

A County Health Department's Analysis and Dissemination Algorithm of a Neurological Syndrome Aberration to Respective Community Stakeholders

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OBJECTIVE

The purpose of this study is to depict a local county health department's analysis and dissemination algorithm of surveillance system (SS) aberration (alarm) to designated stakeholders within the community.

BACKGROUND

Surveillance is defined as the "ongoing" systematic collection, analysis and interpretation of data and the distribution to those who need to know [1]. The proper dissemination of information to those who need to know must be timely and also requires communication proficiency and experience. Surveillance data must be created in a form appropriate for the intended audience, and the means of communication must be determined. It must be decided how the message is sent and afterwards what influence it had.

METHODS

The Duval County Health Department (DCHD) uses BioDefend (BD), and other SS data streams to determine situational awareness of probable health threats within the community. BD alarms are correlated with secondary surveillance instruments. Once the alarm is validated the investigator develops a concise report of the specific syndrome in question. The determination of which stakeholder to contact is dependent on the level of the alarm. This may be determined by, the number of reporting Emergency Departments (EDs), the level of correlation between concurrent SS aberrations, and the results of the time series analysis of the specific alarm(s). The mode of dissemination is also based on the level of the alarm; once priority is established the report is disseminated utilizing either secure fax, email, and/or telephone. The investigator must also assure that the appropriate language level is selected based on characteristics of the stakeholder(s).

RESULTS

In early April of 2008, DCHD received a neurological syndrome alarm from BioDefend. Following established protocols, the investigative action involved the evaluation of the alarm for validity. This was done by: (1) Verifying chief complaints, this was done by confirming chief complaints available within BD and contacting the respective ED, (2) Obtained diagnostic data, this included any laboratory tests, imaging results, ICD-9 codes and/or physician notes, (3) Filtered for misclassification of syndrome by correlation of chief

complaints and the specific syndrome definition for accuracy and completeness, (4) Assessed demographic information [age, sex, zip code, facility location, and time of visit] for possible epidemiological links, (5) Correlated with secondary surveillance instruments, by assessing other DCHD surveillance tools for increases or trends consistent with the identified alert. A situational report in basic terminology was generated detailing the inference. The nature of the alarm determined who would receive the report, and an email was sent to the following; EDs, infection control personnel, DCHD epidemiology, and Emergency Preparedness (figure 1).

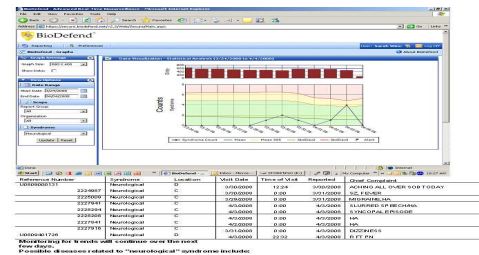


Figure (1)

The stakeholders were then requested to contact DCHD if they had suspected anything regarding this alarm.

CONCLUSION

The dissemination of surveillance data must reflect more than risks, rates, or other biostatistically derived relationship to the targeted audience, otherwise the stakeholders may not value the information if they do not understand how it relates to them [2]. Concise and meaningful reports help open and maintain good dialog and community cooperation, and is the foundation for sound surveillance monitoring.

REFERENCES

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