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Updated Policies on Blood Lead Screening for Medicaid-Eligible Children

Introduction

The Centers for Disease Control and Prevention (CDC) reported in 2009 that blood lead levels (BLLs) were decreasing among Medicaid-eligible children (MEC) in some regions, and called for a new national screening strategy to account for local variations in risk. In 2010, the Alaska Department of Health and Social Services (DHSS) issued a *Bulletin* recommending that clinicians continue to perform targeted lead screening to all children at increased risk for lead exposure.¹ DHSS had offered this recommendation since the late 1990s after publication of an analysis of lead exposure risk to MEC, which presented a very low prevalence of elevated BLL (EBLL) among Alaska's MEC.²

In the wake of the Flint, Michigan water crisis, the Centers for Medicare and Medicaid Services (CMS) informed DHSS in September 2016 that every state receiving CMS funding must have a MEC lead screening policy that complies with federal Medicaid Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) mandates. The EPSDT program requires blood lead screening on all MEC at ages 12 and 24 months, or before 72 months if the child has not previously been screened. The purpose of this *Bulletin* is to 1) present regional data on the proportion of children with Medicaid coverage who are screened for EBLL, and 2) to communicate that DHSS is now recommending blood lead screening for all MEC consistent with the EPSDT program requirements.

Methods

We reviewed Medicaid billing code data and lead testing data from the Alaska State Public Health Laboratory (ASPHL) for the years 2011–2015 on children aged <72 months (at the time of testing) with ≥ 1 documented lead test. For each public health region, we estimated the annual number of children aged <72 months with Medicaid coverage using 2015 U.S. Census 5-year estimates and 2010 Census figures.^{3,4} We calculated the proportion of estimated Medicaid-covered children aged <72 months who were screened for lead (Table).

Results

Regional screening rates for Medicaid-covered children ranged 3.0% to 41.6% (Table). Of the 2,409 children tested, 279 (11.6%) received two or more lead screening tests at some point, and 29 (1.2%) received two tests before age 3 years.

Discussion

Alaska's reported EBLL prevalence remains low compared to the nationally reported prevalence (36 vs. 416 cases per 100,000 persons in 2014 for children aged <72 months),⁵ however, Alaska's lead screening rates are low. In 2014, Alaska's lead screening rate among children aged <72 months was 1.6%, compared to the national screening rate of 10%,⁵ making Alaska's EBLL prevalence estimates unreliable.

In our review, there was considerable variation of screening practices by region. Notably, the screening rate was substantially higher in the Yukon-Kuskokwim Delta (YKD) region than any other region. There are at least three reasons why the YKD region has such success with screening: 1) providers have been visiting villages every fall (since 2010) to offer lead screening to Head Start children, 2) children in Bethel receive a well-child check (which often includes BLL testing) during the community's annual "Kindergarten Roundup", and 3) the Yukon-Kuskokwim Health Corporation has increased their efforts to offer BLL screening to all children at age 12 and 24 months both in their Bethel hospital

and their five sub-regional clinics. While screening all MEC will result in many children being screened who are at low risk for lead exposure, this policy will result in greater detection of EBLLs in children who would have gone undiagnosed due to the practical shortcomings of targeted (risk-based) clinical screening practices.

Table. Screening among Children with Medicaid Coverage Under 72 Months of Age — Alaska, 2011–2015

Region	Number of Children	Total Population	Screening Rate (%)
Anchorage	283	7678 (7069–8288)	3.7% (3.4–4.0%)
Gulf Coast	125	1840 (1490–2190)	6.8% (5.7–8.4%)
Interior	151	2910 (2394–3426)	5.2% (4.4–6.3%)
Mat-Su	286	2818 (2582–3055)	10.1% (9.4–11.1%)
Northern	53	1797 (1656–1937)	3.0% (2.7–3.2%)
Southeast	253	1663 (1263–2062)	15.2% (12.3–20.0%)
Southwest	1258	3026 (2832–3230)	41.6% (38.9–44.6%)

Recommendations

1. Health care providers should test all MEC for lead exposure at ages 12 and 24 months, or before 72 months if the child has not previously been screened.
2. Health care providers should continue to assess *all children* aged <18 years, particularly those aged <72 months, for exposure to lead and offer blood lead testing to those with any risk factors. A lead exposure tool is available on the EPHP website.⁶
3. Clinical specimens should be processed by the providers' routine testing service. Alternatively, the Alaska State Public Health Laboratory is also available to process specimens (use the RAM Scientific [800-535-6734] Safe-T-Fill 200 μ L EDTA collection device).
4. Per 7 AAC 27.014, laboratories are required to report all BLLs to SOE, and health care providers are required to report all EBLLs (≥ 5 μ g/dL for children aged <18 years and ≥ 10 μ g/dL for adults). See: <http://dhss.alaska.gov/dph/Epi/Documents/pubs/conditions/frmHeavyMetals.pdf>.

References

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4. U.S. Census Bureau. 2010 Census Summary File 1; Table PCT12. Available at: <https://factfinder.census.gov/>
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