Regional Syndromic Surveillance Data Sharing Workshop: HHS Region 7
Final Report
# Regional Syndromic Surveillance Data Sharing Workshop: HHS Region 7 Final Report

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Executive Summary

The diseases and events that impact public health do not adhere to jurisdictional boundaries. The sharing of public health data and best practices is an important way to enhance regional situational awareness. Developing relationships and building trust among surveillance professionals is a key first step for improving regional collaboration across public health agencies. In addition, recognition of the perceived benefits and barriers to data sharing help to generate buy-in and deeper understanding of the value of syndromic surveillance and the utility of sharing data, information, and colleague experiences.

A Regional Syndromic Surveillance Data Sharing Workshop was held in Health and Human Services (HHS) Region 7 on February 24-25, 2015 at the offices of the Kansas City, MO Health Department. This was the fifth workshop in a series, with the ultimate aim to reach all ten HHS regions. Although workshop specifics varied across regions, the overall objectives of each is to advance participants’ skill in syndromic surveillance practice, examine and share best practices in analytic methods, identify regional benefits and barriers to data sharing, and develop action steps for advancing inter-jurisdictional data sharing.

The Region 7 workshop participants included surveillance professionals from three state public health agencies and three local public health agencies. The workshop design used a self-directed learning and peer-to-peer problem solving and facilitation approach that included multiple points of participant contact including two pre-workshop calls, pre-and post workshop skill assessments, a two-day in-person workshop, and follow up support after the workshop (Appendix A).

In this HHS region, invitees identified influenza like illness (ILI) as the focal surveillance topic for workshop activities and discussions. To prepare for the workshop, participants developed and shared analyses of ILI ED visit trends between MMWR Week 40, 2014 through MMWR Week 6, 2015. Participants envisioned that sharing SyS would provide a benefit for: recognizing emerging threats, advancing SyS practice, evaluating and improving data quality, and maintaining situational awareness.

The barriers to ED visit data sharing in Region 7 included: limitations of public understanding; lack of metadata; representativeness and confidentiality; lack of personnel, time, and tool resources; data analysis limitations; and legal constraints. Participants were asked to indicate their readiness to share data at different levels (e.g., de-identified visit level, aggregated to county or state level) and with different stakeholders, including other HHS region 7 jurisdictions, CDC, the public, and hospitals. In general, region 7 jurisdictions are most ready to share state-level data with other hospital providers and CDC, and there is very little readiness to share results directly with the public. Specific actions to promote data sharing included steps to develop resources and tools for data sharing, address legal barriers, and compile Region 7 SyS metadata.

Overall, the workshop evaluations indicated this training model was an effective way to establish and strengthen relationships among SyS professionals, build knowledge and skills in SyS practice, and identify solutions to barriers in order to promote inter-jurisdictional data sharing.
Background
Inter-jurisdictional syndromic surveillance data sharing is crucial to building national, near real-time public health surveillance capabilities. Developing a national picture of syndromic surveillance data requires data sharing to take place at local, state, and regional levels.

Now more than ever, policies and access to technologies make the current environment suitable for promoting syndromic surveillance (SyS) data sharing. Meaningful Use of electronic health records (EHR) and SyS have created the opportunity for near real-time public health surveillance. Additionally, there are an unprecedented number of tools and technologies available for data management, analysis, visualization, and dissemination that can be implemented and used by public health agencies. However, implementing these technologies alone is not enough to enhance regional and national situational awareness and create a national picture of near real-time surveillance. The public health workforce must have the knowledge and skills to use these technologies to their full potential and trust must be built among public health agencies and surveillance professionals to establish the foundation for data sharing.

The Data Sharing Workshops were developed to address these needs by bringing surveillance professionals from across a U.S Health and Human Services (HHS) administrative region together to share knowledge and skills, build trust, and initiate discussions and planning for future data sharing.

Workshop Description
A planning team that included staff from ISDS, ASTHO, and Charlie Ishikawa of Ishikawa Associates, LLC created and implemented the HHS Region 7 workshop. Charlie led the workshop facilitation and design of workshop artifacts. The workshop was based on a model that utilizes a non-formal education (NFE) approach\(^1\), which features self-directed learning and peer-to-peer problem solving, and actively engages participants in identifying their learning needs and methods with guidance by a facilitator. Using a limited emergency department (ED) dataset for data sharing during the workshop, the training begins with a collaborative assessment and comparison of syndromic surveillance practices for a health condition of interest. Participants then identify and document their perceived benefits and barriers to SyS data sharing for that purpose. At the end of the workshop, participants brainstorm solutions for high priority barriers and commit to short-term actions or next steps.

Region 7 participants selected syndromic surveillance of emergency department visits for ILI for the workshop. It was selected because ILI SyS is a shared practice across jurisdictions, all participants believed that their practices could be improved, and it is an example in which SyS data sharing would be beneficial. In preparation for the workshop, participants developed and shared analyses of ILI ED visit trends during MMWR Week 40, 2014 through MMWR Week 6, 2015 according to instructions provided (Appendix B). Participants also provided information about their jurisdiction’s syndromic surveillance system (i.e., metadata), and shared tabulated,

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aggregate data when possible. The final workshop agenda was shaped to achieve these objectives upon a collaborative assessment of ILI SyS findings and practices (Appendix C).

Evaluation
To evaluate the impact of the workshop on SyS knowledge and skills, participants were asked to complete pre- and post-workshop surveys, which contained the same questions to allow for direct comparison. The questions were divided into four SyS skills sections: data processing, data analysis and interpretation, communicating SyS information, and data quality assurance. For each section, participants were asked to give a self-assessment of specific SyS knowledge and skills using a five point scale: 1) I haven’t been exposed to this yet; 2) I know about this, but couldn’t do it without considerable help; 3) I know about/ can do this, but still need help sometimes e.g. manual/ web; 4) I know about/ can do this; 5) and, I know about/ can do this well enough to train someone else.

The pre-workshop survey was administered to participants when they first arrived at the Data Sharing Workshop and again at the end of the workshop. In addition to the SyS knowledge and skills questions, the post-workshop survey also included a section for participants to evaluate the workshop logistics and facilitation. Responses from the evaluation section were analyzed separately from the knowledge and skills section and were not compared to the pre-survey results. A follow-up survey was also sent one month after the workshop to assess any changes in data sharing taking place in the region, to determine the attendee’s use of the NSSP BioSense Platform before and after the workshop, and to inquire about activities that would help them to improve data sharing in their jurisdiction.

Results
Best or promising practices for ILI surveillance
Workshop participants noted that SyS ILI surveillance has the greatest value when used continually to track influenza trends and for comparison to previous seasons. Routine surveillance for ILI also helps to establish a baseline to better recognize peaks and trends. The actual use of enhanced ILI surveillance depends on health department resources. Given sufficient resources, it can provide insights that are useful in risk communication activities. Applications include:

- Influenza vaccine promotion;
- Development of reports to share with regional agencies; and
- Preparation of press releases.

ILI surveillance data have the greatest utility when accompanied with additional information for emergency preparedness and response purposes. Such information includes:

- A basic, epidemiological description or explanation of the surveillance data;
- Influenza mortality data for the current season;
- Information on vaccine efficacy; and
- The types of influenza for the current season.

Workshop participants reported that ILI surveillance reports should be shared with regional epidemiologist for intervention and control purposes, hospitals, health care providers, local health departments, and CDC.
Assessing trends across jurisdictions
Prior to the workshop, participants developed and shared analyses of ILI ED visit trends from MMWR Week 40, 2014 through MMWR Week 6, 2015. Among the jurisdictions looking at their SyS data, participants found similarities in when ILI ED visits peaked among the various age groups that were most effected. Peaks were observed between week 52, 2014 and week 1, 2015 for all age groups. During the workshop activity, participants were asked to interpret ILI ED visit surveillance reports prepared and provided by their colleagues. Although participants provided a similar level of basic information in their reports, they presented their reports differently. To interpret ILI surveillance data from another jurisdiction, participants found the following report presentation elements the most helpful:
- Time series graph and the tabulated data used to generate the graph;
- Age group stratifications of the data;
- Maps or geographic presentations of the data; and
- Syndrome definition used to categorize the visits as ILI.

Additionally, participants discussed that the following additional items would have helped them gain greater and more useful insights:
- Number of hospitalizations related to ILI;
- ILI mortality data; and
- Description from the report writer to explain the trends they are seeing.

Benefits of Data Sharing
To start the group discussion on the benefits of data sharing, participants were asked to complete the phrase “access to your data will help me to…” (“your data” refers to data from Region 7 participants’ agencies). Participants all agreed that sharing SyS ED visit data within their region would have some benefit to their own agency’s work. In addition, they reported that access to their neighboring jurisdiction’s data could improve SyS practice, planning and response, data quality, and situational awareness. A summary of the discussion notes on benefits of data sharing is shown in Figure 1.
Figure 1: Region 7 Data Sharing Benefits

Region 7 Data Sharing Benefits

Access to your data will help me to...

- Recognize emerging threats
  - Understand what is happening in your area that may affect me later
  - Get advance notice of emerging issues
  - See for myself what is going on in your area
  - Evaluate my corridor issues e.g. I-35
  - Initiate investigations of novel threats
  - Find cases to get the big picture of the outbreak which may cross the borders

- Compare population health geographically
  - Look at my data in reference to somewhere else
  - Compare it to my own data and identify similarities and differences
  - Decide if/when our population is comparable
  - Know how well my jurisdiction’s prevention efforts are working in comparison to yours

- Advance SyS practice
  - Assess my own classifier descriptions or definitions
  - Understand your overall SyS system and borrow classifiers
  - Increase collaboration
  - Learn new ways of extracting and analyzing data
  - Brainstorm things to look for within data – generate ideas

- Inform planning and response
  - Do a better job with disease control and prevention
  - Inform decision making e.g. alerting practices
  - Influenza prevention planning

- Understand trends
  - Compare trends
  - Identify trends in the region
  - Understand trends

- Evaluate and improve data quality
  - Improve my data quality
  - Identify possible data quality issues
  - Identify anomalies in my data
  - Understand my data better

- Maintain situational awareness
  - Get a more complete situational awareness picture
  - Situational awareness

Barriers to SyS data sharing

The barriers to greater ED visit surveillance data sharing in Region 7 were discussed and documented by workshop participants. The barriers include:

1. **Limitations of public understanding**, which includes a risk of inappropriate data interpretation and data quality that is not adequate for sharing with the public.
2. **Lack of metadata** to understand the SyS systems of Region 7 colleagues e.g. number of hospitals submitting data.
3. **Representativeness and confidentiality** including concerns about protecting personal health information and low populations that make representativeness and confidentiality difficult;
4. **Lack of personnel, tool, and time resources** that make it difficult to prepare data and effectively conduct SyS;

5. **Data analysis limitations** because of a lack of standardized practices across region 7 and widespread data quality issues; and

6. **Legal constraints** including state policies that limit the types of data that can be shared and uncertainties about legal issues that may impact data sharing.

The discussion regarding specific obstacles for each key barrier are detailed in Figure 2.

**Figure 2: Region 7 Data Sharing Barriers**

<table>
<thead>
<tr>
<th>Region 7 Barriers to Data Sharing</th>
</tr>
</thead>
<tbody>
<tr>
<td>My barrier to data sharing is…</td>
</tr>
<tr>
<td>• Limitations of public understanding</td>
</tr>
<tr>
<td>o Inappropriate data interpretation</td>
</tr>
<tr>
<td>o Data quality is not yet adequate</td>
</tr>
<tr>
<td>o Lack of understanding to the value of sharing with the public and type of data to share</td>
</tr>
<tr>
<td>• Lack of metadata</td>
</tr>
<tr>
<td>o Ability to share metadata e.g. number of hospitals</td>
</tr>
<tr>
<td>• Representativeness and confidentiality</td>
</tr>
<tr>
<td>o Need to protect personal health information</td>
</tr>
<tr>
<td>o Numbers are too small for representativeness and confidentiality (denominators and numerators)</td>
</tr>
<tr>
<td>o Data are not available uniformly – representativeness is low</td>
</tr>
<tr>
<td>o Data are not representative of population</td>
</tr>
<tr>
<td>o Small populations make it difficult to maintain confidentiality</td>
</tr>
<tr>
<td>o County level aggregate data can only be reported for counties with &gt;25,000 people in Nebraska</td>
</tr>
<tr>
<td>o All the hospitals that are submitting data are in one county in Nebraska</td>
</tr>
<tr>
<td>o Potentially unrepresentative data</td>
</tr>
<tr>
<td>• Lack of resources – personnel</td>
</tr>
<tr>
<td>o Lack of data or the person to prepare the data for the platform</td>
</tr>
<tr>
<td>o Short-staffed in the division</td>
</tr>
<tr>
<td>o Lack of IT support (firewall issues and encryption)</td>
</tr>
<tr>
<td>o Lack of support from IT and other departments</td>
</tr>
<tr>
<td>• Lack of resources – tools</td>
</tr>
<tr>
<td>o Unsure of how to share technologically and what tools to use to aggregate data properly</td>
</tr>
<tr>
<td>o Making sure data is aggregated appropriately</td>
</tr>
<tr>
<td>• Lack of resources – time</td>
</tr>
<tr>
<td>o Lack of time – pulled in many directions</td>
</tr>
<tr>
<td>o Work load and time</td>
</tr>
<tr>
<td>• Confidentiality</td>
</tr>
<tr>
<td>o Confidentiality of data</td>
</tr>
<tr>
<td>o Difficulty to maintain confidentiality if a novel event involves a very small number of people e.g. Ebola, measles</td>
</tr>
<tr>
<td>o Privacy concerns, specifically with PHI in triage notes</td>
</tr>
<tr>
<td>• Data analysis limitations</td>
</tr>
<tr>
<td>o Different classifiers used to reach comparable data</td>
</tr>
<tr>
<td>o Data is not complete</td>
</tr>
<tr>
<td>o Lack of compatible data storage systems – lack of standardization</td>
</tr>
<tr>
<td>o Widespread data quality issues</td>
</tr>
<tr>
<td>• Unclear or restrictive legal constraints</td>
</tr>
<tr>
<td>o Nebraska can only share aggregated data</td>
</tr>
<tr>
<td>o State policies for sharing data with others</td>
</tr>
<tr>
<td>o Legal issues surrounding data agreements with providers</td>
</tr>
<tr>
<td>o Unclear understanding of legal issues surrounding data sharing</td>
</tr>
</tbody>
</table>
Readiness for SyS Data Sharing

Key issues around sharing ED data are 1) what level data to share and 2) who to share it with. Different types of data and exchange have particular barriers and utility. Region 7 workshop participants completed a matrix that indicated their ability to share data at the visit level, county level, and state level, and with other HHS Region 7 jurisdictions, the CDC, the general public, and hospital providers. A compilation of the collective data created a regional snapshot of readiness for data sharing (Figure 3). The results indicate that Region 7 jurisdictions are most ready to share data at the state level. Also, Region 7 jurisdictions are least ready to share SyS data with the general public, and most ready to share with the CDC and hospital data providers. While readiness is low in many categories, most of the Region 7 jurisdictions indicated that they are willing to share SyS data at the county and customized county level, but are currently unable for various reasons e.g., technological capabilities, data quality concern, etc.

Figure 3: Percent of Region 7 jurisdictions indicating readiness to share various levels of SyS data with four groups

<table>
<thead>
<tr>
<th>Level of Data</th>
<th>All Region 7 Jurisdictions</th>
<th>CDC</th>
<th>General Public</th>
<th>Hospital Data Providers*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visit record - including patient Zip code (n=6)</td>
<td>0%</td>
<td>17%</td>
<td>0%</td>
<td>33%</td>
</tr>
<tr>
<td>County (n=6)</td>
<td>17%</td>
<td>17%</td>
<td>0%</td>
<td>17%</td>
</tr>
<tr>
<td>Customized county combinations (n=6)</td>
<td>17%</td>
<td>17%</td>
<td>0%</td>
<td>17%</td>
</tr>
<tr>
<td>State (n=3, only state jurisdictions)</td>
<td>100%</td>
<td>100%</td>
<td>67%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*This was defined as hospitals only being able to see their own patients at a visit record level

Actions to advance data sharing

The workshop participants worked together to identify steps that could be taken to promote data sharing by addressing the barriers. The scope of the actions spanned from very difficult and long-term (e.g., developing sharing policies) to simpler steps that could be done in the short term (e.g., creating a communication network). See Figure 4 for details.
Steps identified by Region 7 Workshop Participants to Address Barriers to Data Sharing

1. Resources/ Tools
   - Communication – create a network and a regular communication schedule
   - Identify/ develop training resources
   - Peer Community

2. Legal Issues
   1. Identify statutes
   2. Share policies
   3. Identify limitations in laws
   4. Find common ground – record level
   5. Find common ground – aggregate
   6. Identify template of info products
   7. Identify population health benefits to sharing
   8. Develop sharing policies

3. Metadata
   - Compile metadata information at hospital and jurisdiction level
   - Ensure a clear understanding of collected metadata at hospital and jurisdiction level
   - Clarify catchment areas (across state lines)
   - Ensure use of metadata tools

Workshop Evaluation Results
Participants were asked to complete a pre- and post-workshop evaluation survey to assess their syndromic surveillance (SyS) skills in:
   - Data processing,
   - Data analysis and interpretation,
   - Communicating syndromic surveillance information, and
   - Data quality assurance.

Quantitative evaluations were done to compare respondents’ pre- and post-workshop survey responses. The graphs below show comparisons of pre- and post-workshop survey results in the four SyS knowledge and skills sections of the survey. All eleven Region 7 participants completed the pre- and post-workshop surveys.

Participants were asked 6 questions about their SyS knowledge and skills in data processing. Figure 5 shows that there was an increase in all of the categories except “I haven’t been exposed to this yet” from the pre to the post workshop survey. The “I haven’t been exposed to this yet” category decreased drastically from 34% in the pre-workshop survey to 0% in the post workshop survey. The largest increase was in the “I know about this, but couldn’t do it without considerable help,” which increased from 21% to 32%.
Participants responded to 10 data analysis and interpretation questions in both the pre- and post-workshop surveys. The largest pre- to post-survey change was in the “I haven’t been exposed to this yet” category, which decreased from 44% in the pre-workshop survey to 30% in the post-workshop survey (Figure 6). The “I know about this, but couldn’t do it without considerable help” and “I know about/can do this, but still need help sometimes” categories saw the largest increases of 25% to 32% and 8% to 15% respectively.

**Figure 5:** Pre and post workshop survey comparison of data processing questions

![Pre-Workshop Survey](image1)

**Figure 6:** Pre and post workshop survey comparison of data analysis and interpretation questions

![Pre-Workshop Survey](image2)
The communicating syndromic surveillance information section of the pre- and post-workshop survey had 4 questions to assess participant knowledge and skills. The “I haven’t been exposed to this yet” category had no responses in either the pre- or post-workshop surveys (Figure 7). The only category that increased from the pre- to post-workshop survey was the “I know/can do this,” which increased from 32% to 57%.

**Figure 7**: Pre and post workshop survey comparison of communicating syndromic surveillance information questions

![Graph showing pre and post workshop survey comparison](image)

Participants were presented with 5 data quality assurance questions in the pre- and post-workshop surveys. The largest increase was in the “I know/can do this well enough to train someone else” category, which increased from 7% to 22% (Figure 8). The “I haven't been exposed to this yet” and “I know about/can do this” categories had the largest decreases from 40% to 27% and 20% to 7% respectively.
**Logistics and Facilitation**

Overall, participants were satisfied with the workshop logistics and facilitation. Two participants responded that they were “not very” satisfied with the knowledge of the BioSense support staff, and one responded that he/she was “not very” satisfied with the data sharing activities. However, participants responded that they were somewhat or very satisfied in all other aspects of workshop logistics and facilitation.

Participants were also asked to rate their satisfaction with the number of pre-workshop planning meetings and the amount of pre-workshop preparation work. All 11 participants said that the number of pre-workshop preparation meetings was “just right.” Ten participants said that the amount of pre-workshop work was “just right” and one participant indicated that there was too much pre-workshop work.

In the last section of the evaluation, participants were asked to indicate their satisfaction with various aspects of the workshop facilitation using a five-point scale (Figure 9). Eight participants said they were very satisfied with the format of the workshop, and three they were somewhat satisfied. All 11 participants said they were somewhat or very satisfied with the quality of the workshop facilitators.
Figure 9: Participant satisfaction with workshop facilitation (n=11)

Outcomes
This workshop brought together key stakeholders involved in syndromic surveillance practice in HHS Region 7 to meet and work together on training that they played an active role in developing. By the end of the workshop all participants agreed that they would like to share data at some level with their neighboring jurisdictions.

In addition to the primary outcome of building the trust and familiarity essential for cross-jurisdictional data sharing, the specific outcomes of this workshop can be aligned with the original objectives:

1. **Advance participants’ skill in syndromic surveillance practice.**

   This was measured through the pre/post surveys where respondents indicated their perceived level of proficiency in a number of different areas relevant to SyS. Based on their self-assessments, the Region 7 workshop participants advanced their competencies (knowledge and skills) in:

   - Data processing;
   - Data analysis and interpretation;
   - Communicating syndromic surveillance information; and
   - Data quality assurance.

   The “I haven’t been exposed to this yet” decreased in all four SyS knowledge and skills sections from the pre- to the post-workshop survey. Additionally, three SyS sections (data processing, data analysis and interpretation, and data quality assurance) all saw increases in the percent of responses in the “I know/can do this well enough to train someone else” category.

   The communicating SyS information category had the highest level of participant skills based on the post-workshop survey; no participants selected “I haven’t been exposed to this yet” in the
pre- or post-workshop survey, and the “I know about/can do this” category had a very large increase from the pre to the post workshop survey.

The data processing, data analysis and interpretation, and data quality assurance sections all has a high percent of responses in the “I haven’t been exposed to this yet” and the “I know about this, but couldn’t do it without considerable help” categories. However, the changes in responses from the pre- to the post-workshop surveys indicate that overall Region 7 participants made improvements in all of these categories.

2. **Examine and share best practices in analytic methods.**
Workshop participants shared their data and approach to ILI SyS surveillance and compared observed trends during a prescribed time period. In addition, they discussed preferences for information sharing across jurisdictions, including reporting formats.

3. **Identify regional benefits and barriers to data sharing.**
Facilitated discussions during the workshop led to compilations of the group’s ideas regarding benefits and barriers to data sharing that can serve as a guide to identify areas where specific technical assistance activities would have an impact.

4. **Develop action steps for advancing inter-jurisdictional data sharing.**
By the end of the workshop, the Region 7 group had together developed their goals for improving data sharing across jurisdictions. They focused on specific solutions and actions to address barriers to data sharing identified through the facilitated workshop discussions.
# Appendix A: Regional Data Sharing Workshop planning and facilitation timeline

<table>
<thead>
<tr>
<th>Task</th>
<th>Start</th>
<th>End</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Workshop Orientation</strong></td>
<td>Jan. 22, 2015</td>
<td>Jan. 27, 2015</td>
<td>Participants provided with workshop orientation information, and surveyed for their experience with SyS, attitudes about inter-jurisdictional SyS data sharing and interests in the workshop activities.</td>
</tr>
<tr>
<td><strong>Planning Meeting #1</strong></td>
<td>January 30, 2015</td>
<td></td>
<td>Participants and workshop planning team discussed goals and expectations for the workshop and make key workshop decisions including preferred surveillance tools and the surveillance topic.</td>
</tr>
<tr>
<td><strong>Planning Meeting #2</strong></td>
<td>February 13, 2015</td>
<td></td>
<td>Workshop plans were finalized and workshop preparations tasks were decided.</td>
</tr>
<tr>
<td><strong>Workshop Preparation</strong></td>
<td>Feb. 16, 2015</td>
<td>Feb. 20, 2015</td>
<td>Participants prepared for the workshop by completing the analyses on the agreed upon surveillance topic and providing metadata about their surveillance systems.</td>
</tr>
<tr>
<td><strong>Workshop</strong></td>
<td>Feb 24, 2015</td>
<td>Feb 25, 2015</td>
<td>Participants gathered at the Kansas City, MO Health Department for the workshop from 12pm on the first day to 12pm on the second day.</td>
</tr>
<tr>
<td><strong>Follow-up Meeting</strong></td>
<td>March 9, 2015</td>
<td></td>
<td>Participants review workshop outputs and data sharing action items and develop a plan for completing the action items.</td>
</tr>
</tbody>
</table>
Appendix B: Pre-workshop instructions to participants for ILI data analysis

For each week MMWR Week 40, 2014 and MMWR Week 6, 2015:

1. Use your jurisdiction’s data and ILI visit classifier to count the number of ED visits with influenza-like illness symptoms for the following groups:
   a. All ages
   b. < 5 years
   c. 5-24 years
   d. 25-49 years
   e. 50-64 years
   f. 65+ years
   g. Unknown

2. Use your jurisdiction’s data and the BioSense ILI classifier (definition in Box 2), to count the number of emergency departments visits with influenza-like illness symptoms for the following groups:
   a. All ages
   b. < 5 years
   c. 5-24 years
   d. 25-49 years
   e. 50-64 years
   f. 65+ years
   g. Unknown
### Appendix C: Region 7 Workshop Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity Description</th>
<th>Time</th>
<th>Activity Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noon</td>
<td>Working lunch: Set-up and pre-workshop assessment</td>
<td>8:00 AM</td>
<td>Reconvene</td>
</tr>
<tr>
<td>1:00</td>
<td>Warm-up, agenda review, and introductions</td>
<td>8:30</td>
<td>Map Current Data Sharing Landscape – Present SyS data sharing and perceived benefits and barriers</td>
</tr>
<tr>
<td>2:00</td>
<td>Data Sharing Activity – ILI MMWR Week 40, 2014 to MMWR Week 6, 2015</td>
<td>11:00</td>
<td>Design solutions and plan next steps</td>
</tr>
<tr>
<td>2:15</td>
<td>Break-out groups</td>
<td>11:40</td>
<td>Concluding remarks</td>
</tr>
<tr>
<td>4:30</td>
<td>Regroup and Synthesize</td>
<td>Noon</td>
<td>Conclude workshop</td>
</tr>
<tr>
<td>5:00</td>
<td>Sharing Technology Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5:30</td>
<td>Adjournment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7:00</td>
<td>Group Dinner</td>
<td></td>
<td></td>
</tr>
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