Attachment 6a1. ABLES Standardized Variable Formats

ABLES standardized variables, format, and instructions for all ABLES data submissions.   Revised: 08/05/2020

Variable name	Length	Type	Description, instructions, and valid codes
1. StateRep	2	Text	Identifier for the reporting state or Territory. Use the 2-letter Postal State abbreviation for the State or Territory making this report. *[Note: The code should be kept consistent and must be present]*
2. StateRes	2	Text	2-letter Postal State abbreviation for State or Territory in which the adult resides at the time when the BLL sample was collected 99 = Unknown; CN = Canada.; MX = Mexico.
3. CountyRes	3	Text	3-digit county Federal Information Process Standards (FIPS) code for county of residence of the adult. 999 = Unknown.
4. StateExp	2	Text	2-letter Postal State abbreviation for State where exposure occurred. 99 = Unknown; CN = Canada; MX = Mexico. *[Note : Code StateExp only if you are sure of exposure location (do not make assumptions)]*
5. CountyExp	3	Text	3-digit county FIPS code for county where exposure occurred. 999 = Unknown.
6. ID	15	Text	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.]***

7. Status	1	Text	**NIOSH will code this variable and send back coded data to State ABLES programs. When BLL data ≥5 µg/dL are not available, status will be calculated using BLL ≥10 µg/dL.** **Variable to identify new and old cases of elevated BLLs. Used in prevalence and incidence rates calculations.** **For adults with BLLs ≥5 µg/dL:** **1 = New case.** An adult whose highest BLL was ≥5 µg/dL in the current calendar year who was not in the State lead registry in the immediately preceding calendar year with a BLL ≥5 µg /dL. This adult may have been in the registry with a BLL ≥5 µg /dL in earlier calendar years or with a BLL <5 µg /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.]* **2 = Existing case.** An adult whose highest BLL was ≥5 µg /dL in the current calendar year, and who was in the State lead registry in the immediate preceding calendar year with a BLL ≥5 µg /dL. **For adults with BLLs <5 µg/dL:** **3 = Unclassified Adult.** An adult whose highest BLL was <5 µg/dL about whom you have collected insufficient information to determine whether he/she is a new or existing adult in the State registry. **4 = New adult.** An adult whose highest BLL was <5 µg/dL who was not in the State lead registry in the preceding calendar year with a BLL either less than or greater than 5 µg/dL. This adult may have been in the registry in earlier years. **5 = Existing adult.** An adult whose highest BLL was <5 µg /dL who was in the registry in the preceding calendar year with a BLL either less than or greater than 5 µg/dL. **9 = Unknown** *[Note: Codes 3,4, and 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.]*
8. BLLDate	10	Date	Date blood drawn or date of laboratory BLL test, or date the state program received report. Please use earliest data. Format: MM/DD/YYYY
9. DateType	1	Text	1 = Date of blood draw (preferred) 2 = Date of laboratory test (acceptable) 3 = Date of health department ascertainment (acceptable) 9 = Unknown
10a. BLL	3	Numeric	Blood lead level (BLL) in µg/dL, one decimal, or as supplied by the laboratory. The value supplied by the laboratory may be rounded off to one decimal, but this is not necessary. E.g. Enter 9.5 or 10; or enter 9.4 or 9 Only BLLs from venous samples are acceptable for blood lead surveillance for adults. Due to the high potential for external contamination, blood lead analysis on capillary samples are not acceptable for blood lead surveillance for workers.

10b. BLL2	5	Text	When no numerical value reported, but BLL are provided as "< "(less than) or ">" (greater than) format. **Examples:** If less than 5, put down "<5"; If less than 4, put down "<4 "; If less than 1, put down "<1" and etc. If greater than 10, put down ">10"; If greater than 25, put down ">25" and etc.
11a. DOB	10	Date	Date of Birth (DOB) in MM/DD/YYYY date format. *[Note: If DOB unavailable, leave DOB blank and code Age instead]*
11b. Age	3	Numeric	Age in years, at the time of blood collection, one decimal. 999 = Unknown *[Note: If DOB provided, you may leave Age blank]*
12. Sex	1	Text	1 = Male 2 = Female 3 = Other 9 = Unknown / not stated
13. Ethnicity	1	Text	**Self-identified Hispanic ethnicity:** 0 = No (Not Hispanic or Latino) 1 = Yes (Hispanic or Latino) 9 = Unknown *[Note: This is the person's self-identified ethnicity, not the ethnicity of the last name]*
14. Race	1	Text (Select all that apply).	**Self-described race of adult:** Race: American Indian or Alaska Native 1 – Yes, 2 – No Race: Asian 1 – Yes, 2 – No Race: Black or African American 1 – Yes, 2 – No Race: Native Hawaiian or Other Pacific Islander 1 – Yes, 2 – No Race: White 1 – Yes, 2 – No Race: Other 1 – Yes, 2 – No Race: Refuse to Answer 1 – Yes, 2 – No Race: Unknown 1 – Yes, 2 – No

15. WorkRel	1	Text	**Work-relatedness. This is your determination on whether the exposure was work related or not.** 1 = Work related (Occupational) 2 = Not work related (Non-occupational) 3 = Both (Work-related and not work-related) 9 = Unknown *Code 1, 2 or 3 only if you are sure of the exposure source. Code 9 if you do not know.* *Work-relatedness can be coded "1'" if results are reported by laboratories processing occupational samples only, if the BLL test is ordered by occupational health providers, if the BLL is from an adult working in an industry known to process lead, if the company is listed in your Lead Registry, or if the employer is paying for the BLL test. Other criteria may only apply for some states. For example, if the SIC code is fee-paying, or if the employer tested 5 or more workers in 12 months.* *Please share with us the criteria you use to assign work-relatedness in your program* **[Note: Code 1, 2 or 3 only if you are sure of the exposure source. Code 9 if you do not know]**
16a. NAICS year	4	Numeric	North American Industry Classification System year version: 2002, 2007, or 2012. Leave blank if unknown
16b. NAICS	6	Text	North American Industry Classification System (NAICS) code. Describes the kind of business conducted by a person's employing organization. NAICS is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy. If all 6 digits NAICS codes are unavailable, complete with as many as possible, leave the missing ones blank. Do not fill with zeros. 999 = Unknown If WorkRel is coded 1 or 3, NAICS should have a valid code which includes 999 Include NAICS codes, if available, even if WorkRel is coded 2 or 9 NAICS codes can be found by contacting the employer; by searching in NIOSH NIOCS tool; by searching D&B, refUSA, Manta Find a Business (http://www.manta.com/business) or other commercial system; or by searching in your previous records **Useful websites to find NAICS codes:** NIOSH Industry and Occupation Computerized Coding System (NIOCCS): https://wwwn.cdc.gov/nioccs3/ U.S. Census Bureau. NAICS: http://www.census.gov/eos/www/naics/ NAICS Association: http://www.naics.com/search.htm

17a. COC year	4	Numeric	Census Occupation Codes year version: 2000, 2002, or 2010. Leave blank if unknown.
17b. COC	4	Text	Census Occupation Code. Describes the kind of work a person does on the job. If all 4 digits COC codes are unavailable, complete with as many as possible, leave the missing ones blank, and left justify. Do not fill with zeros. 9990 = Unknown If WorkRel is coded 1 or 3, COC should have a valid code or 990 **Useful websites to find occupation codes:** U.S. Census Bureau. Alphabetical Indexes of Industries and Occupations https://www.census.gov/topics/employment/industry-occupation/guidance/indexes.html NIOSH Industry and Occupation Computerized Coding System (NIOCCS): https://wwwn.cdc.gov/nioccs3/
18. Process	100	Text	Short narrative of the non-occupational (or occupational) avocation or activity from which the adult was exposed to lead. If WorkRel is coded 2 or 3, this variable should have a narrative entry, a code, or 999 If WorkRel is coded 1 or 9, this variable can have a narrative entry or can be blank 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 complementary and alternative medicines (e.g., Ayurvedic medications) 12 = Retired (This could be a former lead worker; try to get NAICS and COC) 13 = Other. Please provide text descriptions for sources not listed above. 999 = Unknown

Note: Variable formats may change to meet emerging CDC guidelines for surveillance systems.

NOTE: The following website is most useful in finding help in coding industry: (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. **https://www.naics.com/search/**
NIOSH Industry and Occupation Computerized Coding System (NIOCCS): https://wwwn.cdc.gov/nioccs3/

For more information or questions on Industry and Occupation codes you may also contact Pamela Schumacher (pks1@cdc.gov).

08/05/2020: Links to NIOCCS were updated, LOD statement was removed