



## Healing Communities & the Environment:

OPPORTUNITIES FOR COMMUNITY BENEFIT PROGRAMS

*Discussion Draft April 2013*





## Healing Communities & the Environment:

OPPORTUNITIES FOR COMMUNITY BENEFIT PROGRAMS

*Discussion Draft April 2013*





## Healing Communities & the Environment:

OPPORTUNITIES FOR COMMUNITY BENEFIT PROGRAMS

*Discussion Draft April 2013*





## Healing Communities & the Environment:

OPPORTUNITIES FOR COMMUNITY BENEFIT PROGRAMS

*Discussion Draft April 2013*





## Healing Communities & the Environment:

OPPORTUNITIES FOR COMMUNITY BENEFIT PROGRAMS

*Discussion Draft April 2013*





## Healing Communities & the Environment:

OPPORTUNITIES FOR COMMUNITY BENEFIT PROGRAMS

*Discussion Draft April 2013*





## Healing Communities & the Environment:

OPPORTUNITIES FOR COMMUNITY BENEFIT PROGRAMS

*Discussion Draft April 2013*



DISCUSSION DRAFT

# Healing Communities and the Environment:

Opportunities for Community Benefit Programs

Paul Lipke, Patsy Matheny, Julie Trocchio<sup>1</sup>

DISCUSSION DRAFT

## ACKNOWLEDGEMENTS

The authors, CHA and HCWH, wish to thank the following for their important contributions: Jessica Curtiss, Community Catalyst; Tracey Easthope MPH, The Ecology Center/HCWH Chemical Policy Group; Renée M. Hanrahan, Via Christi Health, Inc.; Susan Kaplan, JD, University of Illinois at Chicago/HCWH Research Collaborative; Laura Krausa, Catholic Health Initiatives; Dr. Ted Schettler, Science and Environmental Health Network.”

© Copyright 2013 by The Catholic Health Association of the United States  
4455 Woodson Road  
St. Louis, MO 63134-3797  
ISBN 0-87125-285-6

To learn more about *Healing communities and the Environment*, go to [www.chausa.org/environmental\\_responsibility](http://www.chausa.org/environmental_responsibility)

To order copies or obtain ordering information, please contact the CHA Service Center at (800) 230-7823.

Printed in the United States of America. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise without the prior written permission of the publisher.

To see and order all of CHA's environmental and climate change resources, go to [www.chausa.org/environmental\\_responsibility](http://www.chausa.org/environmental_responsibility)

I believe there is nothing more important than the work that we all are doing to redefine human health to include a healthy environment, a healthy planet... We know the real bottom line in the sustainability debate is not cost versus benefit; it is harm versus health.

— Lloyd H. Dean, President/CEO Dignity Health, CleanMed Conference, 2011

Mission and tradition have led many hospitals and health care organizations to go beyond treating illness and injury to giving attention to the overall health of their communities. Now, because of both new federal requirements and the growing understanding of the social and environmental determinants of health, this trend is accelerating and expanding across the sector.

Engaged organizations approach community health mindful that their internal policies and practices can also impact environmental and public health, locally and globally. Looking inside and externally, they assess community health problems and needs, and work with health departments and other community partners to address the root causes and effects of pressing health problems found throughout our nation.

The purpose of this document is to encourage and inform health care organizations to engage people and groups within their organizations and communities to improve community health through environmental improvements. While environmental factors include the physical, social and economic environment in which we live, work and raise families, this document will focus on the physical environment, including the quality of our air, water, food and facility and public energy and chemical polices. Appendix A includes a listing of helpful resources.

This document was developed to help health care organizations:

- + Understand the impact of physical environmental factors on the health of individuals and communities.
- + Seek opportunities for facility community benefit and green team members to learn from each other and work together with community members to achieve environmental and community health improvements.
- + Include environmental factors in conducting community health needs assessments and consider how environmental improvements could play a role in addressing identified needs.
- + Partner with community-wide efforts to examine and address environmental factors that impact the health of individuals and communities.

We hope it will help you and your organizations with this important topic.

# Why include environmental factors in quest for health improvement?

## MOUNTING EVIDENCE ON CAUSES AND PREVENTION

Evidence shows that environmental factors play a major role in the state of America's health, deserving of a more effective use of health care expenditures. Environmental health interventions can be instrumental in keeping people healthy (primary prevention) as well as helping to improve the quality of health care and reduce health care costs (secondary and tertiary prevention).

The Center for Disease Control and Prevention (CDC) reports that seven of ten deaths among Americans are caused by often preventable conditions including heart disease, stroke, diabetes, injuries and some kinds of cancer. The biggest cost-drivers of these chronic diseases are socioeconomic and physical determinants of health such as lack of physical activity and poor nutrition. The Institute of Medicine estimates that these preventable conditions account for approximately three-fourths of national health care expenditures.

Alignment with national priorities and initiatives  
With the passage of the Affordable Care Act (ACA), there is a new level of commitment from the health sector to focus on population health and shift priorities to address more upstream social and environmental conditions. National policy strategies affirm that quality of care and health can be improved by a safe and healthy environment, making investments in environmental health a compelling opportunity for health care organizations.

In particular, the National Prevention Strategy: America's Plan for Better Health and Wellness has 'healthy and safe community environments' as one of its four strategic directions. The new Prevention and Public Health Fund removes a historical barrier to prevention programs by providing funding to states and communities for implementing community-based strategies to address chronic disease and promote healthy lifestyles.

Indiana University Health's (IU Health) 'Garden on the Go'® Obesity Prevention and Community Engagement program seeks to reduce 29 percent of adolescents and 65 percent of adults in Indiana who are obese or overweight. The year-round mobile produce delivery program provides low-income neighborhoods access to affordable, fresh fruits and vegetables with sixteen stops each week at the same times and locations. In addition, IU School of Medicine transitional medical residents offer a Garden on the Go® "Talk with a Doc" program, during which medical residents discuss health related concerns with customers, take blood pressures, and offer clinic referrals and transportation vouchers if follow up is indicated.

## CORRELATIONS BETWEEN ENVIRONMENTAL FACTORS AND POOR HEALTH

In the last few decades the science linking environmental conditions and health impacts has grown considerably stronger. We have learned, for example, that early chemical exposure may contribute to diseases early and later in life, while early eating patterns contribute to both pediatric obesity and diabetes. Poor air quality, exposure to pesticides, soil and water contamination, lack of access to fruits and vegetables along with other environmental risks have direct correlation to congenital and other chronic diseases, reproductive complications, and premature death.

Increases in green house gases have contributed to climate change which closely correlates with increased disease vectors, water shortages and severe weather, including flooding, droughts, heat waves, and extreme cold. In addition to the immediate jeopardy posed by these events, they can cause storm-driven dispersal of hazardous materials and pollutants, and disruptions in the food and water supply leading to dehydration, malnutrition, hunger, animal and water-borne diseases, increased respiratory diseases, stress, mental health problems and population displacement.

(See Appendix C, Table I A for examples of correlations between environmental factors and poor health.)

Health Care Without Harm (HCWH) and the Catholic Health Association (CHA) recommend, based on the evidence from environmental health research, that attention to environmental factors be a part of an organization's strategy to improve community health. In fact, increasing numbers of health care organizations are doing just that, linking their internal green policies and procedures with their vision and activities for community health improvement. They are finding a focus on environmental health as part of organizational culture strengthens synergies between the efforts of clinicians, green team members and community benefit staff, saves money, and helps assure organizational strategies and commitments maximize the positive impacts of precious resources.

*Health Care Without Harm and the Catholic Health Association recommend, based on the evidence from environmental health research, that attention to environmental factors be a part of an organization's strategy to improve community health.*

# Health care becoming part of the solution

## HOW "GREEN" INITIATIVES IMPROVE COMMUNITY HEALTH

Many health care organizations are already taking internal steps to provide healthier environments for patients and staff, reduce their use of energy, and reduce their environmental impact as they seek to be better stewards of natural and other resources. Staff members have formed 'green teams' and many organizations have added a 'sustainability' lead position. Many organizations have found that many internal green initiatives have resulted in operational cost savings to the organization. These steps not only create a healthier internal environment, but impact the health of organization's community.

Mercury, a toxic chemical, has been removed from most health care organizations by changing thermometers and blood pressure cuffs, sharply decreasing the risk of dangerous mercury contamination. Safer cleaning supplies have replaced toxic chemicals lessening negative environmental community impact and supporting the development of such products for broader use. Health care organizations have dramatically reduced the use of incineration to treat medical waste, which releases dioxin, a human carcinogen, into the air.

Practice Greenhealth, a membership and networking organization for institutions, is working with its more than 1200 hospital members nationwide to improve their environmental performance, improve community health and save money at the same time. The Healthier Hospitals Initiative (HHI) is aligning hundreds of hospitals from the largest health care systems to engage

leadership and implement waste reduction, leaner energy, healthier food, safer chemicals, and better purchasing. HHI's goal is to embed a culture of sustainability in the health care sector.

## COMMUNITY BENEFIT PROGRAMS DEDICATED TO IMPROVING COMMUNITY HEALTH

Many faith-based and other not-for-profit health care organizations have a history and tradition of delivering community benefit programs that address the health needs of their communities. A community benefit strategy fulfills both mission goals and tax-exemption legal requirements while fostering partnerships in the community. Ideally community benefit strategies are ingrained in the organization through policies, assigned staff and dedicated budgets.

Community benefit programs and environmental efforts have the same goals of improving community health, lowering costs while increasing efficiency, and improving quality of care. Historically however, community benefit programs have been implemented independent of internal and other environmental initiatives, despite both being included in an organization's strategic and organizational planning. Bringing together engaged clinicians, green team members, community benefit staff and community members to assess, plan and address environmental health issues in coordination with community benefits activities can greatly increase knowledge, resources and effectiveness of efforts to tackle preventable health problems.

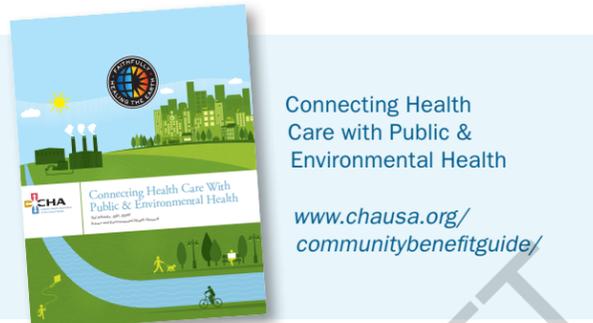
*Bringing together clinicians, green team members, and community benefit to assess, plan and address environmental health issues in coordination with community benefits activities can greatly increase knowledge, resources and effectiveness.*

Focusing on vulnerable populations is a hallmark of community benefit programs. Including attention to environment factor can enhance this focus on the most vulnerable individuals and communities. Poor environmental quality has the greatest impact on people already at risk for poor health, including the unborn, the very young and old, and persons who live in poverty or lack access needed services. Environmental health programs can help reduce the inequities of health reflected in different rates of disease, disability and death. Underserved communities are a particular target for increasing access to affordable healthy food options, assuring safe and healthy housing and neighborhoods, reducing exposure to air and other critical pollutants and lowering environmental health risks overall.

#### HOW ENVIRONMENTAL AND COMMUNITY BENEFIT ACTIVITIES CAN BE INTEGRATED

Community benefit programs use a structured approach for addressing the health care needs of the community with a particular attention to vulnerable populations. The process includes: building an infrastructure, assessing community health need, developing a strategy for addressing community health needs, evaluating quality and impact, and telling the community benefit story. The Catholic Health Association's "A Guide for Planning and Reporting Community Benefit" describes these strategic components.

Environmental health can be included throughout the process.



Connecting Health Care with Public & Environmental Health

[www.chausa.org/communitybenefitguide/](http://www.chausa.org/communitybenefitguide/)

Strategies that can help integrate environmental and community benefit activities include:

- + Build an organizational environmental health culture within the organization that includes a focus on community health.
- + Make physical environmental health part of the written vision for a healthy community.
- + Make explicit connections between both internal and external environmental activities and the organization's goals to improve community health in facility policy and other guidance documents.
- + Include energy efficiency and environmental health performance in executive community health improvement goals and incentives.
- + Apply for awards from Practice Greenhealth, the Environmental Protection Agency, the Department of Energy, state, and/or local entities. Include these awards in the organization's community benefit report.
- + Conduct a community health impact assessment (HIA) whenever the organization significantly expands facilities. Call for HIAs for significant development projects in the community.
  - ✦ Build environmental monitoring, indicators and/or factors into community health needs assessments by:

- ✦ Including environmental expertise in assessment team.
- ✦ Including environmental health indicators in the assessment.
- + Look for environment-related root causes of identified health needs.
- + Plan for environmental improvements as part of community health improvement strategies.
  - ✦ Assemble a planning team with expertise from community benefit and environment health.
  - ✦ Build on existing facility and community environmental and community benefit activities, adding community health improvement aspects to internal activities, adding environmental dimensions to community benefit programs, and promoting improvements in environmental health to community partners.
  - ✦ Look to public health and environmental science evidence for what works to develop goals.
- + Partner, partner, partner. Collaborate, collaborate, collaborate.
  - ✦ Build and cultivate internal partnership between community benefit and environmental sustainability.
  - ✦ Recruit a diverse network of community partners and collaborators with expertise, interest, and passion.
- + Celebrate and report.
  - ✦ Find opportunities for telling the environment health improvement story as part of community benefit reporting and in

community relations, educational offerings, and other outreach.

- ✦ Follow federal and state requirements to report environmental health improvements as part of community benefit and community building (see Appendix C for guidance).

The planning process for environmental health improvements through community benefit starts, as does any good community benefit program, with an assessment of community needs to identify the priority areas for program intervention, and this is where integration of community benefit and environmental health improvement should start. Assessments, best conducted in collaboration with other organizations, should focus on specific health indicators, such as diseases or risk factors and environmental factors which are often at the root cause of health problems.



The Catholic Health Association workbook "Assessing and Addressing Community Health Needs" provides detailed guidelines for conducting a Community Health Needs Assessment and developing

implementation strategies.

[www.chausa.org/Assessing\\_and\\_Addresssing\\_Community\\_Health\\_Needs.aspx](http://www.chausa.org/Assessing_and_Addresssing_Community_Health_Needs.aspx)

Here are some suggested steps for integrating environmental health in community health needs assessments, and activity planning, implementation and reporting:

*Integrating environmental health into assessment and planning means:*

*Assessment of community health need*

- + Identify internal staff knowledgeable and committed to environmental and community health
  - + Involve and partner with knowledgeable and committed individuals and groups in the community
  - + Develop a vision for a healthy community that includes a healthy environment
  - + Identify environmental health indicators
  - + Seek assets for funding
- Planning for community health improvement*
- + Create partnerships for community health improvement

- + Build on existing programs and efforts
  - + Look for evidence-base programs
  - + Work for early wins
  - + Build evaluation into plans
- Celebrating and reporting results*
- + Telling the community and environmental improvement story
  - + Accurately reporting to government agencies

## Assessment

An intentional look at environmental health indicators will lead to a more comprehensive assessment of community health needs. Selection of environmental factors to be included in a community assessment can draw on people in the organization and community who are knowledgeable and passionate about the connection between environmental factors and public health, and build on (or help develop) community awareness about environmental and health concerns.

### IDENTIFY INTERNAL STAFF KNOWLEDGEABLE AND COMMITTED TO ENVIRONMENTAL AND COMMUNITY HEALTH

Below are some categories of expertise and points of view to recruit for environmental health assessment and activity implementation. The organization could include some or all of these people on the full community assessment/implementation team for the duration or form an environmental health subgroup.

- + Green team members, sustainability coordinators and their sponsoring senior executives can provide knowledge of environmental issues, internal green efforts, alignment with organizational mission and more.
- + Procurement department and material managers can identify healthier product or service alternatives and examine the cost competitiveness for those alternatives.
- + Facility management staff such as engineering, energy, and environmental services (e.g., housekeeping) can provide knowledge of environmental issues, internal green efforts technical and financial expertise on infrastructure improvements, waste management, cleaning, and pest control.

- + Quality staff can be useful in developing effective metrics and training, and linking efforts to health outcomes of strategic importance to the organization as a whole.
- + Clinicians: especially in pediatrics, gerontology, pulmonary and cardiovascular specialties, and those with strong community/environmental health connections or public health degrees can identify links between environmental health programs, clinical concerns and quality.

*It can be helpful to reach out to like-minded cohorts, such members of Health Care Without Harm Nurses Workgroup, the Alliance of Nurses for Healthy Environment, and Physicians for Social Responsibility. (See Appendix A Resources).*

### INVOLVE AND PARTNER WITH KNOWLEDGEABLE AND COMMITTED INDIVIDUALS AND GROUPS IN THE COMMUNITY

Looking externally to the community, there are many opportunities to broaden the environmental health team with strong supporters, to get ideas, capture data, and build financial and other support. Here are a few groups and resources to consider for participation at various stages, from assessment through implementation to measuring results.

- + Public health departments, as part of their certification process, must conduct a community assessment every five years. Many will include physical environmental factors along with other health and risk indicators.
- + Other public and nonprofit organizations such as Maternal and Child Health grantees, Head Start programs, United Way and disease-specific societies also assess community needs as part of their resource allocation process and can be a part of the community-wide assessment process.

*A critical initial task is to review terminology and make sure that green team members and community benefit staff are talking the same language and have shared points of reference.*

- + Community representatives and staff from local and state organizations with interests in environmental health, environmental justice, elimination of poverty, and/or sustainable economic development can be valuable additions to the team by providing expertise, time and possible funding. Local groups and agencies can document environmental health needs that may not surface in more formal community assessments.
- + Colleges and universities in the area can provide expertise from among researchers, faculty, students who are concentrating on public and environmental health.
- + Local and state health departments often have staff dedicated to environmental affairs. Also consider regional representatives from the Environmental Protection Agency (EPA), Housing and Urban Development (HUD), local and state planning and transportation departments.

- + See Appendix A for additional ideas.

### DEVELOP A VISION FOR A HEALTHY COMMUNITY

There is a community visioning exercise often used with community groups in which participants close their eyes and take an imaginary hot air balloon ride over their community at different times of the day during all four seasons of the year. During the ride, participants are asked to visualize what their community would look like if it were a picture of health. They then take markers and draw a group (newsprint) mural depicting their community vision. Without fail, the murals from each community look alike in their main components. They show a clear blue sky with a bright sun, trees and flowers, parks with children laughing and playing, green space, sidewalks, bicycles (not cars), schools and neighborhood gardens. Interestingly, participants rarely draw medical buildings.



### IDENTIFY ENVIRONMENTAL HEALTH INDICATORS

An intentional look at environmental health indicators will lead to a more comprehensive assessment of community health needs. Selection of environmental factors to be included in a community assessment can draw on people in the organization and community who are knowledgeable and passionate about the

connection between environmental factors and public health, and build on (or help develop) community awareness about environmental and health concerns.

Some environmental health indicators include air, soil and water quality, access to fresh fruits and vegetables, and any barriers to physical activity. (See Appendix B for examples of environmental health indicators, and the mismatch between health care spending and the determinants of health.)

Box: Environmental indicators as root cause: Environmental indicators may become important in designing interventions for the greatest impact. For example, an upstream point of intervention to address heart disease could be working with municipalities, faith communities and other community stakeholders to improve walkability and provide walking tracks in key neighborhoods, in addition to a more traditional community benefit activity, such as having parish nurses offer blood pressure checks after worship services.

### SEEK ASSETS FOR FUNDING

As part of the assessment, look for facility, community and federal and state assets that can be used for funding. Funding for environmental community health improvement programs can come from the organization's operating funds but can also be found through cost sharing agreements with community partners, grants, revolving loan funds and dedicated fund raising.

The Prevention Institute's document, "How Can We Pay for a Healthy Population? Innovative New Ways to Redirect Funds to Community Prevention," states that in addition to hospital community benefit expenditures, promising funding ideas could be Wellness Trusts, Social Impact Bonds/Health Impact Bonds, and Accountable Care Communities, which are provider networks responsible for coordinating care of a designated population.

Here are a few potential grantors:

- + CDC: <http://grants.gov/>
- + Prevention and Public Health Fund: [www.hhs.gov/open/recordsandreports/prevention/index.html](http://www.hhs.gov/open/recordsandreports/prevention/index.html)
- + Prevention Institute: <http://preventioninstitute.org/component/jlibrary/article/id-332/127.html>
- + Robert Wood Johnson Foundation (RWJF): [www.rwjf.org](http://www.rwjf.org)
- + State health departments and other state departments

# Planning for community health improvement

Planning for community health improvement means developing partnerships enhancing existing programs and efforts, looking for evidence-based programming, working toward early wins and building evaluation into plans.

## PARTNER FOR COMMUNITY HEALTH IMPROVEMENT

The importance of partnering and collaboration is made clear in these examples.

### *Bon Secours Health System, Virginia*

Bon Secours Health System requires each of its regions to participate in “healthy community” efforts that engage local residents in planning and service. Through this process, a neighborhood transformation took place in the city of Richmond’s East End district, an inner city neighbor with high rates of infant mortality and obesity, along with cardiac disease and diabetes.

The City of Richmond’s planners, along with the Richmond Redevelopment and Housing Authority, participated, and brought funds as well as staff time and commitment to the process. Local philanthropic organizations also provided financial support. Through the process new housing was built, sidewalks installed, and a wellness center opened in one of the housing projects. Lacking a neighborhood supermarket, a farm stand was added to improve access to fresh, local produce. Learn more by reading the article “Bon Secours Asks Neighbors to Help Redesign Community,” in CHA’s journal, *Health Progress*, from November-December, 2011, which can be found at [http://www.chausa.org/2011\\_Annual\\_Index.aspx](http://www.chausa.org/2011_Annual_Index.aspx).

### *Philadelphia Hospitals - Mercury thermometers take-back program*

Spearheaded by The Women’s Health and Environmental Network and with a proclamation by the mayor, approximately 30 hospitals and health care facilities hosted a mercury thermometer exchange during the Mercury-Free Philly Campaign for the Greater Philadelphia region. Over 15,000 thermometers, or 10,000 grams of mercury, were collected at 33 sites from 12,000 households, and over 11,000 digital thermometers were handed out during a three-year period.

### *St. Joseph’s Health System Ecosystem Stewardship Engagement Example*

Lawns pesticides and other chemicals can threaten waterways, pets, and people, including organophosphates and carbamates that affect the nervous system, and skin irritants and carcinogens. Lawns also often replace native plantings that provide ancillary benefits like filtering water, stabilizing soil and providing habitat.

St. Joe’s Hospital in Ann Arbor owns a substantial portion of land along a major waterway in the region. The hospital planted native plantings along the river, stabilizing the river’s edge, providing habitat for native species, improving water quality and reducing the amount of pesticides, lawn chemicals and water used. St. Joe’s partnered with the local Watershed Council to develop and implement the plan, and spur similar practices by other land owners.

### *Dignity Health leverages public policy*

Dignity Health was the first hospital system in the state to join the California Climate Action Registry and commit to voluntarily measure and report all

emissions of greenhouse gases. Dignity Health is also working with many stakeholders to reform the environmental and public health practices of the health care industry, focusing on reducing the volume and toxicity of waste. It has also posted safer chemicals policies prominently on its web site, sent letters, testified at the state and national level at key hearings, and added its influential health care voice to advocacy campaigns aimed at reducing toxic chemical hazards and climate change.

## BUILD ON WHAT CURRENTLY EXISTS

Investigate what enhancements can be added to existing community benefit programs:

- + Can a hospital’s school health program addressing asthma be expanded to include assessing home environments or addressing causes of pollution?
- + Can new parent education classes add a component on hazardous materials, recycling and/or safe chemicals in the home and/or keeping medications out of the water supply?

Consider whether existing facility environmental actions and expertise be expanded or ‘exported’ into the community:

- + Could a program to use safer chemicals for cleaning or grounds maintenance add a community education component for homes, schools and multi-family housing entities, and home owners?
- + Could sustainability staff help community members identify and replace less healthy cleaning, pesticide or other products with healthier alternatives, such as those the health care organization has researched and uses?

Look for current community environment projects that could be tied into an overall community health improvement strategy to address an identified need:

- + Are any local schools designated as a Green Ribbon School (GRS), or have strong environmental and/or community service components? (<http://www.greenribbonschools.org>) GRS or similar programs could be linked with health care organization initiatives to promote environmental hazards affecting community health.
- + Are any community groups participating in the federally funded ‘Safe Routes to Schools’ program (administered through a state department of transportation)? These programs could become part of a community-wide effort to address childhood obesity or neighborhood safety.

The Catholic Health Association and Health Care Without Harm’s web sites contain growing numbers of articles and resources on hospital-based and community environmental health activities from around the country. Many of these can serve as models or catalytic ideas for developing environmental health activities. (See Appendix A for websites)

## LOOK FOR EVIDENCE-BASED PROGRAMS—DON’T REINVENT THE WHEEL

Once community needs including environmental health issues have been prioritized, look for programs that have proven effective in addressing the relevant environmental factor and/or the health of relevant populations. There is no reason to reinvent the wheel, or potentially waste resources on program ideas that only ‘sound good.’ Let evidence-based practices from environmental science and public health provide guidance. (See the Resource Appendix for sources of evidence-based programs)

Advocacy has proven to be a successful strategy for addressing community and environment health issues. Environmentally focused community health improvement programs can work with stakeholders to support environmental health-related organizational and public policy changes such as:

- + Promoting policies friendly to employee and community car pooling, bike riding and use of mass transit increases physical activity, and reduces the number of car trips.
- + Advocating for government action on safer chemicals and climate policy and action.
- + Educating lawmakers and policy leaders on the benefits of life cycle environmental health impact assessments for important products.
- + Working with suppliers to reformulate or change products toward a safer profile.

#### LOOK FOR PROGRAMS WITH EARLY WINS

Many programs have long term payoffs. However, when beginning to address environmental health, the team might want look for programs that yield quicker returns to keep energy around the program strong while keeping the long view in mind with the goal of sustainable community health improvement.

For example, research shows that a slight increase in physical activity can slow the progression of diabetes, a costly disease for both individuals and health care organizations. Choose a program with the short-term objective of increasing physical activity with the long-term objective of bringing blood glucose levels down to normal range within a specified timeframe. Can sidewalks be built and/or traffic-calming measures be installed to

encourage walking and safe passage, especially to schools? Can health care organization staff teach local businesses how to make stairways safe and appealing as an alternative to elevators?

#### BUILD EVALUATION INTO PLANS

Develop individual program plans with goals, objectives and a defined plan for measuring results and continuous improvement. Using benchmarks set by national and other evidence-based initiatives can help establish realistic goals. (See Appendix A and B for resource)

Whether an organization and its community partners expand existing programs, emulate others' ideas or build largely from scratch, it is important to capture baseline data, measure impact, and widely share the lessons learned. This is necessary to hold everyone accountable, and to advance organizational progress and that of the entire sector.



The Catholic Health Association's workbook "Evaluating Community Benefit Programs" provides detailed guidelines for developing goals and objectives and measuring results.

[www.chausa.org/evalguide/](http://www.chausa.org/evalguide/)

# Celebrate and report health care organizations' contributions to environmental improvements

#### TELLING THE STORY TO THE COMMUNITY AND INTERNAL AUDIENCES

Once the activities are under way or completed and the metrics gathered and analyzed, it's important to tell the story. The Catholic Health Association's, "A Guide for Planning and Reporting Community Benefit," outlines the importance of and strategies for communicating community health improvement activities. Including environmental improvement initiatives in the organization's overall community benefit communication strategy demonstrates organizational commitment to improving the environment and community health and fosters dialogue on environmental issues facing local communities and the nation.

Since the health of the community's environment is relevant to community residents, the message can both educate readers on the connection between environmental risk factors, lifestyle and poor health, and offer residents ways to help and get involved. Within the health care organization, communication can help make the connection between environmental improvement and quality of care. Communicating opportunities for employees and physicians to become involved contributes to enhancing an environmental sustainability culture.

Also look for special occasions for sharing stories, such as Earth Day annually on April 22 and World Environment Day, held each year on June 5 as one of the principal vehicles through which the United Nations (UN) stimulates worldwide awareness of

the environment and enhances political attention and action.

Catholic organizations celebrate the Feast of St. Francis of Assisi on October 4 each year. For example, St. John Medical Center in Tulsa, Okla., holds an annual "Green Fest" to introduce community residents to conservation and recycling and encourage practices that reduce energy usage and waste to create a cleaner and safer community. The St. John Green Team hosts the event which provides the education, offers a plant exchange, and free tree saplings. The event annually draws 400-plus people.

Other ideas for celebrating earth day and other special occasions can be found on the Catholic Health Association website at [www.chausa.org/Environmental\\_Responsibility/](http://www.chausa.org/Environmental_Responsibility/).

#### REPORTING TO FEDERAL AND STATE AGENCIES

Tax exempt 501c3 organizations annually file the core tax form IRS 990. Health care organizations that include licensed hospitals complete a Schedule H as part of this tax filing to report the annual expenditures for community benefit and community building activities and other information related to tax exemption.

The IRS 990 with its Schedule H is a public document and can be used by health care organizations to demonstrate accountability and transparency. Since some environmental

improvements (although not all) can be reported as community benefit, communicate information about all environmental initiatives to the person in the organization responsible for collecting the data for the 990 so they can determine whether and how the initiatives should be reported. This person can be the community benefit lead or someone in finance, compliance, or government relations. It is also important for the environmental program lead to maintain an audit trail of expenditures reported.

The definitions of which activities can be reported under either community benefit or community building are in flux and continue to be discussed. To provide further guidance, the Catholic Health Association and Health Care Without Harm

released in August, 2012 Guidelines for Reporting Environmental Improvement Activities As Community Benefit and Community Building to the Internal Revenue Service. (See Appendix C for document) If the environmental initiative cannot be reported in either category, it may be described in the narrative section of Schedule H, Part VI, and in other community benefit narrative reports.

Individual states may also require community benefit reporting, sometimes using different criteria, and the filing is usually prepared by the same people completing the federal tax form. The Hilltop Institute has an interactive map that describes state reporting requirements at [www.hilltopinstitute.org/hcbp\\_cbl.cfm](http://www.hilltopinstitute.org/hcbp_cbl.cfm)

## What Works?

The following examples of environmental improvements and related activities provide a wide variety of program ideas. Although specific health care organizations are identified, many other organizations are undertaking similar activities.

### HOUSING, WASTE, FOOD, NUTRITION AND HEALTHY LIFESTYLES

#### Housing

*Yale New Haven Hospital and St. Francis Medical Center, Connecticut: Home Assessments for 29 health hazards including lead poisoning for children.*

Lead-based paint was used in homes until prohibited by law in 1978. Lead exposure can affect nearly every system in the body and without obvious symptoms, it frequently goes unrecognized.

After experiencing emergency department hospitalizations and outpatient treatment for children with lead toxicity, a lead treatment program was started as a pilot between Yale-New Haven (YNHH) and St. Francis Medical Center. This has now expanded beyond home lead assessments to include 29 health hazards, including and related to mold, allergens, asthma, carbon monoxide, home safety, pesticides and radon. Based upon assessments, the program makes referrals for needed resources such as home winterization, and asthma services. Public education programs help communities mitigate broader housing-related hazards.

A notable lesson was discovering that program staff, lacking legal clout, are viewed as non-threatening to families, and can gain access into homes and get tenants to ask for and use resources.

[www.ynhh.org/yale-new-haven-childrens-hospital/medical-services/lead-program-regional-treatment-center.aspx](http://www.ynhh.org/yale-new-haven-childrens-hospital/medical-services/lead-program-regional-treatment-center.aspx).

[www.connecticutchildrens.org/lampp](http://www.connecticutchildrens.org/lampp).

#### Community Waste Reduction and Take- Back/ Exchange Programs

*Columbia St. Mary's Ascension Health, Milwaukee— Medication redistribution to low-income*

Columbia St. Mary's and numerous other health care organizations, work with the Dispensary of Hope to donate medication samples that are soon to be expired to clinics serving vulnerable populations. The project not only improves patient care but also diverts unused medications from the landfill. The facility has 29 clinics participating, and more than \$40,000 worth of medication has been donated

*MetroWest Medical Center, Franklin, Massachusetts - Medication take-back*

Numerous studies demonstrate that medications are entering the water in detectable amounts, and researchers are chronicling the impact these biologically active ingredients are having on fish, which become part of the food supply. MetroWest Medical Center has funded several medication take-back events, allowing people to anonymously drop off old medications and receive literature about safe medication disposal.

The hospital hired a medical waste company to properly dispose of the medications, hired law enforcement to be on site as required for controlled substances, and had hospital staff volunteer their time at the event. The average number of medications dropped off per person was 13.7.

*Kaiser Permanente, CA*

## Kaiser Permanente's Vision for the Environmental Stewardship:

We aspire to provide health care services in a manner that protects and enhances the environment and the health of communities now for future generations.

Kaiser Permanente partners with Goodwill Industries to annually join forces to commemorate Earth Day with e-waste collection sites. Started in 2007, the project is a means to assist communities in preventing harmful elements from getting into the local landfills. The project has the added benefit of providing job opportunities to disabled individuals and helping to meet the broader definition of creating 'healthy communities.'

Over a two year period, 65,000 pounds of e-waste including old computers, monitors, printers, cables, video-game consoles and cell phones were dropped off at the Kaiser Permanente-Goodwill collection sites, saving 2,887 cubic feet of landfill space.

## Food

*INOVA Health System, Falls Church, Virginia: Doubling Supplemental Nutrition Assistance Program (SNAP) benefits.*

A 2007 survey found that one-quarter of Virginia children are overweight, obese, or in danger of becoming obese. To help address this, the Inova Health System Foundation, Inova Health System, Buy Fresh Buy Local, a national non-profit organization, and Whole Foods Markets partnered to establish an incentive program for recipients of SNAP (Supplemental Nutrition Assistance Program, formerly called Food Stamps) to purchase fresh, local foods at three farmers markets in Northern Virginia. Shoppers using their SNAP electronic benefit card receive up to \$10 in matching funds from Inova for SNAP purchases at that market. Evaluation of the successful program found:

- + 75 percent of consumers increased the amount of fresh fruits and vegetables they purchased because of the Inova Double Dollar program;
- + 75 percent of consumers strongly agreed that the additional fruits and vegetables made a difference in their family's diet.
- + 100 percent of vendors reported increased sales. [www.inova.org/SNAP-incentive](http://www.inova.org/SNAP-incentive).

*Kaiser Permanente*

Amongst many other leading community health programs, Kaiser Permanente makes donations to National Assembly for School-Based Health Care, a national voice for school-based health centers, and Wholesome Wave, a national non-profit organization dedicated to supporting small and midsize farms, and making fresh, healthy, locally grown fruits and vegetables available to all people, regardless of income. The Wholesome Wave grant is a project of Kaiser Permanente's employee wellness program, in which Kaiser contributes \$50 for each employee who takes a health risk assessment.

Part of the grant is used by Wholesome Wave for its Fruit and Vegetable Prescription Program, through which physicians and clinicians provide individuals with "prescriptions" for produce that can be redeemed at neighborhood farmers markets.

*Spectrum Health, Grand Rapids, Mich.*

Spectrum Health pays for a city RAPID bus to do a special route to take people to the farmer's markets from a food desert neighborhood that lacks transportation. They also partnered with AmeriCorps to build a community garden on a medical campus housing physical therapy rehabilitation and mental health services. The garden is open to the community, was built with raised beds to accommodate the rehabilitation patients' wheel-chairs, and offers therapeutic intervention for mental health patients.

*Fletcher Allen Health Care, Burlington, Vt.*

Fletcher Allen Health Care brings healthy food choices to their cafeterias and patients, while supporting local and sustainable agriculture in Vermont. In a parallel effort, Fletcher Allen also offers free public education on healthy lifestyles, including multi-week workshops, tours for shoppers in grocery stores with hospital dietitians, and screenings. Nutrition-focused sessions include:

- + Organic, Natural, Local-What Does it all Mean for Your Health?
- + Save the Fish (and Eat Them Too!): Selecting and Preparing Sustainable New England Seafood.
- + The Art of Growing Food.
- + Comfort Cooking Done Light and Right: A PharmaFoodie Food Demo.

*Pro Medica, Toledo, Ohio*

Trained ProMedica and hospital staff holds community conversations about making smart eating and exercise habits. They use The Healthy Kids Conversation Map®, which provides table top visual materials that allow elementary school children and their parents to learn about healthy lifestyles in a game-like atmosphere, and follow this with discussions about implementing what was learned.

*Magee-Womens Hospital, Pittsburgh, Penn.*

Magee-Womens Hospital of University of Pennsylvania Medical Center has historically educated their new moms (they have the third highest deliveries in Pennsylvania) through "Environmental Health for New Moms." They tailored their Pediatric Environmental Health Toolkit to educate prospective and new moms during community events and developed a special program for teen moms.

## Sustainable, environmental health driven economic development and climate action

*Cleveland Evergreen Initiative*

The three major anchor institutions in Cleveland, including Case Western University, Cleveland Clinic and University Hospitals have come together with the Cleveland Foundation, the municipal government and national foundations to pilot this project. The partners have provided seed funding, technical and organizational support, and purchasing commitments to Evergreen Cooperatives. These Co-ops are pioneering innovative models of economic development designed to address the social and environmental determinants of health. One of the strategic pillars for the Cooperative is to build on the growing momentum to create environmentally sustainable energy and green collar jobs (and, concurrently, support area anchor institutions in achieving their own environmental goals to shrink their carbon footprints).

## Early start-up businesses examples:

- + Evergreen Cooperative Laundry - ecologically focused, institutional laundry.
- + Evergreen Energy Solutions - Community-based clean energy and weatherization company that helps residents reduce energy use, reduce greenhouse gas emissions, and also installs, owns, and maintains large-scale solar electric generators on the roofs of health, education and municipal buildings.
- + GreenCity Growers - A 14 acre hydroponic greenhouse in the heart of Cleveland growing lettuce and herbs, which will be sold to the area's hospitals and related health care facilities. <http://evergreencooperatives.com/>

St. John Providence Health System -Ascension Health Alliance, Detroit: Enterprising Health Ascension Health Holdings, a subsidiary of

Ascension Health Alliance, is a sponsor of Enterprising Health (EH), a program to help new or potential entrepreneurs build the skills necessary to develop and operate sustainable businesses, which must be focused on improving the health of Detroit and the surrounding communities.

Through an application process, EH selects Fellows to participate in a 5-month program of experiential learning, access to business experts as well as individual and group coaching. Successful applicants are eligible to apply for up to \$75,000 in seed funding for development of their health-related business or concept.

One of the selected projects is a project called ‘Healthy Dollar,’ a strategically located storefront and meeting space that creates a hub for health in the city of Flint by providing access to low-cost fresh fruits and vegetables, and a setting for health education and community health events.

Other supported projects include a web-based grocery store that makes home deliveries of fresh food to make healthy eating more convenient for families, professionals, students to an innovative approach to improving the health literacy of Detroit area moms with the goal of reducing infant mortality. [www.enterprisinghealth.org](http://www.enterprisinghealth.org).

**Energy, Air Quality, and Climate Resilience**

*Seattle Children’s Hospital, Seattle, Washington – Transportation Pollution Reduction Program*

According to the Environmental Protection Agency (EPA), in 2008, 27 percent of greenhouse gases came from transportation sources. Seattle’s natural geographic boundaries lead to traffic congestion and air pollution. Seattle’s Children Hospital developed a transportation plan, acknowledging the role of transportation in the community’s pollution, greenhouse gas emissions, traffic, public health, climate change and oil dependence.

Seattle Children’s “Livable Streets Initiative” created bike boulevards and safety improvements to make biking and walking safe and aesthetically preferable to driving to work. The hospital has a bike loan (free bike, helmet, training, and a lock) program for any staff who commit to biking at least two days a week. To overcome challenges in public transportation connections, Seattle Children’s developed its own transit program using 22 minivans (all with bike racks) to take passengers between transit hubs and workplaces. Employees are given free mass transit passes, and receive a cash payment for each day they do not use the parking lot.

Through these efforts Seattle Children’s reports that its alternative commuting efforts have “taken 630,000 car trips off the roads and freeways, reduced vehicle miles travelled by 6.5 million miles (the equivalent of 13 round trips to the moon), and saved 235,000 gallons of gas.” This has already eliminated approximately 2100 metric tons of CO2 equivalent greenhouse gas emissions.

<http://www.healthcaredesignmagazine.com/article/conscious-commuting-look-comprehensive-transportation-plan-developed-seattle-childrens-hospi?page=3>

*Gundersen Lutheran Health System, La Crosse, Wisc., Biogas to Energy*

Burning fossil fuels releases significant quantities of carbon dioxide, aggravating climate change and emitting pollutants, which can cause asthma, pneumonia, bronchitis, and cardiovascular ills and leading to premature deaths.

Gundersen Lutheran Health System has committed to becoming 100% carbon neutral by 2014. Among many efforts, uses waste biogas discharged from the La Crosse City Brewery’s waste treatment process to generate electricity. The brewery project, started in 2009, is generating three million kilowatt (kW) hours per year, equivalent to planting 490 acres of forest or removing 395 cars

from the road, and enough electricity to power 299 homes. The Brewery project has already eliminated approximately 2120 metric tons of CO2 equivalent greenhouse gas emissions. [www.gundersenenvision.org/renewable-energy](http://www.gundersenenvision.org/renewable-energy)

In a second project, waste biogas created from the garbage at the county landfill is piped to an engine installed on the Gundersen Lutheran – Onalaska Campus. The gas powers a generator that produces clean electricity that is sent to the power grid to be used by households and businesses throughout the community. The engine also creates heat which is used to heat buildings and water on the campus helping make the multiple building health care campus 100 percent energy independent. [www.gundersenenvision.org/upload/docs/WhoWeAre/Green/CountyLandfill.pdf](http://www.gundersenenvision.org/upload/docs/WhoWeAre/Green/CountyLandfill.pdf)

In a unique partnership, Gundersen Health System and Organic Valley have developed a community wind project, a first of its kind in Wisconsin. The two wind turbines combined generate nearly five megawatts of energy, —enough to power 1,000 homes each year. This energy more than offsets the electricity used at Organic Valley’s Cashton Distribution Center and its La Farge headquarters facilities, and represents about five percent of Gundersen’s energy independence goal. Using Practice Greenhealth’s health care energy impact calculator, [www.eichealth.org](http://www.eichealth.org), the displaced grid fossil fuel consumption avoids the following estimated number of health incidents, medical costs and avoided societal costs:

Incidents	Per Year	Societal Value	Direct Medical Costs
Premature Death	0.06	\$400,807	\$17,920
Chronic Bronchitis	0.04	\$17, 893	\$4,607
Hospital Visit Incidents	0.05	\$711	\$567
Asthma Attacks	1.22	\$74	\$71
Respiratory Symptoms	58.02	\$2,128	\$2,128
Work Loss Days	10.71	\$1,965	\$1,829
Mercury Related	N/A	\$25,689	\$25,689
<b>Totals</b>	<b>N/A</b>	<b>\$449,267</b>	<b>\$52,810</b>
<b>Unintended Impacts/kWh</b>	<b>N/A</b>	<b>0.08985</b>	<b>0.01056</b>

[www.gundluth.org/News/OrganicValleyandGundersencelebratepartnershipandcompletionofWisconsinsfirstcommunitywindproject?id=3300&showBack=true&PageIndex=0](http://www.gundluth.org/News/OrganicValleyandGundersencelebratepartnershipandcompletionofWisconsinsfirstcommunitywindproject?id=3300&showBack=true&PageIndex=0)

CHA and HCWH are collecting additional examples of current and planned environmental health community benefit activities that demonstrate and extend the concepts in this document.

Please send input to Julie Trocchio at [jtrocchio@chausa.org](mailto:jtrocchio@chausa.org) or Paul Lipke at [plipke@hcwh.org](mailto:plipke@hcwh.org).

## CONCLUSION

With health care reform taking shape in the U.S., there is a growing recognition that the current acute care model is not addressing the social and environmental conditions that are creating the epidemic of chronic disease in America. Despite the fact that the U.S. spends more money than any nation on earth on health care, our people are much less healthy than people in other countries that spend much less on health care. The imperative to conduct community needs assessments and to align community benefit programming with those needs create an unprecedented opportunity to address the upstream stressors in American communities. We hope this report provides both guidance and inspiration to health care leaders to reach out into their communities and become anchors for community wellness and sustainability.

# Appendix A Resources

## HELPFUL DOCUMENTS

- + *Can Sustainable Hospitals Help Bend the Health Care Cost Curve?* The Commonwealth Fund, 2012  
[www.commonwealthfund.org/Publications/Issue-Briefs/2012/Nov/Sustainable-Hospitals.aspx](http://www.commonwealthfund.org/Publications/Issue-Briefs/2012/Nov/Sustainable-Hospitals.aspx)
- + *Consensus Statement on Quality in the Public Health System*, HHS  
[www.hhs.gov/ash/initiatives/quality/quality/phqf-consensus-statement.html](http://www.hhs.gov/ash/initiatives/quality/quality/phqf-consensus-statement.html)
- + *Guidelines for Reporting Environmental Improvement Activities as Community Benefit and Community Building to the Internal Revenue Service*. The Catholic Health Association, Health Care Without Harm, August 22, 2012  
[www.chausa.org/whatcounts/](http://www.chausa.org/whatcounts/)
- + *How Can We Pay for a Healthy Population? Innovative New Ways to Redirect Funds to Community Prevention*, Prevention Institute  
<http://preventioninstitute.org/component/jlibrary/article/id-332/127.html>
- + *Hospital Community Benefit after the ACA: Community Building and the Root Causes of Poor Health*. The Hilltop Institute 2012  
[http://hilltopinstitute.org/publication\\_view.cfm?pubID=326&st=tbl\\_Publications](http://hilltopinstitute.org/publication_view.cfm?pubID=326&st=tbl_Publications)
- + IRS 2012 Schedule H
  - ✦ *Form*  
[www.irs.gov/pub/irs-prior/f990sh-2012.pdf](http://www.irs.gov/pub/irs-prior/f990sh-2012.pdf)
  - ✦ *Instructions*  
[www.irs.gov/pub/irs-prior/i990sh-2012.pdf](http://www.irs.gov/pub/irs-prior/i990sh-2012.pdf)
  - ✦ *IRS Notice 2011-52, 7/7/2011*  
[www.irs.gov/pub/irs-drop/n-11-52.pdf](http://www.irs.gov/pub/irs-drop/n-11-52.pdf)
- + *Prevention for a Healthier America: Investments in Disease Prevention Yield Significant Savings, Stronger Communities*  
[www.healthyamericans.org/reports/prevention08/Prevention08.pdf](http://www.healthyamericans.org/reports/prevention08/Prevention08.pdf)
- + *Priority Areas for Improvement of Public Health Quality*, HHS  
[www.hhs.gov/ash/initiatives/quality/quality/improvequality2010.pdf](http://www.hhs.gov/ash/initiatives/quality/quality/improvequality2010.pdf)
- + *Social determinants of health*. World Health Organization (WHO) 2008  
[www.who.int/social\\_determinants/en/](http://www.who.int/social_determinants/en/)
- + The Catholic Health Association (CHA)  
[www.chausa.org](http://www.chausa.org)
  - ✦ *A Guide for Assessing and Addressing Community Health Needs, 2012*
  - ✦ *A Guide for Planning & Reporting Community Benefit, 2012*
  - ✦ *Evaluating Community Benefit Programs, 2011*
  - ✦ Trocchio, J. (2011). *How Community-building Aligns with Public Health, Health Progress*, September-October, 76-78.  
[www.chausa.org/workarea//DownloadAsset.aspx?id=4294969441](http://www.chausa.org/workarea//DownloadAsset.aspx?id=4294969441)
- + Robert Wood Johnson Foundation articles on *'Exploring the social determinants of health'*  
[www.rwjf.org/en/research-publications.html](http://www.rwjf.org/en/research-publications.html)
- + *Sustainability Roadmap for Hospitals: a guide to achieving your sustainability goals*. American Hospital Association  
[www.sustainabilityroadmap.org/](http://www.sustainabilityroadmap.org/)

- + University of Wisconsin Population Health Institute County Health Rankings and Roadmaps to Health toolkit, case studies and other materials

[www.countyhealthrankings.org/roadmaps](http://www.countyhealthrankings.org/roadmaps)

- + What is Public Health Quality, HHS

([www.hhs.gov/ash/initiatives/quality/quality/index.html#aims](http://www.hhs.gov/ash/initiatives/quality/quality/index.html#aims))

#### EVIDENCE-BASED PROGRAMS

- + Cochrane Reviews, The Cochrane Collaboration

[www.cochrane.org/cochrane-reviews](http://www.cochrane.org/cochrane-reviews)

- + Community Commons CHNA.org

[www.chna.org/Home.aspx](http://www.chna.org/Home.aspx)

- + *County Health Rankings and Roadmaps What Works for Health*, University of Wisconsin Population Health Institute (UWPHI).

[www.countyhealthrankings.org/what-works-for-health](http://www.countyhealthrankings.org/what-works-for-health)

- + *Evidence-based Practice Centers*, AHRQ

[www.ahrq.gov/clinic/epc/](http://www.ahrq.gov/clinic/epc/)

- + *Guide to Community Preventive Services: What works to promote health?* (the Community Guide) CDC

[www.thecommunityguide.org/index.html](http://www.thecommunityguide.org/index.html)

- + Healthy People 2020, CDC

[www.healthypeople.gov/2020/topicsobjectives2020/ebr.aspx?topicid=12](http://www.healthypeople.gov/2020/topicsobjectives2020/ebr.aspx?topicid=12)

- + Prevention for a Healthier America: Investments in Disease Prevention Yield Significant Savings, Stronger Communities

[www.healthycamericans.org/reports/prevention08/Prevention08.pdf](http://www.healthycamericans.org/reports/prevention08/Prevention08.pdf)

- + Prevention Strategies, CDC Prevention Research Centers

[www.cdc.gov/prc/prevention-strategies/index.htm](http://www.cdc.gov/prc/prevention-strategies/index.htm)

- + Promising Practices, Healthy Communities Institute,

[www.healthycommunitiesinstitute.com](http://www.healthycommunitiesinstitute.com)

- + Winnable Battles, CDC

[www.cdc.gov/winnablebattles](http://www.cdc.gov/winnablebattles)

#### SOURCES OF DATA

(see also section on Environmental Indicators)

- + Air Now

[www.airnow.gov/](http://www.airnow.gov/)

- + American Lung Association

[www.lung.org/healthy-air/outdoor/resources/](http://www.lung.org/healthy-air/outdoor/resources/)

- + Cochrane Reviews, The Cochrane Collaboration

[www.cochrane.org/cochrane-reviews](http://www.cochrane.org/cochrane-reviews)

- + Community Commons CHNA.org

[www.chna.org/Home.aspx](http://www.chna.org/Home.aspx)

- + Council of State and Territorial Epidemiologists, and its State Environmental Public Health Indicators Collaborative (SEHC):

[www.cste.org/group/Indicators](http://www.cste.org/group/Indicators)

- + *County Health Rankings and Roadmaps What Works for Health*, University of Wisconsin Population Health Institute

[www.countyhealthrankings.org/what-works-for-health](http://www.countyhealthrankings.org/what-works-for-health)

- + Environmental Protection Agency

[www.epa.gov/](http://www.epa.gov/)

- + Evidence-based Practice Centers, AHRQ

[www.ahrq.gov/clinic/epc/](http://www.ahrq.gov/clinic/epc/)

- + Health Indicators Warehouse

[www.healthindicators.gov/](http://www.healthindicators.gov/)

- + Healthy Communities Institute

[www.healthycommunitiesinstitute.com](http://www.healthycommunitiesinstitute.com)

- + Healthy People 2020, CDC

[www.healthypeople.gov/2020/topicsobjectives2020/ebr.aspx?topicid=12](http://www.healthypeople.gov/2020/topicsobjectives2020/ebr.aspx?topicid=12)

- + Natural Resources Defense Council

[www.nrdc.org](http://www.nrdc.org)

- + Prevention for a Healthier America: Investments in Disease Prevention Yield Significant Savings, Stronger Communities

[www.healthycamericans.org/reports/prevention08/Prevention08.pdf](http://www.healthycamericans.org/reports/prevention08/Prevention08.pdf)

- + Score Card

<http://scorecard.goodguide.com/>

- + (State) energy commission

- + Walk Score

[www.walkscore.com](http://www.walkscore.com)

#### NATIONAL ORGANIZATIONS/INITIATIVES

- + **American Public Health Association** is a national organization for public health professionals, working to ensure access to health care, protect funding for core public health services and eliminate health disparities.

[www.apha.org/about/](http://www.apha.org/about/)

- + **Advisory Group on Prevention, Health Promotion and Integration and Public Health** (Prevention Advisory Group) is offering recommendations to the Prevention Council and advises on evidence-based and health promotion practices.

[www.surgeongeneral.gov/initiatives/prevention/advisorygrp/index.html](http://www.surgeongeneral.gov/initiatives/prevention/advisorygrp/index.html)

- + **Alliance of Nurses for Healthy Environment** (ANHE) is a network of nurses from around the country who are acting on the notion that our environment and health are inextricably connected.

<http://envirn.org/>

- + **Community Catalyst** works with advocates across the country to make sure consumers have a role in transforming health care in their communities.

[www.communitycatalyst.org/](http://www.communitycatalyst.org/)

- + **Community Transformation Grants (CTG)**, CDC, support community-level efforts to reduce chronic diseases such as heart disease, cancer, stroke, and diabetes. Awards are distributed among state and local government agencies, tribes and territories, and state and local non-profit organizations.

[www.cdc.gov/communitytransformation](http://www.cdc.gov/communitytransformation)

- + **Congress for New Urbanism** is an organization promoting walkable, mixed-use neighborhood development, sustainable communities and healthier living conditions.

[www.cnu.org/](http://www.cnu.org/)

- + **Health Care Without Harm** is an international coalition of more than 500 organizations in 53 countries, working to transform the health care industry worldwide, without compromising patient safety or care, so that it is ecologically sustainable and no longer a source of harm to public health and the environment.

[www.noharm.org/](http://www.noharm.org/)

- + **Health Care Without Harm Nurses Workgroup** represents a community of nurses who are dedicated to implementing environmentally responsible practices in their hospitals.

[www.noharm.org/us\\_canada/nurses/](http://www.noharm.org/us_canada/nurses/)

- + **Healthier Hospitals Initiative (HHI)** is a national membership group of hospitals working on reducing energy and waste, choosing safer and less toxic products, and purchasing and serving healthier foods. Six challenge areas are: Engaged Leadership, Healthier food for patients, staff and visitors, leaner energy, less waste, safer chemicals, smarter purchasing.

<http://healthierhospitals.org>

+ **Healthy Communities Program (HCP)**, CDC, works with communities through local, state and territory, and national partnerships to improve community leaders and stakeholders' skills and commitments for establishing, advancing, and maintaining effective population-based strategies that reduce the burden of chronic disease and achieve health equity.

[www.cdc.gov/healthycommunitiesprogram/](http://www.cdc.gov/healthycommunitiesprogram/)

+ **Healthy Food in Health Care (HFHC)** is a national initiative of Health Care Without Harm (HCWH), working with hospitals to improve the sustainability of their food services.

[www.healthyfoodinhealthcare.org/](http://www.healthyfoodinhealthcare.org/)

+ **Healthy Kids, Healthy Communities** is a RWJF national program helping communities across the country reshape their environments to support healthy living and prevent childhood obesity.

[www.healthykidshealthycommunities.org](http://www.healthykidshealthycommunities.org)

+ **National Prevention, Health Promotion and Public Health Council**, chaired by the U.S. Surgeon General, is tasked with providing coordination and leadership among 17 executive departments and agencies with respect to prevention, wellness, and health promotion activities and for developing the National Prevention Strategy: America's Plan for Better Health and Wellness.

[www.healthcare.gov/prevention/nphpphc](http://www.healthcare.gov/prevention/nphpphc)

+ **National Association of County and City Health Officials** is an association of local health departments working to ensure the conditions that promote health and equity, combat disease, and improve the quality and length of all lives.

[www.naccho.org/](http://www.naccho.org/)

+ **National Prevention Strategy 2012 Annual Status Report** – The National Prevention Strategy aims to guide our nation in the most effective and achievable means for improving health and well-being. The Strategy prioritizes prevention by integrating recommendations and

actions across multiple settings to improve health and save lives.

[www.surgeongeneral.gov/initiatives/prevention/2012-npc-status-report.pdf](http://www.surgeongeneral.gov/initiatives/prevention/2012-npc-status-report.pdf)

+ **Physicians for Social Responsibility**, a national nonprofit organization of over 30,000 health care professionals and supporters who are committed to the elimination of nuclear and other weapons of mass destruction and the preservation of a sustainable environment.

[www.psr.org/](http://www.psr.org/)

+ **Pioneering Healthier Communities (PHC)**, is a CDC collaboration with the YMCA of the USA to convene high-level representatives from the local government, public health, and private sectors to focus on changing the environment in a way that reduces community barriers for healthy living.

[www.ymca.net/healthier-communities/](http://www.ymca.net/healthier-communities/)

+ **Practice Greenhealth** is a membership and networking organization for institutions and supplier companies in the health care community that have made a commitment to sustainable, eco-friendly practices.

<http://practicegreenhealth.org/>

+ **The Science and Environmental Health Network (SEHN)** is a think tank engaging organizations, communities, and governments in the effective application of science to protect and restore public and ecosystem health.

[www.sehn.org](http://www.sehn.org)

+ **Trust for America's Health (TFAH)** is a non-profit, non-partisan organization dedicated to saving lives by protecting the health of every community and working to make disease prevention a national priority.

<http://healthyamericans.org/>

+ **World Health Organization (WHO)** is a specialized agency of the United Nations that is concerned with international public health.

[www.who.int/en/](http://www.who.int/en/)

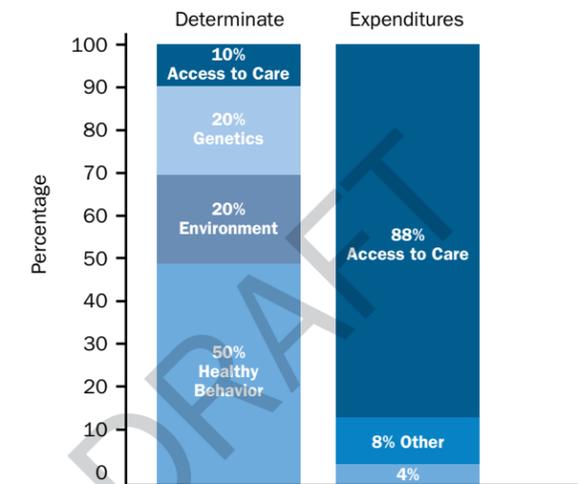
## Appendix B Environmental Health Indicators Data Sources and Health Spending/Determinants of Health

National Prevention Strategy Indicators for Healthy and Safe Community Environments	Data Sources
Number of days the Air Quality Index (AQI) exceeds 100	Air Quality System (formerly the Aerometric Information Retrieval System), U.S. Environmental Protection Agency (EPA)
Amount of toxins pollutants released into the environment	U.S. National Toxics Release Inventory, Environmental Protection Agency
Proportion of children aged 5 to 17 years with asthma who missed school days in the past 12 months	Public Health Air Surveillance Evaluation Community Multi-scale Air Quality Model, 2005

Healthy People 2020 Environmental Health	Data Sources
<p>Surface and ground water quality</p> <p>✦ Contamination by infectious agents or chemicals can cause mild to severe illness.</p>	<p>Potable Water Surveillance System (PWSS), Safe Drinking Water Information System (SDWIS), EPA</p> <p>Morbidity and Mortality Weekly Report (MMWR), CDC, National Center for Infectious Diseases (NCID); State health departments.</p> <p>“Estimated Use of Water in the United States,” U.S. Department of Interior (DOI), U.S. Geological Survey (USGS), National Water Information Center (NWIS). State publications prepared as part of the USGS National Water-Use Information Program as referenced at <a href="http://water.usgs.gov/watuse">http://water.usgs.gov/watuse</a>.</p> <p>Beaches Environmental Assessment and Coastal Health Program, EPA</p>
<p>Toxic substances and hazardous wastes</p> <p>✦ The health effects of toxic substances and hazardous wastes are not yet fully understood research is ongoing.</p>	<p>National Health and Nutrition Examination Survey (NHANES), CDC, National Center for Health Statistics (NCHS).</p> <p>Comprehensive Environmental Response and Cleanup Liability Information System (CERCLIS), EPA, Office of Solid Waste and Emergency Response (OSWER).</p> <p>National Poison Data System, American Association of Poison Control Centers (AAPCC).</p> <p>National Toxics Release Inventory (TRI), EPA.</p> <p>Characterization of Municipal Solid Waste, EPA, OSWER.</p>
<p>Homes and communities</p> <p>✦ People spend most of their time at home, work, or school. Some of these environments may expose people to: indoor air pollution, inadequate heating and sanitation, structural problems, electrical and fire hazards and lead-based paint hazards.</p>	<p>American Healthy Homes Survey (AHHS), U.S. Department of Housing and Urban Development (HUD).</p> <p>Annual Report to EPA by Radon Vent Fan Manufacturers, EPA, Indoor Environments Division.</p> <p>Builder Practices Report: Radon-Resistant Construction Practices in New U.S. Homes 2008, Annual Builder and Consumer Practices Surveys, National Association of Home Builders Research Center, Inc, as reported to EPA, Indoor Environments Division.</p> <p>School Health Policies and Practices Study (SHPPS), CDC, National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP).</p> <p>National Health Interview Survey (NHIS), CDC, NCHS.</p> <p>American Housing Survey (AHHS), U.S. Census Bureau.</p>

While 80 percent of health care expenditures go to access to care, “Epidemiological research has established that the health of an entire population is mostly influenced by socioeconomic factors such as educational attainment and family income, interacting with genetic, environmental and other factors. Access to health care accounts for a relatively small percentage of health status (as little as 10 percent, for the entire population), while behaviors that promote or threaten health (“health risk factors”) account for as much as 50 percent of health status.” –The Boston Paradox, Lots of Care, Not Enough Health” -New England Health care Institute, 2007.

Mismatch: Health Determinants vs. Expenditures



Source: New England Healthcare Institute National Health Care Expenditures, 2006

# Appendix C Reporting Document

## GUIDELINES FOR REPORTING ENVIRONMENTAL IMPROVEMENT ACTIVITIES AS COMMUNITY BENEFIT AND COMMUNITY BUILDING TO THE INTERNAL REVENUE SERVICE

August 22, 2012

Environmental factors can play a critical role in the health and well-being of communities (See Table I). The Catholic Health Association and Health Care Without Harm encourage health care organizations to include attention to environmental factors (as well as other health determinants) in their community health needs assessments, planning, and in the community benefit and community building activities they provide. This document has been prepared to provide guidance on what types of environmental improvement activities could be reported on the Internal Revenue Service Form 990, Schedule H (Schedule H) and in what category – community benefit (Part I of Schedule H) or community-building (Part II of Schedule H). It is a work in progress that reflects our understanding of the IRS instructions for the Schedule H, <http://www.irs.gov/pub/irs-pdf/i990sh.pdf> and the scientific evidence of the relationship between environmental factors and community health. The information provided here does not constitute legal or tax advice. Please consult with counsel regarding your organization's particular circumstances.

### 1. Community Benefit environmental improvement activities provided in communities

Environmental improvement activities provided in communities (external to the facility) can be reported as community health improvement (community benefit) in Part I, line 7 e of the

Schedule H if the activity meets the all of the criteria of definition of community health improvement:

- + Provided in response to a demonstrated community need (See Table II).
- + Seeks to achieve at least one community benefit objective, including improving access to health services, enhancing public health, advancing generalizable knowledge, and/or relief of government burden.
- + Carried out or supported for the purpose of improving community health.
- + Subsidized by the organization.
- + Provided in response to a demonstrated community need.
- + Does not generate an inpatient or outpatient bill.
- + Not provided for marketing purposes.
- + Not more beneficial to the organization than to the community (for example, not designed primarily to increase referrals of patients with third party coverage).
- + Not required for licensure or accreditation.
- + Not restricted to individuals affiliated with the organization (employees and physicians).

Examples of expenses related to environmental improvement activities provided in communities that can be reported as community health

improvement include the costs of the following activities, as long as they meet the criteria above:

- + Establishing and promoting community vegetable gardens, farmers' markets, access to fresh produce, and/or increasing affordability of fresh produce in food deserts for at-risk populations, to address obesity, diabetes and other nutrition-related health problems.
- + Reduction or removal of respiratory and/or cardiovascular hazards, toxins, carcinogens and other harmful materials in vulnerable populations' housing, public buildings and outdoors.
- + Mercury thermometer exchange and unused pharmaceutical recapture programs.

It is recommended that organizations retain documentation on community health need being addressed and the relationship between the activity and enhancement of public health or any other community benefit objective.

### 2. Community-Building environmental improvement activities provided in communities

Environmental improvement activities provided in communities (external to the facility) can be reported as community building and reported in Part II of the Schedule H if they improve the community's health and safety and are not/cannot be reported as community benefit. Generally, community-building environmental activities improve the community's capacity to promote the health and well-being of its residents through environmental improvements.

Examples of expenses related to environmental improvement activities provided in communities that could be reported as community building include costs of:

- + Training community members to monitor and reduce environmental hazards.

- + Participation in local coalitions to improve air quality and to address other environmental issues.
- + Participation in broader efforts to improve national and global environmental health such as involvement with Health Care Without Harm and international environmental initiatives.
- + Advocacy for improved environmental policies.

### 3. Community Building environmental Improvements within health care organizations

The cost of environmental improvement activities that occur within health care organizations that reduce the environmental hazards produced by the organization or related organizations can be reported as community-building and reported in Part II of the Schedule H if all of the following are true:

- + The primary purpose of the activity is improving community health.
- + The activity addresses an environmental issue known to affect community health.
- + The activity results in a net loss to the organization (all or some of the costs are not recovered or paid back in future years).
- + The activity is not provided for marketing purposes.
- + The primary purpose is not restricted to improving the health of individuals affiliated with the organization (employees and physicians).
- + The activity is not carried out to comply with environmental laws and regulations.
- + The activity is not an extension of patient care.

Examples of expenses related to environmental improvement activities provided within health care organizations that can be reported as community-building include unrecoverable, additional costs of:

- + Waste reduction, recycling and composting to minimize incineration and landfill burden which present hazards to local community health by triggering asthma, cancers and other problems.
- + Purchasing cleaner energy from power plants in order to reduce harmful emissions that impact community health.
- + Eliminating use of toxic materials such as mercury.
- + Buying regionally grown or organic food to reduce transport-related emissions, non-organic pesticides and herbicides.
- + Measuring and reporting facilities' waste, energy, water use and emissions that impact community health and safety.

It is recommended that organizations retain documentation on the relationship between the activity and public health, and evidence that additional costs are unrecoverable.

**4. Environmental improvements within health care organizations that should not be reported on Parts I or II of the Schedule H**

The following environmental improvement activities should not be reported in terms of cost:

- + Activities and expenditures to reduce the environmental hazards caused by the organization or related organization which do not comply with the above criteria.

- + Activities where the primary purpose is not community health, but rather the health of persons affiliated with the organization, i.e. patients and employees, (for example, green cleaning products, replacing vinyl products).\*
- + Activities and expenditures to comply with environmental laws and regulations such as medical radiological waste disposal.
- + Activities provided for marketing purposes, such as distribution of "green" items with organization's name and logo, or redesign of a building to gain public attention and market share.
- + Activities that are an extension of good/excellent patient care, such as replacing DEHP intravenous bags and tubes. [DEHP is a plasticizer typically used to make PVC more flexible, and has been found to be a reproductive toxicant and an endocrine disruptor in animals.]\*
- + Activities that recover costs or payback in future filing years (except for *de minimis* payback) , such as facility low emission vehicle purchases to reduce harmful emissions in high congestion, low air quality areas, or energy efficiency upgrades to heating, cooling or processing equipment to reduce harmful emissions and green house gasses that impact community health.

\*Some of these activities could be described in narratives of community benefit reports and on Schedule H, Part VI, Supplemental Information, if these activities are not reported in Parts I and II but have positive environmental impacts and/or can influence the availability of safer products in the marketplace.

<sup>3</sup> If such activities have demonstrable, unrecoverable, additional costs and meet all the other community building criteria they can be reported as community building in Part II of the IRS Form 990 Schedule H.

**EXAMPLES OF ENVIRONMENTAL FACTORS THAT IMPACT THE HEALTH OF COMMUNITIES**

Environmental Health Factor:	Contributes to (partial list):
Poor air quality, both indoors and outdoors	Premature death, chronic bronchitis, asthma, mercury contamination, and cardiovascular conditions
Lack of access to fresh fruits and vegetables	Obesity, diabetes, heart disease, functional decline
Barriers to physically active lifestyles and exercise	Obesity, diabetes, hypertension, heart disease, functional decline, stress, mental health issues
Toxicants, carcinogens, mutagens, endocrine disruptors, certain pesticides and herbicides, that threaten reproductive health, developmental health and healthy aging	Reproductive illness and complications, cancer, neurological dysfunction, sexual development and dysfunction, dementia, Alzheimer's, and Parkinson's Disease
Soil quality and contamination such as lead, toxins, PCB's, and other unhealthy waste	Poor food nutritional values, reproductive and developmental health, cancer, mental dysfunction
Lack of access to clean water and water quality	Intestinal illness, dehydration, cholera, diarrhea, mental stress, heat stress
Natural and manmade disaster risks, including climate disruption, especially related to increasing flooding, heat events, severe weather, stressed and/or poorly maintained infrastructure, all of which also, in turn, increase environmental hazards	Physical injury, heat stress, respiratory and cardiovascular conditions, increased infectious diseases, malnutrition, diarrhea, harmful algae blooms, stress and depression, mental health issues, forced migration, civil conflict

**DETERMINING COMMUNITY HEALTH NEEDS RELATED TO ENVIRONMENTAL IMPROVEMENT**

IRS instructions for Schedule H note that community need can be demonstrated through:	Documents and/or examples that demonstrate environmental health needs include:
<p>A community health needs assessment conducted by or accessed by the organization.</p>	<p>Credible, established assessments and reports that document environmental health problems such as:</p> <ul style="list-style-type: none"> <li>✦ Toxic chemicals releases, i.e. amounts used/released by factories – U.S. Environmental Protection Agency (EPA) Toxics Release Inventory (TRI)</li> <li>✦ Number of active brown-field and Superfund sites – state environmental agency and U.S EPA</li> <li>✦ Obesity rate – U.S. Centers for Disease Control and Prevention (CDC)</li> </ul> <p>Health and planning departments for municipal, county or state government can often supply data on:</p> <ul style="list-style-type: none"> <li>✦ Asthma rates for children, members of minority groups, and low-income populations</li> <li>✦ Number of annual air pollution “action days” or “health alerts”</li> <li>✦ Rates of lead poisoning, birth defects and/or cancers</li> <li>✦ Number/locations of parks, playgrounds and recreational facilities</li> <li>✦ Rate of pedestrian injuries/fatalities –CDC, state and local transportation agencies</li> <li>✦ Access to public transportation, community walkability, average commute time to work/school/shopping - planning or transportation agencies, www.walkscore.com</li> <li>✦ Healthy food availability: number and locations of grocery stores and farmers’ markets</li> <li>✦ Rates of mold and mildew in local housing –energy efficiency weatherization programs by utilities, energy agencies, and housing agencies</li> </ul>
<p>Documentation that the need or request came from a public agency or community group</p>	<p>A request from a public agency and/or recommendations, such as from the EPA Department of Energy and/or Department of Health and Human Services. In addition, recommendations of national professional organizations can document need, such as the American Public Health Association and national medical societies. A community group could identify a lack of access to fresh produce and/or a safe place for after-school outdoor recreation.</p>
<p>Government or unrelated tax-exempt organizations are partners in the activity.</p>	<p>The activity is provided in partnership with federal, national, or local health or environmental programs, or non-profit organizations such as the EPA Pollution Prevention and Toxics Reduction Program, EPA Energy Star Partner, or the local chapter of the American Lung Association.</p>

For questions or comments on this document, contact Paul Lipke at Health Care Without Harm at (413) 367-2878 or plipke@roomtomaneuver.com, or Julie Trocchio at the Catholic Health Association at (202) 721-6320 or jtrocchio@chasua.org.

The Catholic Health Association of the United States (CHA) is the national leadership organization of more than 2,000 Catholic health care sponsors, systems, hospitals, long-term care facilities, and related organizations.

Health Care Without Harm (HCWH) is a coalition of more than 470 health-related organizations in 52 countries working to transform the health care sector, without compromising patient safety or care, so that it is ecologically sustainable and no longer a source of harm to public health and the environment.

<sup>1</sup> Paul Lipke, senior advisor, energy and buildings, Health Care Without Harm; Patsy Matheny, community benefit consultant, Patsy Matheny LLC; Julie Trocchio, senior director, community benefit and continuing care, Catholic Health Association of the United States.



**Washington, DC Office**

1875 Eye Street NW, Ste. 1000  
Washington, DC 20006  
202.296.3993 *phone*  
202.296.3997 *fax*

**St. Louis Office**

4455 Woodson Road  
St. Louis, Missouri 63134  
314.427.2500 *phone*  
314.427.0029 *fax*

**[www.chausa.org](http://www.chausa.org)**