NSSP UPDATE

April 2018

New Look, New Focus

SUBSCRIBE NOW

Let's face it. Having a network of surveillance experts is the fastest way to improve day-to-day practice and prepare for collaborative projects. So, between the Community of Practice (CoP) and this newsletter, we are focused on helping YOU—helping you sharpen skills, integrate syndromic surveillance into daily practice, and engage with the community. Our new layout shifts content to showcase CoP activities and encourage your participation.

IN THIS ISSUE

People

COMMUNITY OF PRACTICE UPDATES

Trending Topics

Looking for more information about weather-related surveillance? View the recording of the February NSSP CoP Call to see what others are doing around weather and influenza. Also, check out the Climate-related Surveillance Forum. Come join our conversations!

Workgroup and Committee Updates

- The **Data Quality Committee** (DQC) needs your input. What are your data or vendor concerns? Do you have a method or procedure for monitoring your data that is particularly helpful or novel? Please, post your ideas or suggestions to the DQC Forum on the ISDS-facilitated Community of Practice website or email to sophia.crossen@ks.gov or elyse.kadokura@doh.wa.gov. The DQC also welcomes new interim Co-Chair Elyse Kadokura from Washington State. We're looking forward to working together to improve data quality across the community.
- During the **Overdose Surveillance Committee's** (ODSC) bimonthly December call, an update to ICD-10 drug poisoning indicators was shared with the ODSC community. The March ODSC call focused on the use of Poison Control Center Data (PCC) to enhance overdose surveillance. Two presenters shared their experiences using PCC data for OD surveillance. For additional information, please visit the ODSC webpage or recordings.
- The **Syndromic Surveillance and Public Health Emergency Preparedness, Response and Recovery (SPHERR) Committee** is a newly created committee that helps integrate syndromic surveillance data and information into the preparedness and emergency response. SPHERR provides access to a national peer network for ad hoc support or collaboration during incidents and events of national interest (e.g., extreme weather events, mass gatherings).

If you want to learn more or join the SPHERR Committee, please visit the SPHERR Committee page. To learn about other CoP chapters, committees, and workgroups, check out the groups here. Registration is required to log in.

NSSP Community of Practice Call

Please join the monthly NSSP Community of Practice (CoP) Call (previously titled the Surveillance CoP Call). This call engages stakeholders and sparks collaborative efforts to share guidance, resources, and technical assistance.

The next call will be held **April 17, 2018, 3:00–4:30 PM ET** and will provide an update on Meaningful Use Stage 3: Items of Note for Syndromic Surveillance. Click here to register.

Please remember to register for each call individually. To access slides and recordings from previous calls, please visit the NSSP Community of Practice Group Page. You must sign in to your healthsurveillance.org account. To create an account on healthsurveillance.org, click here.

Messaging Guide

The Message Guide Workgroup hit a major milestone in developing the *Implementation Guide for Syndromic Surveillance*. Last month, the workgroup released version 0.96 and submitted it to HL7 for balloting toward a "Standard for Trial Use" document.

The ballot period (2018 Spring) begins April 6, 2018. The International Society of Disease Surveillance (ISDS) will collect community comments via this webform from anyone who wants to submit a comment but is not an HL7 member. ISDS will collect comments from April 6, 2018, through April 30, 2018, at 11:59 PM ET, and then submit comments to HL7 on behalf of the community for inclusion in the ballot. The guide will also be referenced on the PHIN Guides Web page.

If you are interested in joining, please visit the Message Guide Workgroup page to access the working documents and call-in information.

Development Schedule	
Time Frame	**Activity**
2015	Version 2.0 **Final RELEASE***
2016	Erratum and Clarification Documents Released for Version 2.0
2017 Summer	Version 2.2 **Working Draft** Released for Community Comment and Consensus
2017 Winter	Version 2.3 to be Released for Review and Community Comment
2018 March	Version .09
2018 Spring	HL7 Balloting; Guide Balloted is *Implementation Guide for Syndromic Surveillance Release 1.0 Standard for Trial Use (STU) HL7 Version 2.5.1***
2018 Fall	Anticipated Completion of HL7 Balloting and Release of *HL7 2.5.1 Implementation Guide for Syndromic Surveillance for Trial Use Version 1*

*Version 2.0 is currently being used; subsequent versions are working drafts only.
** Added April 2, 2018.

CDC FUNDING RECIPIENTS AND PARTNERSHIP UPDATES

NSSP Holds Third Annual Meeting of Funding Recipients

The NSSP project officers (POs) and team thank everyone who attended the 2018 annual meeting, "Maintaining and Advancing Syndromic Surveillance," held February 28 through March 1, 2018. About 60 attendees shared ideas and insight, discussed issues and concerns, and built deeper connections with one another.

This year, attendees expressed optimism that the program was on the right path. Throughout the conference, they demonstrated the ways in which their willingness to share data and participate in collaborative projects had taken hold. They described data sharing both for special projects and for testing the waters in preparation of a public health event.

- **Day one** was interactive and organized into a Use Case Swap Meet. Subject experts answered questions about data flow, data quality, SAS/SQL, onboarding, Service Desk and BioSense Platform tools (ESSENCE, RStudio Pro, Access & Management Center), CDC collaborative projects, and Community of Practice.

- On **day two,** Director Paula Yoon, Division of Health Informatics and Surveillance (DHIS), which administers the NSSP, and Rear Admiral Michael F. Iademarco of CDC's Center for Surveillance, Epidemiology, and Laboratory Services gave opening remarks.

  NSSP Program Manager Michael A. Coletta described his vision for the program's future. He reiterated DHIS's willingness to support the CoP, including funded recipients, and begin a few new pilot projects with SAS Studio, LabCorp data, and the U.S. Department of Defense data.

  Next, attendees discussed how sharing local and state accomplishments have improved their readiness for events of public health importance. To put these accomplishments in the context of funding applications, the NSSP POs offered guidance and explained how recipients can prepare for their upcoming continuation. The evaluation team summarized results of the year 2 annual performance report, or APR, and realized the need for more discussion to strengthen facility and vendor relationships and to encourage peer-to-peer mentoring. Recipients learned best practices from colleagues who have developed meaningful success stories and learned about the mission and vision of the NSSP Community of Practice from ISDS Director of Informatics Emilie Lamb. Emilie also solicited comments from the community to submit for the HL7 Balloting of the *Implementation Guide for Syndromic Surveillance*.

- **Day three** concluded with four roundtable discussions:
  1. Syndrome Definitions—how to create a best practices document.
  2. Syndromic Surveillance Practices—addressed topics including how to create a common-use case definition, foster relationships, make data available through publications or dashboards, and clarify how data are being used on collaborative and special projects.
  3. Information Sharing and Reporting—how the legalities of sharing data can work and how to build relationships and trust.
  4. Data Flow, Data Quality, Data Validation Production Process, and Onboarding—how a data quality report that included vendor column in the master facility table could be used for identifying and sharing data quality issues across sites.

Throughout the meeting, recipients shared their knowledge and exchanged strategies and solutions. All of the above and the synergy gained made the 2018 NSSP Recipient Meeting a success. The agenda for

the 2018 Annual Recipient Meeting and some slide presentations have been posted on the NSSP website.

UPCOMING EVENTS

April 4	Data Validation Support Call: 3:00–4:00 PM ET
April 17	Scheduled vendor patches in staging environment: 6:00–10:00 AM ET
April 17	NSSP Community of Practice Call: 3:00–4:30 PM ET. Topic: Update on Meaningful Use Stage 3 (items of note for syndromic surveillance). Click here to register.
April 19	Scheduled vendor patches in production environment: 6:00–10:00 AM ET
April 17–20	Preparedness Summit; Atlanta, Georgia

Note. To access 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

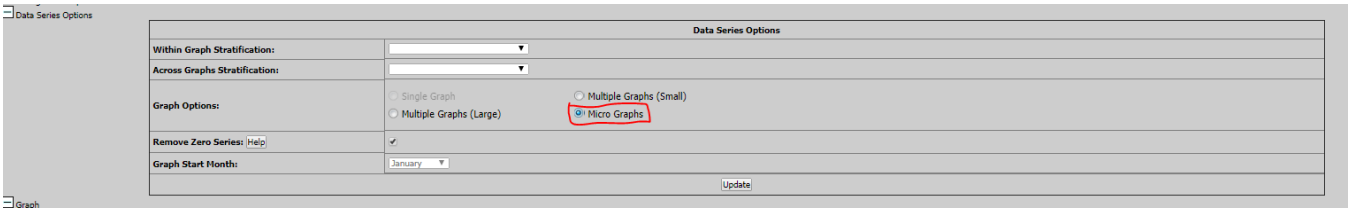
March 7	Data Validation Support Call
March 20	Scheduled vendor patches in staging environment
March 22	Scheduled vendor patches in production environment

Practice

QUESTIONS AND TIPS

Q: How do I use the new visualization option in NSSP–ESSENCE?

A: NSSP–ESSENCE users have noticed a new visualization option for graphing data series, which is NSSP's first foray into "micrographs." Micrographs are similar to the existing graphing options but instead show a series of smaller time series images.



Micrographs allow you to visualize large numbers of time series stratifications compactly. For example, in a typical day you might scan trends in total volume or trends in particular syndromes or subsyndromes across many other categorical variables (all hospitals, all counties, etc.). Depending on your desired result, you can also select a y-axis that's fixed or "free."

First, you'll have to create an initial micrograph. Once the micrograph is loaded, select the "Options" button to add a title, x- and y-axis labels, and, if you want a free y-axis, you can select that box, too.

As with other data series options, the micrographs are selectable so that you can drill down into the visualization. To select a particular graph from among those available, simply click on the graph of interest to load a new page showing that graph alone (or right-click to open in a new tab).

DATA QUALITY CORNER

Data—the foundation for making sound public health decisions—must be managed from collection through analysis and reporting. NSSP can work with sites to assess and improve data quality. Each month, NSSP provides site-specific reports on three essential and integrated measures of data quality: completeness, timeliness, and validity. Reports can be accessed in each site's secure shared folder and are available toward the end of the month. The Data Quality Corner can help you use these reports to bolster and maintain the integrity of your site's data quality.

Let's go back in time

Investigation Tip for Updating Previously Produced Reports: Production-level Data Quality Completeness reports are based on the Visit Date (C_Visit_Date). A March 2018 report is based on visits that took place *only* that month.

Reports are updated monthly. They include a recent month report, retrospective update of monthly reports, and updated year-to-date report. Please note that we *retrospectively* update reports. That's because all data associated with the visits during a specific month might not have been reported when we began running the reports. So, as new data arrive, previous reports are updated to reflect data associated with that reporting period. Therefore, the percentage of completeness might be lower for the recent month report but increase over time as more data are reported.

We thank NSSP's Analytic Data Management (ADM) Team for this explanation. Members of the ADM Team are available to answer questions and discuss data quality reports. To schedule a one-on-one discussion, please contact the NSSP Service Desk.

Data Quality Reports

Changes in Priority for Staging and Production Reports
The priority for the following fields will change from 1 to 2:

- Chief_complaint_code
- Admit_reason_code

This text is, essentially, the bread and butter for the ultimate chief complaint being sent downstream. Although the priority code is changing from 1 to 2, *please keep in mind that priority 2 is still important!* Your feedback, however, indicates that these code fields are not always being sent; therefore, it should *not* be among the priority 1 fields reflecting the *minimum* fields required for onboarding. Further, per the current *Onboarding Guide*, the OBX chief complaint should be sent as TX, so there really isn't a code. (Even among those sending CWE, most send "the text" in OBX-9.1.) Thus, *chief_complaint_code* might not be populated since the message adheres to the guide.

We heard you! Thanks for your suggestions!

Staging Completeness Report

Data Quality (DQ) reports are generated for staging and production data. **Staging reports** are generated based on the date that data arrived on the Biosense Platform (Arrived_Date). This is purposely unlike Production reports, which are generated based on the visit date (C_Visit_Date). As feeds are tested and validated for onboarding, a feed may change to correct an issue found through validation reports. Therefore, the Staging reports are based on *arrived* date so that staging data sent one day can be compared with staging data sent another day.

Changes to Highlighting

Because these staging feeds contain recent visits, it is not unusual for the feeds to lack data in segments that contain fields typically completed at the *end of a visit*—or even weeks after the visit. These fields include:

Diagnosis_Code, Diagnosis_Description, Diagnosis_Combo, Diagnosis_Segment, Diagnosis_Type

Discharge_Disposition, Discharge_Date_Time

Therefore, the highlighting rules associated with these fields will be different in the Staging reports for onboarding validation. Rather than highlight based on a percent completeness <90%, the special rule for these fields follows: Highlight Yellow between 50%–80% and Red below 50%.

Additional Highlighting

We are also adding *Sending_Application* as a highlighted field (Yellow if <90% complete). We encourage you to add this information during the early onboarding stage (if possible). *Sending_Application* is populated based on MSH-3.1 and may provide helpful information about the vendor. Any additional highlighting of *Sending_Application* will apply to only Staging reports during onboarding validation. Again, we encourage you to complete this field when possible.

Production Completeness Report

Report-naming Convention

We heard you! Thanks for suggesting that we add a *creation* date/time stamp to the name of the Production DQ reports. Date/time will be helpful when comparing different versions of the monthly report. For example:

<Site>_Completeness_vMonth_201803_<datetime of run>

The March 2018 monthly report (201803) can change over time as we retrospectively update back reports. The addition of date/time whenever a report is run provides additional version control.

New Worksheets in Production Completeness Report

We will soon be adding two worksheets to the Production Completeness reports, each offering different ways to navigate the reports:

<Site>_Cells:

Includes everything in one report. The report includes Overall ($All), specific feed, and specific facility-level information. Use the Feed_Name to filter on $All Feeds or filter on a specific feed of interest. Use the Facility_name to filter on facility of interest.

For example, if you want to send a facility to its section of the report, simply filter on the facility, then cut and paste that part of the report into a new Excel file.

You can also, for example, use the Priority field to filter on priority 1 fields and then filter on %visits to display cells highlighted in Red, which leads us to the next new worksheet.

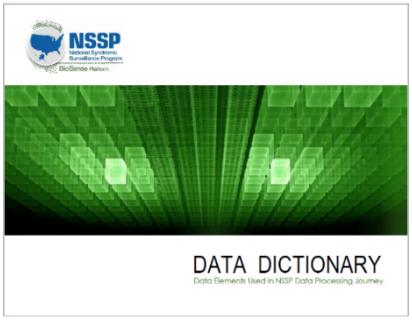
<Site>_Cells_Red:

Includes all Red highlighted cells found throughout the report. This one-stop shop can help you find completeness issues at a glance. The worksheet includes overall, specific feed, and specific facility-level information and lists all columns with <90% completeness. Use the new worksheet to spot highlighted cells found throughout the report.

The NSSP Analytic Data Management team (ADM) expects to have these additions made by early April 2018. Please tell us what you think of these two new worksheets. We welcome your input.

More improvements coming soon, including updates on visualization of the data reflected in completeness reports!

See the NSSP Resource Center for the Data Flow description and Data Dictionary.



A recently added handout, ***Data Dictionary: Data Elements Used in NSSP Data Processing Journey***, describes the Data Dictionary Excel guidance document in easy-to-understand language. This "data processing journey" explains the steps data takes from arrival on the BioSense Platform until ready to use and describes the various tables and data elements. This handout and the Data Dictionary can be found in the NSSP Resource Center.

SPOTLIGHT ON SYNDROMIC SURVEILLANCE PRACTICE

Opioid overdose received considerable media coverage after the March 2018 release of Vital Signs. *Scientists from two CDC programs collaborated on the article: NSSP, administered by the Division of Health Informatics and Surveillance, Center for Surveillance, Epidemiology, and Laboratory Sciences, and the Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control (NCIPC).*

Vital Signs: Trends in Emergency Department Visits for Suspected Opioid Overdoses — United States, July 2016–September 2017[1]

Opioid overdoses—already considered a public health epidemic—are getting worse. ED visits reported by 52 public health jurisdictions in 45 states for suspected opioid overdoses increased about 30% in the United States from July 2016 through September 2017.[1] The March 2018 CDC *Vital Signs MMWR* article examines the timeliest data available to CDC on ED visits for opioid overdoses across multiple states.

Syndromic surveillance can serve as a warning about the epidemic's expansion by tracking the burden being placed on health resources and by identifying suspected nonfatal opioid overdose-related visits. CDC Acting Director Anne Schuchat, M.D., acknowledged that the near real-time value of ED data makes sense for tracking opioid overdoses. "Long before we receive data from death certificates, emergency department data can point to alarming increases in opioid overdoses," said Schuchat. "This fast-moving epidemic affects both men and women, and people of every age. It does not respect state or county lines and is still increasing in every region in the United States."[2]

ED Data Allow Faster Tracking of Regional and State Trends

CDC scientists collaborated by looking at data from two systems:

- CDC's Enhanced State Opioid Overdose Surveillance (ESOOS) Program, and
- NSSP ESSENCE

Data from 16 states in CDC's ESOOS Program were analyzed, showing quarterly trends by state and rural/urban differences. Overall, ED visits for suspected opioid overdoses increased 35% in these 16 states hit hard by the epidemic.

The sharp increases and variation across states and counties indicate the need for better coordination to address overdose outbreaks spreading across county and state borders. Closer coordination between public health and public safety agencies can support identification of changes in supply and use of illicit opioids, further allowing communities to take appropriate action to reduce opioid overdoses.

Because CDC cannot use aggregated data below a regional level without state collaboration, when reviewing the broad national trends, the scientists looked at ED syndromic data and hospital billing information at national and regional levels to identify temporal trends by region and demographics.

Increases in opioid overdoses varied by region and urbanization level.[1] Alana Vivolo-Kantor, Ph.D., behavioral scientist in CDC's NCIPC recently pointed out the importance of localized responses. "Research shows that people who have had an overdose are more likely to have another. Emergency department education and post-overdose protocols, including providing naloxone and linking people to treatment, are critical needs," said Vivolo-Kantor.[2]

The findings highlight the need for enhanced prevention and treatment efforts in EDs and for greater access to evidence-based opioid use disorder treatments, including medication-assisted treatment and harm reduction services.[2]

Actions that Health Departments Can Take

Health departments can:[2]

- Alert communities to rapid increases in overdoses seen in EDs and coordinate an informed and timely response.
- Increase naloxone distribution (an overdose-reversing drug) to first responders, family and friends, and other community members in affected areas, as policies permit.
- Increase availability of and access to treatment services, including mental health services and medication-assisted treatment for opioid use disorder.
- Support programs that reduce harms which can occur when injecting opioids, including those that offer screening for HIV and hepatitis B and C, in combination with referral to treatment.
- Support the use of the *CDC Guideline for Prescribing Opioids for Chronic Pain*, which encourages using prescription drug monitoring programs (PDMPs) to inform clinical practice.

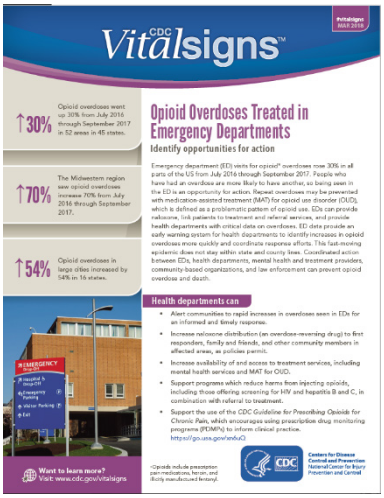
Resources

NSSP Community of Practice
Opioid Overdose Committee

CDC Vital Signs website—coverage of health threat and what can be done to drive down the disease.
https://www.cdc.gov/vitalsigns/pdf/2018-03-vitalsigns.pdf

CDC Guideline for Prescribing Opioids for Chronic Pain
https://www.cdc.gov/mmwr/volumes/65/rr/rr6501e1.htm

Companion editorial in *Annals of Emergency Medicine:*
"Opportunities for Prevention and Intervention of Opioid Overdose in the Emergency Department"
http://www.annemergmed.com/article/S0196-0644(18)30079-9/fulltext



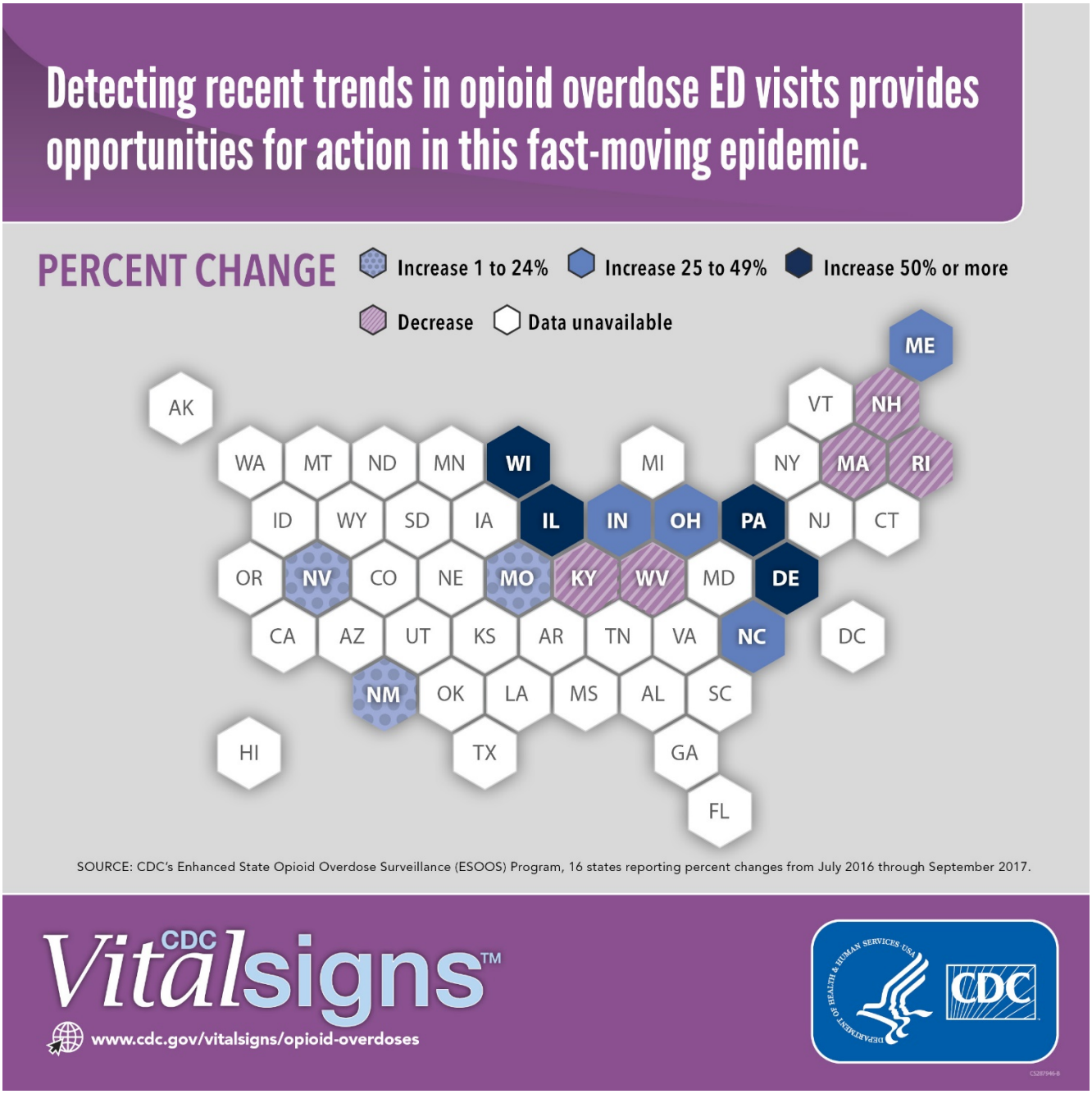
Opioid overdoses increased for men and women, all age groups, and all regions, but varied by state, with rural/urban differences, according to CDC's latest *Vital Signs* report.[2]

Note. Unfortunately, we were unable to release information about this Vital Signs *article before publication due to a CDC embargo. When possible, we will share information about collaborative projects in progress.*

[1] Vivolo-Kantor AM, Seth P, Gladden RM, Mattson CL, Baldwin GT, Kite-Powell A, Coletta MA. Vital Signs: Trends in Emergency Department Visits for Suspected Opioid Overdoses—United States, July 2016–September 2017.

Morbidity and Mortality Weekly Report [Internet]. 2018 March 7 [cited 2018 March 6];67. Available from: https://www.cdc.gov/mmwr/volumes/67/wr/pdfs/mm6709e1-h.pdf

[2] Centers for Disease Control and Prevention. Emergency Department Data Show Rapid Increases in Opioid Overdoses: Wake-up call to the fast-moving opioid overdose epidemic [press release]. Atlanta, GA; 2018 March 6. Available from: https://www.cdc.gov/media/releases/2018/p0306-vs-opioids-overdoses.html



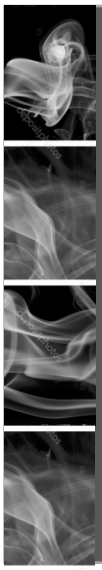
New CC/DD Category for Synthetic Marijuana

We recently implemented a Marijuana Chief Complaint/Discharge Diagnosis (CC/DD) V1 category into ESSENCE and are pleased to share the query with the community. We collaborated with local partners to develop the query—so, we understand that the query terms do not apply to all sites. Still, this should be a useful start.

The query contains terms and discharge diagnosis codes. When running the Marijuana CC/DD category query, the results and graphs will render quickly, which is always positive for our community. Currently, we are developing a second version (Marijuana CC/DD V2) that will include even more synthetic marijuana terms. We hope to implement V2 into ESSENCE soon and will share it with the community.

Marijuana CC/DD Version 1 Query

^ marij^,or ,^ maraju^,or ,^ thc ^,or ,^ cbd ^,or ,^ cannab^,or ,^ canab^,or ,^ mj ^,or ,(,^ smok^,and, ^ pot ^,),or,(,^ smok^,and, ^ weed ^,),or ,^ hash ^,or ,^ hemp ^,or,^[;/]f121^,or ,^[;/]f12.1^,or ,^[;/]f122^,or ,^[;/]f12.2^,or ,^[;/]f129^,or ,^[;/]f12.9^,or ,^[;/]t407^,or ,^[;/]t40.7^



Synthetic marijuana is a designer drug that does not contain marijuana but rather contains any of a variety of plants sprayed with laboratory-produced chemicals.

Despite laws prohibiting the sale of synthetic marijuana, it is still widely available, often in colorful packages with cartoon-like characters and attractive brand names. Using synthetic marijuana is popular, particularly among teenagers and young adults seeking an alternative to marijuana or a new experience with a hallucinogenic drug. Reports of adverse health effects associated with synthetic marijuana use have increased recently.

Study

Nolan ML, Kunins HV, Lall R, Paone D. Using Syndromic Surveillance to Identify Synthetic Cannabinoids or Marijuana Adverse Health Events in Virginia. *Public Health Reports* 2017;132(1 Suppl):65S–72S.

CDC Investigations

Severe Illness Associated with Reported Synthetic Marijuana Exposure—Colorado, August–September, 2013

Acute Kidney Injury Associated with Synthetic Cannabinoid Use—Multiple States, 2012

Read More at CDC

The Value of CoP Collaboration

Investigating Illness Associated with Using Vape Oils

The collaborative aspects of the Community of Practice (CoP)—particularly when investigating a health problem—can fuel the imagination and broaden one's ability to cast a wide net to identify records of interest. Better queries lead to *actionable* information. Here's an example in which the CoP explored a health problem that expanded knowledge of query design.

In January 2018, local news stations in North Carolina reported that at least 60 people had presented to military hospitals at Fort Bragg and Camp Lejeune with symptoms including anxiety, irritability, combativeness, and seizures. Patients reported becoming ill after vaping or using products labeled as cannabidiol (CBD) oil.[1] CBD is a compound derived from *Cannabis sativa*. These cases raised concern because the reported symptoms were not consistent with known effects of CBD. Interestingly, a similar investigation in Utah found that a product labeled as CBD oil was counterfeit and contained a synthetic cannabinoid.

Synthetic Cannabinoids

Synthetic cannabinoids ("synthetic marijuana," "Spice," "K2") are various manmade chemicals that some people may use as an alternative to marijuana. These seemingly innocent little packages of "fake weed" can cause serious side effects that are very different from those of marijuana.

Synthetic cannabinoid products can be toxic. As a result, people who smoke these products can react with rapid heart rate, vomiting, agitation, confusion, and hallucinations. Some have to get help from emergency medical services or in-hospital emergency departments or intensive care units.[2]

The North Carolina Department of Health and Human Services (NC DHHS) received notice of these cases with abnormal symptoms through the Army and Marine Corps, as well as through the Carolinas Poison Center (CPC), which receives calls from physicians related to emergency department visits. Upon receipt of the alerts from the CPC, North Carolina syndromic surveillance health officials learned of similar cases being reported to the Utah Poison Control Center. The adverse health event concerns were brought to CDC's Office of Noncommunicable Diseases, Injury, and Environmental Health, Office of the Director (ONDIEH OD), and the National Center for Environmental Health (NCEH) in January 2018.

ONDIEH OD contacted NSSP's Data Analytics Team (DAT) to explore how to monitor the potential adverse health effects related to CBD oil and to run a query at the national level to see how widespread this may be. The two CDC programs began by developing a simple ESSENCE query for detecting symptoms at a national level. Simultaneously, ONDIEH OD and NSSP DAT consulted the syndromic surveillance experts at NC DHHS and the Utah Department of Health to better understand the local knowledge and queries being used to investigate CBD oil vaping.

The ESSENCE query sharing and discussions were enlightening. Vaping is a world unto itself. The language is unique, influenced by slang and regional differences. Vape oils, being unregulated, comprise any number of different compounds. By collaborating with state health departments on this public health project, ONDIEH OD and NSSP DAT learned how to develop syndromic surveillance queries that would capture broad keyword groupings related to the syndromes of interest and, specifically, to vape terminology. It is important to note that the origin of the syndromic surveillance queries came from the Utah Department of Health, which used a combination of poison center call data and emergency department syndromic surveillance to identify potential cases for their state-level investigation. An interesting takeaway for NSSP DAT was the query language and inclusion of brand names (see example below).

Sample Query (Vaping)

(,^ thca ^,or,^tetrahydrocannabinolic acid^,or,^ cbda ^,or,^cannabidiolic acid^,or,^ cbn ^,or,^cannabinol^,or,^ cbd ^,or,^cannabidiol^,or,^ thc ^,or,^tetrahydrocannabinol^,or,^sativex^,or,^epidiolex^,or,^hemp oil^,or,^cannahoney^,or,^hemp honey^,or,^ cbd rich^,or,^ vape ^,or,^alternate vape^,or,^cali stores^,or,^sana te premium oils^,or,^painbomb^,or,^morgue juice^,or,^michigan herbal remedies^,or,^green garden gold^,or,^dose of nature^,or,^ihempcbd^,or,^arisi_tol^,or,^yolo^,or,^hemp oil care^,or,^natural organic solutions^,or,^ canna pet^,or,^cibdex hemp^,or,^hemp salve^,or,^stanley brothers^,or,^charlottes web^,or,^natural alchemist^,or,^green roads health^,or,^ dabbing^,or,^ spice ^,or,^ bath salts ^,or,^ synthetic marijuana ^,or,^ cannabis ^,),andnot,(,^CBD stone^,or,^THC pt ^,)

Currently, ONDIEH OD and NSSP DAT are monitoring overall trends of records associated with vape oils and exchanging information with NC DHHS and Utah Department of Health. Additionally, subject experts from NCEH continue to monitor national poison center call data and to communicate with the Army, Marine Corps, and NC DHHS health officials on issues related to vaping CBD oil.

This example displays the value and importance of a vibrant and highly collaborative community of practice. Without the collaboration of epidemiologists, data analysts, and other experts in state health departments, a national public health organization cannot meaningfully understand the nuances of an investigation of this type. The NSSP team thanks the NC DHHS and Utah Department of Health for their involvement and leadership.

[1] WRAL.com. Military warns about vaping oils after soldiers fall ill [Internet]. 2018 Jan 30 [updated 2018 Jan 31; cited 2018 Feb 14. Available from: http://www.wral.com/military-warns-about-vaping-oils-after-soldiers-fall-ill/17301177/

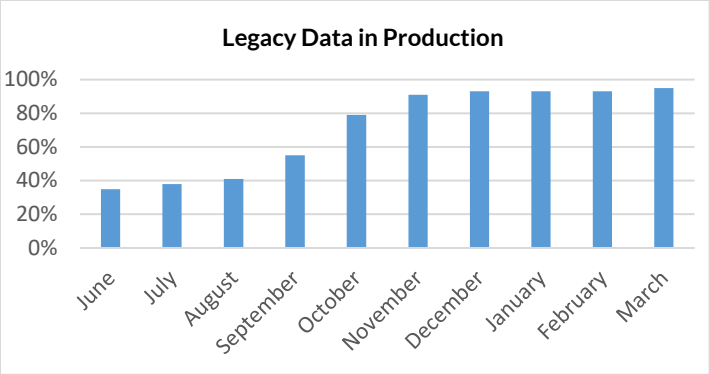
[2] Centers for Disease Control and Prevention. Health Studies Branch—Understanding Chemical and Radiation Exposures. Synthetic cannabinoids: What are they? What are their effects? [online]. 2017. [cited 2018 Mar 22]. Available from: https://www.cdc.gov/nceh/hsb/chemicals/sc/default.html

Program

UPDATES

NSSP Progress Toward Transitioning Legacy Data

The NSSP Team is moving the final few sites' data from the legacy system to the NSSP BioSense Platform. By mid-March, NSSP had converted legacy data into the production environment for 95% of the 43 remaining sites that had requested legacy migration.



Of the 43 total legacy sites, 35 have data available in production ESSENCE, and an additional 5 are queued to load into ESSENCE. Of the remaining sites, two are under site review in the staging environment.

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

Technology Update

We are working on the much anticipated Access & Management Center (AMC) Master Facility Table tool that will deploy in phases beginning spring 2018.

SAS Pilot—On March 12, 2018, NSSP and six volunteer sites launched a Web-based SAS Studio pilot. We thank our volunteers for their willingness to test SAS Studio. As with RStudio, sites will be able to use SAS Studio to access, manage, and analyze the NSSP data in the DataMart and data downloaded from ESSENCE.

In addition to evaluating the functionality of SAS Studio, the volunteers are evaluating system performance when data are accessed, which can be done in several ways:

- SQL passthrough (via SAS) running directly on SQL server
- Proc SQL running directly on SAS server
- Traditional SAS data step

We are also exploring the use of materialized data. For example, data in the SQL DataMart is materialized into CSV files and SAS data sets for direct access, minimizing impact on the SQL DataMart.

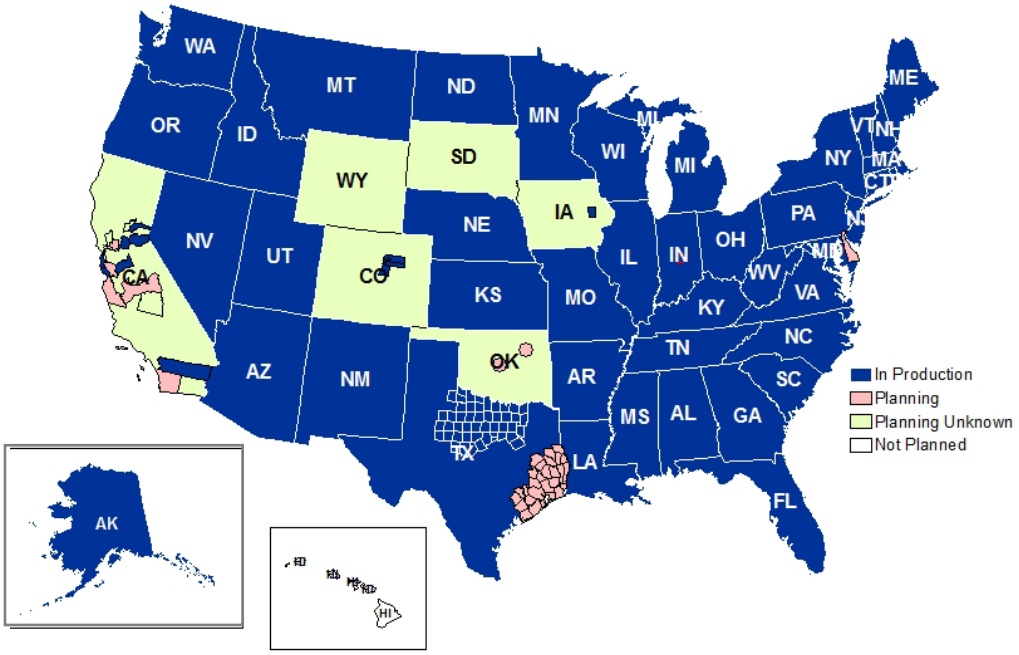
Updated RStudio Quick Start Guide—An updated *RStudio Quick Start Guide* will be posted this month in the NSSP Resource Center. The changes describe our work on the BioSense Platform to consolidate tool

logins to one username and combination for *all* tools, which can be easily managed through the Access & Management Center. Also, we describe how to set up a shared project folder.

Updated Adminer Quick Start Guide—An updated *Adminer Quick Start Guide* will be posted this month in the NSSP Resource Center. The update includes a new table containing contact information of site administrators for a given site. Also, the update explains how indexes are used to expedite database searches by looking through a subset of data.

NSSP PARTICIPATION

The NSSP is refining its definition of participation. Meanwhile, current estimates show that NSSP receives data from more than 4,000 facilities. Of these, about 2,567 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 55 sites in 45 states, including the District of Columbia, 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.



2.6 Million

Number of electronic health messages received each day from ED visits

48 Hours

Information available within 48 hours

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

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.