

Adult Blood Lead Epidemiology and Surveillance (ABLES): Variables and format for submitting data

Below are the variables and format that states should provide when submitting ABLES data to NIOSH. Variable formats may change to meet emerging CDC guidelines for surveillance systems. If you have any questions, please [contact us](#).

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State Report

Variable Name: StateRep

Length: 2

Type: Text

Description, instruction, and valid codes: 2-letter Postal State abbreviation for the State making this report. [Note: This should be a constant and must be present]

State Residence

Variable Name: StateRes

Length: 2

Type: Text

Description, instruction, and valid codes: 2-letter Postal State abbreviation for State in which the adult resides.

99 = Unknown

CN = Canada

MX = Mexico

County Residence

Variable Name: CountyRes

Length: 3

Type: Text

Description, instruction, and valid codes: 3-digit county Federal Information Process Standards (FIPS) code for county of residence of the adult. 999 = Unknown

State Exposure

Variable Name: StateExp

Length: 2

Type: Text

Description, instruction, and valid codes: 2-letter Postal State abbreviation for State where exposure occurred. [Note: Code StateExp only if you are sure of exposure location (do not make assumptions)]

99 = Unknown

CN = Canada

MX = Mexico

County Exposure

Variable Name: CountyExp

Length: 3

Type: Text

Description, instruction, and valid codes: 3-digit county FIPS code for county where exposure occurred.
999 = Unknown

ID

Variable Name: ID

Length: 15

Type: Text

Description, instruction, and valid codes: State-assigned unique ID number for adult (ID must remain constant from year to year) with 15 characters maximum. If all characters are not used, leave the missing ones blank, and left justify. Do not fill with zeros.

[Note: Do not use any personal identifier such as an SSN or name for ID.]

Status

Variable Name: Status

Length: 1

Type: Text

Description, instruction, and valid codes:

For adults with BLLs ≥ 10 $\mu\text{g}/\text{dL}$:

1 = New case

2 = Existing case

9 = Unknown

For adults with BLLs < 10 $\mu\text{g}/\text{dL}$:

3 = Unclassified Adult

4 = New adult

5 = Existing adult

New case: An adult whose highest BLL was ≥ 10 $\mu\text{g}/\text{dL}$ in the current calendar year who was not in the State lead registry in the immediately preceding calendar year with a BLL ≥ 10 $\mu\text{g}/\text{dL}$. This adult may have been in the registry with a BLL ≥ 10 $\mu\text{g}/\text{dL}$ in earlier calendar years or with a BLL < 10 $\mu\text{g}/\text{dL}$ in the immediately preceding calendar year. [Note: A new case should remain coded 1 for all other BLL tests for the adult done in the same calendar year.]

Existing case: An adult whose highest BLL was ≥ 10 $\mu\text{g}/\text{dL}$ in the current calendar year who was in the registry in the immediate preceding calendar year with a BLL ≥ 10 $\mu\text{g}/\text{dL}$.

Unclassified Adult: An adult whose highest BLL was < 10 $\mu\text{g}/\text{dL}$ about whom you have collected insufficient information to determine whether he/she is a new or existing adult in the State registry.

New adult: An adult whose highest BLL was <10 µg/dL who was not in the State lead registry in the preceding calendar year with a BLL either less than or greater than 10 µg/dL. This adult may have been in the registry in earlier years.

Existing adult: An adult whose highest BLL was <10 µg /dL who was in the registry in the preceding calendar year with a BLL either less than or greater than 10 µg/dL.

[Note: Codes 3-5 are provided to facilitate the reporting of the lower BLLS. The use of Code 3 should be rare as should the use of Code 9.]

Blood Lead Level Date

Variable Name: BLLDate

Length: 10

Type: Date

Description, instruction, and valid codes: Date blood drawn or date of lab BLL test.

MM/DD/YYYY

[Note: Change short date under control panel/regional options to reflect MM/DD/YYYY.]

Date Type

Variable Name: DateType

Length: 1

Type: Text

Description, instruction, and valid codes:

- 1 = Date of blood draw (preferred)
- 2 = Date of laboratory test (acceptable)
- 3 = Date of health department ascertainment (acceptable)
- 9 = Unknown

Blood Lead Level

Variable Name: BLL

Length: 3

Type: Numeric

Description, instruction, and valid codes: Blood lead level, 3 digits no decimal, leave blanks, right justify.

Date of Birth

Variable Name: DOB

Length: 10

Type: Date

Description, instruction, and valid codes: Date of Birth (MM/DD/YYYY)

[Note: If DOB unavailable, you may leave blank and code Age]

Age

Variable Name: Age

Length: 3

Type: Numeric

Description, instruction, and valid codes: Age in years, right justify, no decimal.

999 = Unknown

[Note: If DOB provided, you may leave Age blank]

Sex

Variable Name: Sex

Length: 1

Type: Text

Description, instruction, and valid codes:

1 = Male

2 = Female

3 = Other

9 = Unknown

Ethnicity

Variable Name: Ethnicity

Length: 1

Type: Text

Description, instruction, and valid codes:

1 = Yes (Hispanic/Latino)

0 = No (Not Hispanic/Latino)

Race [Split as Race1 – Race 8]

Self-described race of adult: An individual may have more than one race.
Put '1' in all indicated races; blank response is equivalent to '2'

If all unknown, leave Race 1 to Race 7 blank and only fill out Race 8

Variable Name: Race1

Length: 1

Type: Text

Description, instruction, and valid codes: Race: American Indian or Alaska Native 1 – Yes, 2 – No

Variable Name: Race2

Length: 1

Type: Text

Description, instruction, and valid codes: Race: Asian 1 – Yes, 2 – No

Variable Name: Race3

Length: 1

Type: Text

Description, instruction, and valid codes: Race: Black or African American 1 – Yes, 2 – No

Variable Name: Race4

Length: 1

Type: Text

Description, instruction, and valid codes: Race: Native Hawaiian or Other Pacific Islander 1 – Yes, 2 – No

Variable Name: Race5

Length: 1

Type: Text

Description, instruction, and valid codes: Race: White 1 – Yes, 2 – No

Variable Name: Race6

Length: 1

Type: Text

Description, instruction, and valid codes: Race: Other 1 – Yes, 2 – No

Variable Name: Race7

Length: 1

Type: Text

Description, instruction, and valid codes: Race: Refuse to answer 1 – Yes, 2 – No

Variable Name: Race8

Length: 1

Type: Text

Description, instruction, and valid codes: Race: Unknown 1 – Yes, 2 – No

Work-related

Variable Name: WorkRel

Length: 1

Type: Text

Description, instruction, and valid codes: This is your determination on whether the exposure was work-related.

1 = Work related

2 = Not work-related

3 = Both

9 = Unknown

[Note: Code 1, 2 or 3 only if you are sure of the exposure source.

Code 9 if you do not know — do not make assumptions.]

North American Industry Classification System

Variable Name: NAICS

Length: 6

Type: Text

Description, instruction, and valid codes: North American Industry Classification System 2022

999 = Unknown

[Note: If WorkRel is coded 1 or 3, NAICS should have a valid code or 999.

If WorkRel is coded 2 or 9, NAICS should be blank.]

The following website is most useful in finding help coding industry: <https://www.census.gov/naics/>

(1) Search by a keyword in the line of business the adult is in and it will find the NAICS code.

(2) Search by SIC code and it will find the corresponding NAICS code.

(3) Search by the NAICS code to receive the full description.

Census Occupation Codes

Variable Name: COC

Length: 4

Type: Text

Description, instruction, and valid codes: Census Occupation Codes 2002

990 = Unknown

[Note: If WorkRel is coded 1 or 3, COC should have a valid code or 990 If WorkRel is coded 2 or 9, COC should be blank]

Census Occupation Code <https://www.census.gov/topics/employment/industry-occupation/guidance/code-lists.html>

Process

Variable Name: Process

Length: 50

Type: Text

Description, instruction, and valid codes: Process is defined as a narrative of the non-occupational avocation or activity from which the adult was exposed to lead.

NA = Non-applicable

[Note: If WorkRel is coded 2 or 3, Process should have a narrative entry, a code, or 999.]

[Note: If WorkRel is coded 1 or 9, Process should be coded NA.]

[Note: While it is acceptable to use the following codes for the most frequent process categories, we prefer that you include text descriptions so that the need for new categories or new exposures can be assessed.]

- 1 = Shooting firearms (target shooting)
- 2 = Remodeling/renovation/painting
- 3 = Casting (e.g., bullets, fishing weights)
- 4 = Ceramics
- 5 = Stained glass
- 6 = Retained bullets (gunshot wounds)
- 7 = Pica (the eating of non-food items)
- 8 = Eating from leaded cookware
- 9 = Eating food containing lead (e.g., imported candy)
- 10 = Drinking liquids containing lead (e.g., moonshine)
- 11 = Taking nontraditional medicines (e.g., Ayurvedic medications)
- 12 = Retired (This could be a former lead worker; try to get SIC, NAICS)
- 13 = Other—please provide text descriptions for sources not listed above.
- 999 = Unknown