11 October 2011: Syndromic Surveillance Uses Webinar -- Valuable Uses for Emergency Department Data in Public Health: Examples from Florida and Boston:
Q&A Responses from Marcus Rennick and Aaron Kite-Powell

Do you think that SS for ILI monitoring can replace sentinel surveillance for seasonal influenza?
Aaron Kite-Powell: We are exploring the possibility of replacing the sentinel ILI symptom reporting with the ESSENCE ILI syndrome category, but we still would want to maintain the laboratory surveillance for influenza.

Have you done some evaluation on animal bite reporting completeness from hospital ERs? I assumed animal bite from rabies susceptible animals is a reportable condition in FL.
Aaron Kite-Powell: We have not formally evaluated surveillance for animal bite PEP from hospital ERs yet, but it is, among others, an evaluation we would like to conduct. This is reportable in FL, but as with many conditions not all are always reported.

What are the roles at the LHD's who are monitoring the data?
Aaron Kite-Powell: In Florida the LHDs have access to all of the data, and are responsible for any local follow up that is necessary. However, we don't require that they monitor the data since resources for this work can vary greatly county by county. State-level epidemiologists who monitor the data will also fill in as needed, and notify the LHD if there is something in the data that suggests follow up is necessary.

Marcus Rennick: As a local health department monitoring and maintaining the system, we ensure data completeness and analyze the output on a daily basis. The data component is managed by and IT program manager to ensure that all files were transmitted and received and all files were inputted and processed correctly. The analysis is handled by an epidemiologist to identify trends and drill down into the line listing for flagged aberrations. If clustering or other unusual pattern is noted, records can be requested, or infection control can be contacted to initiate a case report or a public health investigation. Also, data is extracted for ad hoc queries or routine public health surveillance, situational awareness, and seasonal illness reporting.

What algorithm is being applied to determine the distinction between normal, warning and alert points?
Aaron Kite-Powell: ESSENCE gives you the option to pick from a number of algorithms. The default is a regression/EWMA switch algorithm that essentially chooses the correct (regression or EWMA) algorithm automatically based upon a goodness of fit test. The CDC-C1, C2, C3 are also options if you prefer, and you can compare all of the above in one graphic too.

Does FL have a statewide protocol for response to detected events or potential events?
Aaron Kite-Powell: The ESSENCE manual that was written for Florida includes a general flowchart showing how someone how to go about the routine monitoring process. I think the local health departments probably customize this to fit their needs.

What valuable or unusual uses of syndromic surveillance have you seen in the hospital or provider community, if any?
Aaron Kite-Powell: I have not surveyed our hospital user community, so I can't say specifically. Certainly there was a lot of interest from the reporting hospitals to view their data during the pandemic.

Marcus Rennick: Providers and hospitals request data on routine basis. One community health center calls every quarter to update staff on community illness trends, one hospital has used the data for norovirus comparison to the city aggregate. All infection control practitioners receive our health alerts that routinely use syndromic data to present seasonal illness patterns. University health centers have used our data around alcohol related visits.

What is the distribution of Insurance Coverage of the target population for the Dental-Related ED visits?
Marcus Rennick: Technically, in Massachusetts, 98% of residents have health insurance. We did not assess individual insurance, but were looking for trends in visits following a change in MA Medicaid coverage for oral health. However, we hypothesize that not enough time (about 5 months) had passed since the revocation of funding to see a change in oral health related visits in the ED.

Are federal military and VA hospitals in your systems?
Aaron Kite-Powell: Florida does not have military or VA facilities reporting at this time, but we would be interested in working with them.

Marcus Rennick: The VA in Boston is not part of the Boston system. We do not have any military hospitals in the city.

It seems like having access to the line listing data, as opposed to aggregate data is important in detecting public health anomalies. Can you comment some more on that? We're hearing mixed input about this through the BioSense Redesign project.
Aaron Kite-Powell: It's our view that a fully functional syndromic surveillance system must be able to view and manipulate the line list. Statistical signals and general trends alone are not enough if we are going to use the system for any level of follow up at the hospital or patient level.

Marcus Rennick: The line listing is important at the local level. Without the line listing and the ability to reach back to a patient record if need be then specific intervention or case follow-up is not possible. Aggregate data is fine when comparing jurisdictions, however, would make a public health response less specific and more difficult. Also, there are anomalies that only become apparent when looking at individual visits, especially when they are clustered inside a larger syndrome.

Does Boston share data with BioSense? If so, do they also store and analyze the data locally as well?
Marcus Rennick: Yes [Boston participates in BioSense]. Yes, we have a data warehouse of nearly 5 million records. Data is processed daily through our implementation of EARS.

Is there a resource for syndromic surveillance epis to share queries along with pros/cons and conditions to use them... I saw many queries today that peaked my interest- great presentations.
Aaron Kite-Powell: Within the ESSENCE system users can share queries and post output to another users account. I realize this isn't quite what you are getting at in this question, but it's worth noting that the functionality is available to system users.

Marcus Rennick: We are always happy to share queries and ideas. Feel free to contact us. ISDS provides some forums for their community of practice.

Do any states have model legislation enabling syndromic surveillance?
Please visit www.cste.org/BioSense.asp and see the "Syndromic Surveillance Regulations Library."

Please contact Beth Dunbar (edunbar@cste.org) or Mike Coletta (mcoletta@naccho.org) if you have any questions about this document or the October 11th webinar.