

## **Casa de Salud: A Model for Engaging Community**

### **US EPA National Center for Environmental Research Human Health Symposium – a STAR Progress Review Workshop April 9-10, 2003**

*Casa de Salud* is a research and education model designed to engage residents of highly stressed neighborhoods of Lawrence, Massachusetts, in activities to mitigate the health impacts of environmental toxins. *Casa de Salud* (Health House) is a culturally integrated community education and organizing model developed by a collaboration of service providers to address public health problems affecting the city's largely Hispanic population.

#### Background

Lawrence, Massachusetts is the oldest planned industrial community in the United States. Rapid growth during the industrial revolution led to an influx of immigrants from around the world seeking jobs in the textile mills. This history of drawing immigrant populations continues today, even though Lawrence's factories and mills have closed and moved away. Since the 1950s Lawrence has drawn immigrants primarily from Caribbean and South American countries. Currently, there are 70,000 people living in a 10 square mile area and the school-age population is now more than 80% Hispanic. Poverty is widespread and severe, ranking the city among the twenty-five poorest in the nation. Per capita income is less than \$10,000.

Lawrence has significant environmental health threats. Lead levels in children are nearly three times the state rate, and pediatric asthma affects nearly 10% of all Lawrence Public School students. Environmental threats date to the earliest years of industrial development and new threats continue to emerge. Lawrence carries the legacy of acres of abandoned mill buildings with significant unaddressed environmental hazards such as asbestos and PCBs. In the last two decades 5 incinerators operated in a 4.5 square mile area. Two of the incinerators have recently closed due to violations of emission standards. One of the incinerators was responsible for 2200 pounds of mercury emissions annually during the 1980s and 1990s. Two-thirds of Lawrence's population live in rental housing, much of it decayed. Many housing units date to the peak of the textile industry in the earlier part of this century when tremendous numbers of housing units were built to accommodate waves of immigrant workers. Lawrence is bordered by two major highways and at one time reported the highest Toxic Release Inventory emissions in New England. Recent health threats identified by community residents include emissions from over 130 auto body shops, many located among residential housing, and ritual uses of mercury in residential units.

#### Goals and Objectives

Until *Casa de Salud* was implemented, the Latino community in Lawrence has been largely unrepresented in efforts to address the city's environmental health problems. *Casa de Salud* was

conceived to remedy this omission by engaging community residents in identifying, understanding, and addressing the health impacts of their toxic environment. The primary objective is to develop and demonstrate the effectiveness of training residents to conduct neighborhood home-based meetings (charlas) as a means to empower residents to become more active in addressing environmental health issues in the community.

Specific objectives include:

1. Provide ten *Casas de Salud* (Health Houses) in highly stressed neighborhoods as sites for mutual education and planning among health care providers, scientists, and community members.
2. Gather data regarding residents' health concerns and knowledge of environmental health threats to inform the activities of environmental scientists and health care providers.
3. Develop and implement effective, neighborhood-based education tools to help families address the known concerns of lead exposure and asthma through collaboration between community residents, health care providers, and environmental health scientists.
4. Increase scientific knowledge and community understanding of specific environmental health threats and change strategies.
5. Develop community-based interventions building on increased scientific knowledge and community awareness.

Research goals include measuring and evaluating:

1. Changes in residents' knowledge of environmental health issues in the community.
2. Changes that demonstrate residents increased ability to address issues themselves or engage the assistance of others.
3. The effectiveness of charlas as a method to increase residents understanding of environmental health issues and increase their ability to develop culturally appropriate interventions.

### Mission and Approach

Key to the success of *Casa de Salud* is hiring and training Latino residents to conduct outreach and education in their own neighborhoods. First we hired a Community Coordinator who is responsible for hiring and supervising the work of ten residents to serve as Casa Leaders. We selected a person with natural leadership skills who is well known and respected throughout the Latino community and successfully manages meetings with such diverse constituents as the Mayor, the press, educators, health care providers, auto body shop owners, and neighborhood organizations. The Community Coordinator then hired ten residents to serve as Casa Leaders. These residents represent different neighborhoods in Lawrence and have natural affiliations with housing projects, religious groups, in-home daycare providers, and parent organizations.

The project began with efforts to focus on priority issues identified by community residents - validating their concerns, respecting their level of knowledge, and developing educational programs and materials relevant to their issues. As their level of knowledge increased, we

introduced new information or provided information they requested. Basing work on the community's priority issues fostered a close and mutually respectful relationship that has developed between project partners (environmental health scientists and health practitioners) and the Casa Leaders. This relationship has opened a pathway for mutual education and serves as a model for engaging residents, neighborhood organizations, and community agencies in the project.

Through mutual education, our approach to the project has evolved over the past two and a half years. In the first *charlas*, Casa Leaders asked the question "If you could change anything in your environment, what would you change?" The overwhelming response from the community was trash - trash in yards, trash in the streets, trash in the parks. We provided the Casa Leaders with information about recycling programs and they gave out recycling bins in their *charlas*. They began to discuss the fact that trash led to problems with rodents and cockroaches and asked for information on pesticides and on reducing pesticide use and finding safer alternatives. At first we developed our training programs by telling the Casa Leaders what *we thought they needed to know*, but after discussion with them we learned to develop the training programs based on *what they told us they wanted to know*. Resulting training programs have been much more relevant and appropriate. The pesticide training program evolved into a practical, hands-on program in which the Casa Leaders were shown examples of the different types of pesticides available, their uses and health hazards, and safer alternatives. They also learned practical skills such as how to plug holes in walls with caulk, weather stripping, and steel wool, how to store food and trash in tightly closed containers, and ways to dry up moist areas that attract roaches.

A training program on mercury represents another example of the importance of mutual education. Freshwater fish in the region contain the highest levels of mercury in Massachusetts, likely from deposition of mercury during the years the incinerators were in operation. Consumption of local fish is a valued source of protein in a poor community and we developed a training session on the health concerns, particularly for pregnant women and children, of eating local fish containing high levels of mercury. During that session, the Casa Leaders, with their new knowledge of the health effects of mercury exposure, proceeded to tell us about people in the community that use mercury for ritual purposes. We were astonished to learn that people burned mercury in candles, sprinkled it in their homes and cars, and even ingested it to ward off evil spirits, bring good luck, and improve their chances with love. After the training program, some of the Casa Leaders visited local *botanicas* to educate owners about the serious hazards associated with mercury exposure from ritual uses. *Botanicas* are neighborhood stores where residents buy mercury in capsules containing about 20 times the amount of mercury found in a thermometer. They also buy candles, oils, herbs, and prayer cards for spiritual and ritual purposes. In response to the Casa Leaders information, we have developed a program to ascertain the extent of mercury use in the community, conduct informal education through *charlas* and meetings with community organizations, and provide information to *botanica* owners to encourage alternatives practices.

### Organization and Leadership

The *Casa de Salud Steering Committee* serves as the leadership and decision-making body for the project. It consists of members from each of the four partnership agencies and meets on a

monthly basis. The purpose of the Steering Committee is to make programmatic decisions, develop training programs, oversee outreach and education efforts, and conduct research. The Steering Committee continues to review yearly programmatic goals and evaluates progress toward reaching these goals.

The work of the Steering Committee is supplemented by an Advisory Council that fosters collaboration between *Casa de Salud* and other environmental health programs in the city. The Advisory council is made up of 11 residents of low-income, Latino neighborhoods and representatives of health care provider and environmental health agencies. The Council meets every quarter to provide guidance and direction to the project, suggest local resources on environmental health issues, provide ideas to help the Casa Leaders take action around identified issues, and help identify health related environmental concerns in the community.

Ten Casa Leaders have been recruited and trained to hold neighborhood meetings or *charlas* in their homes, to share information and resources about environmental health threats in their neighborhoods, and to take action to address these threats. The Casa Leaders are well-known and well-respected members of our target neighborhoods. Two of the Leaders are teens who graduated from the Lawrence Teen Coalition's three-day Leadership Institute, a program that teaches teens how to identify community needs, plan projects, develop a team, and work with diverse groups.

## Results

During the first two years of the program 409 residents met in *charlas* in homes or neighborhood centers across the city. All of the participants were Hispanic, 70% were women and 30% were men. With only a few exceptions, none of those who attended *charlas* had ever attended a public meeting at the city hall, library, or in any of the schools. Some of the *charlas* were attended by local government figures such as the Mayor, members of the City Council, the Chief of Police, and the Fire Chief. All of the participants were introduced to the *Casa de Salud* program and asked to identify their environmental health concerns and actions they would like to take.

## Priority Issues

The following priority issues are listed as they have been identified by residents attending *charlas*. It has been interesting to observe that as the Casa Leaders became better informed about environmental health issues and more comfortable in their role as environmental health educators, the level of knowledge among residents increased and their understanding of health issues related to environmental threats became more sophisticated.

1. Trash in the streets, vacant lots, and parks, poorly kept or abandoned property, illegal dumping, and overflowing trash collection bins attracting rodents and cockroaches.
2. Air pollution from large diesel trucks, cars, several incinerators, and "dirty" industry, including auto body shops and junkyards.
3. Health issues related to rats and cockroaches, and pesticide use.
4. Indoor air pollution as it relates to respiratory illness, household chemicals, and asthma triggers.
5. Ritualistic use of mercury and the health effects of exposure.

## Actions to Address Priority Issues

As the project has evolved we have observed a transition in the actions of Casa Leaders and Casa Members. When the Casa Leaders were first hired, most of them had no experience in a leadership or activist role and had no idea how to mobilize residents to take action on issues of importance to the community. The Casa Members were the same. Many of them were unaware of environmental health problems in the community. Even though many of them or their family members had asthma, they were unaware of the environmental factors that can exacerbate asthma and they did not know how to take action to reduce asthma triggers in their own environment. It has been particularly exciting to observe residents' growing awareness and ability to take action. It's almost as if the project is propelled forward on the energy generated by these changes. Some of the actions we have observed include:

1. Casa Leaders began to hold more frequent neighborhood meetings. In addition to the bi-monthly charlas, Casa Leaders attended neighborhood association meetings, many of which were facilitated by a City Council member. This gave the Casa Leaders an opportunity to talk about the concerns of their *charla* members and find ways that Casa Members and neighborhood groups could work together. Two of the Casa Leaders organized neighborhood cleanups in collaboration with the community group *Our United Neighborhood Cleanup*.
2. Neighborhood fairs are familiar events in the community and an effective tool for bringing people together to socialize and learn. The Casa Leaders and members of the Steering Committee organized five health fairs during the year. The fairs offered food, music, games, and environmental health information in a culturally popular social setting. Through these fairs the Casa leaders were able to meet new people in the community, share environmental health information, and involve new people in the *Casa de Salud* program.
3. The Spanish language media has also been an effective tool for the Casa program, serving as a bridge between *Casa de Salud* and the community. Educational programs have been advertised and promoted through the media. Casa Leaders and members of the Steering Committee have been interviewed on topics such as asthma, neighborhood cleanups, health fairs, and training programs for auto body shops. New volunteers that have come forward as the result of radio spots or newspaper articles provide one measure of the success of working with the media.
4. The Casa Leaders have informed us that many residents are functionally illiterate, having been poorly educated in both their home country and in the US. They asked for educational material for low literacy audiences available in both Spanish and English, and they also asked for information on video.

## Importance to the Community

Health care providers and researchers have been aware of Lawrence's high pediatric asthma and lead poisoning rates for a long time. Excellent programs are in place to provide services to the affected population, but the affected population, the Latino community, was not really aware of the severity of the problem until they began to attend *charlas* organized by the *Casa* program. When we asked a group of 8 teens if anyone in their family had lead poisoning, 3 teens raised their hands.

High lead poisoning rates now have greater meaning for them. When we asked members of a *charla* if they had children with asthma, 5 out of 10 raised their hands. High asthma rates now have greater meaning for them.

In the *charlas*, residents are beginning to understand the connections between environmental conditions and some of the health problems they are experiencing. Talking to friends and neighbors provides an opportunity to share their worries and have them validated. For the first time they are provided with information verbally, in their own language, and in a familiar setting in a home or church in their own neighborhood. They feel free to ask questions, propose solutions, and vent frustrations. The language, education, and cultural barriers to their knowledge of environmental health issues begin to dissolve. Their feelings of isolation from the larger community lessen and they are beginning to be empowered to advocate for their own health.

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Project Partners

1. Family Service, Inc., a community-based human service agency that works to promote the well being of individuals, families, and the community with special focus on underserved linguistically and culturally isolated populations.
2. JSI Center For Environmental Health Studies, promotes community-based approaches to address threats to public health and the environment from toxic chemicals by providing technical assistance, developing education and training programs, conducting research, and promoting community-based actions to influence environmental health policy.
3. Greater Lawrence Family Health Center is a non-profit primary care facility providing high quality, comprehensive health care services to a culturally diverse population regardless of insurance status or ability to pay to families in the Merrimack Valley.
4. Lawrence Teen Coalition is a community-based organization formed in 1986 to bring the Lawrence community together to develop a comprehensive action plan to address teen pregnancy and promote teen leadership.

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