VERMONT2008

Lead Poisoning Prevention

Annual Report to the Legislature
Title 18 §1756 and **Act 176**
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VERMONT
DEPARTMENT OF HEALTH
Agency of Human Services

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Executive Summary

This report is filed pursuant to Title 18, Section 1756, and to Act 176 that reduced the blood lead level of concern, adopted an aggressive approach to universal testing and strengthened enforcement of compliance with rental safety practices. This report documents progress toward universal blood lead testing of one and two year olds, identifies barriers to universal testing, estimates costs to prevent, correct, or treat lead poisoning, and ends with several recommendations. As of 2007, the state has reached the goal of 85% of one year olds being tested, but remains far short of the 75% goal for two year olds. Factors associated with lack of recommended blood lead screening include: practicing in Chittenden County; belonging to a non-academic group practice; a practice having fewer Medicaid patients; inadequate insurance reimbursement; parental opposition; difficulty obtaining samples; and an absence of risk factors. Annual costs to prevent, correct or treat lead poisoning are estimated to be:

- $771,080 spent by landlords to bring properties into compliance
- $1.7 million in federal funds to the Department of Health, the Vermont Housing and Conservation Board, and the Burlington Lead Program
- $51,814 in direct health care costs for children with elevated blood lead levels, and $219,841 in special education costs for children with highly elevated blood lead levels (>25 µg/dL)
- $79 million in lost future earnings of children whose blood lead levels are 5 µg/dL or greater.

Introduction

This report is submitted pursuant to Title 18, Section 1756 which, as part of the Vermont law governing lead poisoning prevention, was amended this past session with an effective date of July 1, 2008 for most of its provisions.

In 2006, a statewide Task Force prepared a report and recommendations for the Commissioner of Health and the Attorney General. In February 2007, the Commissioner of Health and the Attorney General held a public meeting at the State House to announce the following joint recommendations from the Task Force report:

1. Lower the elevated blood lead level of concern from 10 to 5 µg/dL. Vermont is the first (and still only) state to do so.
2. Continue the commitment to universal screening and testing for all of Vermont's one and two year old children.
3. Enhance education and outreach and establish a state lead poisoning prevention committee with members appointed by the Commissioner and Attorney General.
4. Revamp and expand the enforcement program with the Attorney General's Office.

The report and recommendations led to revisions to the lead law (Title 18, Sections 1751-1767). First, Vermont established 5µg/dL as the blood lead level of concern for alerting parents and guardians that their children may have been exposed to lead (Section 1757(b)). In addition, Vermont adopted an aggressive approach to achieve universal testing. The law requires that, *if fewer than 85% of one year olds and fewer than 75% of two year olds have been screened by January 1, 2011, then the secretary of the Agency of Human Services shall require by rule that health care providers ensure such screening* (Section 1755(b)). Finally, a new section on enforcement imposes civil penalties on owners of rental housing who fail to submit annual compliance statements. These statements, or affidavits, document that steps have been taken to ensure that rental properties are safe from lead exposure. This report summarizes the Department's efforts to achieve these legislative objectives with the federally funded Childhood Lead Poisoning Prevention Program (CLPPP).

Blood Lead Testing

The Department continues to make progress toward its goal of universal testing of one and two year old children in Vermont.

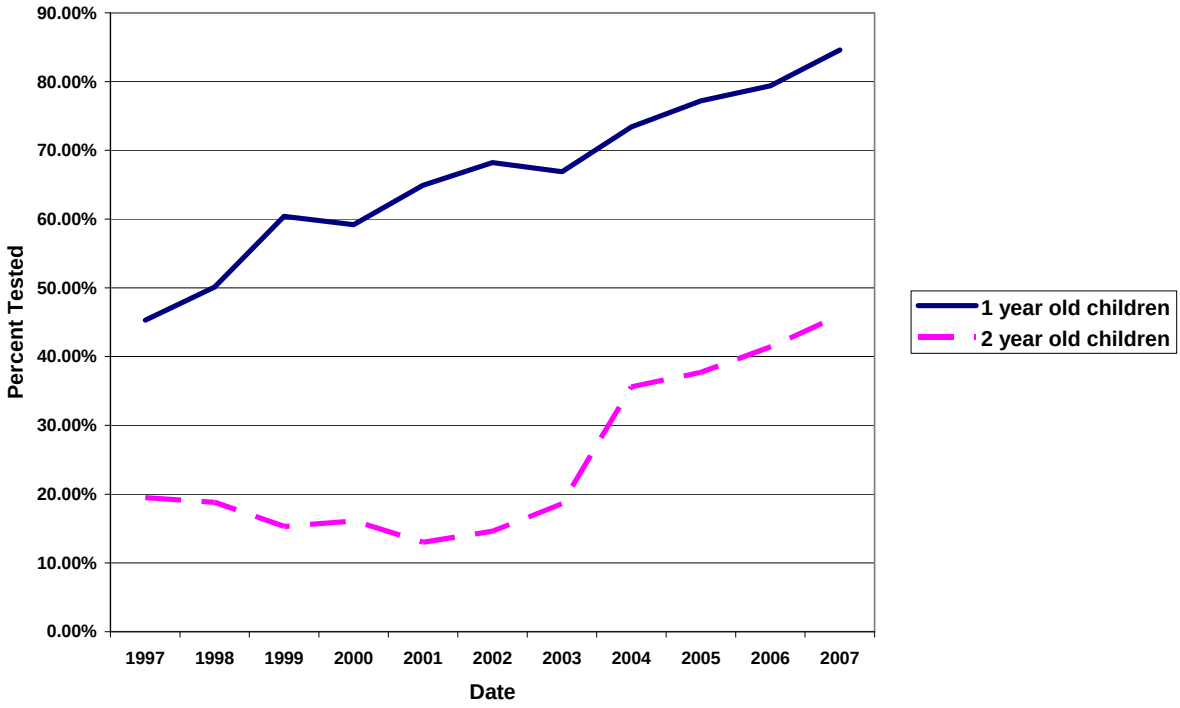
Blood Lead Tests for Vermont Children ages 0 to 5* years, 2007

Age	Population	Blood Lead Levels of Children Tested						% Children Tested
		< 5 µg/dL	5-9 µg/dL	10-14 µg/dL	15-19 µg/dL	20+ µg/dL	Total Tested	
< 1 year	6,454	349	70	9	1	3	432	6.7%
1 year	6,203	4,415	751	60	13	10	5,249	84.6%
2 years	6,394	2,453	432	39	12	8	2,944	46.0%
3 years	6,672	424	85	15	2	2	528	7.9%
4 years	6,712	260	58	6	0	1	325	4.8%
5 years	6,605	103	16	2	0	0	121	1.8%
Total	**39,040**	**8,004**	**1,412**	**131**	**28**	**24**	**9,599**	**24.6%**

Data include only one blood lead test per child: the highest venous test result or, if there is no venous test, then the capillary test result.

*Ages: < 1 year : <11 months; 1 year: 11 - 22.99 months; 2 years: 23 - 34.99 months; 3 years: 35 - 46.99 months; 4 years: 47 - 58.99 months; 5 years: 59 - 70.99 months.

Blood Lead Testing Frequency of 1 and 2 Year Old Children



The data above indicate that, as of 2007, the state has reached the goal of 85% of one year olds being tested. The percentage of two year olds tested more than doubled since 1997, but remains far short of the 75% goal. Preliminary numbers for the first half of 2008 suggest that the trend toward increased testing continues.

In order to promulgate the new testing guidelines, the CLPPP program sent a letter during Fall 2007 from the Commissioner and the presidents of the Vermont Chapters of the American Academy of Pediatrics (AAP) and the American Academy of Family Physicians (AAFP) to more than 450 pediatricians and family practice providers. The letter explained the new guidelines and included supporting materials. Staff also gave presentations at AAP and AAFP chapter meetings and published articles in their newsletters. As an ongoing activity, CLPPP sends postcards to all parents of children born in Vermont whose children reached the age of 10 and 22 months, reminding them to have their children tested. Special mailings are also sent to the parents of children aged 6–9 months and 9–12 months living in "at-risk" areas to help educate them about causes of, and ways to prevent, lead poisoning. In addition, Health Department staff in the district offices conduct outreach and education efforts to various audiences.

Barriers to Universal Lead Testing

In 2007, CLPPP staff engaged a group of UVM medical students to conduct a survey among pediatricians about barriers to blood lead screening. They found that:

- Lower lead screening rates were associated with practicing in Chittenden County, belonging to a non-academic group practice, and having fewer Medicaid patients.
- 52.8% of pediatricians believed that they are not adequately reimbursed for blood lead screening. They reported that the mean cost of screening per patient was $22.30, while the Medicaid reimbursement rate was $4.00.
- Pediatricians were more likely to screen at higher rates if they knew the negative health outcomes associated with blood lead levels below 10 µg/dL, agreed with the Health Department's lead screening recommendations, or routinely screened all 24 month-old children for blood lead.
- The three most often reported barriers to lead screening were parental opposition, difficulty obtaining samples, and an absence of risk factors.

- The top two sources of lead screening information utilized by pediatricians in this study were the Health Department (88%) and the AAP (69%).

Barriers to screening were also discussed in detail in legislative committee hearings in 2008 through testimony provided by the Health Department, the Vermont Medical Society, private physicians, and other interested groups and individuals. Some of the barriers cited in this testimony included cost reimbursement, insurance coverage, and resistance among some practices.

Estimates of Annual Private and Public Costs

It is difficult to estimate the costs incurred both privately and publicly since 1993 to prevent, correct, or treat lead poisoning. However, in the private domain, CLPPP uses the following algorithm to estimate the costs incurred by landlords to ensure their rental properties comply with Essential Maintenance Practices (EMP). CLPPP assumes that among the 1,846 rental properties and child care centers for which EMP affidavits were filed in 2007, 25% of these properties were in good condition, 50% were in fair condition, and 25% were in poor condition. Further, CLPPP assumes that properties in good condition require $200 in annual maintenance costs to comply with EMP requirements; properties in fair condition require $340 in annual maintenance costs; and properties in poor condition require $520 in annual maintenance costs. Using this formula, the amount spent to complete Essential Maintenance Practices for these properties in 2007 is estimated to be $646,080.

First-time affidavits likely incur start-up costs to bring a property into compliance (e.g., installing window well inserts and buying a HEPA vacuum). Assuming that approximately 200 of the affidavits filed in 2007 were properties being brought into initial compliance, and assuming an average of $625 for each new property, then additional start-up costs would total about $125,000. Therefore, a conservative estimate of the costs to bring the 1,846 properties in 2007 into compliance with Essential Maintenance Practices is $771,080.

In the public domain, the Childhood Lead Poisoning Prevention Program expended about $407,000 received from the CDC in 2007, the Vermont Housing and Conservation Board expended about $1,000,000 from the Department of Housing and Urban Development (HUD) in 2007, and the Burlington Lead Program expended about $280,000 from HUD and about $30,000

from the Environmental Protection Agency (EPA). Therefore, about $1.7 million in federal funds were spent on reducing lead poisoning in 2007.

In addition, a study completed by Dartmouth College as part of the *Get the Lead Out of Vermont* Task Force Report in 2006 estimated direct health care costs of all children with elevated blood lead levels at $51,814 per year, and special education costs at $219,841 a year (considered to be an underestimate because special education costs were calculated only for those children with blood lead levels 25 µg/dL or greater). The Dartmouth report also estimated more than $79 million dollars per year in lost future earnings of children whose blood lead levels are 5 µg/dL or greater.

Recommendations

In upcoming months, the Health Department will:

- Continue to coordinate with the Attorney General's Office to strengthen enforcement of compliance with Essential Maintenance Practices. This will be done via meetings, calls, and direct referral of cases to the Attorney General.
- Develop and revise administrative rules as required by the updated lead law.
- Continue to work with the Lead Poisoning Prevention Committee as an advisory body to the Health Department.
- Identify and reach out to health care providers who are not routinely testing children for blood lead.
- Seek additional funding sources for lead poisoning prevention programs.
- Review and evaluate efforts to educate parents whose children have blood lead levels between 5–9 µg/dL.
- Maintain close coordination with the safe rental housing study committee.
- Increase public awareness through effective targeted education and outreach.
- As resources allow, develop an electronic system for submitting and monitoring EMP affidavits. This is a prerequisite for tracking compliance statements and for enforcement actions