

# **BioSense**

## **Supporting Statement Section B OMB Control Number 0920-0824**

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## National Syndromic Surveillance Program - Request for Revision

### Table of Contents

#### Section

#### **B. Statistical Methods**

1. Respondent Universe and Sampling Methods
2. Procedures for the Collection of Information
3. Methods to Maximize Response Rates and Deal with No response
4. Tests of Procedures or Methods to be Undertaken
5. Individuals Consulted on Statistical Aspects and Individuals Collecting and/or Analyzing Data

## National Syndromic Surveillance Program Supporting Statement

### **B. Statistical Design and Data Collection Procedures**

There are no statistical methods used for recruitment, registration, or healthcare information collection. Information for recruitment and registration consists of administrative data that are not summarized statistically (**Statement A**). Although recruitment and registration data may be used to identify numbers of users of the system, these activities do not involve any complex statistical methods. However, the healthcare data (**Attachment 5**) are analyzed statistically.

CDC and health professionals from state and local health departments, the VA and DoD use NSSP data to support the detection and characterization of public health events of potential concern, such as disease outbreaks or hazardous conditions. NSSP platform users use data analysis, visualization and querying tools to monitor the occurrence (e.g., number and proportion of hospital emergency department visits) of a selected set of syndromes (e.g., flu-like symptoms and opioid poisoning). For health event detection, statistical algorithms (e.g., Poisson regression) are used to alert users that there are increases in emergency department visits for a given syndrome during a certain period of time in a certain geographic area. The alerts may or may not indicate that a significant health event is occurring. Alerts are not used to draw conclusions about the actual occurrence of adverse events in that geographic area. Instead, public health officials use the alerts along with other information available in the syndromic surveillance system and other sources to determine if a public health investigation should be undertaken. Monitoring is continued after alerts occur in order maintain an understanding of the potential event of concern (situational awareness). No conclusions are drawn about possible events in locations not covered by the system.

#### **1. Respondent Universe and Sampling Methods**

The respondent universe for recruitment information collection has not changed and consists of state, local, and territorial public health departments that are interested in and capable of participating in NSSP. Currently, there are 41 state public health departments, 25 local public health departments (**Attachment 3**) and one national-level private sector clinical laboratory participating. There will be no additional recruitment of clinical laboratories. Non-probability sampling is used to recruit state, local, and territorial public health departments and participation is completely voluntary.

The respondent universe for registration information collection has not changed and consists of potential users of the BioSense Platform from participating state, local, and territorial public health departments. There are 601 state public health department users, and 194 local public health department users. No sampling is used and registration is completely voluntary.

## **2. Procedures for the Collection of Information**

The procedures for recruitment information collection, registration information collection, and healthcare information collection have not changed. For recruitment information collection, first and last names, email addresses, organizational affiliations, and telephone numbers of individuals responding on behalf of the public health jurisdictions are collected by email for contact purposes only. For registration information collection, first and last names, email addresses, title, affiliation, organization, security questions and passwords are collected through the one-time completion of a registration form on the BioSense Platform (**Attachment 4**). For healthcare information collection, participating state and local public health departments submit healthcare data to their secure space in the BioSense Platform through automated electronic health information exchange systems, or hospitals and health professionals in those jurisdictions submit healthcare data to the jurisdiction's secure space directly. When jurisdictions choose to share data with CDC, they access a submenu of the BioSense Platform (**Attachment 7**). 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 are accessible to whom they shared the data with. The national clinical laboratory chose to share their healthcare data with CDC when they began participating in NSSP so their data are available to CDC as soon as they are submitted.

Data quality control includes assessing messages and records for completeness, consistency, validity, and timeliness and developing and implementing data quality control processes and generating data quality assurance reports for users. These quality control processes are based on whether a record can be accurately processed in the system for subsequent analyses and presentation to the user. For example, the system checks for valid facility IDs by making sure that the given facility ID maps to a current facility ID. The validity of the patient visit date and time are checked to make sure that the patient visit date is not in the future and not too far in the past. Timeliness is also assessed based on the Meaningful Use of Electronic Health Records specifications for syndromic surveillance which indicate that the initial record should be sent within 24 hours of the patient visit date. Reports are generated that rate the timeliness of each facility's data feed. The system doesn't check items such as patient gender and diagnosis since there is no way of knowing if these are accurate for a particular record.

### **3. Methods to Maximize Response Rates and Deal with No response**

CDC, the Association of State and Territorial Health Officials (ASTHO), the Council of State and Territorial Epidemiologist (CSTE), the National Association of County and City Health Officials (NACCHO) and other stakeholders collaborate to reach out and provide information to the public health community about the opportunity to participate in NSSP. To increase population coverage and representativeness of the data, NSSP will continue to support outreach efforts to state and local health departments in non-participating states. CDC will continue to encourage jurisdictions' sharing of data within the BioSense Platform for regional and national situational awareness based on local and state surveillance.

CDC monitors the receipt and completeness of electronic data from organizations participating in NSSP and collaborates with those organizations to assure completeness of data.

### **4. Tests of Procedures or Methods to be Undertaken**

NSSP includes an existing system of information exchange and no pilot testing of data collection procedures or methods will be undertaken.

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

In planning and developing NSSP, the BioSense Platform and collection and use of syndromic surveillance data, CDC has engaged with individuals and organizations outside of the agency in a variety of ways. The primary group with which CDC consults is an expert group of individuals from public health associations, including ASTHO and CSTE; federal agencies, including CDC, the VA and DoD; state and local public health departments; and healthcare. The names, affiliations, and contact information for that group are in **Attachment 8**. That group, including CDC, meets monthly to discuss issues related to availability, quality, security, sharing, use, and reporting of data. As a source of information on data elements for syndromic surveillance, CDC makes use of International Society for Disease Surveillance (ISDS) recommendations to the healthcare and public health communities through the Centers for Medicare and Medicaid Services (CMS) electronic health record (EHR) Incentive programs (a.k.a., Meaningful Use programs) on use of EHRs for syndromic surveillance (<http://www.syndromic.org/resources/meaningful-use>). CDC collaborates with ISDS to improve electronic data exchange specifications for syndromic surveillance data from EHRs. CDC also participates in monthly conference calls with users of the BioSense Platform and consults with stakeholders at annual meetings of International

Society for Disease Surveillance and CSTE. The CDC's Center for Surveillance, Epidemiology and Laboratory Services, other CDC Centers, VA, DoD, and state and local public health officials collect and analyze the information.