

Idaho Syndromic Surveillance Program Guidelines for Displays of Syndromic Surveillance Data

1. Specify the data source (ED visits in the jurisdiction or ED visits for residents of the jurisdiction), geographic entity, and the date range to which the display pertains.

For example, “Emergency department visits associated with X Syndrome*—Eastern Idaho Public Health District, 12/1/2016–12/31/2016”

“Emergency department visits associated with Y Syndrome* among residents of Panhandle Health District, 1/1/2017–1/14/2017”

2. Note the day that the data were queried. This is important because as messages related to a visit are updated, or as new data sources are added, or as system updates occur, the number of visits for a syndrome might be different depending on what day the query is run.

For example, “Data retrieved 2/15/2017” or “Data queried 2/15/2017.”

3. Reference the definition of the syndrome that is being displayed. Because we cannot reference a standardized case definition that is publically available, such as the CSTE/CDC case definitions, the actual query language for each syndrome should be made available (e.g., footnoted, linked, or appended).

For example, “acute flaccid myelitis syndrome*”

*Inclusion terms:

ICD-10: (^A80.9^,or,^G04.02^,or,^G04.89^,or,^G04.91^,or,^G05.4^,or,^G12.20^,or,^G12.29^,or,^G12.8^,or,^G12.9^,or,^G83.20^,or,^G82.21^,or,^G82.22^,or,^G83.0^,or,^G83.82^,or,^G83.9^); Chief complaint text (^myelitis^).

Exclusion terms: (,andnot,^injury^,andnot,^fracture^,andnot^trauma^)

4. Specify the **number** of facilities reporting during the analytic period.
 - a. If there is a range, state minimum and maximum during the reporting period.
 - b. Use graphical format for time series if number of facilities is variable across time displayed.
 - c. Reference system documentation (to be developed).
5. If data are generated through a query in ESSENCE, note that “emergency department visits” refers to visits processed into ESSENCE. A small percentage of emergency department visits are not processed into ESSENCE for a variety of reasons; therefore, visit counts in ESSENCE are not total emergency department visits. Specify the percentage processed if that is available, or reference system documentation (to be developed).

For example, “Percent of emergency department visits* ...”

*Among emergency department visits processed into ESSENCE. [During this period, x% of total emergency department visits were not processed into ESSENCE.] or [A small percentage of total emergency department visits are not processed into ESSENCE. See [reference TBD] for more information.]



6. If alerts are displayed, the algorithm that was used to create the alerts must be identified.

For example, “Alerts detector: Poisson/Regression/EWMA 1.2”

7. If disposition of death will be included in the display, the following disclaimer **must** be used (typically footnoted): “A discharge disposition does not represent an official death record or cause of death. Death counts may differ from official statistics from the Idaho Bureau of Vital Records and Health Statistics.”

8. For display of data from Idaho hospitals, no display should be publically shared which identifies or which could lead to the identification of the number of visits per individual hospital or the types of visits per individual hospital unless authorization has been received by the hospital to share that detail.

See Appendix A for schematic examples of map displays.

9. No level of detail from textual comments should be provided which could lead to the identification of persons or specific facilities.

10. Any publication using Idaho syndromic surveillance data from the BioSense platform **must** include this statement, “This publication was supported by Cooperative Agreement Number 5 NU500E000091-02-00, funded by the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services.” This is a grant and subgrant requirement.

11. Include limitations of data (e.g., limitations slide, appendix, or reference).

- Data are not representative *jurisdictionwide* because not all hospital emergency departments in the *jurisdiction* are submitting data [NB – use when applicable]. Additionally, data on Idaho residents visiting EDs outside of Idaho may or may not be shared with Idaho public health officials.
- ED visits are categorized into syndromes by using chief complaint and discharge diagnosis codes. Chief complaint is commonly captured as a free text field, which could include misspellings or abbreviations, and could lack context to assist public health with interpretation of the reason for the visit (e.g., “feels unwell” without any symptoms listed). Variability in documentation of chief complaint can make it difficult to categorize all visits into appropriate syndromes and miscategorization can occur.
- Transmission of standardized diagnosis codes generally lags behind transmission of chief complaint data; therefore, the number and percentage of visits for a syndrome which uses both chief complaint and diagnosis codes for syndrome categorization can change by when the data were queried, especially when data are queried for visits within one week.
- Messages are received daily and may update records associated with an earlier visit; therefore, the same query of the same visits may result in different information on different days.



See Appendix B for example of a syndromic surveillance report.



Appendix A. Schematic examples of map displays of Idaho syndromic surveillance data.

How data are displayed is critical to our data use agreements with Idaho hospitals and for preserving our good relationships with our hospital partners. The Division of Public Health worked with the Idaho Hospital Association to develop data sharing guidelines that hospitals would accept. It helps to keep in mind that most hospitals consider the number of emergency department visits and the type of emergency department visits proprietary information, and that information could be deduced from subtraction from available information, including comparison to previous data when a hospital is onboarded. Our current Idaho BioSense Platform: Terms of Use document states, "For aggregate data and representations of data to be used in public communications, presentations or publications, the number of hospitals within a bed capacity range as shown below that are contributing data from the geographic area referenced must be zero or ≥ 2 ."

| Bed Capacity | Estimated No. of Hospitals |
|--------------|----------------------------|
| ≤ 100 | 28 |
| 101–250 | 5 |
| ≥ 251 | 4 |

Please feel free to contact the BCDP syndromic surveillance specialist, CJ Ayotte, at 208-334-5939 if you are not sure about the licensed bed capacity of Idaho hospitals.

Below are schematics of possible ways syndromic surveillance data could be displayed with notation whether the display is suitable for public use.

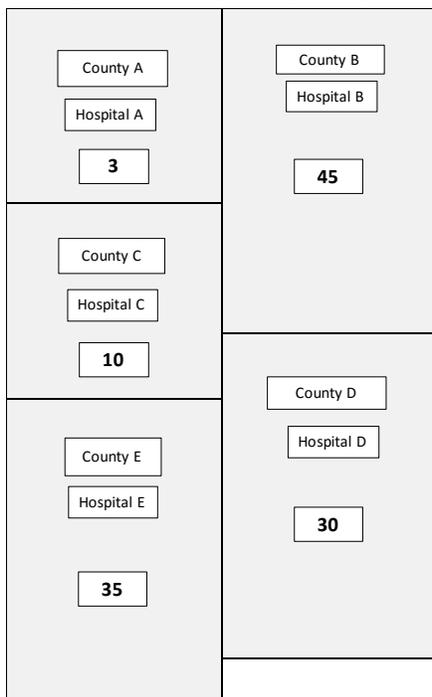


Figure 1. District A: One hospital per county, all hospitals same size, all reporting **Proprietary information for internal use only; do not share or post.**

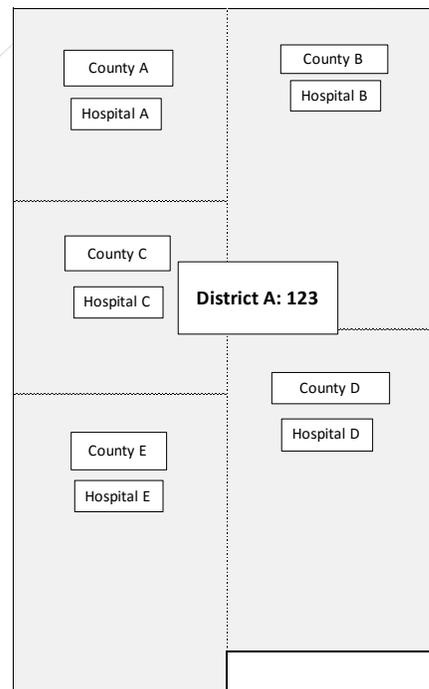


Figure 2. District A: One hospital per county, all hospitals same size, all reporting. Data aggregated by District. Suitable for public consumption

Appendix A. Schematic examples of map displays of Idaho syndromic surveillance data.

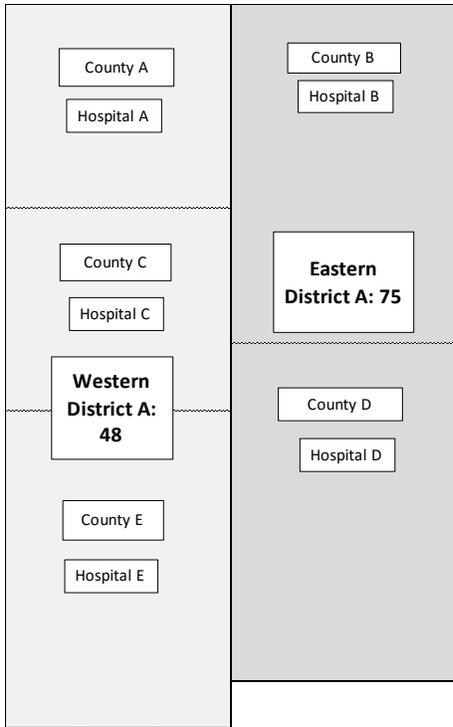


Figure 3. District A: One hospital per county, all hospitals reporting, all hospitals the same size, or hospitals within each region the same size. Data aggregated by District region. Suitable for public consumption.

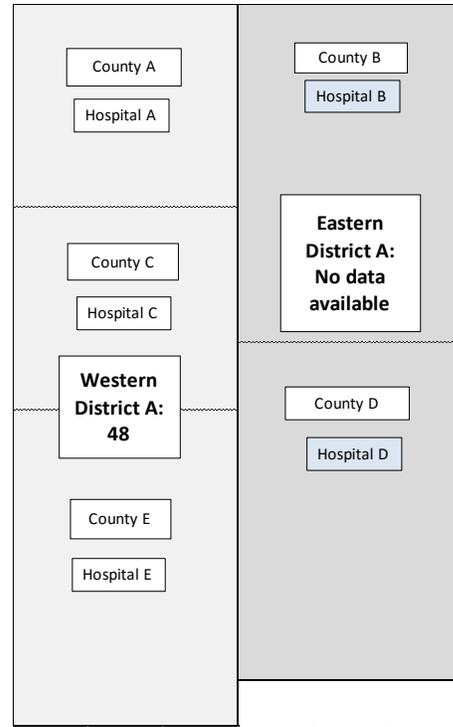


Figure 4. District A: One hospital per county, three hospitals reporting, all hospitals the same size. Data aggregated by District region. Suitable for public consumption.

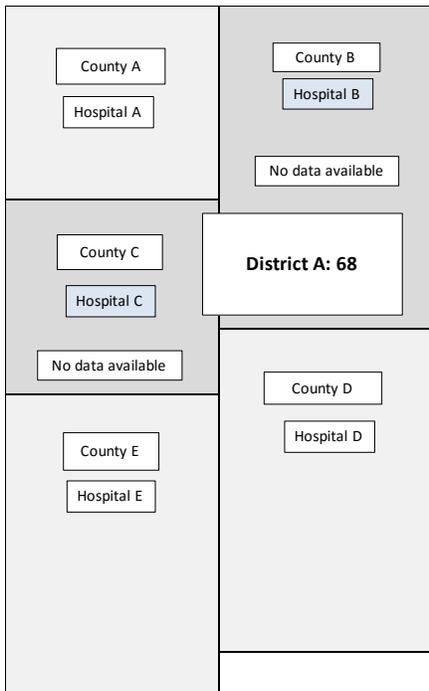


Figure 5. District A. One hospital per county, three non-contiguous counties reporting, hospitals the same size. Data aggregated by District. Suitable for public consumption.

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Appendix A. Schematic examples of map displays of Idaho syndromic surveillance data.

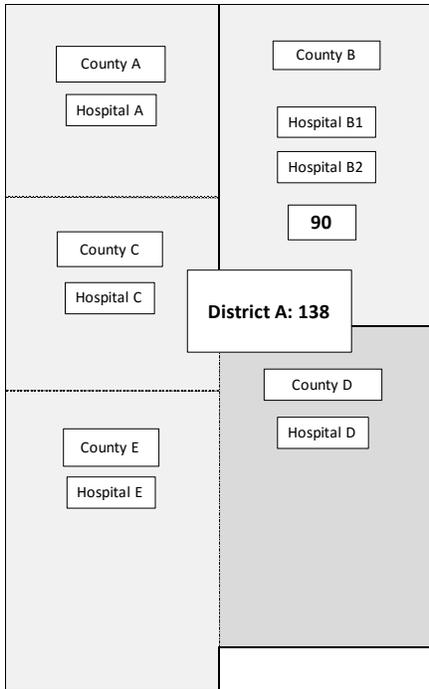


Figure 6. District A. Two hospitals same size (101–250 beds) in County B, both reporting. One hospital in County A and one in County C, both same size (≤ 100 beds) and both reporting. One hospital (≥ 251 beds), in County E reporting. One hospital (≥ 251 beds), in County C, not reporting. Suitable for public consumption. County A and County C are not displayed because counts for hospital E could be calculated if that information were included.

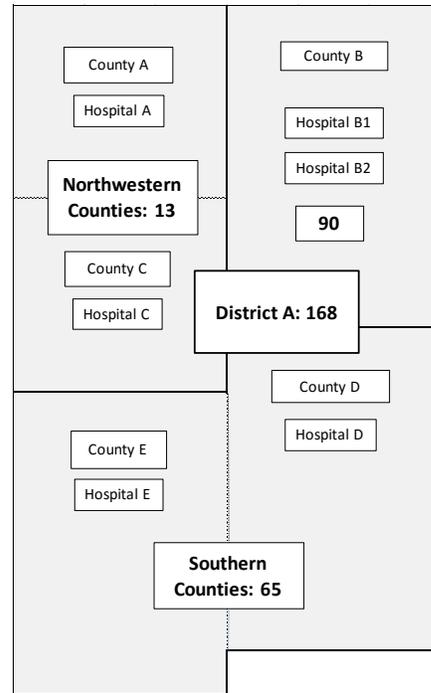


Figure 7. District A. Two hospitals same size (101–250 beds) in County B, both reporting. One hospital in County A and one in County C, both same size (≤ 100 beds) and both reporting. One hospital in County E and one in County D, same size (≥ 251 beds), both reporting. Suitable for public consumption.

Appendix B. Annotated example of syndromic surveillance report.

Can you identify what is missing?

Idaho Syndromic Surveillance program
Weekly influenza-like illness (ILI) report

Date range specific

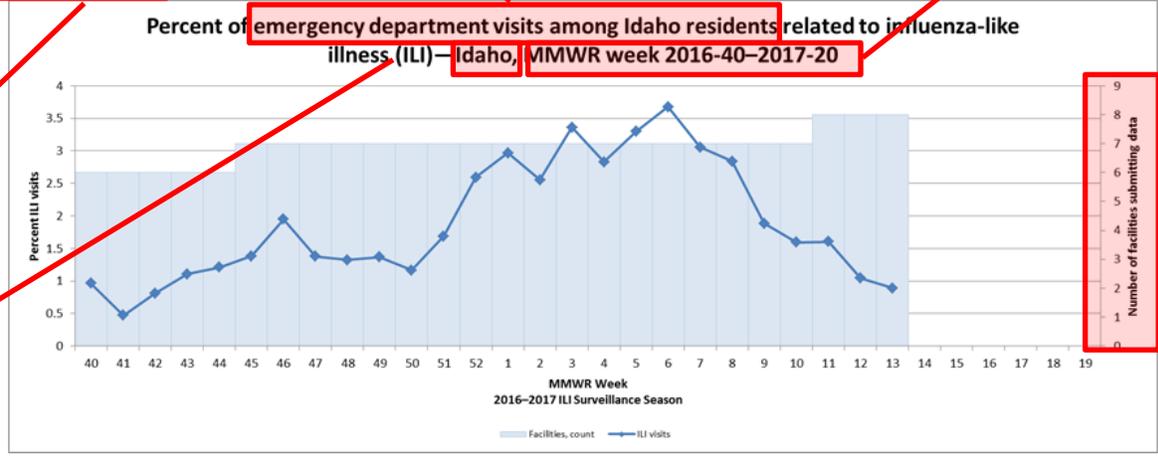
MMWR Week 2016-40 through 2017-13
October 2, 2016 through April 1, 2017
n=6-8 facilities

Data source specified

Date range specified

Range of number of facilities specified

Geographic entity specified



In this example, the number of facilities reporting is displayed on the graph because of changes over time.

Figure 1. Time series of percent of emergency department visits in Idaho that meet the [ESSENCE influenza-like illness syndrome definition](#) during the influenza surveillance season, Morbidity and Mortality Weekly Report (MMWR) week 2016-40 through 2017-13 and the number of facilities submitting data to the Idaho site on the BioSense Platform. Retrieved: April 5, 2017

Syndrome definition referenced

Date data queried specified

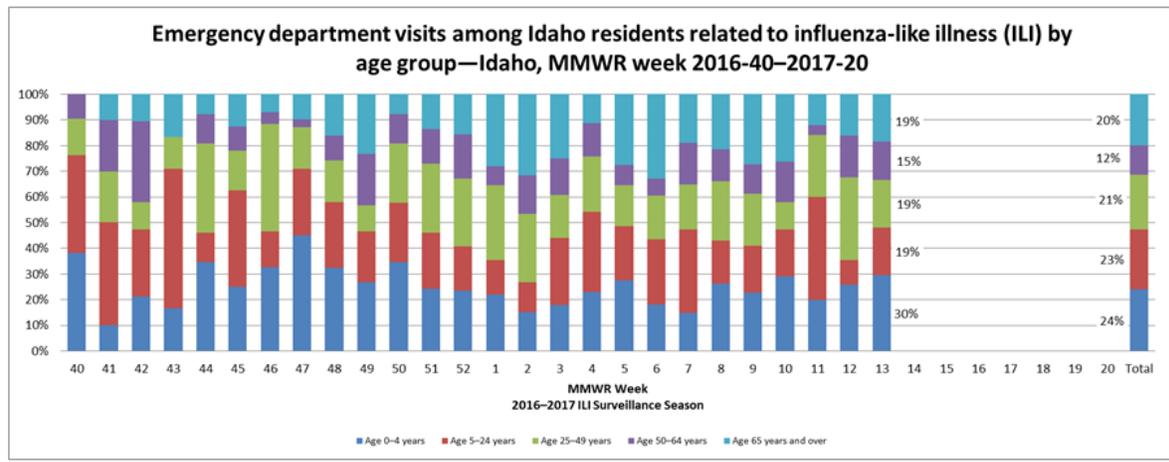


Figure 2. Age distribution of patients with emergency department visits that meet the [ESSENCE definition for influenza-like illness](#) by [CDC ILINet](#) age-group during 2016–2017 influenza season. Retrieved: April 5, 2017.

Required statement of support from federal funds

"This publication was supported by Cooperative Agreement Number 5 NU50OE000091-02-00, funded by the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services."

April 5, 2017

Date of document specified

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