

PURPOSE

To specify the result of a blood lead test considered by the Michigan Department of Health and Human Services (MDHHS) Childhood Lead Poisoning Prevention Program (CLPPP) to represent an elevated blood lead level for children under six years of age.

EFFECTIVE

This policy is effective May 1, 2022.

DEFINITIONS**Michigan Department of Health and Human Services (MDHHS)**

The state public health department with authorities for disease control and prevention under the Public Health Code (Act 360 of 1978).

Childhood Lead Poisoning Prevention Program (CLPPP)

The organizational unit in the MDHHS Division of Environmental Health responsible for programs to prevent childhood lead exposure and poisoning as authorized in the Public Health Code (MCL 333.5474).

Centers for Disease Control and Prevention (CDC)

The federal agency designated to detect and respond to emerging and ongoing health threats, and to use science and technology into action to prevent disease.

Micrograms per deciliter ($\mu\text{g}/\text{dL}$)

The units of measurement commonly used to report the concentration of lead in blood.

Blood Lead Reference Value (BLRV)

The reference value for lead in blood set at the 97.5 percentile of blood lead values for children 1-5 years from the National Health and Nutrition Examination Survey (NHANES). The BLRV is used to identify children with higher levels of lead in their blood compared to most children in the United States. The BLRV is not health-based. It is a policy tool to identify children who need public health services and medical evaluation and to prioritize communities that need interventions to reduce lead exposure.

Elevated Blood Lead Level (EBLL)

A concentration of lead in blood that is at or above the BLRV set by the Centers for Disease Control and Prevention (CDC).

Advisory Committee on Childhood Lead Poisoning Prevention (ACCLPP)

An advisory committee to the CDC that in 2012 recommended adopting the concept of a blood lead reference value (BLRV) based on the science showing adverse health effects at lower blood lead levels than had previously been understood. It also recommended that the BLRV be periodically updated based on updated NHANES survey data.¹

BACKGROUND

CDC and MDHHS adopted the definition of EBLL as the BLRV of 5 µg/dL, following the ACCLPP report in 2012. In 2018, MDHHS issued a policy that EBLL test results 4.5-4.9 µg/dL be rounded to the BLRV of 5 µg/dL and thus all BLLs at or above 4.5 µg/dL represented an EBLL for children under six years of age. The policy statement also stated that this would be in effect for as long as the CDC-defined BLRV remained at 5 µg/dL (HPE 531-101). On October 28, 2021, the CDC updated the BLRV to 3.5 µg/dL based on NHANES' 2015-2016 and 2017-2018 survey cycles.²

POLICY

For as long as the CDC-defined BLRV is 3.5 µg/dL, the MDHHS CLPPP will consider any test result of 3.5 µg/dL or higher to represent an EBLL for children under six years of age.

REFERENCES

1. Advisory Committee on Childhood Lead Poisoning Prevention. Low level lead exposure harms children: A renewed call for primary prevention. January 4, 2012. Available at http://www.cdc.gov/nceh/lead/acclpp/final_document_030712.pdf.
2. Ruckart PZ, Jones RL, Courtney JG et al. Update of the blood lead reference value - United States, 2021 MMW Morb Mortal Wkly Rep. 2021 Oct 29; 70(43): 1509-1512.

CONTACT

For additional information concerning this policy, contact the MDHHS Childhood Lead Poisoning Prevention Program at MDHHS-CLPPP@michigan.gov or 517-335-8885.