

# **N.C. STRATEGIC PLAN TO ELIMINATE CHILDHOOD LEAD POISONING**

**(including the Accomplishments Summary Page)**

## **NORTH CAROLINA CHILDHOOD LEAD POISONING PREVENTION PROGRAM**

**CHILDREN'S ENVIRONMENTAL  
HEALTH BRANCH**

**ENVIRONMENTAL HEALTH  
SERVICES SECTION**

**DIVISION OF ENVIRONMENTAL HEALTH**

**NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND  
NATURAL RESOURCES**

Completed January 21, 2005  
Revised January 27, 2006  
Revised July 14, 2006  
Revised September 17, 2007  
Revised January 27, 2009  
Revised June 1, 2010  
Revised December 17, 2010

## BACKGROUND AND HISTORY

While the lead poisoning problem in North Carolina has diminished since the North Carolina Childhood Lead Poisoning Prevention Program (NC CLPPP) was formed in 1994, lead poisoning is still a problem that impacts affected children for their entire lives. Surveillance data indicate a substantial decrease in the number of children with elevated blood lead levels since 1997 when 661 children were confirmed to have exposures at or above 10 micrograms per deciliter (mg/dL). In 2007, only 270 children were confirmed at the same exposure level, despite the fact that the total number of children tested has grown by more than 51% from 95,166 in 1997 to 143,972 in 2007 (see table below).

**North Carolina Children Tested for Lead Poisoning, Years 1997-2007**

Year	ages 6 mos to 6 yrs		ages 1 and 2 yrs			Confirmed ages 6 mos to 6 yrs	
	Number	% incr	Number	% incr	% tested	10-19 µg/dL	≥20 µg/dL
1997	95,166	(+0%)	49,423	(+4%)	24.0	547 (-17%)	114 (-17%)
1998	95,168	(+0%)	53,163	(+8%)	25.2	544 (-1%)	80 (-30%)
1999	105,552	(+11%)	66,401	(+25%)	30.4	565 (+4%)	80 (+0%)
2000	115,498	(+9%)	75,752	(+14%)	33.6	676 (+20%)	122 (+53%)
2001	120,167	(+4%)	82,177	(+8%)	35.1	467 (-31%)	73 (-40%)
2002	120,958	(+1%)	86,230	(+5%)	36.2	465 (-0%)	68 (-7%)
2003	121,740	(+1%)	88,061	(+2%)	37.4	469 (+1%)	38 (-44%)
2004	124,442	(+2%)	92,049	(+5%)	39.1	349 (-26%)	52 (+37%)
2005	128,249	(+3%)	96,623	(+5%)	40.6	299 (-14%)	53 (+2%)
2006	135,595	(+6%)	103,899	(+8%)	42.8	255 (-15%)	38 (-28%)
2007	143,972	(+6%)	112,556	(+8%)	44.9	232 (-9%)	38 (+0%)

NC CLPPP currently coordinates clinical and environmental services aimed at eliminating childhood lead poisoning including early identification through testing, surveillance, technical assistance, training and oversight for local lead inspectors, remediation enforcement, monitoring inspections and risk assessments.

As required by a grant from the Centers for Disease Control and Prevention (CDC), NC CLPPP in the Division of Environmental Health initiated steps in July 2003 to develop a plan to eliminate childhood lead poisoning by the year 2010. The first step in the plan was to hire a consultant to lead a work group in the development in the plan. The consultant selected was Malcolm Blalock, RS, MPH (retired Deputy Director of the Division of Environmental Health). His tasks included selection of the work group, recruiting and inviting work group individuals to the meetings, keeping notes of discussions by the group, disseminating notes of the meetings to group members, and writing the plan for submission to CDC. In July, members to the group (listed below) were solicited and invited to the initial meeting.

Representative	Organization/Affiliation
Alyson Best	Guilford Co. Health Dept. (subgrantee; Director of Guilford Co. CLPPP)
Malcolm Blalock	Lead Elimination Plan Consultant
Neasha Bryant	NC CLPPP (Public Health Program Consultant)
Isaac Coleman	Environmental Quality Institute (accredited laboratory; Environmental Health Specialist)

Jeff Dellinger	DHHS Health Hazards Control Unit (EPA grantee; Industrial Hygiene Consultant)
Rebecca Howell	DHHS Health Hazards Control Unit (EPA grantee; Industrial Hygiene Consultant)
Nicole Graysmith	NC Legal Aid (Attorney)
Michael Handley	NC Housing Finance Agency (Lead Abatement Partnership Program Consultant)
Deborah Harris	NC CLPPP (Public Health Nursing Consultant)
Ray Hudnell	NC Environmental Health Supervisors Association (EHS Supervisor/Wilson Co. Health)
Kelly Jensen	NC CLPPP (CDC Public Health Prevention Specialist)
Stanley King	Division of Community Assistance (former HUD grantee; Consultant)
Kathy Lamb	Division of Public Health (WIC Program; Nutrition Consultant)
Jim Liles	NC Division of Community Assistance (former HUD grantee; Housing Rehab Specialist)
Kimly Blount	NC CLPPP (Field Supervisor)
Dr. Marie Lynn Miranda	Duke University (Children's Environmental Health Initiative Director)
Dr. Dale Newton	NC Pediatric Society (Representative)
Ed Norman	NC CLPPP (Program Manager)
Darryl Frazier	Division of Medical Assistance (Medicaid; Consultant)
Holli Poole	Division of Child Development (day care licensing agency; Child Day Care Specialist)
Stacy Poston	City of Durham's Housing program (HUD grantee; Clean City Division Manager)
Sonja Remington	Environmental Health Section / NC Public Health Association
David Rust	NC Association of Local Health Directors (Burke County Health Department Director)
Lorisa Seibel	Durham Affordable Housing Coalition (Community Organizer/ Campaign for Decent Housing)
Lou Turner	State Laboratory of Public Health (Director)
Tom Vitaglione	NC Child Advocacy Institute (Fellow)
Tena Ward	NC CLPPP (Data Manager)
Debra Yarbrough	Craven County Health Department (subgrantee; Craven Co. CLPPP Director)

There were eight meetings of the work group with representation from most partners at each meeting and an average attendance of 18 individuals. With good participation at each meeting, the committee has been eager and productive in developing goals, objectives and activities that correlate to the mission, "To eliminate lead poisoning in North Carolina's children by 2010 through health and housing initiatives."

On August 28, 2003, the strategic planning committee determined at its first meeting that the plan would need to reflect collaboration between health- and housing-oriented organizations. The group felt strongly that there must be appropriate initiatives from each of these perspectives in order to effectively eliminate lead poisoning by 2010. Therefore, the group agreed to split into two subcommittees at each meeting to formulate both health and housing goals and objectives, a separation of tasks that hastened the process of developing the plan. One of the early issues the group discussed concerned the blood lead level used to determine "lead poisoning." The group adopted a target level of 10 µg/dL, although the current legal standard in North Carolina requiring environmental investigation and abatement is 20 µg/dL.

As the meetings progressed, the committee brainstormed on a variety of tools necessary for the strategic execution of the plan. Such tools included the use of Geographic Information Systems (GIS) to determine properties likely to pose lead hazards to children based on several parameters, including age of housing, dates of structural improvements, local prevalence of lead poisoning, and socio-economic status of occupants. As of 2009, the

Children’s Environmental Health Initiative at Duke University, Nicholas School of the Environment has completed GIS-based lead risk models for 27 of 43 counties with available data, including the largest population centers and those counties at highest risk (North Carolina hosts 100 counties). Another initiative suggested was to pursue tax credits (through state legislation) for property owners or tenants who eliminate or control lead hazards in older residential housing. It is important to note that the Children’s Environmental Health Branch (which houses the NC CLPPP) also coordinates activities for the Child Care Sanitation Program and the School Sanitation Program (as of July 1, 2006). Therefore, housing-oriented objectives and activities are applicable to initiatives involving child care centers and k-12 schools.

During its final meetings, the subcommittees finished developing and reviewed goals and objectives for the draft version of the Elimination Plan. The final draft was completed in July 2004 and disseminated by NC CLPPP and the State Health Director. Implementation of the plan began in July 2004 and by June 2005, the NC CLPPP staff began reporting to its partners and the CDC on the progress of the plan’s implementation. In January 2006, the Monitoring Subcommittee evaluated the plan’s progress and made revisions to the plan. The following is the revised strategic plan. Essential to the success of this plan will be the collaboration between NC CLPPP and other state and local health- and housing-related organizations mentioned.

In December 2008 members of the committee (listed below) determined that it would be valuable to add a Healthy Homes Transition goal to the Strategic Plan. The committee met and outlined the necessary objectives in order to guide the transition from lead programming to healthy homes programming. The committee also reviewed the existing three goals of the Plan and updated activities where appropriate.

<b>Representative</b>	<b>Organization/Affiliation</b>
Paula Cox	Guilford Co. Health Dept. (subgrantee; Senior Environmental Health Specialist of Guilford Co. CLPPP)
Amy MacDonald	UNC Chapel Hill, Institute for the Environment, and NC CLPPP (Grant Manager)
Neasha Bryant	UNC Chapel Hill, Institute for the Environment (Environmental Health Educator)
Chandra Lockley	Division of Medical Assistance, Health Check Program ( Managed Care Consultant)
Jeff Dellinger	DHHS Health Hazards Control Unit (EPA grantee; Industrial Hygiene Consultant)
Deborah Harris	NC CLPPP (Public Health Nursing Consultant)
Dr. Dale Newton	NC Pediatric Society (Representative)
Ed Norman	NC CLPPP (Program Manager)
Tena Ward	NC CLPPP (Data Manager)
Debra Yarbrough	Craven County Health Department (subgrantee; Craven Co. CLPPP Director)
Jeff Davis	Duke University, Children’s Environmental Health Initiative (Outreach Coordinator)

### **Evaluating the Plan**

Since January 2006, the N.C. Strategic Plan to Eliminate Childhood Lead Poisoning has been monitored, evaluated, and amended on an on-going basis to measure progress in its implementation, as evidenced in the Summary Page of this plan. The statewide Ad Hoc Lead Advisory Committee was given the authority and responsibility to monitor the Plan and to make recommendations to NC CLPPP. A monitoring subcommittee was selected to conduct periodic assessments of the Plan’s goals, objectives and specific activities and to make recommendations for amendments to

the Plan to the Ad Hoc Advisory Committee. The subcommittee has a good working knowledge of the content and intent of the elimination plan as most were members of the committee that developed the plan.

Typically, the subcommittee meets on a semi-annual basis, convening with the NC CLPPP program manager and appropriate staff. The subcommittee makes written and verbal reports to the Ad Hoc Advisory Committee at quarterly meetings after which recommendations will be made to NC CLPPP staff. It is the responsibility of NC CLPPP to ensure that the recommendations regarding the activities are incorporated into the elimination plan, completed, amended or deleted as appropriate. NC CLPPP staff provides annual reports to the CDC of progress towards elimination and any subsequent changes to the plan.

For consistency in evaluating each activity, the subcommittee asks standard questions of the NC CLPPP staff. At a minimum, at each meeting, the following elements are considered for each activity in the plan. However, the Subcommittee has the discretion to establish additional methodologies and procedures to monitor the plan's success.

What are the accomplishments for this activity?

Did you meet the timeline for this activity?

If not, explain why.

Which stakeholders/community partners did you use in this activity?

Were there other partners you hoped to use?

Have each of the elements of this activity been accomplished?

What prevented the program from successfully accomplishing this activity?

What are your plans for expanding, continuing, or completing this activity?

## N.C. STRATEGIC PLAN TO ELIMINATE CHILDHOOD LEAD POISONING

### Mission:

To eliminate lead poisoning in North Carolina's children by 2010 through health and housing initiatives.

### Health Goal

To assure that each at-risk child is tested at ages 1 and 2 (or on first entry to the health system under age 6), that the prevalence of elevated blood lead levels of 10 µg/dL or above among 1- and 2-year-olds is reduced to less than one-half percent by 2010, and that all children with blood lead levels of 10 µg/dL or above receive appropriate follow-up care.

**Health-01 Objective 1:** To enhance the participation of health care providers in the provision of blood lead testing and appropriate follow-up care.

### Activities:

- North Carolina Childhood Lead Poisoning Prevention Program (NC CLPPP) will conduct the following:

**Health-01-01:** Develop a collaborative partnership with Carolina Access, a statewide network of providers that serve essentially all children on Medicaid and almost all other children as well, to establish a "report card" system to make Medicaid providers accountable for testing their patients. **Measure: Distribution of report card to all Medicaid providers in North Carolina. Contacts: Tim Whitmire, Tena Ward, Dale Newton, Darryl Frazier, Tom Vitaglione. Deadline Date: December 31, 2007.**

**Health-01-02:** Update the *NC Childhood Lead Testing and Follow-Up Manual* in various user-friendly formats (both hard copy and electronic) for health care providers. **Measure: Updated NC Childhood Lead Testing and Follow-Up Manual. Contacts: Deborah Harris, Darryl Frazier, Kathy Lamb. Deadline: December 31, 2005/Ongoing.**

**Health-01-03:** Request that the Medicaid program develop a billing code for lead testing (separate from the overall EPSDT / Health Check billing procedure) to create greater awareness of and accountability for this procedure among providers. Medicaid will also be asked to deny payment for Health Check services provided when the lead testing code is not also indicated (as is the case for testing tests for vision and hearing).

**Measure: Separate billing code established for lead testing. Contact: Darryl Frazier. Start Date: January 1, 2006. Deadline Date: Ongoing.**

**Health-01-04:** Collaborate with the state Department of Health and Human Services (DHHS) and the NC Pediatric Society in the development of a model checklist for use by providers as a reminder of what procedures, such as blood lead testing, should be provided at specific visits. **Measure: Checklist available for providers. Contacts: Deborah Harris, Dr. Dale Newton, Darryl Frazier. Start Date: January 1, 2006. Deadline Date: December 31, 2006.**

**Health-01-05:** Develop and improve a monitoring system in conjunction with Carolina Access and Medicaid that alerts providers when testing is due, when testings have been missed, and when follow-up care is required. In

addition, surveillance reports will be sent by NC CLPPP periodically to all providers indicating the prevalence of elevated blood lead levels within individual practices, counties, and statewide. **Measure: Computerized, automated monitoring system in use that alerts providers when testings are due, missed, or follow-up care is indicated and sends providers quarterly listings of children with elevated blood lead levels, and periodic prevalence reports.** **Contacts: Tena Ward, Terry Hogg, Darryl Frazier, Tim Whitmire.** **Start Date: January 1, 2006. Deadline Date: December 31, 2007.**

**Health-02 Objective 2: To raise the level of awareness regarding childhood lead poisoning among health care providers and the public.**

Activities:

- NC CLPPP will conduct the following:

**Health-02-01:** Enlist the expertise of the UNC Institute of Public Health to develop a promotional and educational campaign to raise awareness of childhood lead poisoning. The campaign will contain the following elements: *October 1, 2004* **Measure: MOA between NC CLPPP and UNC Institute of Public Health for a promotional and educational campaign to raise awareness of childhood lead poisoning.** **Contacts: \*\*\*\*\***, Neasha Bryant, Mike Newton-Ward, Debra Yarbrough, Paula Weston-Cox. **Start Date: October 1, 2004.**

- Develop PSAs for major Hispanic news media. **Measure: Two public figures providing lead awareness PSAs in major news media.** **Contacts: Tom Ward, Terry Pennington, Jalil Isa, IPH staff.** **Start Date: June 1, 2005.**
- A slogan will be developed as a unifying theme for the various aspects of the campaign through means of a statewide contest among school children, using professional advertising agencies, or using marketing and advertising students at a local university. **Measure: Catchy slogan adopted and accepted by NC CLPPP.** **Contacts: Kristin Joyner.** **Start Date: January 1, 2005.**
- A promotional campaign will be carried out to include mass media approaches (some of which will be focused on particular target groups, such as Latinos), brochures, videos, buttons, and the like for distribution through provider sites (including WIC), other service sites (such as child care facilities), as well as churches, libraries, and other locations. **Measure: At least two public service announcements, and one other promotional item developed and in distribution to target groups such as Latinos.** **Contacts: Contractor.** **Start Date: January 1, 2006. Deadline Date: December 31, 2006. Due to funding restrictions, the activity has been amended to target African American children and their families.**
- Develop "fact sheets" for distribution that will include a case study on the effects of lead poisoning on a particular child or family, a listing of the most common risk factors, and other topics. **Measure: Fact sheets developed.** **Contact: Contractor.** **Start Date: January 1, 2005.**

**Health-02-02:** Assist the State Health Director in outreach to relevant provider organizations (e.g., NC Pediatric Society; NC Academy of Family Physicians; Local Health Directors' Association) through direct mailings to organization members, as well as writing articles for the organizations' publications and web sites. **Measure: One direct mailing to relevant provider organizations and two articles published in appropriate**

professional publications. **Contacts:** Dr. Dale Newton, Dr. Marie Lynn Miranda. **Start Date:** July 1, 2005/Ongoing.

**Health-02-03:** Although outreach will be conducted on a statewide level, initially, emphasis will be placed on awareness efforts in areas designated as high-risk by the Geographical Information Systems (GIS) lead risk model approach to shift from testing children to screening houses. **Measure:** Using the Duke GIS model, identify at least 10 high-risk areas with lead hazards and begin to focus awareness efforts in these areas. **Contact:** Dr. Marie Lynn Miranda. **Start Date:** January 1, 2005/Ongoing.

**Health-02-04:** Ask the *News & Observer* and other major news media in the state to do a special series on lead, perhaps featuring local parents of poisoned children as the focal point. **Measure:** Article or series published by *News and Observer* or other major mass media focusing on the impact of a poisoned child in a North Carolina family. **Contact:** Amy MacDonald. **Start Date:** January 1, 2005/Ongoing.

**Health-02-05:** Use the Univision television network to reach Hispanic populations. **Measure:** Program on Univision focusing on lead poisoning issues in the Latino community. **Contact:** Amy MacDonald, Susan Perez-Travers. **Start Date:** October 1, 2004/Ongoing.

**Health-03 Objective 3:** To solicit the assistance of state and community organizations and programs in encouraging families to have their children tested for lead.

Activities:

**Health-03-01:** The NC CLPPP CDC Public Health Prevention Specialist (PHPS) will research the outreach activities of other states in this regard. With assistance from the PHPS, NC CLPPP will develop a plan to enlist other state agencies and community organizations and programs in the effort to reach families with information regarding lead poisoning and the importance of testing. These programs and organizations will include at least the following: Health Choice (Children's Health Insurance Program); Healthy Start Foundation; NC Child Advocacy Institute; League of Women Voters: Covenant with NC's Children; Junior League of NC; Head Start. **Measure:** Survey every state to learn of innovative means of doing outreach activities. Develop a working relationship and written plan with each organization listed above to increase awareness of importance of testing. **Contacts:** Kelly Jensen, Tom Vitaglione. **Start Date:** October 1, 2004.

**Health-03-02:** A special effort will be made to collaborate with the Division of Child Development and Smart Start, which can reach child care providers statewide. Smart Start will be encouraged to make county-based lead Medicaid testing rates an important indicator in the program's Performance-Based Incentive System. In addition, the incorporation of lead-safe environment performance indicators in the licensing agency's "Star System" of licensure will be explored. **Measure:** Written MOA between NC CLPPP and the Division of Child Development and Smart Start to use county-based lead testing rates as an indicator for the Performance-Based Incentive System. **Contacts:** Ed Norman, Anna Carter, Smart Start Staff. **Start Date:** October 1, 2007. **Deadline Date:** December 31, 2010.

**Health-03-03:** Petition the Child Day Care Commission for rules to incorporate lead-safe environment performance indicators into the Star System of certification. **Measure:** Rules adopted by the Commission. **Contacts:** Holli Poole, Ed Norman. **Start Date:** January 1, 2007.



**Health-04 Objective 4: To acquire resources for the achievement of the Elimination Plan Goals and Objectives. Contacts: Holli Poole, Ed Norman**

Activities:

- NC CLPPP will conduct the following:

**Health-04-01:** Research and apply for grant-related sources of funding. **Measure: Three applications submitted to potential funding agencies and one funded. Contacts: Amy MacDonald, Dr. Marie Lynn Miranda. Start Date: July 1, 2005/Ongoing.**

**Health-04-02:** Request additional funding from the CDC. **Measure: Apply to CDC for additional funding through special request. Contacts: Ed Norman, Amy MacDonald. Start Date: March 1, 2004/Ongoing.**

**Health-04-03:** Utilize resources available through collaboration with other agencies to conduct educational and marketing initiatives. Such organizations may include the Division of Community Development (NC Department of Commerce), the Division of Child Development, WIC Program, NC Housing Finance Agency, UNC Institute for Public Health, and the NC Cooperative Extension Service. **Measure: Collaborate each agency listed to provide educational information relevant to childhood lead poisoning and to determine potential funding opportunities and in-kind support. Contacts: Anna Carter, Sandy Wiggins, Amy MacDonald, Jeff Dellinger. Start Date: July 1, 2005/Ongoing.**

**Health-04-04:** Seek funding and/or resources from businesses such as Lowes, Home Depot, DuPont and the paint industry. **Measure: At least one agreement in place to fund specific lead-related initiatives or general activities. Get commitments from Lowes stores to initiate at least one project through the "Lowe's Heros" project. Contact: Amy MacDonald, Beverly Baldinger. Start Date: October 1, 2004/Ongoing.**

Housing Goal

To eliminate lead hazards from places where children live, play, and visit.

**Housing-01 Objective 1: To increase lead awareness among individuals and groups that can directly and indirectly affect housing conditions.**

Activities:

- NC CLPPP will conduct the following:

**Housing-01-01:** Continue efforts, such as statewide Leveraging the Federal Lead-Based Paint Disclosure Rule Project, to contact owners and tenants of properties with known lead hazards to make them aware of federal disclosure requirements. NCCLPPP will report repeat violators to HUD and the EPA. **Measure: Finalize work in the seven targeted counties and begin work in an additional seven counties. Report repeat violators to HUD and EPA. Contacts: Amy MacDonald, Michael Rhodes, Alliance for Healthy Homes. Start Date: July 1, 2004/Ongoing.**

**Housing-01-02:** Ask health educators in local health departments to include information about lead risks in homes in existing presentations to clients attending prenatal or parenting classes. **Measure: Contact with each local health department's health educator to request that existing presentations be amended to include information about lead risks and the disclosure law. Contacts: Deborah Harris, Local CLPPP's.**  
**Start Date: January 1, 2006/Ongoing.**

**Housing-01-03:** Provide information to the NC Home School Association, parochial and private schools, school nurses and to the state Parent Teacher Organization for its statewide newsletter for principals, school system superintendents, PTA presidents, and Pre-Kindergarten programs and offer to make presentations to local school parent-teacher organizations about lead hazards in homes, child care centers and schools. NC CLPPP will also encourage local environmental health specialists to make similar presentations to these and other groups. NC CLPPP will also target home school associations and charter schools. **Measure: Distribution of materials to 100s of Parent Teacher Organizations. Contacts: Ed Norman, Amy MacDonald, John Kuchnia (DPI).**  
**Start Date: January 1, 2006/Ongoing. Deadline Date: December 31, 2006.**

**Housing-01-04:** Draft a bill on tax incentives to eliminate or control lead hazards in housing. In committee meetings concerning the bill, legislators will become aware of lead hazards and the federal disclosure law. Contractors, realtors, and building trade associations will also be involved in getting this legislation enacted and will become aware of lead hazards through this process. **Measure: Draft bill. Contacts: Ed Norman, Malcolm Blalock, Lorisa Siebel. Initial Start Date: January 1, 2005. Re-Submission Start Date: January 1, 2009. Deadline: June 30, 2009.**

**Housing-01-05:** Offer more classes teaching Lead-Safe Work Practices and transition to teaching appropriate EPA Renovation, Repair and Painting rule courses. **Measure: Five additional classes provided. Contacts: HUD Subgrantees, NC CLPPP staff. Start Date: July 1, 2005/Ongoing.**

**Housing-01-06A:** Provide utility companies with information on lead risks and the federal disclosure law for use in their newsletters to customers. **Measure: Distribute information on lead poisoning and the disclosure law to utilities with newsletters. Contacts: Amy MacDonald, Ed Norman, Dennis Salmen. Start Date: July 1, 2005/Ongoing.**

**Housing-01-06B:** Inserts for bills will be provided for companies that do not have newsletters. NC CLPPP will negotiate with utility companies and local tax assessors to distribute information on lead. GIS data collected at Duke University will be a useful tool in convincing these entities of the existence of lead in high-risk areas. **Measure: Distribute brochures on lead poisoning and the lead disclosure law to each major utility to include as inserts in utility bills. Contacts: Amy MacDonald, Ed Norman. Start Date: July 1, 2005/Ongoing.**

**Housing-01-07:** Contact Community Development Corporations, the North Carolina Association of Community Action Agencies, Housing Inspectors, NC Association of Realtors, statewide Building Code officials, and other such groups to make them more aware of lead issues. **Measure: Identify each state and local Community Development Corporation and the Association of Community Action Agencies and provide information on lead poisoning and the lead disclosure law. Contacts: Michael Handley, Amy MacDonald, Beverly Baldinger. Start Date: October 1, 2004/Ongoing.**

**Housing-01-08:** Identify meetings and conferences of local housing officials as a venue to make presentations on lead awareness and the federal disclosure law. **Measure: Contact appropriate housing groups and the**

Department of Insurance to identify meetings and conferences of local housing officials. Make presentations at each appropriate venue. **Contacts:** Division of Community Assistance staff, NC CLPPP field staff, Beverly Baldinger, Kimly Blount, NC CLPPP Subgrantees. **Start Date:** July 1, 2004/Ongoing.

**Housing-01-09:** NC CLPPP field staff will ask local environmental health staff to meet with local housing and building code officials to increase awareness of lead issues. If necessary, NC CLPPP staff will arrange and conduct meetings. **Measure:** Each REHS will contact every county within his or her jurisdiction and set a meeting with each housing and building code office to discuss lead poisoning and the lead disclosure law. **Contacts:** Kimly Blount, NC CLPPP Field Staff. **Start Date:** July 1, 2005/Ongoing.

**Housing-01-10:** NC CLPPP field staff work plans will be amended to include attending meetings with local housing and building code enforcement officials or assuring that the meetings are held. **Measure:** Amendment of the annual work plan of each REHS to include setting up meetings with local housing and building code office. **Contact:** Kimly Blount, NC CLPPP Field Staff, Ed Norman. **Start/Deadline Date:** May 31, 2004.

**Housing-01-11:** NC CLPPP field staff will meet with Section 8 housing quality inspectors to reinforce the need to enforce lead standards in Section 8 housing. **Measure:** Each REHS will contact every Section 8 program within his or her jurisdiction and plan for meetings and/or presentations on lead issues. **Contacts:** Debra Yarbrough, Kimly Blount, NC CLPPP field staff. **Start Date:** January 1, 2005/Ongoing.

**Housing-02 Objective 2:** To target properties with the highest potential of posing lead risks to children.

Activities:

- NC CLPPP will conduct the following:

**Housing-02-01:** In collaboration with the Duke University, Nicholas School of the Environment, NC CLPPP will use GIS-based lead risk models to identify houses at high risk for lead hazards. **Measure:** Expand current project by nine additional counties each year for two years to build upon the GIS model. Continue to expand the model to every county as funding is available. **Contact:** Marie Lynn Miranda. **Start/Deadline Date:** Ongoing.

**Housing-02-02:** Identify properties that have a history of multiple children with elevated blood lead levels and owners and property managers with repeated instances of non-disclosure of known lead hazards. **Measure:** Properties contributing to multiple exposures identified. Continue activities in Disclosure Rule Project for an additional nine counties each year (to build upon the GIS model). **Contacts:** Tena Ward, Marie Lynn Miranda. **Start/Deadline Date:** Ongoing.

**Housing-02-03:** Interview those who inspect properties for other regulatory purposes such as local environmental health specialists and housing code officials to identify potential properties with lead hazards. Ask local groups to use this information to prioritize their rehabilitation work. **Measure:** Using data from the GIS model, compile a prioritized list of structures in each county with suspected lead hazards and provide the list to the local environmental health and housing code offices with a request to review the list (to

determine if they are properties inspected by health and housing officials) and to adjust the GIS model. Contact: Marie Lynn Miranda. Start Date: January 1, 2005/ Ongoing.

**Housing-03 Objective 3:** To integrate the issues of lead hazard control and lead poisoning prevention into housing programs and policies.

Activities:

- NC CLPPP will conduct the following:

**Housing-03-01:** NC CLPPP will push for adoption of minimum housing code amendments, which addresses lead hazards, wherever it is lacking. **Measure: Draft a model minimum housing code amendments and distribute.** Contacts: Lorisa Seibel, Linda Block, Debra Yarbrough. Start Date: July 1, 2005/ Ongoing.

**Housing-03-02:** Work with the Division of Community Assistance, the Housing Finance Agency and the regional office of HUD to secure funding to reduce or eliminate lead hazards in properties inhabited by children. **Measure: Secure additional funding from the Division of Community Assistance, the Housing Finance Agency, and HUD.** Contacts: Michael Handley, Ed Norman, Beverly Baldinger. Start Date: July 1, 2005 and Ongoing.

**Housing-03-03:** Work with the five Entitlement cities and the remaining Entitlement counties to secure funding commitments for projects that address lead hazards in housing for children. **Measure: Commitments from five of the Entitlement cities and counties to increase funding for projects to address lead hazards.** Contacts: Michael Handley, Ed Norman. Start Date: July 1, 2006. Deadline Date: June 30, 2008.

**Housing-03-04:** Work with local and state historical preservation societies and groups to find innovative ways to maintain the historical significance of properties while reducing or eliminating lead hazards to children. **Measure: Develop a plan with the state historical preservation office to discuss innovative ways to maintain historical significance and reduce lead hazards. Distribute plan to local historical preservation societies.** Contacts: Alan Huneycutt, Lorisa Seibel. Start Date: July 1, 2005 and Ongoing.

**Housing-03-05:** Work with licensing boards of various professions involved in property issues to adopt policies to include training on lead hazards, lead-safe work practices and the EPA Renovation, Repair and Painting rule in their continuing education requirements. For some groups such as contractors, realtors, property casualty insurance inspectors, and home inspectors, it may be possible to require lead-safe work practices training as a requirement to maintain a license. **Measure: Draft a memorandum of understanding with each appropriate licensing board to request lead hazard and lead-safe work practices training provided to their licensees be acceptable for meeting requirements for continuing education by the board. Ask the licensing boards for contractors and home inspectors to make lead-safe training mandatory for their licensees.** Contacts: Amy MacDonald. Start Date: January 1, 2008. Deadline Date: December 31, 2008.

**Housing-03-06:** Work with local public housing agencies with Section 8 housing programs to require remediation in homes where children with persistent elevated blood lead levels (i.e., 15 µg/dL or greater) reside as required by federal regulations. **Measure: Draft a memorandum of agreement with local public housing agencies with Section 8 housing programs to share data on homes with lead hazards that require**

remediation. Work with at least five local public housing agencies on adoption of the MOA. Contacts: NC CLPPP staff. Start Date: January 1, 2006. Deadline Date: December 31, 2007.

**Housing-03-07:** Work with Community Development Corporations to target funding for projects that will eliminate or reduce lead hazards in housing with children and incorporate these policies as a requirement for funding. **Measure: Develop MOUs with at least five Community Development Corporations to target funding for properties with lead hazards.** Contacts: Michael Handley, Beverly Baldinger. Start Date: August 1, 2006 and Ongoing.

**Housing-03-08:** Work with the state associations of property managers and realtors to help push initiatives aimed at lead hazards, such as the HUD Lead Hazards Control Grant awarded to the state and a tax incentive legislation to eliminate or control lead hazards in homes. **Measure: Once the initiatives are implemented, meet with the state associations of property managers and realtors to solicit support for such initiatives.** Contacts: Ed Norman. Start Date: July 1, 2006. Deadline Date: December 31, 2009.

**Housing-03-09:** Work with public utilities to provide funding for projects that eliminate or control lead hazards to children. **Meet with Duke Energy and Progress Energy officials to discuss the possibility of their providing lead remediation funding (low-interest loans) for customers who have property with identified lead hazards.** Contacts: Beverly Baldinger, Mike Handley. Start Date: January 1, 2006 and Ongoing. *The Elimination Plan Monitoring Committee is reviewing the feasibility of this activity.*

**Housing-03-10:** Once property owners are identified who are not in compliance with the federal disclosure law, NC CLPPP will ask governmental agencies that fund housing projects to not provide such funding until an applicant is in compliance. **Measure: Using information from the Lead Disclosure Rule Project, request federal funding be withheld from each repeat violator of the lead disclosure law until there is sufficient evidence of compliance.** Contacts: Amy MacDonald. Start Date: July 1, 2005 and Ongoing.

**Housing-04 Objective 4:** To make training available on how to eliminate or control lead hazards to children

Activities:

- NC CLPPP will conduct the following:

**Housing-04-01:** Work with the University System to develop lead-related training that utilizes this system where possible. **Measure: Negotiate for a MOA with appropriate officials within the North Carolina University System to provide lead-related courses to students and workers.** Contacts: Alan Huneycutt, Amy MacDonald, NC CLPPP Staff. Start Date: July 1, 2005 and Ongoing.

**Housing-04-02:** Work with the Community College System to provide courses on lead-related issues. **Measure: Negotiate for a MOA with appropriate officials within the Community College System to provide lead-safe work practices training for workers and students.** Contacts: Alan Huneycutt, Amy MacDonald, Local CLPPPs. Start Date: July 1, 2005 and Ongoing.

**Housing-04-03:** Work with the North Carolina Association of Home Inspectors to provide training on identifying and reporting lead hazards. **Measure: Develop a MOA with leadership of the North Carolina Association of Home Inspectors to offer 5 training sessions for their membership across the state to aid in identifying**

and reporting lead hazards. **Contacts:** Amy MacDonald, Jeff Dellinger. **Start Date:** January 1, 2006. **Deadline Date:** June 30, 2008/Ongoing.

**Housing-04-04:** Collaborate with the DHHS Health Hazards Control Unit to develop lead-related training geared towards contractors and realtors, including appropriate courses for the EPA Renovation, Repair and Painting rule. **Measure:** Host meetings with the DHHS Health Hazards Control Unit to discuss the lead-related training needs of contractors and realtors and to work towards filling those needs. **Contacts:** Kimly Blount, Jeff Dellinger, Don Chaney. **Start Date:** January 1, 2006 and Ongoing.

**Housing-04-05:** Become an accredited provider of certification courses so that more training opportunities are available in rural areas and for smaller groups. **Measure:** Identify a Training Manager and Chief Instructor for the NC CLPPP to become accredited as trainers. By January 2007, become an accredited trainer. **Contacts:** Beverly Baldinger. **Start Date:** July 1, 2004. **Deadline Date:** January 1, 2010.

**Housing-04-06:** Work to require contractors to get trained in Lead-Safe Work Practices in order to bid on projects in older housing. **Measure:** Meet with state and local groups such as local CDBG housing programs to change the requirements for bidding on projects in older housing. **Contacts:** Ed Norman, Amy MacDonald, Alan Huneycutt, Beverly Baldinger. **Start Date:** July 1, 2005/Ongoing.

**Housing-04-07:** For professions that have a requirement to obtain continuing education (e.g., child care providers, environmental attorneys, and building trades), NC CLPPP will submit training course agenda on lead hazards for approval to the accrediting organization. Once approved, NC CLPPP will reach out to provide the training as needed. **Measure:** Develop and present a proposal for making lead-related courses eligible for continuing education requirements of professional associations and licensing boards. **Contacts:** NC CLPPP Field Staff, Local CLPPPs, Deborah Harris. **Start Date:** Ongoing.

**Housing-05 Objective 5:** To seek funding to eliminate lead exposure in children.

Activities:

- NC CLPPP will conduct the following:

**Housing-05-01:** Prepare legislation for tax credits as an incentive to eliminate or control lead hazards from places where children live. Since some property owners and tenants cannot benefit from tax credits if they do not owe taxes, the proposed legislation will appropriate \$5,000,000 for grants to aid low-income property owners and tenants in addressing lead hazards to children. The funding would be tiered similar to legislation adopted in Massachusetts so that more credit or money is available for permanent remediation (abatement) projects and less is available for maintenance (interim control) projects. **Measure:** Draft legislation prepared. **Contacts:** Malcolm Blalock, Ed Norman. **Initial Submission Start Date:** January 1, 2005. **Re-Submission Start Date:** January 1, 2009. **Deadline:** June 30, 2009.

**Housing-05-02:** Work with the North Carolina Housing Finance Agency to increase the level of federal HOME (Home Investment Partnerships Program) funding for projects that eliminate or control lead hazards to children. **Measure:** Coordinate/ Develop a MOA with officials from the North Carolina Housing Finance Agency to increase funding for lead hazard control projects. **Contacts:** Michael Handley, Ed Norman. **Start Date:** July 1, 2005 and Ongoing.

**Housing-05-03:** Work the Division of Community Assistance to use Community Development Block Grant funds for projects that eliminate or control lead hazards to children. **Measure: Develop and present a proposal to officials from the Division of Community Assistance to increase Community Development Block Grant funds for lead hazard control projects.** **Contacts: Jim Liles, Ed Norman.** **Start Date: January 1, 2006 and Ongoing.**

### Information Infrastructure and Tracking Goal

To develop comprehensive databases, models, and tracking systems to support lead elimination activities related to both health and housing.

**Information-01 Objective 1.** To build relevant baseline databases on the spatial distribution of young children and their exposure to lead.

#### Activities:

Some work under this goal may be restricted, due to a recent decrease in funding. In collaboration with the Children's Environmental Health Initiative, NC CLPPP will:

**Information-01-01:** Work with the North Carolina Registrar's Office to obtain short form birth certificate data and manage it in a GIS-based system. **Measure: Acquire most recent short form birth certificate data every 12 months.** **Contacts: Marie Lynn Miranda.** **Start/Deadline Date: Ongoing.**

**Information-01-02:** Compile blood lead data in flexible format so that it can be linked to and compared with the short form birth certificate data in a GIS at the zip code level. **Measure: Include a unique field in the blood lead database that is also present in the short form birth certificate database.** **Contacts: Marie Lynn Miranda, Tena Ward.** **Start/Deadline Date: Ongoing.**

**Information-01-03:** Spatially map concentration of children born versus concentration of children tested to support the ongoing refinement of lead testing strategies for the most vulnerable children. **Measure: Geocode newly acquired short form birth certificate and blood lead testing data.** **Contacts: Marie Lynn Miranda, Tena Ward, David Brown.** **Start/Deadline Date: Ongoing.**

**Information 02 Objective 2.** To build relevant baseline databases on the spatial distribution of housing that is likely to contain lead hazards.

#### Activities:

- In collaboration with the, Children's Environmental Health Initiative, NC CLPPP will:

**Information-02-01:** Contact North Carolina County Tax Offices to ascertain the quality and availability of tax parcel databases, and verify the inclusion of particularly relevant data such as year built and property address. **Measure: Acquire available county tax parcel databases and keep a record of those that are not available.** **Contacts: Marie Lynn Miranda, Tena Ward.** **Start/Deadline Date: Ongoing.**

**Information-02-02:** Provide IT support to track and follow-up children with elevated blood lead levels. **Measure: Update and maintain a database of the locations of environmental investigations conducted in response**

to children with elevated blood lead levels. **Contacts:** Marie Lynn Miranda, Tena Ward. **Start/Deadline Date:** Ongoing.

**Information-02-03:** Work with the Division of Child Development to begin tracking the year of construction in the existing database of licensed children care facilities. **Measure:** Incorporate “year built” in licensure application process. **Contacts:** Marie Lynn Miranda, Beverly Moore, Talytha Moore. **Start Date:** January 1, 2005.

**Information-02-04:** Identify other properties (playgrounds, etc.) with known lead hazards. **Measure:** Contact US EPA and the Division of Waste Management to request information on sites with known lead hazards where children may be in close proximity. **Contacts:** Marie Lynn Miranda. **Start Date:** March 1, 2006/ Ongoing.

**Information-03 Objective 3.** To build models for as many NC counties as possible that combine databases described in Objectives 1 and 2 to identify where preventive housing and health programs are most needed.

Activities:

- In collaboration with the Children’s Environmental Health Initiative, NC CLPPP will:  
**Information-03-01:** Use GIS applications and spatial statistics to parameterize county models that characterize houses according to the predicted risk they pose for containing biologically available lead. **Measure:** Expand current project by nine additional counties each year for the next two years. **Contacts:** Marie Lynn Miranda. **Start/Deadline Date:** Ongoing.

**Information-03-02:** Combine city and county GIS models of other data relevant to elimination of lead poisoning. Overlay birth certificate data on the county models to determine the locations of children under 6 in relation to high-risk areas. **Measure:** Overlay birth data for nine county models each year for the next 2 years. **Contacts:** Marie Lynn Miranda. **Start/Deadline Date:** Ongoing.

Healthy Homes Transition Goal

To strengthen initiatives throughout North Carolina that improve the quality of housing, so that children’s overall environmental health is protected.

**Objective 1.** Train health and housing staff and develop an infrastructure to conduct healthy homes assessments.

Activities:

- North Carolina Childhood Lead Poisoning Prevention Program (NC CLPPP) will conduct the following:

**Healthy Homes 01-01:** Establish a North Carolina training center to provide the “Essentials of Healthy Homes Practitioners” Training Course designed by the National Center for Healthy Housing. **Measure:** To have 5 NC CLPPP and local CLPPP employees trained and prepared to be healthy homes trainers and establish a North Carolina a training center. **Contacts:** Sandy Wiggins, Amy MacDonald. **Start date:** November 1, 2008. **Deadline date for trained staff:** December 31, 2009.



**Healthy Homes 01-02:** Participate in the “Healthy Homes for Community Health Workers” Training Course designed by the National Center for Healthy Housing course upon development. **Measure: To have 10 NC CLPPP and local CLPPP employees trained and prepared to incorporate the Healthy Homes Healthy Homes for Community Health Workers components in the North Carolina Healthy Homes Training Center courses.** **Contacts: Amy MacDonald.** **Start date: To be determined upon completion of the course’s development.**

**Objective 2. Recruit partners and allies to enhance healthy homes trainings and services.**

- NC CLPPP will conduct the following:

**Healthy Homes 02-01:** Develop a marketing presentation to be utilized by the NC Healthy Homes Outreach Task Force (HHOTF) and presented to prospective partners and funders to build program support and participation. **Measure: Give the presentation to a minimum of 10 prospective partners (or at 10 events, meetings or programs).** **Contacts/Presenters: Amy MacDonald, Ed Norman, Debra Yarbrough, NC HHOTF members.** **Deadline: December 31, 2009. Ongoing.**

**Healthy Homes 02-02:** Collaborate with state and local housing and building code agencies to expand the membership of the Healthy Homes Outreach Task Force. **Measure: Add state and local agencies from all 100 counties to the invitations for NC HHOTF meetings.** **Deadline: March 1, 2009.** **Measure: Add at least two representatives of state and local housing and building code organizations as active members of the NC HHOTF.** **Contacts: Ed Norman, Amy MacDonald, NC HHOTF members.** **Deadline: December 31, 2009.**

**Objective 3. Develop educational outreach materials aimed at educating the general public about the connection between health and housing.**

- NC CLPPP will conduct the following:

**Healthy Homes 03-01:** Develop and maintain an NC Healthy Homes website. **Measure: Launch the NC Healthy Homes website.** **Contacts: Paula Cox, Amy MacDonald, Jan Jackson, Colleen Puceta** **Deadline date: October 1, 2009. Ongoing (maintenance of website).**

**Healthy Homes 03-02:** Develop a state and local resource guide to provide appropriate information for North Carolina residents seeking services and advice related to housing conditions that could negatively impact human health. **Measure: Develop hard copy and online access (on the NC Healthy Homes website) to the resource guide.** **Contacts: Amy MacDonald, Paula Cox.** **Deadline: August 31, 2009.**

**Healthy Homes 03-03:** Develop and pilot written NC healthy homes educational materials in English and Spanish for distribution to the general public. **Measure: Pilot effectiveness of educational materials with at least 4 focus groups and/or home assessments.** **Contacts: Amy MacDonald, NC CLPPP and local CLPPP staff.**  
**Deadline: July 1, 2009.**

**Objective 4. Develop and implement a healthy homes assessment tool and data management system.**

- NC CLPPP will conduct the following:

***Healthy Homes 04-01:*** Pilot a healthy homes assessment form/tool to determine its effectiveness in identifying hazards in homes, child care centers and schools. **Measure: Conduct 20 assessments in pilot project and report data to NC CLPPP program coordinator. Contacts: Amy MacDonald, NC CLPPP and local CLPPP staff. Deadline: December 31, 2009.**

***Healthy Homes 04-02:*** Assess data collection needs, and research management systems that could serve as models for the NC system. **Measure: Make recommendation to NC CLPPP Manager, Ed Norman for a suggested data management system. Purchase and implement the system, pending funding availability. Contacts: Amy MacDonald, Tena Ward, Ed Norman. Deadline: December 31, 2009.**

**Objective 5. Track healthy homes activity and funding opportunities by CDC, EPA, HUD, other state agencies, and non-profit organizations.**

- NC CLPPP will conduct the following:

***Healthy Homes 05-01:*** Track healthy homes policy actions, needs and opportunities at the local, state, and federal levels. **Measure: Periodically report these federal activities to NC HHOTF members and other state and local health and housing agencies. Contacts: NC Healthy Homes Outreach Task Force Members. Deadline: Ongoing.**

***Healthy Homes 05-02:*** Track funding opportunities and apply for healthy homes funding. **Measure: Collaborate with at least one NC Healthy Homes Outreach Task Force member agency to apply for a healthy homes grant. Contact: Ed Norman, NC HHOTF members. Deadline: January 1, 2010.**

## **N.C. Strategic Plan to Eliminate Childhood Lead Poisoning Summary Sheet Updated January, 2009**

### **Health Goal Accomplishments**

Health-01-01: TASK PARTIALLY COMPLETED and ONGOING. In collaboration with the NC Medicaid Program, NC CLPPP is developing a "report card" system to inform health care providers of the progress they are making in assuring that all of their Medicaid recipients are being tested for lead poisoning at ages 1 and 2. The report card project was piloted in Guilford County in February of 2008. Report cards were mailed to 27 health care providers. Several providers requested names of children listed as not tested. Feedback from providers which included copies of laboratory reports for tested children helped determine that the methodology used was not giving adequate credit to health care providers. This resulted in a delay in distributing the report cards statewide. Several meetings and revisions to the algorithm were necessary to assure that providers receive credit due for appropriate testing of Medicaid children at ages 12 and 24 months. NC CLPPP is checking the data and plans to distribute the reports cards to health care providers statewide in February 2009.

Health-01-02: TASK PARTIALLY COMPLETED and ONGOING. August 2005. Additional revisions were made in March 2007 and March 2008.

Health-01-03: TASK PARTIALLY COMPLETED and ONGOING. NC CLPPP continues to support the efforts made by the federal Medicaid agency to increase the number of Medicaid recipients, including its efforts to make Medicaid providers accountable for testing children at the targeted ages of 1 and 2.

Health-01-04: TASK PARTIALLY COMPLETED and ONGOING. In collaboration with the NC Medicaid Program, NC CLPPP is developing a "report card" system to inform health care providers of the progress they are making in assuring that all of their Medicaid recipients are being tested for lead poisoning at ages 1 and 2. The report card is one method NC CLPPP anticipates success in making providers accountable for testing children, and the program and its partners will seek additional methods. The report cards were piloted in Guilford County in February, 2008. Several providers offered feedback which lead to a revised methodology and analysis. NC CLPPP plans to distribute the report cards statewide in February, 2009.

Health-01-05: TASKS PARTIALLY COMPLETED and ONGOING. The aforementioned "report card" will provide Medicaid providers with information needed to increase the number of Medicaid recipients being tested for lead exposure, including comparisons in testing among providers on a county, regional and statewide level. NC CLPPP projects the report cards will be distributed in February, 2009.

Additionally, Incorporation of Childhood Lead Surveillance as a module in NC EDSS will provide real-time notification to state and local health care providers when children are in need of diagnostic testing, clinical follow-up and environmental intervention. In addition, improved monitoring will notify providers when follow-up care for these children is past due.

Health-02-01: TASKS COMPLETED July and August 2005.  
Project was revised to promote awareness toward Hispanic families. Through a grant from NC DHHS Health Hazards Control Branch, NC CLPPP was able to print and distribute posters in English

and in Spanish with selected slogan for lobbies in clinics, doctors' offices and health departments. In June 2005, NC CLPPP revised the reader friendly Lead Poisoning Do's and Don'ts brochure in English and Spanish for wide distribution. Over 20,000 brochures distributed so far statewide. Although the project was supposed to be focused on African American outreach, there is currently no funding to continue this project.

Health-02-02: TASK COMPLETED January 2006 and Ongoing.  
NC CLPPP staff submitted articles for publication in the NC Child Care health and Safety Bulletin and NC DENR newsletters. Local and statewide news media coverage was sought for recognition of National Lead Poisoning Prevention Week and NC Lead Awareness Month in October 2005. Upon the detection of lead contaminated water in a number of NC towns (due to treatment systems), NC CLPPP worked with local health departments in distributed press releases and educational materials to residents of those towns. In 2007, NC CLPPP contributed to an article in Environmental Health Perspectives, aimed at examining how long it takes for a child's blood lead level to fall below 10µg/dL.

Health-02-03: TASK COMPLETED.  
The CEHI program at Duke has provided training to local health department and governmental staff, increasing the number of counties in the model each year and providing information for local CLPPPs in detecting high-risk neighborhoods and communities for outreach efforts.

Health-02-04: TASK COMPLETED January 2006 (and Ongoing).  
Major news media in NC have been publicizing National Lead Poisoning Prevention Week and NC Lead Awareness Month. News & Observer has begun a series of articles on concerns of lead-contaminated water in city utility systems throughout the state, as well as the state's progress in studying and providing solutions for this issue. The Guilford County CLPPP is partnering with the Greensboro New & Record to promote public awareness campaign called "The Poisoned Legacy" to push for stricter laws addressing lead issues and to increase awareness.

In August 2006, a statewide recall was issued by the NC Library System, warning parents against lead-tainted toys distributed as part of a national summer reading program. Approximately 12,000 toys were distributed in North Carolina. NC CLPPP assisted in the development of that press release and provided additional guidance to local health department officials and parents.

The Mattel toy recalls in summer 2007 have caused the NC and local media to provide additional coverage on lead poisoning among constituents, including formal press releases distributed jointly by the NC Department of Health and Human Services and NC Department of Environment and Natural Resources (the department that houses NC CLPPP). NC CLPPP staff and local CLPPP's conducted outreach on toys throughout 2008, garnering media attention through toy-testing events and the testing of dinnerware and spices.

The CPSC Reform Act implementation generated media interest in January 2009. NC CLPPP provided background information on the new law to reporters and also fielded questions from thrift and consignment store owners affected by the law.

Health-02-05: TASK COMPLETED December 2005 and Ongoing.

NC CLPPP and Durham Affordable Housing Coalition now have permission from *Univision* to make copies of 2 lead-related interviews and distribute them to health providers for viewing in lobbies of clinics, health departments and doctors' offices. An initial 25 videos will be made to determine interest among health departments, clinics and doctors' offices in using the videos.

Due to NC CLPPP staff and Latino media staff turnover, there has been limited access to the Latino media. NC CLPPP will work with bilingual coordinators at UNC Asheville and at the Durham Affordable Housing Coalition to enhance participation among the Latino media.

- Health-03-01: TASK COMPLETED February 2005.  
The PHPS reported results of research among other states to statewide Ad Hoc and Hispanic Outreach Task Force groups.
- Health-03-03: TASK COMPLETED January 2006.  
NC Child Care Sanitation Rules and Grade Sheet were recently revised January 1, 2006. The grade sheet score (compiled by NC CLPPP field staff for each licensed child care center) now feeds into the Star System of certification.
- Health-04-01: TASK COMPLETED.  
As of January 2006, NC CLPPP has pursued a grant through the CDC to acquire the services of a Public Health Prevention Specialist. NC CLPPP is active in a partnership in the pursuit of resources to conduct a regional Alliance for Healthy Homes conference in this state. The Children's Environmental Health Initiative was recently awarded an NIEHS grant aimed at the built environment and children's environmental health.
- Health-04-02: TASK COMPLETED.  
NC CLPPP continues to pursue additional funding from the CDC in its annual lead poisoning prevention grant proposal. Additional funding to provide outreach funding for local CLPPPs was acquired for the Wayne/Wilson CLPPP since July 2005.
- Health-04-03: TASK COMPLETED December 2005.  
NC CLPPP and DHHS Health Hazards Control Unit have pursued several opportunities to print and distribute educational materials to health and housing industry entities. NC CLPPP has partnered with NC Cooperative Extension Service in providing lead-related training to local extension agents. NC CLPPP is a major partner in the NC DHHS Asthma Program's initiatives aimed at childhood asthma prevention, serving on steering committees and providing training and consultation to local asthma programs.
- Health-04-04: TASK COMPLETED.  
NC CLPPP has been able to get in-kind contributions from local Target, Sam's and Wal-Mart stores for "educational materials" for focus groups participating in the social marketing campaign aimed at Hispanic outreach. The Edgecombe County CLPPP (local health department) has had success in getting discounts and in-kind donations from local Lowe's and Home Depot stores for materials used in education and outreach to families in the Edgecombe/Nash County areas. The City of Durham has achieved "Mayor Grants" from DuPont. In June 2006, NC CLPPP submitted a proposal for \$3,000,000 HUD Lead Hazards Control grant.

## **Housing Goal Accomplishments**

Housing-01-01: TASK COMPLETED and ONGOING.

NC CLPPP has completed outreach to all 100 NC counties and is working on reducing the return rate for incorrect addresses.

Housing 01-02: TASK COMPLETED and ONGOING.

Health Educators include lead housing risks in existing presentations to clients attending prenatal or parenting class and are provided materials when requested.

Housing-01-03: TASK PARTIALLY COMPLETED and ONGOING.

Forsyth, Durham and Buncombe local CLPPPs have made presentations at PTA meetings, neighborhood organizations, pre-K testings, teacher/counselor professional development meetings and trainings, and meetings of school nurses. School Sanitation and Child Care Sanitation Rules (both of which include requirements regarding action that must be taken by schools, child care centers and Pre-K programs to prevent childhood lead exposure) are distributed to stakeholders mentioned in this objective.

Housing-01-04: TASK COMPLETED May 2005.

The bill was drafted and submitted to the NC Legislature on May 10, 2005 and a fiscal assessment was conducted to determine its budgetary feasibility. Although it was not passed through the legislature in 2005, NC CLPPP staff will continue to acquire stakeholder and legislative support so that it can be reintroduced into the General Assembly in January 2009. Due to the economic climate, it is unlikely that the General Assembly will take up this bill at this time. On the local level, both Guilford and Forsyth counties have had success in passing ordinances stronger than the state standard for action levels of blood lead tests for addressing lead hazards in the home (additionally, the ordinances both require universal lead testing).

Housing-01-05: TASK COMPLETED December 31, 2005 and ONGOING.

Over 300 students were taught in lead safe work practices courses in 2005, nearly double the usual number of students. In 2006, approximately 100 people attended the courses. NC CLPPP is experiencing a surge in workshop participants, due to the NC Department of Environment and Natural Resources' HUD Lead Hazards Control Grant Program and requirements regarding lead safe work practices instruction for its participants. The new EPA Renovation, Repair and Painting rule may alter the nature of these courses as the new rule is promulgated and implemented. NC CLPPP is partnering with the NC Health Hazards Control Unit to understand new regulations and provide appropriate training.

Housing-01-06: TASK COMPLETED December 2005.

Due to recent discoveries of lead-contaminated water systems, studies have been conducted in Durham, Goldsboro, Monroe, and Greenville to determine any widespread existence of elevated lead levels in municipal water systems. These studies have been conducted as a result of elevated blood lead levels among children being linked to contaminated water as the only possible source of lead exposure. Officials in Durham (Durham), Edgecombe (Rocky Mount) and Pitt (Greenville) Counties distributed warnings to residents through city water department billing notices.

Housing-01-07: TASK COMPLETED.

NC CLPPP provided an exhibit and educational materials for the PHRANC conference and additional materials for the NC DHHS Health Hazards Control Unit in its mailing to approximately 5,000 housing industry professionals. Additional materials have been distributed since January 2006 to over 100 professional sandblasters and over 400 power washers. Brochures and other educational materials were also distributed at the annual Triangle Apartment Association Conference. NC CLPPP is also applying to have its HUD-approved lead safe work practices course approved as a continuing education course for realtors by the NC Real Estate Commission.

Housing-01-08: TASK COMPLETED and ONGOING.

NC CLPPP has provided educational materials and an exhibit for a statewide meeting of realtors. UNC-Asheville, local CLPPP, conducts regular outreach to area realtors on lead hazards. NC CLPPP Preventive Maintenance Program Coordinator partnered with NC Legal Aid to make a presentation to a group of real estate attorneys. In summer 2006, statewide lead poisoning prevention coordinator and preventive maintenance program coordinator provided a workshop during the annual conference of the NC Association of Housing Code Officials. Through the HUD Lead Hazards Control Program, training was provided in summer 2007 for the Raleigh Housing Authority (Wake County) and the Durham Housing Agency (Durham County). Members of the Lead Ad Hoc Advisory Task Force participate in the Professional Housing Rehabilitation Association of North Carolina's annual conference and in 2007, gave presentations. While many efforts have been made to present at housing code conferences and meetings throughout 2008, this sector has, with a few exceptions, been unresponsive to our requests to give presentations on lead awareness.

Housing-01-09: TASK COMPLETED January 2006.

Field staff contacted housing agency representatives in all 100 counties, offering to present information on lead issues at meetings. An additional invitation was provided to housing officials to participate in NC CLPPP's regional educational meetings throughout the year. Field staff have conducted regional at least 3 regional meetings in 2006.

Housing-01-10: TASK COMPLETED on May 31, 2004.

All field staff work plans were amended to reflect commitment to meeting with local housing officials in each NC county.

Housing-01-11: TASK COMPLETED.

Field staff contacted Section 8 housing agency representatives in all 100 counties, offering to present information on lead issues at meetings. An additional invitation was provided to Section 8 housing officials to participate in NC CLPPP's regional educational meetings throughout the year.

Housing-02-01: TASK COMPLETED.

In 2004, the project was expanded to a total of 18 counties. Tax assessment data for an additional 17 counties is available and anticipated to be implemented in the GIS-based model in the coming year.

Housing-02-02: TASK PARTIALLY COMPLETED and ONGOING.

NC CLPPP has been reporting data to EPA on properties with a history of multiple EBLs, including recent submission of data on Lenoir County (a high-risk county). Incorporation of Childhood Lead in the NC Electronic Disease Surveillance System will improve the ability to capture more

comprehensive environmental data and provide better monitoring of environmental follow-up on properties.

Recently, the CDC requested that NC CLPPP and the CLPPP in New Jersey participate in a project requiring the distribution of data on Section 8 housing properties with multiple lead poisonings. This information on Section 8 housing in North Carolina will be significant because the 50 targeted counties with the requested information make up approximately 80% of the statewide population. NC CLPPP is waiting for instruction from the CDC to proceed with this project.

Housing-02-03: TASK COMPLETED and ONGOING.

This project will continue until Duke has been able to acquire data from all available county tax assessors to complete the model. In 2007, the Children's Environmental Health Initiative has sought to enhance its GIS capabilities regarding lead poisoning, and has acquired mobile GIS devices, allowing them to see the quality of neighborhood structures and to determine the probability of lead hazards existing in those properties.

Housing-03-01: TASK COMPLETED and ONGOING.

Durham County officials have passed amendments to its local housing code, strengthening efforts to eliminate lead hazards from residential properties. This success in amending local housing codes has become a model for other municipalities, and NC CLPPP anticipates increased attempts to amend other local housing codes in the near future.

Housing-03-02: TASK PARTIALLY COMPLETED.

The NC Housing Finance Agency manages the Urgent Repair Program (URP) and the LAP programs, through HUD funding, to provide assistance in making residential properties lead-safe. Additional funding will be pursued. In summer 2006, the NC Department of Environment and Natural Resources was awarded a HUD Lead Hazards Control Grant, enabling the Housing Finance Agency to provide assistance to 57 homeowners in repairing homes with lead hazards.

Housing-03-03: TASK PARTIALLY COMPLETED and ONGOING. NC CLPPP has completed housing rehabilitation in the Entitlement cities of Durham and High Point, using HUD Lead Hazards Control Grant funds. Additional funds will be available through the NC Housing Finance Agency for all other entitlement cities in North Carolina.

Housing-03-04: TASK COMPLETED and ONGOING.

NC CLPPP has used properties owned by the NC Historical Preservation Association for hands-on instruction in semi-annual Centralized Internship Trainings. The local LeadSafe Charlotte Program, through its HUD-funded Lead Hazards Control Grant, has made lead-safe repairs to windows of properties designated as historically significant properties. Agencies in Durham, through the city's Durham Preservation Program, are sponsoring workshops aimed at lead safe work practices and repairs for historically recognized properties. The Preservation North Carolina Program sponsors similar workshops for historically recognized properties.

Housing-03-05: TASK PARTIALLY COMPLETED and ONGOING.

NC CLPPP Staff currently provide and sponsor training for clinical professionals and for registered sanitarians, with approval from their licensing boards to provide continuing education credits through the programs trainings. In 2008 NC CLPPP explored how the EPA Renovation, Repair and Painting



(RR&P) rule will affect existing Lead Safe Work Practices training curriculum and outreach. NC CLPPP has registered to host a "Train the Trainer" course on the new RR & P rule in 2009, and will work proactively to ensure that professionals who disturb lead paint are in compliance with the new law.

- Housing-03-06: At the request of the CDC, NC CLPPP will participate in a national study analyzing multiple poisonings in Section 8 housing in half of its counties. NC CLPPP is awaiting CDC's implementation of the study to begin its contribution to the study.
- Housing-03-07: Funding through its HUD Lead Hazard Control Grant has enabled the NC Department of Environment and Natural Resources to collaborate with Community Development Corporations to target funding for projects to remove lead hazards from homes where children live.
- Housing-03-09: Through its HUD Lead Hazards Control Grant, North Carolina officials are collaborating with other agencies and with public utilities to implement weatherization strategies.
- Housing-03-10: TASK COMPLETED.  
Referrals are made to EPA and HUD regarding delinquent landlords. Additional data involving multiple EBLs is being submitted to EPA.
- Housing-04-01: TASK PARTIALLY COMPLETED and ONGOING.  
NC CLPPP partners annually with UNC School of Public Health to provide SOP training on lead and child care sanitation. Guilford and Forsyth County CLPPPs have partnered with UNC Greensboro and Winston-Salem State University to provide trainings to students enrolled in health-related programs at those universities. Guilford CLPPP as also partnered with UNC Greensboro to acquire the use of an intern for clinical and educational outreach initiatives. In 2008, NC CLPPP staff met with UNC-Chapel Hill environmental health staff regarding lead-based paint on campus and impacts on workers.  
The Children's Environmental Health Initiative at Duke University has acquired funding through a NIEHS grant for research and outreach in the area of the built environment.
- Housing-04-02: TASK PARTIALLY COMPLETED and ONGOING.  
Although no formal MOAs are in effect, the Buncombe/Henderson County CLPPP has provided lead-safe work practices trainings in partnership with Blue Ridge Community College and Asheville-Buncombe Technical Community College. NC CLPPP staff and Craven and Edgecombe County CLPPPs have provided trainings to students enrolled in health and child care related community college programs.
- Housing-04-03: Through the state's HUD Lead Hazard Control Grant Program, a type of "train the trainer" instruction was provided in September 2007 to health department and community organizations, such as PEACH and Durham Affordable Housing Coalition in targeted areas of North Carolina. NC CLPPP is exploring how it can leverage the new EPA Renovation, Repair and Painting rule in developing a training program with home inspectors, who have historically been difficult to reach.
- Housing-04-04: TASK PARTIALLY COMPLETED and ONGOING.  
NC CLPPP sponsors lead-related certification training for contractors and realtors bi-annually, in the areas of inspection, risk assessment, supervisor, and designer. The last training sponsored by NC

CLPPP was in August 2006. This training is approved by the Health Hazards Control Unit in the NC Department of Health and Human Services. Local CLPPP's Craven County and UNC-Asheville regularly conduct outreach to area realtors on lead hazards.

Housing-04-05: TASK PARTIALLY COMPLETED and ONGOING.

NC CLPPP is currently negotiating with a state approved training provider to contract certification training. Until more staff and money can be attributed toward this project, NC CLPPP is not able to acquire qualifications for becoming an accredited provider of certification courses. Through funds from the City of Durham's HUD Lead Hazards Control Grant, Durham CLPPP was able to sponsor Lead Worker and Supervisor Certification courses (contracted with Environmental Investigations, Inc. to teach them). The Craven CLPPP is qualified to teach worker training at Craven County Community College and anticipates providing at least one course in the next year. NC CLPPP is currently exploring how the new EPA Renovation, Repair and Painting rule will affect its ability to offer certified worker trainings.

Housing-04-06: TASK PARTIALLY COMPLETED.

Alamance County Health Department, the City of Greensboro Lead Hazards Control Program, Hertford County and the City of Fayetteville have partnered with NC CLPPP to provide lead safe work practices training for HUD-funded contractors. Under the state's HUD Lead Hazards Control Grant Program, contractors in targeted counties are required to attend HUD-approved lead safe work practices training. 90 unemployed or underemployed individuals will be trained through the HUD grant and the NC Home Builders Association. Because the curriculum for Lead Safe Work Practices is transitioning to the EPA Renovation, Repair and Painting (RR & P) curriculum, NC CLPPP is preparing for the changes by participating in an RR & P Train-the-Trainer course in late February, 2009.

Housing-04-07: TASK COMPLETED.

Edgecombe County Health Department has been approved by the NC DHHS Division of Child Development as a trainer for child care service employees' in-service training for CEU credits. Public health nursing consultant acquires CEU qualifications for nurses for annual clinical workshops. Regional NC CLPPP educational meetings qualify for RS credits for local environmental health specialists. Buncombe CLPPP partnered with Asheville Board of Realtors and other organizations to develop new ECO-Realtor certification program. The agency wrote the lead component for the training manual, offered interactive trainings sessions for 50 real estate agents and had the LSWP course approved as a certification elective. NC CLPPP staff provide bi-annual training for child care health consultants through collaboration with the NC Department of Environment and Natural Resources.

Housing-05-01: TASK COMPLETED and ONGOING.

The tax credit legislation was drafted and submitted to the legislature in May 2005. However, the above-mentioned grant for low-income property owners was rejected by the legislature and removed from the bill. This legislation will be reintroduced to the legislature in 2009, although with a tight budget forecasted for 2009-2010 it will be challenging to collect support.

Housing-05-02: TASK COMPLETED.

Although a MOA does not exist, the NC Housing Finance Agency submits a letter of intent to commit funding for projects to make properties lead-safe. HFA is also a partner in our HUD Lead Hazards Control Grant.

Housing-05-03: TASK COMPLETED and ONGOING.

Under its Community Development Block Grant, Wake County (in central North Carolina) has addressed the elimination or control of lead hazards in 15 single family houses.

### **Information Infrastructure and Tracking Goal Accomplishments**

- Information-01-01: TASK PARTIALLY COMPLETED and ONGOING. CEHI staff at Duke University is collaborating with the NC Center for Health Statistics to acquire birth certificate data to complete this project. CEHI continues to geocode blood lead screening data as well as birth certificate data. This process is ongoing as data becomes continually available. Any specific requests to investigate this data with the Children's Environmental Health Branch can be done for the geocoded data.
- Information-01-02: TASK PARTIALLY COMPLETED and ONGOING. CEHI staff at Duke University is collaborating with the NC Center for Health Statistics to acquire birth certificate data to complete this project.
- Information-01-03: TASK PARTIALLY COMPLETED and ONGOING. CEHI staff at Duke University is collaborating with the NC Center for Health Statistics to acquire birth certificate data to complete this project. CEHI continues to geocode blood lead screening data as well as birth certificate data. This process is ongoing as data becomes continually available. Any specific requests to investigate this data with the Children's Environmental Health Branch can be done for the geocoded data.
- Information-02-01: TASK COMPLETED AND ONGOING. This process is undertaken at least twice a year. Currently 83 counties in NC have some GIS data available. 43 of those have data sufficient to develop a lead exposure prevention model. 17 counties have no GIS data available.
- Information-02-02: TASK PARTIALLY COMPLETED and ONGOING. CEHI staff continues to provide IT support to state and local CLPPPs. CEHI continues development of the lead exposure prevention model. Currently CEHI has the necessary data for developing 43 county-level models. There are 27 lead models immediately available for counties in NC. For each of those counties a GIS database including Census 2000 socioeconomic data, TIGER or NCDOT road layers, and community resource data (schools, health care providers, and registered day care facilities) where it is available.
- Information-02-03: TASK PARTIALLY COMPLETED and ONGOING. CEHI is conducting an ongoing county-based project, in which the program is mapping child-care centers in the state. CEHI has mapped child care facilities for 27 counties in NC for which the lead exposure prevention model is immediately available. In some cases where registered day care facility data is not

available at the county-level CEHI will attempt to use City Directory data to provide locations of day care businesses.

- Information-02-04: TASK PARTIALLY COMPLETED and ONGOING. Through its GIS-based model, CEHI continues to research and provide information on detected potential sources of lead hazards where children may be present (such as child care centers and playgrounds). CEHI geocodes locations of environmental investigations upon request from the Children's Environmental Health Branch. This process only takes place with incoming data from the CEHB.
- Information-03-01: TASK COMPLETED and ONGOING. Currently CEHI has the necessary data for developing 43 county-level models. There are 27 lead models immediately available for counties in NC. The remaining 16 require some additional statistical analysis and processing of additional databases such as day care facilities, or schools.
- Information-03-02: TASK PARTIALLY COMPLETED. CEHI works regularly with interagency projects in Durham to address exposure to lead. CEHI works with interagency projects in Guilford County/Greensboro upon request. Currently there is not sufficient data to develop a statewide outreach contact clearinghouse. CEHI recommends developing a new proposal in the Healthy Homes Outreach Task Force that will utilize the spatial mapping capabilities of CEHI.

### **Healthy Homes Transition Goal Accomplishments**

- Healthy Homes-01-01: TASK COMPLETE December 31, 2009. All current NC DENR Environmental Health Specialists are trained and NEHA certified; all NC CLPPP subgrantee Environmental Health Specialists are trained. Four NC DENR and NC CLPPP staff serve as trainers of the Essentials for Healthy Homes Practitioners curriculum.
- Healthy Homes 01-02: TASK PARTIALLY COMPLETE December 17, 2010. UNC CH Institute for the Environment staff (Amy MacDonald and Neasha Graves) serve as trainers of the Community Health Worker curriculum. To date, they have trained six staff at the Kinston Community Health Center with several trainings scheduled in 2011.
- Healthy Homes 02-01: TASK COMPLETE AND ONGOING December 17, 2010. Staff have given the healthy homes marketing presentation to more than 10 state and local program partners. This task will continue through the funded period in anticipation of implementing a statewide healthy homes program.
- Healthy Homes 02-02: TASK PARTIALLY COMPLETE AND ONGOING December 17, 2010. The NC Healthy Homes Outreach Task Force has received housing code training and built new allies with NC Department of Insurance Engineering and Codes Office, as well as local code enforcement officers. This task will continue through the funded period in anticipation of implementing a statewide healthy homes program.

- Healthy Homes 03-01: TASK COMPLETE October, 2009. The [www.nchealthyhomes.com](http://www.nchealthyhomes.com) was developed in partnership with the Guilford County Health Department, UNC Institute for the Environment, Forsyth County Health Department, Durham County Health Department, and NC DENR. The site hosts a promotional topical information on lead, pesticides, home safety, and indoor air quality; our program's promotional video; blogs; frequently asked questions, and links to state resources.
- Healthy Homes 03-02: TASK PARTIALLY COMPLETE December 17, 2010. State resources have been developed in print and posted online. Local resource lists are limited to funded counties, but are in development.
- Healthy Homes 03-03: TASK COMPLETE October, 2010. Working with NC DENR graphic designers and UNC CH Institute for the Environment staff, healthy homes fact sheets, posters, magnets, and stickers have been developed and piloted.
- Healthy Homes 04-01: TASK COMPLETE December 17, 2010. This tool incorporates all identified CDC healthy homes data variables and was piloted by the Guilford County Health Department and Greensboro Housing Coalition throughout 2010. In designing this tool, the National Center for Healthy Housing and HUD checklist, Surgeon General's Healthy Homes checklist, and Asthma Regional Council checklist were consulted, and the UNC Odum Institute for Research in Social Science advised us on survey design.
- Healthy Homes 04-02: TASK COMPLETE December 17, 2010. NC CLPPP staff investigated optical scanning software, tablet computers, and expanding our current NC LEAD system to include healthy homes data. Expanding NC LEAD to incorporate healthy homes variables was recommended in order to comply with CDC electronic data reporting requirements and allow real-time access for all staff.
- Healthy Homes 05-01: TASK COMPLETE December 17, 2010. Healthy Homes Outreach Task Force members have received quarterly reports on federal policy movement, particularly the priorities of the National Center for Healthy Housing.
- Healthy Homes 05-02: TASK COMPLETE December 17, 2010. NC DENR applied to US HUD For Lead Hazard Control and Healthy Homes funds; Guilford County Health Department applied for HUD Technical Studies funds.

Completed January 21, 2005  
 Revised January 27, 2006  
 Revised July 14, 2006  
 Revised September 17, 2007  
 Revised January 27, 2009  
 Revised June 1, 2010  
 Revised December 17, 2010