

Could Syndromic Surveillance Data Be Used Effectively with Other Data Sources? A Transposable Local View

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OBJECTIVE

This panel member consultation is an International Society of Disease Surveillance (ISDS) sponsored project. It involved expert personnel in their respective area to address specific, priority questions confronting researchers, developers, and public health practitioners in the field of syndromic surveillance (SS). The objective of this consultation will be to develop expert, consensus-based recommendations that address specific, unsettled problems or unanswered questions that hinder advances in utilization of syndromic surveillance data in combination with other data sources. Recommendations arising from the consultation should facilitate efforts by researchers, developers, or practitioners to be able to stride ahead and make progress.

BACKGROUND

Many public health organizations and CDC have recognized that our "national" system to gather public health (PH) information is a fragmented patchwork of multiple systems [1]. The questions that are proposed to the panel member experts entailed addressing the possibility that SS data could be used effectively in amalgamation with other data sources. This would include its combination with a) BioWatch (environmental sampling data), to improve the public health utility of environmental pathogen monitoring [2], b) plume modeling, atmospheric data on weather conditions that foster disease spread to predict, rather than detect or explain, epidemics or the onset of seasonal disease [3], and c) veterinary data to better describe and predict interactions between animal and human health [4]. The topic is important to impede rapid detection of future health threats by combining syndromic surveillance data with other data sources.

METHODS

Expert panel members from various surveillance professions convened and discussions were facilitated by local health department SS staff members and ISDS consultant. Relative information in regards to their respective system abilities and hindrances in regards to data usefulness of culminated data streams were key topics. Furthermore, the importance of the topic, and how expert, consensus-based recommendations would allow for advances in the practice of syndromic surveillance was discussed.

The basis of the panel member discussion started with the "core" syndromic surveillance system (i.e.

Essence, BioSense, etc.), and applying/analyzing several different data streams from their respective sources. The expert panel member focused on main ideas in regards to the combination of these data sources, and if the information gathered would be practical for a public health official to make quick and decisive decisions pertaining to the following events:

- Immediate health treat, i.e. aerosolized bio-agent
- Disease outbreak
- Other unrealized environmental, i.e. Strontium, Radon, etc.

Provisional topics included, the different data stream sources advantages and barriers were discussed. These included syndromic surveillance system, laboratory variables results, using Biological Warning & Incident Characterization (BWIC) tools to enhance BioWatch (signal interpretation tool), plume modeling, and animal health. Other topics briefly discussed included were the legal issues regarding medical record access, different types of algorithms used in various syndromic surveillance system, budget constraints, and the veracity and usefulness of compiled data.

RESULTS/CONCLUSIONS

The results and conclusion will be summarized and presented at the International Society for Disease Surveillance, being held in Indianapolis, Indiana October 11 ~ 12, 2007.

REFERENCES

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