Lead-Safe Virginia Program

Childhood Lead Poisoning Prevention Program 2006 Surveillance Summary Report





LEAD-SAFE VIRGINIA PROGRAM Childhood Lead Poisoning Prevention Program Nancy Van Voorhis, M.P.H., Director

For more information, 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. Van Voorhis@vdh.virginia.gov or FAX (804) 864-7723

Supported by funding from Grant No. EH06-602CONT07 from the Centers for Disease Control and Prevention (CDC). Contents are solely the responsibility of the authors and Lead-Safe Virginia, and do not necessarily represent official views of CDC.

Table of Contents:

Background	3
Mission	3
Program Activities	3
2006 Data and Statistics	4
Figure 1 . Statewide Screening Results for Virginia Children < 72 months, 1997-2006.	
Figure 2. Number of children $<$ 72 months of age with reported confirmed elevated blood lead levels $\ge 10 \mu\text{g/dL}$, by age category: Virginia, 2006	6
Figure 3. Percent of children $<$ 36 months of age with confirmed elevated blood lead levels \ge 15 μ g/dL, requiring environmental investigation: Virginia, 2001 – 2006	6
Table 1. Number of children confirmed for lead exposure, by age category, by blood lead level: Virginia, 2001 – 2006.	5
Table 2. Summary of environmental investigations: Virginia, 2006.	7
Reported number of children tested for elevated blood lead levels (EBLLs), by locality of residence, under 36 months of age: Virginia, 2006	8
Reported number of children tested for elevated blood lead levels (EBLLs), by locality of residence, under 72 months of age: Virginia, 2006	13
Guidelines for Childhood Lead Poisoning Screening in Virginia	18
Virginia High-Risk Zip Codes: Locality	20
Virginia High-Risk Zip Codes: Numerical	21

Background

Lead poisoning is usually an asymptomatic disease; therefore blood lead testing needs to be performed based on risk and not just symptoms. The current screening/testing guidelines can be found on the VDH Lead-Safe Virginia Web page at http://www.vahealth.org/leadsafe/publications.htm or by calling toll free 877-668-7987.

Children under the age of three years (36 months) are the targeted high-risk age category due to this age group's frequent hand-to-mouth activity and their developing neurological system. The main source of lead exposure for children is house dust contaminated by leaded paint, and soil contaminated by 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 these older homes can create additional lead hazards for families and workers. The pre-1978 homes of child care providers or daycare centers are also potential areas of exposure.

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 has been an increase in lead exposure from other sources such as imported jewelry and toys, home health remedies, imported herbs and spices, imported vinyl mini blinds, and other vinyl products. Many potential hazardous activities, like furniture refinishing and making stained glass, may be either hobbies or occupations. Other activities that may be associated with lead exposure include using indoor firing ranges, doing home repairs and remodeling, working with lead batteries, and making pottery. "Take-home" exposures may result when workers wear their work clothes home or launder them with the family laundry or when they bring scrap or waste material home from work. These are all pathways of exposure for children.

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.

The *Code of Virginia*, sections 32.1-46.1 requires all children determined to be at risk (which includes all Medicaid eligible children) to be tested for elevated blood lead levels at the age of one year (12 months), 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 laboratories are required to report the results electronically within ten days. Lead poisoning is a reportable disease and completion of the EPI-1 form is required. A statewide database for children tested for elevated lead levels has been established with the ability to provide timely data and statistics.

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 by the year 2010.

Program Activities

The Lead-Safe Virginia Program is funded by the Centers for Disease Control and Prevention (CDC) and the Environmental Protection Agency (EPA).

The objectives of the Lead-Safe Virginia Program include 1) assure all at-risk children receive lead testing 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 7) coordinate the implementation and evaluation of the statewide lead elimination plan, *A Collaborative Strategic Plan to Eliminate Childhood Lead Poisoning in Virginia by 2010*.

2006 Data and Statistics

This report summarizes the 2006 data to include both testing and elevated blood lead level data, and the identification of sources of exposure for children under 6 years of age.

Testing for lead exposure is a key component of reducing childhood lead poisoning. Early detection of a child's elevated blood lead level (EBLL) provides the opportunity to identify and reduce lead hazards in order to prevent further elevation. During 2006, 82,341 children under 6 years (72 months) of age were tested for lead exposure. Of these, 430 children were reported as having a confirmed elevated blood lead test. Of the high-risk age category, under 36 months, 43,977 were tested with 250 confirmed EBLLs. Medicaid enrolled children accounted for 20,291 of the children tested in this high-risk age category, and 169 of those were confirmed EBLLs. Of the Medicaid enrolled children required to be tested for lead exposure, only 15% were documented as receiving a test. However, 68% of the confirmed EBLLs in this high-risk age category were Medicaid enrolled children.

There has been a steady increase in the number of children tested for EBLLs between 1997 and 2006. (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.

A confirmed EBLL is defined as a single elevated venous test $\geq 10~\mu g/dL$ or two elevated capillary tests within 84 days/12 weeks and is only counted once in the year in which it initially occurred.

Figure 3 shows the percent of children under 3 years (36 months) of age with confirmed EBLLs \geq 15 µg/dL requiring an environmental investigation during 2001 - 2006. Although the number of new cases each year remains fairly level, there is a significant drop in the percentage of those requiring an environmental investigation. Primary prevention is necessary to eliminate lead as a health hazard for children. The Lead-Safe Virginia Program works with housing authorities and HUD funded programs to reduce lead hazards before children become lead poisoned.

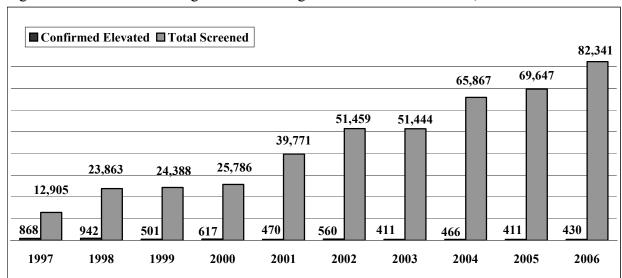


Figure 1. Statewide Screening Results for Virginia Children < 72 months, 1997-2006

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.

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

virginia, 2001 – 200	<i>7</i> 0					
	10 - 14	15 - 19	20 - 44	45 - 69		
	μg/dL	μg/dL	μg/dL	μg/dL	\geq 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	248
2006	175	38	35	2	0	250
< 72 Months of Age						
2001	138	65	51	3	0	257
2002	236	84	63	7	0	390
2003	242	72	60	3	3	380
2004	317	69	66	6	2	460
2005	287	70	47	6	1	411
2006	299	58	67	6	0	430

Note: A 'confirmed' elevated blood lead level (EBLL) is defined as a single elevated venous test $\geq 10~\mu g/dL$ 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.

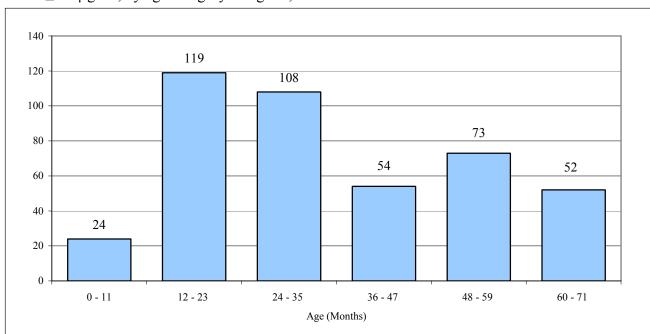


Figure 2. Number of children < 72 months of age with reported confirmed elevated blood lead levels $\geq 10 \,\mu\text{g/dL}$, by age category: Virginia, 2006

Note: A 'confirmed' elevated blood lead level (EBLL) is defined as a single elevated venous test $\geq 10 \,\mu\text{g}/\text{dL}$ 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.

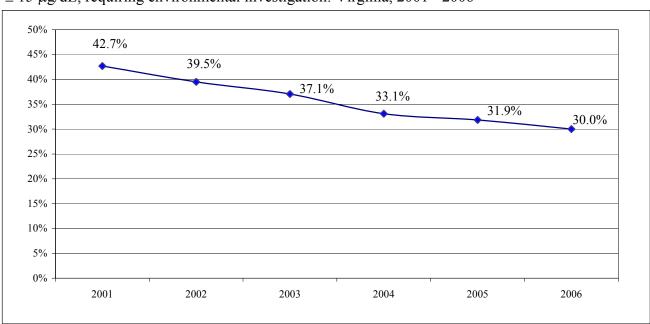


Figure 3. Percent of children < 36 months of age with confirmed elevated blood lead levels $\ge 15 \,\mu\text{g/dL}$, requiring environmental investigation: Virginia, 2001 - 2006

Note: Percentage is based on the total number of children under 36 months tested. Environmental intervention blood lead investigations are performed on all confirmed venous elevated blood lead levels ≥ 20 µg/dL or persistent confirmed lead levels of 15 to 19 µg/dL on children < 72 months of age. 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. 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: Virginia, 2006

Number of EBLLs 20 μg/dl or above	73
Number of EBLLs persistent 15-19µg/dl	13
Number of environmental intervention blood lead investigations (EIBLI) required	86
Number of environmental investigations performed (Includes secondary	
addresses)	95
	5 (2 -incorrect address, 1-refused
Number of EIBLI not performed	inspection, 2- family moved out of
	state)
% of EIBLIs performed which were required	95%
Number of refugee children with EBLL requiring EIBLI	1-Somalia
	4 (1-Somalia, 2-India
Number of recently arrived immigrants with EBLL requiring EIBLI	1-Vietnam)
Lead dust hazard on floors	174
Lead dust hazard on window sills	216
Deteriorated lead based paint on exterior surfaces	297
Deteriorated lead based paint on interior surfaces	315
Soil lead hazards identified (children's play area)	51
Soil lead hazards identified (non play areas)	10
Lead in water above 15 ppb	0
Occupational exposure from parent	1
Mini blinds positive for lead	8
Home remedies	2-purchased in India
Furniture	2
Picture frame	1
Renovation activities believed to be source of exposure	8

Note: Environmental intervention blood lead investigations are performed on all confirmed venous elevated blood lead levels $\geq 20~\mu g/dL$ or persistent confirmed blood lead levels of 15 to 19 $\mu g/dL$ 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.

		Population			Number	Percent	Confirmed Blood Lead Level Category				
Locality	FIPS	< 36 Months	Number Tested	Testing Rate/1000 [^]	Confirmed Elevated	Confirmed Elevated	10-14 μg/dL	15-19 μg/dL	20-44 μg/dL	45-69 μg/dL	≥ 70 µg/dL
Accomack County	51001	1,401	555	396	5	0.9%	3	0	2	0	0
Albemarle County	51003	2,965	459	155	4	0.9%	4	0	0	0	0
Alleghany County	51005	428	56	131	1	1.8%	0	1	0	0	0
Amelia County	51007	423	45	106	1	2.2%	1	0	0	0	0
Amherst County	51009	1,055	272	258	1	0.4%	1	0	0	0	0
Appomattox County	51011	500	134	268	2	1.5%	2	0	0	0	0
Arlington County	51013	6,564	1,815	277	3	0.2%	2	0	1	0	0
Augusta County	51015	2,197	367	167	1	0.3%	1	0	0	0	0
Bath County	51017	131	20	153	1	5.0%	1	0	0	0	0
Bedford County	51019	1,996	367	184	0	0.0%	0	0	0	0	0
Bland County	51021	173	25	145	0	0.0%	0	0	0	0	0
Botetourt County	51023	1,055	186	176	0	0.0%	0	0	0	0	0
Brunswick County	51025	546	62	114	0	0.0%	0	0	0	0	0
Buchanan County	51027	738	132	179	4	3.0%	2	1	1	0	0
Buckingham County	51029	419	74	177	1	1.4%	0	1	0	0	0
Campbell County	51031	1,748	314	180	0	0.0%	0	0	0	0	0
Caroline County	51033	858	234	273	2	0.9%	2	0	0	0	0
Carroll County	51035	992	129	130	0	0.0%	0	0	0	0	0
Charles City County	51036	242	31	128	0	0.0%	0	0	0	0	0
Charlotte County	51037	398	143	359	0	0.0%	0	0	0	0	0
Chesterfield County	51041	10,159	1,021	101	4	0.4%	4	0	0	0	0
Clarke County	51043	369	28	76	1	3.6%	0	1	0	0	0
Craig County	51045	163	24	147	0	0.0%	0	0	0	0	0
Culpeper County	51047	1,315	310	236	0	0.0%	0	0	0	0	0
Cumberland County	51049	350	32	91	0	0.0%	0	0	0	0	0
Dickenson County	51051	535	56	105	0	0.0%	0	0	0	0	0
Dinwiddie County	51053	786	52	66	0	0.0%	0	0	0	0	0
Essex County	51057	314	28	89	0	0.0%	0	0	0	0	0

		Population			Number	Percent	Confirmed Blood Lead Level Category					Confirmed Blood Lead Level Category Percent						
Locality	FIPS	< 36 Months	Number Tested	Testing Rate/1000 [^]	Confirmed Elevated	Confirmed Elevated	10-14 μg/dL	15-19 μg/dL	20-44 μg/dL	45-69 μg/dL	≥ 70 µg/dL							
Fairfax County	51059	40,580	4,293	106	16	0.4%	10	3	3	0	0							
Fauquier County	51061	2,048	127	62	2	1.6%	1	0	1	0	0							
Floyd County	51063	462	30	65	0	0.0%	0	0	0	0	0							
Fluvanna County	51065	762	138	181	2	1.4%	2	0	0	0	0							
Franklin County	51067	1,520	106	70	1	0.9%	0	0	1	0	0							
Frederick County	51069	2,296	199	87	0	0.0%	0	0	0	0	0							
Giles County	51071	581	50	86	0	0.0%	0	0	0	0	0							
Gloucester County	51073	1,141	61	53	1	1.6%	1	0	0	0	0							
Goochland County	51075	492	111	226	0	0.0%	0	0	0	0	0							
Grayson County	51077	507	41	81	1	2.4%	1	0	0	0	0							
Greene County	51079	668	105	157	0	0.0%	0	0	0	0	0							
Greensville County	51081	261	1	4	0	0.0%	0	0	0	0	0							
Halifax County	51083	1,323	89	67	0	0.0%	0	0	0	0	0							
Hanover County	51085	3,290	319	97	0	0.0%	0	0	0	0	0							
Henrico County	51087	10,648	1,542	145	10	0.6%	8	2	0	0	0							
Henry County	51089	1,920	120	63	2	1.7%	1	1	0	0	0							
Highland County	51091	58	14	241	0	0.0%	0	0	0	0	0							
Isle of Wight County	51093	1,047	143	137	0	0.0%	0	0	0	0	0							
James City County	51095	1,597	138	86	1	0.7%	1	0	0	0	0							
King and Queen County	51097	220	23	105	0	0.0%	0	0	0	0	0							
King George County	51099	715	73	102	2	2.7%	1	0	0	1	0							
King William County	51101	517	33	64	0	0.0%	0	0	0	0	0							
Lancaster County	51103	286	46	161	2	4.3%	2	0	0	0	0							
Lee County	51105	808	130	161	0	0.0%	0	0	0	0	0							
Loudoun County	51107	9,919	675	68	0	0.0%	0	0	0	0	0							
Louisa County	51109	939	163	174	1	0.6%	1	0	0	0	0							
Lunenburg County	51111	393	83	211	0	0.0%	0	0	0	0	0							
Madison County	51113	391	62	159	0	0.0%	0	0	0	0	0							

		Population			Number	Percent	•	Confirmed Blood Lead Level Categor				
Locality	FIPS	< 36 Months	Number Tested	Testing Rate/1000^	Confirmed Elevated	Confirmed Elevated	10-14 μg/dL	15-19 μg/dL	20-44 μg/dL	45-69 μg/dL	≥ 70 µg/dL	
Mathews County	51115	230	19	83	0	0.0%	0	0	0	0	0	
Mecklenburg County	51117	1,033	139	135	4	2.9%	1	1	2	0	0	
Middlesex County	51119	211	31	147	0	0.0%	0	0	0	0	0	
Montgomery County	51121	2,421	141	58	1	0.7%	0	1	0	0	0	
Nelson County	51125	469	85	181	0	0.0%	0	0	0	0	0	
New Kent County	51127	420	63	150	0	0.0%	0	0	0	0	0	
Northampton County	51131	437	185	423	2	1.1%	1	0	1	0	0	
Northumberland County	51133	317	42	132	3	7.1%	2	0	1	0	0	
Nottoway County	51135	517	117	226	3	2.6%	2	0	1	0	0	
Orange County	51137	918	254	277	2	0.8%	2	0	0	0	0	
Page County	51139	756	113	149	1	0.9%	0	1	0	0	0	
Patrick County	51141	675	95	141	0	0.0%	0	0	0	0	0	
Pittsylvania County	51143	2,100	262	125	2	0.8%	2	0	0	0	0	
Powhatan County	51145	786	58	74	0	0.0%	0	0	0	0	0	
Prince Edward County	51147	573	228	398	0	0.0%	0	0	0	0	0	
Prince George County	51149	1,159	30	26	1	3.3%	1	0	0	0	0	
Prince William County	51153	14,421	1,060	74	1	0.1%	1	0	0	0	0	
Pulaski County	51155	1,149	205	178	0	0.0%	0	0	0	0	0	
Rappahannock County	51157	217	16	74	0	0.0%	0	0	0	0	0	
Richmond County	51159	213	25	117	0	0.0%	0	0	0	0	0	
Roanoke County	51161	2,627	294	112	0	0.0%	0	0	0	0	0	
Rockbridge County	51163	681	34	50	0	0.0%	0	0	0	0	0	
Rockingham County	51165	2,512	872	347	1	0.1%	1	0	0	0	0	
Russell County	51167	919	139	151	2	1.4%	2	0	0	0	0	
Scott County	51169	708	82	116	1	1.2%	0	1	0	0	0	
Shenandoah County	51171	1,126	190	169	0	0.0%	0	0	0	0	0	
Smyth County	51173	1,064	246	231	3	1.2%	3	0	0	0	0	
Southampton County	51175	532	47	88	1	2.1%	1	0	0	0	0	

		Population			Number	Percent		Confirmed Bl	ood Lead Le	vel Category	
Locality	FIPS	< 36 Months	Number Tested	Testing Rate/1000^	Confirmed Elevated	Confirmed Elevated	10-14 μg/dL	15-19 μg/dL	20-44 μg/dL	45-69 μg/dL	≥ 70 µg/dL
Spotsylvania County	51177	4,013	274	68	0	0.0%	0	0	0	0	0
Stafford County	51179	4,089	198	48	1	0.5%	1	0	0	0	0
Surry County	51181	230	19	83	0	0.0%	0	0	0	0	0
Sussex County	51183	375	52	139	0	0.0%	0	0	0	0	0
Tazewell County	51185	1,358	343	253	1	0.3%	1	0	0	0	0
Warren County	51187	1,255	56	45	1	1.8%	1	0	0	0	0
Washington County	51191	1,565	132	84	1	0.8%	1	0	0	0	0
Westmoreland County	51193	551	46	83	0	0.0%	0	0	0	0	0
Wise County	51195	1,382	99	72	1	1.0%	0	0	1	0	0
Wythe County	51197	899	125	139	0	0.0%	0	0	0	0	0
York County	51199	2,021	56	28	0	0.0%	0	0	0	0	0
Alexandria	51510	5,177	1,162	224	6	0.5%	5	0	1	0	0
Bedford	51515	211	101	479	0	0.0%	0	0	0	0	0
Bristol	51520	557	70	126	0	0.0%	0	0	0	0	0
Buena Vista	51530	231	5	22	0	0.0%	0	0	0	0	0
Charlottesville	51540	1,237	424	343	3	0.7%	2	1	0	0	0
Chesapeake	51550	8,475	661	78	3	0.5%	2	1	0	0	0
Colonial Heights	51570	517	82	159	0	0.0%	0	0	0	0	0
Covington	51580	216	111	514	0	0.0%	0	0	0	0	0
Danville	51590	1,747	339	194	9	2.7%	6	1	2	0	0
Emporia	51595	216	33	153	0	0.0%	0	0	0	0	0
Fairfax	51600	807	348	431	4	1.1%	2	2	0	0	0
Falls Church	51610	344	99	288	0	0.0%	0	0	0	0	0
Franklin	51620	263	81	308	1	1.2%	0	1	0	0	0
Fredericksburg	51630	710	79	111	1	1.3%	1	0	0	0	0
Galax	51640	275	106	385	1	0.9%	1	0	0	0	0
Hampton	51650	5,595	722	129	4	0.6%	2	0	2	0	0
Harrisonburg	51660	1,208	363	300	0	0.0%	0	0	0	0	0

		Population			Number	Percent	Confirmed Blood Lead Level Category				
Locality	FIPS	< 36 Months	Number Tested	Testing Rate/1000 [^]	Confirmed Elevated	Confirmed Elevated	10-14 μg/dL	15-19 μg/dL	20-44 μg/dL	45-69 μg/dL	≥ 70 µg/dL
Hopewell	51670	986	168	170	0	0.0%	0	0	0	0	0
Lexington	51678	113	9	80	0	0.0%	0	0	0	0	0
Lynchburg	51680	2,297	883	384	6	0.7%	6	0	0	0	0
Manassas	51683	1,817	426	234	2	0.5%	2	0	0	0	0
Manassas Park	51685	635	196	309	1	0.5%	1	0	0	0	0
Martinsville	51690	529	63	119	0	0.0%	0	0	0	0	0
Newport News	51700	8,617	1,213	141	8	0.7%	6	1	1	0	0
Norfolk	51710	10,201	1,938	190	9	0.5%	5	3	1	0	0
Norton	51720	116	24	207	0	0.0%	0	0	0	0	0
Petersburg	51730	1,313	174	133	7	4.0%	4	2	1	0	0
Poquoson	51735	344	15	44	0	0.0%	0	0	0	0	0
Portsmouth	51740	4,374	747	171	3	0.4%	1	1	1	0	0
Radford	51750	357	40	112	0	0.0%	0	0	0	0	0
Richmond	51760	7,608	1,988	261	50	2.5%	36	5	8	1	0
Roanoke	51770	3,837	1,191	310	11	0.9%	6	3	2	0	0
Salem	51775	671	265	395	0	0.0%	0	0	0	0	0
Staunton	51790	775	346	446	6	1.7%	5	0	1	0	0
Suffolk	51800	2,740	684	250	6	0.9%	3	3	0	0	0
Virginia Beach	51810	18,395	899	49	2	0.2%	2	0	0	0	0
Waynesboro	51820	786	312	397	0	0.0%	0	0	0	0	0
Williamsburg	51830	195	3	15	0	0.0%	0	0	0	0	0
Winchester	51840	853	136	159	2	1.5%	2	0	0	0	0
Unknown *			5,113			0.0%					
VIRGINIA		276,483	43,977	159	250	0.6%	175	38	35	2	0

Note: 2000 U.S. Census Population Data were used. Results based on one test per child per year. A confirmed elevated blood lead level (EBLL) is defined as a single elevated venous test $\geq 10~\mu g/dL$ 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 step error of a different lested 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 regulations. Are gulations 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.

		Population		Number	Percent	Confirmed Blood Lead Level Category					
Locality	FIPS	< 72 Months	Number Tested	Confirmed Elevated	Confirmed Elevated	10-14 μg/dL	15-19 μg/dL	20-44 μg/dL	45-69 μg/dL	≥ 70 µg/dL	
Accomack County	51001	2,792	747	6	0.8%	4	0	2	0	0	
Albemarle County	51003	6,000	700	4	0.6%	4	0	0	0	0	
Alleghany County	51005	905	127	2	1.6%	2	0	0	0	0	
Amelia County	51007	870	113	3	2.7%	3	0	0	0	0	
Amherst County	51009	2,234	334	1	0.3%	1	0	0	0	0	
Appomattox County	51011	1,047	175	2	1.1%	2	0	0	0	0	
Arlington County	51013	12,144	2,477	7	0.3%	4	0	1	2	0	
Augusta County	51015	4,521	540	1	0.2%	1	0	0	0	0	
Bath County	51017	279	38	1	2.6%	1	0	0	0	0	
Bedford County	51019	4,290	499	2	0.4%	1	0	1	0	0	
Bland County	51021	379	50	0	0.0%	0	0	0	0	0	
Botetourt County	51023	2,107	441	0	0.0%	0	0	0	0	0	
Brunswick County	51025	1,124	204	2	1.0%	1	1	0	0	0	
Buchanan County	51027	1,583	223	5	2.2%	2	2	1	0	0	
Buckingham County	51029	926	140	1	0.7%	0	1	0	0	0	
Campbell County	51031	3,678	436	2	0.5%	1	1	0	0	0	
Caroline County	51033	1,690	378	3	0.8%	2	0	1	0	0	
Carroll County	51035	1,998	177	0	0.0%	0	0	0	0	0	
Charles City County	51036	472	63	0	0.0%	0	0	0	0	0	
Charlotte County	51037	863	217	0	0.0%	0	0	0	0	0	
Chesterfield County	51041	21,322	1,984	10	0.5%	9	1	0	0	0	
Clarke County	51043	835	116	1	0.9%	0	1	0	0	0	
Craig County	51045	356	53	0	0.0%	0	0	0	0	0	
Culpeper County	51047	2,660	407	1	0.2%	0	0	1	0	0	
Cumberland County	51049	689	56	1	1.8%	0	1	0	0	0	
Dickenson County	51051	1,038	99	0	0.0%	0	0	0	0	0	
Dinwiddie County	51053	1,650	150	1	0.7%	0	0	1	0	0	
Essex County	51057	635	79	0	0.0%	0	0	0	0	0	

		Population		Number	Percent		Confirmed B	lood Lead Le	vel Category	
Locality	FIPS	< 72 Months	Number Tested	Confirmed Elevated	Confirmed Elevated	10-14 μg/dL	15-19 μg/dL	20-44 μg/dL	45-69 μg/dL	≥ 70 µg/dL
Fairfax County	51059	81,675	8,075	25	0.3%	15	4	6	0	0
Fauquier County	51061	4,256	221	3	1.4%	1	0	2	0	0
Floyd County	51063	950	77	0	0.0%	0	0	0	0	0
Fluvanna County	51065	1,567	176	2	1.1%	2	0	0	0	0
Franklin County	51067	3,147	201	1	0.5%	0	0	1	0	0
Frederick County	51069	4,657	515	2	0.4%	2	0	0	0	0
Giles County	51071	1,138	121	0	0.0%	0	0	0	0	0
Gloucester County	51073	2,483	116	1	0.9%	1	0	0	0	0
Goochland County	51075	1,044	214	1	0.5%	1	0	0	0	0
Grayson County	51077	1,061	66	1	1.5%	1	0	0	0	0
Greene County	51079	1,372	157	0	0.0%	0	0	0	0	0
Greensville County	51081	528	3	0	0.0%	0	0	0	0	0
Halifax County	51083	2,714	182	0	0.0%	0	0	0	0	0
Hanover County	51085	6,872	589	1	0.2%	1	0	0	0	0
Henrico County	51087	21,575	2,570	16	0.6%	12	4	0	0	0
Henry County	51089	3,911	168	2	1.2%	1	1	0	0	0
Highland County	51091	112	25	0	0.0%	0	0	0	0	0
Isle of Wight County	51093	2,190	264	0	0.0%	0	0	0	0	0
James City County	51095	3,307	241	2	0.8%	2	0	0	0	0
King and Queen County	51097	451	51	2	3.9%	0	1	1	0	0
King George County	51099	1,510	187	2	1.1%	1	0	0	1	0
King William County	51101	1,121	79	0	0.0%	0	0	0	0	0
Lancaster County	51103	577	73	4	5.5%	2	1	1	0	0
Lee County	51105	1,648	342	0	0.0%	0	0	0	0	0
Loudoun County	51107	19,682	1,872	5	0.3%	3	1	1	0	0
Louisa County	51109	1,904	309	1	0.3%	1	0	0	0	0
Lunenburg County	51111	784	161	0	0.0%	0	0	0	0	0
Madison County	51113	864	99	0	0.0%	0	0	0	0	0

		Population		Number	Percent	Coi	nfirmed Blood	d Lead Level	Category	
Locality	FIPS	< 72 Months	Number Tested	Confirmed Elevated	Confirmed Elevated	10-14 μg/dL	15-19 μg/dL	20-44 μg/dL	45-69 μg/dL	≥ 70 µg/dL
Mathews County	51115	504	47	0	0.0%	0	0	0	0	0
Mecklenburg County	51117	2,093	319	6	1.9%	3	1	2	0	0
Middlesex County	51119	452	65	2	3.1%	2	0	0	0	0
Montgomery County	51121	4,758	282	2	0.7%	0	1	1	0	0
Nelson County	51125	927	150	0	0.0%	0	0	0	0	0
New Kent County	51127	927	92	0	0.0%	0	0	0	0	0
Northampton County	51131	867	237	2	0.8%	1	0	1	0	0
Northumberland County	51133	658	71	3	4.2%	2	0	1	0	0
Nottoway County	51135	1,057	186	5	2.7%	4	0	1	0	0
Orange County	51137	1,856	460	2	0.4%	2	0	0	0	0
Page County	51139	1,599	180	1	0.6%	0	1	0	0	0
Patrick County	51141	1,359	122	0	0.0%	0	0	0	0	0
Pittsylvania County	51143	4,194	551	2	0.4%	2	0	0	0	0
Powhatan County	51145	1,589	116	0	0.0%	0	0	0	0	0
Prince Edward County	51147	1,178	328	1	0.3%	1	0	0	0	0
Prince George County	51149	2,402	127	1	0.8%	1	0	0	0	0
Prince William County	51153	28,789	2,415	8	0.3%	7	1	0	0	0
Pulaski County	51155	2,339	487	1	0.2%	0	0	1	0	0
Rappahannock County	51157	420	29	0	0.0%	0	0	0	0	0
Richmond County	51159	430	56	1	1.8%	0	0	0	1	0
Roanoke County	51161	5,587	554	0	0.0%	0	0	0	0	0
Rockbridge County	51163	1,351	61	0	0.0%	0	0	0	0	0
Rockingham County	51165	5,163	1,236	4	0.3%	4	0	0	0	0
Russell County	51167	1,955	233	2	0.9%	2	0	0	0	0
Scott County	51169	1,487	264	1	0.4%	0	1	0	0	0
Shenandoah County	51171	2,379	471	0	0.0%	0	0	0	0	0
Smyth County	51173	2,158	391	3	0.8%	3	0	0	0	0
Southampton County	51175	1,070	151	1	0.7%	1	0	0	0	0

		Population		Number	Percent	Confirmed Blood Lead Level Category					
Locality	FIPS	< 72 Months	Number Tested	Confirmed Elevated	Confirmed Elevated	10-14 μg/dL	15-19 μg/dL	20-44 μg/dL	45-69 μg/dL	≥ 70 µg/dL	
Spotsylvania County	51177	8,430	915	2	0.2%	1	1	0	0	0	
Stafford County	51179	8,810	674	2	0.3%	2	0	0	0	0	
Surry County	51181	477	56	0	0.0%	0	0	0	0	0	
Sussex County	51183	713	155	0	0.0%	0	0	0	0	0	
Tazewell County	51185	2,879	647	3	0.5%	3	0	0	0	0	
Warren County	51187	2,576	143	1	0.7%	1	0	0	0	0	
Washington County	51191	3,147	209	1	0.5%	1	0	0	0	0	
Westmoreland County	51193	1,046	153	0	0.0%	0	0	0	0	0	
Wise County	51195	2,802	216	2	0.9%	1	0	1	0	0	
Wythe County	51197	1,823	439	0	0.0%	0	0	0	0	0	
York County	51199	4,439	84	0	0.0%	0	0	0	0	0	
Alexandria	51510	9,262	2,034	10	0.5%	8	1	1	0	0	
Bedford	51515	424	141	0	0.0%	0	0	0	0	0	
Bristol	51520	1,114	164	0	0.0%	0	0	0	0	0	
Buena Vista	51530	461	24	0	0.0%	0	0	0	0	0	
Charlottesville	51540	2,368	614	3	0.5%	2	1	0	0	0	
Chesapeake	51550	17,265	1,397	4	0.3%	3	1	0	0		
Colonial Heights	51570	1,113	239	1	0.4%	1	0	0	0	0	
Covington	51580	471	221	0	0.0%	0	0	0	0	0	
Danville	51590	3,502	866	21	2.4%	10	4	7	0	0	
Emporia	51595	436	84	1	1.2%	1	0	0	0	0	
Fairfax	51600	1,538	603	6	1.0%	4	2	0	0	0	
Falls Church	51610	690	153	0	0.0%	0	0	0	0	0	
Franklin	51620	538	206	1	0.5%	1	0	0	0	0	
Fredericksburg	51630	1,332	336	5	1.5%	4	0	1	0	0	
Galax	51640	525	156	1	0.6%	1	0	0	0	0	
Hampton	51650	11,272	1,404	6	0.4%	4	0	2	0	0	
Harrisonburg	51660	2,281	514	0	0.0%	0	0	0	0	0	

		Population		Number	Percent	Confirmed Blood Lead Level Category				
Locality	FIPS	< 72 Months	Number Tested	Confirmed Elevated	Confirmed Elevated	10-14 μg/dL	15-19 μg/dL	20-44 μg/dL	45-69 μg/dL	≥ 70 µg/dL
Hopewell	51670	2,020	503	1	0.2%	1	0	0	0	0
Lexington	51678	247	23	0	0.0%	0	0	0	0	0
Lynchburg	51680	4,660	1,142	9	0.8%	7	0	2	0	0
Manassas	51683	3,636	857	2	0.2%	2	0	0	0	0
Manassas Park	51685	1,235	370	1	0.3%	1	0	0	0	0
Martinsville	51690	1,051	107	0	0.0%	0	0	0	0	0
Newport News	51700	17,107	1,684	12	0.7%	10	1	1	0	0
Norfolk	51710	19,719	3,772	12	0.3%	6	4	2	0	0
Norton	51720	255	53	0	0.0%	0	0	0	0	0
Petersburg	51730	2,610	693	18	2.6%	12	3	2	1	0
Poquoson	51735	738	27	0	0.0%	0	0	0	0	0
Portsmouth	51740	8,555	1,233	10	0.8%	6	1	3	0	0
Radford	51750	661	108	0	0.0%	0	0	0	0	0
Richmond	51760	14,788	4,136	77	1.9%	58	8	10	1	0
Roanoke	51770	7,453	2,074	16	0.8%	10	3	3	0	0
Salem	51775	1,479	484	0	0.0%	0	0	0	0	0
Staunton	51790	1,493	540	8	1.5%	7	0	1	0	0
Suffolk	51800	5,586	1,244	10	0.8%	5	3	2	0	0
Virginia Beach	51810	37,054	2,011	3	0.1%	3	0	0	0	0
Waynesboro	51820	1,546	471	1	0.2%	1	0	0	0	0
Williamsburg	51830	370	5	0	0.0%	0	0	0	0	0
Winchester	51840	1,722	376	5	1.3%	3	0	2	0	0
Unknown *			9,723	0	0.0%	0	0	0	0	0
VIRGINIA		557,454	82,341	430	0.5%	299	58	67	6	0

Note: 2000 U.S. Census Population Data were used. Results based on one test per child per year. A confirmed elevated blood lead level (EBLL) is defined as a single elevated venous test $\geq 10~\mu g/dL$ 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.

Guidelines for Childhood Lead Poisoning Screening in Virginia

SCREENING/RISK FACTOR QUESTIONS

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 meet ANY one of the criteria in the box below shall also be tested.

- 1. Eligible for or receiving Medicaid or WIC benefits?
- 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).
- Screening may be performed by venipuncture or capillary. Filter paper methods are also acceptable. The use of the LeadCare lead testing machines must be approved through the Lead-Safe Virginia Program at 804-864-7694 to assure proper quality assurance and reporting of data.

CONFIRMATION OF SCREENING RESULTS

If result of capillary screening test (μg/dL) is:	Perform diagnostic test on venous blood <u>within:</u>			
10-19 ^	3 months			
20-44	1 month - 1 week (The higher the screen, the sconer the diagnostic test should be performed.)			
45-59	48 hours			
60-69	24 hours			
≥70	Immediately as an emergency lab test			

- Confirm elevated capillary blood lead levels ≥10 µg/dL. ^ It is recommended that a repeat blood test be performed within 30 days to assure the child's blood lead level is not rising.
- A second capillary is allowable if performed within 12 weeks. A venous sample is considered "confirmed" and required for environmental investigations.

Virginia regulations require reporting of blood lead levels $\ge 10 \,\mu\text{g/dL}$ (using the EPI-1 form) to the Office of Epidemiology. Regulations effective July 1, 2001 require laboratories 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 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 level is in this range at least three months after initial venous test, or the blood lead levels increase 	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) immediately. Contact a regional treatment center listed 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).

Emergency Lead Healthcare Information Line

Toll Free Emergency	(866) 767-5323 (866) SOS-LEAD
	(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.

Developed by the Virginia Department of Health Statewide Screening Plan Work Group, following CDC Guidelines and Virginia Regulations. Funded by the Centers for Disease Control and Prevention and the Virginia Department of Health. Revised July 2006

5 · 高、智 [6]			V	irginia High-F	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	<u>Fauquier</u>	23661	23944	23504	Prince Edward	22812	23846
23308	24430	23937	22639	23665	23952	23505	23901	22815	23881
23336	24432	23962	22643	<u>Hanover</u>	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	<u>Henrico</u>	24503	23510	Prince William	22834	23890
23395	24476	Chesapeake City	24091	23226	24504	23511	22134	22841	Tazewell
23399	24479	23324	24105	23227	<u>Madison</u>	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	<u>Bath</u>	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	<u>Mathews</u>	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
<u>Albermarle</u>	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	<u>Nottoway</u>	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	<u>Bristol</u>	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	<u>Middlesex</u>	22972	Roanoke City	22847	Wise
22301	23821	Dickenson	24147	23156	23079	Page	24011	<u>Smyth</u>	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	<u>Dinwiddie</u>	23153	King William	Montgomery	22851	24016	24375	24285
24422	Buckingham	23830	Grayson	23009	24138	<u>Patrick</u>	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	<u>Pittsylvania</u>	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					

<sup>2307 23024

*</sup> 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 23156	23434	23888	24139	24352	24539		
22539	22843		23440	23890	24141	24366	24540		
22560 22579	22844 22846	23176 23177	23442 23503	23894 23901	24147 24149	24368 24370	24541 24553		
22601	22847	23177	23504	23915	24149	24375	24555		
22611	22849	23181	23505	23913	24130	24378	24577		
22620	22851	23185	23507	23920	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