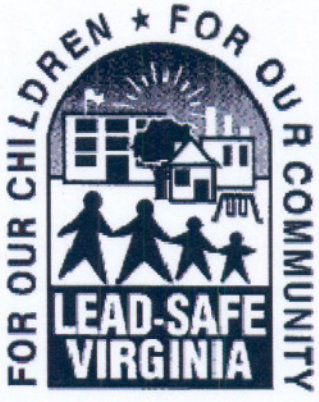
Lead-Safe Virginia Program

Childhood Lead Poisoning Prevention Program
2010 Surveillance Summary Report



VDH VIRGINIA DEPARTMENT OF HEALTH
Protecting You and Your Environment

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Background

Lead poisoning is usually an asymptomatic disease; therefore blood lead testing needs to be performed based on risk and not just symptoms. Lead exposure can damage children's nervous, hematopoietic, and renal systems. It is especially harmful to the developing nervous systems of fetuses. There is no safe level for lead exposure. Children under the age of three years (36 months) are at risk due to this age group's frequent hand-to-mouth activity and their developing neurological system. The main source of lead exposure for children in Virginia is house dust contaminated by leaded paint, and soil contaminated by deteriorated exterior house paint and decades of industrial and motor vehicle emissions (leaded gasoline). Although lead paint was banned from residential use in 1978, lead remains a hazard in homes built before the ban, especially pre-1950 housing.

Renovation of older homes can create additional lead hazards for families and workers. Pre-1978 homes of child care providers or daycare centers are also potential areas of exposure. The EPA Renovation, Repair, and Painting Rule (RRP), the most important new effort in the last ten years to help combat childhood lead poisoning, requires individuals and firms renovating or painting pre-1978 residences, schools, or child care centers with pre-1978 houses to take lead-safe work practices training and be licensed.

The primary phase-out of leaded gasoline was completed in 1986; however lead from this source still remains as a hazard because lead is not biodegradable. There are also other pathways to lead exposure from sources such as imported jewelry and toys, home health remedies, imported herbs and spices, imported vinyl mini blinds, and other vinyl products. Many of the imported vinyl products use lead as a stabilizer, and as the product deteriorates the lead becomes available.

Many hobbies or occupations can be considered hazardous activities regarding lead exposure; furniture refinishing and making stained glass are examples. Other activities that may be associated with lead exposure include: using indoor firing ranges; performing renovation, remodeling, and painting; working with lead batteries; performing auto paint refinishing; and making pottery. "Take-home" exposures may result when workers wear their work clothes home and/or wash them with the family laundry. Another take-home exposure may occur when scrap or waste material is brought home from work. Lead paint is still used in marine paint on boats, bridges, and is present in the paint of older vehicles and can become a hazard when unsafe lead paint work practices are used.

The *Code of Virginia*, sections 32.1-46.1 requires all children determined to be at risk to be tested for elevated blood lead levels at the age of one year (12 months), again at the age of two years (24 months), and between the ages 36 - 72 months if never tested previously or are exposed to a new risk factor. All Medicaid enrolled children must be tested at age one year (12 months) and again at 2 years (24 months) regardless of any risk factors. This periodic testing is both a federal and state requirement. All laboratories are required to report blood lead results electronically within ten days. Lead poisoning is a reportable disease and completion of the Epi-1 form is required.

Mission

The mission of the Lead Safe Virginia Childhood Lead Poisoning Prevention Program is to eliminate lead as a health hazard for children less than six years of age.

Program Activities

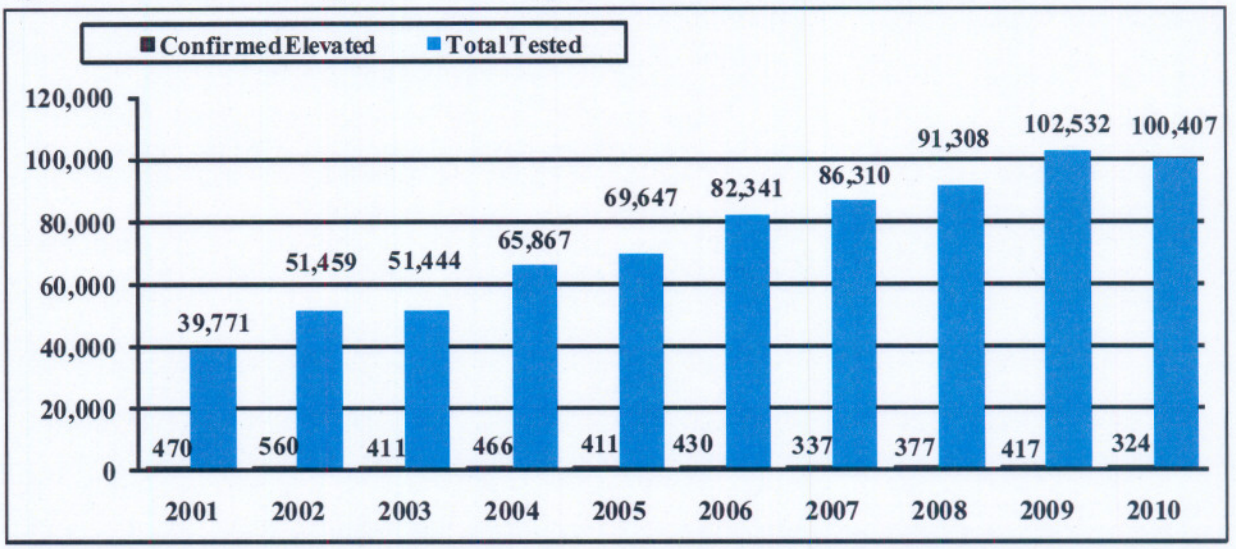
The objectives of the Lead-Safe Virginia Program include 1) assure all at-risk children receive lead testing through a "medical home" , 2) coordinate care and referrals for medical and environmental intervention for all children under six years of age with an elevated blood lead level, 3) educate the public and health care providers regarding childhood lead poisoning, 4) educate realtors, landlords, renovators, painters, homeowners, and others regarding lead-safe work practices and EPA regulations, 5) maintain a statewide childhood blood lead surveillance system, 6) implement primary prevention measures to reduce children's exposure to lead hazards through activities and collaboration, and 7) coordinate the implementation and evaluation of the statewide lead elimination plan.

2010 Data and Statistics

This report summarizes the 2010 data to include both testing and confirmed elevated blood lead level (EBLL) data, and the identification of sources of exposure for children under 6 years of age. A confirmed EBLL is defined as a single elevated venous test ≥ 10 µg/dL or two elevated capillary tests within 84 days/12 weeks and is only counted once in the year in which it initially occurred.

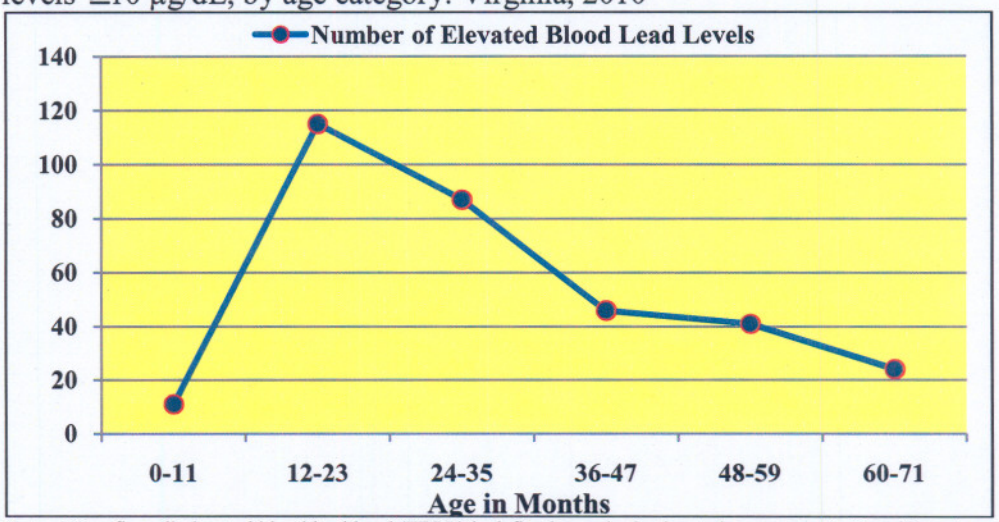
Testing for lead exposure is a key component of reducing childhood lead poisoning. Early detection of a child's EBLL provides the opportunity to identify and reduce lead hazards in order to lower the child's exposure and also identify and address hazards to prevent future cases. During 2010, 100,407 children under 6 years (72 months) of age were reported as tested for lead exposure. Of these, 324 children were reported as having a confirmed elevated blood lead test. Of the high-risk age category, under 36 months, 62,891 were reported tested with 213 having a confirmed EBLL. Overall there has been a steady increase in the number of children tested for EBLLs between 2001 and 2010. (Figure 1) This increase can be partially attributed to the testing and reporting requirements of 12 VAC 5-120, "Regulations for testing children for elevated blood lead levels", made effective July 1, 2001. Effective December 2009, these regulations were amended to: 1) include CLIA-waived point of care providers in the definition of a laboratory, 2) allow the use of a CLIA-waived, CDC and FDA approved lead testing device, and 3) require providers to provide lead poisoning prevention materials at all well-child physicals on children under 72 months of age.

Figure 1. Statewide Testing Results for Virginia Children < 72 months, 2001-2010



Note: Results based on one test per child per year. The reporting of elevated blood lead levels is required under the Regulations for Disease Reporting and Control. Effective July 1, 2001, regulations require the reporting of all lead tests performed on children under 72 months of age. The number of children tested each year is influenced by several factors that include the number of children born in Virginia each year, migration of children into and out of the state or to a different locality, and the number of children tested in compliance with the regulations. These statistics are preliminary, as the database will accept historical data as made available and continuous data quality control may depict minor changes.

Figure 2. Number of children < 72 months of age with reported confirmed elevated blood lead levels ≥10 µg/dL, by age category: Virginia, 2010



Note: A 'confirmed' elevated blood lead level (EBLL) is defined as a single elevated venous test ≥ 10 µg/dL or two elevated capillary tests within 84 days/12 weeks and is only counted once in the year in which it initially occurred. The reporting of elevated blood lead levels is required under the Regulations for Disease Reporting and Control. Effective July 1, 2001, regulations require the reporting of all blood lead tests performed on children under 72 months of age. These statistics are preliminary, as the database will accept historical data as made available and continuous data quality control may depict minor changes.

Medicaid enrolled children under 36 months of age accounted for 55 % of the children tested in this high-risk age category, and 146 of those were confirmed EBLLs. Medicaid enrolled children under 36 months of age account for 69% of the confirmed EBLLs in this age category. The CDC has determined that children enrolled in Medicaid are at high-risk for lead exposure for various reasons. The Lead Safe Virginia Program is working with the Department of Medical Assistance Services (DMAS) to educate providers regarding the federal and state requirement to

test Medicaid enrolled children at both 12 and 24 months of age. Virginia adopted in 2009 the National Committee for Quality Assurance (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS). This tool has been useful by measuring for lead testing compliance During 2010, according to the Virginia HEDIS report, 56% of Medicaid enrolled children <36 months of age received at least one lead test. This was a 5% increase over the 2009 baseline.

Table 1 below describes historical EBLLs by age category and lead level. A persistent blood lead level of 15ug/dL or greater will receive both a nursing and environmental assessment, and a risk assessment if needed to identify the source of exposure.

Table 1. Number of children confirmed for lead exposure, by age category, by blood lead level: Virginia, 2001 – 2010

	10 - 14 µg/dL	15 - 19 µg/dL	20 - 44 µg/dL	45 - 69 µg/dL	≥70 µg/dL	Total
< 36 Months of Age						
2001	102	39	35	2	0	178
2002	176	59	51	5	0	291
2003	163	52	41	2	1	259
2004	186	44	42	6	0	278
2005	169	48	28	3	0	242
2006	175	38	35	2	0	252
2007	132	52	32	1	0	217
2008	140	47	29	1	0	217
2009	161	38	38	5	0	242
2010	129	42	39	3	0	213
< 72 Months of Age						
2001	138	65	51	3	0	257
2002	236	84	63	7	0	390
2003	242	72	60	3	3	379
2004	317	69	66	6	2	460
2005	287	70	47	6	1	404
2007	223	70	52	1	0	346
2006	299	58	67	6	0	432
2007	216	68	52	1	0	337
2008	237	79	58	3	0	377
2009	286	63	61	7	0	417
2010	206	53	62	3	0	324

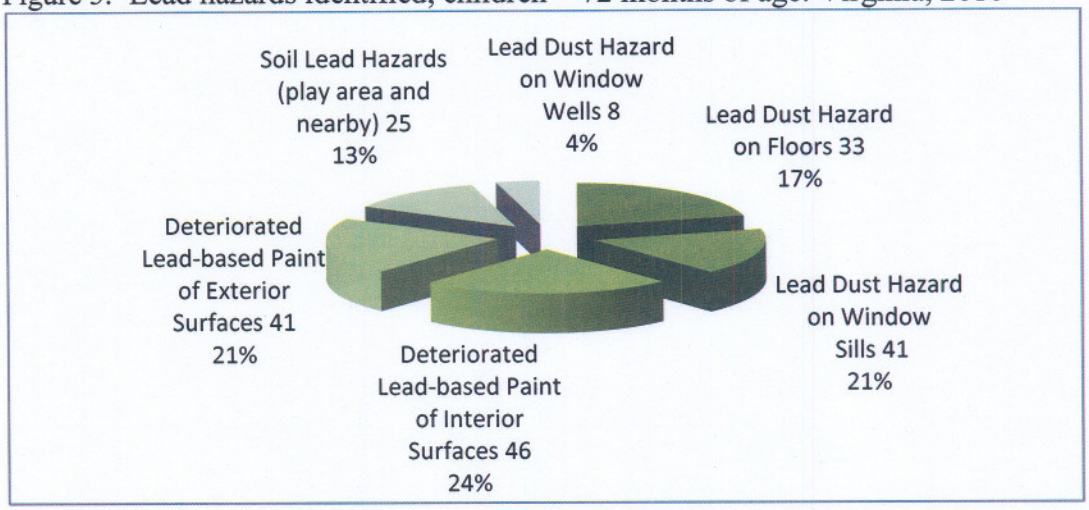
Note: A 'confirmed' elevated blood lead level (EBLL) is defined as a single elevated venous test ≥ 10 µg/dL or two elevated capillary tests within 84 days/12 weeks and is only counted once in the year in which it initially occurred. The reporting of elevated blood lead levels is required under the Regulations for Disease Reporting and Control. Effective July 1, 2001, regulations require the reporting of all blood lead tests performed on children under 72 months of age. The number of children tested each year is influenced by several factors that include the number of children born in Virginia each year, migration of children into and out of the state or to a different locality, and the number of children tested in compliance with the regulations. These statistics are preliminary, as the database will accept historical data as made available and continuous data quality control may depict minor changes.

Table 2. Summary of environmental investigations, children < 72 months of age: Virginia, 2010

Number of EBLLs 20 µg/dl or above	65
Number of EBLLs increasing or persistent 15-19µg/dl	9
Number of environmental intervention blood lead investigations (EIBLI) required	66
Number of EIBLI not performed (family moved/no access-4, family refused services-1, RHA property-1, family traveled extensively out of country-1)	7
Number of "newcomer/refugee" children with EBLL requiring EIBLI	1
Lead dust hazard on floors	33
Lead dust hazard on window sills	41
Lead dust hazard on window wells	8
Lead dust hazard other area (porch post, mini-blind, bathtub)	3
Deteriorated lead based paint on interior surfaces	46
Deteriorated lead based paint on exterior surfaces	41
Soil lead hazards identified (children's play area)	16
Soil lead hazards identified (non play areas)	9
Lead in water above 15 ppb (plumbing or well)	2
Occupational exposure from parent or caregiver	3
Mini blinds	3
Kohl and/or Surma (eye-liner)	1
Home remedies	2
Other (keys, antique, bathtub, dishes, unknown metal, Essence)	6
Reported exposure from renovation activities	2

Note: Environmental intervention blood lead investigations are performed on all confirmed venous elevated blood lead levels ≥ 20 µg/dL or persistent confirmed blood lead levels of 15 to 19 µg/dL on children < 72 months of age. Environmental investigations / risk assessments not conducted or completed were due to varying reasons such as the family moved to a new address or the family refused inspection. Multiple environmental investigations may be required for the same child due to the possibility of lead exposure from more than one location, and risk assessments may not agree with 2010 EBLLs reported, as overlap into the following year may occur. Each source of exposure (dust etc.) was only counted once per address.

Figure 3. Lead hazards identified, children < 72 months of age: Virginia, 2010



Reported number of children tested for elevated blood lead levels (EBLLs), by locality of residence, under 36 months of age: Virginia, 2010

Locality	FIPS	Population < 36 Months	Number Tested	Testing Rate/1000^	Number Confirmed Elevated	Percent Confirmed Elevated	Confirmed Blood Lead Level Category				
							10-14 µg/dL	15-19 µg/dL	20-44 µg/dL	45-69 µg/dL	≥70 µg/dL
Accomack County	51001	1,477	694	470	7	1.0%	4	1	2		
Albemarle County	51003	3,439	480	140	2	0.4%	1	1			
Alleghany County	51005	546	103	189	3	2.9%	2	1			
Amelia County	51007	449	97	216	1	1.0%	1				
Amherst County	51009	1,065	208	195	1	0.5%	1				
Appomattox County	51011	519	136	262	0	0.0%					
Arlington County	51013	8,314	1,944	234	1	0.1%	1				
Augusta County	51015	2,491	506	203	0	0.0%					
Bath County	51017	91	31	341	1	3.2%			1		
Bedford County	51019	2,026	196	97	1	0.5%	1				
Bland County	51021	168	33	196	0	0.0%					
Botetourt County	51023	852	176	207	0	0.0%					
Brunswick County	51025	532	162	305	2	1.2%	2				
Buchanan County	51027	661	145	219	0	0.0%					
Buckingham County	51029	547	134	245	1	0.7%			1		
Campbell County	51031	1,687	231	137	0	0.0%					
Caroline County	51033	1,196	275	230	0	0.0%					
Carroll County	51035	894	194	217	0	0.0%					
Charles City County	51036	207	22	106	0	0.0%					
Charlotte County	51037	429	148	345	2	1.4%	1	1			
Chesterfield County	51041	11,989	2,457	205	5	0.2%	2	1	2		
Clarke County	51043	411	44	107	0	0.0%					
Craig County	51045	125	13	104	0	0.0%					
Culpeper County	51047	2,109	643	305	3	0.5%	2	1			
Cumberland County	51049	337	61	181	0	0.0%					
Dickenson County	51051	546	71	130	0	0.0%					
Dinwiddie County	51053	852	81	95	0	0.0%					
Essex County	51057	427	77	180	0	0.0%					

Reported number of children tested for elevated blood lead levels (EBLLs), by locality of residence, under 36 months of age: Virginia, 2010

Locality	FIPS	Population < 36 Months	Number Tested	Testing Rate/1000^	Number Confirmed Elevated	Percent Confirmed Elevated	Confirmed Blood Lead Level Category				
							10-14 µg/dL	15-19 µg/dL	20-44 µg/dL	45-69 µg/dL	≥70 µg/dL
Fairfax County	51059	45,553	6,599	145	13	0.2%	8	3	2		
Fauquier County	51061	2,525	362	143	3	0.8%	1	1	1		
Floyd County	51063	496	26	52	0	0.0%					
Fluvanna County	51065	1,000	134	134	0	0.0%					
Franklin County	51067	1,787	96	54	0	0.0%					
Frederick County	51069	3,081	266	86	1	0.4%			1		
Giles County	51071	562	32	57	0	0.0%					
Gloucester County	51073	1,223	94	77	0	0.0%					
Goochland County	51075	633	255	403	0	0.0%					
Grayson County	51077	448	64	143	0	0.0%					
Greene County	51079	802	83	103	0	0.0%					
Greensville County	51081	472	7	15	0	0.0%					
Halifax County	51083	1,207	208	172	1	0.5%	1				
Hanover County	51085	3,218	631	196	0	0.0%					
Henrico County	51087	12,327	2,807	228	5	0.2%	4	1			
Henry County	51089	1,869	134	72	1	0.7%	1				
Highland County	51091	47	11	234	0	0.0%					
Isle of Wight County	51093	1,181	230	195	0	0.0%					
James City County	51095	1,862	137	74	2	1.5%	2				
King and Queen County	51097	212	23	108	0	0.0%					
King George County	51099	1,115	209	187	1	0.5%			1		
King William County	51101	663	52	78	0	0.0%					
Lancaster County	51103	329	86	261	0	0.0%					
Lee County	51105	750	148	197	0	0.0%					
Loudoun County	51107	16,301	979	60	0	0.0%					
Louisa County	51109	1,249	201	161	1	0.5%	1				
Lunenburg County	51111	406	107	264	0	0.0%					
Madison County	51113	451	42	93	0	0.0%					

Reported number of children tested for elevated blood lead levels (EBLLs), by locality of residence, under 36 months of age: Virginia, 2010

Locality	FIPS	Population < 36 Months	Number Tested	Testing Rate/1000^	Number Confirmed Elevated	Percent Confirmed Elevated	Confirmed Blood Lead Level Category				
							10-14 µg/dL	15-19 µg/dL	20-44 µg/dL	45-69 µg/dL	≥70 µg/dL
Mathews County	51115	218	42	193	0	0.0%					
Mecklenburg County	51117	995	293	294	5	1.7%	5				
Middlesex County	51119	268	65	243	1	1.5%	1				
Montgomery County	51121	2,788	101	36	1	1.0%	1				
Nelson County	51125	493	110	223	2	1.8%		1	1		
New Kent County	51127	547	76	139	0	0.0%					
Northampton County	51131	515	187	363	1	0.5%	1				
Northumberland County	51133	329	77	234	3	3.9%			2	1	
Nottoway County	51135	537	179	333	1	0.6%	1				
Orange County	51137	1,262	170	135	2	1.2%	2				
Page County	51139	764	124	162	0	0.0%					
Patrick County	51141	509	93	183	0	0.0%					
Pittsylvania County	51143	2,038	410	201	3	0.7%	3				
Powhatan County	51145	820	134	163	1	0.7%	1				
Prince Edward County	51147	636	307	483	2	0.7%	1	1			
Prince George County	51149	1,214	72	59	0	0.0%					
Prince William County	51153	20,118	1,943	97	3	0.2%	2	1			
Pulaski County	51155	1,097	178	162	0	0.0%					
Rappahannock County	51157	215	74	344	0	0.0%					
Richmond County	51159	271	45	166	0	0.0%					
Roanoke County	51161	3,130	208	66	2	1.0%	1		1		
Rockbridge County	51163	789	49	62	0	0.0%					
Rockingham County	51165	2,747	815	297	2	0.2%	1		1		
Russell County	51167	931	132	142	0	0.0%					
Scott County	51169	686	150	219	1	0.7%		1			
Shenandoah County	51171	1,567	154	98	1	0.6%	1				
Smyth County	51173	1,065	335	315	0	0.0%					
Southampton County	51175	559	110	197	0	0.0%					

Reported number of children tested for elevated blood lead levels (EBLLs), by locality of residence, under 36 months of age: Virginia, 2010

Locality	FIPS	Population < 36 Months	Number Tested	Testing Rate/1000^	Number Confirmed Elevated	Percent Confirmed Elevated	Confirmed Blood Lead Level Category				
							10-14 µg/dL	15-19 µg/dL	20-44 µg/dL	45-69 µg/dL	≥70 µg/dL
Spotsylvania County	51177	5,140	693	135	1	0.1%			1		
Stafford County	51179	5,168	618	120	1	0.2%	1				
Surry County	51181	209	43	206	0	0.0%					
Sussex County	51183	373	76	204	0	0.0%					
Tazewell County	51185	1,398	455	325	2	0.4%	1	1			
Warren County	51187	1,543	162	105	1	0.6%	1				
Washington County	51191	1,636	70	43	1	1.4%		1			
Westmoreland County	51193	593	128	216	0	0.0%					
Wise County	51195	1,473	251	170	0	0.0%					
Wythe County	51197	961	230	239	0	0.0%					
York County	51199	1,834	92	50	0	0.0%					
Alexandria	51510	7,609	1,547	203	4	0.3%	3	1			
Bedford	51515	195	113	579	0	0.0%					
Bristol	51520	627	75	120	1	1.3%			1		
Buena Vista	51530	174	27	155	1	3.7%		1			
Charlottesville	51540	1,605	343	214	2	0.6%	1	1			
Chesapeake	51550	8,929	1,189	133	2	0.2%	1		1		
Colonial Heights	51570	712	129	181	0	0.0%					
Covington	51580	126	178	1413	0	0.0%					
Danville	51590	1,741	786	451	6	0.8%	4	2			
Emporia	51595	169	98	580	1	1.0%			1		
Fairfax	51600	1,211	530	438	1	0.2%	1				
Falls Church	51610	436	157	360	0	0.0%					
Franklin	51620	469	153	326	1	0.7%		1			
Fredericksburg	51630	1,172	195	166	0	0.0%					
Galax	51640	237	180	759	0	0.0%					
Hampton	51650	6,009	817	136	6	0.7%	3		2	1	
Harrisonburg	51660	1,571	311	198	0	0.0%					

Reported number of children tested for elevated blood lead levels (EBLLs), by locality of residence, under 36 months of age: Virginia, 20010

Locality	FIPS	Population < 36 Months	Number Tested	Testing Rate/1000^	Number Confirmed Elevated	Percent Confirmed Elevated	Confirmed Blood Lead Level Category				
							10-14 µg/dL	15-19 µg/dL	20-44 µg/dL	45-69 µg/dL	≥70 µg/dL
Hopewell	51670	1,133	205	181	1	0.5%	1				
Lexington	51678	104	35	337	1	2.9%	1				
Lynchburg	51680	3,107	914	294	8	0.9%	2	5	1		
Manassas	51683	2,036	774	380	1	0.1%			1		
Manassas Park	51685	724	351	485	0	0.0%					
Martinsville	51690	591	76	129	0	0.0%					
Newport News	51700	9,453	1,356	143	4	0.3%	2	1	1		
Norfolk	51710	11,691	2,468	211	8	0.3%	4	2	2		
Norton	51720	123	37	301	0	0.0%					
Petersburg	51730	1,747	376	215	4	1.1%	4				
Poquoson	51735	281	16	57	0	0.0%					
Portsmouth	51740	4,730	816	173	12	1.5%	7	1	4		
Radford	51750	397	33	83	0	0.0%					
Richmond	51760	9,312	3,418	367	31	0.9%	21	6	4		
Roanoke	51770	4,313	614	142	7	1.1%	5	1	1		
Salem	51775	748	192	257	0	0.0%					
Staunton	51790	795	534	672	1	0.2%	1				
Suffolk	51800	3,543	743	210	2	0.3%	1		1		
Virginia Beach	51810	18,781	1,783	95	5	0.3%	3	1	1		
Waynesboro	51820	902	536	594	4	0.7%	2	1		1	
Williamsburg	51830	504	1	2	0	0.0%					
Winchester	51840	1,315	245	186	4	1.6%	2	1	1		
Unknown *			7,702								
VIRGINIA		**322,913**	**62,889**	**195**	**213**	**0.3%**	**129**	**42**	**39**	**3**	**0**

Note: The Vintage 2009 bridged-race postcensal estimates were used. These were produced by the Population Estimates Program of the U.S. Census Bureau in collaboration with the National Center for Health Statistics (NCHS). This file was released by the Census Bureau on June 20, 2010 and by NCHS on July 23, 2010. Results based on one test per child per year. A confirmed elevated blood lead level (EBLL) is defined as a single elevated venous test ≥ 10 µg/dL or two elevated capillary tests within 84 days/12 weeks and is only counted once in the year in which it initially occurred. The reporting of elevated blood lead levels is required under the Regulations for Disease Reporting and Control. Effective July 1, 2001, regulations require the reporting of all lead tests performed on children under 72 months of age. The number of children tested each year is influenced by several factors that include the number of children born in Virginia each year, migration of children into and out of the state or to a different locality, and the number of children tested in compliance with the regulations. ^Regulations only require testing at 1 and 2 years of age if determined to be at risk. These statistics are preliminary, as the database will accept historical data as made available and continuous data quality control may depict minor changes in data. * Unknown addresses are due to providers not submitting a child's address with the laboratory lead test request, or in some cases, the laboratory not forwarding this information as required.

Reported number of children tested for elevated blood lead levels (EBLLs), by locality of residence, under 72 months of age: Virginia, 2010

Locality	FIPS	Population < 72 Months	Number Tested	Number Confirmed Elevated	Percent Confirmed Elevated	Confirmed Blood Lead Level Category				
						10-14 µg/dL	15-19 µg/dL	20-44 µg/dL	45-69 µg/dL	≥70 µg/dL
Accomack County	51001	2,941	970	9	0.9%	6	1	2		
Albemarle County	51003	6,699	625	4	0.6%	3	1			
Alleghany County	51005	1,112	125	4	3.2%	3	1			
Amelia County	51007	900	147	1	0.7%	1				
Amherst County	51009	2,047	320	1	0.3%	1				
Appomattox County	51011	1,006	169	0	0.0%					
Arlington County	51013	15,982	2,562	1	0.0%	1				
Augusta County	51015	4,989	759	0	0.0%					
Bath County	51017	176	50	1	2.0%	1				
Bedford County	51019	4,211	281	1	0.4%	1				
Bland County	51021	352	47	0	0.0%					
Botetourt County	51023	1,844	288	0	0.0%					
Brunswick County	51025	1,088	302	2	0.7%	2				
Buchanan County	51027	1,382	310	0	0.0%					
Buckingham County	51029	1,010	185	1	0.5%			1		
Campbell County	51031	3,417	324	0	0.0%					
Caroline County	51033	2,322	390	0	0.0%					
Carroll County	51035	1,789	230	0	0.0%					
Charles City County	51036	392	47	0	0.0%					
Charlotte County	51037	858	196	2	1.0%	1	1			
Chesterfield County	51041	24,741	4,076	7	0.2%	4	1	2		
Clarke County	51043	869	61	0	0.0%					
Craig County	51045	268	27	0	0.0%					
Culpeper County	51047	4,063	941	4	0.4%	3	1			
Cumberland County	51049	669	96	0	0.0%					
Dickenson County	51051	1,053	142	0	0.0%					
Dinwiddie County	51053	1,759	172	1	0.6%	1				
Essex County	51057	856	131	0	0.0%					

Reported number of children tested for elevated blood lead levels (EBLLs), by locality of residence, under 72 months of age: Virginia, 2010

Locality	FIPS	Population < 72 Months	Number Tested	Number Confirmed Elevated	Percent Confirmed Elevated	Confirmed Blood Lead Level Category				
						10-14 µg/dL	15-19 µg/dL	20-44 µg/dL	45-69 µg/dL	≥70 µg/dL
Fairfax County	51059	91,971	11,271	26	0.2%	19	4	3		
Fauquier County	51061	5,195	518	3	0.6%	1	1	1		
Floyd County	51063	1,002	53	1	1.9%	1				
Fluvanna County	51065	2,023	169	0	0.0%					
Franklin County	51067	3,498	160	1	0.6%	1				
Frederick County	51069	6,166	405	1	0.2%			1		
Giles County	51071	1,100	67	0	0.0%					
Gloucester County	51073	2,497	155	0	0.0%					
Goochland County	51075	1,247	388	0	0.0%					
Grayson County	51077	853	97	0	0.0%					
Greene County	51079	1,605	148	0	0.0%					
Greensville County	51081	886	10	0	0.0%					
Halifax County	51083	2,427	294	1	0.3%	1				
Hanover County	51085	6,920	1,015	0	0.0%					
Henrico County	51087	24,335	4,479	15	0.3%	11	1	3		
Henry County	51089	3,778	189	1	0.5%	1				
Highland County	51091	91	15	0	0.0%					
Isle of Wight County	51093	2,409	328	1	0.3%	1				
James City County	51095	3,724	207	2	1.0%	2				
King and Queen County	51097	432	52	0	0.0%					
King George County	51099	2,160	298	1	0.3%			1		
King William County	51101	1,295	117	0	0.0%					
Lancaster County	51103	615	152	1	0.7%	1				
Lee County	51105	1,485	278	0	0.0%					
Loudoun County	51107	33,127	1,755	0	0.0%					
Louisa County	51109	2,441	316	1	0.3%	1				
Lunenburg County	51111	848	163	2	1.2%	2				
Madison County	51113	918	75	0	0.0%					

Reported number of children tested for elevated blood lead levels (EBLLs), by locality of residence, under 72 months of age: Virginia, 2010

Locality	FIPS	Population < 72 Months	Number Tested	Number Confirmed Elevated	Percent Confirmed Elevated	Confirmed Blood Lead Level Category				
						10-14 µg/dL	15-19 µg/dL	20-44 µg/dL	45-69 µg/dL	≥70 µg/dL
Mathews County	51115	435	51	0	0.0%					
Mecklenburg County	51117	2,007	468	6	1.3%	6				
Middlesex County	51119	513	86	2	2.3%	1	1			
Montgomery County	51121	5,306	228	1	0.4%	1				
Nelson County	51125	966	176	3	1.7%	1	1	1		
New Kent County	51127	1,161	136	0	0.0%					
Northampton County	51131	1,028	234	1	0.4%	1				
Northumberland County	51133	646	127	4	3.1%			3	1	
Nottoway County	51135	1,081	245	2	0.8%	2				
Orange County	51137	2,474	283	2	0.7%	2				
Page County	51139	1,603	158	0	0.0%					
Patrick County	51141	1,030	104	0	0.0%					
Pittsylvania County	51143	4,047	723	3	0.4%	3				
Powhatan County	51145	1,746	222	1	0.5%	1				
Prince Edward County	51147	1,307	361	2	0.6%	1	1			
Prince George County	51149	2,463	150	0	0.0%					
Prince William County	51153	40,231	3,590	6	0.2%	5	1			
Pulaski County	51155	2,127	264	0	0.0%					
Rappahannock County	51157	434	97	0	0.0%					
Richmond County	51159	544	81	0	0.0%					
Roanoke County	51161	6,858	385	2	0.5%	1		1		
Rockbridge County	51163	1,544	87	0	0.0%					
Rockingham County	51165	5,597	1,036	2	0.2%	1		1		
Russell County	51167	1,848	256	0	0.0%					
Scott County	51169	1,361	317	2	0.6%	1	1			
Shenandoah County	51171	3,069	244	2	0.8%	2				
Smyth County	51173	2,068	450	0	0.0%					
Southampton County	51175	1,115	141	0	0.0%					

Reported number of children tested for elevated blood lead levels (EBLLs), by locality of residence, under 72 months of age: Virginia, 2010

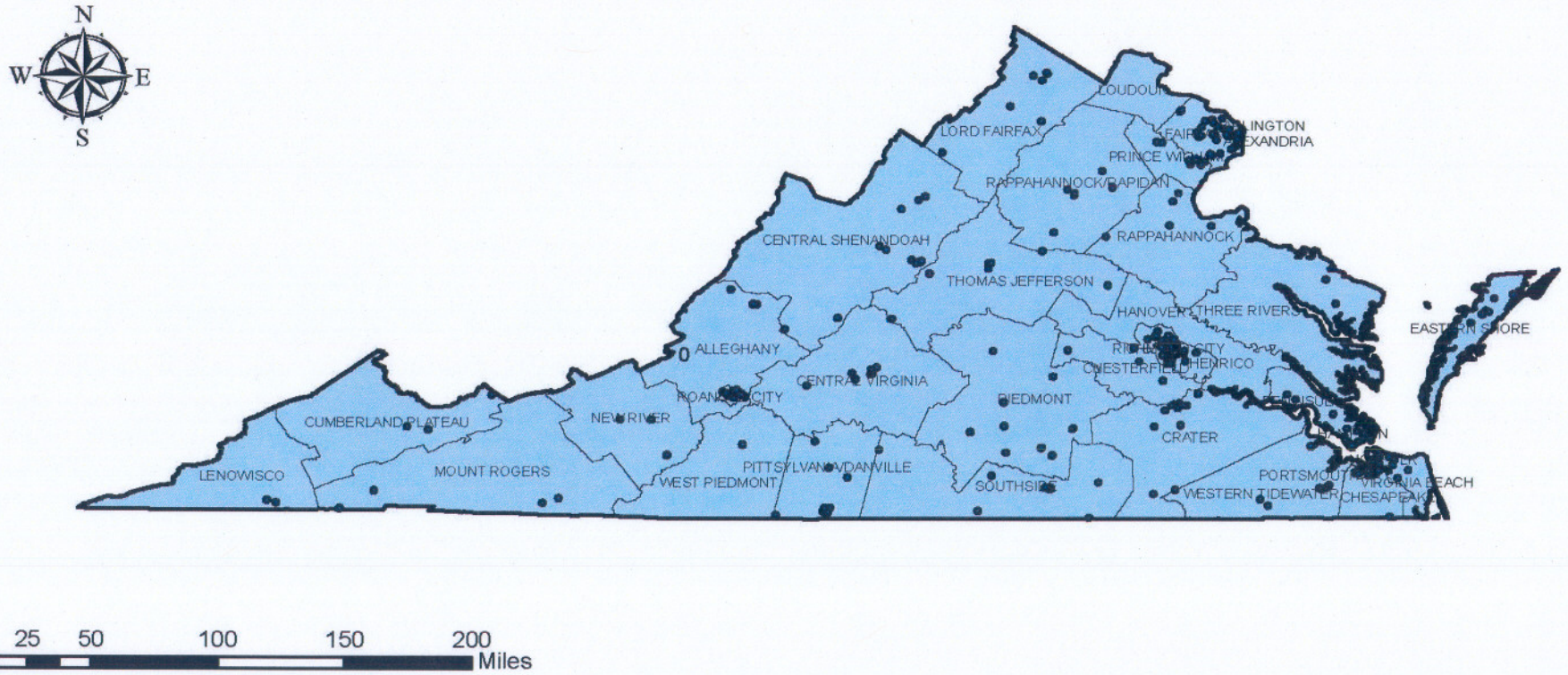
Locality	FIPS	Population < 72 Months	Number Tested	Number Confirmed Elevated	Percent Confirmed Elevated	Confirmed Blood Lead Level Category				
						10-14 µg/dL	15-19 µg/dL	20-44 µg/dL	45-69 µg/dL	≥70 µg/dL
Spotsylvania County	51177	10,332	1,420	1	0.1%			1		
Stafford County	51179	10,487	1,317	2	0.2%	2				
Surry County	51181	433	64	0	0.0%					
Sussex County	51183	718	157	0	0.0%					
Tazewell County	51185	2,905	894	3	0.3%	2	1			
Warren County	51187	3,028	241	1	0.4%	1				
Washington County	51191	3,291	142	1	0.7%		1			
Westmoreland County	51193	1,197	213	0	0.0%					
Wise County	51195	2,974	461	0	0.0%					
Wythe County	51197	1,951	429	0	0.0%					
York County	51199	3,829	146	0	0.0%					
Alexandria	51510	13,932	2,255	6	0.3%	5	1			
Bedford	51515	379	162	1	0.6%			1		
Bristol	51520	1,224	186	1	0.5%			1		
Buena Vista	51530	303	45	3	6.7%	2	1			
Charlottesville	51540	2,918	418	2	0.5%	1	1			
Chesapeake	51550	17,816	1,827	2	0.1%	1		1		
Colonial Heights	51570	1,378	270	0	0.0%					
Covington	51580	271	215	0	0.0%					
Danville	51590	3,364	1,394	10	0.7%	6	3	1		
Emporia	51595	364	213	2	0.9%			2		
Fairfax	51600	2,030	811	2	0.2%	1		1		
Falls Church	51610	802	198	0	0.0%					
Franklin	51620	942	202	1	0.5%		1			
Fredericksburg	51630	2,182	480	1	0.2%	1				
Galax	51640	512	219	2	0.9%	2				
Hampton	51650	11,352	1,383	10	0.7%	7		2	1	
Harrisonburg	51660	2,999	408	1	0.2%	1				

Reported number of children tested for elevated blood lead levels (EBLLs), by locality of residence, under 72 months of age: Virginia, 2010

Locality	FIPS	Population < 72 Months	Number Tested	Number Confirmed Elevated	Percent Confirmed Elevated	Confirmed Blood Lead Level Category				
						10-14 µg/dL	15-19 µg/dL	20-44 µg/dL	45-69 µg/dL	≥70 µg/dL
Hopewell	51670	2,178	464	1	0.2%	1				
Lexington	51678	196	56	1	1.8%	1				
Lynchburg	51680	5,829	1,456	11	0.8%	3	5	3		
Manassas	51683	3,920	1,331	2	0.2%	1		1		
Manassas Park	51685	1,526	609	0	0.0%					
Martinsville	51690	1,066	97	0	0.0%					
Newport News	51700	18,310	2,006	6	0.3%	4	1	1		
Norfolk	51710	21,978	3,778	13	0.3%	5	3	5		
Norton	51720	227	72	0	0.0%					
Petersburg	51730	3,141	854	10	1.2%	8	1	1		
Poquoson	51735	620	24	0	0.0%					
Portsmouth	51740	9,043	1,192	14	1.2%	8	1	5		
Radford	51750	751	64	1	1.6%	1				
Richmond	51760	17,345	6,308	43	0.7%	28	8	7		
Roanoke	51770	7,596	1,118	10	0.9%	7	2	1		
Salem	51775	1,524	348	0	0.0%					
Staunton	51790	1,573	727	2	0.3%	1		1		
Suffolk	51800	7,262	1,223	5	0.4%	2		3		
Virginia Beach	51810	36,464	2,569	5	0.2%	3	1	1		
Waynesboro	51820	1,819	789	7	0.9%	3	2	1	1	
Williamsburg	51830	1,013	3	0	0.0%					
Winchester	51840	2,491	351	4	1.1%	2	1	1		
Unknown *			10,951							
VIRGINIA		**638,237**	**100,407**	**324**	**0.3%**	**209**	**51**	**61**	**3**	

Note: The Vintage 2009 bridged-race postcensal estimates were used. These were produced by the Population Estimates Program of the U.S. Census Bureau in collaboration with the National Center for Health Statistics (NCHS). This file was released by the Census Bureau on June 20, 2010 and by NCHS on July 23, 2010. Results based on one test per child per year. A confirmed elevated blood lead level (EBLL) is defined as a single elevated venous test ≥ 10 µg/dL or two elevated capillary tests within 84 days/12 weeks and is only counted once in the year in which it initially occurred. The reporting of elevated blood lead levels is required under the Regulations for Disease Reporting and Control. Effective July 1, 2001, regulations require the reporting of all lead tests performed on children under 72 months of age. The number of children tested each year is influenced by several factors that include the number of children born in Virginia each year, migration of children into and out of the state or to a different locality, and the number of children tested in compliance with the regulations. ^Regulations only require testing at 1 and 2 years of age if determined to be at risk. These statistics are preliminary, as the database will accept historical data as made available and continuous data quality control may depict minor changes in data. * Unknown addresses are due to providers not submitting a child's address with the laboratory lead test request, or in some cases, the laboratory not forwarding this information as required.

INCIDENCE
VIRGINIA, CHILDREN UNDER 6 YEARS OF AGE, 2010 REPORTED ELEVATED BLOOD LEAD LEVELS



Lead-Safe Virginia Program
Office of Environmental Health
Virginia Department of Health

Note: Data are confirmed elevated blood lead levels of >=10 ug/dL. Only children determined to be at risk are required to be tested for lead poisoning.

Guidelines for Childhood Lead Poisoning Testing

ALL MEDICAID ENROLLED CHILDREN ARE REQUIRED TO BE TESTED AT 1 AND 2 YEARS OF AGE

To determine risk for other children, please use the chart below.

OTHER RISK FACTORS FOR CHILDREN

Blood lead levels shall be obtained in children at ages 1 and 2 if they meet ANY one of the criteria noted in the box below. In addition, children ages 3-5 years of age who have not previously been tested, and moved to a new address in a high-risk area, or meet ANY one of the criteria in the box below shall also be tested.

1. Eligible for or receiving WIC benefits? Medicaid eligible and not tested at both 1 and 2 years of age?
2. Living in a ZIP Code determined to be high-risk based on age of housing and other factors? (See attached High – Risk ZIP Code list)
3. Living in or regularly visiting a house or day care center built before 1950?
4. Living in or regularly visiting a house built before 1978 with peeling or chipping paint or recent (within the last 6 months), ongoing or planned renovation?
5. Living with or regularly visiting a sibling, housemate or playmate with lead poisoning?
6. Living with an adult whose job or hobby involves exposure to lead?
7. Living near an active lead smelter, battery recycling plant, or other industry likely to release lead?
8. Recent refugee, immigrant, or child adopted from outside of the U.S.

- Take careful history regarding possible lead exposure at each routine visit.
- A child must be tested if the parent or guardian requests testing due to possible exposure (12 VAC 5-120).
- Testing may be performed by venipuncture or capillary. Filter paper methods are also acceptable and often more convenient for the family if performed in the provider's office. The use of a CLIA-waived lead testing device must be approved through the Lead-Safe Virginia Program at 804-864-7694 to assure proper quality assurance and reporting of data.

CONFIRMATION OF TESTING RESULTS

If result of capillary Testing test (µg/dL) is:	Perform diagnostic test on venous blood *within:*
10-19^	Repeat blood test within 30 days to assure lead level is not rising Before 3 months
20-44	7-30 days (The higher the screen, the sooner the diagnostic test should be performed.)
45-59	48 hours
60-69	24 hours
≥70	Immediately as an emergency lab test

Note: Confirm elevated capillary blood lead levels ≥10 µg/dL. A 'confirmed' elevated blood lead level (EBLL) is defined as a single elevated venous test ≥ 10 µg/dL or two elevated capillary tests within 84 days/12 weeks A venous sample is required for environmental investigations. Virginia regulations require reporting of blood lead levels ≥10 µg/dL (using the EPI-1 form) to the Office of Epidemiology. Regulations 12 VAC 5-120 require laboratories and point of care providers using CLIA-waived devices to report all blood lead tests on children under the age of six within ten days of analysis.

MANAGEMENT OF CHILDREN WITH CONFIRMED ELEVATED BLOOD LEAD LEVELS

BLOOD LEAD LEVEL (µg/dL)	ACTION (Case manager assures coordinated action and follow-up)	TIME FRAME (Begin intervention)
10-14	• Provide caregiver lead education: dietary and environmental • Follow-up blood lead testing within 30 days to assure not rising • Refer for WIC and social services, if needed	Within 30 days
15-19	• Above actions, plus: • Proceed according to actions for 20-40 ug/dL if: A follow-up blood lead is 15 or above, **or** the blood lead level is increasing	Within 2 weeks
20-44	• Above actions, plus: • Provide coordination of care (case management) • Provide environmental investigation and control lead hazards	Within 1 week
45-69	• Above actions	Within 48 hours
70 and above	• Above actions, plus: • Hospitalize child and begin medical treatment (chelation therapy as appropriate) immediately. • Contact Emergency Lead Healthcare line below.	Within 24 hours

Current CDC management recommendations adapted from *Managing Elevated Blood Lead Levels Among Young Children: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention.* (CDC, 2002).
* Investigations may be required where babies or multiple children in a household have elevated blood lead levels. Follow –up care is described in more detail in the VDH "Care Coordination Manual: Children with Lead Poisoning in Virginia".

Emergency Lead Healthcare Information Line

TOLL FREE EMERGENCY **(866) 767-5323**
(866) SOS-LEAD

Note: For questions related to your local area, refer to your local health department. Local health policy and lead ordinances may have additional requirements. Richmond City has a lead ordinance that requires an investigation at 10 ug/dL.

Developed by the Virginia Department of Health Lead Elimination Plan Medical Committee, following CDC Guidelines and Virginia Regulations. Funded by the Centers for Disease Control and Prevention and the Virginia Department of Health. Revised May 2009.

Virginia High-Risk Zip Codes*

Accomack	Augusta	Charlotte	Falls Church City	Hampton City	Lunenburg	Norfolk City	Powhatan	Rockingham	Surry
23301	22843	23923	22046	23651	23938	23503	23139	22811	23839
23302	22939	23934	Fauquier	23661	23944	23504	Prince Edward	22812	23846
23308	24430	23937	22639	23665	23952	23505	23901	22815	23881
23336	24432	23962	22643	Hanover	23974	23507	23942	22820	Sussex
23356	24437	23964	22734	23047	Lynchburg City	23508	Prince George	22821	23867
23357	24459	Charlottesville City	Floyd	23069	24501	23509	23842	22832	23888
23359	24467	22903	24072	Henrico	24503	23510	Prince William	22834	23890
23395	24476	Chesapeake City	24091	23226	24504	23511	22134	22841	Tazewell
23399	24479	23324	24105	23227	Madison	23517	Pulaski	22846	24602
23404	24485	Clarke	24380	23229	22709	23523	24301	22853	24605
23407	24486	22611	Fluvanna	23230	22719	Northampton	24347	24471	24613
23409	Bath	22620	23022	23231	22727	23310	Radford City	Russell	24622
23410	24445	22663	23084	Henry	22732	23350	24141	24237	24651
23417	24460	Covington City	Franklin City	24089	Martinsville City	23354	Rappahanock	24649	Virginia Beach City
23418	24484	24426	23851	Highland	24112	23405	22002	Scott	23521
23420	24487	Craig	Frederick	24413	Mathews	23413	22716	24245	Warren
23421	Bedford	24127	22645	24433	23021	Northumberland	22740	24250	22642
23426	24526	24131	22654	24442	23025	22435	22746	24251	22649
23440	Bland	Culpeper	Fredericksburg City	24458	23045	22473	22747	24258	Washington
23442	24315	22713	22401	24465	23066	22539	22749	Shenandoah	24236
Albermarle	24318	22718	Galax City	24468	23109	22579	Richmond City	22644	24270
22901	24366	22726	24333	Isle of Wright	23125	Norton City	23219	22657	24340
22931	Botetourt	22729	Giles	23315	23130	24273	23220	22660	Waynesboro City
22937	24066	22736	24086	James City	Mecklenburg	Nottoway	23221	22664	22980
22943	24085	Cumberland	24093	23185	23915	23824	23222	22810	Westmoreland
22947	24090	23027	24094	King and Queen	23924	23922	23223	22824	22488
22959	Bristol	Danville City	24124	23023	23968	23930	23224	22842	Winchester City
24590	24201	24540	24128	23108	23970	Orange	23225	22844	22601
Alexandria City	Brunswick	24541	24134	23110	Middlesex	22972	Roanoke City	22847	Wise
22301	23821	Dickenson	24147	23156	23079	Page	24011	Smyth	24216
22302	23868	24226	24150	23177	23149	22650	24013	24316	24219
22305	23920	24272	Goochland	King George	23176	22835	24014	24319	24230
22314	Buchanan	24289	23038	22448	23180	22849	24015	24370	24283
Alleghany	24639	Dinwiddie	23153	King William	Montgomery	22851	24016	24375	24285
24422	Buckingham	23830	Grayson	23009	24138	Patrick	Rockbridge	Southampton	24293
Amelia	23936	23840	24292	23181	24149	24185	24435	23827	Wythe
23083	Buena Vista City	23850	24326	Lancaster	Nelson	Petersburg City	24439	23828	24312
Appomattox	24416	23872	24330	22480	22938	23803	24472	23829	24322
23958	Caroline	23894	24378	22503	22964	Pittsylvania	24473	23837	24323
Arlington	22427	Emporia	Greene	Lee	22969	24139	24483	23844	24350
22201	22514	23847	22935	24221	22971	24531	24555	23866	24368
22203	Carroll	Essex	Halifax	24265	24464	24594	24578	23874	24382
22204	24325	22454	24534	24277	24553	Portsmouth City	24579	Staunton City	
22205	24343	22504	24539	24282	Newport News City	23701		24401	
22206	24352	22509	24577	Lexington City	23604	23702		Suffolk City	
22207		22560	24592	24450	23607	23704		23432	
22211		Fairfax	24598	Louisa		23707		23434	
		22307		23024					

*** Areas with these ZIP Codes have >27% of housing built before 1950 and/or an increased prevalence of children with elevated blood lead levels per available data. ZIP Codes are from the 2000 U.S.Census. View http://www.vahealth.org/leadsafe for updates and information on childhood lead poisoning in Virginia and access to publications available to medical professionals, parents and others. Toll free phone (877) 668-7987.**

Virginia Department of Health, Revised June 2003

Virginia High-Risk Zip Codes*							
22002	22709	22969	23301	23701	23964	24270	24442
22046	22713	22971	23302	23702	23968	24272	24445
22134	22716	22972	23308	23704	23970	24273	24450
22201	22718	22980	23310	23707	23974	24277	24458
22203	22719	23009	23315	23803	24011	24282	24459
22204	22726	23021	23324	23821	24013	24283	24460
22205	22727	23022	23336	23824	24014	24285	24464
22206	22729	23023	23350	23827	24015	24289	24465
22207	22732	23024	23354	23828	24016	24292	24467
22211	22734	23025	23356	23829	24066	24293	24468
22301	22736	23027	23357	23830	24072	24301	24471
22302	22740	23038	23359	23837	24085	24312	24472
22305	22746	23045	23395	23839	24086	24315	24473
22307	22747	23047	23399	23840	24089	24316	24476
22314	22749	23066	23404	23842	24090	24318	24479
22401	22810	23069	23405	23844	24091	24319	24483
22427	22811	23079	23407	23846	24093	24322	24484
22435	22812	23083	23409	23847	24094	24323	24485
22448	22815	23084	23410	23850	24105	24325	24486
22454	22820	23108	23413	23851	24112	24326	24487
22473	22821	23109	23417	23866	24124	24330	24501
22480	22824	23110	23418	23867	24127	24333	24503
22488	22832	23125	23420	23868	24128	24340	24504
22503	22834	23130	23421	23872	24131	24343	24526
22504	22835	23139	23426	23874	24134	24347	24531
22509	22841	23149	23432	23881	24138	24350	24534
22514	22842	23153	23434	23888	24139	24352	24539
22539	22843	23156	23440	23890	24141	24366	24540
22560	22844	23176	23442	23894	24147	24368	24541
22579	22846	23177	23503	23901	24149	24370	24553
22601	22847	23180	23504	23915	24150	24375	24555
22611	22849	23181	23505	23920	24185	24378	24577
22620	22851	23185	23507	23922	24201	24380	24578
22639	22853	23219	23508	23923	24216	24382	24590
22642	22901	23220	23509	23924	24219	24401	24592
22643	22903	23221	23510	23930	24221	24413	24594
22644	22931	23222	23511	23934	24226	24416	24598
22645	22935	23223	23517	23936	24230	24422	24602
22649	22937	23224	23521	23937	24236	24426	24605
22650	22938	23225	23523	23938	24237	24430	24613
22654	22939	23226	23604	23942	24245	24432	24622
22657	22943	23227	23607	23944	24250	24433	24639
22660	22947	23229	23651	23952	24251	24435	24649
22663	22959	23230	23661	23958	24258	24437	24651
22664	22964	23231	23665	23962	24265	24439	

* Areas with these ZIP Codes have >27% of housing built before 1950 and/or an increased prevalence of children with elevated blood lead levels per available data. ZIP Codes are from the 2000 U.S. Census. View http://www.vahealth.org/leadsafe for updates and information

on childhood lead poisoning in Virginia and access to publications available to medical professionals, parents and others. Toll free phone (877) 668-7987.

Virginia Department of Health, Revised June 2003

LEAD-SAFE VIRGINIA PROGRAM
Childhood Lead Poisoning Prevention Program
Director: Nancy Van Voorhis, M.P.H., MT (ASCP),
Healthy Homes Specialist, NEHA, NCHH

For more information and statistics, please visit our Web site at www.vahealth.org/leadsafe
Comments on this report should be directed to the Lead-Safe Virginia Program Director
Phone (804) 864-7694
Email Nancy.VanVoorhis@vdh.virginia.gov or FAX (804) 864-7723

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