



The Forum

promoting dialogue among Habitat for Humanity's worldwide partners

Housing quality and health: What do we know? How do we learn more?

By Lisa Heintz and Karan Kennedy



STEFFAN HACKER

In our work building houses with people in need, we know instinctively that people with decent places to live are healthier – happier, more secure and less susceptible to diseases that are endemic to the poor.

In recent years, Habitat for Humanity has begun to look specifically at ways to design housing interventions to have the greatest positive impact on health. In this effort, our good instincts are aligned with emerging research, along with information provided by world health organizations and conclusions of the United Nations Development Programme (UNDP).

What research tells us so far

Research into the impact of substandard housing on families' health is relatively new in developing countries. But we are able to glean insight from studies done in the United States and Europe.

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Housing quality and health: What do we know?

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In the United States, research identifies many health problems that arise from lead poisoning, rat bites, fires, asphyxiation from poorly ventilated heating systems, and electric shock, to name a few. (Rosenstreich et al. 1997)

Many studies have demonstrated that poorly maintained housing is linked to injuries and lead poisoning in children. (Sandel et al. 1999, 25-26; see also Scientific American 1999, 19-20; Bernstein 1999; Perez-Pena 2003.) Lead poisoning is so widespread that it has been declared “the most common and devastating environmental disease of young children.” (U.S. General Accounting Office 1993, 2)

Structural issues are not the only influence on health. Overcrowding can exacerbate stress and disease as well, according to studies in the United States. (Nossiter 1995)

Additional studies in Great Britain and Scotland link housing to health problems. Housing with poor insulation and damp conditions caused by inadequate heating correlates with increased number of deaths reported in winter months among the poor. Poor air quality due to lack of proper ventilation also has a negative impact on health, particularly children, as they may be exposed to cigarette smoke, cooking, dust mites, and mold or fungi spores that thrive in damp conditions.

A controlled study carried out in England showed that residents in high-quality public housing in West London were less likely to experience illness than residents in lower-quality public housing in East London. (Hynes et al. 2000, 3)

These findings all point to the logical conclusion that the quality of housing in the developing world, like everywhere else, has a profound effect on health. Other research is beginning to verify the connection.

A recent study in urban slums by Paul Gertler, a professor at the University of California, Berkeley, concluded that replacing dirt floors with cement has a dramatic impact on the improved health of children. In fact, the change in housing conditions made a bigger difference in the health and cognitive development of children than nutritional supplements.

As an example, the study tracked an urban program in Mexico that began in the northern state of Coahuila in 2000. In 2005, the following results were reported for homeowners in Torreon: “A nearly 20 percent reduction in presence of parasite, and when compared to their neighbors, their children under the age of 6 showed the following improvements: Almost 13 percent fewer episodes of diarrhea; 20 percent reduction in incidences of anemia; higher scores of 30 percent on language and communication skills for toddlers ages 12 to 30 months; scores 9 percent higher on vocabulary test for youths (ages 36 to 71 months).”

The researchers caution that the same results would not be achieved in rural areas where families do not have access to clean water. Clearly, the combination of cement floors and clean water makes a critical difference in the health and well-being of children.

What health practitioners tell us

According to statistics gathered by the World Health Organization, diarrheal diseases are the third leading cause of death in children under 5 years of age, and malaria is No. 4. More than 1.7 million children die each year from diarrhea and more than 800,000 from malaria.

Leading Causes of Death in Children Under 5 Years of Age, Estimates for 2000-2003			
<i>(Source: World Health Organization, The World Health Report 2005)</i>			
Rank	Cause	Numbers (thousands per year)	% of all deaths
1	Neonatal causes	3,910	37
2	Acute respiratory infections	2,027	19
3	Diarrheal diseases	1,762	17
4	Malaria	853	8
5	Measles	395	4
6	HIV/AIDS	321	3
7	Injuries	305	3
	Other causes	1,022	10
	Total	10,596	100.0

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Mission statement

The Forum exists to enable the worldwide partners of Habitat for Humanity International to accomplish its mission by providing a means to:

- Promote discussion, the exchange of ideas and best practices, and knowledge sharing.
- Share concerns and challenge our standard ways of doing things.
- Explore different methodologies and issues relating to housing and poverty worldwide.



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Creating healthy living environments

by Jonathan Reckford



STEFFAN HACKER

Seven-year-old Aracelly Parna checks out the swing set in the front yard of her family's Habitat house in Temuco, Chile. Before moving into this house, the family of five lived in what the parents called an "emergency house" that had no kitchen or bathroom.

“All these efforts emerge from our vision of a world where everyone starts and ends each day in a healthy home in which they can live and grow into all that God intends.”

Caulking and insulating may not be the most sought-after jobs on the work site, but according to a New Zealand government study, they may just be some of the most important tasks we can do to help homeowners be healthier.

Every dollar spent on insulation, according to the study done by the New Zealand Business Council for Sustainable Development in the 1990s, saved \$2 in health costs.

Weatherization is only one component of building healthy living spaces, however. Overcrowding, for example, is a huge issue. According to the UN-Habitat Partners for Urban Health, “A number of studies have connected overcrowded housing conditions in childhood with respiratory problems and infections, not just at the time but later in life. Further, multiple housing deprivation can lead to a 25 percent greater risk of disability or severe ill health across the life course, with the risk increasing if the exposure to poor housing occurred in childhood.”

Our own studies show how dramatically a safe, simple and decent home raises the health, educational and living standards of the families we serve. Our holistic approach to serving families has led us to create designs and to partner with other organizations to help create healthy living environments.

For example, in a number of locations we have assisted communities in accessing safe drinking water. In Egypt, we have helped families configure their homes so they have separate living quarters from the garbage they sort to make a living. And in Brazil, we use building materials that no longer expose homeowners to the parasites that burrowed in the mud walls of their previous homes.

All these efforts emerge from our vision of a world where everyone starts and ends each day in a healthy home in which they can live and grow into all that God intends. 🏠

Jonathan Reckford is CEO of Habitat for Humanity International.

New standards help define the mission

By Ted Baumann



Habitat for Humanity International is in the final stages of developing housing quality standards that will set the minimum performance criteria for new or rehabilitated houses built by Habitat for

Humanity, or with its support, anywhere in the world. These standards will be rolled out during FY2010 and become effective in FY2011; from that time on, in order to be counted in HFHI delivery statistics, a new house or a rehabilitated house will need to meet these standards.

A key motivation for adopting the housing quality standards is the relationship between housing and health. If the standards are interpreted correctly and sustainably in local conditions, they should contribute significantly to the health outcomes for the families we serve. And if we are able to verify that the majority of the houses we build or facilitate meet these standards, we can plausibly make the case that the impact of our work on health is positive.

HFHI has worked without ministrywide housing standards for most of our existence. Any standards applied to definitions for “new” and “rehabilitated” houses rely on local building codes. In recent years, however, the variety of delivery options has expanded significantly, driven by the desire to match our delivery models to the reality of our family partners’ livelihoods.

For example, rather than locate houses on the fringes of a city to reduce cost, we are helping families incrementally improve existing housing close to where they work. Incremental interventions are an increasingly important metric in counting the number of families served each year. However, the ultimate goal remains for families to eventually move to a standard of housing that is decent and adequate. The housing quality standards give us a tool for measuring when that standard has been reached through incremental interventions.

Fortunately, most new houses built with HFH support over the years meet the new standards. A more diverse, context-specific and demand-driven approach to housing delivery, however, requires us to set some minimum performance standards to ensure that HFH houses are truly decent and adequate in terms of the human need for shelter.

Performance standards vs. construction specs

Performance standards are about a living environment rather than just a house. The housing quality standards set out what a

shelter must do for the family living in it – providing protection from the elements, adequate living space, culturally acceptable living arrangements, and access to adequate water and sanitation, transportation and socio-economic amenities.

The housing quality standards do not specify how those outcomes are achieved – in other words, they are not construction specifications. Construction specs tell us how a house should be built: with what materials, on what site conditions, with a certain number of doors and windows, and so on. Performance standards define the minimum things a house must do for its inhabitants in order to be considered “decent” and “adequate” – in other words, what sort of habitat the house provides.

It is entirely possible for a house to meet physical construction specifications but still be inadequate for the family living in it. For example, a house built on land acquired cheaply because it is in an economically undesirable or unhealthy location, in order to reduce the sale price and/or monthly loan repayment to the family partner, is a false economy. The homeowner may be able to afford the initial purchase price, only to suffer the health or livelihood consequences of an unhealthy or bad economic environment.

A house might be considered structurally sound but be laid out in such a way as to undermine privacy and thereby encourage conflict within the household. Or the house could be fine structurally but have limited access to healthy water.

Incremental repair or improvement by homeowners using HFH-supported housing microfinance loans may produce outcomes that reflect short-term priorities, such as a larger house, at the expense of longer-term priorities, such as adequate protection from the elements.

In all of these cases, the new housing quality standards require Habitat for Humanity to take these factors into account when designing a project. But in none of these cases would the standards force Habitat to adopt a particular building technology. For example, in the tropics, a bamboo frame house with woven palm walls might be perfectly adequate to meet performance standards relating to protection from the elements. The housing quality standards are based on a distinction between form and function. 🏠

Ted Baumann is director of international housing programs at Habitat for Humanity International.

How the housing quality standards were developed

By Ted Baumann

There is no globally accepted performance standard for housing. No international organization or institution has ever developed a set of standards prescribing what a dwelling should provide for its inhabitants in order to be considered “safe, decent and adequate.”

That gap presents Habitat for Humanity International with both a challenge and an opportunity. The *challenge* is that donors, who are increasingly interested in verifiable statistical analysis of development outcomes, might eventually insist that we adhere to standards developed by someone else – standards that might not fit our work and mission. The *opportunity* is that we can influence the global development community in creating standards for decent housing.

The Sphere Project – launched in 1997 by a group of humanitarian NGOs and the Red Cross and Red Crescent movement – developed a set of “Minimum Standards in Disaster Response” that includes shelter performance standards. Applying the logical premise that Habitat for Humanity should never provide housing that performs below the minimum

recommended for people in disaster-relief situations, HFH players in the field began developing housing quality standards that built on the Sphere guidelines.

The immediate implications of adopting the housing quality standards will vary depending on the situation. In most developed and middle-income countries, there will be little change, since most new houses already meet these performance standards. In less-developed countries, however, the standards will require national organizations to strike a balance between housing adequacy, cost and targeting of the neediest.

Pursuing “adequacy” as defined by the housing quality standards may lead to instances where long-term considerations of health and safety override short-term considerations of cost. Finding ways of meeting families’ housing needs that are sustainable both for HFH and for the home-partner is an integral part of our mission.

Defining the challenge explicitly, as the housing quality standards do, will strengthen our incentive to explore creative new ways to serve families. 🏠

Standards at a glance

These performance standards – drawn from the Millennium Development Goals, International Residential Building Codes, UN-HABITAT and Sphere guidelines – define the quality of a new house built by Habitat for Humanity or partner organization, or of a house that has been rehabilitated. These standards also set a consistent bar for when a series of incremental improvements achieve the goal of simple and decent housing.

1. Design

A. Covered area: Each person in the household has a usable covered floor area of no less than 3.5 square meters (37.5 square feet) OR the covered area comprises a minimum of two rooms. If the minimum standard for usable space has not yet been met, the house is situated so as to allow for future extension.

B. Materials: Locally sourced materials and labor are used without adversely affecting the local economy or environment, and enable the maintenance and upgrading of the house using local tools and resources.

C. Location: The house is safely located; risks from natural hazards – including earthquakes, volcanic activity, landslides, flooding or high winds – are minimized, and the area is not prone to diseases or significant vector (disease-carrying agents) risks.

2. Durability

A. Disaster mitigation: In disaster-prone areas, construction and material specifications mitigate against future natural disasters.

B. Safety: Structural materials are durable enough to allow safe refuge and exit in case of a natural disaster.

3. Secure tenure

Land and property ownership and/or use rights for buildings or locations are established prior to occupation, and permitted use is agreed as necessary. Where use rights do not exist, there is de facto protection against evictions.

4. Water

A. Quality: Water is palatable, and of sufficient quality to be drunk and used for personal and domestic hygiene without causing significant risks to health.

B. Access and quantity: There is safe and equitable access to and/or adequate storage of sufficient quantity of water for drinking, cooking and personal and domestic hygiene. Public water points are sufficiently close to households to enable use of the minimum water requirement.

5. Sanitation

A. Access to toilets: Communities have adequate numbers of toilets, sufficiently close to their dwellings, to allow them rapid, safe and acceptable access at all times of the day and night.

B. Design, construction and use of toilets: Toilets are sited, designed, constructed and maintained in such a way as to be comfortable, hygienic and safe to use.

C. Drainage: Dwelling has an environment in which the health and other risks posed by water erosion and standing water – including storm water, floodwater, domestic wastewater and wastewater from medical facilities – are minimized.

Breathing easier in the United States

By Barbara Daugherty

In the United States, homeowners are increasingly concerned about the indoor air quality of their homes. In fact, indoor air pollution is one of the five most urgent environmental problems facing the United States, according to the Environmental Protection Agency.

Research provides strong evidence that characteristics of buildings and their indoor environments influence the prevalence of several adverse health effects, including communicable respiratory disease (e.g., common colds and influenza), allergy and asthma symptoms, and acute sick building syndrome (SBS) symptoms such as headaches and irritation of the eyes, nose, throat and skin.

Recent studies reveal that buildings with good overall environmental quality can reduce the rate of respiratory disease, allergy, asthma and SBS symptoms. The potential decreases in adverse health effects from improvements in indoor environments are estimated to be 10 percent to 30 percent for infectious respiratory disease, allergy and asthma symptoms and 20 percent to 50 percent for SBS symptoms. (Fisk and Rosenfeld)

Indoor pollution sources that release gases or particles into the air are the primary cause of indoor air quality problems in homes. Inadequate ventilation can increase indoor pollutant levels by not bringing in enough outdoor air to dilute emissions from indoor sources and by not carrying indoor air pollutants out of the home. High temperature and humidity levels can also increase concentrations of some pollutants.

Habitat for Humanity International's U.S. Construction Standards recommend that all Habitat houses meet or exceed the Energy Star and healthy indoor air quality standards.

The Energy Star program focuses on tight, energy-efficient homes that promote better indoor air quality. One reason for the focus is to reduce condensation, which can lead to mold growth. Another reason is control. In a leaky home, outdoor air enters the house intermittently – through cracks, unsealed joints and penetrations – depending largely on the weather. Sometimes there will be too much leakage, resulting in a drafty house. Other times there won't be enough, resulting in a stuffy house. Mechanical ventilation in a well-insulated, well-sealed house, however, can exhaust pollutants and bring in outdoor air in a planned way. This makes a house both comfortable and energy-efficient.

In addition, U.S. affiliates are encouraged to choose construction materials and interior finish products with zero or low emissions to improve indoor air quality. Many building materials and cleaning/maintenance products emit toxic gases, such as volatile organic compounds and formaldehyde. These gases can have a detrimental impact on occupants' health and productivity.

It is important to remember when building a tight house and using combustion-based appliances (furnace, dryer and stove) that careful ventilation is vital, to prevent back-drafting and carbon monoxide infiltration. Many codes demand that furnaces be installed in a sealed combustion closet and/or power vented with a fresh air vent.

It is also important to provide adequate ventilation and a high-efficiency, in-duct filtration system. Heating and cooling systems that ensure adequate ventilation and proper filtration can have a dramatic impact on indoor air quality. A central exhaust vent that can be wired on a timer or to run 24 hours a day may be a consideration. Indoor microbial contamination can be prevented through selection of materials resistant to microbial growth, by providing effective drainage from the roof and surrounding landscape, installing adequate ventilation in bathrooms, allowing proper drainage of air-conditioning coils, and designing other building systems to control humidity.

Habitat for Humanity has an easy-to-read home maintenance booklet available for homeowners who want to learn how to maintain a healthier house. Affiliates can download these booklets in English- or Spanish-language editions for their partner families.

Habitat for Humanity affiliates across the United States are dedicated to building simple, decent and healthy homes to enhance the lives of all Habitat homeowners. 🏠

Barbara Daugherty is a coordinator of U.S. field operations for Habitat for HFHI.

Maintaining a healthy home: *Tips for homeowners*

To keep moisture levels low:

- Run kitchen and bathroom fans when cooking and showering.
- Clean mold off interior surfaces quickly.
- Clean and repair water leaks within 24 hours.
- Use a dehumidifier if humidity is above 50 percent.

To improve air quality:

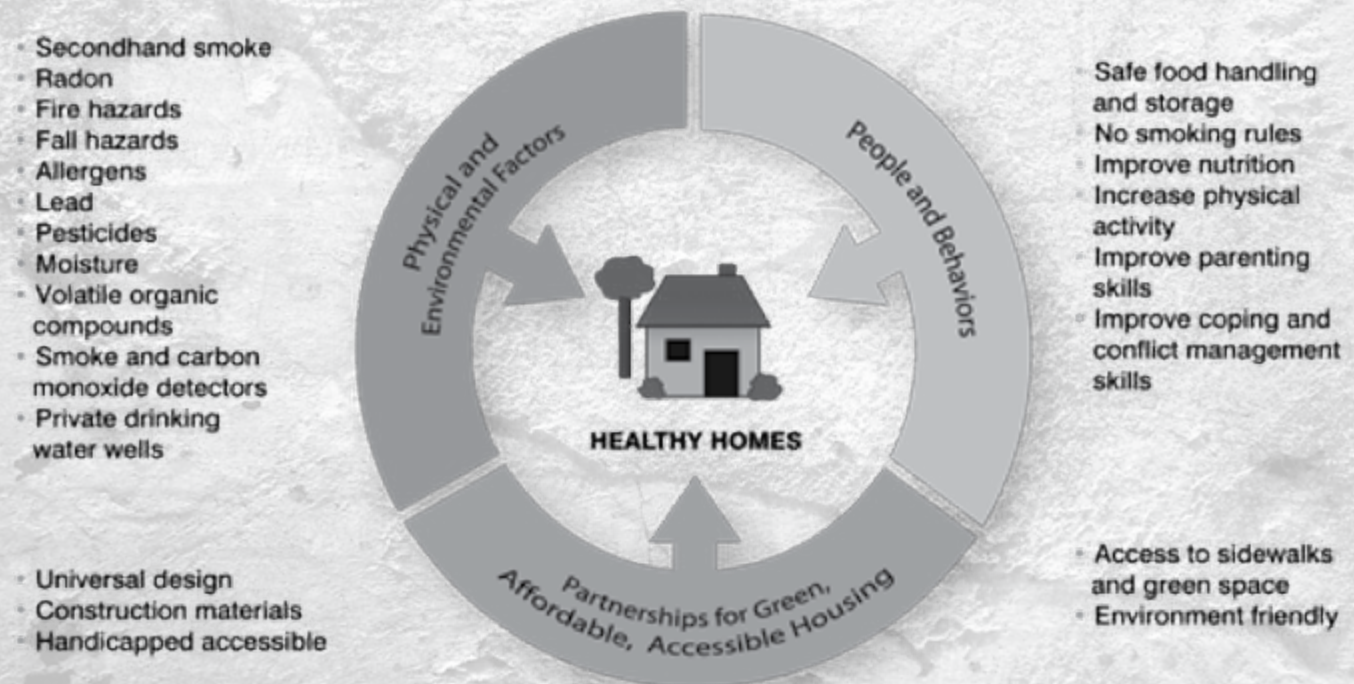
- Change HVAC air filters every 30 days.
- Avoid secondhand smoke, which can contribute to asthma and breathing problems.

Links to Healthy Home booklets

<http://my.habitat.org/GlobalLink.aspx?GID=1757> **English**
<http://my.habitat.org/GlobalLink.aspx?GID=1758> **Spanish**

Fisk, W.J. and Rosenfeld, A.H. (1997), "Estimates of Improved Productivity and Health from Better Indoor Environments," *Indoor Air*, Vol. 7 (3), pp. 158-172.

This research is supported by the DOE's Office of Building Technology, State and Community Programs.



<http://www.cdc.gov/HealthyHomes/Introduction.html>

Design considerations for a healthy home in A/ME

By Carl Queiros and Tsitsi Mkombe



In order to ensure that Habitat houses provide a healthy environment for families, the Africa and Middle East region has incorporated lessons learned from research into house designs, starting from the floor and working up and out.

The floor

A recent study conducted for the University of California, Berkeley's Center of Evaluation for Global Action found that "replacing dirt floors with cement in the homes of urban slums makes for more comfortable living – but more importantly, it significantly improves children's health by interrupting the transmission of intestinal parasites and boosts youngsters' cognitive abilities."

Designing a floor in cement is the most common way of creating a solid floor that prevents disease, parasites and vermin from entering the house. The important thing is that the floor is solid and durable, is raised above the ground surface, stays dry and is not porous.

The walls

Badly built walls also allow disease, parasites and vermin to enter the home. Structurally unsound walls can be hazards, increasing the risk of fire or structural collapse. There is an assumption that "good" houses are made of modern materials like brick, cement and glass. However, readily available, traditional material such as poles, grass and soil blocks can make good wall material when used properly. The walls should be well built, treated and maintained, and offer the necessary protection in relation to the environmental context – good insulation for cold climates; good ventilation for hot and humid climates.

The roof

Leaky and shabby roofing not only allows for the encroachment of vermin, but also exposes the occupants to the cold and rain. Survey data collected by Alex Marsh

at the University of Bristol shows that damp, wet and cold conditions are a major contributor to illnesses, particularly respiratory illness.

Typically, poor houses have leaky roofs made of traditional materials such as thatch, sticks and leaves. It is not surprising that in sub-Saharan Africa, iron roof sheeting is considered a "decent" roof. However, well-made, quality grass roofs are superior to iron sheet roofing in a number of ways, including better thermal attributes – keeping warmth in during winter and heat out in summer. Regardless of materials used, the roof should create good insulation, be durable and keep out the elements.

Windows, light and ventilation

Good ventilation is important to avoiding respiratory complications, and poor light promotes the breeding of bacteria and disease. Glass windows, however, are not always the best solution, even though they allow for light to enter and can be opened and closed to suit weather conditions. In some cultures, the house is primarily a place to sleep and store things. Large glass windows increase security risks. In A/ME's program for orphans and vulnerable children, for instance, we found that families prefer not to have large glass windows as they increase security risks and are seen as extravagant by the community. In malaria-prone areas, insect screens on windows are required.

Energy

The burning of certain energy sources such as wood, paraffin and coal have significant negative effects on health, especially on respiratory well-being. Designing a building

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HH LESOTHO

Decent housing in Lesotho (above and bottom left). Also, homeowner Roanne Dennis (top left) beams in front of her Habitat home in Durban, South Africa.

Design considerations for a healthy home in A/ME

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with a low-energy stove as part of the house can have a positive impact not only on the occupant's health but on their financial and general well-being as well. In Ethiopia, for example, a country where many people cook with wood and coal, Habitat for Humanity is building energy-saving stoves as part of its homes, reducing the amount of wood or coal needed for cooking by two-thirds or more.

Space

Space itself is a very important health factor. Crowded, unsanitary conditions aid the spread of illness and disease. Boys and girls' sharing close sleeping quarters is believed to be linked to higher sexual abuse of girls and minors, leading to much greater susceptibility to sexually transmitted diseases. In Egypt, domestic animals are very important to the family's livelihood and, therefore, often share the living space. Habitat helps such families build additional rooms to separate human and animal areas.

Water and sanitation

Access to clean water reduces the risk of water-borne diseases. The World Health Organization (2007) indicated that diarrhea and other water-borne diseases are a major killer in Africa. Unsanitary toilet conditions create optimal conditions for spreading disease. Habitat A/ME either designs suitable water and sanitation facilities into the

housing settlement plans or finds partners who can provide them.

Many of the above design and construction improvements can easily be included in a house. The challenge is trying to meet all these requirements on a small budget. Developing house designs and approaches that provide healthy conditions for families just requires a little creativity! 🏠

Carl Queiros is the director of program development in Habitat's Africa and Middle East area office. Tsitsi Mkombe is the Foundation, Organization and Institution coordinator in the A/ME office.

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HFH Colombia aligns its programs with Pan-American healthy housing strategy

By Anabella Cueto

In Latin America, the risk factors affecting human health in terms of housing include: inadequate construction materials; insufficient water storage and subsequent contamination; lack of hygiene; inadequate care of domestic animals; use of chemical substances without proper precautions; improper sewage systems; poor waste management and inadequate food storage.

In combination, these factors can cause illnesses such as acute diarrhea, gastritis, cholera, salmonella, Chagas disease, malaria, yellow fever and dengue, as well as others repeatedly identified in the epidemiological profiles of populations living in slum conditions. Overcrowding and the lack of proper ventilation are also key factors in promoting these diseases.

The Pan-American Health Organization (PAHO) is promoting a healthy housing strategy, with the purpose of decreasing the incidence of illnesses in the population and guaranteeing environmental sustainability, relating both of these factors with health and housing. It is clear that this cannot be achieved without the support of governments and social institutions that are dedicated to developing intersectoral, integrated development strategies.



HFH COLOMBIA

Community members and government representatives from the health and environment sector work together as facilitators and educators.

The following chart relates each inadequate housing condition with its corresponding health risks, and the corrective measure recommended by the healthy housing strategy.

Housing condition	Health risks	Corrective measure
Unsafe water supply; poor management and storage of water within the house.	Intestinal illnesses.	Efficient rainwater storage system.
Inadequate bathrooms or lack thereof.	Mold and parasites with risk of infection, including skin infections.	Installation of toilets, showers and education regarding sanitation and the appropriate use/ maintenance of bathrooms.
Inadequate gray-water management.	Propagation of mosquitoes, with risk of illnesses such as dengue and malaria.	Installation of grease traps, education regarding sanitation.
Lack of available space in the house for the storage of toxins and/or poisonous products	Home accidents, environmental risk and poisoning.	Locate/create suitable space in the home for every necessary function. Education regarding the storage of toxic substances and organization of space.
Poor disposal of trash, furniture, tires and other objects.	Proliferation of rodents and risks to illnesses such as leptospirosis.	Provision of covered storage units that eliminate contact between animals and food items; community clean-up campaigns and institutional garbage collection; community education programs.

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HFH Colombia aligns with healthy housing strategy

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Funded by state resources, Habitat for Humanity Colombia was contracted by PAHO to develop and execute a project in San Andres, an island off the northwest coast of Colombia. The indigenous population (known as “raizales”) generally live in communities with poor sewage systems, little water storage and inadequate waste management. The project aims to unite technical, administrative and financial resources to minimize the risk of water-borne illnesses. The goal is to improve housing conditions – particularly the water supply, environmental health and basic sanitation – of 305 rural families on the island.

The project includes four focus areas:

- Improvement of water, sanitation and environmental infrastructure.
- Integrative management and control of vectors, rodents and water-borne illnesses.
- Institutional strengthening in health and environment.
- Development of community education programs, in line with the strategies for Healthy Housing and Communication for Behavioral Impact.

Community members and government representatives from the health and environment sector work together as facilitators and community agents. These individuals, considered volunteers with Habitat Colombia, have developed an educational process aligned with the healthy housing strategy, thus helping to identify preventative factors for health, environment and housing on a family and community level. To date, 50 home improvements have been carried out and six model homes have been built.

Other projects and activities of HFH Colombia that are aligned with the PAHO healthy housing strategy include:

- **Project “Improving my housing.”**
Based in Villarrica Cuaca, this project is geared toward basic hygiene in collection and suitability of water systems, bathrooms, kitchens and connections. The project benefits 100 primarily women-headed families of Afro-Colombian descent.

- **Training of 34 Habitat Colombia employees in the healthy housing strategy.**

Part of an alliance between the National Learning Service, the Pan-American Health Organization and Habitat for Humanity Colombia.

- **Training of 496 partner families in the healthy housing strategy.**

Habitat Colombia will provide training in the healthy housing strategy for all 496 of its partner families in FY2010, including basic themes such as water, waste management, food safety, family hygiene, home surroundings and environment.

- **Psychosocial recovery for displaced children.**

In Sincelejo, Sucre, a project has been developed that aims to support the mental health of 50 children through the development of skills and attitudes through artistic means such as theater, journalism, painting, crafts and recreation.

- **Health training for families displaced by violence.**

A total of 524 families in seven municipalities of Colombia will be trained and equipped with a healthy home kit that includes water filters, mosquito netting, kitchen equipment and other tools.

- **Youth support project in Puerto Tejada Cauca.**

Support for youth through sport and recreation as a process of psychological recuperation, occupation of time and physical education. The project supports mental health and helps prevent the formation of gangs.

Identifying risk factors that exist in housing and the surrounding environment – and the protective measures that can be implemented on the level of the family and the community – can only be achieved through education. The healthy housing program is a step in this direction, planning and developing in such a way that people not only decrease their risks but also have a better understanding of their overall health and well-being. 🏠

Anabella Cueto is the project coordinator for San Andres Saludable (Healthy San Andres) for Habitat for Humanity Colombia.

Pilot project improves living conditions for Roma families in need in Slovakia

By Katerina Bezgachina



EZRA MILLSTEIN

After living in ghetto-like conditions on the outskirts of the town of Svinia, Slovakia, Stefan and Bernadeta Bari will move into a safe, affordable Habitat home with their children: Csaba, 3, and Bernadeta, 2.

Initial results are encouraging in Europe and Central Asia, as Habitat for Humanity begins assessing how home repairs have led to improved living conditions and better health in a Roma project in eastern Slovakia.

At the conclusion of a pilot project to assist a Roma settlement on the periphery of the town of Svinia, an evaluation group reviewed results and documented improvements to the residents and their environment. The work on homes was carried out by the Roma families with support from Habitat and its local partner, Environmental Training Project (ETP) Slovakia Foundation, a center of sustainable development.

The evaluation commission was made up of Habitat

employees, representatives of ETP Slovakia, members of the municipal administration and social workers. The group inspected the completed homes and interviewed 30 people.

The commission also met with Slovak families from Svinia to assess their attitude toward the neighboring Roma settlement and interviewed social workers about health and educational outcomes.

All stakeholders agreed that there had been an improvement in the quality of life in the Roma settlement. Families who had been living in ghetto-like conditions on the outskirts of Svinia had cleaner and healthier homes after repairs had been carried out. Also, there was a reduction in the incidents of ticks, stomach disorders and respiratory

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A volunteer helps rehabilitate a home for a family in Hodejov, Slovakia. The work is being financed through a loan from HFH Slovakia.

Pilot project improves living conditions

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infection, especially among children.

According to the social workers, the number of hepatitis cases was reduced, and vermin and insect infections were totally eliminated. Four out of five families interviewed said they were happy with the outcomes and their children had fewer health problems.

“We have to be careful how we evaluate this project,” said John Young of the European Union’s Phare fund in Bratislava, who has visited 50 Roma settlements in Slovakia, including Svinia, several times.

“It’s a fantastic chance to help a problematic settlement, but we can’t expect miracles,” Young said. “The project organizers will have to stay here for 25 to 30 years if there is to be any permanent change.”

The program in Svinia helped improve living conditions for 137 Roma families. Under the supervision of construction managers, residents repaired leaking roofs, installed new flooring, painted walls, and built drainage channels and

garbage collection points.

New flooring, solid fuel cookers and heaters, and freshly painted walls and ceilings created a healthier and brighter indoor atmosphere in homes. Also, 37 families received 71 beds. For the first time in many years, family members had real beds, and children could sleep separately.

Prior to the start of the project, many people in the settlement suffered from hepatitis, the most likely cause of which was water consumption from the shared wells that were contaminated by garbage. A 9-cubic water reservoir was installed, one old well was cleaned and the other two capped off. The new reservoir drew water from a nearby spring and piped it to the well, providing fresh and clean drinking water for the community.

Moreover, all 137 families received disinfectants for their

“ All stakeholders agreed that there had been an improvement in the quality of life in the Roma settlement. Families who were living almost in a ghetto on the outskirts of Svinia had cleaner and healthier homes after repairs had been carried out. ”

homes. As a result, according to the social workers’ data, incidents of hepatitis in the community had been cut in half.

Before the pilot project, the lack of proper walkways in the settlement meant that during rains the residents had to slog through mud and water. Flooding was common because of the low level of the area and the absence of any drainage system. As part of the project, the most frequently used paths were leveled and covered with macadam and gravel. After long negotiations, the municipality permitted the construction of one concrete path to the well.

For the Roma families, the project in Svinia is not the end of poverty, but a beginning to a long-lasting solution. Taking it to the next level and conducting additional home renovations and constructions will require political will and vision on the part of the local administration.

Katerina Bezgachina is the public relations and media manager for Habitat’s Europe and Central Asia area office.

Taking care of the most vulnerable in Bulgaria

By Katerina Bezgachina



Habitat for Humanity in the region of Europe and Central Asia has begun to focus on working with vulnerable groups to ensure their health and decent housing. In many countries, mentally and physically challenged people are considered unreliable clients by banks and thus have very little access to commercial credit. At the same time, governments and social services have no funds to assist them.

Habitat's approach is two-pronged: building new housing with design features that meet their special needs or providing loans to adapt their current homes. To better address the issue, Habitat partners with like-minded organizations or specialized government service providers that offer health services to vulnerable groups and recognize inadequate housing as a root of poverty.

One recent example is a Habitat project in Sofia, Bulgaria, to help 20 families with disabled children. In a developing country, where there is an acute lack of infrastructure and specialists to deal with the disabled, having a handicapped child puts enormous stress on parents. These children require round-the-clock assistance, as they cannot go out alone – stairs, elevators and building entrances are not adjusted for wheelchairs. Moreover, these children often are not free even in their own homes, as corridors and doors are too narrow and there are no holding devices in bathrooms and toilets.

Working in cooperation with the foundation Center for Hope, Habitat Bulgaria is providing support for these families. Apartments are being reconstructed to meet special needs – with wider doors, extra spaces, holding devices in bathrooms and toilets, sockets and switches at accessible heights.

Renovation costs will vary from family to family. The project is designed to provide partner families with a no-profit loan – on average about \$2,500 – to cover part of the expenses. The rest will be drawn from external matching funds or from down payments. Families will be repaying \$55 per month over three to five years.

As always with Habitat, partnering and volunteering are necessary components of the program. Homeowners will be actively involved at various stages of the project, including the selection of the construction company, monitoring of the implementation and collection of additional funds. Work will run for an estimated seven months. 🏠

Katerina Bezgachina is the public relations and media manager for Habitat's Europe and Central Asia area office.

Focus on water and health in Vietnam

By Kathryn Reid



EZRA MILLSTEIN

Information, education and communication are important components of the work of HFH Vietnam. Pictured here, schoolchildren from the Dao Thanh primary school in My Tho, Vietnam, appear to be entranced by visiting volunteers from a nearby Global Village build.

No matter how humble the place you may visit, a guest in rural north Vietnam is always welcomed with a cup of locally grown green tea. The customary gesture has a sincere meaning, since the Vietnamese consider the green tea to be an especially healthy drink. But to trace back some of those tiny cups of tea to the water source might show a very different story.

According to the Vietnam Ministry of Health, water- and sanitation-related diseases account for about half of the commonly contracted illnesses in the country. In children under age 5, unsafe water and poor sanitation contribute to a high rate of malnutrition and worm-related diseases.

A survey published in 2007 by the Ministry of Health and UNICEF outlines the needs for improvement and the health consequences that go with them. Improving health through better water and sanitation is a top priority of the Vietnamese government, and it is increasingly a goal of Habitat for Humanity Vietnam.

In My Tho provincial center of Kien Giang in the Mekong Delta, Habitat's collaboration in a government initiative for health and safety resulted in improvements to toilets and bathing areas for up to 75 percent of the 2,000 housing microfinance clients served in the past two years. Where previously most toilets had been "fishpond toilets" – a bench over the riverbank – well-built and maintained toilets are the replacement.

In the Red River Delta of the north, as in the Mekong Delta of the south, rural Vietnamese live a water-intensive life, following the monsoonal cycles of the rice crop and the tides of river fishing. Yet they are discovering the limits to these seemingly unlimited resources, and suffering changes in lifestyle and health as pollution increases and fishing stocks diminish.

In a baseline survey of low-income farming and fishing families in Dong Xa village – about an hour's drive outside Hanoi and the Vietnam site for the Jimmy & Rosalynn Carter Work Project 2009 – more than half of the households said they used river water for drinking, cooking, bathing and washing. Over half said they regularly defecated directly in the river or on the riverbank.

Perhaps even more important than the sound roof and walls of their new homes are the wells, hygienic toilets and bathing areas that will be supplied to the 32 families who participate in the Carter Work Project. Public toilets in the community center and church also will be upgraded, and crews of homeowner families are making concrete covers for open drains as they make building blocks for their new houses.

Focusing on structural solutions, though, is not enough. As HFH Vietnam staff survey water and sanitation needs for prospective projects and return to evaluate outcomes in communities they have served, they have determined that to create better health outcomes they must do more than build hygienic toilets.

A new project under way with funding from the United Kingdom's Department for International Development will have a strong component of information, education and communication to support behavior change and will likely lead to more such projects throughout the country. 🏠

Kathryn Reid, a global response specialist at Habitat for Humanity International, is on assignment to the Jimmy & Rosalynn Carter Work Project in Vietnam.

Housing quality and health: What do we know?

Continued from page 2

Lack of access to clean water and sanitation are directly related to the incidence of diarrhea. According to the UNDP's Human Development Report 2006, "Beyond Scarcity: Power, poverty and the global water crisis," some 1.1 billion people in the developing world do not have access to a minimal amount of clean water. (An acceptable level of water per person is about 20 liters per day.)

Access to sanitation is an even greater problem: "Some 2.6 billion people – half the developing world's population – do not have access to basic sanitation." The health effects are devastating, but the human development costs go beyond even that.

The Human Development Report estimates:

- The loss of 443 million schooldays each year from water-related illnesses.
- Millions of women spend several hours a day collecting water.
- Lifecycles of disadvantage affect millions of people, with illness and lost educational opportunities in childhood leading to poverty in adulthood.

The U.S. Centers for Disease Control and Prevention (CDC) recommends three interventions to control malaria – one of

which is "vector control." Vector control is reducing the incidence of contact between mosquitoes carrying the disease and humans. In other words, it is not essential to eliminate the parasite if the correct socio-economic improvements can be made. As an example, the CDC notes that houses with screened windows and air conditioning, combined with effective treatment, have eliminated the disease in North America and Europe.

Chagas is another disease carried by parasites that affects rural areas in Latin America. The CDC estimates that 8 million to 11 million people are infected with Chagas in Mexico, Central America and South America. "The triatomine bug thrives under poor housing conditions," the CDC reports, "for example, mud walls and thatched roofs."

Incorporating what we know about the impact of housing on health into quality house designs and water and sanitation interventions clearly has a dramatic impact on the well-being of children and families. 🏠

Lisa Heintz is a specialist in the HFHI Learning and Organizational Development department. She stewards the Housing and Human Settlements course. Karan Kennedy is director of international projects in International Field Operations and editor of The Forum.

From the editor

This year has been one of challenge and change for all of us. At The Forum, we said goodbye to Anita Mellott, editor and friend, who gently guided this publication from a newsletter to a quarterly periodical, available both in print and online.

In the next few months, we will be taking some time to refocus the editorial direction and build a new team. We also will be asking our readers to participate in a survey that will be coming out in mid-October. Please look for it and join us as we make The Forum an even more valuable publication for Habitat practitioners around the world.

In the meantime, we hope you find this final issue of 2009 – on housing and health – to be interesting and helpful, not only in defining how shelter affects the health of families

but also outlining the ways that Habitat is acknowledging that link in program design and the new housing quality standards.

In partnership,

Karan Kennedy
Director of international projects, HFHI

