BioSense

Supporting Statement Section B
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BioSense 2.0 Supporting Statement

Section B – statistical design and data collection procedures

Information for data source recruitment and for access to the BioSense 2.0 application is used as contact information or to perform services and is not summarized statistically, so these activities do not involve statistical methods. The information acquired during the process of data collection is summarized statistically, so this activity does involve statistical methods and is addressed in this Section.

1   Respondent Universe and Sampling Methods

The Respondent Universe is all of the state, local, and territorial public health jurisdictions capable of participating in BioSense 2.0, plus Veterans Affairs (VA), Department of Defense (DoD), two national-level private sector clinical laboratories, and a private sector health information exchange company.

The sampling method used is convenience sampling. BioSense 2.0 has taken a user centered approach, so state, local, and territorial public health jurisdictions respond to communication outreach materials and can solicit information themselves on how to join. Joining BioSense 2.0 is a completely voluntary activity.

2   Procedures for the Collection of Information

State, local, and territorial public health jurisdictions that are using the BioSense 2.0 application have the option to participate in the shared space. When jurisdictions choose to share data with CDC's BioSense Program, they access a submenu of the BioSense 2.0 cloud-enabled, web-based platform. The submenu allows them to choose with whom to share data and at what level of aggregation from a series of drop-down lists. After this one-time activity, the jurisdictions' data is automatically electronically transferred from the jurisdictions exclusive, secure space to the shared space on a daily basis.

VA, DoD, the two national clinical laboratory corporations, and the private sector health information exchange company automatically chose to share with CDC when they were recruited to submit data to the BioSense 2.0 cloud environment. After this one-time activity, data from these organizations was automatically electronically transferred from these organizations' existing data bases to the CDC BioSense Program's exclusive, secure space in the BioSense 2.0 cloud environment on a daily basis.

3   Methods to Maximize Response Rates and Deal with No Response

Regarding methods to maximize the number of respondents to agree to share data, CDC collaborates with the associations ASTHO, NACCHO, CSTE, and ISDS to reach out to the public health community in a user centered approach. Additionally, the BioSense 2.0 application is designed to promote the contribution of public health data by all users and the appropriate sharing of aggregated data in the shared space. There is no method to deal with "no response", because sharing data with CDC's BioSense Program is completely voluntary.

Regarding the electronic data received, it is monitored on a regular basis for completeness, and data sources are contacted and IT solutions are sought should the feeds be incomplete or fail to arrive.

4   Tests of Procedures or Methods to be Undertaken

There can be no pilot testing of a data collection instrument, because all data collection is done from already existing data bases via previously approved automated electronic transfers.

5   Individuals Consulted on Statistical Aspects and Individuals Collecting and/or Analyzing Data

Dr. Taha Kass-Hout, Dr. David Buckeridge, Zhiheng Xu were consulted regarding the Change Point Analysis statistical algorithm.

The CDC BioSense Epidemiology and Surveillance Team was consulted regarding the Modified C2 EARS statistical algorithm.

The statistical algorithm CUSUM is also used in BioSense, but because it is simpler and commonly used in the practice of syndromic surveillance there was no need to consult with experts to institute its use.