Attachment 4b. NIOSH ABLES Program Summary & Accomplishments

CDC's National Institute for Occupational Safety and Health (NIOSH) Adult Blood Lead Epidemiology and Surveillance (ABLES) Program is a long-standing state-based surveillance program of laboratory-reported adult blood lead levels (BLLs) since 1987:

1987-2013 - NIOSH provided funding that resulted in the expansion of the ABLES program from 4 to 41 states. However, federal funding for State ABLES programs was discontinued in September 2013.

2020 – Current - As of August, 37 states collaborate with NIOSH to conduct adult BLL surveillance, and among them, 29 states have submitted blood lead data for 2018.

Occupational lead exposure is an important health problem in the United States. Lead exposure causes acute and chronic adverse effects in multiple organ systems ranging from subclinical changes in function to symptomatic life-threatening intoxication. Moreover, evidence indicates that lead exposure at low doses can lead to adverse cardiovascular and kidney effects, cognitive dysfunction, and adverse reproductive outcomes. Current research has found decreased renal function associated with BLLs at 5 µg/dL and lower, and increased risk of hypertension and essential tremor at BLLs below 10 µg/dL.

The public health objective of the ABLES program is identical to the Occupational Safety and Health Objective 7 in Healthy People 2020, which is to "Reduce the proportion of persons who have elevated blood lead concentrations from work exposures" This goal targets all workers age 16 or older; and the case definition for elevated blood lead levels (BLL) is equal to or greater than ten micrograms per deciliter (BLLs ≥10 µg/dL). The ABLES program aims to accomplish Objective 7 by working with State ABLES programs to build state capacity to initiate or improve adult blood lead surveillance programs which can accurately measure trends in adult BLLs and which can effectively target interventions to prevent lead exposures.

ABLES Accomplishments: Between 2018-2020, the following program accomplishments were achieved:

- The ABLES Program secured continuing participation of state ABLES Programs through mutual partnership data sharing agreements, and continued to monitor the national and state burden of lead exposure using prevalence rates of elevated BLLs.
- In 2019, the ABLES program made progress in integrating adult blood lead variables into Healthy Homes and Lead Poisoning Software System (HHLPSS) by working with NCEH contractors and assessing the adult data collection system in two states.