



Health Notes

In This Edition: ACHD Identifies Systemic Issue in How Lead Level Data is Reported to State Database

Pennsylvania's version of the National Electronic Disease Surveillance System (PA NEDSS) is the state data system for reporting blood lead levels. This is the database that the Allegheny County Health Department (ACHD) uses to extract its data on all reports of elevated lead levels in children. When the



PA Department of Health released their 2016 and 2017 lead report in December, it became apparent to ACHD staff that there was a discrepancy in the county and state tallies.

“The numbers we were reporting in Allegheny County did not capture all the children with elevated lead levels. After extensive investigation, we learned that there was a systematic error in the data reported to PA NEDSS,” said Karen Hacker, MD, Director of the Allegheny County Health Department. Dr. Hacker noted, “We take the issue of lead exposure very seriously. Our goal is to identify all children with confirmed elevated lead levels at or above 5 ug/dL. This is essential. Our primary focus was and remains to identify any exposed children that were missed.”

The Health Department staff's review brought to light a problem in how data was being input into the PA NEDSS, which affected how the data was subsequently reported out. Essentially, the results of any blood tests for lead for any child in the Commonwealth must be reported to the PA Health Department. The laboratory performing the test then inputs the data into the PA NEDSS database, typically through an electronic data interchange. This information is pulled into a report specific to Allegheny County using a code to search the over 20,000 countywide annual records. ACHD's staff learned that an error in this extraction code sometimes put a key piece of information

into a “comments” section rather than the data report. Without this key information as to whether the test was a venous (blood draw) or capillary (finger prick) test, it appeared that this information was simply missing. Because ACHD reports figures only for venous tests, any record missing this designation was not included in ACHD's public reports. If the details regarding a capillary or venous blood lead test was missing, our inspectors called the doctor to verify the type of blood lead test and followed up accordingly at the time they obtained the information.

Dr. Hacker said, “Our priority was to make sure that all children who are entitled to services and housing investigations receive them. We are pleased to report that all children with confirmed elevated lead levels at or above 10 ug/dL had already been identified (generally less than 120 per year) by our housing department since we began investigations for this level of exposure.” Since identifying the error, ACHD worked with the state to revise the data extraction code and identify all children with confirmed levels of 5-9.9 ug/dL, that were missed since June 2018 (the point at which ACHD began lead investigations for this population). The County has rigorously reviewed data for this time period to resolve this issue and has revised the extraction code to correct the issue. ACHD has also worked with providers who are correcting the error going forward.



In addition, since the data review, ACHD staff has called all families of children with confirmed levels of 5-9.9 ug/dL and urged them to get their follow up blood tests if their last test was older than 3 months. If follow-up tests were elevated, a home investigation to identify the source

of lead will be conducted. Staff has also offered home investigations to those whose test was less than 3 months old. We are happy to report that this work has been accomplished.

ACHD is working with partner organizations Allies for Children, Women for a Healthy Environment and Conservation Consultants Inc.(CCI) to make sure the problems are addressed.

Together, we are committed to decreasing lead exposure through primary prevention and intervention. To date, those efforts have included:

1. Passing universal lead testing ordinance
2. Following the number of children who have been tested by linking testing data to birth certificate data
3. Leading a Lead Task Force to produce recommendations
4. Producing the first annual childhood blood lead report
5. Implementing blood lead testing at three Health Department sites
6. Providing educational materials to families in multiple languages
7. Working on a model ordinance for lead-safe lead-free housing
8. Obtaining funding to expand capacity for investigation and to support the community lead coalition.

The new data is now posted on the ACHD website. While the numbers of children exposed are somewhat higher, the rates of exposed children continue to demonstrate a downward trend. Since the pre-2015 data has not been validated by the state, ACHD was only able to apply the amended coding to data from 2015 onwards. Changes to the data have occurred over time and there are likely to be additional changes to the data system in the future, according to the state Department of Health.

“The data in PA NEDSS are critical for our health department and community to identify and monitor children with lead exposure in Allegheny County. Data helps all of us understand the extent of the problem and evaluate our efforts. To this end, our collaboration with the PA Department of Public Health and the medical and laboratory providers that export data on Allegheny children to the PA NEDSS system is essential information for meeting our goals of identifying all exposed children and reducing lead exposure. We must work together to

ensure that the data is valid and accessible now and in the future. The support of our community partners is greatly appreciated towards this end” said Dr. Hacker.

“We commend the Allegheny County Health Department for taking swift action to address this issue and ensure the health and safety of children in this region. We strongly encourage parents of children who have elevated blood lead levels to work with the County to receive the necessary home investigations and any early intervention resources that may be needed,” said Michelle Naccarati-Chapkis, Executive Director of Women for a Healthy Environment.



“CCI has been working with ACHD to advance an agenda to better protect children and adults from the risks associate with lead exposure and lead poisoning. Their efforts to ensure correct, complete data and transparency in addressing this issue and to promptly publish the new data on their web site align with the commitment we share to ensure health homes and people.” said Jeaneen Zappa, Executive Director of CCI.



“Thanks to the Allegheny County Health Department for continuing to be as transparent as possible with the data and the methods used to assemble it. This is a process of continual improvement and the best way to build a common understanding of how successful our efforts have been and what we as a community need to do for our children.” said Patrick Dowd, Executive Director of Allies for Children.



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