

Translating Lead Primary Prevention into Healthy Homes

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Philadelphia's Transition from CLPPP to "Lead and Healthy Homes"

- In making this transition, Philadelphia has two advantages:
- 1. An existing, highly successful Lead Primary Prevention Program called "Lead Safe Babies".
- 2. An existing advisory body called the Lead Primary Prevention Task Force.

Philadelphia's Primary Prevention Program: Lead Safe Babies

- Voluntary program, targets expectant and new mothers and educates about lead, home safety and health issues.
- Screens housing for lead through dust wipes and connects families to HUD funded remediation or “Superclean” as needed.

What is a “Superclean”?

- A top-to-bottom cleaning of each room in the house, using a HEPA vacuum, wash, and HEPA Vacuum process.
- Has been shown to be effective at removing both lead dust and cockroach allergen.
- Works best combined with basic system repair and IPM.

Lead Safe Babies home visiting skills translate directly for Healthy Homes

- The same techniques to target and enroll expectant and new mothers can be used to target and enroll parents of children with poorly or uncontrolled asthma.
- Screening the home expands to include wipe samples for allergens and asthma triggers, radon, CO and other testing with appropriate training.
- Basic home environmental education and suggestions expand.

Lessons from the existing program that carry over:

- Expanding the home visit for more time with the client means decreasing the numbers.
- Every Family is Different – the home visitor should triage for not only the client's needs, but their concerns as well. Offer a check list of subjects and gauge the client's concerns.
- Arrive with a series of scripts; be prepared to put the client's concerns first.
- Survey existing clients and review local health statistics to determine needs/concerns.

Who would work best with your client?

- When possible, match the worker to the audience – and develop or obtain appropriate literature and educational materials.
- Many clients will work with and listen to a non-Government home visitor – be prepared to contract services, or use community volunteers.

What are the clients living conditions?

- Many young parents live with relatives, friends or in other situations where they have little control of their environment.
- Try to include the homeowner / leaseholder in the education and decisions.
- Sometimes, you have to take NO for an answer.

Connect the client to Real help or solutions

- HUD Healthy Homes or Demonstration Grant funded assistance with environmental hazards, or other resources.
- Take clients by the hand and lead them through the process as or when they may need the help.
- Develop feedback systems to gauge the clients satisfaction.

Lead Primary Prevention Task Force

- Advisory body created over 5 years ago to consult and assist with policy decisions about Primary Prevention of Lead Poisoning.
- Consists of stakeholders in child health advocacy, medical providers, insurers, housing, landlords, Law and tenant rights.

Structure

- Meets every other month and receives reports of primary prevention activities.
- Consulted for policy and procedural changes.
- Helped and advised with changes to Lead Safe Babies, Lead Safe Communities (Immigrant and refugee populations) and Healthy Homes for Foster Care Programs.

Transition to Healthy Homes Advisory Group

- Keep the same stakeholders as for lead
- Add representatives from asthma and indoor air quality – Clean Air Council, American Lung Association, major hospital asthma clinics, Health Promotion Council
- Radon, fire safety, injury control experts and stakeholders - EPA, PFD, seniors organizations.

Task the Advisory Group with creating the strategic plan for Healthy Homes

- Depend on their expertise
- But don't let them run away with their pet concerns.
- Have a CLPPP manager chair each subcommittee.
- Feed them.
- Give them several meetings in a short time frame.

Finalize the Strategic Plan with the whole advisory group

- Prioritize based on practical considerations such as availability of funding or resources.
- Implement the plan in sections as pilot activities on a staggered schedule.
- Continue to meet with the Advisory group 3 – 4 times per year and share concerns, barriers and successes.

Expect Change

- Flexibility in program operations is critical – if something isn't working, try suggested fixes, whether they come from the advisory group, or the community.
- Listen to the community being served.
- Serve the community of clients.



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Healthy Homes: Lead Elimination Program Improves Quality of Life

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Tennessee Lead Elimination Action Program (TN LEAP)

- TN LEAP has remediated over three hundred homes since 2006
- Lead-based paint hazard control in privately owned residential housing where children less than six years of age live, visit, or play
- We wanted to see what spillover effects the TN LEAP program may have on other home hazards
- National Science Foundation STEPping up Undergraduate Research at Middle Tennessee (STEP^{MT}) summer 2010

Survey

- 319 residencies consisting
- 265 post-remediation residencies
- 54 pre-remediation residencies
 - applicants completed the pre-remediation survey between December 2009 and April 2010, along with the other enrollment documents required for program participation.
- 36 post-remediation surveys were completed

Objective: Lead-based paint hazards in the homes were addressed through remediation

Spill Over Results:

- Poison hazards including not having the phone number of the poison control center or not having Syrup of Ipecac in the home were not substantially reduced.
- The percent of homes with eleven other safety hazards including electrical outlets and cords, latching or locked cabinets and drawers, or working smoke detectors also were not different between the pre- and post-remediation survey results.

Spill Over Results (Continued)

- Cleanliness and ventilation of the homes were improved with remediation.
- The percent of homes with rooms that had windows that did not open and with no inlet or exhaust vents for air was lower after remediation than among the pre-remediation homes.
- The percent of homes with dust, smell of mold, and visible insects and/or rodent droppings was also lower after remediation.

Results

- The percent of homes that had one or more occupants go to the emergency room for respiratory problems or headaches was lower after remediation than before remediation.



Healthy Homes Project: Lead Remediation



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TN LEAP Researchers: Dr. Kathy Mathis, Dr. Carol Boraiiko, Dr. Norman Weatherby, Faye Ralston, M.S., Glenn Hollandsworth, Jennifer Tweedie

Was Lead Remediation a factor in changing home-owners' subject regarding environmental hazards within their homes?

Lead Remediation is a process to reduce hazards identified by certified professionals and subsequent cleanup of the lead based in the home. Lead Remediation can be divided into two categories - Initial Control and Abatement. Initial Control is a temporary solution while Abatement is permanent.

The MT State University Lead Elimination Action Program (TN LEAP) has received three rounds of competitive funding awards from the HUD Office of Healthy Homes and Lead Hazard Control. The primary funding goal is to address lead poisoning prevention through lead-based paint hazard control in privately owned residential housing where children less than six years of age live, visit, or play. The first round of \$1,000,000 began October 1, 2008, the second round of \$1,000,000 began October 1, 2009 and the current round of \$1,000,000 began December 15, 2009 which is to be completed in December 2011.

Through analyzing Pre and Post Remediation surveys, we should be able to assess improvements in housing conditions.

Surveys were mailed to homes before and after remediation through TN LEAP funding. SPSS was used to analyze this data.

Through analysis, Pre-Remediation and Post-Remediation proved an overall improvement in housing conditions.

The significance of TN LEAP is to reduce health and safety hazards in housing in a comprehensive and cost-effective manner, with a particular focus on protecting the health of children and other at-risk populations in low-income households.

Through the STEP Process, we hope to determine if TN LEAP lead remediation participants recognize hazards that could pose health and safety threats.

The healthy homes campaign aims to be step with the USDO.

With President Clinton's Executive Order 13045, "Children's Environmental Health Risks and Safety Risks," children's environmental health issues received national attention.

The 3 Objectives of Healthy Homes Initiative (HHI).

1. Identification of homes where interventions would be appropriate.
2. Development of appropriate scales and risk assessment strategies;
3. Selection of effective strategies for reducing the remediation effort versus;
4. Development of local capacity to operate sustainable programs to prevent and control lead-based hazards in residences of low and very low-income families; and
5. Collaboration of stakeholders to address health threats related to exposure to lead.

RESEARCH QUESTION: What effect does improving homes through lead remediation have on environmental hazards in the homes?

HYPOTHESIS: The process of lead remediation results in cleaner, healthier homes.



Packets containing:

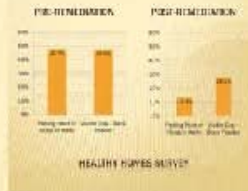
- Healthy Homes Survey
- A letter of information
- TN LEAP Magnet
- TN LEAP Sticker
- Business Reply Pre-Paid Envelope

We sent to 200 residences that had already received remediation by MT State University TN LEAP Grants. Surveys were adapted from a National U.S. City's Healthy Homes Survey and sent to selected homes before and after lead remediation. The population studied was a total of 919 different residences consisting of 200 post-remediation residences and 719 pre-remediation residences. Upon sending out 200 survey packets, 98 surveys were returned completed while 50 were returned as vacant. That brought our returned completed percentage to 10.5%. Also the data were input into Excel, then SPSS software was used to compare and analyze data between the pre-remediation period and the post-remediation period.

Results

Whether Peeling Paint or Holes in Walls

Pre-Remediation percentage of Peeling Paint or Holes in Walls was 47.0%, while Post-Remediation's percentage of Peeling Paint or Holes in Walls was 19.2%. Resulting Difference in Peeling Paint or Holes in Walls percentages was 28.4%. Pre-Remediation's percentage of Visible Gray - Black Powder was 47.5%, while Post-Remediation's percentage of Visible Gray - Black Powder was 23.1%. Resulting Difference in Visible Gray - Black Powder percentage was 19.4%.



Emergency Room Visits

Emergency Room visits changed drastically from the Pre-Remediation period to the Post-Remediation period. Respiratory Problems dropped 6.5% from the Pre-Remediation to the Post-Remediation period. Repetitive Headaches also dropped 5.5% from the Pre-Remediation to the Post-Remediation period.



Observation of the "10 Questions for a Safe Home" section

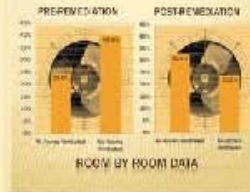
In observation of the "10 Questions for a Safe Home" section, Peeling Paint and Poison Hazards dropped immediately, while Other Hazards Detected percentage did not decrease. Peeling Paint percentages fell 24.2% while Poison Hazards dropped by 9.7%.



Results (Continued)

Whether Adequate Ventilation

Room by Room analysis indicated that Ventilation between Pre-Remediation and Post-Remediation improved. Rooms that were Ventilated went from 24% in Pre-Remediation to 32.4% in Post-Remediation. Rooms with NO Ventilation at all decreased from 40% to 29.5% which shows a positive outcome when the research.



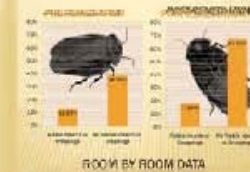
Whether Little or NO Dust

During Pre-Remediation analysis, the homes with Little or NO Dust was 34% and changed to 55.9% in Post-Remediation, which resulted in a 21.9% increase. Pre-Remediation analysis displayed 23% of the homes possessing moderate to heavy dust accumulation, while 20.8% of the homes in Post-Remediation were considered moderately to heavily dusty. The resulting decrease was a 7.4% decrease, signifying an improvement within the homes.



Whether signs of insects and droppings

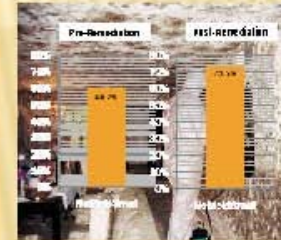
In the analysis of insect sightings and droppings, 12.2% of the homes in Pre-Remediation reported visible signs of insect droppings, while 17.8% reported no signs of insects and droppings in the Post-Remediation analysis. 33.5% of the homes reported no visible signs of insect droppings during the Pre-Remediation analysis, while 37.8% of the homes reported no signs of insects or droppings. The analysis resulted in a positive increase of 29.3% of the homes reporting no signs of insects or droppings.



Results (Continued)

Whether No Smoking

In Pre-Remediation 59.2% of the homes reported that they could not smoke inside when the residents, while in Post-Remediation, 93.5% of the homes reported not smoking inside.



In Conclusion: Summary of Improvements

Little Dust: From 34% to 55.9%

Adequate Ventilation: From 24% to 32.4%

No Visible Insects and Droppings: From 38.3% to 67.6%

No Peeling Paint or Holes in Walls: From 52.3% to 86.7%

No loose, chipping, or peeling paint: From 34.1% to 69%

Through analysis of the Pre-Remediation and Post-Remediation surveys, one may state that renovation resulted in continued improvements in housing conditions.

Conclusions

- This limited study supports the idea that a holistic approach to address health issues other than lead-based paint alone will achieve even greater positive results.
- Will likely improve the health and safety of more people, and ultimately reduce health care costs
- A holistic healthy home approach combined with an energy assessment/repair protocol will address health and energy efficiency simultaneously.

Conclusions

- This study suggests that intervention is a key element in property occupants' awareness of the importance of healthy home issues.
- Increasing counseling during remediation projects with more emphasis on health and safety may achieve quantifiable long-term results

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Executive Director



Healthy Kids Collaborative

- HKC was formed as a statewide lead safety initiative with the input and guidance of a commission of community leaders.
- HKC is to serve as a model for other cities and states as an integrated, cost-effective, and comprehensive approach to lead safety and remediation.
- HKC awarded \$1.33 million in grants in 2007 for outreach and education to six community-based organizations.
- HKC awarded \$6.7 million for lead hazard reduction to 600 low-income Rhode Island housing units in targeted inner-city communities.

CLEARCorps USA

COMMUNITY LEAD EDUCATION AND REDUCTION CORPS

- CCUSA is a national organization whose mission is to support low-income families by providing family-centered services to help them protect their children from lead poisoning and other environmental health threats.
- CCUSA was founded in 1995 as a public-private partnership to work with local communities to prevent childhood lead poisoning.
- CCUSA partners with local agencies (called Sites) across the country to provide funding and technical assistance to local organizations who are working to prevent childhood lead poisoning and to create healthy communities. CC Sites are leaders in their communities. They create and train teams of AmeriCorps members to become an integral resource to educate, screen, advocate, and remediate homes around lead and healthy homes issues.

SINCE 1995, CCUSA MEMBERS HAVE BEEN RESPONSIBLE FOR:

- Remediating 2,500 homes to lead-safe standards.
- Trained 360,776 community individuals.
- 94% of families who responded noted they were “better equipped to protect their children” after working with CCUSA.
- Numerous effective public/private partnerships.
- 5 sites working on changing city codes to make children and families safer from lead.
- Thousands of children screened for lead poisoning that had not been previously screened. In 2008, CCUSA directly screened over 2,000 children in Minnesota alone.

The Good, the Bad and the Ugly

- Start up took up to five months and then 4-6 weeks to tweak the systems as they were tested.
- Crash of housing market causing high rates of foreclosures; resulting in high numbers of vacant and abandoned housing within block groups.
- Almost zero multifamily buildings that would provide a significant number of low cost units.
- Inability/unwillingness of property owners to secure loans.
- Lack of belief in a free program.
- Tenants preferred to receive stipend up front to cover expense of food and items needed while out of their homes.

- Landlord(s) raising rent more than 3% after work is completed despite signing an agreement to not do so.
- Issues with communication and understanding linguistically diverse population.
- Tenants' and property owners' discomfort with relocation.
- Higher than expected drop out and delays of properties.
- Legal issues where the property owner was afraid that tenants will sue after becoming aware of lead hazards.
- Scope and need of exterior work to be done.

- CCUSA outlined an expectation of 200 units in the first year; actual units completed (earning a RI Lead-Safe Certificate) was 30.
- Most programs have enough ready to go units in the pipeline to predict a smooth operation.
- Bid process - we were not able to bid out contractor jobs quickly enough.
- Need 3 to 1 application ratio to ensure that all crews were constantly in production.
- Census tracts did not turned out to be a good geographic representation of a block group.

