Joining forces to provide healthier homes for America’s children

National Center for Healthy Housing

Fiscal Year 2006 Annual Report
Funders

Blue Cross and Blue Shield of Minnesota Foundation
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U.S. Department of Energy
U.S. Department of Housing and Urban Development
U.S. Environmental Protection Agency
An infant is bitten by a rat and permanently disfigured while sleeping in her crib in Kansas City. A toddler is lead poisoned when his parents renovate an old Victorian in Maine. A little boy suffers from wheezing and respiratory problems after moving back into his New Orleans home damaged by the flood waters of Hurricane Katrina. A child in Washington, D.C. stays inside his home because it’s unsafe to walk alone in the neighborhood. His family buys their food at a nearby grocery, which carries very little fresh produce. The local clinic that used to provide free preventative screenings has closed due to a funding shortfall.

When we invest in communities, we invest in families. Those investments must be more than bricks and mortar—and they must recognize the interconnectedness of the people, places, and things that make up a community. Access to basic services, affordable housing that supports good health, and a safe place for neighbors to meet and children to play, together constitute a “healthy community.” The absence of any one imposes hardships on families, all too often with deadly results.

We all want the same things for our families – we want our children to be healthy, to do well in school, and to grow and thrive to the best of their abilities. There is no doubt that the places children live permanently impact the trajectory of their lives. Unsafe and unhealthful communities deepen the disparities in health and economics that divide our society today.

Are the problems that plague our communities too deep and intractable for us to solve? Surely if we can take on global warming and the prevention of HIV/AIDS and terrorism, we can join forces to provide safer, healthier communities for America’s children. In fact, practical solutions are readily available to make our homes and communities safer and healthier.

At the National Center for Healthy Housing, we work to create healthier housing and stronger communities across the country. The success of our efforts is due to the investments made by our funders and the tireless work of our collaborative partners.

On the pages of this year’s annual report, we celebrate our many successes – saving lives, major policy victories, and new technical discoveries that will make preventive and corrective measures more affordable. We’ll continue working with our partners at all levels to help the nation recognize the value and critical importance of healthful housing and safe communities.

Thank you for your encouragement, assistance, and support.

Rebecca Morley
NCHH President & Executive Director
Introduction

The National Center for Healthy Housing’s 2006 annual report presents several of NCHH’s current projects and activities and reflects upon an impressive year of accomplishments. Through a holistic and interdisciplinary approach, NCHH has worked successfully to bring the public health, housing, and environmental communities together to combat disease and injuries caused by unhealthful housing. We develop and promote practical and affordable measures for protecting families and broadly disseminate this information. The following report details NCHH’s activities, research and evaluation, training and technical assistance programs, demonstration projects, and policy work to reach the goal of institutionalizing healthy housing principles across our nation.

“The loss of close collaboration between urban planning and public health professionals that characterized the post–World War II era has limited the design and implementation of effective interventions and policies that might translate into improved health for urban populations.”

Mary Shaw – Annual Review of Public Health 2004. 25:397–418
The National Healthy Homes Training Center and Network

Prevention of illnesses and injuries resulting from unhealthy housing drives our training and public information efforts. We have the potential to save billions of dollars in health care costs by educating professionals in the housing and health fields about prevention, who in turn educate families. The National Healthy Homes Training Center and Network is a critical part of this effort.

In 2006, the Training Center achieved a major milestone by reaching over 1,000 individuals with its training since its inception. The Training Center brings together housing and health practitioners to promote practical and cost-effective methods for making homes healthier and serves as a forum for exchanging information on new research and best practices. An extensive network of regional partners delivers the training.

The training helps participants understand how to improve the quality of housing in their communities. We use data from the American Housing Survey and excerpts from local housing codes to help local officials understand both the extent of the problem in their communities and opportunities for action. For example, the training helps nurses understand the connection between health and housing so they can identify and resolve problems more efficiently. The Training Center developed an online training tool specifically tailored for nurses, which includes an interactive practice module to help them effectively evaluate a home for hazards and to develop an action plan to make the best use of the information they gather.

NCHH operates the Training Center through a cooperative agreement with the U.S. Centers for Disease Control and Prevention and support from the U.S. Department of Housing and Urban Development and the U.S. Environmental Protection Agency.

Contact: Tom Neltner, (tneltner@nchh.org) www.healthyhomestraining.org.

“The training changed my focus from what previously was a single purpose program (lead poisoning) to looking for opportunities to expand the program into a complete healthy homes focus.”

Anne Primeau-Faubert, Rhode Island Department of Health

“When working with local housing and health officials, I remind them to look for all aspects of what could be causing the problem. I have them remove their blinders and look around.”

Sharon Sharp, Connecticut Department of Public Health
Strengthening Policy for Lead-Safe Homes
EPA’s Proposed Renovation, Repair and Painting Rule

Many families do not realize the dangers of remodeling or renovating older homes. Renovations and repairs to older homes can generate significant lead-based paint hazards if not done properly. In Maine, approximately 65 percent of lead poisoning cases result from unsafe renovation or remodeling jobs – a figure that can be easily decreased through the proper implementation of new safety standards, such as an effective EPA Renovation, Repair and Painting rule.

In January 2006, EPA proposed requirements to minimize lead hazards resulting from renovation, repair, and painting activities in most housing built before 1978. The proposed rule includes lead-safe work practice requirements for contractors involved in these activities. EPA believes this new program will further its goal to eliminate childhood lead poisoning as a major public health concern by the year 2010.

NCHH responded to EPA’s proposed rule by urging the Agency to include in its final rule a more rigorous testing requirement than simply a visual assessment of homes by contractors. In one NCHH study, we found that 67 percent of the homes that initially passed a visual assessment actually failed when dust testing was conducted. In another national study conducted by NCHH, 26 percent of properties receiving lead hazard control failed a dust test—suggesting that testing is critical to determining whether a home is safe following renovation. Lead dust is not visible to the naked eye and visual assessments alone cannot protect families. NCHH also urged EPA to ban dangerous work practices (such as dry sanding, open flame burning, and sandblasting). These practices create large amounts of dust and debris harmful to both workers and families. Many localities, as well as the U.S. Department of Housing and Urban Development, have banned these dangerous work practices.

Drawing from more than a decade of extensive research and collected data, we have provided detailed comments to EPA regarding its proposed rule—applying our collective knowledge and experience to assess whether the rule was practical, affordable, and reflective of the latest science. By accepting NCHH’s comments, EPA can dramatically reduce hazards during renovation and remodeling and provide families with the peace of mind that the work was done properly.

At press time, we continue to push EPA to accept our recommendations and to finalize expeditiously its regulations initially required to be published in 1996.
Our most important objective is to do all we can to make homes safe, healthy, and affordable, especially for low-income families. Nowhere is this more important today than in New Orleans and the Gulf Coast, which still suffer from the impact of Hurricanes Katrina and Rita.

With funding from the Robert Wood Johnson Foundation, Enterprise Community Partners, and Neighborhood Works America, NCHH joined Tulane University and Columbia University to provide critical information about the cost of and best approaches for cleaning up mold in homes damaged by flooding from the hurricanes. NCHH coordinated all aspects of the demonstration project, including before-and-after environmental testing, worker protection, and documentation of the costs and procedures. NCHH led a national panel of experts that developed the cleanup protocols based on scientific research and best practices.

The project team selected four homes, owned by low- or moderate-income families, which experienced between two to six feet of flood water above the first floor. Results showed that the drying process and cleaning of all surfaces, including upper walls and ceilings, is critical to the success of mold clean-up. The findings also highlighted the importance of appropriate personal protection equipment for homeowners and workers during possession removal and during mold remediation and supported the idea that successful mold remediation procedures in moderately damaged homes can be performed in a cost-effective way. NCHH’s team found that in most cases, mold-infested debris and building materials can be removed and the home made safe for rebuilding for about $3 to $4 per square foot.

Based on this research, we produced a flood cleanup guide, “Creating a Healthy Home: A Field Guide for Clean-up of a Flooded Home.” More than a million viewers learned about the demonstration project and informational materials through a national satellite broadcast, which aired on CNN Headline News. The Guide has already been reprinted numerous times and more than 10,000 copies have been distributed. With the Little Sisters of the Assumption in New York, we also developed a video for contractors, community-based housing organizations, homeowners and trades people who are involved in cleanup and rebuilding efforts. Several thousand copies of the video have been distributed. Informational materials generated through this demonstration not only assisted the flood victims within the Gulf region, but also provided helpful information that was in turn used by flood victims in New England, New York, and Washington State. The lessons learned can be followed successfully during or after any large flood anywhere.

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Supporting Holistic Strategies for Healthier Homes

Boston One Touch Project

Children who live in healthy, safe, and affordable housing feel better and do better in school. For this reason and many, many more, it is critical to coordinate across health and housing agencies to systematically integrate the work of the two. NCHH and local groups are doing just that through the Boston One Touch Project. One Touch supports the work of local groups by developing a system of referral and common tools that enables local programs to merge their efforts so that families and property owners can obtain services and information through one system, instead of several fragmented ones.

“One Touch” means that regardless of the health issue or responsible agency, every opportunity is taken to serve the family and to evaluate and treat the home. For example, if a nurse conducting a home visit as part of an asthma management plan notices mold, the nurse is empowered to help educate the residents of that home about the health hazards of mold and its prevention and cleanup. Professionals delivering services to residents can report findings to relevant city or community-based health or housing organizations that in turn can help homeowners access appropriate resources for addressing the problem.
Boston’s Department of Neighborhood Development, the Boston Public Health Commission, Boston Housing Authority, and the Boston Inspectional Services Department joined One Touch to improve service delivery and promote efficiency through greater cross-agency interdisciplinary work. In addition to city government partners, community based health and housing advocates, and affordable housing organizations have partnered to find the best opportunities for One Touch. We have focused on three areas: training, tools, and coordination.

**Training:** NCHH trained staff members of the Boston Public Health Commission and Boston Housing Authority. Together the two agencies will develop additional training for other local partners. We also delivered Green and Healthy Housing training to the staff of the Department of Neighborhood Development in partnership with the local group, the Green Roundtable.

**Tools:** The One Touch effort developed the “Comparing Green Build Guidelines and Healthy Homes Principles: A Preliminary Report,” offering affordable housing developers and advocates a tool for choosing the right green building criteria for their communities (see Comparing Green Building Guidelines below). NCHH is partnering with the Department of Neighborhood Development and other local partners to develop a healthy and green maintenance manual for the city’s family rehabilitation and new home buyer programs.

**Coordination:** One Touch is currently working with partners on a case study of a substantial rehab of a single family row house in Roxbury. Our goal is to incorporate green and healthy measures without exceeding affordability requirements as set by HUD for low-and moderate-income households, and so we are carefully tracking costs. We are partnering with energy efficiency experts and others to deliver a comprehensive set of green and healthy services and funding sources to this project.

Our hope is to create successful collaborations that can be replicated in other communities, enabling them to build and maintain healthier housing within the constraints of tight financial budgets.

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“The National Center for Healthy Housing team has the important ability to connect us to concrete options for savings in home rehab that bring value added from cost effective health and environmental strategies, which support Boston homeowners to be both healthy and green, while staying affordable.”

Carole Cornelison, Deputy Director, Homeowner Services, Department of Neighborhood Development, City of Boston
Improving the Lives of Children With Asthma

Phoenix Healthy Homes Project

More than 6.3 million children under the age of 18 suffer from asthma, the third leading cause of hospitalization in the United States. Unhealthy housing conditions can directly cause or contribute to the onset and worsening of asthma. A 2006 NCHH study shows that protective measures in the home can reduce asthma severity.

NCHH joined the City of Phoenix Neighborhood Services Department and its partner, the Phoenix Children’s Hospital, to examine the influence of its case management services (working with the families to manage childhood asthma through education) and building treatments. The purpose of this study, which was funded by the U.S. Department of Housing and Urban Development, was to assess the effectiveness of educational and housing interventions (structural and systems repair, safety devices, and maintenance) in reducing residential health and safety hazards among asthmatic children in Phoenix.

“This valuable project provided both short-term and long-term benefits to Phoenix children. The short term benefits were demonstrated through increased health and safety for the families who received program services. The community continues to benefit through increased awareness of the link between health and housing and more effective strategies for addressing housing-related health and safety hazards.”

Cecile Fowler, Housing Rehabilitation Manager, Neighborhood Services Department, City of Phoenix
A health educator involved in the project completed an in-home family needs assessment to establish learning needs, barriers, motivators, and mutual learning goals with the family. The health educator also provided education through a series of meetings with the caregivers and included topics such as:

- Improving egresses by removing obstacles and developing a fire escape plan
- Protecting against drowning hazards and securing window blind cords
- Removing lead containing consumer products
- Safely storing sharp objects, medicines, weapons, and household chemicals
- Implementing strategies for controlling asthma triggers, such as dust, mold, and other allergens or irritants
- Promoting smoking cessation, ensuring proper use of smoke and carbon monoxide alarms, and changing furnace filters

A home assessor who was bilingual assisted in the education process when families were monolingual Spanish. The health educator and home assessor provided health and safety devices, which included mattress and pillow covers, first aid kits, lists of emergency numbers, storage containers, lock boxes (for medication) or gun locks, vacuum cleaners with HEPA filters, carbon monoxide alarms and smoke detectors, batteries, washable curtains, outlet covers, and non-skid materials for rugs. Phoenix Children’s Hospital provided baits for pest control and contracted with professional pest control companies as needed.

Housing interventions addressed structural hazards and included carpet removal and replacement with new hard, cleanable flooring; correction of egress deficiencies by creating or modifying building openings; repair of deteriorated floors, stairs, and railings; correction of roof, window, and plumbing problems resulting in mold growth; installation of window or ceiling exhaust fans to deter mold growth; GFCI (ground-fault circuit interrupter) installation; and provision of heating and/or cooling equipment.

Through its evaluation of this project, NCHH determined that most hazards had been reduced significantly as a result of the interventions. Ninety-seven percent of the caregivers reported that their homes were safer following the interventions. Dust in carpets, bedding, and in the heating and cooling system, poor housekeeping, musty smell, and cockroach infestations also declined significantly. Importantly, at post-intervention, 96 percent of parents reported that the health of their children with asthma improved following the interventions in the Phoenix project.

In the final report to HUD, NCHH concluded that use of health and safety devices and targeted housing and educational interventions reduced residential health and safety hazards and improved the health of children with asthma. The study demonstrated that if health and housing related professionals and government agencies work together, cities and communities will realize an improvement in the health of children with asthma.

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www.nchh.org/html/Phoenix_healthy_homes.htm
**Milwaukee Healthy Homes Project**

Dust in homes dropped 72 percent more than in those homes without interventions in the Milwaukee Healthy Homes Project. Funded by the U.S. Department of Housing and Urban Development, NCHH collaborated with the Milwaukee Health Department and the Medical College of Wisconsin to determine if the combination of case management and home interventions would reduce dust loadings and allergen levels in the studied homes.

Homes of asthmatic children were randomly assigned to either a control group or an intervention group. The control group of 64 homes received educational materials, dust mite covers for mattresses and pillows, and treatment of lead-based paint hazards. The intervention group of 57 homes received the above items as well as multiple home visits by nurse case managers, minor home repair for moisture (25 percent of homes) and for safety (98 percent of homes), specialized cleaning (100 percent of homes), and integrated pest management (50 percent of homes). In the intervention group homes, nurses identified home conditions that may lead to or worsen asthma symptoms and interviewed residents every three months. Based on the findings from the first home visit, the nurse case manager developed with the residents a household-specific action plan. At subsequent visits, nurses repeated their assessments and urged residents to complete their action plans. They also provided additional education and support, encouraged residents to change behaviors that lead to asthma symptoms, and referred families to other services as needed.

In the coming months, our study partners will be analyzing the asthma data for the children enrolled in the study to determine whether the reduction of house dust resulted in improvements to their health. Preliminary findings suggest that over the 12-month follow-up period, the prevalence of persistent asthma symptoms in both groups was significantly reduced, and the reduction in the intervention group was significantly greater than the control group.

Contact: Jill Breysse (jbreysse@nchh.org)
www.nchh.org/html/milwaukee_healthy_homes.htm

“NCHH added incredible value and credibility to the Milwaukee Health Department Healthy Homes initiative through its unique expertise in research design, protocol development, quality control, data collection and analysis. We couldn’t have done it without them. As a result, Milwaukee can now describe and characterize allergen levels in Milwaukee homes, which will inform a healthy housing standard in the future.”

Amy Murphy, Former Manager, Home Environmental Health Program, City of Milwaukee Health Department
Comparing Green Guidelines and Healthy Homes Principles

For the past few years, NCHH has applauded and encouraged residential builders on their efforts and commitment to green building principles, but we also have been sending this message: If a building or home isn’t healthy, it isn’t green. Because “green” connotes “healthy” to most consumers, it’s critical that builders, architects, and developers incorporate human health and safety measures into green standards for new construction and renovation. NCHH has emerged as the principal advocate for including health considerations in green building and design.

In our 2006 Comparing Green Building Guidelines and Healthy Homes Principles report, NCHH found that all green building programs are not created equal. NCHH compared major national green building and indoor air quality guidelines with its own set of recommended healthy housing criteria to assess the extent to which these programs protect residents from health and safety hazards. The analysis examined guidelines produced by both the public and private sectors, including: the U.S. Green Building Council’s LEED for Homes, the National Association of Home Builders’ Green Home Building Guidelines, and Enterprise Community Partners’ Green Communities Criteria. NCHH also included in the analysis the U.S. Environmental Protection Agency’s (EPA) Energy Star with Indoor Air Package and the American Lung Association’s Health House Builder Guidelines, which are programs aimed primarily at improving the quality of the indoor environment.
Comparing Green Guidelines and Healthy Homes Principles (cont.)

The analysis examined whether national green guidelines address housing conditions known to affect health status. NCHH compared the criteria in the selected guidelines with its own healthy housing principles that experts developed for use in a nationwide healthy homes training and education program. In short, these healthy homes principles provide for keeping homes dry, clean, well-ventilated, pest-free, free from contaminants, safe, and well-maintained.

The results showed significant variation in the degree to which national green guidelines consider occupant health. For example, although most programs had elements related to reducing moisture and improving ventilation, injury prevention was omitted from all of the guidelines, and protection from contaminants such as lead and pesticides were not uniformly covered. Only one program, Green Communities, focused on existing affordable housing, an important consideration since low-income families are disproportionately impacted by housing-related health problems.

Overall, the analysis suggests that green building programs offer a significant opportunity to achieve public health benefits, especially over the long term, and have the potential to transform the housing market toward healthier building.

Contact: Rebecca Morley (rmorley@nchh.org)
www.nchh.org/html/green_analysis.htm

Washington, D.C. Passes Green Building Ordinance

In December 2006, Washington, D.C. became the first major city in the country to pass legislation requiring green building standards for commercial and city-funded housing. NCHH helped the city develop the green criteria in the bill. D.C. Council member Jim Graham introduced the Green Building Act to encourage green planning, design, construction, and operation of building and government-funded affordable housing in the District. When the bill was first introduced, Councilmember Graham organized a task force of stakeholders, including environmentalists, city planners, engineers, and builders. NCHH served on the Task Force as its only public health expert. The D.C. government
subsequently passed one of the nation’s most far-reaching Green Building laws. The law requires D.C.-funded residential projects greater than 10,000 square feet to meet the Green Communities criteria developed by Enterprise Community Partners, the Natural Resource Defense Council, NCHH, and others.

**Building Green and Healthy in Minnesota**

In November 2006, with funding from the Blue Cross and Blue Shield of Minnesota Foundation and EPA, NCHH kicked off the Building Green and Healthy project in Minnesota study. As the nation’s first multi-year investigation of its kind, the project goal is to demonstrate the health effect when green building principles and tenant education are incorporated into low-income housing rehabilitation.

Through the study, NCHH is examining quality of housing and health for residents following the green and healthy rehabilitation of 60 affordable housing units in Worthington, Minnesota. The multifamily affordable housing project is built to Enterprise Community Partners’ Green Communities criteria. The desired outcomes include the reduction of asthma symptom days among children residing in the development, improved quality of life for residents, and greater knowledge of healthy housing practices and behaviors. By implementing this program, we also hope to better coordinate efforts among affordable housing organizations, community action organizations, and health service organizations to address the multidisciplinary issues affecting children’s health. Also, we intend to create a greater understanding of healthy housing and the challenges and opportunities among local residents, property managers, builders and community development organizations. Demonstration of the effectiveness of these strategies will benefit future projects under the Enterprise Community Partners’ Green Communities project and other Green Building initiatives across the country by identifying the complex links among health, buildings, and communities that would enable building owners, community planners, health officials, and others to implement health-based housing interventions with more confidence.

“We are very excited to partner with NCHH, Enterprise, EPA and the others for the Building Green and Healthy project in Minnesota. This project marks the first time that the effect of green building principles on health status has been evaluated longitudinally. This is critical for shaping policy and for wide-scale acceptance of green building principles. We look forward to demonstrating the positive effects of this project - healthier children, safer and healthier homes, and more connected communities - at a national level well beyond the impacts experienced by these Minnesotan residents.”

Joan Cleary, Program Communications Consultant, Blue Cross and Blue Shield of Minnesota Foundation

Contact: David Jacobs (djacobs@nchh.org)
www.nchh.org/html/minnesota_green_housing_project.htm
“Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.” - World Health Organization

As society moves toward a healthier and more environmentally conscious way of living, the call to action to apply healthy homes concepts will expand. From energy conservation and climate change, to sustainable development and green building, to looking “upstream” at social determinants of health, the emerging trend of healthy living will lead the way for better quality for every family in America.

Energy Conservation and Climate Change – A Changing World

An ever increasing focus is being placed on the energy crisis, global warming, and imminent climate change. The potential impacts of climate change on human health include changes in temperature leading to increased coastal flooding and storms, which are associated with thermal stress, disease and death, not to mention the loss of livelihoods and accompanying stress and mental health problems. Climate change also affects the balance of our ecosystems in ways that can increase infectious diseases, such as tick borne viral diseases, dengue, and malaria.
With metropolitan areas continuing to expand, tens of millions of residential and commercial buildings across our nation consume significant amounts of energy. The residential and commercial sectors account for about 36 percent of the total energy-related emissions, and residential structures account for about 56 percent of that figure (or about 21 percent overall). Importantly, as energy conservation measures are implemented, the marginal cost to improve the human health conditions of a home are lowered as well. Unfortunately, many homeowners have been reluctant to spend money on home improvements to realize both long-term energy savings and a healthier environment. For families with low incomes, making those front-end investments is especially difficult. NCHH promotes more healthful housing, while ensuring that these efforts do not harm the environment or reduce housing affordability.

NCHH intends to examine the relationship between energy upgrades and healthy housing retrofits to promote economies of scale and to avoid unintended effects of these two important goals. For instance, sealing a home can reduce energy use dramatically as well as eliminate entry points for pests. However, if ventilation and moisture are not given due consideration, these energy efficiency measures can have the unintended effect of reducing fresh air in a home and causing moisture build up and poor indoor air quality. Through its research, NCHH will identify the symbiotic energy and health practices that can be used by homeowners of all incomes. NCHH will also advocate for policy changes to promote such efforts. The legislation and policies currently being introduced by Congress already have begun to focus on environmental issues, specifically with the looming energy crisis and increased focus on climate change.

Our government, communities, and citizens will be investing enormous effort over the next decade to prevent further damage to our environment and potentially reverse some of what has occurred thus far. Educational campaigns and new policies will inevitably impact the way we design and operate commercial and residential structures. This presents a remarkable opportunity to institutionalize healthier housing in the United States.
“Interventions to improve access to medical care and reduce behavioral risk have only limited potential for success if the larger societal and economic context in which people live is not improved.” - Institute of Medicine, Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care

A Leading Health Care Foundation Looks “Upstream”

As the healthcare industry begins to take a more proactive approach to healthcare service delivery by incorporating preventative tactics, the Blue Cross and Blue Shield of Minnesota Foundation is taking an even bigger step through its “Looking Upstream” program. The Foundation is leading the way in the healthcare industry through its public recognition that social, economic, and environmental factors have a profound impact on health, quality of life, and life expectancy.

Today’s growing recognition that health is determined by multiple factors, including the daily conditions to which we are exposed, requires the healthcare industry to look beyond its current system for ideas that create healthier opportunities. NCHH intends to introduce healthy housing to this equation by working with the Foundation and other organizations that follow these same principles.
“By looking ‘upstream’ – beyond healthcare today – and by empowering communities to work collaboratively to improve social conditions that determine health, we can eliminate health disparities – the healthcare gap – and truly call Minnesota the healthiest state in the nation,” said Joan Cleary, Program Communications Consultant, Blue Cross and Blue Shield of Minnesota Foundation.

As the philanthropic arm of Blue Cross Blue Shield of Minnesota, the Foundation has a unique opportunity to focus its grant making, partnerships, and policy work “upstream” on social determinants of health to improve and sustain the health of entire communities. The Foundation’s mission is to advance public policies to improve access to affordable, high-quality health care. Importantly, it has expanded its focus to address social, economic, and environmental determinants, concentrating on areas such as early childhood development, affordable and safe housing, social connectedness, and the environment.

The Foundation’s primary goal is to close the healthcare gap through a collaborative effort with many supporting organizations, including NCHH, to create a healthier society for everyone. By bringing together those in the fields of housing, public health, the environment, childhood development and others, it is possible to address the health inequities and close the healthcare gap.

According to the Foundation, several factors lead to its movement “upstream” and search beyond the healthcare system. First, although Minnesota is ranked by the United Health Foundation as the healthiest state in the nation, the Foundation discovered deeply disturbing ethnic and racial disparities within the system. The Foundation realized they needed to search beyond the standard answers within the healthcare system and begin to address social conditions that profoundly influence health. As healthcare companies continue to focus their efforts and funding “downstream” strategies without seeing any marked improvements in health status, the foundation is working to change direction and place a greater importance and increased attention on “upstream” practices.

In making its decision to move forward with the “upstream” program, the Foundation also looked at worldwide evidence. International research points to the influence of social factors on health and more closely links health and social conditions. Successful models and policies that can be adopted here in the United States already exist.

Through policy and demonstration projects, such as its work with NCHH’s “Building Green and Healthy in Minnesota” project, the foundation has created a collaborative model that can be replicated throughout the healthcare industry. The Foundation has positioned itself as both a leader and a catalyst to health care funders, insurers, and providers to join this change in practice that focuses on the key role of social, economic, and environmental determinants on health status. This recognition will help in the effort supported by NCHH to close the health gap and to provide healthier lives and communities for children.
Conclusion

NCHH intends to leverage its accomplishments thus far and to implement new and effective strategies that support its mission. We aim to improve health, particularly for low-income families by expanding the supply of healthful, affordable housing in the U.S. As these efforts continue to take shape, we will stand at the forefront and serve as a useful resource and important source of knowledge to the housing and public health communities.

In the coming year, NCHH will continue to support the essential elements necessary to promote healthy homes and to develop high impact, workable, and sustainable programs. Specifically, NCHH plans to continue its research projects to determine the impact of healthy housing principles on the health of occupants; participate in studies that evaluate best practices in housing and health; implement public awareness campaigns to inform, educate, and empower communities about healthy housing principles; create and develop community partnerships through its One-Touch program; serve on advisory committees and support Congressional efforts to promote high performance housing and health programs; and evaluate the effectiveness, accessibility, and quality of its services to ensure that children from low-income families are living in healthy homes.

“There are ill discoverers that think there is no land, when they can see nothing but sea.”

-Sir Francis Bacon
### ASSETS

#### Current Assets
- Cash and equivalents: $239,438
- Grants and other receivables: $726,148
- Prepaid expenses and other assets: $16,200
- Total current assets: $981,786

#### Fixed Assets
- Office equipment: $19,096
- Less: Accumulated depreciation: $6,008
- Net fixed assets: $13,088

#### Total Assets
- Total assets: $994,874

### LIABILITIES AND NET ASSETS

#### Current Liabilities
- Accounts payable: $146,902
- Accrued expenses: $30,710
- Notes payable, short-term: $8,326
- Total current liabilities: $185,938

#### Net Assets
- Unrestricted: $417,568
- Temporarily restricted: $391,368
- Total net assets and equity: $808,936

#### Total Assets
- Total assets: $994,874

### REVENUE AND SUPPORT

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### EXPENSES

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<td>General and administrative</td>
<td>$192,387</td>
<td>-</td>
<td>$192,387</td>
</tr>
<tr>
<td>Fundraising</td>
<td>$16,341</td>
<td>-</td>
<td>$16,341</td>
</tr>
<tr>
<td>Total support services</td>
<td>$208,728</td>
<td>-</td>
<td>$208,728</td>
</tr>
<tr>
<td>Total expenses</td>
<td>$2,119,649</td>
<td>-</td>
<td>$2,119,649</td>
</tr>
<tr>
<td>Change in net assets before provision for income taxes</td>
<td>$24,068</td>
<td>$296,236</td>
<td>$320,304</td>
</tr>
<tr>
<td>Provision for income taxes</td>
<td>$2,780</td>
<td>-</td>
<td>$2,780</td>
</tr>
<tr>
<td>Change in net assets</td>
<td>$21,288</td>
<td>$296,236</td>
<td>$317,524</td>
</tr>
<tr>
<td>Net assets, beginning of year</td>
<td>$396,280</td>
<td>$95,132</td>
<td>$491,412</td>
</tr>
<tr>
<td>Net assets, end of year</td>
<td>$417,568</td>
<td>$417,568</td>
<td>$808,936</td>
</tr>
</tbody>
</table>
**NCHH Board of Directors**

*The following dedicated people provide expert guidance and advice to NCHH throughout the year, and their leadership has been an important factor in our success.*

<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marcheta Gillam</td>
<td>Housing Attorney with the Legal Aid Society of Cincinnati</td>
</tr>
<tr>
<td>Judith Kurland</td>
<td>Chief of Staff, City of Boston</td>
</tr>
<tr>
<td>Anne Romasco</td>
<td>Former Director of the James C. Penney Foundation</td>
</tr>
<tr>
<td>Dr. Peter Simon</td>
<td>Assistant Medical Director, Rhode Island Department of Health</td>
</tr>
<tr>
<td>Charles Wilkins</td>
<td>Housing Consultant, The Compass Group, LLC</td>
</tr>
<tr>
<td>Dr. Kelvin Holloway</td>
<td>Vice President/Chief of Staff for Medical Affairs at the Atlanta Grady Health System, and Associate Clinical Professor of Pediatrics at Morehouse College of Medicine</td>
</tr>
<tr>
<td>Joanne Liebeler</td>
<td>Executive Producer, 2 x 4 Productions</td>
</tr>
<tr>
<td>Don Ryan</td>
<td>Project Director, National Academy of Public Administration</td>
</tr>
<tr>
<td>Dr. Tom Vernon, Jr.</td>
<td>former Vice President for Policy, Public Health and Medical Affairs, Merck Vaccine Division</td>
</tr>
<tr>
<td>Dr. Robert Wright</td>
<td>Assistant Professor of Pediatrics, Harvard Medical School and Children’s Hospital, Boston</td>
</tr>
</tbody>
</table>

Not pictured:
- Sandra Jibrell, Annie E. Casey Foundation Director, Retired
- Dr. Jocelyn Elders, Professor of Pediatrics, University of Arkansas Medical School
NCHH Staff

*NCHH staff bring an impressive collection of backgrounds and experience to their work, as befits the multidisciplinary field of healthy homes.*

Susan Aceti, MSW, Project Coordinator, (saceti@nchh.org)  ■  Treesa Boyce, Administrative Coordinator, (tboyce@nchh.org)  ■  Jill Breysse, CIH, Industrial Hygienist, (jbreysse@nchh.org)  ■  Sherry L. Dixon, PhD, Biostatistician, (sdixon@nchh.org)  ■  Phillip Dodge, Marketing and Development Officer, (pdodge@nchh.org)  ■  Peggy Hegarty-Steck, M.S.W., Program Manager, (phsteck@nchh.org)  ■  Dave Jacobs PhD, CIH, Director of Research, (djacobs@nchh.org)  ■  Carol Kawecki, MA, RN, Program Manager (ckawecki@nchh.org)  ■  Rebecca L. Morley, MSPP, Executive Director (rmorley@nchh.org)  ■  Tom Neltner, JD, CHMM, Director of Training and Education (tneltner@nchh.org)  ■  Laura Titus, AA, Research Assistant, Web Master, (ltitus@nchh.org)  ■  Jonathan W. Wilson, MPP, Deputy Director (jwilson@nchh.org)

NCHH Scientific Advisory Committee

Xavier Bonnefoy, World Health Organization (retired)  ■  Asa Bradman, PhD, UC Berkeley  ■  Bruce Lanphear, MD, MPH, Sloan Professor of Children’s Environmental Health, Director Children’s Environmental Health Center, Cincinnati Children’s Hospital Medical Center  ■  Angela Mickalide, PhD, CHES, Home Safety Council  ■  Janet Phoenix, MD, Howard University, Coalition for Environmentally Safe Communities  ■  Felicia Rabito, PhD, MPH, Tulane University  ■  Nicholas P. Retsinas, Director, Joint Center for Housing Studies, Harvard University  ■  Megan Sandel, MD, Boston Medical Center  ■  John Spengler, PhD, Harvard University  ■  Robert Wright, MD, MPH(NCHH Board Member), Harvard University  ■  Rosalind Wright, MD, Harvard University