

NSSP UPDATE



September 2016

Welcome to *NSSP Update*

NSSP Update provides monthly news about the National Syndromic Surveillance Program (NSSP). NSSP embodies collaboration, particularly in the development of its BioSense Platform, a secure cloud-based computing environment that hosts standardized, shared tools to rapidly collect, evaluate, store, and share data. *NSSP Update* will keep you in touch with the latest advancement in the platform's development.

If a colleague forwarded this issue to you, we encourage you to [subscribe at this link](#) to ensure that you receive future issues.

NSSP Team Participates in PHI Conference

This year's Public Health Informatics (PHI) Conference was held August 21–24, 2016, in Atlanta, Georgia. The conference theme—*Access, Analysis, Action*—included topics such as privacy and data sharing, seamless health information exchange, data standardization, and best practices for program evaluation and trend analysis. Most importantly, the conference acknowledged the *human element*. Innovative, informatics-savvy people are essential to using data effectively and to interpreting and putting data in context.

The NSSP Team conducted pre-conference training on ESSENCE, presented on CDC surveillance activities, and participated in various workshops and presentations:

- Transforming CDC's National Syndromic Surveillance Program: A Holistic Enterprise-Architecture-Based Approach to Business-Outcome Focused Planning
- Enhancing Surveillance Information Systems for the Next Decade
- Using Collaborative Requirement Development Methodology to Develop CDC's BioSense Platform Administrative Tool
- Informing and Improving Syndromic Surveillance

Group 1 Move to Production Postponed

The NSSP Team is working with sites to account for data mapped to zip codes that are now obsolete. To account for these data and to accurately map to new zip codes and categorize data within regions, the Group 1 move to production is being postponed at least two weeks. Software programmers will make the changes, run tests, and reprocess data.

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Phase III Group 3 Sites Begin Transition

On August 30, 2016, Phase III Group 3 sites began the 4-week transition to the BioSense Platform. The NSSP Team kicked off the transition with a webinar to discuss the schedule and orient users to the operations of Adminer.

The Six NSSP Objectives

NSSP Development is on Track, Thanks to the Syndromic Surveillance Community

As sites transition to the BioSense Platform and enter production, what once were concepts thoughtfully discussed, carefully analyzed, and diagrammed (again and again) on dry-marker whiteboards are fast becoming reality. When the CDC NSSP Team began this technical journey, they identified six key objectives. They aimed high, and here's a reality check on where they stand meeting each objective:



- 1. Develop the fundamental Access and Management Center.** The “AMC” is where site administrators create user accounts and manage access to ESSENCE data. The AMC is vital to data sharing. *Before*—Site administrators could share aggregate or detailed data views, but sharing was either on or off. If a site administrator wanted to share data with someone at CDC, the site administrator had to turn on sharing with all of CDC. *Now*—Site administrators can control sharing of aggregate or detailed data for individuals, groups of individuals, or agencies. And all sharing is easily controlled. *Future*—The development pipeline contains data templates, expanded reporting capabilities, and control of data access for other tools on the BioSense Platform.
- 2. Conduct cleanup of Master Facility Tables.** This process makes sure facility metadata is accurate and consistently stored in a Master Facility Table, or MFT. *Before*—Facilities’ lists were inaccurate, with no efficient means to update the lists. *Now*—Sites will have clean facility lists containing reliable metadata. Representatives from each site helped in this critically important foundational activity. *Future*—Plans include a web-enabled facility management tool for site administrators.
- 3. Begin new data flow.** The CDC NSSP Team used community input to improve the process. The team introduced Adminer, a tool that lets site administrators query data stored in SQL tables on the BioSense Platform. By using Adminer, site administrators (or designees) can verify data in their archive and confirm information in their Master Facility Table. The NSSP Team also developed the means to give Platform users access to raw HL7 messages and to structured databases containing processed HL7 messages. *Before*—System users had limited access to data being transformed into their “locker.” *Now*—Users can view raw messages, processed views, calculated fields, and exceptioned messages with reasons for exception.
- 4. Determine ESSENCE settings.** Because ESSENCE had rarely been deployed above state level, some settings needed to be examined and set appropriately. One significant example was determining the level of detail available through the national view. Community members, the BioSense Governance Group, and the NSSP Team collaborated to devise a default display of detail for the national view (a small set of variables presented at aggregate levels like age group and HHS Region), review regional and hospital syndrome alert views, and enhance other settings. *Before*—BioSense 2.0 was a system approaching software obsolescence. *Now*—The most

commonly used syndromic surveillance software is available on the BioSense Platform. New analytic capabilities are readily available and queries or dashboards can be shared among users from different sites, presenting opportunities for collaboration that will elevate the understanding of these data. *Future*—the community will continue to contribute to ESSENCE development.

5. **Convert legacy data.** The NSSP Team collaborated with the community to determine how best to convert legacy data structures to a new data flow and structure. *Present*—The requirements for conversion of legacy data are complete, and conversion for groups of sites in production will begin soon.
6. **Develop technical documentation.** Each new document is user tested to ensure information is easy to grasp, easy to follow, and accurate. ESSENCE developers from Johns Hopkins University are also revising documentation to reflect system enhancements. To date, the foundational documents that users need to start using the BioSense Platform are available, and materials will be continually updated.

Development of the BioSense Platform is on schedule and meeting collective objectives—all possible, thanks to the syndromic surveillance community’s dedication and help. The addition of ESSENCE to the BioSense Platform—fed with new, more detailed data flows and supplemented with calculated fields and metadata collaboratively developed with the community—introduces more efficient work flows and unprecedented access to data that will enhance local analysts’ capabilities.

UPCOMING EVENTS

| | |
|--------------------|---|
| September 1, 2016 | Phase III Group 2 Production Sign-off |
| September 9, 2016 | Call for Nominations: NSSP Community of Practice Steering Committee |
| September 20, 2016 | Phase III Group 4 Kick-off |
| September 22, 2016 | Phase III Group 3 Production Sign-off |

TECHNICAL ASSISTANCE UPDATES

| | |
|-----------------|--|
| August 30, 2016 | Webinar: Phase III Group 3 Transition Kick-off |
| Mondays | Onboarding Support Calls: 3:00 PM–4:00 PM EDT |
| Wednesdays | Data Validation Support Calls: 3:00 PM–4:00 PM EDT |

PHASE III SCHEDULE AND UPDATE: TRANSITION TO ESSENCE

The Phase 3 Transition Schedule to ESSENCE and the activities involved are shown below. Every 4 weeks, nine sites will transition. The NSSP Team will conduct two webinars with each set of sites. The first webinar will orient system users to the transition plan and Adminer (an SQL tool for viewing MS SQL data in the BioSense Platform Archive). The second webinar will introduce the Access & Management Center and ESSENCE.

If your site anticipates a schedule conflict, please contact <http://support.syndromicsurveillance.org>.

Quick Start Guides to AMC, Adminer, and ESSENCE will help users navigate the platform tools to conduct routine syndromic surveillance or review data. During the transition, the NSSP Team will schedule conference calls to answer questions and share information.

| Phase 3 Transition Schedule (updated 5/4/2016) | Week 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
|--|-----------------|-----------------|---------------|----------------|-----------------|-----------------|----------------|---------------|-----------------|-----------------|-----------------|---------------|-----------------|-----------------|-----------------|----------------|----------------|-----------------|-----------------|----------------|---------------|-----------------|-----------------|-----------------|
| | 18-Jul — 22-Jul | 25-Jul — 29-Jul | 1-Aug — 5-Aug | 8-Aug — 12-Aug | 15-Aug — 19-Aug | 22-Aug — 26-Aug | 29-Aug — 2-Sep | 5-Sep — 9-Sep | 12-Sep — 16-Sep | 19-Sep — 23-Sep | 26-Sep — 30-Sep | 3-Oct — 7-Oct | 10-Oct — 14-Oct | 17-Oct — 21-Oct | 24-Oct — 28-Oct | 31-Oct — 4-Nov | 7-Nov — 11-Nov | 14-Nov — 18-Nov | 21-Nov — 25-Nov | 28-Nov — 2-Dec | 5-Dec — 9-Dec | 12-Dec — 16-Dec | 19-Dec — 23-Dec | 26-Dec — 30-Dec |
| Illinois (includes Cook) / Massachusetts / Kentucky / Arizona / Mississippi / Arkansas / West Virginia / Kansas / Houston, TX | Yellow | Yellow | Yellow | Yellow | | | | | | | | | | | | | | | | | | | | |
| Nevada / Utah / New Mexico / Denver Public Health / Riverside, CA / Idaho / North Dakota / Montana / Alaska | | | | Green | Green | Green | Green | | | | | | | | | | | | | | | | | |
| Stanislaus, CA / Linn County, IA / Santa Clara, CA / Nevada, CA / Florida / Ohio / Pennsylvania / New York / North Carolina | | | | | | | Blue | Blue | Blue | Blue | | | | | | | | | | | | | | |
| Georgia / New York City / New Jersey / Indiana / Tarrant County TX / Missouri / Louisiana / Maryland / Washington | | | | | | | | | | Brown | Brown | Brown | Brown | | | | | | | | | | | |
| Oklahoma / Minnesota / Connecticut / South Carolina / Oregon / Maine / Nebraska / New Hampshire / Rhode Island | | | | | | | | | | | | | Blue | Blue | Blue | Blue | | | | | | | | |
| Boston Public Health Commission / County of Sacramento, CA / District of Columbia / Delaware / San Diego, CA / Hawaii / Vermont / South Dakota / San Mateo, CA | | | | | | | | | | | | | | | | | Dark Green | Dark Green | Dark Green | Dark Green | | | | |

| Weekly Transition Activities (updated 4/29/2016) | | |
|---|---|---|
| Week 1 | Weeks 2 and 3 | Week 4 |
| <ul style="list-style-type: none"> ▪ CDC presents transition plan and conducts orientation to Adminer ▪ Users access Adminer to view new BioSense Platform Archive ▪ Users confirm accuracy of Master Facility Table | <ul style="list-style-type: none"> ▪ CDC leads orientation to the Access & Management Center (AMC) and ESSENCE ▪ Users set up accounts and data access via AMC ▪ Users learn ESSENCE functionality and use it to visualize syndromic surveillance data | <ul style="list-style-type: none"> ▪ Sites transition to production (new) data flow ▪ CDC begins converting legacy data from BioSense 2.0 front-end application to BioSense Platform Archive and into ESSENCE |

ONBOARDING

Onboarding Support

Conference calls are held every Monday, 3:00 PM–4:00 PM EDT, to discuss the process and answer questions in a group forum. Requests received throughout the preceding week will be discussed during this call.

Data Validation Support

Conference calls are held every Wednesday, 3:00 PM–4:00 PM EDT, to assist with data validation compliance. For more information or to download the template for validating data, contact the service desk:

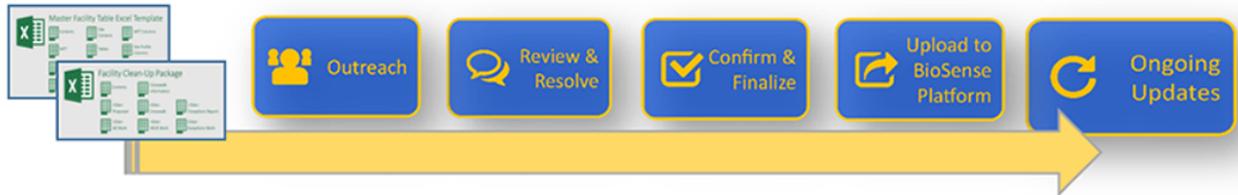
<http://support.syndromicsurveillance.org>.



MASTER FACILITY TABLE UPDATES

CDC takes steps to make sure facility information is accurate and consistently stored in a Master Facility Table, or MFT. The MFT captures metadata about facilities that will enhance a user’s ability to categorize and compare surveillance data on the basis of facility properties—for example, by *patient class*. The MFT is essential for managing data access.

This table shows CDC’s progress toward standardizing data in the MFT across facilities that input data to NSSP’s BioSense Platform. To check a site’s progress, match the accompanying icon to the flow chart.



| Schedule for Reviewing Master Facility Table (updated August 24, 2016) | | | |
|--|--|--------------------------|--|
| June 2016 | | July 2016 | |
| Alabama | | Nevada | |
| Tri County, CO | | Utah | |
| Marion, IN | | New Mexico | |
| Michigan | | Denver PH | |
| Tennessee | | Riverside, CA | |
| Virginia | | Idaho | |
| Washington | | North Dakota | |
| Wisconsin | | Montana | |
| Department of Defense | | Alaska | |
| Veterans Affairs | | | |
| | | | |
| September 2016 | | November 2016 | |
| Georgia | | Boston PH Commission | |
| New York City | | County of Sacramento, CA | |
| New Jersey | | District of Columbia | |
| Indiana | | Delaware | |
| Tarrant County, TX | | San Diego, CA | |
| Missouri | | Hawaii | |
| Louisiana | | Vermont | |
| Maryland | | South Dakota | |
| | | San Mateo, CA | |

*site-requested deferred transition

GRANTEE AND PARTNERSHIP UPDATES

Site Visits

FOA CDC-RFA-OE-15-1502

With a shared vision and strategy, CDC’s NSSP Project Officers collaborate with their awardees to increase the impact of syndromic surveillance within their community and nationally.



South Region—Kim Raymond, Project Officer

West Virginia Department of Health and Human Resources; August 10–11, 2016

Ms. Raymond conducted a site visit with the West Virginia (WV) Department of Health and Human Resources staff and internal and external stakeholders. They reviewed progress made, challenges, and opportunities associated with the program goals, objectives, and activities. She was joined by Aaron Kite-Powell, NSSP Epidemiologist, who provided technical expertise on syndromic surveillance and training on ESSENCE to more than 14 WV Bureau for Public Health staff.

WV is moving forward in meeting its FOA requirements with the hiring of Kirsten Oliver in its Epidemiologist I position and is among the second set of sites, Group 1, to transition to ESSENCE. WV has also made short-term improvements in geographic- and population-based representativeness of syndromic surveillance data. The state is sending 71% (36 of 51) of its ED hospitals and 3 of its 63 urgent care centers to the BioSense Platform. Of the 51 hospitals, 14 (27%) are sending inpatient data, and 36 have achieved Meaningful Use.

Midwest Region—Dawn Thomas, Project Officer

Missouri Department of Health and Senior Services; August 9, 2016

Ms. Thomas conducted a site visit with the Missouri (MO) Department of Health and Senior Services to learn about its progress toward meeting NSSP goals, its challenges, and its successes. Also present were Dr. Hussain Yusuf and Hana Tesfamichael of the Partnership and Evaluation Team to discuss MO's NSSP performance measures and evaluation results.

Missouri began using ESSENCE in 2006 and is a well-established system user. About 101 of its 120 hospitals with emergency departments currently send data, with an additional 14 hospitals in various stages of testing. Several success stories using ESSENCE were discussed. In particular, Ms. Carol Braun, an Environmental Epidemiology Specialist, described how ESSENCE is used to identify cases of carbon monoxide poisoning and hyperthermia that are not being reported to the MO health department despite being reportable conditions.

COMMUNITY OF PRACTICE UPDATES

ISDS Call for Nominations: NSSP Community of Practice Steering Committee

The International Society for Disease Surveillance (ISDS) has announced a Call for Nominations in its search for a mix of expertise to be part of the NSSP Community of Practice (CoP) Steering Committee.

Committee members will leverage their expertise to provide direction and recommendations for projects that will benefit from community engagement. The Committee will also help practitioners integrate syndromic surveillance more fully into their daily surveillance work flow.

As a catalyst for collaboration and partnership, the Committee will effectively promote the use and practice of syndromic surveillance and foster and facilitate peer-to-peer knowledge sharing.

Download a copy of the [Call for Nominations](#). The deadline for nominations is September 9, 2016.



eSHARE EVENTS

- ISDS 2016 Annual Conference: **12/6-8, 2016**; New Frontiers in Surveillance: Data Science & Health Security; <http://www.syndromic.org/annual-conference/2016-isds-conference>