

# **Syndromic Surveillance Practice Assessment**

OSTLTS Generic Information Collection Request  
OMB No. 0920-0879

## **Supporting Statement – Section A**

Submitted: 9/8/17

**Program Official/Project Officer**

Sebastian Romano

Partnerships and Evaluation Branch

Center for Surveillance, Epidemiology, and Laboratory Services (CELS)

1600 Clifton Road, NE MS E-91

Office- 404-498-3041

Fax – 404-498-6235

Email – [wwj5@cdc.gov](mailto:wwj5@cdc.gov)

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- The purpose of this assessment is to collect information about how syndromic surveillance practice is being conducted at the jurisdictional level.
- The information collected will provide CDC with most current knowledge and understanding about syndromic surveillance systems and practice related characteristics among NSSP grantees, challenges encountered in implementing syndromic surveillance activities, and potential strategies to address challenges. In addition, the information will inform technical assistance provided by CDC to these jurisdictions through consultation, technical support, and product development.
- CDC expects to collect up to 31 voluntary responses to the Syndromic Surveillance Practice Assessment, which will be administered over the telephone during regularly scheduled one on one calls between grantees and CDC project officers.
- This assessment will show how syndromic surveillance practice is being conducted at the jurisdictional level. The respondent universe consists of 31 NSSP grantees that submit syndromic surveillance data to the BioSense Platform.
- Basic statistical analysis including frequencies, proportions, means, and ranges will be conducted along with a thematic analysis of qualitative data provided by jurisdictions. Data will be used for programmatic purposes, with the potential for peer-reviewed publications.

## Section A – Justification

### 1. Circumstances Making the Collection of Information Necessary

#### Background

This information collection is being conducted using the Generic Information Collection mechanism of the OSTLTS OMB Clearance Center (O2C2) – OMB No. 0920-0879. The respondent universe for this information collection aligns with that of the O2C2. Data will be collected from a total of 31 respondents across 28 state, and 3 local health departments/jurisdictions. These respondents are health department syndromic surveillance senior staff persons (e.g. Principle Investigator, Project Manager, Program Coordinator, Epidemiologist) who are grantees of the National Syndromic Surveillance Program (NSSP) grants at each of 31 state and local health departments across the United States (Please see Attachment A for respondent breakdown).

This information collection is authorized by Section 301 of the Public Health Service Act (42 U.S.C. 241). This information collection falls under the essential public health service(s) of:

1. Monitoring health status to identify community health problems

- 2. Diagnosing and investigating health problems and health hazards in the community
- 3. Informing, educating, and empowering people about health issues
- 4. Mobilizing community partnerships to identify and solve health problems
- 5. Development of policies and plans that support individual and community health efforts
- 6. Enforcement of laws and regulations that protect health and ensure safety
- 7. Linking people to needed personal health services and assure the provision of health care when otherwise unavailable
- 8. Assuring a competent public health and personal health care workforce
- 9. Evaluating effectiveness, accessibility, and quality of personal and population-based health Services
- 10. Research for new insights and innovative solutions to health problems <sup>1</sup>

The Division of Health Informatics and Surveillance (DHIS) in the Centers for Disease Control and Prevention (CDC) provides leadership and crosscutting support in developing public health information systems, managing public health surveillance programs, and providing health-related data required to monitor, control, and prevent the occurrence and spread of diseases and other adverse health conditions. DHIS manages two public health surveillance programs that have cross-cutting utility for multiple CDC programs and public health jurisdictions<sup>1</sup>: the National Notifiable Diseases Surveillance System (NNDSS), a nationwide collaboration that enables all levels of public health (local, state, territorial, federal, and international) to share notifiable disease-related health information (OMB No. 0920-0728)<sup>2</sup>; and the NSSP, a collaboration among public health agencies and partners for timely exchange of syndromic surveillance data to improve the nation's situational awareness and responsiveness to hazardous events and disease outbreaks (OMB No. 0920-0824)<sup>3</sup>. DHIS houses three branches: the Partnership and Evaluation Branch (PEB), the Information Systems Branch (ISB), and the Surveillance and Data Branch (SDB). PEB is the lead branch in providing coordination and support to partnerships and assessment activities; these include direct support to NSSP grantees, state and local public health agencies as well as other partners, as appropriate. PEB's mission is to enhance stakeholders' capacity and public health evidence-based decision making through technical assistance and expertise for program improvement and epidemiology, with a focus on DHIS' NSSP.

NSSP promotes and advances development of a syndromic surveillance system. Syndromic surveillance (SyS) is a process that regularly and systematically collects near-real-time health and health-related data to identify and monitor clusters, outbreaks, and trends in infectious and chronic diseases, injuries, and health effects of hazardous environmental conditions and other man-made or natural events that may require public health action. Health practitioners, public health officials and government leaders use this information for timely decision making and enhanced responses to hazardous events and outbreaks<sup>3</sup>.

Electronically transmitted emergency departments health visits information include defined syndromes based on patients' chief complaints, diagnostic and other treatment related information, and patient demographics. Automated data processing and data scans are applied to detect and display statistical anomalies and alert users to potential adverse health events.

The original CDC BioSense Program (BioSense 1.0) intended to serve as a national level public health SyS system for early detection and rapid assessment of potential bioterrorism-related illness and injury became operational in 2003<sup>4</sup>. Near-real-time, health care data were submitted to CDC from a variety of sources by means of an automated electronic health record messaging system.

In 2009, CDC began planning and developing the computing cloud-based BioSense 2.0 Platform (OMB No. 0920-0824). This cloud-based system offered secure storage space for data from each state and local health department. A key additional feature was its data sharing capacity, designed to enable health departments, CDC, the Department of Veterans Affairs (VA), the Department of Defense (DoD), and other users to share data, analytic tools, and services on the BioSense Platform.

In 2014, CDC released the Surveillance Strategy and simultaneously launched the BioSense Enhancement Initiative (BEI). Increased participation of state and local health departments led to enhanced data sharing and data quality control capabilities; and improved tools for data analysis, visualization, and querying<sup>5</sup>. In addition, CDC enhanced its support for the SyS community of practice that included state and local health departments as well as its partnership with DoD, the VA, and other organizations. BioSense evolved into the NSSP to better recognize the public health purpose of the program in advancing SyS, and to distinguish the program name from the web-based BioSense Platform which is used to receive and store SyS data. NSSP continues to promote and advance development of SyS for the timely exchange of syndromic data<sup>5</sup>.

NSSP funds 31 state and local health departments through a four year cooperative agreement to enhance existing state and local syndromic surveillance capacity and practice. These 31 sites consist of 28 state health departments and three local health departments. CDC, as the funding authority and agency working to help achieve the goal of improving state and local capacity for syndromic surveillance, has the responsibility to monitor the implementation of all activities by each of the 31 NSSP grantees. NSSP is constantly evolving and this data collection will provide CDC with cross-sectional and most recent information on the status of these grantees that would inform decision making as the program makes progress.

NSSP syndromic surveillance system collects data on patient encounters from emergency departments, urgent care centers, and other sources<sup>6</sup>. NSSP awardees use syndromic data and statistical tools to detect, monitor, and characterize unusual activity for further public health investigation or response. The information collected through this assessment will focus on program characteristics and activities of the NSSP awardees.

This assessment will collect information about how syndromic surveillance practice is being conducted at the jurisdictional level. The information collected will provide CDC with most current knowledge and understanding about syndromic surveillance systems and practice related characteristics among NSSP grantees, challenges encountered in implementing syndromic surveillance activities, and potential strategies to address challenges. In addition, the information

will inform technical assistance provided by CDC to these jurisdictions through consultation, technical support, and product development.

## **Overview of the Information Collection System**

Telephone interviews will be conducted using a standardized interview guide that will be administered over the telephone (see **AttachmentB\_SSPractice\_InterviewGuide**). Two public health professionals pilot tested the data collection instrument. Their feedback was used to refine the questions as needed, ensure accurate skip patterns and to establish the estimated time required to complete the information collection instrument.

### **Items of information to be collected**

The phone interview consists of 12 questions (7 multiple choice and 5 open-ended). The assessment will collect information on three key areas needed to improve the understanding about the status and characteristics of syndromic surveillance practice among the 31 NSSP grantees:

- How grantees being funded through the NSSP grant program are able to carry out syndromic surveillance activities
- The level of syndromic surveillance capacity and practice achieved among the 31 funded grantees with a focus on data collection, use and sharing.
- Ways to best support syndromic surveillance capacity and support enhancement among jurisdictions.

## **2. Purpose and Use of the Information Collection**

This assessment will collect information about how syndromic surveillance practice is being conducted at the jurisdictional level.

The information collected will provide CDC with most current knowledge and understanding about syndromic surveillance systems and practice related characteristics among NSSP grantees, challenges encountered in implementing syndromic surveillance activities, and potential strategies to address challenges. In addition, the information will inform technical assistance provided by CDC to these jurisdictions through consultation, technical support, and product development.

## **3. Use of Improved Information Technology and Burden Reduction**

Data will be collected during regularly scheduled one on one calls between grantees and their assigned CDC project officers. This method was chosen to reduce the overall burden on respondents. Efforts were made to limit the number of questions requiring narrative responses from respondents. The data collection instrument was designed to collect the minimum information necessary for the purposes of this project (i.e., limited to 12 questions). In addition, skipping parts of questions based on the responses provided will help to further reduce response burden.

#### **4. Efforts to Identify Duplication and Use of Similar Information**

CDC/DHIS manages NSSP and, to our knowledge, it is the only federal entity collecting syndromic surveillance practice data from the NSSP grantees. Programmatic staff from across the division was consulted in the development of this assessment to ensure the originality of this data collection and its applicability to syndromic surveillance practice. To date, there has been no standardized assessment based data collection in relation to the NSSP grant program on syndromic surveillance capacity and practice and areas of need for improving public health action or response. Literature searches on the topic of syndromic surveillance practice resulted in no findings that mirror the data collection being proposed.

Two prior data collections (1. Syndromic Surveillance: Success Stories from the Field from Not CDC Funded State and Local Health Departments (OMB No. 0920-0879) and 2. Syndromic Surveillance: Success Stories from the Field from NSSP Awardees (OMB No. 0920-0879)) regarding syndromic surveillance have been approved, however the purpose of these collections are different than the proposed data collection. These prior data collections aimed to learn how syndromic surveillance systems address public health problems and impact populations and identify best practices at the local and regional level. Through these collections, best practices at the local and regional level are collected using a standardized template for further dissemination to the syndromic surveillance community. While the Syndromic Surveillance Practice Assessment shares the same topical area as the two data collections above, it has a purpose and use that is different from these previous collections. This data collection is capturing unique information on the day to day operations and practice of syndromic surveillance at the jurisdictional level as opposed to the ways in which these syndromic surveillance systems are addressing public health problems and impacting population. The success stories from the field collected using the prior two data collections provide health departments' access to and use of applicable syndromic surveillance success stories from the field to improve their syndromic surveillance practice. This information will provide CDC with improved knowledge and understanding about the challenges encountered in implementing syndromic surveillance activities, potential strategies to address challenges, and inform technical assistance provided by CDC to these jurisdictions through consultation, technical support, and product development.

#### **5. Impact on Small Businesses or Other Small Entities**

No small businesses will be involved in this information collection.

#### **6. Consequences of Collecting the Information Less Frequently**

This request is the first of its kind for CDC. There are no legal obstacles to reduce the burden. If no data are collected, CDC will be unable to:

- Gain better understanding of the syndromic surveillance systems and practice characteristics among the 31 NSSP grantees.
- Identify barriers and facilitators to syndromic surveillance practices, including data collection, analysis and data sharing.

- Fully meet the needs of Nssp grantees.

## **7. Special Circumstances Relating to the Guidelines of 5 CFR 1320.5**

There are no special circumstances with this information collection package. This request fully complies with the regulation 5 CFR 1320.5 and will be voluntary.

## **8. Comments in Response to the Federal Register Notice and Efforts to Consult Outside the Agency**

This data collection is being conducted using the Generic Information Collection mechanism of the OSTLTS OMB Clearance Center (O2C2) – OMB No. 0920-0879. A 60-day Federal Register Notice was published in the Federal Register on May 16, 2014, Vol. 79, No. 95; pp. 28513. No comments were received.

CDC partners with professional STLT organizations, such as the Association of State and Territorial Health Officials (ASTHO), the National Association of County and City Health Officials (NACCHO), and the National Association of Local Boards of Health (NALBOH) along with the National Center for Health Statistics (NCHS) to ensure that the collection requests under individual ICs are not in conflict with collections they have or will have in the field within the same timeframe.

## **9. Explanation of Any Payment or Gift to Respondents**

CDC will not provide payments or gifts to respondents.

## **10. Protection of the Privacy and Confidentiality of Information Provided by Respondents**

The Privacy Act does not apply to this data collection. STLT governmental staff will be speaking from their official roles. No PII will be collected as part of this assessment. Data collected by CDC/PEB assessment staff members will be stored on a secure DHIS share drive. Results will be reported in aggregate form.

## **11. Institutional Review Board (IRB) and Justification for Sensitive Questions**

No information will be collected that are of personal or sensitive nature.

## **12. Estimates of Annualized Burden Hours and Costs**

The estimate for burden hours is based on a pilot test of the data collection instrument by 2 public health professionals. In the pilot test, the range of time to complete the instrument including time for reviewing instructions, gathering needed information and completing the instrument, was 10-15



minutes. For the purposes of estimating burden hours, the upper limit of this range (i.e., 15 minutes) is used.

Estimates for the average hourly wage for respondents are based on the 2016 Department of Labor (DOL) Bureau of Labor Statistics for occupational employment for epidemiologists [http://www.bls.gov/oes/current/oes\\_nat.htm](http://www.bls.gov/oes/current/oes_nat.htm). Based on DOL data, an average hourly wage of \$37.37 is estimated for all 31 respondents. Table A-12 shows estimated burden and cost information.

**Table A-12:** Estimated Annualized Burden Hours and Costs to Respondents

<b>Data collection Instrument: Form Name</b>	<b>Type of Respondent</b>	<b>No. of Respondents</b>	<b>No. of Responses per Respondent</b>	<b>Average Burden per Response (in hours)</b>	<b>Total Burden Hours</b>	<b>Hourly Wage Rate</b>	<b>Total Respondent Costs</b>
Syndromic Surveillance Practice Assessment	State health department syndromic surveillance staff person	28	1	15 / 60	7.00	\$37.37	\$262
	Local health department syndromic surveillance staff person	3	1	15 / 60	0.75	\$37.37	\$28
	<b>TOTALS</b>	<b>31</b>	<b>1</b>		<b>8</b>		<b>\$290</b>

### 13. Estimates of Other Total Annual Cost Burden to Respondents or Record Keepers

There will be no direct costs to the respondents other than their time to participate in each information collection.

### 14. Annualized Cost to the Government

There are no equipment or overhead costs. The only cost to the federal government would be the salary of CDC staff to develop the data collection instrument, collect data, and perform data analysis.

The total estimated cost to the federal government is \$2572. Table A-14 describes how this cost estimate was calculated.

**Table A-14:** Estimated Annualized Cost to the Federal Government

Staff (FTE)	Average Hours per Collection	Average Hourly Rate	Average Cost
Public Health Scientist GS 12/1 Data collection, data analysis and report development	31.75	36.27	\$1152
Public Health Scientist GS 14/6 Review analysis and reports	8	59.47	\$476
Public Health Scientist GS 15/1 Review analysis and reports	8	59.96	\$480
Public Health Scientist O-6/ Captain Review analysis and reports	8	58.00	\$464
<b>Estimated Total Cost of Information Collection</b>			<b>\$2572</b>

**15. Explanation for Program Changes or Adjustments**

This is a new information collection.

**16. Plans for Tabulation and Publication and Project Time Schedule**

The results of the data collection will be analyzed using a combination of SAS, Excel and MAXQDA12. Quantitative data will be aggregated and tabulated using descriptive statistics. Qualitative responses will be aggregated and analyzed using thematic analysis techniques. Analyzed data will be compiled in a report that will be shared with programmatic and divisional staff. There is also the potential for sharing the results of this data collection with Nssp awardees and through peer reviewed journal publications. All information will be kept on secured CDC share drives and will only be accessible to program staff. Data collected will only be shared in aggregate form. No PII will be collected as part of this assessment.

Project Time Schedule

- ✓ Design Interview Guide ..... (COMPLETE)
- ✓ Develop protocol, instructions, and analysis plan ..... (COMPLETE)
- ✓ Pilot test interview guide ..... (COMPLETE)
- ✓ Prepare OMB package ..... (COMPLETE)
- ✓ Submit OMB package ..... (COMPLETE)
- ☐ OMB approval ..... (TBD)
- ☐ Conduct data collection ..... (1.5 months)
- ☐ Code data, conduct quality control, and analyze data.....(1 month)

- Prepare summary report(s) ..... (2 weeks)
- Disseminate results/reports ..... (3 months)

**17. Reason(s) Display of OMB Expiration Date is Inappropriate**

We are requesting no exemption.

**18. Exceptions to Certification for Paperwork Reduction Act Submissions**

There are no exceptions to the certification. These activities comply with the requirements in 5 CFR 1320.9.

**LIST OF ATTACHMENTS – Section A**

- Attachment A: Respondent Universe
- Attachment B: SSPractice\_InterviewGuide

**REFERENCE LIST**

1. Centers for Disease Control and Prevention. Division of Health Informatics and Surveillance. Available at <http://www.cdc.gov/ophss/csels/dhis/overview.html>. Accessed on April 3, 2017.
2. Centers for Disease Control and Prevention. National Notifiable Diseases Surveillance System (NNDSS). Available at <https://wwwn.cdc.gov/nndss/>. Accessed on April 3, 2017.
3. Centers for Disease Control and Prevention. National Syndromic Surveillance Program. NSSP Overview. Available at <http://www.cdc.gov/nssp/overview.html>. Accessed on April 5, 2017.
4. Department of Health and Human Services. Federal Register Volume 80, Number 212 (Tuesday, November 3, 2015)]. Pages 67759-67760 [FR Doc No: 2015-27890]. Available at <https://www.gpo.gov/fdsys/pkg/FR-2015-11-03/html/2015-27890.htm>. Accessed on April 5, 2016.
5. Centers for Disease Control and Prevention. Surveillance Strategy, a strategy for improving the Centers for disease Control and Prevention’s activities in public health surveillance, February 24, 2014. Available at <http://www.cdc.gov/ophss/docs/CDC-Surveillance-Strategy-Final.pdf>. Accessed on April 5, 2016.
6. National Syndromic Surveillance System Fact Sheet. Available at <http://www.cdc.gov/nssp/documents/nssp.pdf>. Accessed on April 5, 2016.