

Childhood Lead Poisoning: Age of Housing measures

Type of EPHT Indicator	Hazard /Risk
Measures	<ol style="list-style-type: none"> 1. Number of homes built before 1950 2. Percent of homes built before 1950
Derivation of Measure(s)	<p>Use 2000 Census, Summary file 3, to calculate the percent of pre-1950 housing units by county. These estimates will be linked to Under 3 Birth Cohort Lead indicators for cohort years 2000-2005.</p> <p>Use ACS table B25034 5-year estimates to calculate the percent of pre-1950 housing units by county from 2009-Present. These estimates will be linked to Under 3 Birth Cohort Lead indicators for cohort years beginning with 2006.</p>
Unit	Proportion of houses by age
Geographic Scope	Iowa
Geographic Scale	county and state
Time Period	2000 through most current year available
Time Scale	Census 2000 decennial census for 2000-2008 data ACS 5 year estimates for 2009-current
Rationale	<p>Elevated blood lead levels in young children have been associated with adverse health effects ranging from learning impairment and behavioral problems to death. Because children may have elevated BLLs and not have any specific symptoms, CDC recommends a blood lead test for young children at risk for lead poisoning. Risk factors identified in the National Health and Nutrition Examination Surveys (NHANES) include living in housing built before 1950, especially deteriorating condition and living in a family in poverty.</p> <p>Many states have adopted a targeted testing strategy (test children at high risk) and some states recommend universal testing (test all young children). Nevertheless, studies have documented low blood lead testing rates among children at high risk. CDC recommends that state and local childhood lead poisoning prevention programs (CLPPPs) evaluate testing among high risk populations.</p>
Use of the Measure	<p>State</p> <ul style="list-style-type: none"> • Identify populations that are at risk and improve targeted testing • Allow for a better understanding of the age of housing in a geographic area <p>National</p> <ul style="list-style-type: none"> • Allow for comparison across states which can be used to target interventions (especially CDC, EPA, HUD) <p>Public/parents</p> <ul style="list-style-type: none"> • Determine if their community is at risk. There are public health messages which will help provide more information on lead sources and prevention. <p>Health care providers</p> <ul style="list-style-type: none"> • Identify children who should be tested for lead by identifying high risk communities

Limitations of the Measure	<p>This measure estimates testing rates in children living in communities which may be at greater risk of exposure due to older housing. It is a surrogate for a child's risk of lead poisoning due to lead paint in the home. A more direct measure would be a measure based on individual children and the actual age of their house.</p> <p>Counties are a large geographic unit and do not necessarily consist of a homogenous risk for lead poisoning.</p> <p>Housing data from Census does not account for houses which have been renovated or have had lead removed.</p> <p>This measure does not account for other lead sources in the community.</p> <p>Children maybe exposed to lead paint in neighboring counties (visiting family, day care)</p>
Data Sources	<ol style="list-style-type: none"> 1. US Census (Summary file 3) (2000-2008) 2. ACS (2009-most recent) Housing table B25034
Limitations of Data Sources	<p>Census</p> <ul style="list-style-type: none"> • 2000 was last year Census data was available • Does not have information on renovation of pre 1950 housing. • Does not have information on the condition of housing • Does not provide address level information on year housing was built. <p>ACS Data</p> <ul style="list-style-type: none"> • Estimated using 5 year ACS files • First 5 year file not available until 2009 (2005-2009) • Should follow ACS guidelines on comparing ACS estimates
Related Indicators	<p>Blood Lead Levels Indicators</p> <ul style="list-style-type: none"> • Birth Cohort • Annual <p>American Community Survey (ACS) Housing and Poverty Indicators</p> <ul style="list-style-type: none"> • 5 – Year Summary files (Beginning in 2009)