

Syndromic Surveillance: Success Stories from the Field from Not CDC Funded State & Local Health Departments

OSTLTS Generic Information Collection Request
OMB No. 0920-0879

Supporting Statement – Section A

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- The goal of the study is to learn how syndromic surveillance systems address public health problems and impact populations. Best practices at the local and regional level will be identified through success stories that will be collected from all NSSP partners at state and local health departments.
- The resulting data will be shared with state and local health departments, CDC programs, and NSSP partners to improve syndromic surveillance practice through expanding health departments' access to and use of applicable syndromic surveillance success stories from the field.
- CDC expects to collect up to 34 stories on Syndromic Surveillance Success Stories in the Field. Given best practices at the local and regional level will be identified, no analysis will be necessary. Stories will be posted on the CDC DHIS website, NSSP Success Stories.
- The subpopulation consists of 34 non-awardees that submit syndromic surveillance data to the BioSense Platform.
- Analysis of stories submitted will not be conducted. The success stories will be shared in their original format.

Section A – Justification

1. Circumstances Making the Collection of Information Necessary

Background

This information collection is being conducted by the Centers for Disease Control and Prevention (CDC), Office of Public Health Scientific Services (OPHSS), Division of Health Informatics and Surveillance (DHIS) 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 CDC's Office for State, Tribal, Local and Territorial Support OMB Clearance Center (O2C2).

This submission is one part of a two-part request. The overall goal is to collect data from 50 state health departments and 15 local health departments that participate in syndromic surveillance. The current request pertains to the 34 state and local health departments that conduct syndromic surveillance (SyS), submit data to NSSP and have access to the NSSP's tools and services, but do not receive CDC funding through the NSSP. A separate but related request will be submitted for the 31 state and local health departments that receive CDC funding through the National Syndromic Surveillance Program (NSSP). **(Please see Attachment A).**

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 ¹

The Centers for Disease Control and Prevention DHIS 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 jurisdictions¹. The National Notifiable Diseases Surveillance System (NNDSS) is a nationwide collaboration that enables all levels of public health (local, state, territorial, federal, and international) to share notifiable disease-related health information², and NSSP, a collaboration among public health agencies and partners for timely exchange of syndromic data to improve the nation's situational awareness and responsiveness to hazardous events and disease outbreaks³. DHIS houses three branches: the Partnership and Evaluation Branch (PEB), the Information Systems Branch, and the Surveillance and Data Branch. PEB is the lead branch in providing enhanced and scientific partnership including knowledge translation and exchange and direct support to NSSP grantees, state and local public health agencies as well as other partners as appropriate. PEB's mission includes enhancing stakeholders' capacity and public health evidence-based decision making through technical assistance and expertise for evaluation and epidemiology, with a focus on DHIS' NSSP.

Syndromic surveillance (SyS) is a process that regularly and systematically collects and uses health and health-related data to identify and monitor clusters, outbreaks, and trends in infectious and chronic diseases, injuries, and adverse health effects of hazardous environmental conditions 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 outbreaks³.

Clinical electronic health information, defined syndromes based on words in clinic text notes, diagnostic and treatment information, when available, and automated data scans are utilized to detect and display statistical anomalies and alert users to potential adverse health events.

The original CDC BioSense Program (BioSense 1.0) was intended to serve as a national level public health SyS system for early detection and rapid assessment of potential bioterrorism-related illness and injury⁴. This was to be done by collecting and analyzing, in near real time, health care data

submitted to CDC from a variety of sources by means of automated electronic health record messaging systems. BioSense 1.0 became operational in December 2003 within the CDC Emergency Operations Center (EOC). The scope of the surveillance was expanded to include detecting and monitoring a broader set of syndromes of public health importance (e.g., injuries, certain chronic diseases, and infectious diseases such as influenza). The system was used by representatives from 49 states. CDC also sought to integrate SyS services and results with broader biosurveillance initiatives underway across the federal government. To accomplish this, CDC data analysts interacted closely with the EOC, the Health and Human Services Secretary's Operations Center, the Department of Homeland Security National Biosurveillance Integration Center, and other federal partners.

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 Veterans Administration (VA), Department of Defense (DoD), and other users share data, analytic tools, and services on the BioSense Platform. These multi-tiered interactions and knowledge exchanges within the BioSense Platform's common operational environment strengthened regional and national situational awareness based on improved access to local, state, and federal surveillance data.

In 2014, CDC released their Surveillance Strategy and simultaneously launched the BioSense Enhancement Initiative (BEI). The BEI built on successes of the past and made a number of improvements. These improvements included expanding the number of state and local health departments participating in the program; enhancing data sharing and data quality control capabilities; and improving tools for data analysis, visualization, and querying⁵. In addition, CDC enhanced its support for the SyS community of practice. Key members of the community include state and local health departments, CDC, DoD, the VA, and other organizations. As the CDC Surveillance Strategy was implemented, BioSense evolved into the National Syndromic Surveillance Program (NSSP) to better recognize the public health purpose of the program (to advance 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. These data are used to improve nationwide situational awareness and enhance responsiveness to hazardous events and disease outbreaks to protect America's health, safety, and security⁵.

NSSP funds 31 state and local health departments via a four year cooperative agreement to enhance existing state and local syndromic surveillance capacity and practice. In addition there are 34 state and local health departments that have syndromic surveillance (SyS) programs independent of CDC's NSSP funding but still submit data to NSSP and have access to the NSSP's tools and services. Of these 34 sites, 22 are state health departments and 12 are local health departments. **(Please see Attachment A).**

NSSP awardees and non-awardees use syndromic data and statistical tools to detect, monitor, and characterize unusual activity for further public health investigation or response. Data includes patient encounter data from emergency departments, urgent care, ambulatory care, and inpatient healthcare settings, as well as pharmacy and laboratory data⁶.

Public health professionals at the federal, state, and local level are interested in how SyS data are used in public health practice. They are particularly interested in ways to improve data representativeness, quality, timeliness, and utility. To date, there is no system in place for CDC to receive examples of how syndromic surveillance data are used successfully for public health action or response.

The purpose of this information collection is to learn how syndromic surveillance systems address public health problems and impact populations, and identify best practices at the local and regional level. Best practices will be identified through success stories that will be collected from state and local health department respondents. Expanding access to field-based information builds awareness of how current syndromic surveillance practice is being used and how results are being achieved across the field of public health. This will expand health departments' access to and use of applicable SyS success stories from the field.

Overview of the Information Collection System

DHIS plans to post an electronic downloadable version of the *Syndromic Surveillance: Success Stories from the Field* form on its website (**Please see Attachment B: Word Version SySSSFFTemplate & Attachment C: Web Version SySSSFFTemplate**). This form will provide respondents a standardized structure for writing their success stories to be shared amongst public health partners and with the general public. It is required for NSSP awardees to submit their NSSP successes.

This tool was pilot tested by three CDC NSSP staff. Feedback from this group was used to refine the instrument's questions, skip patterns and to establish the estimated time required to complete the form.

Items of information to be collected

The data collection instrument consists of 9 main questions of various types, including dichotomous (yes/no), multiple response, and open-ended. An effort was made to limit questions requiring narrative responses from respondents whenever possible. The key elements of this instrument will be to collect standardized information on the SyS user, their collaborative efforts across agencies and partners, programmatic activities, accomplishments, outcomes and lessons learned. The instrument will collect information on the following:

- **Syndromic Surveillance: Success Stories from the Field Title:** Respondents will select a title to their story
- **Public Health Problem or Performance/Quality Improvement Issue:** Respondents will describe the public health problem or issue identified, why it is important, the population affected, and also frame the problem including the health burden and economic costs

- **Program Description:** Respondents will describe the practice, program, or activity implemented including the supporting evidence or an explanation of why their approach is innovative
- **Accomplishments and Impact:** Respondents will describe how syndromic surveillance data helped identify public health issues with a description of their outcomes (short-term, intermediate, or long-term as applicable) including data illustrating the scope of the impact. Lessons learned will be included.

2.

Purpose and Use of the Information Collection

The purpose of the study is to learn how syndromic surveillance systems address public health problems and impact populations, and identify best practices at the local and regional level. Best practices will be identified through success stories that will be collected from all NSSP partners at state and local health departments. Expanding access to field-based information builds awareness of how current syndromic surveillance practice is being used and how results are being achieved across the field of public health. This would expand health departments' access to and use of applicable SyS success stories from the field. This information collection tool will enable standardized reporting of the NSSP success stories.

The information will be used by CDC to facilitate NSSP information sharing practices among state and local health departments across the nation as well as with other CDC programs, the VA, DoD and other partners. Stories collected on a regular basis and/or ad hoc via email will be posted on the DHIS NSSP website and archived on CDC's DHIS share drive for NSSP staff to access at a later point in time. Depending on the topic and national public health priorities, archived stories will be posted on the DHIS NSSP website. Internally, CDC will use these stories to answer requests about SyS practices in the field and to help understand what works locally in this context. These stories will be useful components of briefing packets for when the CDC Director visits state and/or local health departments.

3.

Use of Improved Information Technology and Burden Reduction

NSSP funded and non-funded state and local health department staff will be introduced to the *Syndromic Surveillance: Success Stories from the Field* form during SyS webinars, meetings and conferences. The form will be posted online allowing easy access to the form (**Attachment B**). Completion and submission of this form is voluntary for non-funded NSSP users. All respondents will be able to download, complete and then submit the form via email to the NSSP mailbox. In addition, respondents can email the NSSP mailbox and request the form. This method was chosen to reduce the overall burden on respondents. The information collection instrument was designed to collect the minimum information necessary for the purposes of this project (i.e., limited to 15 questions).

4. Efforts to Identify Duplication and Use of Similar Information

DHIS manages NSSP and they are the only unit within CDC collecting syndromic surveillance data and syndromic surveillance success stories.

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 for ad hoc collection of information for non-awardees. There are no legal obstacles to reduce the burden. If no data are collected, CDC will be unable to:

- Gain understanding of regional, state and local health departments current evidence-based and innovative practices supporting NSSP
- Have access to regional, state and local information that will affect the efficiency of program implementing NSSP
- Promote and enhance the understanding of syndromic surveillance data use

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 information 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 October 31, 2013, Vol. 78, No. 211; pp. 653 25-26. No comments were received.

CDC partners with professional state and local public health 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 information collection. State and local governmental staff and/or delegates will be speaking from their official roles. All data submitted will be stored on the CDC’s DHIS PEB sharedrive. This is a secure sharedrive only accessible to PEB staff who have been officially granted access.

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

No information will be collected that are of personal or sensitive nature. This information collection is not research involving human subjects and IRB approval is not required.

12. Estimates of Annualized Burden Hours and Costs

The estimate for burden hours is based on a pilot test of the information collection instrument by three public health professionals. In the pilot test, the time to complete the instrument including time for reviewing instructions, gathering needed information and completing the instrument was on average 83 minutes with a range of 60-100 minutes. For the purposes of estimating burden hours, the upper limit of this range (i.e., 100 minutes) is used.

Estimates for the average hourly wage for respondents are based on the Department of Labor (DOL) National Compensation Survey estimate for state and local health department program staff <http://www.bls.gov/news.release/ecec.t04.htm>⁷. Based on DOL data, an average hourly wage of \$44.64 is estimated for all potential respondents. CDC estimates that non-funded sites will complete up to 1 story per site annually (n=34). Participation is voluntary for state and local health departments that are not funded through the NSSP.

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

Information collection Instrument: Form Name	Type of Respondent	No. of Respondents	No. of responses per Respondent	Average Burden per Response (in hours)	Total Burden Hours	Hourly Wage Rate	Total Respondent Costs
Syndromic Surveillance Success Stores from the Field Story Collection Template	Not CDC funded State and Local Health Department staff	34	1	100/60	57	\$44.64	\$2,544
	TOTALS	34			57		\$2,544

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. The total estimated cost to the federal government is \$1,269.30. 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 Analyst GS 13/1	10	42.31	\$423.10
Public Health Analyst GS 13/1	10	42.31	\$423.10
Public Health Analyst GS 13/1	10	42.31	\$423.10
Estimated Total Cost of Information Collection			\$1,269.30

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 are stories. There will be no tabulation or aggregation of data. Story content will be finalized in the story template by the respondent. The stories will be posted on the DHIS NSSP website, archived in the DHIS share drive and disseminated by hard copy at conferences, meetings and other ad hoc events that bring NSSP users together.

Project Time Schedule

- ✓ Design questionnaire (COMPLETE)
- ✓ Develop protocol, instructions, and analysis plan (COMPLETE)
- ✓ Pilot test questionnaire (COMPLETE)
- ✓ Prepare OMB package (COMPLETE)
- ✓ Submit OMB package (COMPLETE)
- OMB approval (TBD)
- Disseminate success stories via webinars, teleconferences and in person meetings(TBD)

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

- A. Attachment A: Table A-1 Respondent Universe
- B. Attachment B: Word Version SySSSFFTemplate
- C. Attachment C: Web Version SySSSFFTemplate

REFERENCE LIST

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6. National Syndromic Surveillance System Fact Sheet. Available at <http://www.cdc.gov/nssp/documents/nssp.pdf>. Accessed on April 5, 2016.
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