Building Blocks for Primary Prevention:
Protecting Children from Lead-Based Paint Hazards
Project Summary

As the *Federal Strategy for the Elimination of Childhood Lead Poisoning* emphasizes, making U.S. housing lead-safe is the key to eliminating lead poisoning as a public health problem. While there is an urgent, simultaneous need to improve screening and respond more effectively to lead-poisoned children, the presence of "significant lead hazards" in 25 million housing units calls for a broad set of primary prevention tools and strategies that reach beyond raising awareness and educating parents about day-to-day behavior changes. Many cities and states are pursuing effective ways to prevent and control lead hazards before a child is exposed; programs and policymakers in other jurisdictions need easy access to information about the multiple opportunities available to advance prevention.

Building Blocks for Primary Prevention: Protecting Children from Lead-Based Paint Hazards will identify and describe a comprehensive collection of strategies that merit consideration by state and local governments and others in position to reduce hazards in housing and help meet the Healthy People 2010 goal of eliminating childhood lead poisoning. These will span the spectrum of primary prevention including: targeting high-risk properties and neighborhoods; screening high-risk housing for hazards; strengthening code enforcement; using enforcement in tandem with subsidies; increasing rental property owners' motivation; leveraging the federal lead disclosure law; using data for full effect; engaging the media; increasing consumer demand; building political will; improving accountability; creating new partnerships; building capacity for lead safety services and other healthy homes building treatments; integrating lead-safety and cross-hazard strategies into existing delivery systems; validating cost-effective interventions; expanding subsidies and dedicated resources; developing innovative financing mechanisms; and linking secondary and primary prevention.

In contrast to case studies that comprehensively analyze a single program, this project will scan the landscape to identify and describe innovative and promising strategies at the "building block" level. *Building Blocks* will produce concise summaries of individual strategies from which cities and states can select based on their needs and political and economic realities. Wherever possible, each building block will be illustrated by an actual example, with contact information provided for the program(s) featured. For consideration, strategies must be sensitive to the economics of affordable housing, consistent with the principles of public health, hold the potential for broad-scale impact, stand a reasonable possibility of implementation, and offer real promise for reducing lead and other environmental health hazards in high-risk housing.

Building Blocks' primary audience is state and local health departments, which will be able to directly implement some strategies, and to coordinate or encourage needed action by other government agencies, community-based organizations, and the private sector to effect other strategies. Upon completion in September 2004, summaries of an estimated 50-100 *Building Blocks* will be described in a written report and be readily accessible through the web.

The Alliance is developing *Building Blocks* under contract with CDC's Lead Poisoning Prevention Branch, and expects to work closely in this effort with the Primary Prevention Work Group of the Advisory Committee on Childhood Lead Poisoning Prevention. For more information – or to suggest a strategy for *Building Blocks* – contact Laura Fudala at lfudala@aeclp.org.

Building Blocks Announcement
Draft - February 10, 2003
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****** Inviting Nominations: *Building Blocks for Primary Prevention* ******

Many cities and states are pursuing effective ways to prevent and control lead-based paint before a child is exposed. Numerous ideas for other innovative and promising approaches have yet to be seriously considered or implemented. Every jurisdiction stands to benefit from the lessons learned by others through universal access to a broad set of effective, replicable, primary prevention tools and strategies. To help accelerate action to make U.S. housing safe for children and their families, CDC has funded the Alliance To End Childhood Lead Poisoning to develop *Building Blocks for Primary Prevention: Protecting Children from Lead-Based Paint Hazards (Building Blocks)*.

Building Blocks will identify and describe 50-100 strategies that merit consideration by all who have a role in reducing lead and other environmental health hazards in housing. The presented strategies will span the spectrum of primary prevention, and wherever possible, be illustrated by actual examples. This approach will allow programs and policy makers nationwide easy access to information about multiple opportunities to advance prevention, while also providing recognition to innovative and promising primary prevention efforts already in practice.

The Alliance is currently identifying innovative candidates, both proven and promising, to highlight as individual *building blocks*. To propose a nomination, please send a brief description of the potential *building block*, including contact information, to Laura Fudala at lfudala@aeclp.org. While existing narrative descriptions are welcome, initial summaries of potential *building blocks* need be no more than two paragraphs since Alliance staff will follow up to research and develop the description of the strategies during the next few months. For additional information, a more detailed description of *Building Blocks* is available at www.aeclp.org/buildingblocks.html.

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ALLIANCE TO END CHILDHOOD LEAD POISONING

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March 5, 2003

Anne Evens, Director
Childhood Lead Poisoning Prevention Program
2133 West Lexington, 2nd Floor
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Dear Ms. Evens:

As you know, CDC has a new requirement for its future grantees: *completion by June, 2004 of a strategic plan to eliminate childhood lead poisoning*. As you carry out the heroic task of completing your application for CDC funding, we invite you to consider the enclosed paper, which provides ideas about responding to this new requirement. We also provide an abundance of ideas for responding to CDC's call to increase emphasis on primary prevention. We hope you'll find the time now to take a look.

Eliminating childhood lead poisoning is actually within reach in many places. Continued progress will most often depend on expanding the supply of lead-safe housing, which in turn, rests on your ability to conceptualize, carry out, and inspire action to achieve primary prevention – in addition to your screening and case management responsibilities. Developing a strategic plan can help health departments build new constituencies for prevention, increase political will, and mobilize the additional resources required for primary prevention.

The enclosed paper is meant to stimulate your thoughts about strategic planning to make lead-safe housing a reality. It draws upon lessons learned by childhood lead poisoning prevention programs across the country and the experience of places that have begun strategic planning. This paper lays out:

- *Five critical stepping stones to an effective planning process:* Before you call your first meeting of a planning group, there's work to be done to sharpen the focus of the planning process.

- *More than 30 promising strategies for increasing the supply of lead safe housing:* These strategies run the gamut from building on existing frameworks to striking out into new territory. We hope this list will spark other ideas.

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- *From plan to action:* We identify key ingredients for putting plans into action and how to deal with some common challenges.

This paper sets forth ten premises, for agreement or debate, which may help to clarify your vision for eliminating childhood lead poisoning. In addition, we also provide a list of selected references and web addresses that may help you craft your plan.

We hope you'll find the time to look over the ideas in this paper, and that it helps you in proposing, planning, and ultimately in carrying out the strategies that will end childhood lead poisoning once and for all. We join you in looking forward to a brighter future for all our children.

We would welcome your feedback, including suggestions of other promising strategies for expanding the supply of lead-safe housing.

Sincerely,

Don Ryan
Executive Director

Nancy Tips
Project Manager

MAKING LEAD-SAFE HOUSING THE CENTRAL FOCUS OF STRATEGIC PLANS TO ELIMINATE CHILDHOOD LEAD POISONING

Introduction

Based on the latest national health survey, CDC estimates that the prevalence of lead poisoning among U.S. children aged 1-5 has been halved once again, from 4.4% (in 1991-94) to 2.2% (in 1999-2000). This impressive progress is a reminder that lead poisoning is entirely preventable – and that the Healthy People 2010 goal of protecting all children is actually within reach. But national estimates obscure the reality that low-income families living in older, substandard housing bear the brunt of this disease. Although lead poisoning crosses all lines of income, race, class, and geography, risk is primarily concentrated in low-income communities of color, with 20% or greater rates of elevated blood lead levels (BLL's) common among screened children in neighborhoods across the country.

Achieving the 2010 goal will require multiple strategies that recognize these societal disparities, respond to the wide range of challenges posed by lead-based paint in fully 40% of all U.S. housing, and increase resources to prevent and control lead hazards before exposure occurs. To accelerate progress CDC is requiring each childhood lead poisoning prevention (CLPP) program that receives a grant in this next round to develop a strategic plan to eliminate childhood lead poisoning. These plans must be completed by June 2004.

CDC has called upon health departments to develop these plans because of their knowledge, experience, and recognized role of leadership in lead poisoning prevention. But health department programs cannot by themselves protect children from lead poisoning. Ending this disease depends on the programs and policies of other government agencies (especially housing and code enforcement agencies) and ultimately on steps taken by many private sector interests (especially the owners of residential properties burdened by lead-based paint). In the final analysis, ending lead poisoning depends on mustering political will to marshal additional resources and spur further action to protect children from lead hazards.

Developing a strategic plan offers jurisdictions several important opportunities at once:

- to take a critical look at the problem at hand,
- to apply lessons learned by others,
- to consider new prevention strategies, and
- to target resources to children at highest risk.

Just as importantly, this planning process can build public and political support for a clearly described approach and expand resources for preventing and controlling lead hazards in housing as well as other sources. Of course, each jurisdiction's plan must be tailored to its situation. In addition to variation in lead poisoning prevalence rates and sources and patterns of exposure, there is also wide variability with regard to:

- political will and leadership;
- laws and regulations;
- housing age and condition;

- vacancy rates and rent levels;
- the capacity of certified abatement contractors;
- knowledge of lead-safe work practices among painters and remodelers; and
- the culture and capacity of community-based organizations.

Despite important differences, however, jurisdictions face many of the same challenges and opportunities. In developing this paper, the Alliance To End Childhood Poisoning has drawn on the experience of places across the country to identify key issues, promising approaches, and effective processes. This paper is intended to guide health department and other agency staff charged with developing strategic plans as well as community leaders, parent advocates, and other stakeholders in the strategic planning process. Its purpose is to assist development of ambitious yet realistic plans that build new constituencies for prevention.

This paper is organized as follows:

Part I. Setting the Stage for Strategic Planning
- a. Clarifying Underlying Premises
- b. Assembling the Planning Workgroup
- c. Supporting the Planning Process
- d. Surveying the Lead Poisoning Landscape
- e. Assessing Strengths and Weaknesses of Current Approaches

Part II. Key Strategies for Consideration
- a. Targeting High-Risk Properties
- b. Integrating Lead Safety into Other Systems
- c. Building Capacity through Appropriate Delivery Systems
- d. Expanding Resources
- e. Encouraging Effective Action by Property Owners

Part III. Putting Plans Into Action
- a. Granting Agencies Appropriate Authority
- b. Codifying Standards for Lead-Safe Housing
- c. Setting Priorities for Action
- d. Assigning Responsibility and Authority
- e. Tracking Progress

Appendices
- A. Selected Resources for Information and Assistance
- B. Housing Risk Triangle

Part I. Setting the Stage for Strategic Planning

a. Clarifying Underlying Premises

Every strategic plan is shaped by underlying premises, which inform the design of goals and strategies. Being explicit at the outset about assumptions and premises helps avert misunderstandings that can undermine the planning process. Because strategic plans need to generate new emphasis on primary prevention, every effort should be made to establish the groundwork for such a shift and clarify thinking about new program directions. To focus discussion and constructive debate on primary prevention strategies, the Alliance offers ten premises that underlie our vision for ending childhood lead poisoning by creating lead-safe housing.

1. Preventing lead poisoning is a good investment and an achievable goal. Lead poisoning imposes enormous costs on society at large as well as personal tragedy for children and their families. We cannot afford to allow this entirely preventable disease to continue.

2. Waiting to react to poisoned children is inhumane as well as inefficient. Truly protecting children requires preventing and controlling hazards before exposure occurs. Blood lead screening can be a valuable tool, but it should be viewed as a safety net, not the central prevention strategy. Significant changes in the lead poisoning landscape call for greater emphasis on localized primary prevention efforts to protect children from lead hazards.

3. Educational resources should be directed primarily to increase knowledge and skills among those with the power and responsibility to make housing lead-safe. Awareness is one step to a problem's solution, but campaigns that simply raise awareness do not protect children. Similarly, educational campaigns aimed at changing parents' or children's day-to-day diet, hygiene, and housekeeping behavior produce limited benefit and can inadvertently shift responsibility to parents. Studies show that parents living in dwellings that contain significant lead hazards do not have it within their power to protect their children from lead exposure. To make lead-safe housing a reality, health departments should focus education and training efforts primarily to increase knowledge and skills among landlords, maintenance staff, painters, remodelers, do-it-yourselfers, code inspectors, and judges. Education about tenants' rights and making better-informed decisions when moving is also helpful to parents.

4. Making housing lead-safe is the best way to protect all children. It would be preferable if all housing were lead-free, but removing all lead paint from U.S. housing is not a feasible goal. Nonetheless, research studies, real-world experience, and national health statistics confirm that a range of strategies is effective in making most leaded properties safe. The goal of lead-safe housing is reasonable, achievable, and worthy – and an important aspect of the broader national goal of decent, safe, and affordable housing.

5. An effective approach to lead safe housing requires stratification of lead-burdened properties from extremely high hazard to very low risk, with responses calibrated to risk. According to HUD's latest national survey, one-third of lead-burdened properties are currently safe (i.e., no conditions exceeding EPA's lead hazard standards). At the other end of the spectrum, many older houses and apartments in poor condition pose extreme hazards. Continued good

maintenance can ensure that lead-safe properties remain in such condition, while full abatement (or even demolition) may be the only solution for other properties. Strategic plans therefore need to rely on a range of lead safety strategies and incorporate different action triggers that are based on each property's level of risk.

6. It is unrealistic to rely exclusively on the certified lead services industry to make our housing stock lead-safe. Research has documented that conventional paint repair practices can generate significant levels of lead dust. Painters, remodelers, maintenance staff, small landlords, and do-it-yourselfers all need to understand and follow basic safeguards to control, contain, and clean up lead dust. For each formal "lead abatement project" completed, on the order of 1,000 remodeling projects are performed in pre-1978 housing. Everyday painting, repair, and remodeling projects hold the potential to reduce – or create – lead hazards in vastly more properties than currently are treated by certified lead abatement contractors.

7. Relatively simple, low-cost tools and measures can contribute significantly to lead safety. While lead inspections and risk assessments provide valuable information, in most cases an initial visual survey provides strong clues about the corrective action needed. One day's training can teach lead dust sampling, which provides a low-cost check for non-abatement work. In most cases, painters with one-day training in lead-safe work practices can safely perform remodeling and paint repair. Overly expansive definitions that classify basic remodeling activities as "lead abatement" unnecessarily increase costs and discourage housing rehab. HUD's lead-safety rule for federally-assisted housing offers a helpful template, complementing targeted abatement requirements with broad reliance on good maintenance, visual inspection, training regular trades in lead-safe work practices, and clearance dust testing.

8. Integrating lead safety into other systems offers broader impact than stand-alone strategies. Lead-only strategies are inherently limited in their impact, difficult to sustain, and hard to take to scale. Ending lead poisoning will depend on taking advantage of logical opportunities to integrate lead-safety tools and knowledge cost effectively into other systems, such as code enforcement, weatherization, housing rehabilitation, prenatal care visits, and so forth.

9. Interventions to control lead hazards in high-risk housing offer a logical opportunity to address other housing-related health hazards concurrently. Many houses in condition to poison a child with lead also pose other serious health hazards, such as mold, dust mites, cockroaches, and other asthma triggers. Pursuing opportunities to build on lead safety interventions to address other health hazards in housing can build new constituencies.

10. Communities most affected by lead poisoning need to be vocal advocates for prevention and fully engaged in both the design and implementation of solutions. A vital planning process deeply involves leaders of the communities affected to strengthen this important constituency and influence strategy design and implementation. For solutions to be effective and lasting, plans must reflect community values, build capacity and power within distressed communities, and strengthen their economies.

b. Assembling the Planning Workgroup

In assembling the planning advisory committee or workgroup that CDC has called for, health departments should maximize two opportunities:

First, the workgroup should add expertise needed for primary prevention strategies by including people with experience in a broad array of disciplines, including affordable housing, landlord-tenant issues, the construction trades, real estate finance, and code enforcement. Leaders of communities hardest hit also provide a perspective that is critical to ensure that plans reflect their input. In all likelihood, committees that health departments had previously appointed for advice on screening and case management issues will need to be expanded to provide this additional expertise.

Second, work group appointments can help broaden support by building constituencies for lead poisoning prevention. High-level involvement of all pertinent government agencies is critical, and should include people from health, housing, code enforcement, and social services agencies. Including an elected representative may lend importance to the strategic plan. In addition, including key private sector individuals who need to be part of the solution increases the likelihood that the plan's recommendations will be carried out. At the same time, conflicts of interests should not be overlooked. For example, landlords may oppose establishing clear standards for lead-safe maintenance, plaintiffs' attorneys may object to incentives for rental property owners who meet protective standards, and certified abatement contractors may resist giving painters and remodelers basic training in lead-safe work practices. While such groups will act to protect their interests, including them on the workgroup presents the opportunity to educate them about lead poisoning, sensitize them to the consequences of their inaction, and gain their support for comprehensive solutions.

Since many prevention strategies rely on local action, state health departments that are developing statewide strategic plans to end childhood lead poisoning should consider local representation on the planning workgroup as well as other means to mobilize action and resources in communities at highest risk.

c. Supporting the Planning Process

Developing a sound strategic plan requires advance preparation and support by health department staff for any advisory committee or work group. Agency staff supporting the planning process should take maximum advantage of the experience and lessons learned by other cities and states. The National Center for Healthy Housing has assembled a team of experts who are available at reasonable rates to assist jurisdictions develop and carry out strategic plans to eliminate childhood lead poisoning. Appendix A lists selected reference documents and other sources of information that can support strategy development.

d. Surveying the Lead Poisoning Landscape

Developing a plan to achieve any important objective requires a clear grasp of the current situation. In many jurisdictions, the lead poisoning prevention landscape has changed dramatically since the CLPP program began, and these changes should be identified and evaluated. Key aspects for scrutiny include:

Lead Poisoning Rates and Exposure Patterns – Examine data on blood lead screening, prevalence rates, and exposure patterns, including "hot spots." Lead poisoning prevalence rates should be tracked separately for Medicaid beneficiaries, due to their especially high risk. Drawing

comparisons to benchmarks, such as the statistic that 2.2% of all U.S. children aged 1-5 had elevated BLLs in 1999-2000, may provide useful context for policy makers.

Housing Stock – Where lead-based paint in housing is the major risk factor, examine key housing variables, including: housing age; type of construction; occupancy (rental versus homeowner); rental ownership patterns ("mom and pop" versus owners of large multi-family properties); physical condition; and scenarios of poisoning (dilapidation versus remodeling). Some jurisdictions have found it helpful to array their housing stock diagrammatically using a "housing risk triangle," which clearly displays the differing challenges posed by lead-burdened housing. Appendix B displays the nation's housing stock in such a risk triangle, which can be easily adapted to characterize any jurisdiction's housing. Strategies should respond to the different challenges of each risk category.

Legal and Regulatory Framework – Analyze relevant laws, regulations, codes, ordinances, and other important factors in the legal landscape. In addition to any lead-specific laws, such as lead-safe housing standards, blood lead screening requirements, and contractor certification systems, this includes: housing codes, landlord-tenant law, the extent of lead poisoning tort litigation, and agencies' regulatory powers.

Economic Factors – Many economic factors directly or indirectly influence lead poisoning prevention strategies, including family incomes, prevailing rents, vacancy levels, local economic conditions, unemployment levels, and so forth.

Financial Resources – Most jurisdictions have access to a range of potential sources of funding for housing rehab and lead safety, including: federal, state, or local housing subsidies; block grants, such as HOME and Community Development Block Grants (CDBG); and major institutions that might be potential partners (e.g., hospitals, banks, managed care organizations, insurance companies, universities, laboratories, and window manufacturers).

Technical Capacity – Making housing lead-safe requires technical tools, know-how, and capacity to prevent, identify, and control hazards. Certified lead inspectors, risk assessors, and abatement contractors have important roles, but code inspectors, painters, remodelers, maintenance staff, nonprofit housing providers, and small landlords all must understand and apply lead-safe work practices. Jurisdictions may have access to valuable resources, such as community colleges that provide adult education or a state or university laboratory that could provide free or low-cost analysis of environmental samples.

Community Assets and Needs Assessment – Experts and advocates increasingly recognize that organizing and building capacity within communities that are at high risk is critical to lasting solutions. This includes empowering local leaders to participate in the public decision-making process. Plans that meet local needs must consider the array of challenges facing communities (such as abandonment, gentrification, high rent burdens, unemployment, and crime) in addition to their assets and opportunities. Even the most distressed communities have valuable resources, such as faith-based organizations, parent networks, tenant associations, ethnic organizations, block associations, and tutoring programs.

Working Relationships Among Agencies – In many cases, success comes from constructive personal relationships and effective networks. Likewise, personal animosities between

stakeholders may pose insurmountable barriers that must be worked around. The reality that people make systems work or fail cannot be overlooked.

e. Assessing Current Strengths and Weaknesses

Examining the strengths and weaknesses of existing systems at the outset also helps to clarify opportunities and obstacles. Although describing strengths is often easier, a candid and critical assessment of current weaknesses is critical. Rather than glossing over problems, a vital planning process offers a non-judgmental arena for evaluating current performance and identifying weaknesses so that remedies can be designed and additional resources identified for their correction. Examples of common impediments to prevention in cities and states across the country include the following:

- An "all-or-nothing" set of laws and policies that results in full abatement in a handful of units but no action in the vast majority of hazardous dwellings;
- Failure to control lead hazards identified in the home of a child with an elevated BLL, with the result that the same property can poison again and again;
- The lack of legal authority to require safe paint repair in a property in the absence of a child identified with an elevated BLL;
- The lack of clearance dust testing after government-ordered repair of peeling paint;
- Ineffective code enforcement, due to inadequate legal authority, lack of political will to enforce, or failure to appreciate the dangers of peeling paint and lead dust;
- A failure to share data on blood lead elevations and lead hazards among government agencies, including Medicaid programs, health departments, and housing agencies;
- Focusing education strategies exclusively upon parents and children;
- Suppression of the addresses of properties with lead hazards because of concerns over protecting patient privacy; and
- Reluctance to rehab low-income housing due to cost or capacity concerns driven by overly restrictive state requirements on the use of certified abatement contractors.

Part II. Key Strategies for Consideration

To stimulate thinking and generate ideas, we have organized into five groups selected strategies that communities across the nation have found promising.

a. Targeting High-Risk Properties

As progress on childhood lead poisoning continues, targeting attention and resources to children at highest risk becomes ever more important.

Fixing Properties that Contain Identified Lead Hazards – A fatal flaw of many lead poisoning prevention programs is that lead hazards identified through a lead poisoning investigation or other means are not effectively controlled. If this is the case, confronting and solving this problem must be a top priority. Endorsement of a simple objective such as, "No house should ever poison twice," may help muster the will and resources needed to end the cycle of poisonings. At a minimum, all deteriorated paint and its causes must be repaired, lead-safe work practices must be used, and properties must pass clearance dust tests after repairs. If hazard are not promptly controlled, health departments should maintain a running list of properties with outstanding violations or untreated hazards. Maintaining such a list makes the problem visible and quantifiable for the public, the press, and policy makers, which greatly increases the odds for corrective action.

Using BLL Data for Targeting at-risk Neighborhoods – Blood lead screening data can be valuable for targeting primary prevention efforts. Mapping individual poisoning cases provides a powerful tool for illuminating persistent "pockets of poisoning" as well as to gauge the effectiveness of targeted prevention strategies.

Using Other Data for Targeting – In addition to plotting BLL data, there are other effective ways to identify presumptively high-risk neighborhoods and properties, particularly in jurisdictions with low or moderate blood lead screening rates. Census data on housing age and poverty can serve as proxies for lead poisoning risk. Working with the smallest possible units of analysis makes it possible to pinpoint high-risk areas. Concentrations of housing code violations are a strong predictor of risks for lead poisoning, and tax delinquencies are an indicator of economic distress that portends deferred maintenance and physical defects.

Screening High-Risk Housing for Hazards – Screening high-risk housing for hazards can be a useful complement to screening children for elevated BLLs. Visual surveys performed by driving through high risk neighborhoods can initially identify properties with visible maintenance deficiencies; collecting limited environmental samples can then identify hazards for more intensive follow up evaluations and/or corrective action. In many cities, community-based organizations are training residents as Lead Sampling Technicians to screen high-risk housing for lead and other hazards.

Checking All Properties Owned by Problem Landlords – Cities frequently find that just a few problem landlords own multiple properties that disproportionately poison children. Checking all properties owned by problem landlords can identify common maintenance deficiencies for correction and identify negligent landlords who should be targeted for aggressive enforcement.

Checking the House Next Door – One strong predictor of lead hazards is having a lead-poisoned child in a neighboring unit, especially in multi-family properties with similar maintenance among units. Checking neighboring units for hazards provides a natural expansion into primary prevention with built-in efficiencies. If the agency's legal authority is limited to investigating units occupied by a poisoned child, this limitation should be corrected.

Rechecking Houses that Have Poisoned Before – Properties that have poisoned a child in the past decade are another high-risk category (unless full abatement was performed to remove all lead-based paint). Health departments can easily retrieve addresses from prior cases to set priorities for follow up visits employing visual surveys and limited environmental sampling.

Performing Inspections upon Request – High-risk units can also be identified through outreach to encourage parents and tenant advocates to report peeling paint and other suspected lead hazards to the health department or code enforcement agency.

b. Integrating Lead Safety into Other Systems

Each year, far less than one percent of properties with "significant lead hazards" undergo "lead abatement." Protecting all children from lead poisoning by 2010 requires taking lead safety to scale. As outlined below, ready opportunities abound for integrating lead safety tools and knowledge into other systems and trades to increase the efficiency and breadth of interventions across the housing stock.

Incorporating Lead Safety into Rental Property Maintenance – Good maintenance is essential to keeping paint intact and avoiding lead dust hazards. Low-cost preventive strategies include regular visual inspection for paint deterioration, basic training in lead safety for maintenance staff, and following lead-safe work practices in repairing peeling paint and its causes. When preparing a vacant unit for a new occupant, landlords need to take full advantage of the opportunity to work in vacant units by routinely fixing binding doors, safely repairing peeling paint, and HEPA vacuuming and wet cleaning for lead dust. Dust testing at unit turnover and after paint repair provides an additional precaution for presumptively high-risk units.

Making Lead-Safe Work Practices Routine for Painters and Remodelers – Every project that repairs or disturbs paint in older housing holds the potential to create extensive lead dust hazards. Both high-quality technical materials (especially the federal "Field Guide") and one-day, federally approved training courses are readily available to teach painters, remodelers, and maintenance staff the modest changes in work practices needed to control, contain, and clean up lead dust. Paint removal practices that HUD regulations deem unsafe need to be avoided in all projects to make lead-safe painting the norm in all older properties.

Encouraging Window Replacement for Lead Safety and Energy Conservation – Jurisdictions should consider window replacement in older, high-risk dwellings to achieve the dual benefits of energy conservation and lead poisoning prevention. At a minimum, contractors replacing old windows need one-day training in lead-safe work practices; clearance dust testing should be considered as a low-cost way to ensure lead dust hazards are not left behind.

Integrating Lead Safety into Code Enforcement – Since nearly every housing code makes peeling paint a violation, code enforcement offers immediate opportunities for lead poisoning prevention: targeting code enforcement to high-risk neighborhoods and properties; treating paint deterioration in pre-1950 properties as an urgent health and safety priority; using spot test kits or lab analysis to confirm the presence of lead in paint chips; making dangerous levels of lead dust a code violation; training code inspectors in lead dust sampling; and taking lead dust samples whenever a peeling paint violation is cited.

Taking Full Advantage of Other Home Visits – Home visits and inspections made by health professionals and staff of other agencies offer a low-cost opportunity to check on lead safety. In particular, checking for lead hazards during prenatal care home visits provides the opportunity for primary prevention before the child is born. A visual check can identify obvious hazards; completion of EPA's one-day Lead Sampling Technician training makes it possible for visiting nurses and others to check for lead dust hazards at very low cost.

Increasing Access to Data – It is vital that health departments, housing agencies, and Medicaid programs share data with each other to inform effective action. Some cities are also exploring the benefits of making data available to the public through registries of lead-safe properties and publishing in newspapers and on the web the addresses of properties with untreated lead hazards or outstanding code violations. Health departments can also notify all tenants in an apartment building if lead hazards have been found in one unit.

Influencing Decision Making for Public Investments – Lead safety needs to be factored into investment decisions for affordable housing and community development. Every jurisdiction receiving affordable housing or community development funds from HUD must develop and update a Consolidated Plan every 3-5 years to inform decisions on allocating funds. Health departments need to introduce data about childhood lead poisoning (as well as asthma and other health problems) into these deliberations. Public health advocates and community leaders can use these data to make housing rehabilitation a higher priority, target resources to neighborhoods at highest risk, and direct rehab subsidies for maximum health benefit.

c. Building Capacity To Make Housing Lead-Safe through Appropriate Delivery Systems

Addressing lead safety across the stock of leaded properties requires building capacity for a range of interventions through multiple delivery systems. Safeguards are needed to ensure that individuals offering services as lead experts are adequately trained and fully qualified. At the same time, regulations intended to assure quality control should not restrict broader access to practical tools or create obstacles to reducing and preventing lead hazards.

Making Best Use of Certified Lead Services Contractors – Many states have a shortage of certified lead inspectors, risk assessors, and lead abatement contractors. If certified lead services contractors are in short supply, focusing their services on properties with significant hazards provides the greatest health benefit. In such situations, regulatory requirements that only certified abatement contractors can replace windows or perform other routine remodeling activities squanders this resource, unnecessarily increases costs, and may discourage needed investment in housing rehabilitation.

Making Training in Lead-Safe Work Practices Widely Available – All strategic plans should consider how to make basic training in lead-safe work practices widely available at no or low cost to painters, remodeling contractors, weatherization crews, and energy conservation programs. Health departments and/or housing agencies should explore partnerships with hardware stores, paint retailers, construction trade unions, and community colleges to sponsor and market this training. Lead-safe paint repair and lead-safe remodeling safeguards need to become routine.

Expanding Capacity for Lead Dust Testing – As understanding of the danger of lead dust has increased, the role of dust testing has grown beyond clearance after abatement projects. Dust testing is also a valuable tool for screening high-risk housing as well as checking that paint repair and remodeling work does not leave lead dust hazards behind. EPA's one-day Lead Sampling Technician training was developed to make this simple but important tool more widely available. Jurisdictions should consider providing universal access to such training for code inspectors, weatherization programs, nonprofit housing providers, and interested community-based organizations. State laws or regulations that restrict dust testing to certified risk assessors and lead inspectors deserve careful scrutiny.

Working Constructively with Responsible Landlords – Health departments should elicit the concerns of responsible property owners, carefully consider their problems, and help find constructive solutions. Gaining a keen understanding of the problems that responsible property owners face can lead to improvements in health department programs, meaningful action to prevent and control hazards, and new allies for prevention.

Community-Based Solutions – Because low-income neighborhoods are hardest hit by lead poisoning, ending this disease depends on building capacity in these communities. The relatively low-tech nature of lead-safety tools offers good opportunities for workforce development through a progression of skills. After receiving one-day training in lead-safe work practices, small contractors and maintenance workers may decide to become lead abatement workers or contractors. Similarly, Lead Sampling Technicians may move on to become lead inspectors or risk assessors. In the meantime, these skills can keep income in distressed communities while building capacity to help meet lead-safety requirements in federally-assisted housing.

Embracing Strategies for Healthy Homes – Traditionally, health hazards in housing have been addressed individually and serially: asbestos, radon, lead, etc. Since many hazards have common causes and solutions, addressing multiple hazards at once can be more efficient. Jurisdictions should look for logical opportunities to build on lead-safety interventions to address other housing-related environmental health hazards at the same time.

d. Expanding Resources

Directors and staff of lead poisoning prevention programs are painfully aware that housing cannot be made lead-safe without *more money*. Conversations about money invariably dwell on the expenditure side of the ledger. Strategic plans present an opportunity to highlight the benefits and recast lead-safety interventions as *investments*, rather than expenditures. These investments upgrade affordable housing, stabilize distressed neighborhoods, save on health care costs, improve school performance, and reduce juvenile delinquency. Some opportunities to increase resources are summarized below. Appendix A provides other sources of good information.

Using Data to Build Political Will – In addition to guiding internal activities, CLPP programs should use their data to influence larger policy, program, and resource decisions. Instead of citing the jurisdiction-wide lead poisoning prevalence rate (which camouflages concentrations of high risk), analyzing data using the smallest possible analytic unit highlights disparities in risk by race, income, housing age, and geography. Some cities have found that analyzing data by elementary school boundaries or city council district, has greater impact on the press, the public, and policy makers than comparisons by zip code or census tract.

Medicaid Reimbursement – Many jurisdictions are currently failing to receive the reimbursement they are due for screening and follow-up care services provided to children who are Medicaid beneficiaries. (For advice about securing payments due from Medicaid, see *Another Link in the Chain* at www.aeclp.org.) Medicaid reimbursements for screening, case management, and environmental investigations may help to free up funds for primary prevention initiatives.

Apply for a HUD Grant – Many jurisdictions have not yet taken advantage of federal grants dedicated to controlling lead hazards in low-income housing. In 2003, Congress significantly increased funding for HUD's lead hazard control and healthy homes grants, from $110 million to $175 million. This includes a new $50 million pot of funds for the areas with the worst lead poisoning problems, one of the measures for which is the number of documented lead poisoning cases, which serves to encourage and reward effective screening. Congress also increased funds for HUD's Operation LEAP grants to expand public/private partnerships.

Adjust Priorities for CDBG and HOME Funds – All states and most large cities and urban counties receive significant block grants from HUD, including CDBG and HOME grants. These funds are available for a broad range of activities at the jurisdiction's discretion based on priorities established by a Consolidated Plan, which requires public input. By highlighting the significant health hazards posed by substandard housing, strategic plans can help persuade policy makers to make rehabilitating low-income housing a higher priority, provide funds for emergency repairs in the homes of children with elevated BLLs, and so forth.

Create Dedicated Funds – Jurisdictions can also increase resources for lead safety and affordable housing by dedicating funds through mechanisms such as a housing trust fund, bond issues for window replacement, or reserving income from fees or fines.

Enforcement Fines and Penalties – Enforcement agencies sometimes reduce the penalty if a guilty party agrees to take corrective action and/or contribute funds to meet a related public need. Instead of reverting to the general fund, all fines and penalties as well as any other resources generated through the enforcement of lead poisoning laws should be dedicated to support primary prevention efforts by community-based organizations or relevant agencies.

Tax Strategies – Jurisdictions can encourage and reward property owners who make lead safety and other investments by granting credits on state income taxes or local property taxes for expenditures on eligible activities.

CRA Strategies – Banks that subsidize or support lead safety strategies earn credit under the Community Reinvestment Act.

Private Sector Partnerships – Jurisdictions can also partner with corporations and businesses, including managed care plans, electric utilities (due to their interest in energy conservation), window manufacturers, and paint manufacturers and retailers. As litigation against the companies that manufactured lead-based paint has grown, the paint industry has tried various strategies to discourage governments from suing. Jurisdictions need to weigh paint industry offers against the principle of fairness and equity and insist on meaningful contributions that are commensurate with the scale of the problem. For example, while discounted prices on paint may seem appealing, labor costs typically account for 80%-90% of paint repair work.

Holding the Lead and Paint Industries Accountable – The State of Rhode Island and a number of cities and counties, including Chicago, St. Louis, and Milwaukee, have concluded that legal action is the only way to secure meaningful resources from the paint and lead industries.

e. Encouraging Effective Action by Property Owners

Since lead safety in housing ultimately depends on action by property owners, jurisdictions need to pursue various ways to increase owners' motivation to prevent and control lead hazards. Most jurisdictions have found a combination of "carrots and sticks" effective.

Establishing Clear Standards that Are Workable and Protective – Laws and regulations need to make clear rental property owners' duties to provide lead-safe housing. Considerations for establishing an enlightened legal framework are discussed in Part III below.

Strengthening Enforcement – Laws and regulations do not protect children from poisoning if they are ignored. Jurisdictions need to consider carefully how to improve enforcement of laws, regulations, codes, and ordinances to protect children at highest risk. In addition to strategies previously mentioned, options include: precluding landlords from collecting rent for non-compliant properties; creating a special "lead court" or housing court; training judges about lead paint and dust hazards and their control; seizing properties from predatory landlords through receivership; and conducting abatement by city crews and placing a lien on the property for repayment of costs incurred. For low-income properties receiving federal housing assistance, enforcement of HUD regulations provides additional leverage.

Documenting Violations as Powerfully as Possible – When code violations are cited or lead hazards are identified, the scope and severity of the problem should be documented in detail. Health departments and code enforcement agencies should also consider routinely photographing hazards using a digital camera, with the property's address and date recorded on the image. Such vivid evidence of hazards or code violations makes the case much more compelling and can be easily stored, retrieved, and transmitted.

Leveraging the Federal Disclosure Law – Many health departments and advocates have successfully used the federal disclosure law to induce owners of high-risk properties to control lead hazards. A range of strategies are available, including: health departments and code agencies informing landlords of data about lead hazards in their units (thereby obliging them to future disclosure); informing tenants of their legal rights; linking code enforcement and disclosure and reporting violations of the disclosure law by owners of high-risk properties to HUD, EPA, and U.S. attorneys.

Providing Public Subsidies – Many cities have found that providing subsidies and other incentives (often in conjunction with stepped up enforcement) can motivate landlords to act. For example, grants or low-interest loans can be used in tandem with targeted code enforcement. If low-income communities are threatened by gentrification, safeguards are needed to ensure continued low-income benefit.

Limiting Legal Liability – Some states have offered landlords legal liability limitations as an incentive to perform a prescribed set of lead-safety measures. The extent of liability relief must be commensurate with the effectiveness of the lead-safety measures performed and the potential cost to victims' families if the measures fail. A reliable system must also be in place to verify compliance independently.

Part III. Putting Plans Into Action

In addition to providing a vision for achieving the goal of eliminating childhood lead poisoning, strategic plans need to identify actions that are critical to moving forward and putting in place mechanisms for tracking progress.

a. Granting Agencies Appropriate Authority

At the beginning of the strategic planning process, agencies need to assess comprehensively the legal and regulatory tools they already have or may need to obtain to conduct effective prevention programs. Such an assessment should review laws and regulations under the jurisdiction of housing, environmental, and other agencies, as well as health departments.

Laws need to codify key lead safety standards and grant health departments and other agencies the authority they need to compel action by property owners to protect children from lead hazards. Because of the direct link between poor housing maintenance and the probability of exposure to lead-based paint hazards, housing codes constitute the foundation for effective legal remedies for prevention. In order to provide additional bases of liability and tie code enforcement directly to lead hazard control, lead dust hazards and deteriorated paint should be classified explicitly as serious code violations through either legislation or regulation, and unsafe paint removal practices should be banned. Agencies in all jurisdictions should be granted the authority to:

- Inspect any rental unit, including collecting environmental samples,
- Order peeling paint and other lead hazards controlled using lead-safe work practices,
- Require clearance dust testing,
- Impose fines for non-compliance,
- Condemn a property as uninhabitable, and
- Declare a property with actual or potential lead hazards a public nuisance.

Experience has shown that it is helpful to grant agencies additional powers to strengthen their ability to achieve effective prevention, such as the authority to:

- Condition permits and licenses on compliance with lead-safety standards,
- Prevent rent collection for properties in violation of codes,
- Require property owners to secure a lead inspection or risk assessment,
- Mandate that work be performed by a certified lead abatement contractor,
- Place liens on properties to recover costs incurred for repairs done by city crews, and
- Place properties in receivership.

b. Codifying Standards for Lead-Safe Housing

Laws, regulations, codes, and ordinances also need to prescribe the steps rental property owners must follow to maintain property in safe condition, including conditions or events that trigger action. In most cases, a tiered approach that calibrates lead-safety measures to a property's risk will provide maximum health protection for the resources invested. Recent state lead laws reflect this approach, including laws passed by Rhode Island and Indiana in 2002. Requirements for property owners are grouped below in two tiers for consideration.

"Baseline" Lead-Safe Maintenance Requirements – The Title X Task Force recommended that a set of low-cost safeguards, which it termed "essential maintenance practices," apply to all properties built before 1978. Several states have embraced this concept. Examples of "baseline" requirements that all owners of pre-1978 rental properties should be required to follow include:

- Avoid unsafe work practices during maintenance, paint repair, and remodeling,
- Perform regular visual inspections for paint deterioration,
- Promptly and safely repair deteriorated paint and its causes, and
- Train property maintenance staff in lead-safe work practices.

Additional Requirements for Higher Risk Properties – While essential maintenance practices are usually sufficient to protect children in well-maintained properties, additional safeguards usually are needed in higher risk properties. In addition to the identification of a child with an elevated BLL, agencies should use appropriate housing events such as vacancy, property sale, refinancing, and remodeling as triggers for owners of high-risk properties to take additional safeguards, including the following:

- Control any identified lead hazard,
- Fix binding doors and perform standard window treatments,
- Make floors smooth and cleanable,
- Pass clearance dust tests,
- Cover bare soil with sod, mulch, or gravel, and
- Hire a certified lead abatement contractor.

c. Setting Priorities for Action

Since progress is impossible on all fronts simultaneously, strategic plans need to establish priorities for action. Initial activities can pursue natural opportunities to expand current screening programs into primary prevention, tackle a glaring weakness, or target a high-risk block, a problem landlord, or a specific property to model action and demonstrate results. While plans should identify enlightened changes in law and regulation that are needed to realize long-term goals, the lack of legal authority should not paralyze action. Every jurisdiction can take advantage of immediate opportunities, including:

- offer free or low-cost training in lead-safe work practices,
- build capacity for dust testing,
- offer technical assistance to homeowners and small landlords, and
- begin maintaining a list of properties with uncontrolled lead hazards and estimate their abatement costs.

Strategic plans can build support by demonstrating exactly what can be achieved with an additional $100,000, $1,000,000, or $10,000,000 invested in lead-safety. Early victories, even small victories, can help build momentum and political support for subsequent action.

d. Assigning Responsibility and Authority

Strategic plans can help clarify roles by assigning primary responsibility for key strategies to specific organizations or individuals. While health departments' expertise in lead safety calls for these agencies to assume leadership in most jurisdictions, achieving the goal of lead-safe housing depends on action by other agencies, private sector partners, and ultimately property owners. A

matrix that arrays the responsibilities of the various players can be a useful way to clarify roles and reinforce the shared responsibilities for protecting children from lead poisoning. Authentic partnerships that contribute to meaningful solutions deserve celebration, which can also help build political support and increase media coverage.

e. Tracking Progress

Effective implementation of strategic plans requires mechanisms for identifying critical actions, evaluating their effectiveness, and tracking progress. Setting short- and mid-term milestones helps "punctuate" plans with specific objectives, which makes it easier for organizations to factor key strategies into their planning and management systems. While reductions in the number of lead poisoning cases is, of course, the ultimate goal, progress on the steps essential to achieving lead-safe housing are critical measures for strategic plans focused on primary prevention. Milestones should be ambitious yet achievable, recognizing that momentum will build over time.

Appendix A.
Brief Compendium of Resources to Inform Strategic Planning To Eliminate Childhood Lead Poisoning as a Public Health Problem by 2010

Health departments and others involved in developing strategic plans can access information and assistance from various sources.

1. Introductory and General Guidance

- The appendices to CDC's January 23, 2003 Notice of Fund Availability include Guidance for Developing a Strategic Plan, Elements to Develop and Maintain a Surveillance System, Examples of Primary Prevention Activities, and Work Plan Guidance. http://www.cdc.gov/od/pgo/funding/03007.htm
- Information about various strategies is available from the Alliance at www.aeclp.org/strategies.html, including the following:
    - Action Plan to Make High-Risk Housing Lead-Safe
    - Innovative Strategies for Addressing Lead Hazards in Distressed and Marginal Housing: A Collection of Best Practices
    - Ten Effective Strategies for Preventing Lead Poisoning Through Code Enforcement
- Jurisdictions can contract with the National Center for Healthy Housing to obtain consultations at reasonable rates with experts and practitioners in developing their strategic plans. Contact Jack Anderson at 410-992-0712 for additional information.
- Under a contract with CDC, the Alliance is developing *Building Blocks for Primary Prevention* to document and describe a wide range of innovative and promising strategies for making housing safe. These *Building Blocks* will be coming on line later in 2003.

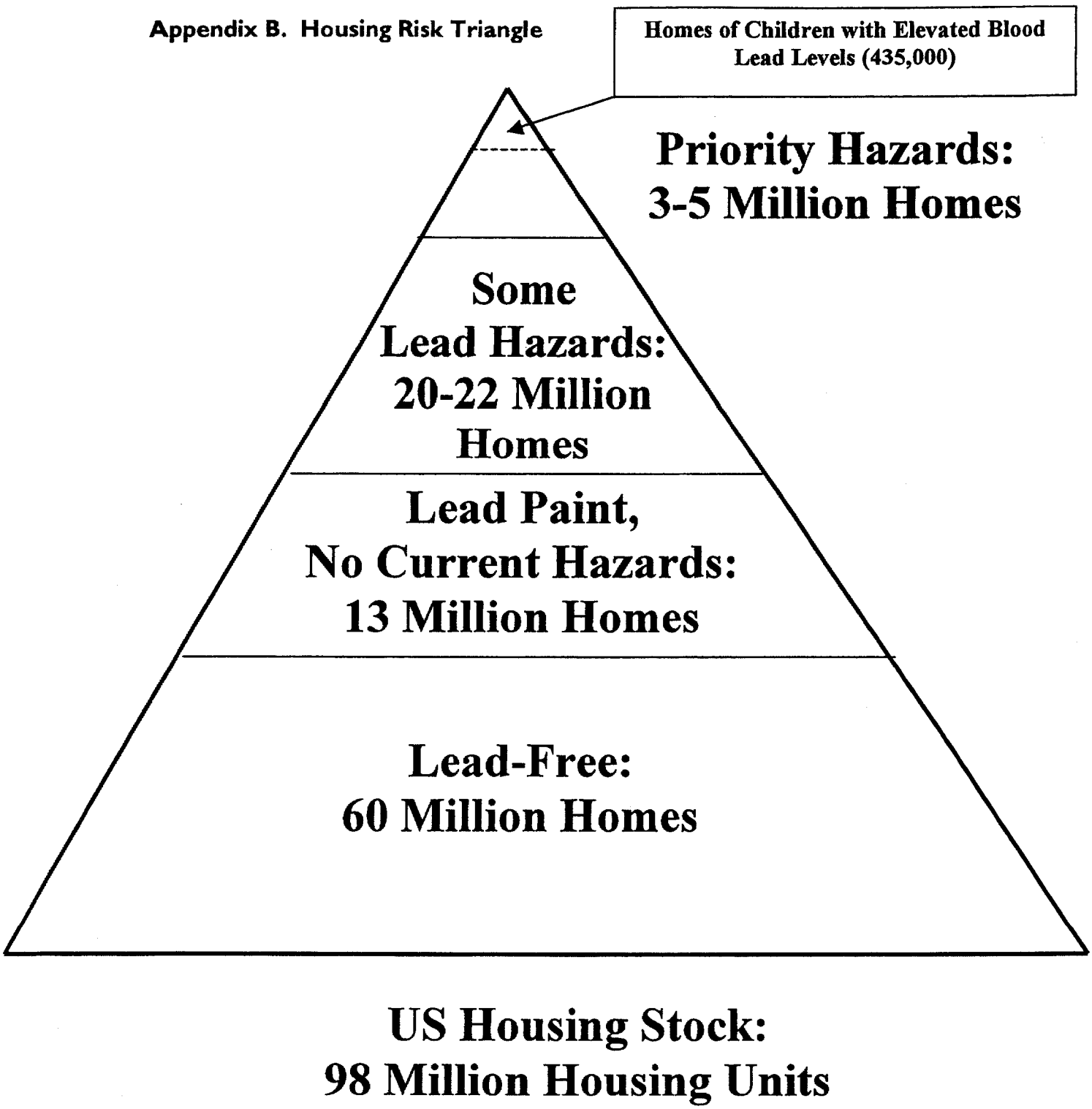
2. Financial Resources

- HUD Lead Hazard Control Grant – Each year HUD competitively awards grants to cities and states in grants of $2-3 million each to make low-income housing lead-safe. Congress increased funds in 2003 and created a separate $50 million pot of funds for grants to the areas with the worst lead poisoning problems. See www.hud.gov/offices/lead
- Publications about other resources available from the Alliance at www.aeclp.org/strategies.html:
    - Reimbursements from Medicaid may free up other funds for primary prevention initiatives: See *Another Link in the Chain* and the *Update* for tips on accessing Medicaid funds
    - CDBG and HOME block grants from HUD are to be used for a broad range of activities under locally-adopted Consolidated Plans; strategic plans to end lead poisoning should aim to increase investments in housing rehab and lead safety. See *HUD's Consolidated Plan: A Useful Tool* and *Advancing Lead Safety through CDBG and HOME.*
    - Community Reinvestment Act Strategies: banks that subsidize or support lead safety strategies earn credit under the CRA. See *Innovative Financing Sources* for descriptions of ways banks can partner for lead safety.

3. Lead Safety Capacity Building

- Lead Dust Sampling:
  - EPA's Sampling Technician course: www.epa.gov/lead/leadsamplingtech.htm
  - States that certify sampling technicians: IA IN KY ME MN NH OH RI VT WI
  - Sampling technicians can perform clearance after most HUD-funded rehab and paint repair and check for dust hazards in other situations
- Lead-Safe Work Practices Training:
  - EPA's Renovation and Remodeling Course: www.epa.gov/lead/rrmodel.htm
  - HUD Courses: www.hud.gov/offices/lead/training/training_curricula.cfm and
  - HUD-Approved Courses: http://www.hud.gov/offices/lead/training/hudapproval_main.cfm
- HUD's Lead-Safe Housing Regulation: www.hud.gov/offices/lead/leadsaferule/index.cfm
- The publication *Lead Paint Safety: A Field Guide for Painting, Home Maintenance and Renovation Work* is a well-illustrated, accessible resource on lead-safety: available in English and Spanish at www.hud.gov/offices/lead/training/additional_training.cfm or call 1-800-424-LEAD.

4. Calculating Risk and Identifying Target Areas

- Tools for estimating high-risk housing by census tract and at the county and state levels:
  - www2.cdc.gov/nceh/lead/census90/house11/house11.htm
  - www.scorecard.org/env-releases/lead/
- To apply findings from the National Survey of Lead to housing data in your jurisdiction: www.aeclp.org/strategies.html
- For easy-to-use protocols to check high-risk housing for lead and other environmental health hazards, see www.cehrc.org under "Tools for Detecting Hazards"

Appendix B. Housing Risk Triangle