other sites are not affected.

Quarterly planning does not imply that subsequent quarterly schedules are left blank until the associated MFT submission deadline is met. NSSP’s onboarding team plans throughout each quarter, prioritizing and planning facilities up to 360 days in advance. Sites and facilities that can identify target dates in advance are requested to submit those dates.

The following forecast guidance should assist with planning and ensuring adequate Onboarding Team resources are available to help connect new sites and facilities:

### 180-day forecast should—

- Include a “best guess” target **month**,
- Use the first day of the month as the target date, and
- Include facility name and type (**required**); other fields are optional.

### 90-day forecast should—

- Include a “best guess” target **week**,
- Use the first day of the week as the target date unless there is a specific date requirement, and
- Include facility name, type (**required**) and AHA ID (**required if exists**) for ED and UC facilities.

During the last 2 weeks of each quarter, the BioSense Platform Onboarding Team will publish the onboarding dates approved for facilities and sites. The schedule may or may not include specific dates depending on the needs of specific sites and facilities. If the dates will not work for your site or facility, please contact the BioSense Platform Service Desk to discuss alternate dates.

## 2.1.9 Site Facility Planning Updates

The Master Facility Table (MFT) is a major component of the ESSENCE transition and planning initiatives. Until a web-based MFT administration tool is developed, MFT Excel spreadsheet templates will be used to maintain information for new and existing sites. The processes for uploading and maintenance are described below.

### 2.1.9.1 Baseline MFT Upload

During the ESSENCE planning and transition process, the NSSP team will work with each site to establish its baseline MFT. **The baseline MFT will be uploaded first** into the new BioSense Platform architecture, requiring careful attention and oversight. This initial upload process is iterative, which allows problems to be fixed quickly.

The initial uploading of the MFT will establish the facility baseline. During this process, sites should not make changes to facilities listed in the MFT once they have been successfully uploaded. The only changes allowed during this phase are changes that are needed to fix upload errors that occur due to invalid data. Once the initial MFT upload is complete, NSSP will approve the site for maintenance. Then the Onboarding Support team will develop and return a maintenance MFT to the site administrator with the added features needed to change facility information. The NSSP team will initiate the initial uploads, whereas MFT *modifications* may be exchanged via email.

### 2.1.9.2 Maintenance MFT

After the successful transition to a maintenance MFT, sites should only use this MFT template. The maintenance MFT template is a subset of the initial MFT template created during the initial upload. The maintenance MFT allows sites the added features of changing information to existing facilities and adding new facilities. The maintenance MFT is not accepted through email. Maintenance MFTs must be submitted via the BioSense Platform Service Desk. The onboarding team performs MFT maintenance on Mondays and Wednesdays. MFT maintenance is temporarily suspended during the 2 weeks prior to the quarterly facility planning submission deadline.

### **2.1.9.3 Quarterly Facility Planning**

Quarterly facility planning updates are currently done using the MFT. However, the quarterly facility planning updates are processed slightly differently. Quarterly updates are limited to “Planned” facilities. During the quarterly call for updates period, the 2 weeks before the submission deadline, MFT maintenance mode is frozen while onboarding performs the quarterly facility planning updates for all sites. MFT changes with a status other than “Planned” will be ignored during this period. Sites requesting changes should submit separate service desk tickets to have the needed MFTs uploaded after the maintenance mode freeze is concluded.

### **2.1.10 Downstream Data Usage Agreements**

The downstream Data Usage Agreement (DUA) is between the site and the facility. Neither the Association of State and Territorial Health Officials (ASTHO) nor the NSSP requires a downstream DUA; however, most facilities do. Sites that are required to initiate a downstream DUA with local facilities can find an example on the BioSense Platform onboarding website under Resources, in the Onboarding Library:  
<http://www.syndromicsurveillance.org/onboarding>.