

# Minnesota and Wisconsin Collaborate to Curb Occupational Lead Exposure Among Shipyard Workers

*Collaboration between two state health agencies to address elevated blood lead levels among shipyard workers in northern Wisconsin highlights the importance of interagency collaboration, information sharing, and the need for strong occupational health surveillance systems.*

In March 2016, the Minnesota Department of Health (MDH) and the Wisconsin Department of Health Services (WDHS) learned that several shipyard workers from a northern Wisconsin shipyard had blood lead levels exceeding the threshold for elevated blood lead levels ( $\geq 5$   $\mu\text{g}/\text{dL}$ ) as defined by the National Institute for Occupational Safety and Health (NIOSH).<sup>1</sup> Since the shipyard bordered Minnesota and Wisconsin, and the workers included residents of both states, both jurisdictions were involved in the ensuing investigation. The Occupational Safety and Health Administration (OSHA) also had an ongoing investigation into this site and found that adequate ventilation controls were not in place to sufficiently reduce the risk of lead exposure stemming from the nature of the work. WDHS and MDH worked with OSHA, NIOSH, and area healthcare facilities and clinics to distribute information to the affected workers on lead exposure prevention and information on reducing lead exposures to household members due to lead residuals on work clothing. Additionally, both states encouraged workers and their household members to have their blood lead levels evaluated.

- 357 shipyard workers were identified as possibly having elevated blood lead levels.<sup>2</sup>
- 233 of these individuals received blood lead tests and 185 completed informational interviews with health agencies in either Minnesota or Wisconsin.<sup>3</sup>
- None of the 46 household members who received a blood lead test had elevated blood lead levels.<sup>4</sup>

## Steps Taken

- In March 2016, both MDH and WDHS received confirmation that multiple employees working at a shipyard in northern Wisconsin had elevated blood lead levels. As the employees resided in both states, the two health agencies jointly addressed the issue. The shipyard halted work and initiated an investigation once the states' occupational health surveillance networks reported these results.<sup>5</sup>
- MDH and WDHS contacted shipyard employees and encouraged them to get tested to assess their exposure. The state health agencies were able to cross reference information obtained from the labor unions and shipyard facilities to better understand who was on site working when these exposures may have occurred. This helped immensely when the states were attempting to contact workers who were no longer working on site at the shipyard. Some workers had already moved on from the project due to the short-term nature of their contracts or assignments.
- MDH and WDHS shared information with the exposed workers on how to prevent or reduce occupational lead exposure and shared information on reducing exposure to household members stemming from lead residue on the employees' clothes. They also encouraged household members to have their blood levels evaluated for possible exposure.
- Finally, both states urged workers to seek professional medical assistance for lead exposure and not to rely on various over the counter drugs meant to combat exposure to heavy metals.

## Results

- As a result of the collaboration and outreach by WDHS and MDH, 357 individuals were identified as possible employees of the shipyard during the period of exposure (December 2015-March 2016).<sup>6</sup> Of those 357 employees, 233 received a blood lead test.<sup>7</sup> Of those workers who received a blood lead test, 171 had elevated blood lead levels ( $\geq 5$   $\mu\text{g}/\text{dL}$ ). Of the 341 household members identified, 46 received a blood lead test, but none tested positive for elevated blood lead levels.<sup>8</sup>
- MDH and WDHS alerted local healthcare providers that lead exposure could be an occupational hazard for shipyard employees.

## Lessons Learned

- Because both states had occupational surveillance systems and the same definition for elevated blood lead, early detection of elevated blood lead levels was possible.
- Through thoughtful collaboration, MDH and WDHS avoided duplication of efforts and inconsistent messaging.
- The work of MDH and WDHS supplemented OSHA's onsite work by ensuring timely communication with employees prior to the conclusion of OSHA's investigation.
- This experience serves as a reminder to professional shipyard groups that lead may still pose a health risk, and adequate controls need to be in place to reduce risks to employees.<sup>9</sup>

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<sup>1</sup> Weiss D, Yendell SJ, Baertlein LA, et al. "Notes from the Field: Occupational Lead Exposures at a Shipyard — Douglas County, Wisconsin, 2016." *Morbidity and Mortality Weekly Report (MMWR)*. 2017. 66:34. Available at <https://www.cdc.gov/mmwr/volumes/66/wr/mm6601a8.htm>. Accessed 9-13-17.

<sup>2</sup> *ibid*

<sup>3</sup> *ibid*

<sup>4</sup> *ibid*

<sup>5</sup> *ibid*

<sup>6</sup> *ibid*

<sup>7</sup> *ibid*

<sup>8</sup> *ibid*

<sup>9</sup> *ibid*