

Blood Lead Surveillance System (BLSS)

Previously 'Healthy Homes and Lead Poisoning Surveillance System (HHLPSS)'

OMB Control No. 0920-0931 (Expiration Date: 05/31/2018)

Request for Revision

National Center for Environmental Health
National Institute for Occupational Safety and Health

Supporting Statement Part B –

Collections of Information Employing Statistical Methods

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Part B.

Collections of Information Employing Statistical Methods

B.1. Respondent Universe and Sampling Methods

This CDC information collection request (ICR) involves a revision to the approved 'Healthy Homes and Lead Poisoning Surveillance System (HHLPSS)' [OMB Control Number: 0920-0931; expiration date May 31, 2018] with no changes sampling methods.

This collection includes two distinct data collection systems that provide a coordinated, comprehensive, and systematic public health approach to the surveillance and monitoring of blood lead levels (BLLs) for children and occupationally-exposed adults in the U.S. Respondents differ between the Childhood Blood Lead Surveillance (CBLS) and the Adult Blood Lead Epidemiology and Surveillance (ABLES).

Although the collection does not involve statistical sampling methods to obtain blood lead surveillance data, We will use Part B to describe the respondent methods used to collect blood lead data from the target population in the jurisdictions from which they arise.

The National Center for Environmental Health (NCEH) supports state and local health departments to collect and report individual-level, laboratory-reported blood lead surveillance data for children less than 16 years of age to the Childhood Blood Lead Surveillance (CBLS) system.

CBLS respondents are cooperative agreement recipients in state and local health departments, or their bona fide agents, that submit NCEH childhood (n=48) blood lead surveillance data as part of the funding requirements to develop and implement a childhood lead poisoning prevention program (CLPPP). This includes 34 FY14 respondents and 14 "new" FY17 respondents. In most state and local lead poisoning prevention programs, blood lead testing and laboratory reporting of all blood lead levels are required by law (NCSL, 2010).¹ NCEH also anticipates additional funding for up to 12 new awards for FY18, therefore, the program is requesting PRA clearance for up to 60 awardees.

The National Institute for Occupational Safety and Health (NIOSH) works with state labor and health departments to collect and report laboratory-based blood lead surveillance data from adults, age 16 years and older, most of whom are occupationally-exposed, to the Adult Blood Lead Epidemiology and Surveillance (ABLES) program. The ABLES Program collects adult blood

¹ As described in Section A.10, these target populations are not considered respondents with imposed burden under 5 CFR §1320.3(b)(2) and (b)(3), because the reporting, recordkeeping, or disclosure activities needed to comply within jurisdictions are usual and customary, or are required by law even in the absence of the federal requirement.

lead levels (BLLs) from state public health and labor departments, or their bona fide agents. States voluntarily participate in ABLES by sharing all BLL data received from testing laboratories with NIOSH ABLES. No sampling is conducted and response rates do not apply.

Over the next three years, up to 40 participating states will submit adult BLL data to NIOSH annually. Currently, 28 states are reporting BLL data to NIOSH and during the upcoming period, NIOSH aims to collaborate with up to 12 additional states. For states to be eligible to participate in the ABLES program, they must have mandatory state regulations requiring the reporting of adult BLLs by both public and private laboratories to the state health department or another state health agency or department designated by the state to direct and coordinate the state's adult lead poisoning surveillance program.

B.2. Procedures for the Collection of Information

An overview of the protection of privacy and confidentiality of information provided by respondents to CBLS and ABLES is found in Section A.10.

State health departments receive blood lead data from health care providers, laboratories, hospitals, or other facilities that analyze blood samples for lead as required by jurisdictional laws. NCEH funds CBLS activities at the state and local level and also provides technical support, but does not provide funding for system development. To promote standardization, NCEH provides Healthy Homes and Lead Poisoning Software System (HHLPSS) software at no cost to programs. HHLPSS is primarily a program management tool for state and local health departments to manage their blood lead surveillance and follow-up data. HHLPSS, or the equivalent systems, and the data therein are owned by state and local health departments. Their systems are customized for jurisdictional-specific program needs, and are subject to state or local legal codes and IT security requirements. Thus, data residing within these data systems and owned by the programs are more accurately referred to as "HHLPSS Variables."

For the first year of this PRA clearance, 34 FY14/FY17 NCEH respondents will upload CBLS Format: Tables 1-6 only their listed in "HHLPSS Variables" (**Attachment 6a**) to the NCEH secure encrypted FTP site, on a quarterly basis with a one quarter lag (e.g., data collected during the first quarter is due by the end of the second quarter). After the first year, they will begin reporting "CBLS Variables" text files (**Attachment 6b**). All data are transmitted to CDC via a secure FTP site.

Data submitted in text files to NCEH are processed and maintained in the CBLS database. NCEH uses its processing software, CBLS Central, to perform data checks on recipient text files for required formatting. Text files are parsed into separate linkable data tables (e.g., Address, Child, Lab Results, and Investigation) (**Attachments 6a & 6b**). Processing reports are generated and sent to recipients, to indicate how many records were properly parsed and entered into the

CBLS database and how many records were not loaded with an explanation of the rejection. Corrections from recipients are returned in the next quarterly report. Therefore, NCEH has a 1 to 2 quarter lag with on-time data delivery. CBLS Annual Reports are based on the calendar year and are sent to recipients at the end of the second quarter of the fiscal year. NCEH estimates that one respondent will submit aggregate CBLS data (**Attachment 6c**). See **SSA-Section A.3.** for details on the requested changes to the variables collected between the FY14 and FY17 programs (**Attachment 6d**) and discussion of the current version of CBLS and the 'Next Generation CBLS' will be a web-based system which is anticipated to go into production in Fall 2018.

ABLES Data Delivery and Processing Report Dissemination – States submit an electronic data file to NIOSH on an annual basis. If data were collected less frequently, it would impact ABLES' ability to monitor occupational lead exposure, particularly new exposures, in a timely manner. States may submit data in either of two different data collection formats; 1) individual data records for each case, or 2) aggregated data in which only the final counts are provided. The formats for these electronic data files are attached (**Attachments 7a, 7a1, & 7b**). The data file includes: 1) The data in the prescribed format, and 2) a brief narrative report describing any notable lead surveillance activities during the year. NIOSH consolidates data from reporting state ABLES Programs, conducts data quality control, analyzes the data using SAS, and disseminates the findings among stakeholders.

NCEH and NIOSH are working to integrate the CBLS and ABLES information technology systems in the future and are adding fields to the HHLPPS system for ABLES.

B.3. Methods to Maximize Response Rates and Deal with Nonresponse

NCEH anticipates a 100 percent response rate because CBLS data are required to be submitted as part of the requirements of the cooperative agreements with state and local health department recipients. If the recipient does not submit its quarterly CBLS data, then the assigned project officer will contact the program to help them overcome any barriers to data submission. Additionally, NCEH develops reports to provide feedback to each recipient about the quality of their data. NCEH project officers, epidemiologists, and IT specialists use these reports to highlight weaknesses in the data and recommend ways to improve program activities and to ensure consistency with stated objectives.

States submit data to the ABLES Program on a voluntary basis. To encourage submission, NIOSH ABLES develops effective working relationships with states by providing technical assistance and guidance in adult blood lead surveillance, prevention, and intervention. Additionally,

NIOSH ABLES works closely with state partners to produce educational materials, Morbidity and Mortality Weekly Reports (MMWR), and journal articles.

B.4. Test of Procedures or Methods to be Undertaken

No tests of procedures or methods were conducted for CBLS or ABLES. The CBLS methods have been used at CDC since 1994 (Pertowski, 1994). The ABLES methods have been used at CDC since 1987 (NIOSH, 2012). See summary of program accomplishments for CBLS in **Attachment 5a** and for ABLES in **Attachment 5b**.

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

The following tables show CDC personnel responsible for 1) CBLS and 2) ABLES, respectively, who: A) designed the data collection and B) will collect and analyze the data.

Table B.5.1A. Personnel Responsible for CBLS Methods and Design	
Mary Jean Brown, ScD, RN (2003-2016) Chief, HHLPPP, NCEH, CDC mjb5@cdc.gov 770-488-7492	Adrienne Ettinger, ScD, MPH, MS (2017 to present) Acting Chief, LPPEHTB, NCEH, CDC abe7@cdc.gov 770-488-7492
David Wright , MS Senior IT Specialist, CLPPP, NCEH, CDC ybq2@cdc.gov 770-488-4715	Frederick Renshaw, MS, MBA Project Lead, Karna LLC hwk1@cdc.gov 770-488-4014
Qaiyim Harris, BS Business Analyst, Karna LLC qah3@cdc.gov 770-488-7115	Naveen Krishna Reddy, MCA Application Developer, Karna LLC ysn8@cdc.gov 770-488-7080
Table B.5.1B. Personnel Responsible for Collection and Analysis of CBLS Data	
Stella Chuke, MBBS, MPH Epidemiologist, CLPPP, NCEH, CDC slc7@cdc.gov 770-488-3475	Kathryn Egan, PhD, MPH Epidemiologist, CLPPP, NCEH, CDC nky9@cdc.gov 404-718-5778
David Wright , MS Senior IT Specialist, CLPPP, NCEH, CDC ybq2@cdc.gov 770-488-4715	Adrienne Ettinger, ScD, MPH, MS (2017 to present) Acting Chief, LPPEHTB, NCEH, CDC abe7@cdc.gov 770-488-7492
Table B.5.2A. Personnel Responsible for ABLES Method and Design	
Rebecca Tsai, PhD, MPH Project Officer (current), NIOSH, CDC Email: yht5@cdc.gov Tel: 513-541-4398	Walter Alarcon, MD, MS Project Officer (former), NIOSH, CDC Email: wda7@cdc.gov Tel: 513-541-4451

Marie Sweeney, PhD, MPH Branch Chief, NIOSH/DSHEFS/SB,CDC Email: mhs2@cdc.gov Tel: 513-541-4102	
Table B.5.2B. Personnel Responsible for Collection and Analysis of ABLES Data	
David Wall, BS, MA Information Technology Specialist, NIOSH, CDC Email: dkw0@cdc.gov Tel: 513-541-4331	Rebecca Tsai, PhD, MPH Project Officer (current), NIOSH, CDC Email: yht5@cdc.gov Tel: 513-541-4398
Scott Henn, MS Industrial Hygienist, NIOSH, CDC Email: ajn4@cdc.gov Tel: 513-541-4173	Walter Alarcon, MD, MS Project Officer (former), NIOSH, CDC Email: wda7@cdc.gov Tel: 513-541-4451

References

Alarcon WA. Elevated Blood Lead Levels among Employed Adults — United States, 1994–2013. MMWR Morb Mortal Wkly Rep. 2016 Oct 14; 63:59–65. Available at: <http://dx.doi.org/10.15585/mmwr.mm6355a5>

Pertowski C. Lead Poisoning. From Data to Action: CDC’s Public Health Surveillance for Women, Infants, and Children. Atlanta, GA: U.S. Department of Health and Human Services. 1994.

National Conference of State Legislatures (NCSL). State Lead Poisoning Prevention Statutes. Denver: 2010 March. Compiled by Farquhar D. Available at: <http://www.ncsl.org/documents/environ/stlaws10.pdf>

National Institute for Occupational Safety and Health (NIOSH). Data into action. NIOSH blood lead surveillance program contributes to a decline in national prevalence rates. U.S. Department of Health and Human Services, July 2012. Available at: <https://www.cdc.gov/niosh/docs/2012-164/pdfs/2012-164.pdf>

List of Attachments

Attachment 1a. NCEH Authorizing Legislation

Attachment 1b. NIOSH Authorizing Legislation

Attachment 2a. 60-day Federal Register Notice, CBLS-ABLES new ICR

Attachment 2b. 60-day Federal Register Notice, HHLPS extension ICR

Attachment 3: NIOSH ABLES Inclusion History in NCEH ICRs

Attachment 4a. NCEH Notice of Funding Opportunity (NOFO) CDC-RFA-EH17-1701PPHF

Attachment 4b. NCEH Notice of Funding Opportunity (NOFO) CDC-RFA- EH14-1408PPHF

Attachment 5a. NCEH CBLS Program Summary & Accomplishments

Attachment 5b. NIOSH ABLES Program Summary & Accomplishments

Attachment 6a. HHLPS Variables

Attachment 6b. CBLS Variables (AScii Text Files)

Attachment 6c. CBLS Aggregate Records Form (Excel)

Attachment 6d. CBLS Differences in Variable Reporting Requirements

Attachment 7a. ABLES Case Records Form and Brief Narrative Report

Attachment 7a1. ABLES Standardized Variable Formats

Attachment 7b. ABLES Aggregate Records Form and Brief Narrative Report

Attachment 7c. ABLES Changes in Data Elements

Attachment 8a. NCEH CBLS Privacy Impact Assessment

Attachment 8b. NIOSH ABLES Privacy Impact Assessment

Attachment 9a. NCEH CBLS Research Determination

Attachment 9b. NIOSH ABLES Research Determination

Attachment 10. OMB Control Number History for Blood Lead Surveillance

Attachment 11. 2015 HHLPS Notice of Action & Terms of Clearance