The lack of awareness about lead-based paint hazards and their control is a major contributor to childhood lead poisoning. Without appropriate knowledge, property owners may not take appropriate precautions, parents may not take simple protective measures, contractors may use unsafe remodeling practices, and doctors may misinform families about lead poisoning risks. Even where poisoned children are identified, misinformation may exacerbate the problem.

Thus, education is an essential and powerful tool for controlling lead hazards. By raising awareness of childhood lead poisoning problems and solutions, education creates the impetus to address lead-based paint hazards. Public education will also create demand for hazard-controlled housing and a competent workforce to perform lead hazard evaluation and control activities safely and reliably. While education is no substitute for benchmark lead-based paint maintenance and hazard control standards and other strategies discussed elsewhere in this report, it can be an important and cost-effective means of preventing childhood lead poisoning. The Task Force recognizes that virtually all types of persons and groups involved in preventing childhood lead poisoning need more accurate information about lead hazards and controls. The Task Force’s mandate, however, is to address lead-based paint hazards in private housing. Thus, this chapter focuses on education for the following audiences, based on their roles regarding private housing:

- Parents and families
- Homeowners and homebuyers
- Rental property owners and managers
- Tenants
- Lead-based paint contractors and workers
- Home improvement industry
- Real estate industry
- Lenders
- Insurers
- Health care providers
- Community-based organizations
- Members of the legal community

Educational programs for these audiences must be integrated with activities recommended elsewhere in this report. Because of its focus on private housing, this chapter does not address educational issues for other important groups involved in solving the nation’s lead poisoning problems, such as schools. Although the educational role of certain groups is beyond the scope of its mandate, the Task Force, nonetheless, supports the efforts of the Centers for Disease Control and Prevention (CDC), and other federal, state, and local agencies that are attempting to take a comprehensive approach to using education strategies to prevent childhood lead poisoning.

In view of the large number of overlapping audiences that need education on lead, interagency and public-private collaboration at all levels is essential. Information about lead hazards and controls can also be incorporated into existing programs on other environmental hazards to increase efficiency of efforts.

10.1 FRAMEWORK FOR DEFINING EDUCATIONAL GOALS

The process of developing an educational program is considerably more complex than writing and distributing pamphlets on childhood lead poisoning. Comprehensive models for developing effective educational programs have been described in detail elsewhere. The basic steps include identification of:
Key audiences
Information needs
Desired behavioral changes
Potential barriers
Communication channels
Responsible parties
Desired outcomes

This section briefly describes these steps in the context of the Task Force’s recommendations.

As part of the process of developing an educational program, government agencies and other organizations need to identify the goals and program components most relevant to the communities they serve. Representatives of these communities should be involved throughout the program planning and implementation process.

The initial steps in developing program goals and components are identifying the key audiences to be educated and the information needs of each audience. Educational programs should be targeted toward specific audiences. Information needs will vary across audiences, but certain core messages need to be conveyed to all audiences. These core messages are described in the top right corner of this page.

In addition to the core messages, certain audiences need more specific information. For example, rental property owners need information about their legal responsibilities to meet established standards of maintenance and hazard control, as well as information on sources of financing for lead-based paint hazard control costs. Parents need information on common lead-based paint hazards in the home; sources of lead exposure; and the importance of good nutrition, hygiene, and screening.

The next steps are defining the desired behavioral changes by particular audiences and identifying potential barriers to achieving these changes and ways to overcome the barriers. Examples of desired behavioral changes include increasing the number of evaluations of homes for lead-based paint hazards, greater training of maintenance workers in safe practices, and the need for rental property owners to respond promptly to tenant complaints of deteriorating lead-based paint. Lack of funds for lead hazard control, lack of appropriate materials to reach diverse multicultural and multilingual audiences, and prevailing practices or attitudes are some of the barriers that need to be overcome.

Other steps include determining the most suitable communication channels for given audiences and messages and the corresponding responsible parties that need to convey the messages. For maximum cost-effectiveness, information should be provided primarily through existing communication channels. For example, homeowners, who may inadvertently create lead hazards by disturbing lead-based paint surfaces, can be reached through home improvement magazines and hardware stores. Property owners can receive pamphlets in their property tax bills or utility bills. Mailings by trade and professional associations and mailings to lead hazard evaluation and control workers regarding training and certification are another conduit for information. Information on lead-based paint concerns can also be included in outreach efforts addressing other housing, environmental, or health problems. Wherever possible, educational programs should use public resources in conjunction with community organizations and thereby build capacity within communities.
The final step is defining the desired outcomes of an educational program. These outcomes may constitute the ultimate goal of the program or serve as indicators of the program's success. Examples include fewer poisoned children, increased availability of affordable apartments that do not pose lead-based paint hazards, increased use of preventive practices, and increased numbers of trained and certified contractors and workers.

The steps discussed above are interrelated: Decisions made in any given step may require re-examination of decisions made in prior steps.

10.2 WHAT'S HAPPENING IN LEAD EDUCATION

Federal agencies are conducting a variety of educational activities, such as sponsoring grant programs for state and local governments and community-based organizations, funding the Regional Lead Training Centers, publishing lead hazard information pamphlets, operating an 800 number hotline and clearinghouse, and running public service announcements. Exhibit 10-1 highlights the key educational activities being conducted. Given the variety of programs and agencies involved, the Task Force encourages increased interagency collaboration to design strategies to communicate accurate information about lead-based paint to all key audiences while avoiding duplication of efforts by agencies acting independently.

Real Estate Disclosure. EPA and HUD are taking steps to increase the overall awareness of lead-based paint and its hazards. Forthcoming joint EPA and HUD regulations will establish real estate notification and disclosure requirements expected to take effect in 1996. Under these regulations, before the purchase or rental of pre-1978 housing, the seller or lessor must:

- Give the prospective buyer or renter EPA's lead hazard information pamphlet, “Protect Your Family from Lead in Your Home,” (May 1995) which describes the general hazards of lead-based paint, provides tips on lead poisoning prevention, and discusses ways to eliminate lead-based paint hazards; and
- Disclose to the buyer or renter the presence of any known lead-based paint or any known lead-based paint hazards and provide any lead-based paint hazard evaluation report that they may have. Prospective buyers must also be given a ten-day period in which to conduct a risk assessment or inspection if they elect to do so at their cost. These disclosure requirements will increase the information available to the public on lead-based paint hazards, both in general and in the specific housing units they may occupy.

State and Local Governments. State and local governments also have a significant role in lead education. Being close to community housing and health concerns, state and local governments are well positioned to conduct educational activities. They can target important audiences and carefully address the specific educational needs of the communities they serve. Government agencies at each level should identify the types of activities they can conduct most effectively and should cooperate and coordinate among themselves and use jointly prepared materials wherever possible.

Nongovernmental Organizations. Finally, trade associations, churches, neighborhood organizations, ethnic associations, housing and community development groups, tenant organizations, environmental and health organizations, and other nongovernmental organizations are well positioned to participate in educational programs. These groups may be able to act more quickly than governmental agencies and have more direct and effective contact with affected communities than government agencies do.

10.3 CAPITALIZING ON THE REAL ESTATE NOTIFICATION AND DISCLOSURE PROCESS

The forthcoming real estate notification and disclosure regulations present a key opportunity for increasing the level of public awareness of lead-based paint hazards. The Federal Government should identify and use the most effective communication channels to alert the public to these regulations. One option is to fund a national public service announcement campaign,
Exhibit 10-1

Key Education Activities of Federal Agencies

**EPA**
- Disclosure requirements for renovation contractors
- Pamphlets and other publications
- Public service announcements and advertisements
- Developing training courses
- Regional Lead Training Centers
- Training grants to community groups

**HUD**
- Grants and loans
- Publications
- Notification of residents of pre-1978 federally owned and assisted housing
- Information to public housing authorities
- Guidance on hazard evaluation and control

**EPA and HUD**
- Real estate disclosure requirements

**ALL AGENCIES**
- National Lead Information Center Hotline and Clearinghouse
- Environmental justice community-based education programs

**EPA and CPSC**
- Pamphlet on preventing lead-based paint poisoning

**HUD and CDC**
- Funding of neighborhood-based primary prevention programs

**OTHER AGENCIES**

**CPSC**
- Recall notices of products containing lead-based paint and lead (for example, children’s products)
- Publicity campaigns to increase awareness of lead-based paint hazards

**ATSDR**
- Information to communities near Superfund sites
- Partnerships and cooperative agreements to undertake lead education

**CDC**
- Grants to state and local health departments
- Publications
- Educational research
- Training/resource center for health professionals

**FDA**
- Information on dietary lead exposure

**NIOSH**
- Educational programs for physicians and schools

**OSHA**
- Training grants for nonprofit organizations
- Information on worker protection requirements

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ATSDR—Agency for Toxic Substances and Disease Registry  
CDC—Centers for Disease Control and Prevention  
CPSC—Consumer Product Safety Commission  
EPA—Environmental Protection Agency  
FDA—Food and Drug Administration  
HHS—Department of Health and Human Services  
HUD—Department of Housing and Urban Development  
NIOSH—National Institute of Occupational Safety and Health  
OSHA—Occupational Safety and Health Administration
using electronic and print media. The campaign should raise public awareness and concern about childhood lead poisoning with appropriate (not alarmist) messages, fostering an environment in which the forthcoming disclosure rules are taken seriously.

In addition to a broad public campaign, information should be targeted specifically at homebuyers and property owners. EPA, HUD, and CDC, in collaboration with other agencies and private organizations, should use focus groups to identify the most effective ways to communicate with homebuyers and property owners in order to prompt voluntary lead-based paint hazard evaluation and control actions. HUD is presently conducting a survey to determine the extent of public awareness of lead-based paint problems and solutions and to identify the most effective means of reaching key audiences. The survey will be repeated after the disclosure requirements go into effect to determine their impact.

For successful implementation of the disclosure requirements, the cooperation of real estate agents is critical. Real estate agents need to be educated on disclosure and notification requirements and their importance, possibly through continuing education courses. Agents should inform parties involved in real estate sales and rental agreements about the importance of their rights and responsibilities regarding lead-based paint. Buyer brokers and their agents should encourage prospective purchasers to get a hazard evaluation from a certified professional during the ten-day period, particularly for houses built before 1950. Federal agencies could work with local chapters of national real estate organizations to educate real estate agents.

In addition to real estate agents, home inspectors should be educated about lead-based paint hazards so that they can provide accurate maintenance tips to prospective homebuyers. They should further be encouraged to seek training and certification as lead-based paint risk assessors. Alternatively, they could refer homebuyers to certified lead-based paint inspectors or risk assessors.

To account for linguistic differences, all contracts, warnings, and other materials on lead hazards provided during a real estate transaction should be in languages understandable to prospective homebuyers and tenants. The forthcoming disclosure regulations propose that in cases where the sales contract is written in a language other than English, the lead warning statement must be included in the language of the contract as well.

**Recommendation 10-1:**

*Capitalizing on the Real Estate Notification and Disclosure Process.* The Task Force recommends that government agencies and private organizations develop and implement strategies to make optimal use of the educational opportunity presented by the real estate notification and disclosure process.

### 10.4 Educating to Prevent Hazards from Renovation and Remodeling

Renovation and remodeling activities can create considerable hazards by disturbing lead-based paint. Educational programs on safe remodeling practices can help prevent such hazards. An education strategy on renovation and remodeling should differentiate among remodeling contractors, do-it-yourself property owners and managers, owners and managers who hire contractors, and renters. The education for each of these
audiences should focus on activities such as repainting that may disturb lead-based paint in pre-1978 housing and thereby create lead-based paint hazards.

- Renovation and remodeling contractors and workers should be educated about lead-based paint hazards, safety measures to minimize such hazards, applicable Occupational Safety and Health Act requirements, unsafe practices, and the need to distribute information to property owners before renovation.
- Do-it-yourself homeowners and rental property owners and managers should be educated on lead-based paint hazards and how to remodel safely.
- Homeowners and rental property owners and managers who hire contractors for remodeling should insist on contractors who use appropriate renovation and remodeling techniques that do not disturb lead-based paint and thereby create hazards.
- Renters need information to help make sure that renovation and remodeling work is done safely and properly.

To publicize and prevent the potential dangers of renovation and remodeling activities, EPA has proposed that renovation contractors provide copies of “Protect Your Family from Lead in Your Home” to owners of pre-1978 housing prior to carrying out renovation and remodeling projects. EPA has also developed a public interest pamphlet entitled “Reducing Lead Hazards When Remodeling Your Home,” (April 1994). Both these pamphlets should be broadly distributed in a manner to ensure that property owners and tenants read and use them, as well as all other available information. In addition, as required by Title X, EPA, in consultation with the Consumer Product Safety Commission (CPSC), is developing information to be distributed by retailers of home improvement products to provide consumers with practical information related to the hazards of renovation and remodeling where lead-based paint may be present.

Several communication channels in addition to renovation contractors can be effectively used to convey information on lead hazards created during renovation and remodeling.

- Banks and other housing finance institutions should distribute the EPA pamphlets to home-buyers and property owners seeking loans for remodeling purposes.
- Manufacturers and retailers in the home improvement industry should help educate contractors, do-it-yourselfers, and other consumers by distributing EPA’s guidelines and pamphlets on home renovation and remodeling; distributing advisories on unsafe practices to purchasers of sandpaper, power sanding tools, heatguns, and related equipment and supplies; training salespersons; and providing fliers, tear sheets, and other materials for customers at hardware stores, in such places as the paint department. The industry’s participation is particularly critical for do-it-yourself homeowners and small contractors who may not be reached by any other source of information.
- Books, newspaper articles, other publications, and radio and television shows for homeowners and do-it-yourselfers should disseminate information on lead hazards and safe renovation methods.
- Finally, as part of the educational strategy, a prominent national spokesperson could inform the public about potential lead hazards from renovation and remodeling activities and necessary precautions.

Several federal agencies should help develop and implement this strategy, including EPA, HUD, CDC, CPSC, and Occupational Safety and Health Administration (OSHA). Public and private sector groups, including trade associations, labor unions, and state and local governments that will play a key role in implementation, should also participate. For example, EPA should open a dialogue with major home improvement retail chains to develop strategies for disseminating information to consumers.

**Recommendation 10-2:**
*Educating to Prevent Hazards from Renovation and Remodeling. The Task Force recommends that government agencies and the home improvement indus-

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*Education Strategies* | 14: |
try quickly develop an aggressive strategy to educate property owners and managers, contractors, workers, and renters about lead hazards that may be created during renovation and remodeling activities in pre-1978 housing.

Recommendation 10-3:
Educating Consumers through Retail Home Improvement Stores and Do-It-Yourself Magazines. The Task Force recommends that EPA, the Consumer Product Safety Commission, and other appropriate government agencies encourage the home improvement industry to inform consumers about the dangers of disturbing lead-based paint during home renovation and remodeling projects. Retail home improvement stores should be encouraged to distribute EPA’s guidelines and pamphlets on home renovation and remodeling, advisories on prohibited practices, and other materials to purchasers of sandpaper, power sanding tools, heatguns, and related equipment and supplies. Publishers of do-it-yourself home repair magazines and books also should be encouraged to inform their readership about these dangers.

10.5 EDUCATING PARENTS, TENANTS, AND PROPERTY OWNERS

Parents are one of the most critical audiences in need of accurate information on lead-based paint hazards and poisoning prevention measures. Parents should be aware of the importance of minimizing lead exposure through regular housekeeping practices such as using wet methods of cleaning, where appropriate, to help reduce lead dust levels. Parents should also conduct visual checks for peeling paint and be aware of renovation projects that disturb old paint. Further, parents should understand the importance of testing their young children’s blood lead levels and of following a good diet and proper hygiene (for example, washing hands before meals).

Parents who are tenants need education on their rights, roles, and responsibilities. They should be aware of the effects of lead poisoning, their rights under the real estate notification and disclosure regulations, and the responsibilities of property owners under state and local laws and regulations. While property owners are responsible for maintaining units in good condition, parents who are tenants also have an important role to play in protecting their children, including:

- Communicating and cooperating with property owners by providing access to maintenance crews and contractors;
- Notifying property owners promptly of deteriorating paint or conditions that cause such deterioration;
- Performing routine or regular housekeeping to help reduce lead dust levels;
- Avoiding activities that disturb painted surfaces or generate dust;
- Ensuring good hygiene and nutrition; and
- Testing their children and reporting elevated blood levels to the property owner.

Educating parents in rental units on some basic steps that they can take to protect their families is particularly important for families residing in units where hazard control activities may not take place in the near future. The Task Force, however, does not suggest modifying existing laws concerning parents’ duty of care for purposes of liability determinations.

Parents who own their homes need information on a variety of topics, including how to renovate safely, how to control lead hazards, performing housekeeping practices to reduce lead dust levels, testing their children, and the importance of good nutrition and proper hygiene.

Finally, rental property owners and managers should be provided guidance on applicable lead-based paint maintenance and hazard control standards, hiring certified contractors for hazard evaluation and abatement work, training maintenance crews, and sources of financing for hazard control work. Owners and managers also should be encouraged to incorporate lead hazard control measures into their general maintenance practices and to be responsive to tenant complaints about lead-based paint.
Recommendation 10-4: Educating Parents and Rental Property Owners. The Task Force recommends that parents be educated about their rights, roles, and responsibilities to enable them to take all possible steps to protect their families’ health and safety, and rental property owners and managers should be educated so that they take responsible steps to control lead hazards.

10.6 CREATING CULTURALLY APPROPRIATE MATERIALS

Childhood lead poisoning disproportionately affects low-income, inner-city neighborhoods and communities of color that are often culturally diverse. Therefore, educational materials should be culturally and linguistically tailored to reach non-English speakers and people at low literacy levels. These materials should include photo novellas with few words and public service announcements that are run on ethnic media. To effectively reach out to non-English speaking and low literacy audiences, the participation of community and ethnic-based organizations is essential, both in developing appropriate educational materials and implementing programs. Community-based organizations, such as churches, should also be involved in local educational programs because of their knowledge of the community’s needs. Government agencies should award grants to such organizations to undertake lead-based paint education.

EPA, HUD, the Department of Health and Human Services, and other agencies should work with state and local organizations and private sector groups to develop “train the trainer” programs for public education related to lead-based paint hazards. Trained agency staff can, in turn, hire and train community residents and thereby build capacity within communities to undertake lead poisoning prevention work. Such programs have a particularly important role to play in educating high-priority neighborhoods where hazard control work may not take place promptly. Trained community residents can help educate the other members of the community, identify lead hazards, and ultimately perform lead hazard control work consistent with state training and certification requirements.

Employing community workers will also create job opportunities in disadvantaged neighborhoods, where lead contamination is likely to be most severe. The importance of proper training and worker protection cannot be overemphasized. Programs involving community participation are already under way in some areas. Because community employment programs are relatively new, successful programs should be evaluated so that their success can be replicated elsewhere.

Recommendation 10-5: Creating Culturally and Linguistically Appropriate Materials. The Task Force recommends that education providers work with minority, low-income, and non-English speaking people to develop and disseminate culturally and linguistically appropriate multimedia materials to educate families, communities, and workers at risk of being lead-poisoned about lead-based paint hazards and control methods.

10.7 PROMOTING INTERAGENCY AND PUBLIC-PRIVATE COLLABORATION

As noted earlier, interagency collaboration on public education is essential to avoid duplication of efforts. The Federal Interagency Lead-Based Paint Task Force, which consists of representatives from 20 federal agencies, is developing a strategy to increase such collaboration. The Task Force supports this effort and encourages additional collaboration and coordination. CDC, as the chair of the Federal Interagency Task Force’s Education Subcommittee, has begun this process through its Childhood Lead Poisoning Prevention Education Conferences. The strategy should be designed to ensure that:

- Accurate information on health hazards and lead hazard control be developed and disseminated as soon as possible;
- Federal agencies send clear and consistent messages to avoid creating confusion for the public;
The National Lead Information Center’s Hotline and Clearinghouse be expanded to include more outreach activities targeted at audiences and neighborhoods at risk of lead poisoning and have more and multilingual staff available to respond to questions;

Agencies participate in joint demonstration projects to promote collaboration and develop complementary strategies; and

Agencies develop procedures to rapidly share important information.

A primary agency must be identified with overall responsibility to ensure that the strategy is implemented. In addition, EPA, HUD, and CDC should collaborate on developing and implementing an aggressive communications plan to disseminate this Task Force’s recommendations.

When real estate notification and disclosure requirements take effect (expected in 1996), the demand for information and calls to the Hotline and Clearinghouse may increase. Therefore, the Federal Government should ensure that adequate resources are available to expand and strengthen the National Lead Information Center’s Hotline and Clearinghouse. The Hotline and Clearinghouse, however, do not have the capacity to provide city- or county-specific information. Other groups should be responsible for disseminating such information (see Recommendation 10-7).

Finally, state and local capacity must be increased to provide accurate and specific information on issues such as local resources, regulations, and contractors. State and local housing, environmental, building, health, and social service departments should coordinate their efforts through interagency or joint committees or working groups. Private groups should also coordinate their activities among themselves and with government agencies to avoid duplication of efforts.

**Recommendation 10-6:**

*Promoting Interagency and Public-Private Collaboration.* Task Force recommends that federal, state, and local agencies, and private groups collaborate and coordinate their efforts to ensure that limited public resources effectively reach targeted audiences in a complementary manner.

**Recommendation 10-7:**

*Making Comprehensive Information Easily Accessible in a Centralized Place.* The Task Force recommends that state and local governments and nongovernmental groups continue and expand their efforts to make information on all aspects of lead poisoning, its prevention, and financing available in an accessible, centralized manner.

**10.8 Offering Accessible, Centralized Information**

Parents, tenants, property owners, doctors, day care providers, and other groups should be able to access complete and relevant information on all aspects of lead poisoning and prevention in one central place, instead of having to obtain it piecemeal from multiple sources. Local “one-stop shopping” sources for city- or county-specific information should be developed to:

- Answer questions from callers and visitors;
- Make EPA’s and other pamphlets available to the public;
- Distribute information on issues such as tenant rights and the use and rental of special vacuums;
- Refer the public to appropriate local legal and medical services, training programs, trained and certified lead-based paint inspectors, risk assessors, and licensed contractors;
- Maintain a local registry of housing free from lead-based paint hazards, assist in locating such houses, and assist with temporary relocation during lead hazard control projects.

Such hotlines and repositories should coordinate their activities with the National Lead Information Center’s Hotline and Clearinghouse.

**10.9 Providing Housing Counseling and Information on Financing**

Lenders can help increase homebuyers’ awareness of potential lead-based paint hazards through their housing counseling and education programs. Such programs could include information on potential hazards of lead-based paint and appropriate methods to control
hazards. Fannie Mae and Freddie Mac, as well as primary lenders, should publicize their own loan products that can be used to finance home acquisition and rehabilitation, including lead-based paint hazard control. HUD should also develop a comprehensive document detailing the availability of HUD financing and insurance for home acquisition and rehabilitations that can be used to pay for lead-based paint hazard control.

**Recommendation 10-8:**
*Providing Housing Counseling and Information on Financing Options. The Task Force recommends aggressive efforts by lenders to increase public awareness of both lead-based paint hazards and solutions and loan products that can be used to finance lead hazard control.*

**10.10 EDUCATING HEALTH CARE PROVIDERS TO EDUCATE PARENTS**

Health care providers need education on lead-based paint hazards and solutions so that they are able to correctly identify and treat childhood lead poisoning. In addition, with proper education, the health care community can serve as an excellent conduit for educating parents and families on lead-based paint hazards and preventive measures. The health care community can be educated through public health departments, CDC grants, medical associations, medical journals, and medical schools. This education should cover a gamut of issues, such as:

- The causes of childhood lead poisoning;
- The importance of routinely screening young children's blood lead levels;
- How to accurately interpret laboratory results;
- Appropriate treatments for childhood lead poisoning;
- Preventive measures, such as proper housekeeping and dietary practices; and
- How to educate parents and families.

With better education, health care providers can help educate parents. Obstetricians, gynecologists, and pediatricians, who provide care to expecting mothers and young children, have a pivotal role to play in primary prevention as well as diagnosis and treatment. Doctors and nurses could discuss the hazards of lead-based paint with parents and families during routine examinations, advise parents to have their children screened, and place lead posters and pamphlets in their offices.

**Recommendation 10-9:**
*Educating Health Care Providers. The Task Force recommends that health care providers be educated about childhood lead poisoning, its causes, methods of prevention and treatment, and the importance of routinely screening young children's blood lead levels. Health care providers also should be encouraged and trained to educate parents and families about childhood lead poisoning.*