

# **Childhood Lead Poisoning Prevention Program**

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## **Elimination Plan**

## Vermont Plan to Eliminate Childhood Lead Poisoning

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## **A. Mission Statement**

Vermont will eliminate childhood lead poisoning by 2011 by ensuring that children do not come into contact with lead-contaminated materials.

## **B. Purpose**

The primary purpose of the Childhood Lead Poisoning Prevention Program (CLPPP) is to eliminate childhood lead poisoning. Key elements of the program include:

- Primary Prevention,
- Testing and Surveillance, and
- Case Management

CLPPP has developed policies and strategies to implement these elements which include providing services that reduce or eliminate the sources of lead exposure, developing clinical guidelines for testing and a surveillance system, analyzing trends and risks for blood lead poisoning, and managing cases involving children with elevated blood lead levels (EBLs) of  $\geq 10 \mu\text{g/dL}$ .

## **C. Childhood Lead Poisoning Prevention Program**

### **History**

In 1993 the Vermont Lead Paint Hazards Commission was established to recommend to the legislature preventive and affordable actions that could be taken to prevent childhood lead poisoning. The commission consisted of members of the public (parents, tenants, landlords, child care providers, advocates, contractors, insurance companies, bankers) and government

representatives from the legislature, health, housing, historic preservation, banking, insurance, and child care regulators).

Two years later the Commission published its report and in 1996 the Vermont Legislature passed a comprehensive lead poisoning prevention law: Act 165 - "An Act to Prevent Lead Poisoning in Children in Rental Housing and Child Care Facilities." This law addressed public education, childhood lead screening, contractor licensing, environmental follow-up on all severely lead-poisoned children, and prevention-oriented practices required by property owners and child care providers. In addition, the law established the Childhood Lead Poisoning Prevention Program and the Lead Regulatory Program to ensure implementation of the law.

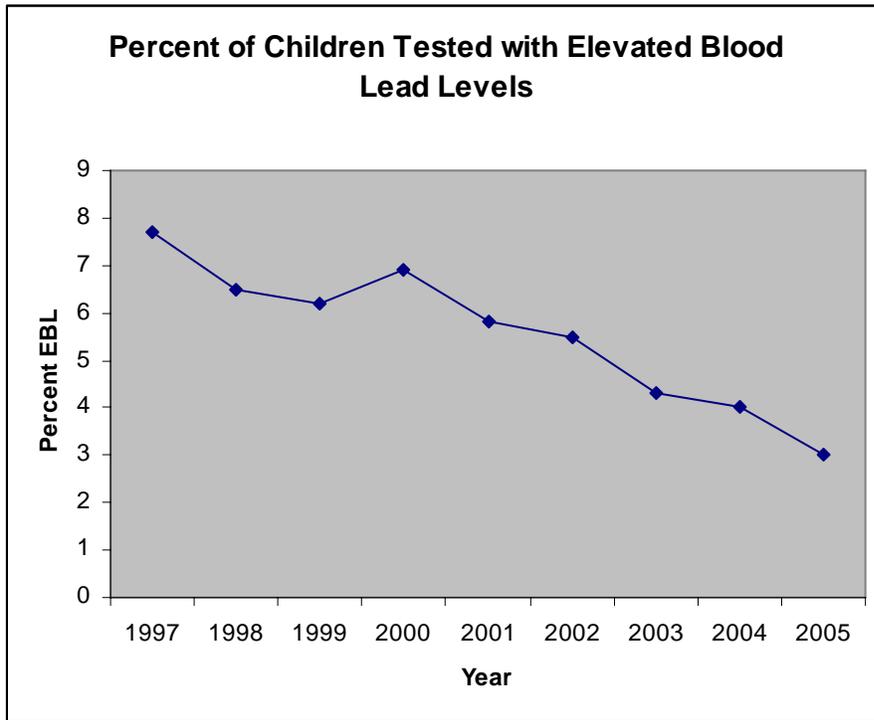
Under Act 165, owners of rental property and child care facilities built before 1978 are required to take steps to reduce hazards associated with lead poisoning. These landlords and child care providers must ensure that their properties are inspected annually by a person certified to perform Essential Maintenance Practices (EMPs). After inspection and performing of the EMPs, landlords and child care providers must sign a notarized Affidavit of Performance of Essential Maintenance Practices. Affidavits are to be filed with their insurance carrier and the Vermont Department of Health. Theoretically protections including provisions of immunity are offered with the law to owners who fully comply with these requirements.

## **Need**

### Progress

Since the implementation of Act 165 progress has been made in reducing the percent of lead poisoned children in Vermont. Between 1997 to 2005 the percentage of children whose test

results indicated an elevated blood lead level dropped from 7.7 to 3.0% (venous or capillary test). Although the rate drop is encouraging, the rate of decline has slowed and additional efforts and actions need to be undertaken in order to reach the programs goal of eliminating lead poisoning.



### Risk Factors

Vermont has the 7<sup>th</sup> oldest housing stock in the country with 34.5% of its housing built before 1950 (2000 Census). Young couples buy older “fixer-upper” homes and renovate as “do-it-yourselfers.” Families with economic means buy beautiful old houses to restore. In both instances, owners may not know about working lead safe.

Not surprisingly in Vermont, as in the other New England states, old housing stock is the chief culprit leading to lead poisoning of children. From 2001 through 2005 over six percent (6.6%) of Vermont one year olds and 8.0% of two year olds were identified to have elevated blood lead

levels in areas where between 50.1% and 85% of the housing stock was constructed prior to 1950. In communities with less than 15% of the housing built prior to 1950 only 1.1% of one year olds and 1.9% of two year olds were reported with elevated blood lead levels.

<b>% pre-1950 housing stock</b>	<b>% 1 year olds tested</b>	<b>% 1 year olds elevated</b>	<b>% 2 year olds tested</b>	<b>% 2 year olds elevated</b>
<b>0% - 15%</b>	57%	1.1%	10%	1.9%
<b>15.1% - 27%</b>	56%	2.8%	15%	3.4%
<b>27.1% - 50%</b>	69%	4.5%	27%	5.0%
<b>50.1% - 85.1%</b>	70%	6.6%	32%	8.0%

Like other states, lead poisoning is an issue among children living in rental housing. Yet, unlike other states, as many as 70% of homes in Vermont are owner occupied. The high percentage of owner occupied housing, combined with compliance by landlords with the Vermont Lead Law may have contributed to the fact that 41% of severely lead poisoned children with confirmed blood lead levels greater than 20 ug/dl between August of 1999 and 2005 were living in owner-occupied properties.

More than 10.4% of all Vermonters and 13.4% of children under the age of 5 live in poverty. Although poverty is less of a predictive factor for lead poisoning than housing age, children living in poverty are at greater risk for lead poisoning. Among those tested in 2004 the percentage of Medicaid enrolled 1 year olds with a reported elevated blood lead level was twice as high as that of non-Medicaid enrolled children (4.8% for Medicaid enrolled compared to 2.19% for non-Medicaid enrolled). Medicaid enrolled 2 year olds in 2004 were also at greater risk (4.8% elevated among Medicaid enrolled children tested and 3.25% for non-Medicaid children). Fortunately, the percent of Medicaid children tested with elevations is declining.

<b>1 year olds</b>					
	<b># Medicaid</b>	<b>Medicaid tested</b>	<b>% tested</b>	<b># elevated</b>	<b>% elevated</b>
<b>2001</b>	3825	2533	<b>66%</b>	160	<b>6.3%</b>
<b>2002</b>	4097	2632	<b>64%</b>	155	<b>5.9%</b>
<b>2003</b>	3973	2600	<b>65%</b>	120	<b>4.6%</b>
<b>2004</b>	3939	2910	<b>74%</b>	140	<b>4.8%</b>
<b>Total</b>	<b>15834</b>	<b>10675</b>	<b>67%</b>	<b>575</b>	<b>5.4%</b>
<b>2 year olds</b>					
	<b># Medicaid</b>	<b>Medicaid tested</b>	<b>% tested</b>	<b># elevated</b>	<b>% elevated</b>
<b>2001</b>	3850	497	<b>13%</b>	51	<b>10.3%</b>
<b>2002</b>	3863	607	<b>16%</b>	63	<b>10.4%</b>
<b>2003</b>	4005	845	<b>21%</b>	45	<b>5.3%</b>
<b>2004</b>	3889	1746	<b>45%</b>	84	<b>4.8%</b>
<b>Total</b>	<b>15607</b>	<b>3695</b>	<b>24%</b>	<b>243</b>	<b>6.6%</b>

Refugee status is also considered a risk factor for lead poisoning. Over the past 25 years more than 4000 refugees have resettled in Vermont. Nationally, refugee children are at higher risk of having elevated blood lead levels. Special protocols apply to these children involving testing intervals and other cultural factors. The Vermont Department of Health, in collaboration with the Refugee Coordinator have worked closely to ensure that refugee children receive optimal culturally appropriate health care including testing and treatment for lead poisoning. The protocol for lead testing of refugee children is a lead screen on all children age 6 months to 16 years old upon entry to the US. A follow-up screening is performed between 3 and 6 months after entry on all children age 6 months to 6 years. Vermont CLPPP currently, after seeing several poisoned refugee children, is in the process of compiling testing and blood lead level data for refugee children.

## Testing

The percent of Vermont 1 and 2 year olds children tested for lead has increase through the years but improvement is still needed, especially among the two-year-old population. Vermont's *Blood Lead Screening Guidelines* state:

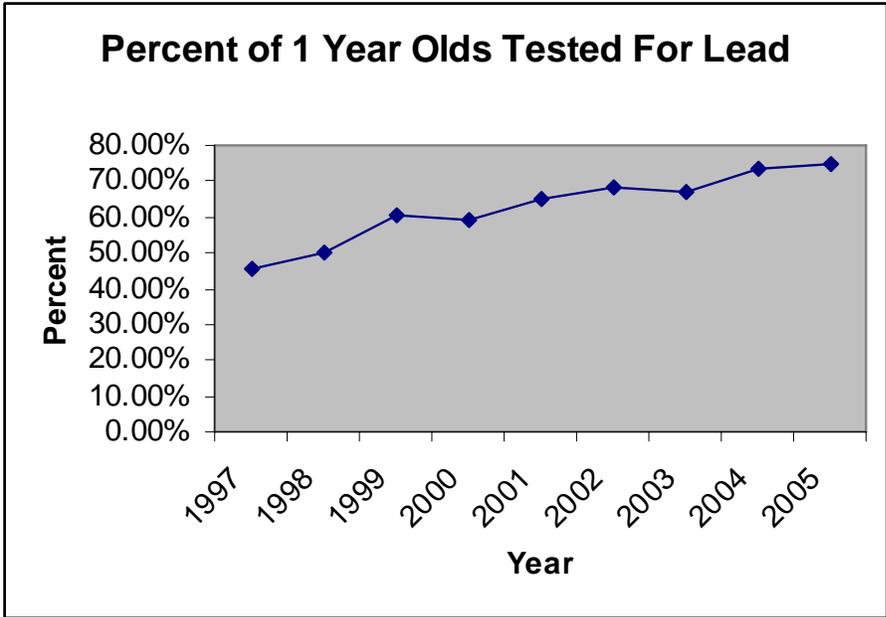
Test all children at age one and two.

The test at age two may be omitted IF:

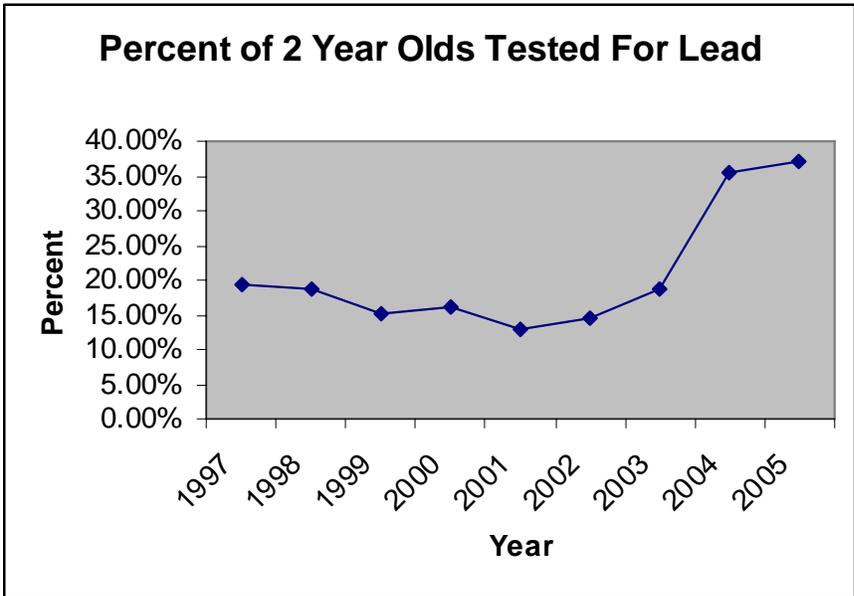
- The child is not insured by Medicaid or Dr. Dinosaur; and
- The child lives in housing built after 1978; and
- The child attends a child care in a building built after 1978.

Lead testing results for children ages one to five years are included as Attachment N, Table 1.

Data for 2004 indicate that levels of one year old children tested reached over seventy percent (73.4%). While this is an achievement according to the guidelines 100% of 1 year olds should be tested.



The recommendation for two year olds allows some children to be excluded from testing. The testing rate two year old in 2004 was 35.6%, a vast improvement from prior years.



Per the recommendation and a Medicaid mandate 100% of Medicaid enrolled two year olds should be tested. Yet in 2004 only 45 % of Medicaid enrolled two year olds were tested (see previous Medicaid chart page 7). It would be expected that the percent of housing built before

1978 would match the percent of two year olds tested. Yet in 2004 only 32% of two year olds living in communities with 50.1 to 85% of housing built prior to 1950 were tested (see previous housing based chart page 6).

Based on the data it is clear that the recommendations are not being fully implemented. A greater percentage of both 1 and 2 year olds should be tested each year.

### High Risk Communities

In assessing the lead poisoning problem in Vermont, it is easy to identify a need to address the problem in high population density communities. Data indicate that these communities have the greatest number of children with reported elevated blood lead levels and housing units built before 1950.

<b>Population Centers</b>							
Town	Population	# EBL	% EBL	# Pre-1950	% Pre-1950	# Poverty	% Poverty
Randolph	4853*	33	6.8	956	50	8	3.3
St. Albans Town	5086**	34	5	396	18*	51	13.7
Winooski	6561	26	4.4	1501	50	117	27.5
St. Johnsbury	7571	51	7.9	2071	59	126	32.1
Barre Town	7602	55	5.2	932	31	38	9.5
Montpelier City	8035	29	4.2	2259	58	60	16.2
Middlebury	8183	35	6.3	1101	39	28	8.9
Springfield	9078	62	6.3	2109	50	44	9.1
Hartford	10367	27	3.6	1327	24	67	12.8
Brattleboro Town	12005	113	8.5	3230	57	125	21.5
Bennington Town	15737	116	6.9	3083	47	263	26.6
Rutland City	17292	44	9.9	4707	59	240	26.2
Burlington City	38889	114	4	7797	78	314	19.2

- EBL Data is from 1997 through 2005 and includes individual children with either a capillary or venous test
- Housing and poverty data is from the 2000 Census

\* Randolph, though the population is less than 5000 houses a local community hospital and college. It

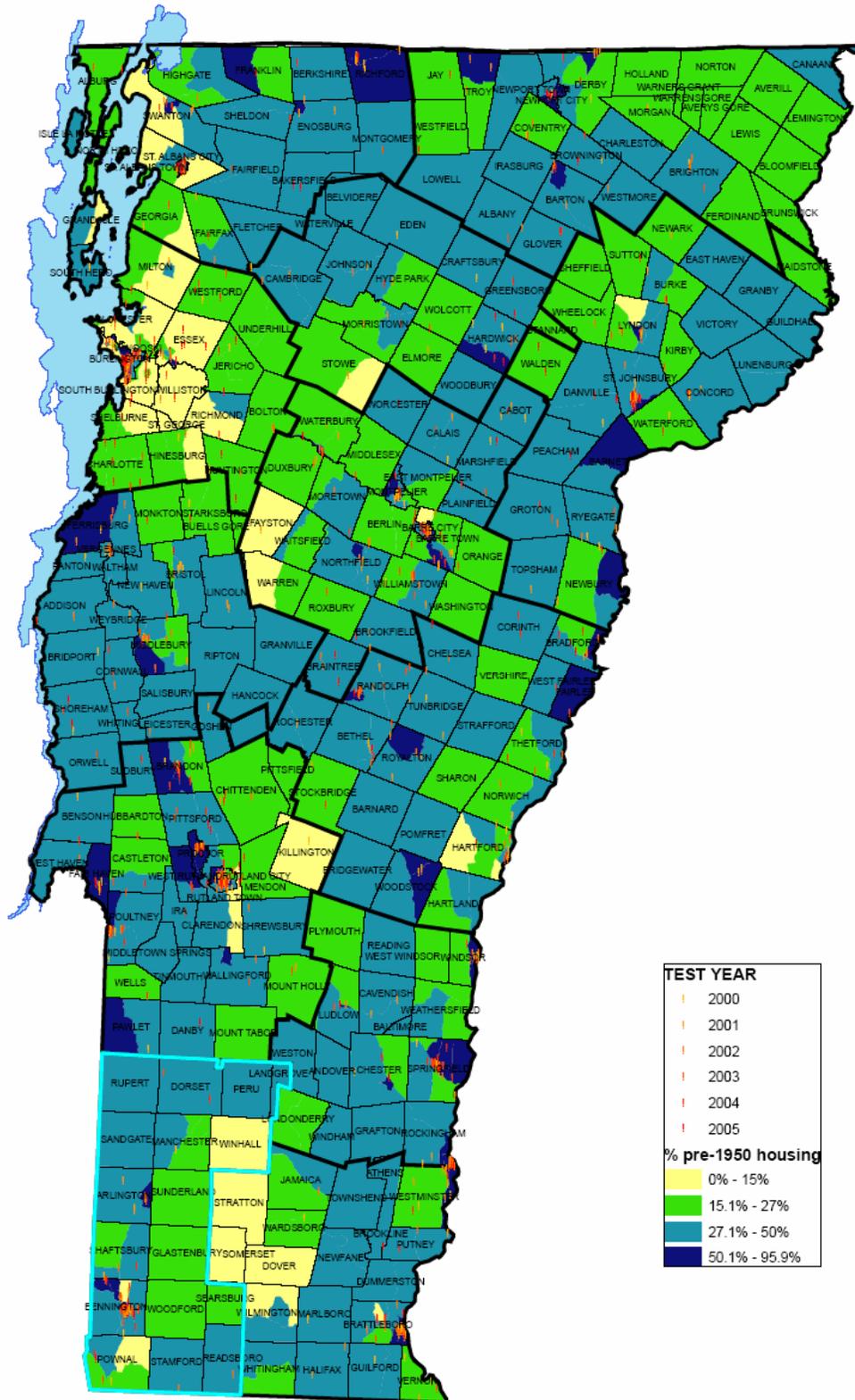
is generally considered a town to which area residents would go for medical care or to access other resources.

\*\* St. Albans is considered a population center because it is composed of both St. Albans City and St. Albans Town with a combined population of 12,736. Residents in St. Albans Town are more likely to be lead poisoned. While the number and percent of housing built prior to 1950 is higher in the St. Albans City than St. Albans Town (# pre-1950 2078 or 62%).

Yet, to eliminate lead poisoning in Vermont the problem in rural communities must be addressed. Traditional methods of identifying higher risk communities neglect to identify rural communities for intervention.

A visual assessment of the geo-coded map below indicates that there are many rural communities in Vermont with a disproportionate number of children with elevated blood lead levels when compared to the population size.

# VERMONT ELEVATED LEAD DATA, 2000 - 2005



A closer look at risk factors including percent of housing stock built prior to 1950, the percent of children eligible or enrolled in Medicaid, and percent of children tested with reported elevated blood lead levels, indicates that many of these rural communities are disproportionately affected by lead poisoning.

<b>Rural Communities</b>							
Town	Population	# EBL	% EBL	# Pre-1950	% Pre-1950	# Poverty	% Poverty
Proctor	1877	19	11	596	75	9	8.7
Richford	2321	38	12.8	635	62	55	36.4
Fair Haven	2928	30	9.6	769	62	42	22.3
Hardwick	3174	30	8	740	53	47	24.1
Poultney Town	3633	26	10	902	54	12	8.2
Rockingham	5309	87	15.1	1622	67	38	12.5

- EBL Data is from 1997 through 2005 and includes individual children with either a capillary or venous test
- Housing and poverty data is from the 2000 Census

The culture in rural communities and the barriers for screening and treatment may be different than for higher population density areas. A differentiating feature of the small communities outside of population size is their proximity to resources such as hospital and medical care. Higher population density communities house more resources (a hospital, medical facilities, college, university, etc.) and are a location to which many area residents travel to receive crucial services.

A baseline of effort is needed to implement a lead poisoning prevention campaign in any given location. Beyond that effort, the resources required become proportional to the size of the population. In other words above the baseline it is generally true that the smaller the community

the less resources required to implement a program. In CLPPPs experience this justifies the use of resources for targeted interventions in rural communities.

In an effort to move toward elimination Vermont CLPPP will continue to target the large population areas previously identified as high risk. In addition, six small rural communities will also be targeted for intervention.

#### **D. Advisory Committee**

The landscape of lead poisoning prevention in Vermont is changing. After a decade of work that has made clear inroads into addressing the problem, the declining trends have leveled off. It is apparent that in order to eliminate lead poisoning changes in the law and approach to prevention need to be made. Vermonters are ready to take action. They recognize the risk factors, the need to improve screening and interventions, and the necessity to consider all sources of lead coming into their communities. Vermont is poised to examine multiple options that take it towards elimination and to creatively evaluate ways to generate the resources necessary to implement these options.

Vermont has the assets of independence, creativity and strength of strategic partnerships dynamically linked in a relatively small state to solve complex problems. Understanding these assets, in December 2005 the Commissioner of Health and the Vermont Attorney General allocated resources and staff to convene the “Get the Lead Out of Vermont” Task Force- a revitalized advisory group to coordinate a statewide initiative to decrease the exposure of Vermont children to lead. More than 50 people attended an initial meeting on January 19, 2006. Participants included medical and housing professionals, landlords, academics and child

advocates (a list of invitees, the charge letter and participants are included as Attachments K to M).

The Get The Lead Out of Vermont Task Force was divided into four subcommittees: housing, identification and intervention, consumer products, and funding. Each will meet at least monthly through April 2006. By June of 2006 each is charged to provide recommendations for legislative and programmatic changes. A report will be generated during the summer and the recommendations will be assembled and presented to the Vermont Legislature in the fall of 2006. Following the presentation of recommendations members of the “Get the Lead Out of Vermont” Task Force will monitor progress of the adoption and implementation of the legislative and programmatic changes.

#### **E. Goals, Objectives, Activities and Evaluation (January 2006)**

##### **Primary Prevention**

Preventing children from becoming exposed to lead and consequently becoming lead poisoned is the main purpose of Vermont’s Childhood Lead Poisoning Prevention Program (CLPPP) over the next 5 years. Together with strategic partners CLPPP is starting the grant cycle by reviewing the current status of lead poisoning in Vermont. The “Get the Lead Out of Vermont” Task Force, a power house of knowledge on dealing with lead in Vermont, will recommend changes to the Vermont Lead Law, which will be brought to the Vermont Legislature in 2007, and to the CLPPP program. Programmatic changes will be presented to the Commissioner of Health.

Based on preliminary dialogue CLPPP has developed a plan of action for the first year of the grant knowing that Vermont is poised for dramatic change in approach over the course of the

grant. In the first year CLPPP will work to enforce the current Vermont Lead Law, to determine effective programs in local target communities and with high risk groups, and will increase the general knowledge of Vermonters about lead.

### Lead Law

To garner improved compliance with the Vermont Lead Law that requires all rental property owners to control lead hazards, CLPPP will implement a system of checking properties that have an Affidavit of Compliance on file to determine whether landlords are performing Essential Maintenance Practices as they have certified they have done. Outreach will be made to a newly expanded list of rental property owners informing them of the potential liability they face if they do not file an Affidavit. Town Health Officers, the position charged with enforcing the law locally, will be better trained by District Office Lead Designees about their role in encouraging compliance with the Lead Law and handling complaints from the public about lead hazards.

### Effective Initiatives

To design effective primary prevention initiatives, Vermont CLPPP has analyzed blood lead, poverty, and housing age data. Four types of intervention were created or will continue from previous years, a pilot ‘door-to-door’ program, visits to properties adjacent to those where severely lead poisoned children reside, education and outreach to parents with newborns identified to live within one-third of a mile of a previous lead poisoned child, and education to parents living in housing being remediated by the Vermont Housing and Conservation Board.

Rockingham (often referred to as Bellows Falls), a small rural community in Vermont has been identified to be disproportionately affected by lead poisoning. In collaboration with local

community partners, CLPPP will use community volunteers and staff to conduct and assess a pilot 'door-to-door' campaign. Parents of children under 6 living in pre-1978 housing who have either signed up or invited CLPPP liaisons into their home will receive education on lead poisoning, which will include a visual inspection of their homes for lead hazards. If the parent agrees, CLPPP will contact their landlord and primary care provider to remind them of their role in lead poisoning prevention and inform them of hazards identified. Parent awareness, landlord compliance, and testing rates will subsequently be measured. If the outcome shows a significant cost benefit, the pilot will be recreated in other small rural communities.

CLPPP staff will attempt to contact and visit families living in adjacent properties to severely lead poisoned children (children with confirmed blood lead levels of 20 ug/dl or greater).

Families will be provided with education on lead poisoning and a report of ways they can reduce the potential of their child or children becoming lead poisoned. If a parent agrees, water, soil and dust samples will be taken. In the case of rental properties, landlords will be informed of the Lead Law and remediation steps they need to take to be compliant. If agreed to by the parent, primary care providers will be informed of the existence of lead hazards and encouraged to test children at ages 1 and 2 years.

Through geo-coding homes within one-third of a mile of a previously lead poisoned child (10 ug/dl or greater) will be identified. Vital statistic data will be used to identify newborns living in these homes. At ages 6 months and 10 months parents will be mailed a developmentally appropriate information packet to educate them on measures they can take to prevent lead poisoning and to encourage blood lead tests at the recommended ages.

Under a longstanding contract with the Vermont Housing and Conservation Board, CLPPP will provide either an educational visit or call to families living in homes that are being remediated. Following the intervention, CLPPP will continue to monitor children living in these homes to ensure they receive blood lead tests at the recommended ages.

### Public Education

To increase Vermonters knowledge of lead poisoning, the Vermont Department of Health District Offices have developed local educational initiatives targeted at specific audiences. They will also educate families enrolled in WIC during their regular visits. Additionally CLPPP and the District Office Lead Designees will coordinate efforts to attend local community events, providing education to participants.

The Vermont Housing and Conservation Board, Burlington Lead and CLPPP collaborate closely to offer free lead-safe training courses targeted at teaching landlords and childcare providers how to safely perform essential maintenance practices on their properties. Other participants also include contractors and the general public.

**Goal:** New legislation, rulemaking or enforcement options enacted in Vermont will focus on primary prevention and will increase the Vermont Department of Health's ability to ensure compliance with the lead law.

**Objective:** By June 2007 the Vermont Legislature will enact legislation or direct the Vermont Department of Health to develop rules for new enforcement procedures with the Office of the Attorney General focused on lead poisoning prevention.

<b>Activity</b>	<b>Responsible Party</b>	<b>Date</b>
“Get the Lead Out of Vermont” Task Force subcommittees (housing, consumer products, identification/intervention, and resources) will meet at least monthly	Task Force Members Wendy Morgan, AG Kevin Doering, VDH	Dec 05 to June 06
All members of the Task Force will convene jointly to update the larger group on their proposed recommendations.	Task Force Members	April 06
Each committee will present a prepared document of final recommendations on their topic	Task Force Members	June 06
Prepare a final report of recommendations for presentation to the Attorney General, Commissioner of Health and the Vermont Legislature	CLPPP and AG staff	June 06 to Oct 06
Publication of Task Force recommendations	CLPPP Staff AG Staff	Oct 06
Review programmatic recommendations and develop a plan for implementation	CLPPP Staff	Oct 06 to Dec 06
Work with legislature to advise legislation	AG Commissioner of Health	Jan 07 to June 07
Monitor progress	Task Force Members	Ongoing

<b>Evaluation</b>	<b>Responsible Party</b>	<b>Date</b>
Final report of Task Force recommendations	CLPPP and AG staff	Oct 06
Promulgation of Legislation or directions to the Vermont Department of Health	VT Legislature	June 07
The legislation and recommendations put out by the Task Force and the Vermont Legislature will be used to inform programmatic changes.		

**Goal:** All constituent groups affected by the Vermont Lead Law will fully comply.

**Objective:** In 2006 the Vermont Department of Health will receive more than 2,500 Affidavits of Compliance with Essential Maintenance Practices and beginning in 2007 will receive an increase of 10% for each subsequent year of the project period.

<b>Activity</b>	<b>Responsible Party</b>	<b>Date</b>
Creation of a new Affidavit database	Michael Sullivan Sandra Moore	March 06
Affidavits will be reviewed for completeness, entered into the database, and filed	Sandra Moore	Ongoing
Annual postcard mailing to all landlords and childcare owners	Sandra Moore	Nov 06
A system of monthly reminders for landlords will be put into place based on inspection date	Michael Sullivan Sandra Moore	Jan 07
Revitalize collaboration with community partners such as the Rental Property Owners Association	Sandra Moore	Ongoing
Provide Lead Law information to community partners for distribution to constituent landlords	Sandra Moore	June 07

<b>Evaluation</b>	<b>Responsible Party</b>	<b>Date</b>
Number of Affidavits	Sandra Moore	Jan 07
Geo-coded maps and trends of compliance	Michael Sullivan	Jan 07
<p>There are an estimated 56,000 rental units affected by the Vermont Lead Law. Preliminary counts of 2005 Affidavits show that approximately 1,000 were submitted. The number of Affidavits filed has declined for the past 3 years. These trends indicate a decline in compliance with essential maintenance practices that were designed to protect children living in rental housing from lead poisoning. The decline trends are being presented to the Task Force for consideration and may inform recommendations for changes in the law. Geo-coded maps and trends will be used to dictate whether targeted or statewide initiatives are warranted.</p>		

**Objective:** By June 2006 CLPPP will establish measurements and a program to monitor compliance with EMPs by landlords submitting Affidavits.

<b>Activity</b>	<b>Responsible Party</b>	<b>Date</b>
Develop a protocol for visiting properties with Affidavits on file to check completeness of EMPs	CLPPP Staff	Feb 06
Present protocols to legal counsel for review	CLPPP Staff	March 06
Pilot protocols	Erica Holub	March to June 06

Finalize protocols in writing	CLPPP Staff	June 06
Establish protocols for measuring, electronically recording and reporting landlord's level of compliance with essential maintenance practices including window well inserts, paint condition, and notification of tenants	CLPPP Staff	June 06

<b>Evaluation</b>	<b>Responsible Party</b>	<b>Date</b>
Written protocols for visiting and measuring landlord compliance	Erica Holub Sandra Moore	June 06
Protocols will be used to implement a program for conducting checks for compliance with the Vermont Lead Law and will be used to establish benchmarks for compliance with essential maintenance practices by landlords submitting affidavits.		

**Objective:** By June 2007 CLPPP will establish benchmarks to monitor compliance of landlords submitting Affidavits with EMPs and a target for increases in each subsequent year of the grant period.

<b>Activity</b>	<b>Responsible Party</b>	<b>Date</b>
Based on established methods of measuring compliance and protocols for property visits, a selected sample of properties will be assessed for compliance	Erica Holub Sandra Moore	June 07
Data will be tracked electronically and analyzed to determine rate of compliance	Michael Sullivan	June 07

<b>Evaluation</b>	<b>Responsible Party</b>	<b>Date</b>
Property visits for data collection	Erica Holub Sandra Moore	June 06 - June 07
Analysis of data (potentially - insertion of window wells, condition of interior and exterior paint, and tenant informed of presence of lead)	Michael Sullivan	June 07
The data collected will be used to determine the existing level of compliance by landlords		

submitting Affidavits with the Vermont Lead Law. These benchmarks will be used as an evaluative measure to determine the level of success of program efforts and objectives for years 2 through 5. Trends in the data will be used to determine if there are higher risk areas that should be targeted for more intensive intervention.

Data will also be used to determine whether the existing law is effective or needs to be changed. The Task Force will review any data and may possibly recommend legislative or programmatic changes in future reports.

**Objective:** By June 2008 there will be an increase in compliance with EMPs by property owners submitting Affidavits.

<b>Activity</b>	<b>Responsible Party</b>	<b>Date</b>
Education of property owners during compliance visits	Erica Holub Sandra Moore	Ongoing
Advertising of EMP classes in local community calendars	Sandra Moore	Ongoing
Annual press release regarding the lead law	Sandra Moore	Nov 06
Develop a new curriculum for the certification class for individuals performing EMPs	Marcia Gustafson	Dec 06
Require that property owners re-take the class to maintain certification	VDH	Dec 06

<b>Evaluation</b>	<b>Responsible Party</b>	<b>Date</b>
Property visits for data collection	Erica Holub Sandra Moore	June 07 – June 08
Analysis of data (potentially - insertion of window wells, condition of interior and exterior paint, and tenant informed of presence of lead)	Michael Sullivan	June 08
<p>The data collected will be used to determine improvements in the level of compliance by landlords submitting Affidavits with the Vermont Lead Law. These benchmarks will be used as an evaluative measure to determine the level of success of program efforts. Trends in the data will be used to determine if there are higher risk areas that should be targeted for more intensive intervention.</p> <p>Data will also be used to determine the success of any changes to the law or regulatory practices.</p>		

**Objective:** By December 2006 all District Offices will have implemented a system for training local Town Health Officers regarding their role in preventing lead poisoning.

<b>Activity</b>	<b>Responsible Party</b>	<b>Date</b>
12 District Offices review local lead elimination plans and submit for review	Lead Designees Marcia Gustafson Jenney Samuelson	July 06
Implement local elimination plans	Lead Designees	Ongoing

<b>Evaluation</b>	<b>Responsible Party</b>	<b>Date</b>
Publish local elimination plans with evaluation plans	Lead Designees	July 06
Success of district offices to hit targets outlined in local elimination plans	Lead Designees	June 07
Each VDH District Office has a lead elimination plan that includes methods, measures and benchmarks for evaluating success. Some plans will be revised to better incorporate evaluation in July 2006. District Offices can determine which programs are effective and share their methods with other Lead Designees whose programs have not met expectations.		

**Objective:** By June 2007 CLPPP will have developed measures and established benchmarks for monitoring Town Health Officers knowledge.

<b>Activity</b>	<b>Responsible Party</b>	<b>Date</b>
Review Town Health Officer's role in local compliance	Task Force Members	June 06
Develop a protocol and measures for assessing Town Health Officer's knowledge about lead and their role in local compliance	CLPPP Staff	Dec 06
Implement protocols for assessing Town Health Officer's knowledge about lead and their role in local compliance	CLPPP Staff	June 07
Develop and implement a protocol for reporting Town Health Officer's knowledge about lead and their role in local compliance	CLPPP Staff	June 07

<b>Evaluation</b>	<b>Responsible Party</b>	<b>Date</b>
Written protocols for assessing Town Health Officer's knowledge about lead and their effectiveness in local compliance	Michael Sullivan Sharon Mallory	Jan 07
Data collection of Town Health Officer's knowledge about lead and their effectiveness in local compliance	Michael Sullivan Sharon Mallory	March 07
Report of benchmarks of Town Health Officer's knowledge about lead and their effectiveness in local compliance	Michael Sullivan Sharon Mallory	June 07
The Town Health Officers play a key role in enforcing compliance with the Vermont Lead Law. They follow up on complaints from the public with regard to lead as a public health hazard. CLPPP needs to determine their level of knowledge and use of enforcement to determine areas of focus for future training or to establish the effectiveness of using Town Health Officers in this role. Data will be used to strengthen training or to change protocols for handling property complaints.		

**Goal:** Implement effective lead poisoning prevention campaign in all high risk communities in Vermont.

**Objective:** By June 2007 measure the efficacy of two home visit programs to increase prevention, testing rates, and compliance of landlords with the Vermont Lead Law.

Rockingham Pilot Project

<b>Activity</b>	<b>Responsible Party</b>	<b>Date</b>
Identify key community partners and engage their participation	CLPPP Staff Lead Designees Parks Place	Dec 05
Develop an evaluation plan as part of the CDC/Harvard evaluation course	CLPPP Staff Harvard Students Connie Thomas, CDC	Jan 06

Host focus groups to identify ways to recruit participants and publicize the project	Parks Place	Feb 06
Develop a publicity campaign and publicize the program in local community publications and through community partners	Parks Place	April 06
Design and implement a means to recruit and train community volunteers giving them the tools they need to assist parents in visually identifying lead hazards and assessing compliance with the Vermont Lead Law	CLPPP Staff Parks Place	April 06
Register families for home visits	Parks Place	June 06
Conduct door-to-door lead education visits as well as prearranged visits focused on parents of children younger than 6 who live in houses built before 1978 assisting them with visually identifying lead hazards and encouraging testing of children at ages 1 and 2	Parks Place CLPPP Staff Lead Designees	June 06
Electronically track visual inspection data	Sandra Moore	July 06
Collect and analyze data	CLPPP Staff	Dec 06

Educational Visits to Families Living Adjacent to Severely Lead Poisoned Children

<b>Activity</b>	<b>Responsible Party</b>	<b>Date</b>
Create a system for tracking testing, EBL and affidavit submissions for properties identified	Michael Sullivan	July 06
Starting in July 06 identify homes expecting or with children under the ages of 6 that live in properties adjacent to those with a severely lead poisoned child (blood lead level of 20 ug/dl or greater)	Lead Designees Erica Holub	Ongoing
Contact residents of properties to explain available services and to encourage participation	Lead Designees	Ongoing
Visit homes providing education on lead hazards and conducting soil, water, and dust sampling	Erica Holub Marcia Gustafson	Ongoing
Provide a summary of lead hazards and suggestions for remediation to residents and property owners	Erica Holub Marcia Gustafson	Ongoing
Electronically track environmental data in Excel module and report to CDC	Erica Holub Michael Sullivan	July 07

Determine feasibility of expanding to properties adjacent to children with elevated blood lead levels of 15 to 19 ug/dl	Jenney Samuelson	July 07
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<b>Evaluation</b>	<b>Responsible Party</b>	<b>Date</b>
Track and review numbers of elevations and numbers of tests of children living in homes visited through targeted interventions.	Michael Sullivan	June 07
Track the number of affidavits filed for rental properties visited through targeted interventions.	Sandra Moore	June 07
The program will use the data to assess cost benefit of the targeted interventions. CLPPP will determine if the percent elevation, tested, and compliant is significantly increased compared to the general population. The outcomes of the analysis will be used to determine whether CLPPP will implement similar projects in other areas. A limiting factor may be lack of a control community. Of interest to the program will also be the difference in a statewide project such as the adjacent property visits and a community approach as in the Rockingham/Bellows Falls pilot.		

**Objective:** By June 2007 50% of parents of newborn children identified to live in high risk areas within one-third of a mile of a child with a previous elevated blood lead level will perceive lead as a risk to their child.

<b>Activity</b>	<b>Responsible Party</b>	<b>Date</b>
Identification using geo-coding of all children born within one-third of a mile of a previously lead poisoned child. Blood lead data will be overlaid with vital statistics data.	Jason Roberts	March 06
Development of developmentally appropriate information packets for parents of 6 months and 9 months old children.	Marcia Gustafson Jenney Samuelson	June 06
Parents of targeted children will be mailed a developmentally appropriate informational packet when the identified child is 6 months and 9 months old.	Michael Sullivan	July 06 – June 07

<b>Evaluation</b>	<b>Responsible Party</b>	<b>Date</b>
A tool to assess parent’s perception of risk will be identified or created.	Jenney Samuelson	March 07

	Michael Sullivan	
A randomized statistically appropriate sample of parents who have received an information packet will be called to assess their perception of risk of lead for their child.	Sandra Moore	July 07
The program will use the data to assess cost benefit of the targeted interventions. CLPPP will determine if a significant percent of parents perceive lead as a risk. The outcomes of the analysis will be used to determine whether CLPPP will implement similar projects with other high risk groups. A limiting factor may be the resources to assess risk among a control group.		

**Objective:** By July 2007 testing 1 year old children identified as newborns to live in high risk areas within one-third of a mile of a child with a previous elevated blood lead level will exceed the state testing rate for 1 year olds.

Activity	Responsible Party	Date
See activities from previous objective		

Evaluation	Responsible Party	Date
Track and review numbers of elevation and numbers of tests of children at age 1 year living in targeted homes.	Michael Sullivan	June 07
The program will use the data to assess cost benefit of the targeted interventions. CLPPP will determine if the percent elevation and tested is significantly different compared to the general population and an analysis of previous years. The outcomes of the analysis will be used to determine whether CLPPP will implement similar projects with other high risk groups.		

**Objective:** By July 2008 testing 2 year old children identified as newborns to live in high risk areas within one-third of a mile of a child with a previous elevated blood lead level will exceed the state testing rate for 2 year olds.

Activity	Responsible Party	Date
See activities from previous objective		

<b>Evaluation</b>	<b>Responsible Party</b>	<b>Date</b>
Track and review numbers of elevation and numbers of tests of children at age 2 years living in targeted homes.	Michael Sullivan	June 08
The program will use the data to assess cost benefit of the targeted interventions. CLPPP will determine if the percent elevation and tested is significantly different compared to the general population and an analysis of previous years. The outcomes of the analysis will be used to determine whether CLPPP will implement similar projects with other high risk groups.		

**Objective:** By June 2007 90% of parents of children living in housing remediated by the Vermont Housing and Conservation Board will perceive lead as a risk to their child.

<b>Activity</b>	<b>Responsible Party</b>	<b>Date</b>
Make home visits and/or educational phone calls to parents of young children enrolled in the VHCB Lead Hazard Reduction Program and referred by VHCB	Marcia Gustafson VHCB Staff	Ongoing
Assist parents in being able to identify lead hazards	Marcia Gustafson VHCB Staff	Ongoing
Coordinate with staff of VHCB to ensure that parents understand lead hazards and know lead-safe practices	Marcia Gustafson VHCB Staff	Ongoing
Work with VHCB to electronically track environmental data	Marcia Gustafson	Ongoing

<b>Evaluation</b>	<b>Responsible Party</b>	<b>Date</b>
A tool to assess parent's perception of risk will be identified or created.	Jenney Samuelson Michael Sullivan	March 07
A randomized statistically appropriate sample of parents who have received VHCB and CLPPP services will be called to assess their perception of risk of lead for their child.	Sandra Moore	July 07
The program will use the data to assess cost benefit of the targeted interventions. CLPPP will determine if a significant percent of parents perceive lead as a risk. The outcomes of the analysis will be used to determine whether CLPPP will implement similar projects with other high risk groups. A limiting factor may be the resources to assess risk among a control group.		

**Objective:** By July 2007 testing of children living in housing remediated by the Vermont Housing and Conservation Board will exceed 90% for both 1 year olds and 2 year olds.

<b>Activity</b>	<b>Responsible Party</b>	<b>Date</b>
See activities from previous objective		

<b>Evaluation</b>	<b>Responsible Party</b>	<b>Date</b>
Track and review numbers of elevation and numbers of tests of children at age 1 and 2 years living in homes receiving VHCB and CLPPP services.	Michael Sullivan	June 07
The program will use the data to assess cost benefit of the targeted interventions. CLPPP will determine if the percent elevation and tested is significantly different compared to the general population and an analysis of previous years. The outcomes of the analysis will be used to determine whether CLPPP will implement similar projects with other high risk groups.		

**Goal:** All Vermonters will have knowledge of lead.

**Objective:** By June 2007 demonstrate an increased awareness of lead poisoning among local audiences in the service areas of the 12 Vermont Department of Health District Offices.

<b>Activity</b>	<b>Responsible Party</b>	<b>Date</b>
Maintenance of the Lead Hotline	CLPPP Staff	Ongoing
Implementation of local lead elimination plans by the 12 District Offices	Lead Designees	Ongoing
Provide education at local community events including home shows, construction trade shows, rental property association meetings and health fairs.	CLPPP Staff Lead Designees	Ongoing

<b>Evaluation</b>	<b>Responsible Party</b>	<b>Date</b>
Measures included in District Office local lead elimination plans	Lead Designees	June 07

Each District Office has identified target audiences in their community for lead poisoning prevention education. Under the goals and objectives outlined in the local elimination plans, measures of success have been developed and evaluation methods will be implemented. Additionally the CLPPP program and the District Offices will provide education to the general public through the phone and at community events which will be evaluated with the general success of the program, a reduction in childhood lead poisoning.

**Objective:** Ensure that at least 500 community members are certified annually to have the knowledge to perform essential maintenance practices using lead-safe work practices.

Activity	Responsible Party	Date
Advertising of EMP classes in local community calendars	Sandra Moore	Ongoing
Annual press release regarding the lead law and the benefits of taking the class for landlords and community members	Sandra Moore	Nov 06
Develop a new curriculum for the certification class for individuals performing EMPs	Marcia Gustafson	Dec 06

Evaluation	Responsible Party	Date
Number of people taking the class	Sandra Moore	Jan 07
The lead-safe training course is targeted at landlord and childcare owners. New efforts are being put into advertising the class to both this target audience and the general public. CLPPP will evaluate the success of these efforts by an increase in attendance and successful completion.		

## Surveillance and Testing

### Testing

Testing and surveillance provide the data to direct the efforts of the Vermont CLPPP.

In June 1994, the Vermont Department of Health (VDH) issued “Guidelines for Childhood Blood Lead Screening” to all pediatricians and family practice physicians. These guidelines

were developed by VDH to ensure that children would receive appropriate lead testing and that children with elevated blood lead levels would be identified.

The screening guidelines recommended at that time are those currently in place. The guidelines recommend universal testing of all 1 year old children. Testing at age 2 is recommended based on a risk assessment questionnaire that focuses on the child's environment (Do you live in a house built before 1978? Does your child go to a child care facility built before 1978?). In cases where a child is insured through Medicaid, testing at both ages 1 and 2 is required.

Based on CDC guidance developed after the death of the refugee child in Manchester, New Hampshire, Vermont has established a screening protocol for refugee children. All refugee children ages 6 months to 16 years are screened upon entry to Vermont. A follow-up screening is performed at 3 to 6 months after the initiate test on all children age 6 months to 6 years.

Confirmations of reported elevated blood lead levels are performed by venipuncture within 84 days of the original capillary test. The Vermont Department of Health's guidelines state that all blood lead levels of 15 ug/dl or greater require a confirmation test. Elevations of 10 ug/dl or greater in Medicaid children require a venous confirmation.

Utilizing data analysis of blood lead testing and confirmation rates, CLPPP has set goals to increase compliance by primary care providers. Additionally the "Get the Lead Out of Vermont" Task Force is reviewing the Guidelines and may recommend changes in June of 2006 to be implemented in the following year.

## Laboratory Reporting of Results

Under V.S.A. title 18, chapter 38, section 1757 Lead Poisoned Children Rules, all Vermont laboratories which analyze blood samples of children below the age of six for lead levels must report this information to the Vermont Department of Health. Two laboratories and one pediatric practice have the capabilities to perform blood lead analysis: the Vermont Department of Health Laboratory, Fletcher Allen Health Care (Vermont's largest hospital), and Essex Pediatrics. The vast majority of blood lead analysis is performed by the public health lab and Fletcher Allen Health care. Results are transmitted electronically to the Childhood Lead Poisoning Prevention Program (CLPPP) and uploaded into the surveillance system. There have been no complications with this system.

CLPPP also receives reports on Vermont children's blood lead levels when testing and analysis are done in adjacent states, most frequently from New Hampshire but also from Massachusetts and New York. In addition, results are reported from private laboratories that analyze filter paper tests, used by a few primary care providers in Vermont.

Vermont will continue to develop efficient ways to electronically transmit blood lead data on a local and national level. In the coming year CLPPP will develop a mechanism to import blood lead data from the Electronic Laboratory Reporting (ELR) Application into the existing surveillance database in hopes of obtaining more complete data. Currently Vermont is conducting a test of the receipt of ELRs from LabCorp. In February, it is expected that functionality to receive ELRs from Mayo will be available and an implementation date will be identified. The Vermont Department of Health Laboratory is in the process of upgrading to a PHIN-compliant version of LITS Plus called PHIL. Phase 1 on this upgrade will provide the

ability to send a HL7 v2.3.1 ELR. This will be tested during the spring of 2006. Vermont is also awaiting response from Fletcher Allen Health Care (FAHC) about their ability to send HL7 v2.3.1 ELRs.

### Surveillance System (IT)

Once received, blood lead results and case management data are imported into the Vermont Department of Health's blood lead surveillance system 1032. 1032 is a mainframe relational database management application. The system is able to manage multiple blood tests for each child and multiple addresses for children with lab tests results 10 ug/dl or greater. Currently the VDH, CDC and Battelle are developing a mechanism to modify the system to track multiple addresses for children with blood lead levels below 10 ug/dl. They anticipate a resolution by June 2006. An additional Excel data module was added in January 2006 to track environmental data which will be related to the blood lead data. The capacity to transmit quarterly data to the CDC from both 1032 and the environmental data module was available as of January 2006.

As a means to combine all blood lead, environmental and case management data collected into one system, Vermont CLPPP plans to migrate to the NEDSS Lead PAM when it becomes available. The Vermont Department of Health (VDH) went 'live' with the NEDSS Base System (NBS) on December 13, 2004 making Vermont the 7th state to implement the NBS. It is used for reporting to the CDC on approximately 80 conditions. The deployment was for the entire state of Vermont although all data entry was done in the VDH central office from paper and telephone reports. Since that time, Vermont has installed a variety of version updates, service patches, and hot fixes and has trained staff in the local District Offices to input data. We are currently using Release 1.1.4 of the NBS.

Vermont has been following the development of the NEDSS PAM Platform (previously the PDP or PAM Development Platform) for some time now (at least since the June 22, 2004 NBS Change Management Panel webinar) and would like to install the Lead Program Area Module in 2006. Although the NPP is a unique installation from the NBS, 'messaging services' will provide the ability to exchange data between the two systems. It is our understanding that this will allow the ELR data feeds described above to send Lead lab reports directly to the Lead PAM.

Vermont's commitment to the NEDSS began even before the deployment of the NBS. The ITS Unit adopted the NEDSS logical data model early on and used it as the basis for their in-house development project named SPHINX, the Shared Public Health INformation eXchange.

SPHINX is expected to be the repository of all patient-centric public health records and currently contains the Electronic Birth and Immunization Registries. Future expansion plans include an Electronic Death Registry and a Child Health profile. Blood lead information will be incorporated into the Child Health profile and Immunization Registry in 2006. In addition, the possible integration between the NBS and SPHINX has been identified.

Although not directly linked to the blood lead surveillance system or the future Lead PAM, Vermont CLPPP is able to access Medicaid data through collaboration with the Economic Services Division (ESD) of the Agency of Human Services. ESD provides VDH statisticians electronic access to the Medicaid database allowing them to 'match' the Medicaid data with blood lead data. In this way the percent of Medicaid children enrolled, number of elevated blood lead levels, and names of children who have not been tested can be identified. The Medicaid match is used to develop targeted interventions to increase testing and education among Medicaid patients.

## Analysis

Once the children have been tested and their blood lead data is imported into the surveillance database, CLPPP provides meaningful analysis of the blood lead data for Vermont constituent groups. Over the next year CLPPP will look to standardize and document data analysis procedures and protocols and will review the quality of statistical procedures being implemented. Once complete, data reports for the Vermont Legislature, community partners, primary care providers, and other identified groups will be generated and disseminated at minimum as required by V.S.A. 18, Chapter 38, section 1756 “Annual Report”.

**Goal:** Vermont Department of Health will have an effective lead data collection system.

**Objective:** By June 2007 the Vermont CLPPP will have a surveillance system which will efficiently capture and report all data required by the CDC

<b>Activity</b>	<b>Responsible Party</b>	<b>Date</b>
A means of transmitting appropriate property identification numbers will be designed and implemented	Jenney Samuelson Michael Sullivan Kim Jones Battelle Jaime Raymond	June 06
Integration of an environmental data tracking Excel module into the CDC data transmission	Michael Sullivan	June 06
Migration from current surveillance system to NEDSS Lead PAM (timeline based on predicted Lead PAM release date)	Michael Sullivan Eileen Underwood	June 07

<b>Evaluation</b>	<b>Responsible Party</b>	<b>Date</b>
Confirmation by the CDC that all required data is being transmitted quarterly	Michael Sullivan	June 07
Vermont CLPPP is dedicated to implementing a new surveillance system that will capture all		

data required in the most current specifications put forth by the CDC. We are working closely with Jaime Raymond and potentially Batelle to resolve all data transmission problems in the short term and are planning to move to the NEDSS Lead PAM once it is released.

**Objective:** By December 2006 Vermont CLPPP will have developed and implemented a protocol and method for electronically transferring data from the electronic laboratory reporting system (ELR) to the current surveillance system.

<b>Activity</b>	<b>Responsible Party</b>	<b>Date</b>
Develop a protocol for downloading ELR data in a comma separated values format	Michael Sullivan	Sept 06
Develop a protocol and code to upload the data downloaded from the ELR into the current surveillance system	Michael Sullivan	Sept 06
Test and implement protocol	Michael Sullivan	Dec 06

<b>Evaluation</b>	<b>Responsible Party</b>	<b>Date</b>
Report the percentage and number of ELR records that have been electronically uploaded into the current surveillance system	Michael Sullivan	Jan 07
The data will be used to evaluate the efficiency of electronic data transfer. The 2 largest laboratories in Vermont are targeted to be integrated in the ELR system within the next year. More complete data may be available through the ELR than is currently received by the electronic data transfer protocols in place.		

**Goal:** Vermont Department of Health will provide effective lead data analysis.

**Objective:** By January 2007 CLPPP will have carefully reviewed the data analysis protocols for the program and will put in place new or update existing written protocols including clear definitions of age, elevated blood lead level, and confirmed blood lead level.

<b>Activity</b>	<b>Responsible Party</b>	<b>Date</b>
Review data analysis protocols	Michael Sullivan Jason Roberts	Aug 06
Determine if additional data analysis is needed to evaluate projects or program outcomes	Jenney Samuelson Michael Sullivan	Aug 06
Develop written protocols for each measure that is analyzed	Michael Sullivan	Dec 06
Develop written definitions that apply to age ranges, elevations, confirmation and other terms frequently used by CLPPP when discussing or analyzing data	Michael Sullivan	Dec 06

<b>Evaluation</b>	<b>Responsible Party</b>	<b>Date</b>
Publication of data analysis protocols	Michael Sullivan	Jan 07
Data analysis protocols will be necessary for the CLPPP to create longitudinal measures of progress and to ensure the continued use of the same definitions if the primary analysis is unavailable. A review of the protocol will also determine if all data necessary to evaluate the outcomes is available and being analyzed to its potential. Furthermore, a peer review of data analysis protocols will ensure the relevance of statistical data reports.		

**Objective:** By June 2007 CLPPP will implement a plan to disseminate meaningful data reports to target audiences.

<b>Activity</b>	<b>Responsible Party</b>	<b>Date</b>
Identify all target audiences and determine the information that is relevant for distribution	Jenney Samuelson	Oct 06
Develop a reporting structure for each audience including at minimum the Vermont Legislature, community partners, Vermont Department of Health District Offices, and primary care providers	Jenney Samuelson	Dec 06
Publish a report relevant to each audience	Jenney Samuelson Kevin Doering	June 07

<b>Evaluation</b>	<b>Responsible Party</b>	<b>Date</b>
Publication of reports	Jenney Samuelson	June 07

Qualitative measures demonstrating the use of the reports for example promulgation of legislation, greater involvement of community partners, establishment of benchmarks or new goals and objectives by Lead Designees and increased buy-in by primary care providers.	Jenney Samuelson	June 08
The response to the reports in the first year will dictate what will be included in subsequent years. The use of the data by community partners will also assist in determining future audiences, partnerships and education initiatives.		

**Objective:** By July 2006 the CLPPP program will be able to identify at risk children born to families living within one-third of a mile of a property where a child was previously poisoned.

Activity	Responsible Party	Date
Identification using geo-coding of properties within one-third of a mile of a previously lead poisoned child	Jason Roberts	March 06
Property data will be overlaid with vital statistics data to generate a list of children at risk	Jason Roberts	March 06

Evaluation	Responsible Party	Date
Publication of a monthly list of at risk children targeted for primary prevention	Jason Roberts	Ongoing
The list of at risk children will be used for a primary prevention campaign previously discussed. The evaluation of the campaign will determine whether it will be worthwhile to determine whether additional data can be analyzed to identify high risk populations and education outreach activities.		

**Goal:** 100% of Vermont 1 and 2 year olds will be tested.

**Objective:** In 2006 at least 80% of 1 year olds and 40% of 2 year olds statewide will be tested for lead.

<b>Activity</b>	<b>Responsible Party</b>	<b>Date</b>
Reminder postcards will be sent to the parents of 10-month olds and 22-month olds	Vital Statistics staff Linda McKenzie, IT	Ongoing, Monthly
Identification and Intervention Subcommittee of “Get the Lead Out of Vermont” Task Force will make testing recommendations	Task Force Members	June 06
Physicians throughout Vermont, especially those who are not currently performing blood lead tests, will be contacted to encourage lead testing and be offered support in so doing	Lead Designees	Ongoing
WIC patients, ages 1 and 2, who are not being lead tested by their primary care providers will receive a capillary blood tests at their WIC visits	Community Public Health Clinic (WIC) staff	Ongoing

<b>Evaluation</b>	<b>Responsible Party</b>	<b>Date</b>
Analysis of trends of 1- and 2-year-old children tested in 2006	Michael Sullivan	Jan 07
Trends in lead testing of children will be used to identify which physicians and communities to target for interventions to increase testing rates. Blood lead data gathered from increased testing will be analyzed to determine trends in childhood lead poisoning. Trends will be used to determine which high risk groups or communities to target for intervention or whether new risk factors are present in Vermont (i.e. consumer products).		

**Objective:** Annually increase Medicaid testing rate by at least 5% for both 1 and 2 year olds.

<b>Activity</b>	<b>Responsible Party</b>	<b>Date</b>
Medicaid patients, ages 1 and 2, who are not being lead tested by their primary care providers and are enrolled in WIC, will receive capillary blood tests at their WIC visits	Community Public Health Clinic (WIC) staff	Ongoing
Vermont primary care physicians will be sent information, visited by staff, or called to remind them that federal law requires that 1- and 2-year-olds on Medicaid are to receive a lead test	Lead Designees	Nov 06

<b>Evaluation</b>	<b>Responsible Party</b>	<b>Date</b>
Analysis of trends in Medicaid children, ages 1 and 2, tested in 2006	Michael Sullivan	Jan 07

Knowing the percent of Medicaid children tested will demonstrate whether Vermont is reaching federal requirements. Trends in Medicaid children being tested for lead will be used to identify communities with lower testing rates for more intense targeted intervention.

**Case Management**

Until Vermont eliminates the potential for childhood lead poisoning CLPPP will continue to serve the needs of families with poisoned children. Vermont CLPPP takes a straightforward approach to case management. Lead investigations and case management services are embodied in one person, the CLPPP investigator/case manager. The case manager provides a tiered system of services based on a child’s blood lead level. At minimum families of all children with reported blood lead levels of 10 ug/dl or greater receive some form of education through the mail, over the phone, or in the home. The case management plan and protocols outline these services. The case manager works closely with the epidemiology health surveillance specialist to educate physicians and promote confirmation of elevated capillary tests.

In the next grant cycle Vermont CLPPP will strive for a system of seamless case management for all lead poisoned children with objectives to reduce blood lead levels, identify hazards, promote confirmation, and educate primary care providers.

**Goal:** All lead poisoned children in Vermont will receive seamless case management.

**Objective:** Reduce 90% of children’s blood lead levels 10ug/dl or greater within 7 months from reported elevation.

Activity	Responsible Party	Date
Conduct case investigations and develop case management	Erica Holub	Ongoing

plans for severely poisoned children (20 ug/dl or greater, venous)		
A plan for remediation of hazards will be mandated for landlords of rental properties	Erica Holub	Ongoing
Make educational home visits for cases 15–19 ug/dl venous, or two 15–19 consecutive capillary tests within one year. Education visits include soil, water and dust sampling. A plan for remediation of hazards will be presented to landlords of rental properties	Erica Holub	Ongoing
Mail demographic/environmental survey to parents of children with 10–14 ug/dl EBLL and to parents in which the capillary test is elevated but unconfirmed	Erica Holub	Ongoing
Conduct educational phone intervention with parents of children with a 10–14 ug/dl, venous, or two 10–14 consecutive capillary tests within one year	Erica Holub	Ongoing
Monitor tests of children with EBLs	Erica Holub	Ongoing

<b>Evaluation</b>	<b>Responsible Party</b>	<b>Date</b>
Blood lead levels will be tracked monthly	Erica Holub	Ongoing
Trends will be analyzed	Michael Sullivan	Jan 07
Blood lead levels will be tracked over time to determine whether case management efforts are effective. Reminders to parents and physicians will be made if a child does not get a follow-up test within the recommended time frame. Parents of children with blood lead levels that do not decline will be contact for further intervention.		

**Objective:** Identify potential hazards to children in 80% of homes with children with confirmed blood lead levels greater than 10ug/dl.

<b>Activity</b>	<b>Responsible Party</b>	<b>Date</b>
See activities from previous objective		

<b>Evaluation</b>	<b>Responsible Party</b>	<b>Date</b>
Potential hazards identified via a survey, phone call, or home visit will be recorded and tracked in the case management database	Erica Holub	Ongoing

Trends will be analyzed	Michael Sullivan	Jan 07
Data will be used to identify changes in the trends of hazards attributed to lead poisoning in Vermont. If changes are detected, relevant interventions will be identified and implemented. On a case level, identification of hazards will be used to assist parents in remediation of risk to their child or children.		

**Objective:** By December 2006 increase by 10% the number of children with capillary blood lead levels greater than 10ug/dl who have a venous confirmation.

Activity	Responsible Party	Date
Parents and or primary care providers of children with elevated blood lead levels (10 ug/dl or greater) will be contacted to arrange for venous confirmation.	Lead Designees Erica Holub	Ongoing

Evaluation	Responsible Party	Date
Analysis of trends in number of children that have a high capillary blood lead level who receive a venous confirmation.	Michael Sullivan	Jan 07
Trends will be used to identify communities where children with reported capillary elevated blood lead levels are not getting confirmed by a venous test. Trends in Medicaid confirmation testing will be used to evaluate the effectiveness of the efforts by Lead Designees to initiate confirmation testing. Target interventions to providers in communities with low confirmation rates will be implemented.		

**Goal:** All physicians in Vermont will screen for and treat lead poisoning effectively.

**Objective:** By June 2007 fifty percent of primary care practices will adopt the Vermont Guidelines for Blood Lead Screening.

Activity	Responsible Party	Date
Identification and Intervention Subcommittee of “Get the Lead Out of Vermont” Task Force will make testing	Task Force Members	June 06

recommendations to the Commissioner of Health		
Changes in Guidelines will be published and distributed to all primary care practices to replace Guidelines in the Provider's Toolkit	Community Public Health	Dec 06
Based on recommendations, confirmation data and protocols will be reviewed so benchmarks can be established	Michael Sullivan	Dec 06
Based on subcommittee recommendations and data review, letters will be sent to primary care providers updating them on confirmation protocols and case management procedures that follow a confirmed elevated blood lead level	CLPPP Staff	Dec 06
The current letters sent to parents and providers to remind them of confirmation and retesting protocols will be updated with a new focus on confirmation testing	Michael Sullivan	Dec 06
Review of Vermont medical insurance carriers coverage for lead testing and follow-up	CLPPP Staff	Dec 07
Publication of insurance carriers general coverage and coding procedures in annual report to physicians	CLPPP Staff	June 08

<b>Evaluation</b>	<b>Responsible Party</b>	<b>Date</b>
A survey will be conducted to determine lead testing practices of all primary care practices in Vermont	Michael Sullivan	July 07
Data will be used to identify trends in implementation of the guidelines and to design future educational campaigns for medical practices.		