Figure 1. Toledo-Lucas County Health Department. This choropleth map depicts the predicted probability of blood lead levels ≥ 5 µg/dL by census tract. Darker census tracts indicate greater predicted likelihood of children with blood lead levels ≥ 5 µg/dL.

Figure 2. Toledo-Lucas County Health Department and Surrounding Area. This figure characterizes the predicted probability of blood lead levels ≥ 5 µg/dL by census tract. The extent of the Toledo-Lucas County Health Department is outlined in red. Note: Counties and census tracts bordering Lake Erie may have boundaries extending into the lake.

Legend

Predicted Probability of BLLs ≥ 5

- <6.8%
- 6.8% - 11.4%
- 11.5% - 18.2%
- 18.3% - 27.3%
- >27.3%

All figures depict the predicted proportion of children, less than six years of age, whose blood-lead concentration is equal to or exceeds 5 µg/dL. These estimates were obtained from a lead risk model developed by The Ohio State University Statistical Consulting Service in conjunction with the Ohio Department of Health Healthy Homes and Lead Poisoning Prevention Program. 2010 Census and 2011 American Community Survey housing and demographic data were incorporated as potential predictors, and the model was fit to 2007-2011 blood lead testing data for children less than six years of age. In an effort to avoid issues of collinearity, stepwise selection was used to determine the final set of predictors.

Figure 3. Census Tract 003200: This census tract has the greatest predicted probability of blood lead levels of 5 µg/dL or greater in the Toledo-Lucas County Health Department. The predicted probability of blood lead levels of 5 µg/dL or greater in this census tract is 38.77%.
Who is at risk/Who should be tested?

Children, less than 6 years of age, are most susceptible to the effects of lead poisoning. Lead is a neurotoxin and children at this age have rapidly developing brains. Children enrolled on Medicaid are required to be tested at ages 1 and 2 and before age six if they have no previous test on record. Additionally, any child living in a zip code deemed to be at high risk for lead exposure and poisoning should be tested (see High Risk Zip Codes on back of the Lead Testing Requirements and Medical Management Guidelines). For all other children, a set of risk assessment questions should be used to determine whether the child should receive a test. Any answers of “yes” or “don’t know” warrant blood lead testing for children, less than six years of age. The questions are listed below:

Ask the parent seven key questions to assess risk.

- Does your child live in or regularly visit a house built before 1978 that has peeling, chipping or chalking paint or recent, ongoing, or planned renovation/remodeling? This includes child care centers, preschools, or homes of a baby sitter or relative.
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- Did the child’s mother have known lead exposure during her pregnancy of the child?
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- Does your child live near a lead smelter, battery recycling plant, or other industry known to release lead (active/former)?

Resources

- For Medical Management Guidelines and a listing of high risk zip codes, see: ODH [www.odh.ohio.gov] Search : Lead
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2012 – Number of Children Tested and Number of Elevated Blood Lead Levels (EBLs)

<table>
<thead>
<tr>
<th>Result Category</th>
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<th>&lt; 5 µg/dL</th>
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<td>13</td>
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At-risk housing

In 1978, the use of lead in residential paint was banned. Even today, lead-based paint is the primary source of exposure for children with elevated blood lead levels. Lead in paint often occurred at higher concentrations prior to 1950 and poses an even greater risk.

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