



IDPH

ILLINOIS DEPARTMENT OF PUBLIC HEALTH

Understanding Opioid Overdose Reporting in the Hospital ED

September 13, 2018



OVERVIEW

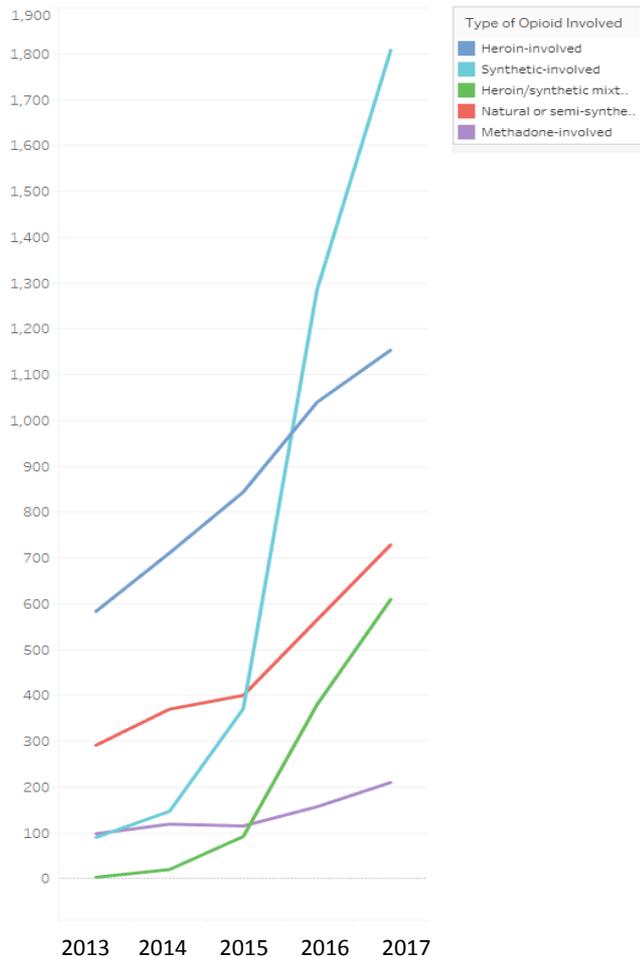


Chinyere Alu, MPH
Division Chief, Patient Safety and Quality

Trends in Opioid Overdose in Illinois, 2013 - 2017

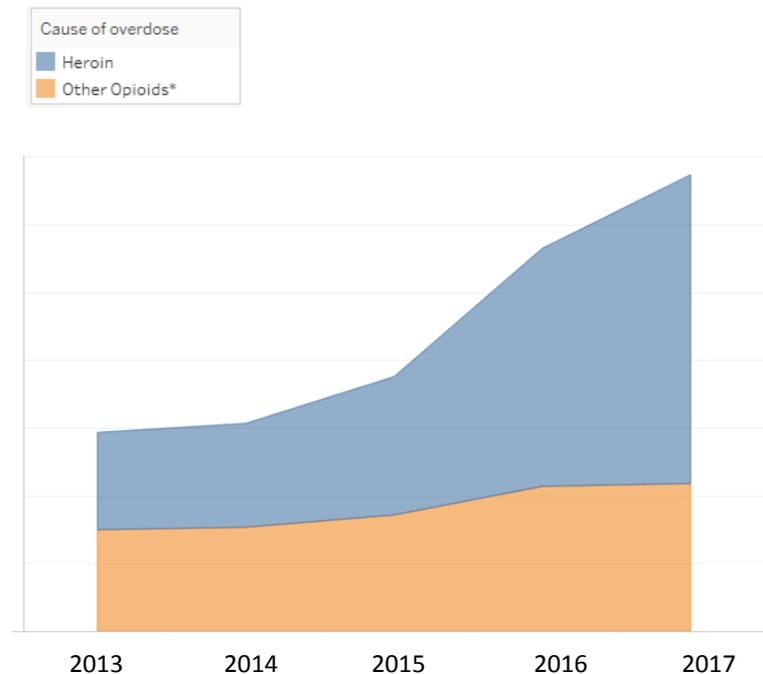
<https://idph.illinois.gov/OpioidDataDashboard/>

Mortality Trends by Year



Source: IDPH, Division of Vital Records

ED Visits and Hospitalizations by Cause of Overdose



Source: Illinois Hospital Discharge Data

Value of Reporting ED Visits for Opioid Overdose

- ED data = near real time
 - Provides an early warning system on increases in opioid overdoses
- Coordinated action between EDs, health departments, mental health and treatment providers, community-based organizations, and law enforcement can prevent opioid overdose and death.

Opioid Data Dashboard

Mortality and Morbidity Trends Prescription Opioids Mortality Details Naloxone Distribution Locations

	Heroin	Other Opioids*	Total
Fatal	1,129	1,575	2,110
Non-Fatal	9,114	4,358	13,395

Cause of Overdose

- (All)
- Heroin
- Other Opioids*

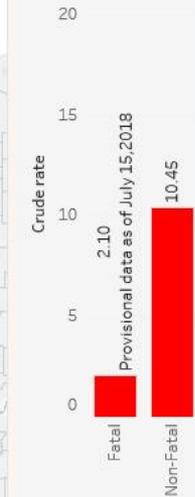
Year

2017

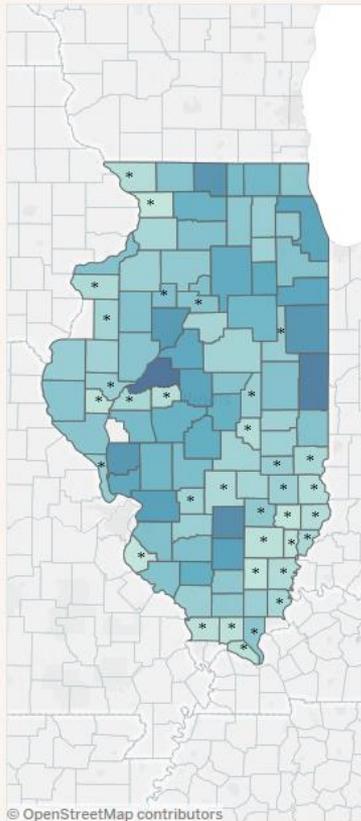
Rate

0.69 22.11

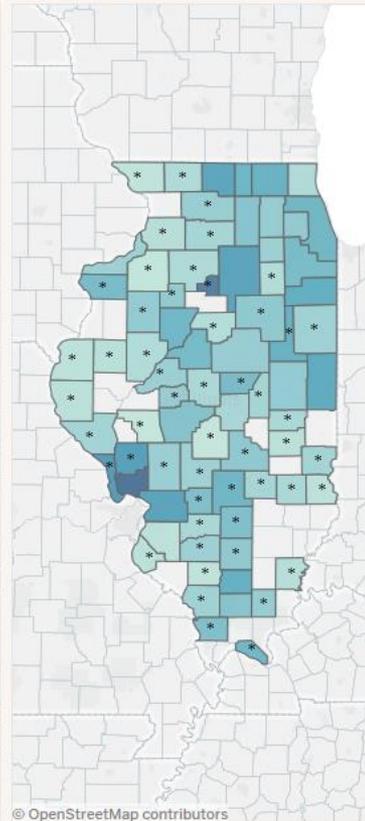
State Rate



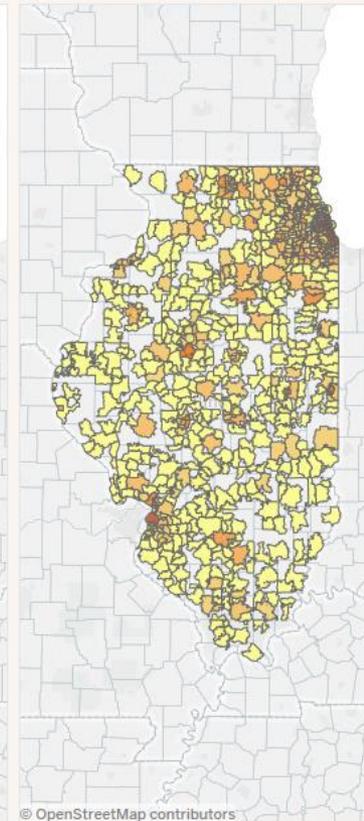
Non-Fatal Overdose Rate 2017



Fatal Overdose Rate 2017



Overdose Counts by ZIP 2017



Value of Reporting ED Visits for Opioid Overdose

Detecting recent trends in opioid overdose ED visits provides opportunities for action in this fast-moving epidemic.

PERCENT CHANGE



SOURCE: CDC's Enhanced State Opioid Overdose Surveillance (ESOOS) Program, 16 states reporting percent changes from July 2016 through September 2017.

<https://www.cdc.gov/vitalsigns/opioid-overdoses/>

Illinois Hospital Opioid Overdose Reporting Requirements

- Report to IDPH within 48 hours after providing treatment for the drug overdose – or at such time the drug overdose is confirmed:
 1. Whether an opioid antagonist was administered; if so, the name of the antagonist
 2. The cause of the overdose, including but not limited to, whether the overdose was caused by a prescription opioid or heroin
 3. The demographic information of the person treated including, but not limited to, the patient's: Age, Sex, County code, Zip code, Race and Ethnicity using the CDC's race and ethnicity groups
- The person completing the form shall not disclose the name, address, or any other personal information of the individual experiencing the overdose.

Hospital Licensing Act: <http://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=1234&ChapterID=21>

JCAR Administrative Code: <ftp://www.ilga.gov/jcar/admincode/077/077002500L15200R.html>



Considerations

- Minimize reporting burden
- Leverage existing infrastructure to the extent possible → Syndromic Surveillance
- Enhance quality of data reporting
- Promote data use

Considerations

- Phased approach to facilitate implementation
 - By August 31, 2018: Register for access to the BioSense Platform
 - By October 31, 2018: Complete an initial validation process
 - By December 31, 2018: Begin sending opioid antagonist administration data to IDPH

SYNDROMIC SURVEILLANCE

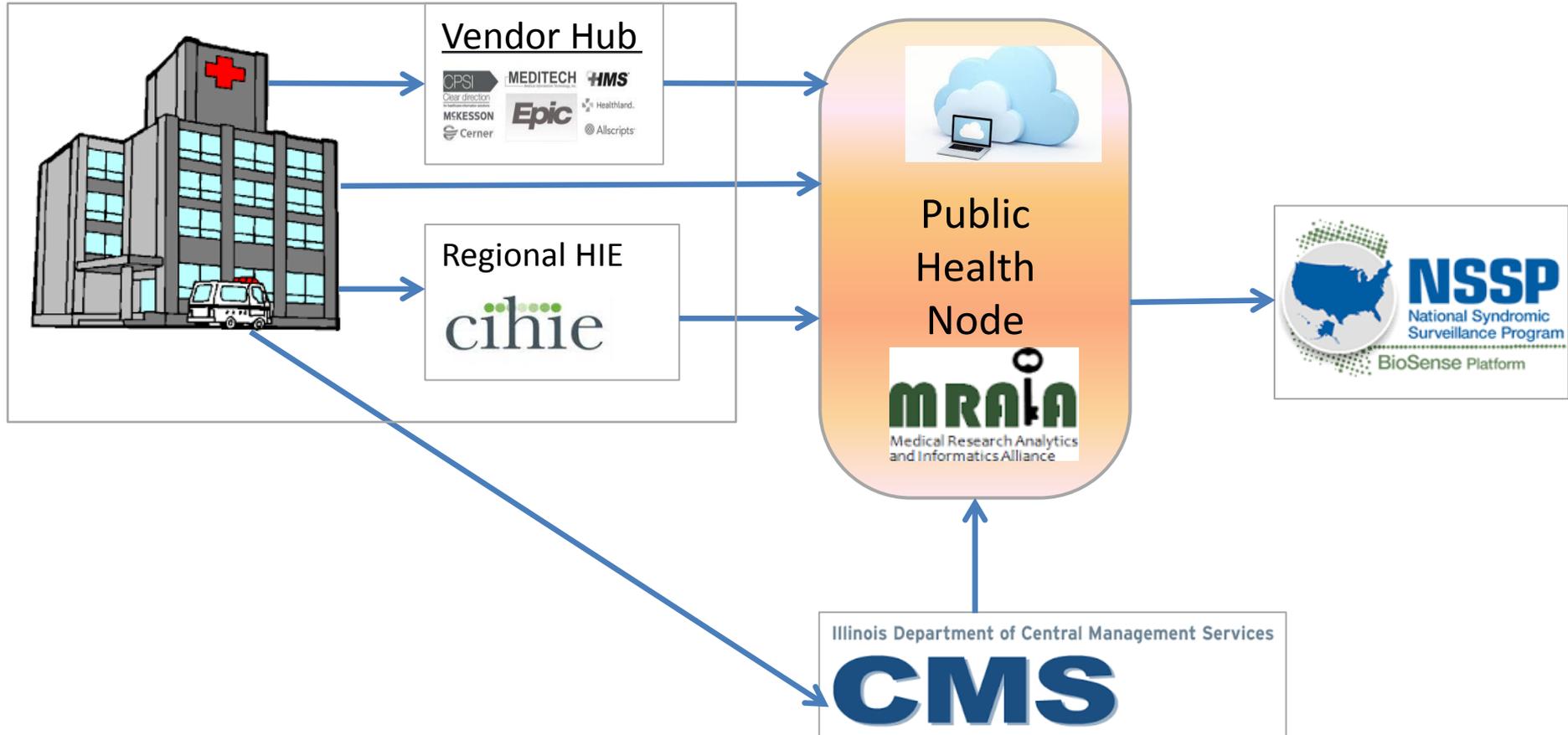


Stacey Hoferka, MPH, MSIS
Surveillance and Informatics Epidemiologist
Division of Infectious Diseases

Illinois Syndromic Surveillance

- Syndromic surveillance is...
 - Healthcare encounter data (Emergency department visits, inpatient, urgent care, outpatient)
 - Timely: Near real-time submissions
- Syndromic Surveillance in Illinois is...
 - Emergency Department, Inpatient and urgent care visits
 - Meaningful Use-Federal Incentive Program for providers, began 2012
 - 185 acute care EDs are sending data to IDPH
 - About 15,000 Emergency visits/day
 - Feeds every 15 minutes-many sites near real-time
 - Some sites have a lag in visits-most are received within 48 hours
- System for analysis
 - IDPH sends the data to a CDC –supported system for analysis tools
 - BioSense Platform – hosting platform for receiving and processing HL7 messages, managing the data and all tools associated with analysis (R, SAS, ESSENCE)
 - ESSENCE is a syndromic surveillance tool developed by JHU-Applied Physics Lab
 - ESSENCE is one tool in the BioSense Platform that users are given access to for analysis
 - Historically, the CDC used to support an analytical tool called BioSense, that has been replaced by ESSENCE

How is the data collected?



What data is in syndromic surveillance?

- Meaningful Use Stage 2
 - Demographics (age, sex, race, ethnicity)
 - ZIP code, city
 - Visit Date/Time
 - **Reason for Visit (Chief complaint, triage note, clinical impression)***
 - **Diagnosis***
 - Disposition
 - Unique patient ID
 - Facility Name and ID
 - Patient Class and Facility/Visit Type
- Key Content for opioid reporting
 - Reason for visit
 - Chief complaint- free text or pick list from patient stated complaint
 - Diagnosis- coded either admitting, working or final (billing)
 - Triage Note- clinical notes with details of visits
 - Clinical impression- clinical notes- limited info

Hospitals

- Use case scenarios
 - Trends (Influenza – like illness)
 - Event surveillance (eclipse, marathon, storms, sporting events)
 - Weather-related events
 - Outbreak monitoring (Norovirus, Hepatitis A, Coagulopathy)
- Feedback or follow-up to hospitals
 - Opioid reporting support
 - XDRO notification about infection control (future use)
 - Additional contact with hospitals
 - Investigations of reportable conditions, outbreaks or unusual cluster or exposures
 - Case finding in outbreaks
 - IDPH may contact hospitals for additional information
 - Examples: Legionnaire's Disease, rabies, coagulopathy
 - Administrative code – authority to collect
 - <http://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=330&ChapAct=20%20ILCS%202305/&ChapterID=5&ChapterName=EXECUTIVE%20BRANCH&ActName=Department%20of%20Public%20Health%20Act.%20%28Part%201%29>

HOW TO REQUEST USER ACCESS TO BioSense



Jessica Ledesma, M.Ed, MPH
Senior Policy Analyst
Division of Patient Safety and Quality

Hospital Responsibilities

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
IDPH
PROTECTING HEALTH, IMPROVING LIVES

Syndromic User Request

Use this link to make requests to IDPH for syndromic surveillance access and support

Organization Type * must provide value

Name of Health System or Hospital * must provide value

Request Reason * must provide value

- Create user account for ESSENCE
- Hospital upgrade-data validation
- Hospital Opioid overdose validation
- Technical Assistance - Training
- Technical Assistance - other
- Data access problem

Are you the PRA (Portal Registration Authority) for the organization * must provide value

- Yes
- No
- Don't know

PRA First Name, Last Name

reset

HOW TO REGISTER FOR ACCESS TO THE BIOSENSE PLATFORM

Access the Syndromic Request Form at <https://redcap.dph.illinois.gov/surveys/?s=Y884WCDC9M>

Select: Hospital

Type in your **Hospital Name** or **Health System** if the USER you assign will be reporting for multiple hospitals within your system.

Indicate for Request Reason

Select: Yes, if you are the PRA
If you are unsure, contact jessica.ledesma@Illinois.gov or Michael Orama at michael.Orama@Illinois.gov

Type your First Name, Last Name

Hospital Responsibilities cont.

The screenshot shows a web form with the following sections:

- First Name - User**: Text input field with a red asterisk and "must provide value" below it.
- Last Name - User**: Text input field with a red asterisk and "must provide value" below it.
- User - Email**: Text input field with a red asterisk and "must provide value" below it.
- What will this person use the data for?**: Section with a red asterisk and "must provide value" below it. It contains four radio button options:
 - Mandatory Opioid reporting from hospital
 - Communicable disease trends
 - Emergency preparedness and response operations
 - Other
- List hospitals that user is responsible for (For mandatory opioid reporting)**: Text area with a red asterisk and "must provide value" below it. An "Expand" link is located at the bottom right of the text area.
- Submit**: A button at the bottom of the form.

Enter the hospital USER information for the staff that will be responsible for opioid overdose reporting

Select this option for Opioid reporting

If you indicated this USER will be reporting for multiple hospitals within a **Health System**
List the hospitals the USER will reporting for here:

Click: Submit
Your Done!

NOTE: THE SYSTEM WILL **NOT** GENERATE AN AUTOMATIC REPLY EMAIL

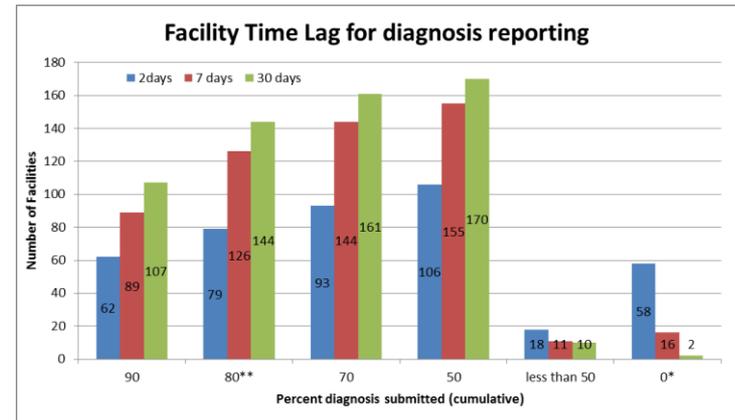
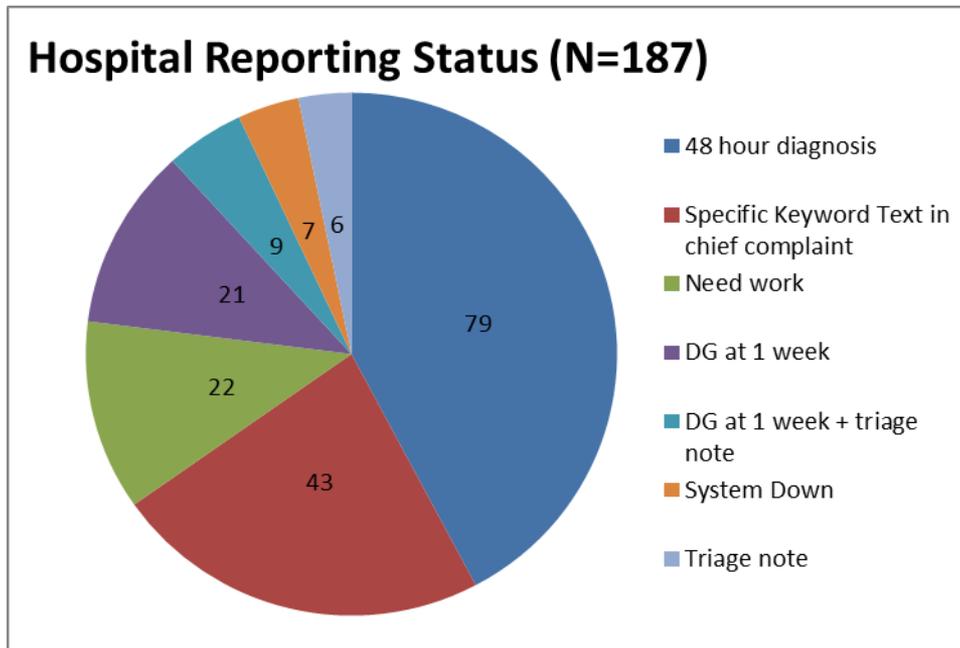
Once requested, an IDPH administrator must create an account for the hospital user(s) in the BioSense Platform. Please allow 5-7 business days to receive an email with your USER login information.

Validation Process by October 31, 2018

- Access to BioSense:
 - Aggregate visit data
 - ESSENCE dashboard –daily trend and tabular count summaries
- Hospital will perform a EMR query opioid overdoses
- Submit to IDPH via REDCap: daily count for Q1 2018
- Hospital and IDPH will compare correlation of data sets
- Where discrepancies are found between syndromic, perform technical review of submission
 - Likely areas to improve case detection
 - More specific keywords in chief complaint
 - Triage note inclusion
 - Diagnosis completion
 - IDPH will work with individual sites as needed

Status of Syndromic Surveillance

Pilot conducted over 18 months
Internal validation is on-going



Sample Opioid Dashboard in ESSENCE

ESSENCE - NSSP
myESSENCE

Logout: Stacey

Bookmark Name: _____ Bookmark Page: _____

Home Alert List myAlerts **myESSENCE** Overview Portal Query Portal Stat Table Map Portal Bookmarks Query Manager Data Quality Report Manager More

Home Hospital Opioid OD report ILI EMS_Shared Rabies PEP Overdose Cocaine IL_DiseaseSpecificSubsyndromes HospitalStatus VPD NationalByHospPic NationalILIQueries Homeless & Hep A

Add New Tab Add New Widget Export to PDF Copy Tab Share Tab Refresh Tab Original Query Change Region Done Performing Timeseries Queries

Hospital Daily OD visits

Hospital Daily Opioid OD visits-ED only

60
40
20
0

11Mar18 26Mar18 10Apr18 25Apr18 10May18 25May18 09Jun18 24Jun18 08Jul18 24Jul18 08Aug18 23Aug18 07Sep18

■ Data: Normal ■ Data: Warning ■ Data: Alert

Total Count: 7813

Graph Options Download Add Event

Opioid Daily visits by Age group and sex

Show All Totals Hide Zero Count Rows

Ten Year	Age Group	Sex	2018-2018	2018-2018	2018-2018	2018-2018	2018-2018	2018-2018	2018-2018	2018-2018	2018-2018	
00-09	Female		0	0	0	0	0	0	1	0	0	0
	Male		0	0	0	0	0	1	0	0	0	0
	Not Reported		0	0	0	0	0	0	0	0	0	0
10-19	Female		0	0	0	0	0	0	0	0	0	0
	Male		0	2	0	0	1	0	0	0	0	0
	Not Reported		0	0	0	0	0	0	0	0	0	0
20-29	Female		1	3	5	1	3	4	2	1	2	4
	Male		1	4	7	7	3	4	7	3	2	5
	Not Reported		0	0	0	0	0	0	0	0	0	0

1. Locate the 'MyESSENCE' tab
2. Select the 'Hospital Opioid OD Report'. There you will see recent opioid overdose visit data as a) daily trend line for visit counts b) a table of daily Opioid ODs by age and sex
3. Time range can be changed by selecting the 'gear' icon

Addition query training is available on the IDPH website

OPIOID ANTAGONIST REPORTING

By December 31, 2018



Dejan Jovanov

Discharge Data Manager/Systems Architect

Division of Patient Safety and Quality

Opioid Antagonist Administration Reporting

- Report Daily
 - Simple report from pharmacy data
 - With the data for the last 48 hours
 - Any opioid antagonist (most common: Naloxone)
- Create the file
 - Include all required elements
 - Column names in the first row
 - Use the naming convention
 - Pipe or comma delimited file
 - Use . CSV extension
- Transfer this report to IDPH
 - Using already existing SFTP connection (Syndromic surveillance, Immunizations and Electronic Lab reporting)
URL: moveit.illinois.gov
IP Address: **163.191.60.21** port **22**
Directory for Uploads: **/Distribution/DPH/SS-HL7/**

Naming convention for report files: NPI_YYYYMMDD.csv

Example:

Facility with NPI number: 123456789

File production date of: 2017/12/12 (i.e., December 12, 2017)

The File Name would be: 123456789_20171212.csv

Opioid Antagonist Administration Reporting

- **Required elements**

Element	Description
Facility ID	Same Facility ID your hospital is using in MSH4.2 for SS HL7 messages
Patient ID	The same Patient unique ID you are using in PID3.1 for SS HL7 Message
Date	Date and time when the opioid antagonist was administered.
Medication Name	Name of the opioid antagonist
Medication code	RxNorm or other code system
Dose	Milligrams
VisitID	The same visit ID you are using in PV1.19 for SS HL7 message

Opioid Antagonist Administration Reporting

- **File example**

 123456789_20171212.csv - Notepad

File Edit Format View Help

FacilityID	PatientID	Date	MedName	MedCode	Dose	VisitID
123456789	203568	12/10/2017 0:41	Naloxone HCl	548146900	2MG/2ML	11332373
123456789	203568	12/10/2017 1:08	Naloxone HCl	548146900	2MG/2ML	11332373
123456789	365980	12/10/2017 9:08	Naloxone HCl	548146900	2MG/2ML	11332385
123456789	1023568	12/11/2017 10:08	Naloxone HCl	548146900	2MG/2ML	11332392
123456789	456986	12/11/2017 11:23	Naloxone HCl	548146900	2MG/2ML	11356432
123456789	635412	12/11/2017 14:08	Naloxone HCl	548146900	2MG/2ML	235698625
123456789	220154	12/11/2017 15:08	Naloxone HCl	548146900	2MG/2ML	235418964

Opioid Antagonist Administration Reporting

- **File examples**

- Each antagonist administered should be a separate line entry

```
123456789_20171212.csv - Notepad
File Edit Format View Help
FacilityID|PatientID|Date|MedName|MedCode|Dose|VisitID
123456789|203568|12/10/2017 0:41|Naloxone HCl|548146900|2MG/2ML|11332373
123456789|203568|12/10/2017 1:08|Naloxone HCl|548146900|2MG/2ML|11332373
123456789|365980|12/10/2017 9:08|Naloxone HCl|548146900|2MG/2ML|11332385
123456789|1023568|12/11/2017 10:08|Naloxone HCl|548146900|2MG/2ML|11332392
123456789|456986|12/11/2017 11:23|Naloxone HCl|548146900|2MG/2ML|11356432
123456789|635412|12/11/2017 14:08|Naloxone HCl|548146900|2MG/2ML|235698625
123456789|220154|12/11/2017 15:08|Naloxone HCl|548146900|2MG/2ML|235418964
```

- If no data for the last 48 hour just send us blank file with column names

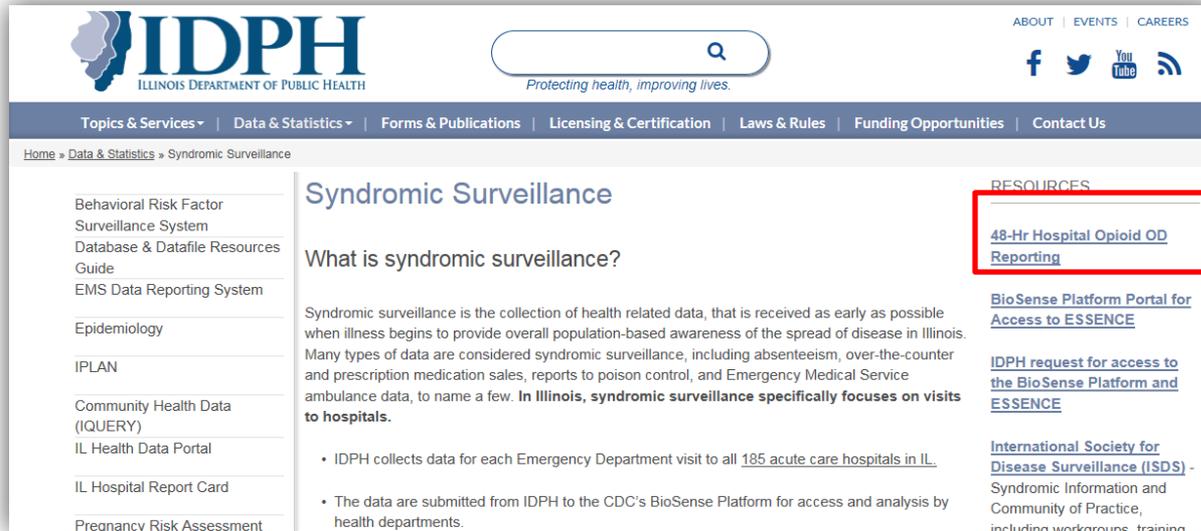
```
123456789_20171212.csv - Notepad
File Edit Format View Help
FacilityID|PatientID|Date|MedName|MedCode|Dose|VisitID
```

RESOURCES



Resources

- Syndromic surveillance and 48-hour opioid overdose reporting webpage (this page will be updated continuously)



The screenshot shows the IDPH website's Syndromic Surveillance page. The header includes the IDPH logo, a search bar, and navigation links for ABOUT, EVENTS, and CAREERS. Below the header is a navigation menu with links for Topics & Services, Data & Statistics, Forms & Publications, Licensing & Certification, Laws & Rules, Funding Opportunities, and Contact Us. The main content area is titled 'Syndromic Surveillance' and includes a sub-header 'What is syndromic surveillance?'. A red box highlights the '48-Hr Hospital Opioid OD Reporting' link under the 'RESOURCES' section. Other resources listed include 'BioSense Platform Portal for Access to ESSENCE', 'IDPH request for access to the BioSense Platform and ESSENCE', and 'International Society for Disease Surveillance (ISDS) - Syndromic Information and Community of Practice, including workgroups, training'.

<http://dph.illinois.gov/data-statistics/syndromic-surveillance>

- Direct questions to Division of Patient Safety and Quality: dph.dpsq@Illinois.gov

Questions