NSSP UPDATE

November 2017

Welcome to NSSP Update

NSSP Update is published monthly by the National Syndromic Surveillance Program (NSSP) and brings you the latest news about the BioSense Platform. To learn more, visit the NSSP website. Link to more resources via the Syndromic Surveillance Community of Practice Portal.

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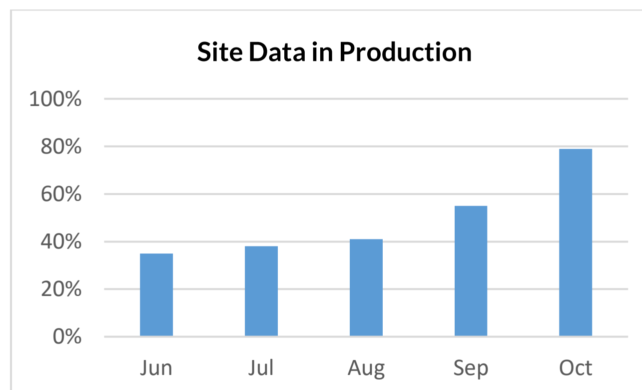
Update on NSSP Hurricane Response

The NSSP Team continues to support Centers for Disease Control and Prevention Emergency Operations Center (CDC EOC), U.S. Department of Health and Human Services Office of the Assistant Secretary for Preparedness and Response (ASPR), and other state partners affected by the hurricanes. Medical data from the Disaster Medical Assistance Teams, or DMATs, in Puerto Rico continue to flow through the BioSense Platform. Additionally, summarized data from the DMATs are provided to the CDC EOC for situational awareness.

NSSP Progress Toward Transitioning Legacy Data

For several months, the NSSP Team has been moving data from the legacy system to ESSENCE. By mid-October, 79% of the legacy sites had been moved into the production environment.



Florida recently indicated interest in converting its legacy data, increasing the total number of legacy sites from 42 to 43. Of the 43 sites, 16 have data available in production ESSENCE, and an additional 18 are ready to load data into ESSENCE. Of the remaining 9 sites, 6 are reviewing data in the staging environment, 1 is being converted to production, and 2 are being converted to staging.

Thank you for your continued patience throughout the legacy transition. If you have specific questions about your site, please contact the NSSP Service Desk.

Technology Update

Single Sign-on. All BioSense Platform tools are now connected to the Platform's active directory. Users have a single user name and password for applications and analysis tools. This makes the Access & Management Center (AMC) application the go-to place for resetting your password every 90 days to maintain Platform access. In upcoming weeks, we will introduce additional AMC features that allow site administrators to control access to RStudio Pro and data sources for their sites.

ESSENCE Update. The NSSP Team is starting to test a new version of ESSENCE (v1.21). This version comes with lots of enhancements—some that aren't so obvious to users, but others that are related to functionality that users have been requesting. As our testing progresses, we'll provide a comprehensive list of changes. For now, here are a few of the enhancements that we hope will simplify your daily surveillance activities:

- New access control system—designed to improve system performance and enable new levels of data sharing among sites and project collaborators;
- Bug fix* in table builder functionality;
- Improved graph overlay functionality;
- Ability to query multiple user-defined text fields when building free-text queries (not just chief complaint, CC/DD, or triage note alone)
- Ability to view data details (line list) of more than 5,000 records (currently, ESSENCE returns *no details*); and
- Overlay graphs in myESSENCE and the Report Manager.

This is just a glimpse at what's to come. Our goal is to complete testing this month so that ESSENCE v1.21 can be released later this year. More details to follow.

**We thank the users who brought this to our attention and encourage feedback on the BioSense Platform tools and applications.*

BioSense Platform Tip: Local Users Can Log In to Access National Data

Do you use a local system that feeds data to the BioSense Platform? Regardless of the system being used, you're a valued part of the NSSP with full access to your site data that's stored on the BioSense Platform. You're not limited to local views on a local system. Here are a few reasons for setting up your BioSense Platform account and logging in:

- Access emergency department Chief Complaint and Discharge Diagnoses (CC/DD) categories developed by the community and implemented in the BioSense Platform. These categories don't exist on most local systems and *are valuable because they often improve the native ESSENCE categories*.

- View HHS regional data, share data with a neighboring site, and engage with others on collaborative projects.

- Get a first-hand look at upgrades and functionality. Say, for example, your local system is behind a version (or two) in ESSENCE. You're missing out on functionality. By logging in to the NSSP BioSense Platform, you can view your data through a new lens and evaluate the usefulness of new ESSENCE features.

SPOTLIGHT ON SYNDROMIC SURVEILLANCE PRACTICE

We continue our series of articles examining literature that advances the practice of syndromic surveillance. This month's article is from a 2007 issue of CDC's Morbidity and Mortality Weekly Report (MMWR). *Despite the article's age, it provides a good example of the increase in emergency department and hospital admissions for conditions associated with wildfires.*

Monitoring Health Effects of Wildfires Using the BioSense System—San Diego County, California, October 2007[1]

Last month, dry conditions led to fast-moving wildfires in California. Not only did the wildfires take lives and destroy infrastructure, the wildfires deteriorated air quality, circulated ash, and increased burns, eye irritation, and respiratory problems. The website for the U.S. Forest Service states "*Wildland fires are a force of nature that can be nearly as impossible to prevent, and as difficult to control, as hurricanes, tornadoes, and floods.*" Syndromic surveillance—a useful tool for situational awareness during natural disasters—is frequently used to monitor the toll taken on healthcare services and on the public during wildfires.

> More Information
>
> Air Quality Index
>
> When Wildfire Threatens
> (Podcast 5:50 minutes)
>
> Protect yourself from Wildfire Smoke

Much of the surveillance process described in the *MMWR* report applies now. In 2007, wildfires forced large-scale evacuations and destroyed thousands of acres. Data were essential for assessing health effects, planning the response, and evaluating whether the response worked.

CDC staff defined a "fire period" and used the nonparametric Kruskal-Wallis test to compare visits with pre-fire counts. Staff monitored data and informed health officials of increases in burns, respiratory disease, gastrointestinal diseases related to boil-water alerts, and cardiac dysrhythmias associated with smoke inhalation. Increases were apparent in visits for respiratory syndrome, asthma, and dyspnea. These data informed measures such as school closures and telephone evacuation orders. Today, however, most people get updates via weather radios, digital signage, sirens and speakers, television, smartphone applications, wireless emergency alerts (via mobile carriers), local emergency notification systems and state emergency management agencies, and social media.

Data in 2007 relied on diagnoses codes from International Classification of Diseases (ICD) 9th revision, versus ICD-10 that is used today. ICD-10 is more robust and allows far more accurate detailing of clinical information. Data representativeness has improved, although there is still room for better coverage. The 2007 California scenario described in this article pulled from a relatively small sample of six hospitals. Today, about 30 facilities in California submit data to the BioSense Platform. These facilities are in Sacramento, El Dorado, Nevada, San Mateo, and Stanislaus counties, mostly northern California, leaving a good portion of the state underrepresented—plus, wildfires spread differently, depending, in part, on wind direction and speed.

The surveillance approach described in this *MMWR* article for wildfires still applies, and the specificity of ICD-10 diagnoses codes could possibly improve queries. Routine monitoring for syndromes associated with wildfires can inform evacuation orders, school and business closures, and health communications.

[1] Centers for Disease Prevention and Control. Monitoring Health Effects of Wildfires Using the BioSense System—San Diego County, California, October 2007. *MMWR* 2008;57(27):741–7.

UPCOMING EVENTS

NSSP 2018 Annual Recipient Meeting

February 27, 2018 – March 1, 2018
Atlanta, Georgia

Save the date

November 1, 2017	Data Validation Support Call: 3:00–4:00 PM ET
November 14, 2017	Scheduled vendor patches in staging environment: 6:00–10:00 AM ET
November 16, 2017	Scheduled vendor patches in production environment: 6:00–10:00 AM ET
November 28, 2017	Surveillance Community of Practice Call: 3:00–4:30 PM ET. The discussion will be about disaster surveillance and include community presentations on hurricane surveillance, general disaster surveillance, and other topics. Click here to register.
January 30–February 2, 2018	ISDS 2018 Annual Conference. Global Health Today and Tomorrow: *Policy Options and Scientific Solutions*
February 27–March 1, 2018	NSSP 2018 Annual Recipient Meeting: **Maintaining and Advancing Syndromic Surveillance** (formerly the Grantee Meeting); Atlanta, Georgia. Planning is underway and details will follow.
April 17–20, 2018	Preparedness Summit; Atlanta, Georgia

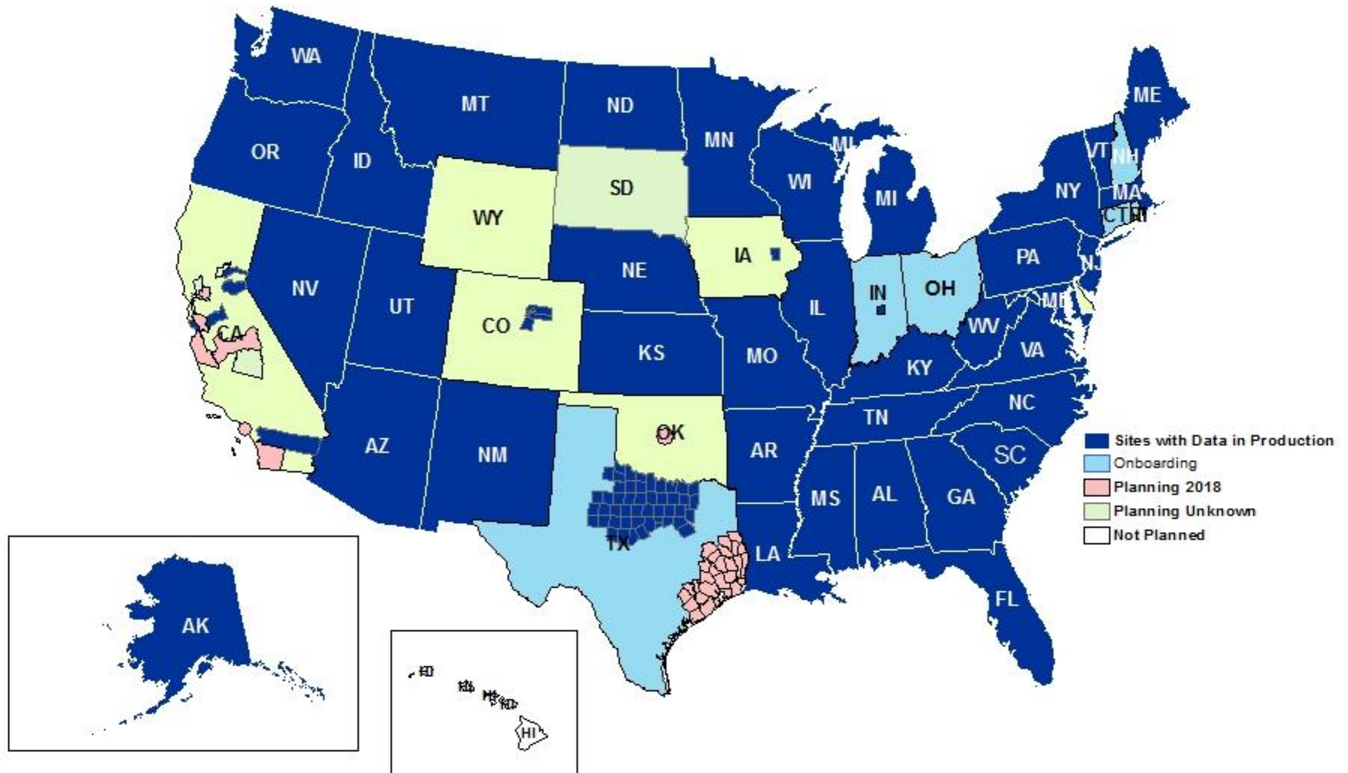
Note. To access the Surveillance Community of Practice group resources, you must be signed in to your healthsurveillance.org account. To create an account, click here.

LAST MONTH'S TECHNICAL ASSISTANCE

October 3, 2017	Access & Management Center Active Directory Deployment
October 4, 2017	Data Validation Support Call: 3:00–4:00 PM ET
October 17, 2017	Scheduled vendor patches in staging environment
October 19, 2017	Scheduled vendor patches in production environment

NSSP PARTICIPATION

NSSP receives data from more than 4,000 facilities. Of these, 2,086 are emergency departments (EDs) that actively submit data, which means that about 60% of all ED visits in the country are being represented (based on American Hospital Association data). At least 49 sites in 41 states participate in NSSP. Although NSSP is pleased with participation to date, sites with data in production do not always translate into sites with broad ED coverage. NSSP continues to work closely with sites to improve data representativeness.



Definitions: NSSP consolidates facilities that provide data under a single data administrative authority called a ***site administrator***. These facilities and single-site administrator constitute a ***site***.

ONBOARDING UPDATES

Fall Onboarding is Underway!

Onboarding began October 3, 2017, and will continue through November 17, 2017. Onboarding sites include Connecticut, Indiana, New Hampshire, Ohio, Rhode Island, and Texas. On October 17, 2017, the Onboarding Team led the second onboarding webinar about data flow and data quality reports.

Data Validation Support

Conference calls are held the first Wednesday of each month, 3:00–4:00 PM ET, to assist with data validation compliance. For more information, contact the NSSP Service Desk.

Plans Underway for 2018 Annual Recipient Meeting

NSSP's 2018 Annual Recipient Meeting—Maintaining and Advancing Syndromic Surveillance—is fast approaching. Recipients of NSSP Enhancing Syndromic Surveillance Capacity and Practice funding (CDC-RFA-OE15-1502) will meet in Atlanta on **February 27, 2018, through March 1, 2018**. Through presentations, roundtable discussions, and hands-on training, participants will advance their knowledge about improving the nation's situational awareness and responsiveness to hazardous events and disease outbreaks. Rear Admiral Michael F. Iademarco, MD, director of the Center for Surveillance, Epidemiology, and Laboratory Services (CSELS), will also meet with funding recipients to answer questions.

Additional information, including registration and hotel information, will be emailed to recipients in the next few weeks. We look forward to another successful annual meeting of NSSP-funded recipients.

Oregon Tests its Mass Gathering Protocol

Mass gatherings pose unique challenges to public health officials for many reasons. These gatherings are influenced by crowd size, the age of attendees, event type, use of drugs or alcohol, and other factors. People in close contact can spread disease—plus, people can transport disease when they leave an event.

A recent success story submitted by the Oregon Health Authority describes its use of ESSENCE to monitor key health indicators before, during, and after gatherings to view the August 2017 total solar eclipse. The story also describes the guide they developed for local public health departments to collect data for visits related for the influx of people who would be visiting the state to view the eclipse. This comprehensive guide clearly states surveillance goals, provides rationale for priority queries, and describes how to gather, interpret, and share findings. The guide is an excellent model for mobilizing local public health departments and can be tailored for other public health surveillance efforts.

> Please share your successes for improving data representativeness; data quality, timeliness, and utility; SyS practice; and the use of SyS data for public health action and response. Simply fill out the NSSP Success Stories Template and email to us.

COMMUNITY OF PRACTICE UPDATES

Trending Topics

The Community of Practice (CoP) is sharing resources related to Hurricane, Wildfire, and Disaster surveillance in the Surveillance Knowledge Repository.

Workgroup and Committee Updates

- October's bimonthly Overdose Surveillance Committee (ODSC) call explored how emergency medical services data can be used to enhance substance abuse surveillance from state and national perspectives. Additionally, information about drug indicators was shared with the ODSC community. For more information, please visit the ODSC webpage or recordings.
- The Syndrome Definition Committee (SDC) thanks Dr. Kristin Holland for her presentation during the October committee call about suicide ideation. Dr. Holland is part of CDC's National Center for Injury Prevention and Control (the "Injury Center"), Division of Violence Prevention, and is exploring the use of syndromic surveillance for identifying suicidal ideation and not-fatal self-inflected injury events in ED data. She spoke on suicide ideation surveillance and potential collaboration with the SDC on relevant syndrome definitions. She also fielded questions from attendees. We appreciate Dr. Holland's expertise on the topic and look forward to working with her in the future.

  The SDC is looking into the development and validation of a syndrome to identify suicide-related hospitalizations (followed by documentation of the process) as guidance for the syndromic community.
- The Urgent Care Justification Workgroup submitted an abstract for a roundtable discussion at the 2018 ISDS Conference. The workgroup is now compiling a best practices document and another document on how to create jurisdictional urgent care facility listings.
- The Data Quality Committee (DQC) thanks Megen Murray and Nick Forero of Allscripts® for speaking during the committee's October call. Megen and Nick described Allscripts's newly certified syndromic surveillance products and answered questions from the community. Allscripts focuses largely on products for outpatient settings, including urgent care settings, providing some new discussion to our series of electronic health record (EHR) vendor guest speaker calls.

  This October also saw a transition of DQC co-chairs. As co-chair Krystal Collier (Arizona) transitions from her role as Data Quality Committee co-chair to CoP Steering Committee chair, we welcome new DQC co-chair Sophia Crossen (Kansas). Sophia has been an active member of the DQC and Sys CoP for several years. We are excited Sofia has agreed to take on the co-chair role and wish Krystal well in her role as CoP Steering Committee chair! Congratulations to both!

Interested in joining a chapter, committee, or workgroup? You can find a list of the groups here.

More State Postings Added to CoP Portal

Our community efforts to promote and educate others about syndromic surveillance are captured on the Community of Practice Portal. Check out the right-hand column of the portal to see what states are doing to promote ways in which SyS data can improve situational awareness and to learn about Meaningful Use incentives for EHR technologies. Recent additions follow:

- The Tri-County Health Department of Colorado, which already hosts a comprehensive website, just introduced a Syndromic Surveillance Newsletter. The newsletter is designed for health officials and facilities that submit syndromic data. The newsletter summarizes SyS findings on seasonal and timely topics, provides health tips, and links to SyS resources.
- The Kansas Department of Health and Environment's links to information about its Kansas Syndromic Surveillance Program, including training materials, frequently asked questions, Meaningful Use data reporting, and examples of how syndromic data are being used.
- The Florida Department of Health added a link to its Meaningful Use Public Health Reporting web page, which includes information on syndromic surveillance.
- Tennessee links to information about Public Health Meaningful Use.
- The Texas Department of State Health Services now links to a description of the current status of syndromic surveillance in Texas.

Messaging Guide

The Messaging Guide Workgroup continues to meet regularly to review comments on version 2.2 of the *Messaging Guide for Syndromic Surveillance*. The workgroup has reviewed more than 75% of the submitted comments on subjects including patient name, race, diagnosis concerns, ICD-9 versus ICD-10, OBX concerns including travel and pregnancy status, and PV1 concerns. The workgroup is preparing the next version of the guide, scheduled for release to the community for comment by December 2017. If you are interested in assisting, please visit the Messaging Guide Workgroup page to access the working documents and call-in information.

Development of *Messaging Guide for Syndromic Surveillance**	
Time Frame	**Activity**
2015	Version 2.0 Released
2016	Erratum and Clarification Documents Released for Version 2.0
2017 Summer	Version 2.2 Released for Community Comment and Consensus
2017 Winter**	Version 2.3 to be Released for Review and Community Comment
2018 May**	HL7 Balloting Begins
2018 Fall**	HL7 Balloting (anticipated) Completed and HL7 2.5.1 Implementation Guide for Syndromic Surveillance Released

*This document was previously titled *Public Health Information Network (PHIN) Messaging Guide for Syndromic Surveillance.*
**Dates and version numbers were adjusted in October 2017.

Community of Practice Call

Please join the monthly Surveillance Community of Practice Call. The purpose of this call is to bring together stakeholders with a vested interest in surveillance and to spark collaborative efforts to share guidance, resources, and technical assistance.

The next call will be held **November 28, 2017, 3:00–4:30 PM ET.** The discussion will be about disaster surveillance and include community presentations on hurricane surveillance, general disaster surveillance, and other topics. Click here to register.

Note. Please remember that you have to register for each call individually. To access the slides and recordings from previous Surveillance CoP Calls, visit the Surveillance Community of Practice Group Page. You must be signed into your healthsurveillance.org account. To create an account on healthsurveillance.org, click here.