



Case Studies in Healthcare Financing of Healthy Homes Services: Medicaid Reimbursement for Lead Follow-Up Services in Ohio

Childhood exposure to lead can have lifelong consequences, including decreased cognitive function, developmental delays, and behavior problems; at very high levels, lead exposure can cause seizures, coma, and even death.¹ The Centers for Disease Control and Prevention (CDC) recommends follow-up services for children with blood lead levels at or above the current reference value of 5 µg/dL. These services include continued monitoring of the blood lead level, nutritional intervention, environmental investigation of the home, and lead hazard control based on the results of the environmental investigation. The regulatory and workforce infrastructure to provide these services exists in many states, but many children in at-risk communities still lack consistent access to lead follow-up services.² Recent changes resulting from healthcare reform have increased opportunities for states to consider more sustainable and widespread

implementation. Some states have already invested heavily in developing programs, policies, and funding to provide lead follow-up services, but many may be unsure about how to translate these evidence-based practices into sustainable systems and policy. This case study summarizes the current healthcare financing landscape in Ohio for lead follow-up services. The case study is based on survey findings² and interviews with the state Medicaid agency, the state health department, and other stakeholders. It describes the current healthcare landscape, other important funding mechanisms, key barriers, next steps, and lessons learned. This information may be useful to stakeholders in other states that are seeking healthcare financing for lead follow-up or other preventive services, or for stakeholders within the state of Ohio interested in a summary of current and future opportunities within the state.



AT A GLANCE

Medicaid Reimbursement for Lead Follow-Up Services in OH

Medicaid in Ohio

The Ohio Department of Medicaid is a significant provider of healthcare services for vulnerable children: The state Medicaid program covers over one-half of Ohio's youngest children, ages 0–4, and 40% of the state's children ages 0–19.³ According to interviewees, approximately 80% of Ohio's children with elevated blood lead levels are covered by Medicaid.

In Ohio, most individuals who are enrolled in Medicaid must join a managed care plan to receive their benefits.⁴ As of May 2015, 96% (over 1.6 million) of Medicaid-covered families and children in Ohio were enrolled in a Medicaid managed care plan.⁵

Medicaid Reimbursement for Lead Follow-Up Services^a

Reimbursement type (page 2): Ohio's system of reimbursement for lead follow-up services builds on the state's lead poisoning prevention system. The Ohio Department of Health (ODH) has had an interagency agreement with the Ohio Department of Medicaid (ODM), in place since the early 1990s that provides reimbursement for these services to children enrolled in Medicaid.

Geographic coverage (page 3): Statewide.

Types of services covered (page 3): Case management, environmental investigation (e.g., assessment of buildings where the child spends more than six hours per week, consumer products, "take-home" occupational exposures, et cetera), and in-home education.

Eligibility for services (page 4): All Medicaid recipients up to age 21 with elevated blood lead levels over 10 µg/dL, with an emphasis on children 0–6 years old; limited services are also available to children with elevated blood lead levels over 5 µg/dL.

Staffing (page 4): Certified health department sanitarians and public health nurses.

Barriers and Next Steps for Ohio (page 5)

Interviewees describe the program as stable, with no major barriers experienced or significant changes planned, with the exception of renegotiation of reimbursement rates (every two years) and changes in cost reporting requirements.

Other Funding Mechanisms in Ohio (page 5)

No other funding mechanisms have been identified.

Key Insights from Ohio (page 5)

Interviewees emphasized the importance of involving all stakeholders – including local health department staff, state Medicaid staff, the Center for Medicare and Medicaid Services (CMS), and interested community groups – in the planning of programs to reimburse for lead poisoning follow-up services. Interviewees also noted that a greater coordination of data could facilitate better program evaluation and tracking.

Medicaid in Ohio

The Ohio Department of Medicaid (ODM) is a significant provider of healthcare services for vulnerable children: The state Medicaid program covers over one-half of Ohio's youngest children, ages 0–4, and 40% of the state's children ages 0–19.³ According to interviewees, approximately 80% of Ohio's children with elevated blood lead levels are covered by Medicaid. In Ohio, most individuals who are enrolled in Medicaid must join a managed care plan to receive their benefits.⁴ As of May 2015, 96% (over 1.6 million) of Medicaid-covered families and children in Ohio were enrolled in a Medicaid managed care plan.⁵

Medicaid-Supported Reimbursement for Lead Follow-Up Services^b

Ohio's system of reimbursement for lead follow-up services builds on the state's lead poisoning prevention system. This system requires screening children and reporting blood lead levels (BLLs) to the state health department. The Ohio Department of Health (ODH) is also required to conduct a home investigation for all children under age six with elevated blood lead levels. ODH has had an agreement in place with ODM since the early 1990s that provides reimbursement for these services to children enrolled in Medicaid. The ODM-ODH contract is revised every two years to adjust reimbursement rates but has been renewed consistently since its establishment. The contract and associated services are provided as a part of the state's Medicaid Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) services; Ohio is not using an 1115 waiver to provide the services.

^a Information based on responses to both the interview questions and responses to the original 2014 survey (www.nchh.org/Resources/HealthcareFinancing/Snapshot.aspx).

^b For the purpose of the original survey and the follow-up interviews and case studies, lead poisoning follow-up services were defined as services that go beyond blood lead screening to include one or more of the following components: service coordination, education, environmental assessments to identify sources of lead exposure in the home environment, or remediation of the home environment to eliminate lead hazards.

In addition to the state's lead poisoning prevention system, lead poisoning follow-up services are provided to all children under age six found to have elevated blood lead levels. These services are also provided by the state health department or, in 15 jurisdictions, by staff of state and local health departments. Lead poisoning follow-up services are available throughout the state and are provided to all children with elevated lead levels, regardless of source of health insurance. For children who are not enrolled in Medicaid, the state health department's Lead Poisoning Prevention Program covers these costs. Interviewees were not aware of private insurers who are paying for lead follow-up services.

Reimbursement rates for specific services and the total contract amount are renegotiated by ODH and ODM every two years. The most recent contract (2013-2015) provides funding of \$900,000 through the Medicaid program's administrative funds. According to interviewees, actual services provided to children enrolled in Medicaid during a contract period usually exceeds the amount of the contract; excess costs are covered by other sources of funding within the Lead Poisoning Prevention Program, such as other state funding and CDC grants. See page four for additional details about service costs.

What lead follow-up services are provided?

The services provided to children with BLLs over 10 µg/dL consist of case management, environmental assessment, and in-home education. Environmental investigations are tailored to identify all likely sources of exposure for the child, generally including assessments of any residence or child care location where the child spends more than six hours a week, imported or other potentially lead-containing consumer products used by the family (e.g., spices, cookware, cosmetics, traditional remedies, et cetera), and potential "take-home" exposures from activities such as a caregiver's work or hobbies. When hazards are identified during an environmental investigation, ODH gives an order to remediate any identified hazards within 90 days. This order includes options for addressing the hazards that comply with HUD standards for abating lead hazards (i.e., removal or replacement of lead on friction surfaces like windows, doors, or floors; paint stabilization for nonfriction surfaces, et cetera). Under Ohio state law, because this work is being done with the intent to address a lead hazard, it must be performed by a licensed lead abatement contractor and cleared by a third-party (not the owner or contractor) certified risk assessor.^{6,7} If work is progressing and the child's lead level has not increased, ODH may grant up to three 90-day

extensions. This flexibility in timing allows ODH to subsidize approximately 70% of their remediation orders with U.S. Department of Housing and Urban Development (HUD) Lead Hazard Control grants, state housing grants, and Community Housing Improvement Programs (CHIP) through the Ohio Housing Finance Agency. However, if there is no response to a lead hazard control order within 90 days, a second order to vacate the property is issued.

Additionally, as of November 2014, a child with a BLL between 5 and 9 µg/dL is eligible for a modified public health lead investigation that does not involve environmental sampling or risk assessment. These investigations may include a home visit with a visual inspection, follow-up blood lead testing, and education about hygiene, cultural practices, and exposures to imported items. When a home visit is not feasible, this consultation may take place by telephone. This consultation is based on a six-page survey that may be administered by a public health nurse or case manager; the final survey is reviewed and signed by a certified lead investigator.

Currently, ODM provides ODH with \$1,223 per environmental investigation for a child with a BLL over 10 µg/dL. Depending on the initial interview, this investigation may include multiple residences or other potential sources of lead (occupational, consumer products, et cetera). Where there is local provision of lead follow-up services, the local health department receives \$600 of this amount. These amounts are reduced to \$150 and \$100, respectively, when the modified public health lead investigation services described above are provided to children with BLLs of 5–9 µg/dL.

Interviewees noted that Medicaid funds are not used for structural remediation or lead hazard control efforts. However, through partnerships with local HUD-funded Lead Hazard Control grant programs, assistance has often been available to fund remediation of identified hazards.

What patient populations are eligible to receive lead follow-up services through Medicaid?

Medicaid and Ohio state law require blood lead screening of all children under six years of age who are considered to be at risk for lead poisoning (based on the CDC's lead risk screening questionnaire, living in a state-designated high-risk area, or being enrolled in Medicaid), as well as older children who may be exposed to lead. The majority of at-risk children identified in Ohio are enrolled in Medicaid and the

vast majority of children identified with elevated blood lead levels are Medicaid recipients under age six.

Under Ohio state law, lead poisoning follow-up services are offered to all children with blood lead levels over 10 µg/dL, regardless of where they live or what type of health insurance they have. ODH may also conduct environmental investigations on a case-by-case basis for older children. Because Medicaid reimbursement is provided as part of the EPSDT requirement for screening, any Medicaid subscriber up to age 21 with an elevated blood lead level is eligible for these services.^c

Lead poisoning follow-up services supported through the mechanisms described above are provided for

children who have been screened and found to have a confirmed BLL of 10 µg/dL or above, with more limited services (i.e., non-environmental services including primarily education, visual inspection of the home, hygiene advice, and review of other lead-risk behaviors such as use of imported products) for children with BLLs of 5–9 µg/dL. Health department staff have access to Medicaid data files and are able to determine whether a child identified with an elevated blood lead level is enrolled in Medicaid.

What types of providers are eligible to provide lead follow-up services?

The state employs 82 public health case managers (primarily public health nurses) who deliver in-home lead services. Environmental investigations are carried out by certified health department sanitarians.

ACRONYMS

ACO	<i>Accountable care organization</i>
BLL	<i>Blood lead Level</i>
EBLL	<i>Elevated blood lead level</i>
EPSDT	<i>Early and periodic screening, diagnostic, and treatment</i>
ODH	<i>Ohio Department of Health</i>
ODM	<i>Ohio Department of Medicaid</i>

DEFINITION OF SERVICES

Lead poisoning follow-up services

Services that go beyond blood lead screening to include one or more of the following components are follow-up services: service coordination, education, environmental assessments to identify sources of lead exposure in the home environment, or remediation of the home environment to eliminate lead hazards.

Examples of these types of services could include but are not limited to:

- A nurse or community health worker or other health professional provides phone-based education or visits the home of a child with an elevated blood lead level to provide the family with information about reducing exposure to lead hazards and proper nutrition.*
- An environmental health professional, lead risk assessor, nurse, or community health worker visits the home of a child with an elevated blood lead level to assess the home for potential lead hazards and provide education about reducing exposure to lead hazards.*
- Potential lead hazards are remediated in the home of a child with an elevated blood lead level. Remediation activities could include but are not limited to stabilizing or repairing deteriorated paint, abatement of lead-based paint from components (e.g., doors, windows), replacement of components (e.g., doors, windows), making floor and window surfaces smooth and cleanable, performing specialized cleaning of horizontal surfaces, and other lead hazard control activities.*

^c Since 1989 Congress has required that all children enrolled in Medicaid receive blood lead testing and appropriate follow-up under the Early and Periodic Screening, Diagnostic and Treatment (EPSDT) benefit. Section 1905(r) of the Act defines the EPSDT benefit to include a comprehensive array of preventive, diagnostic, and treatment services for low-income infants, children, and adolescents under age 21.

How well is information shared between these providers and the larger healthcare team?

The health department shares the results of the environmental investigation with the child's family and healthcare provider, as well as the child's care manager, if relevant.

Are these services improving outcomes for individuals with elevated lead levels? What evidence is there for a return on investment?

Interviewees were not aware of any systematic efforts to measure the effectiveness of lead poisoning follow-up services in the state. In the past, attempts were made to track whether or not all children enrolled in Medicaid were being appropriately screened, but the separate ODH and ODM data systems presented challenges to this effort.

Other Mechanisms for Funding Lead Follow-Up Services, Outside of Medicaid

As noted previously, interviewees are not aware of private insurers reimbursing for lead follow-up services. For the 20% of children identified with an elevated blood lead level (EBLL) who are not enrolled in Medicaid, ODH covers the cost of these services through other funding sources, such as Ohio's Maternal and Child Health Block Grant from the U.S. Department of Health and Human Services (approximately \$1.7 million per year). Funds from CDC primarily support surveillance and outreach to increase testing rates. Additionally, ODH has an agreement with ODM that helps support surveillance activities.

Interviewees are not aware of accountable care organizations (ACOs) or patient centered medical homes supporting these services.

Barriers to Implementing Lead Follow-Up Services within Medicaid

Although interviewees generally characterized this as a well-functioning and stable program, the health department noted that additional funding is needed to cover the true cost of serving all children identified with elevated blood lead levels enrolled in Medicaid.

Additionally, interviewees again noted challenges around evaluating the effectiveness of the program in providing services to Medicaid-enrolled children. The separate and incompatible data systems and recording procedures at ODH and ODM have presented numerous challenges when attempts to link them have been made.

Future of Medicaid Reimbursement for Lead Follow-Up Services: How Is the State Working to Expand Coverage and Reimbursement?

Interviewees were aware of no pending plans to expand or change coverage for lead poisoning follow-up services in Ohio outside of the standard renegotiation of the contract details and rates of reimbursement for ODH every two years. Interviewees noted that plans are being developed to transition reimbursement rates from a fixed unit rate to a real cost rate, but at the publication time of this case study, a final decision had not yet been determined.

Lessons Learned

In Ohio, evaluation of the efficacy of the program has been complicated by the separate and incompatible ODH and ODM databases. Interviewees noted the need for a unique identifier for each child across data systems that would facilitate evaluation of the entire system of screening, investigating, and reimbursing through Medicaid, as well as any subsequent follow-up actions and services.

Interviewees noted that it is essential to involve all agencies in development of the program, methodology, rules, processes, and contracts. In particular, they emphasized involving the people who perform the investigations as well as the Centers

for Medicare and Medicaid Services representative early in the process. Additionally, they noted that in Ohio, various stakeholders including staff from state agencies, local health departments, HUD lead hazard remediation grant programs, and community groups meet regularly as an advisory group. This involvement has helped ensure that various interests are considered and addressed by the systems providing lead poisoning follow-up services. For example, developing partnerships with grant programs that can help to subsidize needed lead hazard control repairs has vastly increased timely compliance with remediation orders from approximately 30% in the early years of the program to approximately 70% currently of owners who comply within 12 months of the order being issued.

Involvement of all agencies and stakeholders, in not only development of Medicaid reimbursement programs and policies but also in ongoing advisory roles, is essential.

Endnotes and Sources

- ¹ Canfield, R. L., Henderson, C. R., Cory-Slechta, D. A., Cox, C., Jusko, T. A., & Lanphear, B. P. (2003, April 17). Intellectual impairment in children with blood lead concentrations below 10 µg per deciliter. *New England Journal of Medicine*, 348, 1517–1526. Retrieved from <http://www.nejm.org/doi/full/10.1056/NEJMoa022848#t=article>
- ² National Center for Healthy Housing & Milken Institute School of Public Health. (2014). *Healthcare financing of healthy homes: Findings from a 2014 nationwide survey of state reimbursement policies*. Retrieved from www.nchh.org/Resources/HealthcareFinancing/Snapshot.aspx
- ³ Health Policy Institute of Ohio. (2013, March). Ohio Medicaid basics 2013. Retrieved from http://www.healthpolicyohio.org/wp-content/uploads/2013/03/medicaidbasics2013_final.pdf
- ⁴ Ohio Department of Medicaid. (2013, May). Medicaid managed care eligibility. Retrieved from <http://medicaid.ohio.gov/Portals/0/Providers/ProviderTypes/Managed%20Care/MedicaidManagedCareEligibility.pdf>
- ⁵ Ohio Department of Medicaid. (n.d.). Medicaid managed health care enrollment reports. Retrieved from <http://medicaid.ohio.gov/RESOURCES/ReportsandResearch/MedicaidManagedCarePlanEnrollmentReports.aspx#1465537-2015-monthly-enrollment>
- ⁶ Ohio Administrative Code (OAC) 3701-30-07 to 3701-30-11 defines public health lead investigation, LHC orders, compliance, et cetera. Ohio Department of Health. (2014, November 13). Ohio Administrative Code. Retrieved from <http://www.odh.ohio.gov/en/rules/final/3701-30-39/f3701-30.aspx>
- ⁷ Ohio Administrative Code (OAC) Risk Assessments 3701-32-07 and Clearance 3701-32-12. Retrieved from <http://www.odh.ohio.gov/rules/final/3701-30-39/f3701-32.aspx>

About the Project

This multiyear project is working to document and demystify the landscape and opportunities surrounding healthcare financing for healthy homes services. In year one of the project, the National Center for Healthy Housing (NCHH) conducted a nationwide survey to identify states where healthcare financing for lead poisoning follow-up or home-based asthma services was already in place or pending. In year two of the project, NCHH and a project team led by the Milken Institute School of Public Health conducted a series of interviews in key states identified by the survey. An interview guide was developed to ask key informants in each state questions about the extent and nature of Medicaid-supported services within the state, details of services covered, barriers to implementation, next steps for expanding services, and increasing access and lessons learned. In each state, the project team conducted interviews with at least one representative from the state Medicaid agency, a program contact in the state health department, and one to two additional stakeholders (e.g., advocates, local programs, payers, or providers). The interviews were used to develop detailed case studies to distill lessons learned in states with Medicaid reimbursement for healthy homes services and ultimately to better equip other states in seeking reimbursement for these services.

For more information: www.nchh.org/Program/DemystifyingHealthcareFinancing.aspx.



Lead Case Study #1
Healthcare Financing for Healthy Homes

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For additional resources, including many of the sources cited in this document, visit www.nchh.org/resources/healthcarefinancing.aspx

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